

CITY OF UPLAND



CONTRACT DOCUMENTS FOR

16TH STREET AND SAN ANTONIO AVE TRAFFIC SIGNAL IMPROVEMENTS

**CONTRACT No. 70024
BID No. 2026-02**

**CITY OF UPLAND
Public Works Department
460 N. Euclid Avenue
Upland, CA 91786**

Issued: May 29, 2026

Due Date: June 23, 2026

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00 11 16 – NOTICE INVITING BIDS

NOTICE IS HEREBY GIVEN that the **CITY OF UPLAND**, with its principal place of business at 460 N. Euclid Avenue Upland, California 91786 ("City") invites and will receive **Electronic Bids** (online only) via the City of Upland's PlanetBids portal at <https://vendors.planetbids.com/portal/66713/portal-home> up to but not later than **3:00 p.m. on Tuesday, June 23, 2026** for the furnishing to City of all labor, equipment, materials, tools, services, transportation, permits, utilities, and all other items necessary for **16th Street and San Antonio Ave Traffic Signal Improvement Project** (the "Project"). At said time, Bids will be publicly opened via the City of Upland's PlanetBids portal. Bids received after said time will not be accepted. Bids shall be valid for a period of 90 calendar days after the Bid opening date.

The work to be performed under this contract generally consists of the removal and disposal of existing traffic signal structures and hardware; and construction of new traffic signal structures, electrical equipment, and necessary wiring as shown on the project plans. The work also includes removal and reconstruction of ADA curb ramps.

Bids must be submitted on City's Bid Forms. Bidders may obtain a copy of the Contract Documents from <https://www.uplandca.gov/rfps-bids>. To the extent required by section 20103.7 of the Public Contract Code, upon request from a contractor plan room service, City shall provide an electronic copy of the Contract Documents at no charge to the contractor plan room.

It is the responsibility of each prospective Bidder to download and print all Bid Documents for review and to verify the completeness of Bid Documents before submitting a bid. Any Addenda will be posted on PlanetBids and <https://www.uplandca.gov/rfps-bids>. It is the responsibility of each prospective Bidder to check the website and PlanetBids on a daily basis through the close of Bids for any applicable Addenda or updates. City does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Bid Documents. Information on the website may change without notice to prospective Bidders. The Contract Documents shall supersede any information posted or transmitted by the website.

Each Bid shall be accompanied by cash, a certified or cashier's check, or Bid Bond secured from a surety company satisfactory to the City, the amount of which shall not be less than ten percent (10%) of the submitted Total Bid Price, made payable to City of Upland as bid security. The bid security shall be provided as a guarantee that within ten (10) days after City provides the successful bidder the Notice of Award, the successful Bidder will enter into a contract and provide the necessary bonds and certificates of insurance. The bid security will be declared forfeited if the successful Bidder fails to comply within said time. No interest will be paid on funds deposited with City.

All questions from bidders shall be submitted in writing via the PlanetBids portal and submitted no later than June 16, 2026 by 3:00 PM.

The successful Bidder will be required to furnish a Faithful Performance Bond and a Labor and Material Payment Bond each in an amount equal to one hundred percent (100%) of the Contract Price. Each bond shall be in the forms set forth herein, shall be secured from a surety company that meets all State of California bonding requirements, as defined in California Code of Civil Procedure Section 995.120, and that is a California admitted surety insurer.

Pursuant to Section 22300 of the Public Contract Code of the State of California, the successful Bidder may substitute certain securities for funds withheld by City to ensure its performance under the Contract.

Pursuant to Labor Code Section 1773, City has obtained the prevailing rate of per diem wages and the prevailing wage rate for holiday and overtime work applicable in San Bernardino County from the Director of the Department of Industrial Relations for each craft, classification, or type of worker needed to execute this contract. A copy of these prevailing wage rates may be obtained via the internet at: www.dir.ca.gov/dlsr/

In addition, a copy of the prevailing rate of per diem wages is available at City's **Office of the City Clerk** and shall be made available to interested parties upon request. The successful Bidder shall post a copy of the prevailing wage rates at each job site. It shall be mandatory upon the Bidder to whom the Contract is awarded, and upon any subcontractors, to comply with all Labor Code provisions, which include but are not limited to the payment of not less than the said specified prevailing wage rates to all workers employed by them in the execution of the Contract, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No Bid will be accepted nor any Contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the Bidder and its subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. In bidding on this Project, it shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this contract and applicable law in its Bid.

Unless otherwise provided in the Instructions for Bidders, each Bidder shall be a licensed contractor pursuant to sections 7000 et seq. of the Business and Professions Code in the following classification(s) throughout the time it submits its Bid and for the duration of the Contract:

Class "A" License (General Engineering Contractor)

The California Air Resources Board ("CARB") implemented amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulations ("Regulation") which are effective on January 1, 2024 and apply broadly to all self-propelled off road diesel vehicles 25 horsepower or greater and other forms of equipment used in California. A copy of the Regulation is available at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/off-roaddiesel/appa-1.pdf>. Bidders are required to comply with all CARB and Regulation requirements, including, without limitation, all applicable sections of the Regulation, as codified in Title 13 of the California Code of Regulations section 2449 et seq. throughout the term of the Project. Bidders must provide, with their Bid, copies of Bidder's and all listed subcontractors the most recent, valid Certificate of

Reported Compliance (“CRC”) issued by CARB. Failure to provide valid CRCs as required herein may render the Bid non-responsive.

Substitution requests shall be made within thirty-five (35) calendar days after the award of the Contract. Pursuant to Public Contract Code Section 3400(b), City may make findings designating that certain additional materials, methods or services by specific brand or trade name other than those listed in the Contract Documents be used for the Project. Such findings, if any, as well as the materials, methods or services and their specific brand or trade names that must be used for the Project may be found in the Special Conditions.

City shall award the contract for the Project to the lowest responsive, responsible Bidder as determined by City from the **BASE BID ALONE**. City reserves the right to reject any or all Bids or to waive any irregularities or informalities in any Bids or in the bidding process.

For further information, contact **Harry Parr, Associate Engineer**, at hparr@uplandca.gov or **(909) 931-4193**.

END OF NOTICE INVITING BIDS

PUBLISH: 05 / 29 / 2026
06 / 05 / 2026

00 21 13 – INSTRUCTIONS TO BIDDERS

ARTICLE 1. SECURING DOCUMENTS

Bids must be submitted to City on the Bid Forms which are a part of the Contract Documents for the Project. Contract Documents may be obtained from as specified in the Notice Inviting Bids. Prospective bidders may download a complete set of contract documents at no charge from the city's PlanetBids portal or from the City of Upland website at <https://www.uplandca.gov/bids.php>.

City may also make the Contract Documents available for review at one or more plan rooms, as indicated in the Notice Inviting Bids. Please Note: Prospective Bidders who choose to review the Contract Documents at a plan room must contact City to obtain the required Contract Documents if they decide to submit a Bid for the Project.

ARTICLE 2. EXAMINATION OF SITE AND CONTRACT DOCUMENTS

At its own expense and prior to submitting its Bid, each Bidder shall visit the site of the proposed work and fully acquaint itself with the conditions relating to the construction and labor required so that the Bidder may fully understand the work, including but not limited to difficulties and restrictions attending the execution of the work under the Contract. Each Bidder shall carefully examine the Drawings, and shall read the Specifications, Contract, and all other documents referenced herein and made part of the Contract Documents. Each Bidder shall also determine the local conditions which may in any way affect the performance of the work, including local tax structure, contractors' licensing requirements, availability of required insurance, the prevailing wages and other relevant cost factors, shall familiarize itself with all federal, state and local laws, ordinances, rules, regulations and codes affecting the performance of the work, including the cost of permits and licenses required for the work, and shall make such surveys and investigations, including investigations of subsurface or latent physical conditions at the site or where work is to be performed as may be required. Bidders are responsible for consulting the standards referenced in the Contract Documents. The failure or omission of any Bidder to receive or examine the Contract Documents, forms, instruments, addenda, or other documents, or to visit the site and acquaint itself with conditions there existing shall in no way relieve any Bidder from any obligation with respect to its Bid or to the Contract and no relief for error or omission will be given except as required under state law. The submission of a Bid shall be taken as conclusive evidence of compliance with this Article.

ARTICLE 3. INTERPRETATION OF DRAWINGS AND DOCUMENTS

Prospective Bidders unclear as to the true meaning of any part of the Drawings, Specifications or other Contract Documents may submit a written request for interpretation. The prospective Bidder submitting the request is responsible for prompt delivery. Interpretation of the Drawings, Specifications or other Contract Documents will be made only by a written Addendum duly issued and a copy of such Addenda will be mailed or delivered to each prospective Bidder who has purchased a set of Contract Documents. The City will not be responsible for any other explanation or interpretations of the Contract Documents. If a prospective Bidders becomes aware of any errors or omissions in any part of the Contract Documents, it is the obligation of the prospective Bidder to promptly bring it to the attention of the City.

ARTICLE 4. PRE-BID CONFERENCE

No Pre-Bid Conference is scheduled for this project. Oral statements regarding this bid should be considered unverified information unless confirmed in writing.

ARTICLE 5. ADDENDA

The City reserves the right to revise the Contract Documents prior to the Bid opening date. Revisions, if any, shall be made by written Addenda. All Addenda issued by the City shall be included in the Bid and made part of the Contract Documents. Pursuant to Public Contract Code Section 4104.5, if the City issues an Addendum which includes material changes to the Project less than seventy-two (72) hours prior to the deadline for submission of Bids, the City will extend the deadline for submission of Bids. The City may determine, in its sole discretion, whether an Addendum warrants postponement of the Bid submission date. Each prospective Bidder shall provide the City a name, address, email address, and facsimile number to which Addenda may be sent, as well as a telephone number by which the City can contact the Bidder. Copies of Addenda will be furnished by email, facsimile, first class mail, express mail or other proper means of delivery without charge to all parties who have obtained a copy of the Contract Documents and provided such current information. Please Note: Bidders are responsible for ensuring that they have received any and all Addenda. To this end, **the electronic bid management system requires each bidder acknowledge receipt of all addenda before submission of the bid.**

ARTICLE 6. ALTERNATE BIDS

If alternate bid items are called for in the Contract Documents, the time required for completion of the alternate bid items has already been factored into the Contract duration and no additional Contract time will be awarded for any of the alternate bid items. The City may elect to include one or more of the alternate bid items, or to otherwise remove certain work from the Project scope of work. Accordingly, each Bidder must ensure that each Bid item contains a proportionate share of profit, overhead, and other costs or expenses which will be incurred by the Bidder.

ARTICLE 7. COMPLETION OF BID FORMS

Bids shall only be prepared using copies of the Bid Forms which are included in the Contract Documents and available on the electronic bid management system, PlanetBids. The use of substitute Bid Forms other than clear and correct photocopies of those provided by the City will not be permitted. Bids shall be executed by an authorized signatory as described in these Instructions to Bidders. Deviations in the Bid Forms may result in the Bid being deemed non-responsive.

ARTICLE 8. ELECTRONIC SUBMISSION REQUIREMENTS

The bidder must enter pricing in the electronic bid form for any and all line items or a lump sum bid amount, as required. The pricing provided in the electronic bid form will be the only valid bid pricing for determination of low bid. The costs of any work shown or required in the Contract Documents, but not specifically identified as a line item are to be included in related line items and no additional compensation shall be due the selected contractor. The estimated quantities for unit price items are for purposes of comparing Bids only and City makes no representation that the actual quantities of work performed will not vary from the estimates.

The bidder must enter subcontractor information in the electronic bid form. The subcontractor information provided electronically will be the only valid subcontractor information.

The bidder must attach a pdf file(s) to the electronic bid submission containing all of the completed and signed Bid Documents including a Bid Bond. The following is a list of Bid Documents that must be completed and uploaded to PlanetBids as a single PDF file:

- A. Bid Form
- B. Bid Security, as a bid bond using the form included in the bidding documents, cash, or a cashier's check
- C. Public Works Contractor Registration Certification form
- D. Contractor's Certificate Regarding Workers' Compensation form
- E. Non-Collusion Declaration form
- F. Bidder Information and Experience Form
- G. Iran Contracting Act Certification Form
- H. California Levine Act Disclosure Statement
- I. Fleet Certificate of Reported Compliance Form

ARTICLE 9. MODIFICATIONS OF BIDS

Each Bidder shall submit its Bid in strict conformity with the requirements of the Contract Documents. Unauthorized additions, modifications, revisions, conditions, limitations, exclusions or provisions attached to a Bid may render it non-responsive and may cause its rejection. Bidders shall not delete, modify, or supplement the printed matter on the Bid Forms, or make substitutions thereon. Oral, telephonic and electronic modifications will not be considered.

ARTICLE 10. SUBCONTRACTORS

Bidder shall set forth the name, address of the place of business, contractor license number, and public works contractor registration number of each subcontractor who will perform work, labor, furnish materials or render services to the bidder on said contract and each subcontractor licensed by the State of California who, under subcontract to bidder, specially fabricates and installs a portion of the Work described in the Contract Documents in an amount in excess of one half of one percent (0.5%) of the total bid price, and shall indicate the portion of the work to be done by such subcontractor in accordance with Public Contract Code Section 4104. Notwithstanding the foregoing, if the work involves the construction of streets and highways, then the Bidder shall list each subcontractor who will perform work or labor or render service to the Bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price or ten-thousand (\$10,000), whichever is greater. If a Bidder fails to specify a subcontractor or if a Bidder specifies more than one subcontractor for the same portion of work, then the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of work and that it shall perform that portion itself. Substitution of listed subcontractors shall only be permitted in accordance with Public Contract Code Section 4107.

ARTICLE 11. LICENSING REQUIREMENTS

Pursuant to Business and Professions Code Section 7028.15 and Public Contract Code Section 3300, all Bidders must possess proper licenses for performance of this Contract. Subcontractors must possess the appropriate licenses for each specialty subcontracted. Pursuant to Business and Professions Code Section 7028.5, the City shall consider any Bid submitted by a Bidder not currently licensed in accordance with state law and pursuant to the requirements found in the Contract Documents to be nonresponsive, and the City shall reject the Bid. The City shall have the right to request, and Bidders shall provide within ten (10) calendar days, evidence satisfactory to the City of all valid license(s) currently held by that Bidder and each of the Bidder's subcontractors, before awarding the Contract.

Notwithstanding anything contained herein, if the Work involves federal funds, the Contractor shall be properly licensed by the time the Contract is awarded, pursuant to the provisions of Public Contract Code section 20103.5.

ARTICLE 12. BID GUARANTEE (BOND)

Each Bid shall be accompanied by: (a) cash; (b) a certified or cashier's check made payable to **City of Upland**; or (c) a Bid Bond secured from a surety company satisfactory to the City, the amount of which shall not be less than ten percent (10%) of the Total Bid Price, made payable to **City of Upland** as bid security. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The bid security shall be provided as a guarantee that within ten (10) Days after the City provides the successful Bidder the Notice of Award, the successful Bidder will enter into a Contract and provide the necessary bonds and certificates of insurance. The bid security will be declared forfeited if the successful Bidder fails to comply within said time, and the City may enter into a Contract with the next lowest responsive responsible bidder, or may call for new Bids. No interest shall be paid on funds deposited with the City. The City will return the security accompanying the Bids of all unsuccessful Bidders no later than 60 calendar days after award of the contract.

ARTICLE 13. IRAN CONTRACTING ACT OF 2010

In accordance with Public Contract Code Section 2200 *et seq.*, the City requires that any person that submits a Bid with the City of one million dollars (\$1,000,000) or more, certify at the time the Bid is submitted that the person is not identified on a list created pursuant to subdivision (b) of Public Contract Code Section 2203 as a person engaging in investment activities in Iran described in subdivision (a) of Public Contract Code Section 2202.5, or as a person described in subdivision (b) of Public Contract Code Section 2202.5, as applicable.

The form of such Iran Contracting Certificate is included with the Bid Forms and must be signed and dated under penalty of perjury.

ARTICLE 14. NONCOLLUSION DECLARATION

Bidders on all public works contracts are required to submit a declaration of noncollusion with their Bid. This form is included with the Bid Forms and must be signed and dated under penalty of perjury.

ARTICLE 15. PUBLIC WORKS CONTRACTOR DIR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No Bid will be accepted nor any Contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the Bidder and its subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project. To this end, Bidder shall sign and submit with its Bid the Public Works Contractor DIR Registration Certification on the form provided, attesting to the facts contained therein. Failure to submit this form may render the bid non-responsive. In addition, each Bidder shall provide the registration number for each listed subcontractor in the space provided in the Designation of Subcontractors form.

ARTICLE 16. BIDDER INFORMATION AND EXPERIENCE FORM

Each Bidder shall complete the questionnaire provided herein and shall submit the questionnaire along with its Bid. Failure to provide all information requested within the questionnaire along with the Bid may cause the bid to be rejected as non-responsive. The City reserves the right to reject any Bid if an investigation of the information submitted does not satisfy the City that the Bidder is qualified to properly carry out the terms of the Contract.

ARTICLE 17. WORKERS' COMPENSATION CERTIFICATION

In accordance with the provisions of Labor Code Section 3700, Contractor shall secure the payment of compensation to its employees. Contractor shall sign and file with the City a Workers' Compensation Certificate prior to performing the work under this Contract. The form of such Workers' Compensation Certificate is included as part of the Bid Forms.

ARTICLE 18. SIGNING OF BIDS

All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract arising therefrom.

If a Bidder is a joint venture or partnership, it may be asked to submit an authenticated Power of Attorney executed by each joint venturer or partner appointing and designating one of the joint venturers or partners as a management sponsor to execute the Bid on behalf of Bidder. Only that joint venturer or partner shall execute the Bid. The Power of Attorney shall also: (1) authorize that particular joint venturer or partner to act for and bind Bidder in all matters relating to the Bid; and (2) provide that each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of Bidder assumed under the Bid and under any Contract arising therefrom. The Bid shall be executed by the designated joint venturer or partner on behalf of the joint venture or partnership in its legal name.

ARTICLE 19. SUBMISSION OF ELECTRONIC BIDS

Once the Bid and supporting documents have been completed, they shall be submitted electronically via Planet Bids before the time and day set for the receipt of Bids. No oral or telephonic bids will be considered. No forms transmitted via e-mail, facsimile, or any other

means will be considered. Bids received after the time and day set for the receipt of Bids will not be accepted.

Only where expressly permitted in the Notice Inviting Bids may bidders submit their bids via electronic transmission pursuant to Public Contract Code sections 1600 and 1601. Any acceptable method(s) of electronic transmission shall be stated in the Notice Inviting Bids. The City may reject any Bid not strictly complying with the City's designated methods for delivery.

ARTICLE 20. OPENING OF BIDS

At the time set for the opening of Bids, or any time thereafter, each and every Bid received prior to the time and day set for the receipt of Bids will be opened. The City will not accept any Bid received after the specified date and time. It is the Bidder's sole responsibility to ensure that its Bid is uploaded and received by Planet Bids. Bids may be submitted earlier than the date(s) and time(s) indicated.

The City may, in its sole discretion, elect to postpone the opening of the submitted Bids. The City reserves the right to reject any or all Bids and to waive any informality or irregularity in any Bid.

ARTICLE 21. WITHDRAWAL OF BID

Any Bid may be withdrawn either personally or by written request, incurring no penalty, at any time prior to the scheduled closing time for receipt of Bids. Requests to withdraw Bids shall be worded so as not to reveal the amount of the original Bid. Withdrawn Bids may be resubmitted until the time and day set for the receipt of Bids, provided that resubmitted Bids are in conformance with the instructions herein.

Bids may be withdrawn after Bid opening only by providing written notice to the City within five (5) working days of the Bid opening and in compliance with Public Contract Code Section 5100 *et seq.*, or as otherwise may be allowed with the consent of the City.

ARTICLE 22. BIDDERS INTERESTED IN MORE THAN ONE BID

No Bidder shall be allowed to make, file or be interested in more than one Bid for the same work unless alternate Bids are specifically called for. A person, firm or corporation that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from simultaneously submitting its own Bid as a prime contractor.

ARTICLE 23. SUBSTITUTION OF SECURITY

The Contract Documents call for monthly progress payments for the Work completed. The City will retain a percentage of each progress payment as provided by the Contract Documents. At the request and expense of the successful Bidder, the City will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.

ARTICLE 24. PREVAILING WAGES

The City has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages in the locality in which this work is to be performed for each

craft or type of worker needed to execute the Contract. These rates are available at the **Office of the City Clerk** of the City or may be obtained online at <http://www.dir.ca.gov>. Bidders are advised that a copy of these rates must be posted by the successful Bidder at the job site(s).

ARTICLE 25. DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code Sections 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the City. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

ARTICLE 26. INSURANCE REQUIREMENTS

Prior to commencing work, the successful bidder shall purchase and maintain insurance as set forth in the General Conditions.

ARTICLE 27. PERFORMANCE BOND AND PAYMENT BOND REQUIREMENTS

The successful Bidder will be required to furnish a Labor and Material Payment Bond and a Faithful Performance Bond each in an amount equal to one hundred percent (100%) of the contract price. Each bond shall be secured from a surety company that meets all State of California bonding requirements, as defined in California Code of Civil Procedure Section 995.120 and is admitted by the State of California. Each bond shall be accompanied, upon the request of the City, with all documents required by California Code of Civil Procedure Section 995.660 to the extent required by law. All bonding and insurance requirements shall be completed and submitted to the City within ten (10) Days from the date the City provides the successful bidder with the Notice of Award.

ARTICLE 28. SALES AND OTHER APPLICABLE TAXES, PERMITS, LICENSES AND FEES

Contractor and its subcontractors performing work under this Contract will be required to pay California sales tax and other applicable taxes, and to pay for permits, licenses and fees required by the agencies with authority in the jurisdiction in which the Work will be located, unless otherwise expressly provided by the Contract Documents.

ARTICLE 29. FILING OF BID PROTESTS

Bidders may file a "protest" of a Bid with the City's Representative. In order for a Bidder's protest to be considered valid, the protest must:

- A. Be filed in writing within five (5) calendar days after the bid opening date or any City determination or recommendation regarding the Bidder's bid;
- B. Clearly identify the specific irregularity or accusation;
- C. Clearly identify the specific City staff determination or recommendation being protested;

- D. Specify in detail the grounds for protest and the facts supporting the protest; and
- E. Include all relevant, supporting documentation with the protest at time of filing.

If the protest does not comply with each of these requirements, the City may reject the protest without further review.

If the protest is timely and complies with the above requirements, the City's Representative, or other designated City staff member, shall review the protest, any response from the challenged Bidder(s), and all other relevant information. The City's Representative will provide a written decision to the protestor.

The procedure and time limits set forth in this Article are mandatory and are the sole and exclusive remedy in the event of a Bid protest. Failure to comply with these procedures shall constitute a failure to exhaust administrative remedies and a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.

ARTICLE 30. BASIS OF AWARD; BALANCED BID

The City shall award the Contract to the lowest responsible Bidder submitting a responsive Bid. The lowest Bid will be determined on the basis of the Total Bid Price.

The City may reject any Bid which, in its opinion when compared to other Bids received or to the City's internal estimates, does not accurately reflect the cost to perform the Work. The City may reject as non-responsive any Bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items.

ARTICLE 31. AWARD PROCESS

Once all Bids are opened and reviewed to determine the lowest responsive and responsible Bidder, the City Council may award the Contract. The apparent successful Bidder should begin to prepare the following documents: (1) the Performance Bond; (2) the Payment Bond; and (3) the required insurance certificates and endorsements. Once the City notifies the Bidder of the award, the Bidder will have ten (10) days from the date of this notification to execute the Contract and supply the City with all of the required documents and certifications. Once the City receives all of the properly drafted and executed documents and certifications from the Bidder, the City will issue a Notice to Proceed to that Bidder.

ARTICLE 32. EXECUTION OF CONTRACT

As required herein the Bidder to whom an award is made shall execute the Contract in the amount determined by the Contract Documents. The City may require appropriate evidence that the persons executing the Contract are duly empowered to do so. The Contract and bond forms to be executed by the successful Bidder are included within these Contract Documents and shall not be detached.

ARTICLE 33. QUESTIONS

Questions regarding this Notice Inviting Bids may be directed to **Harry Parr, Associate Engineer**, at **(909) 931-4193** or email at **hparr@uplandca.gov**. No other members of the City's staff or City Council should be contacted about this procurement during the bidding

process. Any and all inquiries and comments regarding this Bid must be communicated in writing, unless otherwise instructed by the City. The City may, in its sole discretion, disqualify any Bidder who engages in any prohibited communications.

ARTICLE 34. FLEET COMPLIANCE

The City is a Public Works Awarding Body, as defined under Title 13 California Code of Regulations section 2449(c)(46). Accordingly, Bidders must submit, with their Bids, a valid Certificate of Reported Compliance (“CRC”) for the Bidder’s and its listed subcontractors fleet (including any applicable leased equipment or vehicles) . Bidder must complete and submit the Fleet Compliance Certification, included in the Bid Documents. Failure to provide a CRC for the Bidder, and for all listed subcontractors, or failure to complete the Fleet Compliance Certification, may render the Bid non-responsive.

00 41 43 – BID FORMS

BID ACKNOWLEDGMENT

Bids will be received online only via the City of Upland’s PlanetBids portal, until **3:00 p.m. on Tuesday, June 23, 2026.**

16th Street and San Antonio Avenue Traffic Signal Improvements

NAME OF BIDDER: _____

To the **CITY OF UPLAND** , with its principal place of business at 460 N. Euclid Avenue Upland, CA 91786.

- A. In response to the Notice Inviting Bids dated **May 29, 2026** and in accordance with the accompanying Instructions to Bidders, the undersigned hereby proposes to the City to furnish all labor, technical and professional services, supervision, materials and equipment, other than materials and equipment specified as furnished by the City, and to perform all operations necessary and required to construct the Project in accordance with the provisions of the Contract Documents and any addenda thereto, and at the prices stated opposite the respective items set forth in the Bid Schedule.
- B. This Bid constitutes a firm offer to the City which cannot be withdrawn for 90 days after the date set for opening of Bids, or until a Contract is executed by the City and a third party, whichever is earlier.
- C. The undersigned certifies that it has examined and is fully familiar with all of the provisions of the Contract Documents and any addenda thereto; that it has carefully checked all of the words and figures shown in its Bid Schedule; that it has carefully reviewed the accuracy of all statements in this Bid and attachments hereto; and that it understands and agrees that the City will not be responsible for any errors or omissions on the part of the undersigned in preparing this Bid.
- D. If awarded a Contract, the undersigned agrees to execute and deliver to the City within ten (10) days after date of receipt of Notice of Award, a signed Contract and the necessary Performance Bond, Payment Bond, and Certificates of Insurance and Endorsements.
- E. The following Bid Forms, which have been completed and executed by the undersigned Bidder, are incorporated by this reference and made a part of this Bid:
 - 1. Bid Schedule
 - 2. Bid Guarantee in the amount of not less than 10% of the Total Bid Price.
 - 3. Completed Designation of Subcontractors form.
 - 4. Fully executed Noncollusion Declaration form.

5. Completed Iran Contracting Act Certification form.
 6. Completed Public Works Contractor DIR Registration Certification form.
 7. Completed Contractor's Certificate Regarding Workers' Compensation form.
 8. Completed Bidder Information and Experience Form.
- F. The undersigned is hereby representing that it is and will be properly licensed both at the time that it submits a Bid as well as at the time the Contract is awarded, if the Contract is awarded to the undersigned.

1. Individual Contractor. Undersigned certifies that it is now licensed in accordance with the provisions of the Contractor's License Law of the State of California.

License number _____

Expiration date _____

License classification _____

1. Joint Venture. Undersigned certifies that the individual members of the joint venture are now licensed in accordance with the provisions of the Contractor's License Law of the State of California.

Member No. 1

Name _____

License number _____

Expiration date _____

License classification _____

Member No. 2

Name _____

License number _____

Expiration date _____

License classification _____

(If there are more than two members of the joint venture, attach a page for the additional member(s) with the above information.)

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

Addenda No. _____

[SIGNATURE ON FOLLOWING PAGE]

I hereby certify under penalty of perjury under the laws of the State of California that all of the information submitted in connection with this Bid and all of the representations made herein are true and correct.

BIDDER:

Bidder's Business Address:

(Company Name)

By _____
(Signature)

(Type or print name)

(Title)

(Where signed) (City, State)

(corporate seal)

Dated: _____, 20_____
State of Incorporation: _____

(If the Prime Contractor is a corporation, two signatures of corporate officers are required.)

Names and addresses of all partners or joint venturers:

Statement of the authority of signatory to bind Bidder:

BID SCHEDULE

Name of Bidder: _____

The undersigned, having examined the proposed Contracts and having visited the site and examined the conditions affecting the work, hereby and agrees to furnish all labor, materials, equipment, tools, time and appurtenant work, and perform operations necessary to complete the work as required by said proposed Contract Documents, excluding work of alternates for:

16th Street and San Antonio Avenue Traffic Signal Improvements

We hereby propose to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Project in strict accordance with the Contract Documents for the ELECTRONICALLY SUBMITTED TOTAL BID PRICE.

Important:

The electronic bid schedule must be completed by each bidder and properly submitted on Planetbids. This bid schedule is for informational purposes only.

NO.	ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY.	UNIT PRICE	ITEM COST
1.	Traffic & Pedestrian Control, Construction Phasing, Public Convenience & Safety	LS	1		
2.	Construction Surveying	LS	1		
3.	Storm Water Pollution Prevention Plan & Implementation	LS	1		
4.	Sawcut & Remove Existing and Construct PCC Curb Ramp per SPPWC Std. Plan No. 111-5 with Retaining Curb and Detectable Warning Surface (Case and Type per Plan)	EA	1		
5.	Sawcut & Remove Existing and Construct PCC Curb & Gutter per SPPWC Std. Plan No. 120-3 Type A3-6	LF	45		
6.	Sawcut & Join to Existing Pavement	LF	50		
7.	Remove & Reconstruct 4" PCC Sidewalk, Slab, & Transitions	SF	290		
8.	Construction of Traffic Signal and Safety Lighting Facilities	LS	1		

BASE BID (BID ITEMS # 1-8) TOTAL					\$

<p>TOTAL BID PRICE BASED ON BID SCHEDULE</p> <p>\$ _____</p> <p style="text-align: center;">Total Base Bid in Numbers</p>

The costs for any Work shown or required in the Contract Documents, but not specifically identified as a line item are to be included in the related line items and no additional compensation shall be due to Contractor for the performance of the Work.

The estimated quantities for Unit Price items are for purposes of comparing Bids only and the City makes no representation that the actual quantities of work performed will not vary from the estimates. Final payment shall be determined by the Engineer from measured quantities of work performed based upon the Unit Price.

The undersigned agrees that this Bid Schedule constitutes a firm offer to the City which cannot be withdrawn for the number of calendar days indicated in the Notice Inviting Bids from and after the Bid opening, or until a Contract for the Work is fully executed by the City and a third party, whichever is earlier.

If the Contract Documents specify Alternate Bid items, the City can choose to include any, all, or none of the Alternate Bid items in the Work. If the City selects any of the Alternate Bid items, the corresponding Alternate Bid prices shall be added to or deducted from Base Bid Price for the Work. The City can award/select Alternate Bid items at any time(s).

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

BID GUARANTEE

BID BOND

[Note: Not required when other form of Bidder’s Security, e.g. cash, certified check or cashier’s check, accompanies Bid.]

The makers of this bond are, _____, as Principal, and _____, as Surety and are held and firmly bound unto the CITY OF UPLAND , with its principal place of business at 460 N. Euclid Avenue, Upland, California 91786, hereinafter called the City, in the penal sum of TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to the City for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated _____, 20 ____, for **Project No. 70024, 16th Street and San Antonio Avenue Traffic Signal Improvements**

If the Principal does not withdraw its Bid within the time specified in the Contract Documents; and if the Principal is awarded the Contract and provides all documents to the City as required by the Contract Documents; then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents shall affect its obligation under this bond, and Surety does hereby waive notice of any such changes.

In the event a lawsuit is brought upon this bond by the City and judgment is recovered, the Surety shall pay all litigation expenses incurred by the City in such suit, including reasonable attorneys’ fees, court costs, expert witness fees and expenses.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporation.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
 appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

 Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- Attorney-In-Fact General

Number of Pages

- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
 appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

 Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER	DESCRIPTION OF ATTACHED DOCUMENT
-----------------------------------	---

- Individual
- Corporate Officer

Title(s)

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Partner(s) | <input type="checkbox"/> Limited |
| <input type="checkbox"/> Attorney-In-Fact | <input type="checkbox"/> General |

- Trustee(s)
- Guardian/Conservator
- Other:

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Title or Type of Document

Number of Pages

Date of Document

_____ _____	_____ Signer(s) Other Than Named Above
----------------	---

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of-Attorney to local representatives of the bonding company must also be attached.

END OF BID BOND

DESIGNATION OF SUBCONTRACTORS

The subcontractor listed below will perform work or labor or render service to the contractor in or about the construction of the work or improvement, or are subcontractors licensed by the State of California who will, under subcontract to the contractor, specially fabricate and install a portion of the work or improvement according to detailed drawings contained in the Contract Documents, in an amount in excess of one-half of one percent (1/2 of 1%) of the contractor's total bid. Notwithstanding the foregoing, if the work involves the construction of streets and highways, then the Bidder shall list each subcontractor who will perform work or labor or render service to the Bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price or ten thousand dollars (\$10,000), whichever is greater. No additional time shall be granted to provide the below requested information.

In compliance with the Subletting and Subcontracting Fair Practices Act Chapter 4 (commencing at Section 4100), Part 1, Division 2 of the California Public Contract Code, the Bidder shall set forth below:

- (a) The portion of the work to be done by the subcontractor;
- (b) The name and the location of the place of business;
- (c) The California contractor license number; and
- (d) The DIR public works contractor registration number.

If a Bidder fails to specify a subcontractor or if a Bidder specifies more than one subcontractor for the same portion of work, then the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of work and that it shall perform that portion itself.

Portion of Work to be done by Subcontractor	Name of Subcontractor	Location of Business	CSLB Contractor License No.	DIR Registration Number

Portion of Work to be done by Subcontractor	Name of Subcontractor	Location of Business	CSLB Contractor License No.	DIR Registration Number

Portion of Work to be done by Subcontractor	Name of Subcontractor	Location of Business	CSLB Contractor License No.	DIR Registration Number

(Attach additional sheets if necessary)

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

BIDDER INFORMATION AND EXPERIENCE FORM

A. INFORMATION ABOUT BIDDER

(Indicate not applicable (“N/A”) where appropriate.)

NOTE: Where Bidder is a joint venture, pages shall be duplicated and information provided for all parties to the joint venture.

1.0 Name of Bidder: _____

2.0 Type, if Entity: _____

3.0 Bidder Address: _____

Facsimile Number Telephone Number

Email Address

4.0 How many years has Bidder’s organization been in business as a Contractor?

5.0 How many years has Bidder’s organization been in business under its present name? _____

5.1 Under what other or former names has Bidder’s organization operated? _____

6.0 If Bidder’s organization is a corporation, answer the following:

6.1 Date of Incorporation: _____

6.2 State of Incorporation: _____

6.3 President’s Name: _____

6.4 Vice-President’s Name(s): _____

6.5 Secretary’s Name: _____

6.6 Treasurer’s Name: _____

7.0 If an individual or a partnership, answer the following:

7.1 Date of Organization: _____

7.2 Name and address of all partners (state whether general or limited partnership):

8.0 If other than a corporation or partnership, describe organization and name principals:

9.0 List other states in which Bidder's organization is legally qualified to do business.

10.0 What type of work does the Bidder normally perform with its own forces?

11.0 Has Bidder ever failed to complete any work awarded to it? If so, note when, where, and why:

12.0 Within the last five years, has any officer or partner of Bidder's organization ever been an officer or partner of another organization when it failed to complete a contract? If so, attach a separate sheet of explanation:

13.0 List Trade References:

14.0 List Bank References (Bank and Branch Address):

15.0 Name of Bonding Company and Name and Address of Agent:

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

B. LIST OF CURRENT PROJECTS (BACKLOG)

[**Duplicate Page if needed for listing additional current projects.**]

Project	Client Reference (agency name/contact info)	Description of Bidder's Work	Completion Date	Cost of Bidder's Work

C. LIST OF COMPLETED PROJECTS – LAST THREE YEARS

[**Duplicate Page if needed for listing additional completed projects.**]

Please include only those projects which are similar enough to demonstrate Bidder's ability to perform the required Work.

Project	Client Reference (agency name/contact info)	Description of Bidder's Work	Completion Date	Cost of Bidder's Work

D. EXPERIENCE AND TECHNICAL QUALIFICATIONS QUESTIONNAIRE

Personnel:

The Bidder shall identify the key personnel to be assigned to this project in a management, construction supervision or engineering capacity.

1. List each person's job title, name and percent of time to be allocated to this project:

2. Summarize each person's specialized education:

3. List each person's years of construction experience relevant to the project:

4. Summarize such experience:

Bidder agrees that personnel named in this Bid will remain on this Project until completion of all relevant Work, unless substituted by personnel of equivalent experience and qualifications approved in advance by the City.

E. ADDITIONAL BIDDER'S STATEMENTS:

If the Bidder feels that there is additional information which has not been included in the questionnaire above, and which would contribute to the qualification review, it may add that information in a statement here or on an attached sheet, appropriately marked:

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

NON-COLLUSION DECLARATION

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid Price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid Price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid Price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

IRAN CONTRACTING ACT CERTIFICATION.

(Public Contract Code section 2200 et seq.)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor’s status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 *et seq.*) is true and correct:

The Contractor is not:

(1) identified on the current list of person and entities engaged in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(2) a financial instruction that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

The City has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the City will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

The amount of the Contract payable to the Contractor for the Project does not exceed \$1,000,000.

Signature: _____

Printed Name: _____

Title: _____

Firm Name: _____

Date: _____

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.¹

Name of Bidder: _____

DIR Registration Number: _____

DIR Registration Expiration: _____

Small Project Exemption: _____ Yes or _____ No

Unless Bidder is exempt pursuant to the small project exemption, Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

¹ If the Project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION.

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

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

FLEET COMPLIANCE CERTIFICATION

Bidder hereby acknowledges that they have reviewed the California Air Resources Board’s policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the “Regulation”). Bidder hereby certifies, subject to penalty for perjury, that the option checked below relating to the Bidder’s fleet, and/or that of their subcontractor(s) (“Fleet”) is true and correct:

- The Fleet is subject to the requirements of the Regulation, and the appropriate Certificate(s) of Reported Compliance have been attached hereto.
- The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.
- Bidder and/or their subcontractor is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Bidder shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).
- The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Bidder shall only operate the exempted vehicles in the emergency situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).
- The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.

Name of Bidder: _____

Signature: _____

Name: _____

Title: _____

Date: _____

00 52 13 – CONTRACT FOR CONSTRUCTION

This Contract for Construction (“Contract”), No. **70024** is made and entered into this _____ day of _____, 2026 by and between the CITY OF UPLAND , with its principal place of business at 460 N. Euclid Avenue, Upland, California 91786 sometimes hereinafter called the “City” and _____, sometimes hereinafter called “Contractor.”

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other as follows:

ARTICLE 1. SCOPE OF WORK.

The Contractor shall perform all Work within the time stipulated in the Contract, and shall provide all labor, materials, equipment, tools, utility services, and transportation to complete all of the Work required in strict compliance with the Contract Documents as specified in Article 5, below, for the following Project:

PROJECT NO. 70024, 16TH STREET AND SAN ANTONIO AVENUE TRAFFIC SIGNAL IMPROVEMENTS

Contractor is an independent contractor and not an agent of the City. The Contractor and its surety shall be liable to the City for any damages arising as a result of the Contractor’s failure to comply with this obligation.

ARTICLE 2. TIME FOR COMPLETION.

Time is of the essence in the performance of the Work. The Work shall be commenced on the date stated in the City’s Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within **150 CALENDAR DAYS** from the commencement date stated in the Notice to Proceed. By its signature hereunder, Contractor agrees the time for completion set forth above is adequate and reasonable to complete the Work.

ARTICLE 3. CONTRACT PRICE.

The City shall pay to the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of _____ Dollars (\$ _____). Payment shall be made as set forth in the General Conditions. The City will pay to Contractor compensation based upon the prices set forth in the Bid Schedule.

ARTICLE 4. LIQUIDATED DAMAGES.

Contractor acknowledges that the City will sustain actual damages for each and every Day completion of the Project is delayed beyond the Contract Time. Because of the nature of the Project, it would be impracticable or extremely difficult to determine the City’s actual damages. Accordingly, in accordance with Government Code section 53069.85, it is agreed that the Contractor will pay the City the sum of **\$250** for each and every calendar day of delay beyond the time prescribed in the Contract Documents for finishing the Work, as Liquidated Damages

and not as a penalty or forfeiture. In the event this is not paid, the Contractor agrees the City may deduct that amount from any money due or that may become due the Contractor under the Contract. This Section does not exclude recovery of other damages specified in the Contract Documents. Liquidated damages may be deducted from progress payments due Contractor, Project retention or may be collected directly from Contractor, or from Contractor's surety. These provisions for liquidated damages shall not prevent the City, in case of Contractor's default, from terminating the Contractor.

Consistent with Public Contract Code Section 7102, Contractor will be compensated for damages incurred due to delays for which the City is responsible. The parties agree that determining Contractor's exact delay damages is and will continue to be impracticable and extremely difficult. As such, for each calendar day in excess of the Contract Time, the City shall pay to the Contractor **\$250** per day as Reverse Liquidated Damages and not as a penalty or forfeiture. Such amount shall constitute the only payment allowed for any City caused delays and shall necessarily include all overhead, all profits, all administrative costs, all bond costs, all labor, materials, equipment and rental costs and any other costs, expenses and fees incurred or sustained as a result of such delays. Notice of requests for delay damages and additional days shall be provided to the City within five (5) Days from the discovery of the circumstances giving rise to any delay or three (3) Days from the discovery of any latent or subsurface conditions giving rise to a delay.

ARTICLE 5. COMPONENT PARTS OF THE CONTRACT.

The "Contract Documents" include the following:

- Notice Inviting Bids
- Instructions to Bidders
- Bid Forms
- Bid Acknowledgement
- Bid Schedule
- Bid Guarantee
- Designation of Subcontractors
- Information Required of Bidders
- Non-Collusion Declaration Form
- Iran Contracting Act Certification
- Public Works Contractor DIR Registration Certification
- Performance Bond
- Payment (Labor and Materials) Bond
- Contract for Construction
- General Conditions
- Special Conditions
- Special Provisions
- Specifications
- Addenda
- Construction Plans and Drawings
- Standard Specifications for Public Works Construction "Greenbook", latest edition, Except Sections 1-9
- Applicable Local Agency Standards and Specifications, as last revised
- Reference Specifications
- Approved and fully executed Change Orders
- Permits

Any other documents contained in or incorporated into the Contract

The Contractor shall complete the Work in strict accordance with all of the Contract Documents.

All of the Contract Documents are intended to be complementary. Work required by one of the Contract Documents and not by others shall be done as if required by all. In the event of conflict, the various Contract Documents will be given effect in the order set forth in the General Conditions. This Contract shall supersede any prior agreement of the parties.

ARTICLE 6. PROVISIONS REQUIRED BY LAW AND CONTRACTOR COMPLIANCE.

Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents. The Contractor shall comply with all requirements of applicable federal, state and local laws, rules and regulations, including, but not limited to, the provisions of the California Labor Code and California Public Contract Code which are applicable to this Work.

ARTICLE 7. INDEMNIFICATION.

Contractor shall provide indemnification and defense as set forth in the General Conditions.

ARTICLE 8. PREVAILING WAGES.

Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at the City's Office or may be obtained online at <http://www.dir.ca.gov> and which must be posted at the job site.

ARTICLE 9. FALSE CLAIMS.

Contractor acknowledges that if a false claim is submitted to the City, it may be considered fraud and Contractor may be subject to criminal prosecution. Contractor acknowledges that the False Claims Act, California Government Code sections 12650, et seq., provides for civil penalties where a person knowingly submits a false claim to a public entity. These provisions include within their scope false claims made with deliberate ignorance of the false information or in reckless disregard of the truth or falsity of the information. In the event the City seeks to recover penalties pursuant to the False Claims Act, it is entitled to recover its litigation costs, including attorneys' fees. Contractor hereby acknowledges that the filing of a false claim may be the Contractor to an administrative debarment proceeding wherein Contractor may be prevented from further bidding on public contracts for a period of up to five (5) years.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, this Contract has been duly executed by the above-named parties, on the day and year above written.

CITY OF UPLAND

NAME OF CONTRACTOR

By: _____
Bill Velto, Mayor

[IF CORPORATION, TWO SIGNATURES, PRESIDENT **OR** VICE PRESIDENT, **AND** SECRETARY **OR** TREASURER **REQUIRED**]

ATTEST:

By: _____

Its: _____

By: _____
Keri Johnson, City Clerk

Printed Name: _____

APPROVED AS TO FORM:

[SECOND SIGNATURE LINE IF APPLICABLE]

By: _____
**Best Best & Krieger LLP
City Attorney**

By: _____

Its: _____

Printed Name: _____

Contractor's License Number and Classification

DIR Registration Number

(CONTRACTOR'S SIGNATURE MUST BE NOTARIZED AND CORPORATE SEAL AFFIXED, IF APPLICABLE)

END OF CONTRACT

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

00 61 13 – BOND FORMS

Performance Bond

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the CITY OF UPLAND , with its principal place of business at 460 N. Euclid Avenue, Upland, California 91786 (hereinafter referred to as the “City”) has awarded to _____, (hereinafter referred to as the “Contractor”) an agreement for **Contract No. 70024: 16TH Street and San Antonio Avenue Traffic Signal Improvements** (hereinafter referred to as the “Project”).

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as “Contract Documents”), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the City in the sum of _____ DOLLARS, (\$ _____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one (1) year guarantee of all materials and workmanship; and shall indemnify and save harmless the City, its officials, officers, employees, and authorized volunteers, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees including reasonable attorney’s fees, incurred by the City in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by the City, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the City from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of

Contractor remains. Nothing herein shall limit the City's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure Section 337.15.

Whenever Contractor shall be, and is declared by the City to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the City's option:

- i. Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- ii. Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the City, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.
- iii. Permit the City to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the City may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the City, when declaring the Contractor in default, notifies Surety of the City's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

Title _____

(Attach Attorney-in-Fact Certificate)

The rate of premium on this bond is _____ per thousand. The total amount of premium charges is \$_____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of Agent or Representative for service of process in California, if different from above)

(Telephone number of Surety and Agent or Representative for service of process in California)

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
 appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

 Signature of Notary Public

OPTIONAL

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CAPACITY CLAIMED BY SIGNER	DESCRIPTION OF ATTACHED DOCUMENT
-----------------------------------	---

- Individual
- Corporate Officer

Title(s)

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Partner(s) | <input type="checkbox"/> Limited |
| <input type="checkbox"/> Attorney-In-Fact | <input type="checkbox"/> General |

- Trustee(s)
- Guardian/Conservator
- Other:

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Title or Type of Document

Number of Pages

Date of Document

_____ _____	_____ Signer(s) Other Than Named Above
----------------	---

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of Attorney to local representatives of the bonding company must also be attached.

END OF PERFORMANCE BOND

Payment Bond (Labor and Materials).

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the CITY OF UPLAND , with its principal place of business at 460 N. Euclid Avenue, Upland, California 91786 (hereinafter designated as the "City"), by action taken or a resolution passed _____, 20_____, has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows: **Contract No. 70024: 16TH Street and San Antonio Avenue Traffic Signal Improvements** (the "Project"); and

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars (\$ _____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Civil Code Section 9100, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Revenue and Taxation Code Section 18663, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the City in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement

pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or the City and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Civil Code Section 9100, and has not been paid the full amount of his claim.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract to be performed thereunder, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of Contract, including but not limited to, the provisions of Sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- Individual
- Corporate Officer

Title(s)

Title or Type of Document

- Partner(s) Limited
- General

Number of Pages

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Date of Document

Signer is representing:
Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for Contractor/Principal.

Notary Acknowledgment

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STATE OF CALIFORNIA
 COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally
Date Name And Title Of Officer (e.g. "Jane Doe, Notary Public")
 appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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- Other:

Date of Document

Signer is representing:
 Name Of Person(s) Or Entity(ies)

Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of-Attorney to local representatives of the bonding company must also be attached.

END OF PAYMENT BOND

00 72 00 – GENERAL CONDITIONS

ARTICLE 1 -TERMS; DEFINITIONS

1.1 Defined Terms

- A. Whenever used in the Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined below, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. Act of God – An earthquake of magnitude of 3.5 or higher on the Richter scale or a tidal wave.
 2. Addenda -- Written or graphic instruments issued prior to the submission of Bids which clarify, correct, or change the Contract Documents.
 3. Additional Work -- New or unforeseen work will be classified as “Additional Work” when the Engineer determines that it is not covered by the Contract.
 4. Applicable Laws -- The laws, statutes, ordinances, rules, codes, regulations, permits, and licenses of any kind, issued by local, state or federal governmental authorities or private authorities with jurisdiction (including utilities), to the extent they apply to the Work.
 5. Bid -- The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices and other terms for the Work to be performed.
 6. Bid Guarantee -- The Bid Bond, cashier’s check, or certified check to be made by the Bidder, which is to accompany the Bid as a guaranty of good faith to enter into a written contract.
 7. Bidder -- The individual or entity who submits a Bid directly to the City.
 8. Change Order (“CO”) -- A document that authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Contract, in accordance with the Contract Documents and in the form contained in the Contract Documents.
 9. Change Order Request (“COR”) -- A request made by the Contractor for an adjustment in the Contract Price and/or Contract Times as the result of a Contractor-claimed change to the Work. This term may also be referred to as a Change Order Proposal (“COP”), or Request for Change (“RFC”).
 10. City’s Representative – The City Engineer and/or his/her designee, and acting through properly authorized agents, such as the Engineer or such other agents acting within the scope of the particular duties entrusted to them. Also sometimes referred to as the “City’s Representative” or “Representative” in the Contract Documents. The terms the City and Owner may be used interchangeably

11. Claim -- A demand or assertion by the City or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
12. Contract -- The entire integrated written agreement between the City and Contractor concerning the Work. "Contract" may be used interchangeably with "Agreement" in the Contract Documents. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral, and includes all Contract Documents.
13. Contract Documents -- The documents listed in Section 00 52 13, Article 5 of the Contract for Construction. Some documents provided by the City to the Bidders and Contractor, including but not limited to reports and drawings of subsurface and physical conditions are not Contract Documents.
14. Contract Price -- Amount to be paid by the City to the Contractor as full compensation for the performance of the Contract and completion of the Work, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs.
15. Contract Time -- The number of days or the dates stated in the Contract Documents to: achieve defined milestones, if any; and to complete the Work so that it is ready for final payment.
16. Contractor -- The individual or entity with which the City has contracted for performance of the Work.
17. Contractor's Designated On-Site Representative -- The Contractor's Designated On-Site Representative will be identified by the Contractor and shall not be changed without prior written consent of the City.
18. Critical Supply Shortage -- An unusual shortage in materials that is (a) supported by documented proof that Contractor made every effort to obtain such materials from all available sources; (b) such shortage is due to the fact that such materials are not physically available from single or multiple sources or could have been obtained only at exorbitant prices entirely inconsistent with current and standard rates taking into account the quantities involved and the usual industry practices in obtaining such quantities; and (c) such shortages and the difficulties in obtaining alternate sources of materials could not have been known or anticipated by Contractor at the time it submitted its bid or entered the Contract. Market fluctuations in prices of materials, whether or not resulting from a Force Majeure Event, does not constitute a Critical Supply Shortage.
19. Daily Rate -- The Daily Rate stipulated in the Contract Documents as full compensation to the Contractor due to the City's unreasonable delay to the Project that was not contemplated by the parties.
20. Day -- A calendar day of 24 hours measured from midnight to the next midnight.

21. Defective Work -- Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referenced in the Contract Documents.
22. Demobilization -- The complete dismantling and removal by the Contractor of all of the Contractor's temporary facilities, equipment, and personnel at the Site.
23. Drawings -- That part of the Contract Documents prepared by of the Engineer of Record which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor Submittals are not Drawings as so defined.
24. Effective Date of the Contract -- The date indicated in the Contract on which it becomes effective, but if no such date is indicated, it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.
25. Engineer -- Whenever not qualified, shall mean the City Engineer or the Engineer authorized to act for and in behalf of the City, acting either directly or through properly authorized agents, such agents acting severally within the scope of the particular duties entrusted to them.
26. Force Majeure Event -- An event that materially affects a party's performance and is one or more of the following: (1) Acts of God or other natural disasters occurring at the Site; (2) terrorism or other acts of a public enemy; (3) orders of governmental authorities (including, without limitation, unreasonable and unforeseeable delay in the issuance of permits or approvals by governmental authorities that are required for the Work); (4) pandemics, epidemics or quarantine restrictions; (5) strikes and other organized labor action occurring at the Site and the effects thereof on the Work, only to the extent such strikes and other organized labor action are beyond the control of Contractor and its Subcontractors, of every Tier, and to the extent the effects thereof cannot be avoided by use of replacement workers; and (6) a Critical Supply Shortage. For purposes of this section, "orders of governmental authorities," includes ordinances, emergency proclamations and orders, rules to protect the public health, welfare and safety, and other actions of the City in its capacity as a municipal authority.
27. Hazardous Waste -- The term "Hazardous Waste" shall have the meaning provided in Section 104 of the Solid Waste Disposal Act (42 U.S.C. § 6903) as amended from time to time, or any substance or material identified as hazardous under any state or federal statute governing handling, disposal and/or cleanup of any such substance or material, whichever is more restrictive.
28. Holiday – Holidays occur on:
- New Year's Day - January 1
 - Martin Luther King Jr. Day – Third Monday in January
 - President's Day – Third Monday in February
 - Memorial Day - Last Monday in May

Independence Day - July 4
Labor Day - First Monday in September
Thanksgiving Day - Fourth Thursday in November
Friday after Thanksgiving
Christmas Eve – December 24
Christmas Day - December 25
Day After Christmas – December 26
New Year's Eve – December 31

If any Holiday listed above falls on a Saturday, Saturday and the preceding Friday are both Holidays. If the Holiday should fall on a Sunday, Sunday and the following Monday are both Holidays.

29. Notice of Award -- The written notice by the City to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, the City will sign and deliver the Contract.
30. Notice of Completion -- The form which may be executed by the City constituting final acceptance of the Project.
31. Notice to Proceed -- A written notice given by the City to Contractor fixing the date on which the Contractor may proceed with the Work and when Contract Times will commence to run.
32. Project -- The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
33. Record Drawings -- The record set of as-builts prepared by the Contractor during the Work in accordance with the requirements of the General Conditions.
34. Recyclable Waste Materials -- Materials removed from the Site which are required to be diverted to a recycling center rather than an area landfill. Recyclable Waste Materials include, but are not limited to, asphalt, concrete, brick, concrete block, and rock.
35. Sample -- A physical example furnished by the Contractor to illustrate materials, equipment or workmanship; to establish standards by which the Work will be judged.
36. Schedule of Submittals -- A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to facilitate scheduled performance of related construction activities.
37. Shop Drawings -- All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
38. Site -- Lands or areas indicated in the Contract Documents as being furnished by the City upon which the Work is to be performed, including rights-of-way and

easements for access thereto, and such other lands furnished by the City which are designated for the use of Contractor.

39. Specifications -- That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
40. Stop Payment Notice -- A written notice as defined in Civil Code section 8044.
41. Subcontractor -- An individual or entity other than a Contractor having a contract with any other entity than the City for performance of any portion of the Work at the Site.
42. Submittal -- Written and graphic information and physical samples prepared and supplied by the Contractor demonstrating various portions of the Work.
43. Successful Bidder -- The responsible Bidder submitting a responsive Bid to whom the City makes an award.
44. Supplier -- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment used in the performance of the Work or to be incorporated in the Work.
45. Underground Facilities -- All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. Unit Price Work -- Work to be paid for on the basis of unit prices as provided by the Contractor in its Bid or as adjusted in accordance with the Contract Documents.
47. Warranty -- A guarantee provided to the City by the Contractor that the Work will remain free of defects and suitable for its intended use for the period required by the Contract Documents or the longest period permitted by the law of this state, whichever is longer.
48. Work -- The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

1.2 Terminology.

- A. The words and terms below are not defined but, when used in the Contract Documents, have the indicated meaning.
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. Regardless of whether “furnish,” “install,” “perform,” or “provide” is used in connection with services, materials, or equipment, an obligation of Contractor is implied.
- B. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 -PRELIMINARY MATTERS

2.1 Delivery of Contract Documents

- A. Within ten (10) Days after receipt of the Notice of Award and before the City will execute the Contract, the Contractor shall furnish and file with the City a signed Contract and the necessary Performance Bond, Payment Bond, and Certificates of Insurance and Endorsements, as well as any other documents specified in the Contract Documents.

2.2 Bonds

- A. Contractor shall submit the bonds on the forms provided with the Contract Documents, duly executed by a responsible corporate surety admitted to transact surety business in the State of California, as defined in Code of Civil Procedure section 995.120, and listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to the City conditioned upon the faithful performance by the Contractor of all requirements of the Contract Documents. Each of the bonds shall be in a sum no less than one hundred percent (100%) of the Contract Price. Bonds shall be delivered to the City within ten (10) Days after receipt of the Notice of Award and before execution of the Contract by the City.

2.3 Evidence of Insurance

- A. Prior to commencing any Work but no later than ten (10) Days after receipt of the Notice of Award, the Contractor shall submit or cause to be submitted any and all Certificates of Insurance and Endorsements, showing that the Contractor has the required insurance, to the attention of the City. Such insurance is to be provided at the sole cost and expense of the Contractor. No Work shall be performed until all of the required insurance has been received and approved.

2.4 Execution of the Contract

- A. Upon receipt of the required Contract Documents, the City will execute the Contract, establishing the Effective Date of the Contract.

2.5 Contractor's Failure to Perform

- A. Should Contractor fail to comply with timelines provided above, the City shall retain the right to enforce and collect on the Contractor's Bid Guarantee, rescind award to the Contractor and award the Contract to the next lowest responsive, responsible bidder as determined by the City. If the City elects to accept bonds and insurance submitted late, the Contract Times will begin to run as of the date stated in the Notice to Proceed. However, the number of days beyond the original ten (10) Days it took to receive the properly executed Contract and related items may be deducted from the Contract Times.

2.6 Commencement of Contract Times; Notice to Proceed

- A. The City will not issue a Notice to Proceed until after the Effective Date of the Contract. Work shall commence within ten (10) Days of the date stated in the Notice to Proceed. The Contract Times begin to run on the date specified in the Notice to Proceed. No Work shall be done at the Site prior to the issuance of the Notice to Proceed.

2.7 Copies of Documents

- A. Contractor will be furnished, free of charge, five (5) copies of the Contract Documents. Additional copies may be obtained at cost of reproduction. Contractor shall maintain a clean, undamaged set of Contract Documents, including Submittals, at the Project site.

2.8 Substitution Requests, Schedule of Submittals, and Schedule

- A. Substitution Requests. Within fifteen (15) Days after Notice of Award (unless otherwise specified in the Contract Documents), Contractor shall provide all substitution requests as further described in Section 00 72 00, Article 6.5.
- B. Schedule of Submittals. Within five (5) Days after the issuance of the Notice of Proceed (unless otherwise specified in the Contract Documents), Contractor shall submit to the City a Schedule of Submittals that conforms with the requirements of Section 00 72 00, Article 5.21.

- C. Schedule. Within ten (10) days after the issuance of the Notice of Proceed (unless otherwise specified in the Contract Documents), the Contractor shall submit a construction schedule that conforms with the requirements of Section 00 72 00, Article 8.2.

2.9 Preconstruction Conference; Designation of Authorized Representatives.

- A. Before any Work at the Site is started, a conference attended by the City, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to herein, procedures for handling Submittals and Shop Drawings, processing applications for payment, and maintaining required records.
- B. At this conference the City and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.10 Subcontractor Mobilization Meeting.

- A. Prior to the start of each major Subcontractor's Site Work, the Contractor, the involved Subcontractor, and Engineer shall attend a pre-start meeting to discuss the schedule, coordination, procedures, and other administrative issues.

2.11 Authority of Board; Engineer

- A. The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Contract Documents. The Contractor shall promptly comply with instructions from the Engineer.
- B. The decision of the Engineer is final and binding on all questions relating to:
 - 1. quantities;
 - 2. acceptability of material, equipment, or work;
 - 3. execution, progress or sequence of work;
 - 4. interpretation of the Plans, Specifications, or other Contract Documents; and
 - 5. Any other areas specifically identified in the Contract Documents or under the law.
- C. Compliance with instructions from the Engineer shall be a condition precedent to any payment under the Contract, unless otherwise ordered by the Board.

2.12 Mobilization

- A. When a Bid item is included in the Bid Schedule for mobilization, the costs of Work in advance of construction operations and not directly attributable to any specific bid item will be included in the progress estimate. When no bid item is provided for mobilization payment for such costs will be deemed to be included in the other items of the Work.
- B. Payment for mobilization based on the lump sum provided in the Bid Schedule, shall constitute full compensation for all such Work. No payment for mobilization will be made until all of the listed items have been completed to the satisfaction of the Engineer. The scope of the Work included under mobilization shall include, but shall not be limited to, the following principal items:
1. Obtaining and paying for all bonds, insurance, and permits.
 2. Moving on to the Project Site of all Contractor's plant and equipment required for the first month's operations.
 3. Installing temporary construction power, wiring, and lighting facilities, as applicable.
 4. Establishing fire protection system, as applicable.
 5. Developing and installing a construction water supply, as applicable.
 6. Providing and maintaining the field office trailers for the Contractor, if necessary, and the Engineer (if specified), complete, with all specified furnishings and utility services.
 7. Providing on-site sanitary facilities and potable water facilities as specified per Cal-OSHA and these Contract Documents.
 8. Furnishing, installing, and maintaining all storage buildings or sheds required for temporary storage of products, equipment, or materials that have not yet been installed in the Work. All such storage shall meet manufacturer's specified storage requirements, and the specific provisions of the specifications, including temperature and humidity control, if recommended by the manufacturer, and for all security.
 9. Arranging for and erection of Contractor's work and storage yard.
 10. Posting all OSHA required notices and establishment of safety programs per Cal-OSHA.
 11. Full-time presence of Contractor's superintendent at the job Site as required herein.
 12. Submittal of construction schedule as required by the Contract Documents.

ARTICLE 3 -CONTRACT DOCUMENTS; INTENT

3.1 Examination of Drawings, Specifications, and Site of Work

- A. Examination of Contract Documents; Site. Before commencing any portion of the Work, Contractor shall again carefully examine all applicable Contract Documents, the Project Site, and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall immediately notify the Engineer of any potential error, inconsistency, ambiguity, conflict, or lack of detail or explanation. If Contractor performs, permits, or causes the performance of any Work which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction. In no case shall the Contractor or any Subcontractor proceed with Work if uncertain as to the applicable requirements.
- B. Additional Instructions. After notification of any error, inconsistency, ambiguity, conflict, or lack of detail or explanation, the Engineer will provide any required additional instructions, by means of drawings or other written direction, necessary for proper execution of Work.
- C. Quality of Parts, Construction and Finish. All parts of the Work shall be of the best quality of their respective kinds and the Contractor must use all diligence to inform itself fully as to the required construction and finish.
- D. Contractor's Variation from Contract Document Requirements. If it is found that the Contractor has varied from the requirements of the Contract Documents including the requirement to comply with all Applicable Laws, the Engineer may at any time, before or after completion of the Work, order the improper Work removed, remade or replaced by the Contractor at the Contractor's expense.

3.2 Intent of Contract Documents

- A. The Contract Documents are complementary; what is required by any one will be binding as if required by all. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to the City.
- B. The Contractor shall furnish, unless otherwise provided in the Contract Documents, all materials, implements, machinery, equipment, tools, supplies and labor necessary to the prosecution and completion of the Project.
- C. Clarifications and interpretations of the Contract Documents shall be issued by the Engineer as provided in these General Conditions.
- D. If utilities to equipment/fixtures are not shown but are necessary to operate the equipment/fixtures, the utilities service installation is considered to be part of the

Work. The implied Work will conform to the appropriate sections of the Contract Documents.

- E. Organization of the Contract Documents into divisions, sections, and articles, and arrangement of drawings shall not control the Contractor in dividing Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

3.3 Reference Standards.

A. Standards, Specifications, Codes, Laws, and Regulations.

1. Reference to federal specifications, federal standards, other standards, specifications, manuals, or codes of any technical society, organization, or association, or to Applicable Laws, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Applicable Laws in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of the City, Contractor, or any of their Subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to the City, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.4 Reporting and Resolving Discrepancies; Order of Precedence.

A. Reporting Discrepancies.

1. The Contract Documents are intended to be fully cooperative and complementary. Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to the City any conflict, error, ambiguity, or discrepancy which Contractor discovers, should have discovered, or has actual knowledge of, and shall obtain a written interpretation or clarification from the City before proceeding with any Work affected thereby. If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (i) any Applicable Law, (ii) any standard, specification, manual, or code, or (iii) any instruction of any Supplier, then Contractor shall promptly submit a written Request for Information (RFI) to the City. Contractor shall not proceed with the Work affected thereby (except in an emergency) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in the Contract Documents, and any Work performed by Contractor before receipt of an amendment or supplement shall be at Contractor's own risk.

B. Order of Precedence.

1. In case of conflicts between the Contract Documents, the order of precedence shall be as follows:
 - a. Permits from other agencies as may be required by law
 - b. Change Orders, most recent first
 - c. Contract
 - d. Addenda, most recent first
 - e. Special Conditions/Provisions
 - f. Specifications
 - g. Construction Plans and Drawings(Contract Drawings)
 - h. General Conditions
 - i. Instructions to Bidders
 - j. Notice Inviting Bids
 - k. Contractor's Bid (Bid Forms)
 - l. Standard Specifications for Public Works Construction "Greenbook" latest edition (Sections 1-9 Excluded)
 - m. Applicable Local Agency Standards and Specifications
 - n. Standard Drawings
 - o. Reference Documents
2. With reference to the Drawings the order of precedence shall be as follows:
 - a. Figures govern over scaled dimensions
 - b. Detail drawings govern over general drawings
 - c. Addenda/Change Order drawings govern over Drawings
 - d. Contract Drawings govern over Standard Drawings
 - e. Contract Drawings govern over Shop Drawings
3. Notwithstanding the orders of precedence established above, in the event of conflicts, the higher standard, higher quality and most expensive shall always apply.

3.5 Amending and Supplementing Contract Documents.

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof only by Change Order or written amendment to the Contract duly executed by the parties.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized at no cost to the City, by one or more of the following ways:
 - 1. The City's review of a Submittal, Shop Drawing, Sample or substitution request without exception (subject to the provisions of the Contract Documents); or
 - 2. The City's issuance of a response to an RFI.
- C. However, no review or RFI response will reduce or modify the Contractor's obligation to fully satisfy and comply with the requirements of the Contract Documents.

3.6 Reuse of Documents.

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer of Record or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of the City and Engineer of Record and specific written verification or adaptation by Engineer of Record.
- B. The prohibitions of this Article will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 -INDEMNIFICATION; INSURANCE

4.1 Indemnification

- A. To the fullest extent permitted by law, Contractor shall immediately defend (with counsel of the City's choosing), indemnify and hold harmless the City, its officials, officers, agents, employees, and representatives, and each of them from and against:
 - 1. Any and all claims, demands, causes of action, costs, expenses, injuries, losses or liabilities, in law or in equity, of every kind or nature whatsoever, but not limited to, injury to or death, including wrongful death, of any person, and damages to or destruction of property of any person, arising out of, related to, or in any manner directly or indirectly connected with the Work or this Contract, including claims

made by subcontractors for nonpayment, including without limitation the payment of all consequential damages and attorney's fees and other related costs and expenses, however caused, regardless of whether the allegations are false, fraudulent, or groundless, and regardless of any negligence of the City or its officers, employees, or authorized volunteers (including passive negligence), except the sole negligence or willful misconduct or active negligence of the City or its officials, officers, employees, or authorized volunteers.

2. Contractor's defense and indemnity obligation herein includes, but is not limited to damages, fines, penalties, attorney's fees and costs arising from claims under the Americans with Disabilities Act (ADA) or other federal or state disability access or discrimination laws arising from Contractor's Work during the course of construction of the improvements or after the Work is complete, as the result of defects or negligence in Contractor's construction of the improvements.
 3. Any and all actions, proceedings, damages, costs, expenses, fines, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Contractor;
 4. Any and all losses, expenses, damages (including damages to the Work itself), attorney's fees, and other costs, including all costs of defense which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the Work and all of Contractor's obligations under Contract. Such costs, expenses, and damages shall include all costs, including attorney's fees, incurred by the indemnified parties in any lawsuit to which they are a party.
- B. Contractor shall immediately defend, at Contractor's own cost, expense and risk, with the counsel of the City choosing, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against the City, its officials, officers, agents, employees and representatives. Contractor shall pay and satisfy any judgment, award or decree that may be rendered against the City, its officials, officers, employees, agents, employees and representatives, in any such suit, action or other legal proceeding. Contractor shall reimburse the City, its officials, officers, agents, employees and representatives for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. The only limitations on this provision shall be those imposed by Civil Code section 2782.
- C. The provisions of this Article shall survive the termination of this Contract howsoever caused, and no payment, partial payment, or acceptance of occupancy in whole or part of the Work shall waive or release any of the provisions of this Article.

4.2 Insurance

The Contractor shall obtain, and at all times during performance of the Work of Contract, maintain all of the insurance described in this Article. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the City that it has secured all insurance required hereunder. Contractor shall not allow any Subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor

has secured all insurance required under this Article. Failure to provide and maintain all required insurance shall be grounds for the City to terminate this Contract for cause. Contractor shall furnish the City with original certificates of insurance and endorsements effective coverage required by this Contract on forms satisfactory to the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms acceptable to the City. All certificates and endorsements must be received and approved by the City before Work commences.

- A. **Additional Insureds; Waiver of Subrogation.** The City, its officials, officers, employees, agents and authorized volunteers shall be named as Additional Insureds on Contractor's All Risk policy and on Contractor's and its subcontractors' policies of Commercial General Liability and Automobile Liability insurance using, for Contractor's policy/ies of Commercial General Liability insurance, ISO CG forms 20 10 and 20 37 (or endorsements providing the exact same coverage, including completed operations), and, for subcontractors' policies of Commercial General Liability insurance, ISO CG form 20 38 (or endorsements providing the exact same coverage). Notwithstanding the minimum limits set forth in this Contract for any type of insurance coverage, all available insurance proceeds in excess of the specified minimum limits of coverage shall be available to the parties required to be named as Additional Insureds hereunder. All insurance coverage maintained or procured pursuant to this Contract shall be endorsed to waive subrogation against the City, its officers, officials, agents, employees or volunteers or shall specifically allow Contractor - or others providing insurance evidence in compliance with these specifications - to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against the City, and shall require similar written express waivers and insurance clauses from each of its subcontractors. Copies of these waivers shall be submitted to the City prior to commencement of work.
- B. **Workers' Compensation Insurance.** The Contractor shall provide workers' compensation insurance for all of the employees engaged in Work under this Contract, on or at the Site, and, in case of any sublet Work, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all the latter's employees as prescribed by State law. Any class of employee or employees not covered by a subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in work under this Contract, on or at the Site, is not protected under the Workers' Compensation Statutes, the Contractor shall provide or shall cause a subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected. The Contractor is required to secure payment of compensation to his employees in accordance with the provisions of section 3700 of the Labor Code. The Contractor shall file with the City certificates of his insurance protecting workers. Company or companies providing insurance coverage shall be acceptable to the City, if in the form and coverage as set forth in the Contract Documents.
- C. **Employer's Liability Insurance.** Contractor shall provide Employer's Liability Insurance, including Occupational Disease, in the amount of at least one million dollars (\$1,000,000.00) per person per accident. Contractor shall provide the City with a certificate of Employer's Liability Insurance. Such insurance shall comply with the provisions of the Contract Documents. The policy shall be endorsed, if

applicable, to provide a Borrowed Servant/Alternate Employer Endorsement and contain a Waiver of Subrogation in favor of the City.

- D. Commercial General Liability Insurance.** Contractor shall provide “occurrence” form Commercial General Liability insurance coverage at least as broad as the most current ISO CGL Form 00 01, including but not limited to, premises liability, contractual liability, products/completed operations, personal and advertising injury which may arise from or out of Contractor’s operations, use, and management of the Site, or the performance of its obligations hereunder. The policy shall not contain any exclusion contrary to this Contract including but not limited to endorsements or provisions limiting coverage for (1) contractual liability (including but not limited to ISO CG 24 26 or 21 39); or (2) cross-liability for claims or suits against one insured against another. Policy limits shall not be less than \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Defense costs shall be paid in addition to the limits.
1. Such policy shall comply with all the requirements of this Article. The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Contractor from liability in excess of such coverage, nor shall it limit Contractor’s indemnification obligations to the City, and shall not preclude the City from taking such other actions available to the City under other provisions of the Contract Documents or law.
 2. All general liability policies provided pursuant to the provisions of this Article shall comply with the provisions of the Contract Documents.
 3. All general liability policies shall be written to apply to all bodily injury, including death, property damage, personal injury, owned and non-owned equipment, blanket contractual liability, completed operations liability, explosion, collapse, under-ground excavation, removal of lateral support, and other covered loss, however occasioned, occurring during the policy term, and shall specifically insure the performance by Contractor of that part of the indemnification contained in these General Conditions relating to liability for injury to or death of persons and damage to property.
 4. If the coverage contains one or more aggregate limits, a minimum of 50% of any such aggregate limit must remain available at all times; if over 50% of any aggregate limit has been paid or reserved, the City may require additional coverage to be purchased by Contractor to restore the required limits. Contractor may combine primary, umbrella, and as broad as possible excess liability coverage to achieve the total limits indicated above. Any umbrella or excess liability policy shall include the additional insured endorsement described in the Contract Documents.

5. All policies of general liability insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss.

E. Automobile Liability Insurance. Contractor shall provide Automobile Liability Insurance at least as broad as ISO CA 00 01 (Any Auto) in the amount of, at least, one million dollars (\$1,000,000) per accident for bodily injury and property damage. Such insurance shall provide coverage with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible, in a form and with insurance companies acceptable to the City. All policies of automobile insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss.

F. Builder's Risk and/or Installation Floater

1. It is the Contractor's responsibility to maintain or cause to be maintained Builder's Risk ["All Risk"] extended coverage insurance on all work, material, equipment, appliances, tools, and structures that are or will become part of the Work and subject to loss or damage by fire, and vandalism and malicious mischief, in an amount to cover 100% of the replacement cost. The City accepts no responsibility for the Work until the Work is formally accepted by the City. The Contractor shall provide a certificate evidencing this coverage before commencing performance of the Work.
2. The named insureds shall be Contractor, all Subcontractors of any tier (excluding those solely responsible for design work), suppliers, and the City, its elected officials, officers, employees, agents and authorized volunteers, as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Work following acceptance by the City.
3. Policy shall be provided for replacement value on an "all risk" basis. There shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) transit coverage, including ocean marine coverage (unless insured by the supplier), with sub-limits sufficient to insure the full replacement value of any key equipment item; and (5) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Site. Such insurance shall be on a form acceptable to the City to ensure adequacy and sublimit.
4. In addition, the policy shall meet the following requirements:
 - a. Insurance policies shall be so conditioned as to cover the performance of any extra work performed under the Contract.

- b. Coverage shall include all materials stored on site and in transit.
 - c. Coverage shall include Contractor's tools and equipment.
 - d. Insurance shall include boiler, machinery and material hoist coverage.
- G. **Contractor's Pollution Liability Coverage.** Contractor shall provide pollution liability insurance in an amount not less than one million dollars (\$1,000,000) per occurrence and two millions dollars (\$2,000,000) aggregate.
- H. Contractor shall require all tiers of Subcontractors working under this Contract to provide the insurance required under this Article unless otherwise agreed to in writing by the City. Contractor shall make certain that any and all Subcontractors hired by Contractor are insured in accordance with this Contract. If any Subcontractor's coverage does not comply with the foregoing provisions, Contractor shall indemnify and hold the City harmless from any damage, loss, cost, or expense, including attorneys' fees, incurred by the City as a result thereof.
- I. Notwithstanding the minimum limits set forth in this Contract for any type of insurance coverage, if Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

J. Form and Proof of Carriage of Insurance

1. Any insurance carrier providing insurance coverage required by the Contract Documents shall be admitted to and authorized to do business in the State of California unless waived, in writing, by the City's Risk Manager. Carrier(s) shall have an A.M. Best rating of not less than an A:VIII. Insurance deductibles or self-insured retentions must be declared by the Contractor. At the election of the City the Contractor shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. If umbrella or excess liability coverage is used to meet any required limit(s) specified herein, the Contractor shall provide a "follow form" endorsement satisfactory to the City indicating that such coverage is subject to the same terms and conditions as the underlying liability policy.
2. Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be suspended, voided, reduced or cancelled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the City, its officials, officers, agents, employees, and volunteers.
3. The Certificates(s) and policies of insurance shall contain or shall be endorsed to contain the covenant of the insurance carrier(s) that it shall provide no less than thirty (30) days written notice be given to the City prior to any material modification or cancellation of such insurance. In the event of a material

modification or cancellation of coverage, the City may terminate the Contract or stop the Work in accordance with the Contract Documents, unless the City receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. Contractor shall not take possession, or use the Site, or commence operations under this Contract until the City has been furnished original Certificate(s) of Insurance and certified original copies of endorsements or policies of insurance including all endorsements and any and all other attachments as required in this Article. The original endorsements for each policy and the Certificate of Insurance shall be signed by an individual authorized by the insurance carrier to do so on its behalf.

4. The Certificate(s) of Insurance, policies and endorsements shall so covenant and shall be construed as primary, and the City's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.
5. The City reserves the right to adjust the monetary limits and types of insurance coverages during the term of this Contract including any extension thereof if, in the City's reasonable judgment, the amount or type of insurance carried by the Contractor becomes inadequate.
6. Contractor shall report to the City, in addition to the Contractor's insurer, any and all insurance claims submitted by the Contractor in connection with the Work under this Contract.
7. Products/completed operations coverage shall extend a minimum of three years after the project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officers, officials, agents employees, and volunteers shall be included as insureds under the policy.

ARTICLE 5 -CONTRACTOR RESPONSIBILITIES; REGULATORY REQUIREMENTS

5.1 Applicable Laws

- A. Contractor shall give all notices required by and shall comply with all Applicable Laws applicable to the performance of the Work. Except where otherwise expressly required by Applicable Laws, neither the City nor the City's Representative shall be responsible for monitoring Contractor's compliance with any Applicable Laws. If Contractor performs any Work knowing or having reason to know that it is contrary to Applicable Laws, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work.

5.2 Permits and Licenses

- A. Permits and licenses necessary for prosecution of the Work shall be secured and paid for by Contractor, including, but not limited to, excavation permit, for plumbing, mechanical and electrical work and for operations in or over public streets or right of way under jurisdiction of public agencies other than the City, unless otherwise specified in the Contract Documents.
- B. The Contractor shall arrange and pay for all off-site inspection of the Work related to permits and licenses, including certification, required by the specifications, drawings, or by governing authorities, except for such off-site inspections delineated as the City's responsibility pursuant to the Contract Documents.
- C. Before acceptance of the Work, the Contractor shall submit all licenses, permits, certificates of inspection and required approvals to the City.

5.3 Taxes

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid in accordance with the Applicable Laws of the place of the Project which are applicable during the performance of the Work. In accordance with Revenue and Taxation Code section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible.

5.4 Traffic Control

- A. Traffic control plans, if required, shall be prepared at Contractor's expense. Traffic control shall be performed at Contractor's expense in accordance with the requirements of the City and/or the local agency with jurisdiction. Costs for traffic control plans, implementation of traffic control, or traffic signal services required by the City shall be included in the Contractor's Bid.
- B. All warning signs and safety devices used by the Contractor to perform the Work shall conform to the requirements contained in the State of California, Department of Transportation's current edition of "Manual of Traffic Controls for Construction and Maintenance Work Zones" or to the requirements of the local agency. The Contractor shall also be responsible for all traffic control required by the agency having jurisdiction over the Project on the intersecting streets. Contractor must submit a traffic control plan to the agency having jurisdiction over the Project for approval prior to starting Work.
- C. The Contractor's representative on the site responsible for traffic control shall produce evidence that he/she has completed training acceptable to the California Department of Transportation for safety through construction zones. All of the streets in which the Work will occur shall remain open to traffic and one lane of traffic maintained at all times unless otherwise directed by the agency of jurisdiction. Businesses and residences adjacent to the Work shall be notified forty-eight (48) hours in advance of closing of driveways. The Contractor shall make every effort to minimize the amount of public parking temporarily eliminated due to

construction in areas fronting businesses. No stockpiles of pipe or other material will be allowed in traveled right-of-ways after working hours unless otherwise approved by the Engineer.

5.5 Safety

- A. Contractor shall be solely responsible for all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety laws. Contractor shall comply with all Applicable Laws relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- B. The Contractor shall maintain emergency first aid treatment for his employees which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*), and California Code of Regulations, Title 8, Industrial Relations Division 1, Department of Industrial Relations, Chapter 4. The Contractor shall ensure the availability of emergency medical services for its employees in accordance with California Code of Regulations, Title 8, Section 1512. The Contractor shall submit an Illness and Injury Prevention Program and a Project Site specific safety program to the City prior to beginning Work. Contractor shall maintain a confined space program that meets or exceeds the City's standards. Contractor needs to make themselves aware of the City's safety policies and procedures, and shall meet or exceed all City standards in areas where the City must enter to perform inspections.
- C. Hazard Communication Programs. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Applicable Laws.

5.6 Hazardous Materials

- A. The City shall not be responsible for any Hazardous Waste brought to the site by the Contractor. If the Contractor: (i) introduces and/or discharges a Hazardous Waste onto the site in a manner not specified by the Contract Documents; and/or (ii) disturbs a Hazardous Material identified in the Contract Documents, the Contractor shall hire a qualified remediation contractor at Contractor's sole cost to eliminate the condition as soon as possible. Under no circumstance shall the Contractor perform Work for which it is not qualified. The City, in its sole discretion, may require the Contractor to retain at Contractor's cost an independent testing laboratory.
- B. If the Contractor encounters a Hazardous Waste which may cause foreseeable injury or damage, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such material or substance

(except in an emergency situation); and (iii) notify the City (and promptly thereafter confirm such notice in writing).

- C. Subject to Contractor's compliance with this Article 5.6(B), the City shall verify the presence or absence of the Hazardous Waste reported by the Contractor, except as qualified under Article 5.6(A) and Article 5.6(B) in the event such material or substance is found to be present, verify that the levels of the hazardous material are below OSHA Permissible Exposure Levels and below levels which would classify the material as a state of California or federal hazardous waste. When the material falls below such levels, Work in the affected area shall resume upon direction by the City.
- D. Contractor shall indemnify and hold harmless the City from and against claims, damages, losses and expenses, arising from a Hazardous Waste on the Project Site, if such Hazardous Waste exceeded OSHA Permissible Exposure Levels or levels which would classify the material as a state of California or federal hazardous waste, and was either i) shown on the Contract Documents or information available to bidders; or (ii) brought to the site by Contractor. Nothing in this paragraph shall obligate the Contractor to indemnify the City in the event of the sole or active negligence or willful misconduct of the City, its officers, agents, or employees.

5.7 Sanitary Facilities.

- A. Contractor shall provide sanitary temporary toilet buildings and hand washing facilities for the use of all workers. All toilets and hand washing facilities shall comply with local codes and ordinances. Toilets shall be placed inside sealed secondary containment devices installed on a flat, level surface. Accumulated liquids in the secondary containment devices shall be properly removed and legally disposed without spillage onto the ground. Toilets shall be kept supplied with toilet paper and shall have workable door fasteners. Toilets and hand washing facilities shall be serviced no less than once weekly and shall be present in a quantity of not less than 1 per 20 workers as required by Cal/OSHA regulations. The toilets and hand washing facilities shall be maintained in a sanitary condition at all times. Use of toilet and hand washing facilities in the Work under construction shall not be permitted. Any other sanitary facilities required by Cal/OSHA shall be the responsibility of the Contractor.

5.8 Dust Control

- A. Contractor, at its expense, shall maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas free from dust. Industry accepted methods of dust control suitable for the area involved, such as sprinkling, chemical treatment, light bituminous treatment or similar methods, will be permitted.

5.9 Air Pollution Control

- A. Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes. All containers of paint, thinner, curing compound, solvent or liquid

asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements.

- B. Without limiting the foregoing, Contractor must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the Air Quality Management District with jurisdiction over the Project and/or California Air Resources Board (CARB). Contractor shall specifically be aware of the application of these limits and requirements to "portable equipment", which definition includes any item of equipment with a fuel-powered engine. Contractor shall indemnify the City against any fines or penalties imposed by the air quality management district, CARB, or any other governmental or regulatory agency for its violations of Applicable Laws as well as those of its subcontractors or others for whom Contractor is responsible under its indemnity obligations provided for in the Contract Documents.

5.10 Water Quality Management and Compliance

- A. Storm, surface, ground, nuisance, or other waters may be encountered at various times during construction of the Work. The Contractor hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Bid accordingly, and assumes any and all risks and liabilities arising therefrom.
- B. Contractor shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions regulating discharges of storm water; the Federal Water Pollution Control Act (33 U.S.C. § 13000 et seq.); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); and any and all regulations, policies, or permits issued pursuant to any such authority. These include, but are not limited to California State Water Resources Control Board Order Number 2009-0009-DWQ (NPDES Permit No. CAS000002), as amended by Order Numbers 2010-0014-DWQ, 2012-0006-DWQ, and any subsequent amendment to or renewal thereof, State Water Resources Control Board Order No. 2013-0001-DWQ (NPDES Order No. CAS000004), Santa Ana Regional Water Quality Control Board No. R8-2010-0036 (NPDES No. CAS618036), and any amendment or renewal thereof.
- C. Contractor shall comply with all conditions of the State Water Resources Control Board ("State Water Board") National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity ("Construction General Permit") for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development or sale. Contractor shall comply with the lawful requirements of the City, and any other applicable municipality, drainage district, or other local agency with jurisdiction over the location where the Work is to be conducted, regarding discharges of storm water to separate storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.

- D. Unless otherwise specified in the Special Conditions or other portion of the Contract Documents, the City has not prepared a Storm Water Pollution Prevention Plan (“SWPPP”) or other storm water compliance plan for the Project Site. Contractor shall be responsible for filing the Notice of Intent (“NOI”) and for obtaining coverage under the Construction General Permit. This includes filing all necessary documentation including the Permit Registration Documents (“PRDs”) through the Stormwater Multiple Applications and Report Tracking System (“SMARTS”); preparing and implementing a SWPPP for the Work site; implementing all other provisions, and monitoring and reporting requirements required by the Construction General Permit; and providing a Qualified SWPPP Developer (“QSD”) and Qualified SWPPP Practitioner (“QSP”), as necessary for all Work site activities, including but not limited to preparation and submittal of all reports, plans, inspections, and monitoring information in compliance with the Construction General Permit. All submittals shall be coordinated with the City’s Legally Responsible Person and Authorized Signatory as those terms are defined in the Construction General Permit. Before any NOI, PRD, SWPPP, or other Construction General Permit-related document may be submitted to the State Water Board or implemented on the Project site, it must first be reviewed and approved by the City and/or City’s designee. Contractor shall include all costs of compliance with specified requirements in the Contract Price.
- E. The City retains the right to develop its own documentation for the Project site, including but not limited to the SWPPP, and in the alternative may require Contractor to adopt and implement portions of the City developed SWPPP. The City expressly reserves the right to procure coverage under the Construction General Permit for the Work site if Contractor fails to draft satisfactory PRDs or SWPPP or otherwise fails to proceed in a manner that complies with the requirements of the Construction General Permit. The City additionally reserves the right to hire additional contractors to maintain compliance at the Work site. Whether Contractor has adequately maintained compliance with the Construction General Permit shall be the City’s sole determination. Any costs incurred by the City in procuring coverage under the Construction General Permit, or drafting and/or implementing a SWPPP for the Work site shall be paid by Contractor.
- F. Notwithstanding the above, for those Work sites where construction activity results in the disturbance of less than one acre of total land area and/or do not need coverage under the Construction General Permit, the Contractor shall be responsible for preparing and implementing an Erosion and Sediment Control Plan in accordance with State Water Resources Control Board Order No. 2013-0001-DWQ (NPDES Order No. CAS000004) and any amendment to or renewal thereof.
- G. Failure to comply with the Construction General Permit, laws, regulations, and ordinances listed in this Article is a violation of federal and state law. Notwithstanding any other indemnity contained in these Contract Documents, Contractor agrees to indemnify and hold harmless the City, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, fees, costs, expenses, or losses or liabilities of any kind or nature which the City, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the Permit, laws, regulations, and ordinances listed above, arising out of or in connection with the Work, except for

liability resulting from the sole established negligence, willful misconduct or active negligence of the City, its officials, officers, agents, employees or authorized volunteers.

- H. The City reserves the right to defend any enforcement action or civil action brought against the City for Contractor's failure to comply with any applicable water quality law, regulation, or policy. Contractor hereby agrees to be bound by, and to reimburse the City for the costs associated with, any settlement reached between the City and any relevant enforcement entity.

5.11 Environmental Quality Protection

- A. The Contractor shall comply with all requirements of applicable federal, state, and local environmental rules and regulations. Any infractions of said rules and regulations by the Contractor during the term of the Contract, which result in penalties, will be the responsibility of the Contractor. The City operates under a number of environmental permits issued by various agencies. If due to an action, inaction, or negligence by the Contractor, the City becomes subject to non-compliance penalties, the cost of such penalties shall be borne by the Contractor.
- B. The Contractor shall exercise care to preserve the natural landscape and vegetation, and shall conduct operations so as to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the Work. Movement of crews and equipment within the rights-of-way and over routes provided for access to the Work shall be performed in a manner to prevent damage to property. When no longer required, construction roads shall be restored to original contours. Upon completion of the Work, and following removal of construction facilities and required cleanup, land used for construction purposes and not required for the completed installation shall be scarified and regraded, as required, so that all surfaces are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
- C. If, in the performance of the Work, evidence of the possible occurrence of any Federally listed threatened or endangered plant or animal is discovered, the Contractor shall notify the City Representative immediately, giving the location and nature of the findings. Written confirmation of the evidence, location and nature of the findings shall be forwarded to City within two (2) Days. The Contractor shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the endangered plant or animal. If directed by the City Representative, Contractor will refrain from working in the immediate area, suspend the Work in its entirety, or alter its performance to ensure full compliance with all applicable permits, laws and regulations. Any City directed changes to the Work as a result of a siting will be pursuant to the Contract Documents. Any costs or delays incurred by City or the Contractor due to unreasonable or false notification of an endangered plant or animal will be borne by the Contractor.
- D. If, in the performance of the Work, Contractor should unearth cultural resources (for example, human remains, animal bones, stone tools, artifacts and/or midden deposits) through excavation, grading, watering or other means, the Contractor shall notify the construction/archeological monitor and/or the City Representative immediately, giving the location and nature of the findings. Written confirmation of

the evidence, location and nature of the findings shall be forwarded to the construction/archeological monitor and/or City within two (2) Days. The Contractor shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the cultural resource. If directed by the City Representative, Contractor will refrain from working in the immediate area, suspend the Work in its entirety, or re-sequence and/or alter its performance to ensure full compliance with all applicable permits, laws and regulations. Should the presence of cultural resources be confirmed, the Contractor will assist the City Representative and the construction/archeological monitor in the preparation and implementation of a data recovery plan. The Contractor shall provide such cooperation and assistance as may be necessary to preserve the cultural resources for removal or other disposition. Any City directed changes to the Work as a result of the cultural resource will be pursuant to the Contract Documents. Should Contractor, without permission, injure, destroy, excavate, appropriate, or remove any cultural resource on or adjacent to the Site, it will be subject to disciplinary action, arrest and penalty under applicable law. The Contractor shall be principally responsible for all costs of mitigation and/or restoration of cultural resources related to the unauthorized actions identified above. Contractor shall be required to pay for unauthorized damage and mitigation costs to cultural resources (historical and archeological resources) as a result of unauthorized activities that damage cultural resources and shall indemnify City pursuant to the Contract Documents.

5.12 Excessive Noise

- A. Contractor shall use only such equipment on the Work and in such state of repair so that the emission of sound therefrom is within the noise tolerance level of that equipment as established by Cal/OSHA. Contractor shall comply with the most restrictive of the following: (1) local sound control and noise level rules, regulations and ordinances and (2) the requirements contained in these Contract Documents, including hours of operation requirements.
- B. No internal combustion engine shall be operated on the Project without a muffler of the type recommended by the manufacturer. Should any muffler or other control device sustain damage or be determined to be ineffective or defective, the Contractor shall promptly remove the equipment and shall not return said equipment to the job until the device is repaired or replaced. Said noise and vibration level requirements shall apply to all equipment on the job or related to the job, including but not limited to, trucks, transit mixers or transit equipment that may or may not be owned by the Contractor.

5.13 Diversion of Recyclable Waste Material

- A. In compliance with the applicable City's waste reduction and recycling efforts, Contractor shall divert all Recyclable Waste Materials to appropriate recycling centers as required for compliance with the local jurisdiction's waste diversion ordinances. Contractor will be required to submit weight tickets and written proof of diversion with its monthly progress payment requests. Contractor shall complete and execute any certification forms required by the City or other applicable agencies to document Contractor's compliance with these diversion requirements.

All costs incurred for these waste diversion efforts shall be the responsibility of the Contractor.

5.14 Inspector's Field Office.

- A. If required by the City, the Contractor shall be responsible for providing the inspector's field office. The office shall be a substantial waterproof construction with adequate natural light and ventilation by means of stock design windows. Door shall have a key type lock or padlock clasp. The office shall have heating and air conditioning and shall be equipped with a telephone, a telephone answering machine, an ability to connect to the internet, and a fax machine at Contractor's expense. The field office shall be provided within 20 Days of the Notice to Proceed.
- B. A table satisfactory for the study of plans and two chairs shall be provided by Contractor. Contractor shall provide and pay for adequate electric lights, local telephone service, and adequate heat and air conditioning for the field office until authorized removal.

5.15 Contractor's Supervision.

- A. Contractor shall continuously keep at the Project site, a competent and experienced full-time Project superintendent acceptable to the City. Superintendent must be able to proficiently speak, read and write in English and shall have the authority to make decisions on behalf of the Contractor. Contractor shall continuously provide efficient supervision of the Project.

5.16 Workers.

- A. Contractor shall at all times enforce strict discipline and good order among its employees. Contractor shall not employ on the Project any unfit person or any one not skilled in the Work assigned to him or her.
- B. Any person in the employ of the Contractor whom the City may deem incompetent or unfit shall be dismissed from the Work and shall not be employed on this Project.

5.17 Independent Contractors.

- A. Contractor shall be an independent contractor for the City and not an employee. Contractor understands and agrees that it and all of its employees shall not be considered officers, employees, or agents of the City and are not entitled to benefits of any kind normally provided employees of the City, including but not limited to, state unemployment compensation or workers' compensation. Contractor assumes full responsibility for the acts and omissions of its employees or agents related to the Work.
- B. In the event that Contractor or any employee, agent, or subcontractor of Contractor providing services under this Agreement claims or is determined by a court of competent jurisdiction or the California Public Employees Retirement System ("PERS") to be eligible for enrollment in PERS as an employee of the City,

Contractor shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

- C. Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing service under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in PERS as an employee of City and entitlement to any contribution to be paid by City for employer contribution and/or employee contributions for PERS benefits..

5.18 Verification of Employment Eligibility.

- A. By executing the Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subcontractors, sub-subcontractors and consultants to comply with the same. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor and that any of the following shall be grounds for the City to terminate the Contract for cause: (1) failure of the Contractor or its Subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for in this Article; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

5.19 Labor.

A. Hours of Work

1. As provided in Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, Contractor stipulates that eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract is limited and restricted to eight (8) hours during any one calendar day and 40 hours during any one calendar week, except as hereinafter provided. Notwithstanding the provisions herein above set forth, work performed by employees of Contractor in excess of eight (8) hours per day, and 40 hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.
2. The Contractor and every Subcontractor shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all

reasonable hours to the inspection of the City and to the Division of Labor Law Enforcement, Department of Industrial Relations of the State of California.

3. The Contractor shall pay to the City a penalty of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and 40 hours in any one calendar week in violation of the provisions of Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code.
4. Any work necessary to be performed after regular working hours, or on Saturdays and Sundays or other holidays, shall be performed without additional expense to the City.
5. If Contractor gives notice of an inspection pursuant to the Contract Documents, the City will provide inspection during normal working hours from 7:00 a.m. to 3:30 p.m. Monday through Friday. Requested inspections before or after this time will be charged to the Contractor as reimbursable inspection time. Inspections on weekends requires two (2) Days' notice for review and approval. Upon written request and approval the 8.5 hour working day may be changed to other limits subject to city/county ordinance.
6. It shall be unlawful for any person to operate, permit, use, or cause to operate any of the following at the Project Site, other than between the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, with no Work allowed on City-observed Holidays, unless otherwise approved by the City:
 - a. Powered Vehicles
 - b. Construction Equipment
 - c. Loading and Unloading Vehicles
 - d. Domestic Power Tools

B. Payroll Records; Labor Compliance

1. Pursuant to Labor Code section 1776, Contractor and all subcontractors shall maintain weekly certified payroll records, showing the names, addresses, Social Security numbers, work classifications, 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 them in connection with the Work under this Contract. Contractor shall certify under penalty of perjury that records maintained and submitted by Contractor are true and accurate. Contractor shall also require Subcontractor(s) to certify weekly payroll records under penalty of perjury.
2. In accordance with Labor Code section 1771.4, the Contractor and each Subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations ("DIR") on the specified interval and format prescribed by the DIR, which may include electronic submission. Contractor shall comply with

all requirements and regulations from the DIR relating to labor compliance monitoring and enforcement. The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

3. Any stop orders issued by the DIR against Contractor or any Subcontractor that affect Contractor's performance of Work, including any delay, shall be Contractor's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Contractor caused delay subject to any applicable liquidated damages and shall not be compensable by the City. Contractor shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the DIR against Contractor or any Subcontractor.
4. The payroll records described herein shall be certified and submitted by the Contractor at a time designated by the City. The Contractor shall also provide the following:
 - a. A certified copy of the employee's payroll records shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
 - b. A certified copy of all payroll records described herein shall be made available for inspection or furnished upon request of the DIR.
5. Unless submitted electronically, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement ("DLSE") of the DIR or shall contain the same information as the forms provided by the DLSE.
6. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency, the City, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.
7. In the event of noncompliance with the requirements of this Article, the Contractor shall have ten (10) Days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Article. Should noncompliance still be evident after such 10-day period, the Contractor shall pay a penalty of one hundred dollars (\$100.00) to the City for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payment then due.
8. The responsibility for compliance with this Article shall rest upon the Contractor.

C. Prevailing Rates of Wages

1. The Contractor is aware of the requirements of Labor Code sections 1720 *et seq.* and 1770 *et seq.*, as well as California Code of Regulations, Title 8, Section 16000 *et seq.* ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Since this Project involves an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and since the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Contract from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov. In the alternative, the Contractor may view a copy of the prevailing rate of per diem wages which are on file at the City's Administration Office and shall be made available to interested parties upon request. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Project site. Contractor shall defend, indemnify and hold the City, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.
2. The Contractor shall forfeit as a penalty to the City not more than Two Hundred Dollars (\$200.00), pursuant to Labor Code section 1775, for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate as determined by the Director of the DIR for such work or craft in which such worker is employed for any public work done under the Contract by it or by any Subcontractor under it. The difference between such prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by the Contractor.
3. Contractor shall post, at appropriate conspicuous points on the Project Site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

D. Public Works Contractor Registration

1. Pursuant to Labor Code sections 1725.5 and 1771.1, the Contractor and its Subcontractors must be registered with the DIR prior to the execution of a contract to perform public works. By entering into this Contract, Contractor represents that it is aware of the registration requirement and is currently registered with the DIR. Contractor shall maintain a current registration for the duration of the Project. Contractor shall further include the requirements of Labor Code sections 1725.5 and 1771.1 in any subcontract and ensure that all Subcontractors are registered at the time this Contract is entered into and maintain registration for the duration of the Project. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works

project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

E. Employment of Apprentices

1. Contractor and all Subcontractors shall comply with the requirements of Labor Code sections 1777.5 and 1777.6 in the employment of apprentices.
2. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.
3. Knowing violations of Labor Code section 1777.5 will result in forfeiture not to exceed one hundred dollars (\$100.00) for each calendar day of non-compliance pursuant to Labor Code section 1777.7.

F. Nondiscrimination/Equal Employment Opportunity

1. Pursuant to Labor Code section 1735 and other applicable provisions of law, the Contractor and its Subcontractors shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by law on this Project. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by law.

G. Debarment of Contractors and Subcontractors

1. Contractors or Subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code section 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid, or may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the City. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

5.20 Subcontracts.

- A. Contractor agrees to bind every Subcontractor to the terms of the Contract Documents as far as such terms are applicable to Subcontractor's portion of the Work. Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by its subcontractors, as Contractor is for acts and omissions of persons directly

employed by Contractor. Nothing contained in these Contract Documents shall create any contractual relationship between any subcontractor and the City.

- B. The City reserves the right to accept all subcontractors. The City's acceptance of any Subcontractor under this Contract shall not in any way relieve Contractor of its obligations in the Contract Documents.
- C. Prior to substituting any Subcontractor listed in the Bid Forms, Contractor must comply with the requirements of the Subletting and Subcontracting Fair Practices Act pursuant to California Public Contract Code section 4100 et seq.

5.21 Progress Meetings

- A. The Contractor shall schedule and hold regular progress meetings at least weekly and at other times as requested by Engineer or as required by progress of the Work. The Contractor, City, and all Subcontractors active on the Site shall attend each meeting. Contractor may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors. The City will preside at the progress meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings is to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the Contractor shall present any issues which may impact its progress with a view to resolve these issues expeditiously.

5.22 Submittals

- A. Schedule of Submittals. Within five (5) Days after the Notice to Proceed (unless otherwise specified in the Contract Documents), Contractor will prepare and deliver a Schedule of Submittals to the City that has been fully integrated with the progress schedule and identifies each Submittal required by the Contract Documents as well as the date on which Contractor will deliver each Submittal to the City. Each Submittal must be delivered to the City at least thirty (30) Days prior to the date the material or equipment is scheduled to be incorporated into the Work. The Contractor is responsible for any schedule delays resulting from the Submittal process.
- B. Submittal Procedures.
 - 1. Contractor will follow the following procedures for each Submittal, Shop Drawing and Sample required by the Contract Documents:
 - a. Submittals must be transmitted electronically.
 - b. Transmittals will be sequentially numbered. Contractor to mark revised Submittals with original number and sequential alphabetic suffix.
 - c. Each Submittal will identify the Project, Contractor, Subcontractor and Supplier, pertinent Drawing and detail number, and Specification Section number appropriate to Submittal.

- d. By transmitting a Submittal, Contractor certifies it has reviewed and approved each Submittal, verified products required, field dimensions, adjacent construction Work, and that coordination of information is according to requirements of the Work and Contract Documents.
 - e. Identify variations in Contract Documents and product or system limitations that may differ and/or be detrimental to successful performance of completed Work.
 - f. When Submittal is revised for resubmission, Contractor shall promptly address the City's comments and resubmit. Contractor shall identify changes made since previous submission.
 - g. The City's review of Shop Drawings shall not relieve Contractor from responsibility for deviations from the Contract Documents unless Contractor has, in writing, called the City's attention to such deviations at time of submission and the City has taken no exception to the deviation. The City's review of Shop Drawings shall not relieve Contractor from responsibility for errors in Shop Drawings.
 - h. Submittals not required by the Contract Documents or requested by the City will not be acknowledged or processed.
 - i. Incomplete Submittals will not be reviewed by the City. Delays resulting from incomplete Submittals are not the responsibility of the City.
 - j. Contractor shall not be entitled to any extension of the Contract Times as a result of the Submittal process.
 - k. Contractor shall allow a minimum of 20 working days for review of Submittals unless otherwise specified in the Contract Documents.
2. Where a Submittal, Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to the City review and approval of the pertinent submittal will be performed at the sole risk and expense and responsibility of Contractor.
- C. Schedule Milestone for Submittals. Contractor must submit all Submittals required by the Contract Documents in accordance with the Schedule of Submittals. If Contractor fails to submit the Submittals in accordance with the Schedule of Submittals, Contractor will be solely liable for any delays or impacts caused by the delayed Submittal, whether direct or indirect. Contractor will be liable for the time calculated from the date the Submittal is due until the date a compliant Submittal is made. A compliant Submittal will be one that is complete and satisfies the requirements of the Contract Documents.

5.23 Shop Drawings and Sample Submittal Procedures.

- A. Before submitting each Shop Drawing or Sample, Contractor shall have:

1. Reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 2. Determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 3. Determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 4. Determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- B. With each Submittal, Contractor shall give the City specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample Submittal and, in addition, a specific notation made on each Shop Drawing or Sample submitted to the City for review and approval of each such variation.
- C. Shop Drawings.
1. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show the City the services, materials, and equipment Contractor proposes to provide and to enable the City to review the information for assessing conformance with information given and design concept expressed in Contract Documents.
 2. When required by individual Specification sections, provide Shop Drawings signed and sealed by a professional engineer responsible for designing components shown on Shop Drawings. Shop Drawings must include signed and sealed calculations to support design in a form suitable for submission to and approval by authorities having jurisdiction.
 3. Shop Drawings for steel structures shall consist of shop details, erection and other working Drawings showing details, dimensions, sizes of members and other information necessary for the complete fabrication and erection of the metal work.
 4. Shop Drawings of concrete structures shall consist of such detailed drawings as may reasonably be required for the successful prosecution of the Work and which are not included in the Drawings furnished by the Engineer. These may include drawings for false work, bracing, centering and form work, masonry layout diagrams, and diagrams for bent reinforcement.
 5. Contractor shall make revisions and provide additional information when required by authorities having jurisdiction.

D. Samples. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as required to enable the City to review the submittal for assessing conformance with information given and design concept expressed in Contract Documents. Samples should be of appropriate size and detail to assess functional, aesthetic, color, texture, patterns and finish selection.

E. City's Review.

1. The City will review Shop Drawings and Samples in accordance with the Schedule of Submittals. The City's review and acceptance will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. The City review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. The City's review and acceptance shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless the City has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample.

F. Resubmittal Procedures. Contractor shall make corrections required by the City and shall return corrected Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by the City on previous Submittals.

5.24 Record ("As-Built") Drawings.

A. The Contractor shall maintain one record set of Contract Documents at the Site or digitally in an acceptable format. On these, it shall mark all Project conditions, locations, configurations, and any other changes or deviations which may vary from the information represented in the original Contract Documents, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Drawings. For all Projects involving the installation of any pipeline, Contractor shall survey and record the top of the pipe at a minimum of every 100 linear feet, and at each bend, recording both the horizontal and vertical locations. Said Drawings shall be supplemented by any detailed sketches as necessary or directed to fully indicate the Work as actually constructed. Any required as-built drawings of civil engineering elements of the Work shall be prepared by a registered civil engineer.

- B. These master Record Drawings of the as-built conditions, including all revisions made necessary by Addenda and Change Orders, shall be maintained up-to-date during the progress of the Project. Red ink shall be used for alterations and notes. Notes shall identify relevant Change Orders by number and date. Record Drawings shall be accessible to the Engineer at all times during the construction period. Failure on the Contractor's part to keep Record Drawings current could result in withholding partial payment.
- C. Upon completion of the Project and as a condition of final acceptance, the Contractor shall finalize and deliver a complete set of Record Drawings to the Engineers. The information submitted by the Contractor will be assumed to be correct, and the Contractor shall be responsible for, and liable to the City, for the accuracy of such information, and for any errors or omissions which may or may not appear on the Record Drawings.
- D. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete the Record Drawings shall be included in Contractor's bid and distributed in the Bid Schedule. No additional compensation shall be made to the Contractor for this Work.

5.25 Layout and Field Engineering.

- A. The Contractor shall utilize a properly licensed surveyor to perform all layout surveys required for the control and completion of the Work, and all necessary surveys to compute quantities of Work performed.

5.26 Separate Contracts and Cooperation.

- A. Separate Contracts. The City reserves the right to let other contracts in connection with this Work or on the Project site. Contractor shall permit other contractors reasonable access and storage of their materials and execution of their work and shall properly connect and coordinate its Work with theirs. To ensure proper execution of its subsequent Work, Contractor shall immediately inspect work already in place and shall at once report to the Engineer any problems with the Work in place or discrepancies with the Contract Documents.
- B. Cooperation. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by the City in prosecution of the Project to the end that Contractor may perform this Contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy at site of the Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project. If simultaneous execution of any contract for the Project is likely to cause interference with performance of some other contract or contracts, the Engineer shall decide which Contractor shall cease Work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. The City shall not be responsible for any damages suffered or for extra costs incurred by Contractor resulting directly or indirectly from award, performance, or attempted performance of any other contract or contracts on the Project Site.

5.27 Work Site.

- A. Limitation of Use of Site and Other Areas. Rights-of-way, easements, or rights-of-entry for the Work will be provided by the City. Unless otherwise specified in the Special Provisions, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the City harmless from all claims for damages caused by such actions. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Applicable Laws, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to City or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- B. Site Maintenance. During the progress of the Work, Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to Applicable Laws. The Contractor shall furnish trash bins for all debris from construction. All debris shall be placed in trash bins daily. Forms and false-work that are to be re-used shall be stacked neatly concurrently with their removal. Forms and false-work that are not to be re-used shall be disposed of concurrently with their removal.
- C. Cleaning. Prior to Completion of the Work, Contractor shall clean the Site and make it ready for utilization by the City. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

5.28 Utility Usage.

- A. All temporary utilities, including but not limited to electricity, water, gas, and telephone, used on the Work shall be furnished and paid for by Contractor. Contractor shall provide necessary temporary distribution systems, including meters, if necessary, from distribution points to points on the Work where the utility is needed. Upon completion of the Work, Contractor shall remove all temporary distribution systems. Contractor shall provide necessary and adequate utilities and pay all costs for water, electricity, gas, oil, and sewer charges required for completion of the Work, including but not limited to startup and testing required in the Contract Documents. All permanent meters installed shall be listed in the Contractor's name until the Work is accepted. For Work to be performed in existing City facilities, Contractor may use the City's existing utilities, provided such use is reasonable under the circumstances. If Contractor uses the City utilities, it will not need to compensate the City for reasonable consumption of utilities, but Contractor will be responsible for any excessive, unreasonable or wasteful utility usage. Amounts due the City under this section may be deducted from progress payments.

5.29 Protection of Work and Property.

- A. The Contractor shall digitally record video and take photographs of the Project site and adjacent improvements in a manner and quality that clearly depicts the existing condition of the Project Site and adjacent improvements immediately prior to the start of Work (minimum 1080p video and 4MP photo). All videos and photographs shall be date and time stamped. The Contractor shall submit the video and photos in digital format on a memory stick before the commencement of Work, along with a map outlining the route and locations of the videos and/or photographs. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Work. Contractor shall be responsible for the proper care and protection of all materials delivered and Work performed until completion and final acceptance by the City. All Work shall be solely at the Contractor's risk.
- B. Contractor shall adequately protect adjacent property from settlement or loss of lateral support as necessary. Contractor shall comply with all applicable safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the Project site where Work is being performed. Contractor shall erect and properly maintain at all times, as required by field conditions and progress of work, all necessary safeguards, signs, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created in the course of construction.
- C. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions.
- D. Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, and other adjoining property and structures, and to avoid damage thereto, and Contractor shall repair any damage thereto caused by the Work operations. Contractor shall:
 - 1. Enclose the working area with a substantial barricade, and arrange work to cause minimum amount of inconvenience and danger to the public.
 - 2. Provide substantial barricades around any shrubs or trees indicated to be preserved.
 - 3. Deliver materials to the Site over a route designated by the City.
 - 4. Provide any and all dust control required and follow the applicable air quality regulations as appropriate. If the Contractor does not comply immediately with a notice from the City or a public agency responsible for air quality, the City shall have the authority to provide dust control and deduct the cost from payments to the Contractor.
 - 5. Confine Contractor's apparatus, the storage of materials, and the operations of its workers to limits required by law, ordinances, permits, or directions of the City. Contractor shall not unreasonably encumber the Site with its materials.

6. Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by a civil engineer or land surveyor acceptable to the City, at no cost to the City.
 7. Ensure that existing facilities, fences and other structures are all adequately protected and that, upon completion of all Work, all facilities that may have been damaged are restored to a condition acceptable to the City.
 8. Preserve and protect from injury all buildings, pole lines and all directional, warning and mileage signs that have been placed within the right-of-way.
 9. At the completion of work each day, leave the Work and the Site in a clean, safe condition.
 10. Comply with any stage construction and/or traffic handling plans. Access to residences and businesses shall be maintained at all times, except with the City's written approval. Any request for approval to reduce or restrict access to residences and business must be submitted to the City at least seven (7) Days in advance, and the City may issue or withhold approval in its sole discretion.
- E. These precautionary measures will apply continuously and not be limited to normal working hours. Full compensation for the work involved in the protection and preservation of life, safety and property as above specified shall be considered as included in the prices paid for the various contract items of Work, and no additional allowance will be made therefor.
- F. Should damage to persons or property occur as a result of the Work, Contractor shall promptly notify the City, in writing. Contractor shall be responsible for proper investigation, documentation, including video or photography, to adequately memorialize and make a record of what transpired. The City shall be entitled to inspect and copy any such documentation, video, or photographs.
- G. Contractor shall maintain all investigation documentation including video and/or photographs for a minimum of four (4) years following completion of the Project.

5.30 Emergencies.

- A. In emergencies affecting the safety or protection of persons or the Work or Property at the Site or adjacent thereto, the Contractor, without special instruction or authorization from the City or the Engineer, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Engineer prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby.

ARTICLE 6 -MATERIALS; INSPECTION

6.1 Access to Work.

- A. The City, Engineer, their consultants and other representatives and personnel, independent testing laboratories, and governmental agencies with jurisdictional

interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs.

6.2 Materials.

- A. Except as otherwise specifically stated in the Contract Documents, Contractor shall provide and pay for all materials, labor, tools, equipment, water, lights, power, transportation, superintendence, temporary constructions of every nature, and all other services and facilities whatsoever necessary to execute and complete this Contract within the Contract Time. Unless otherwise specified, all materials, parts, and equipment furnished by the Contractor in the Work shall be new, the best of their respective kinds and grades as noted and/or specified, and workmanship shall be of good quality.
- B. No materials, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the Work and agrees upon completion of all work to deliver the Project, to the City free from any claims, liens, or charges.
- C. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of the Work and shall be stored properly and protected as required by the Contract Documents. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or Work. Materials shall be stored on the Project Site in such manner so as not to interfere with any operations of the City or any independent contractor.
- D. Contractor shall verify all measurements, dimensions, elevations, and quantities before ordering any materials or performing any Work, and the City shall not be liable for Contractor's failure to do so. Except for an adjustment to Unit Price Work for item overruns and underruns in accordance with the Contract Documents, no additional compensation, over and above payment for the actual quantities at the prices set out in the Bid Schedule, will be allowed because of differences between actual measurements, dimension, elevations and quantities and those indicated on the Plans and in the Specifications. Any difference therein shall be submitted to the Engineer for consideration before proceeding with the Work.

6.3 Test and Inspections.

A. Inspection and Testing of Work and Materials

- 1. If the Contract Documents, the Engineer, or any instructions, laws, ordinances, or public authority requires any part of the Work to be tested or approved, Contractor shall provide the Engineer at least two (2) working days' notice of its readiness for observation or inspection. If inspection is by a public authority other than the City, Contractor shall promptly inform the City of the date fixed for such inspection. Required certificates of inspection (or similar) shall be secured by Contractor. Costs for City testing and inspection shall be paid by the City.

Costs of tests for Work found not to be in compliance shall be paid by the Contractor.

2. The Contractor shall pay for the cost of any minimum “show up” costs of a materials testing technician that was called for by the Contractor but ultimately the Contractor work was not ready for the inspection. Any such costs shall be deducted from any amounts due to the Contractor.
3. If any Work is done or covered up without the required testing or approval, the Contractor shall uncover or deconstruct the Work, and the Work shall be redone after completion of the testing at the Contractor’s cost in compliance with the Contract Documents.
4. Where inspection and testing are to be conducted by an independent laboratory or agency, materials or samples of materials to be inspected or tested shall be selected by such laboratory or agency, or by the City, and not by Contractor. Unless otherwise stated and as provided by the Contract Documents, the City shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents. All tests or inspections of materials shall be made in accordance with the commonly recognized standards of national organizations.
5. Reexamination of Work may be ordered by the City. If so ordered, Work must be uncovered or deconstructed by Contractor. If Work is found to be in accordance with the Contract Documents, the City shall pay the costs of reexamination and reconstruction. If such work is found not to be in accordance with the Contract Documents, Contractor shall pay all costs.

B. Testing of Materials

1. In advance of manufacture of materials to be supplied by Contractor which must be tested or inspected, Contractor shall notify the City so that the City may arrange for testing at the source of supply. Any materials which have not satisfactorily passed such testing and inspection shall not be incorporated into the Work.
2. If the manufacture of materials to be inspected or tested will occur in a plant or location greater than sixty (60) miles from the City, the Contractor shall pay for any excessive or unusual costs associated with such testing or inspection, including but not limited to excessive travel time, standby time and required lodging.
3. Unless otherwise specified in the Special Provisions, all initial testing and a reasonable amount of retesting will be performed under the direction of the Engineer, and at no expense to the Contractor. The Contractor shall notify the Engineer in writing, at least 15 days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material. If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor’s

responsibility to re-notify the Engineer when samples which are representative may be obtained.

4. A Certificate of Compliance shall be furnished to the Engineer prior to the use of any material or assembled material for which these Specifications so require or if so required by the Engineer. The Engineer may waive the materials testing requirements and accept a Certificate of Compliance. Material test data may be required by the Engineer to be included with the submittal. Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The submission of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material into the Work which conforms to the requirements of the Contract Documents, and any material not conforming to the requirements will be subject to rejection by the Engineer whether in place or not.
5. Copies of mill certificates of composition and quality of all component materials (reinforcing steel, structural steel, lumber, etc.) incorporated in the construction of the Work shall be provided to the City at the time of delivery. City shall retain the right to reject any raw material not provided with a mill certificate at the time of delivery.
6. If, after incorporating such materials into the Work, it is found that sources of supply that have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources. If any product proves unacceptable after improper storage, handling or for any other reason it shall be rejected, not incorporated into the Work, and shall be removed from the Project Site all at the Contractor's expense.

6.4 Requests for Substitutions.

- A. For the purposes of this provision, the term "substitution" shall mean the substitution of any material, method or service substantially equal to or better in every respect to that indicated in the Standard Specifications or otherwise referenced herein.
- B. Pursuant to Public Contract Code section 3400(b), the City may make a finding that is described in the Notice Inviting Bids that designates certain products, things, or services by specific brand or trade name.
- C. Unless specifically designated in the Special Conditions, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating the description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer for substitution any material, process, or article which may be substantially equal to or better in every respect to that so indicated or specified in the Contract Documents. However, the City has adopted uniform standards for certain materials, processes, and articles.
- D. The Contractor shall submit substitution requests, together with substantiating data, for substitution of any "or equal" material, process, or article no later than

thirty-five (35) calendar days after award of Contract. Provisions regarding submission of substitution requests shall not in any way authorize an extension of time for the performance of this Contract. If a substitution request is rejected by the City, the Contractor shall provide the material, method or service specified herein. The City shall not be responsible for any costs incurred by the Contractor associated with substitution requests. The burden of proof as to the equality of any material, process, or article shall rest with the Contractor. The Engineer has the complete and sole discretion to determine if a material, process, or article is substantially equal to or better than that specified and to approve or reject all substitution requests.

- E. Substantiating data as described above shall include, at a minimum, the following information:
 - 1. A signed affidavit from the Contractor stating that the material, process, or article proposed as a substitution is substantially equal to or better than that specified in every way except as may be listed on the affidavit.
 - 2. Illustrations, specifications, catalog cut sheets, and any other relevant data required to prove that the material, process, or article is substantially equal to or better than that specified.
 - 3. A statement of the cost implications of the substitution being requested, indicating whether and why the proposed substitution will reduce or increase the amount of the contract.
 - 4. Information detailing the durability and lifecycle costs of the proposed substitution.
- F. Failure to submit all the required substantiating data detailed above in a timely manner so that the substitution request can be adequately reviewed may result in rejection of the substitution request. The Engineer is not obligated to review multiple submittals related the same substitution request resulting from the Contractor's failure to initially submit a complete package.
- G. Time limitations within this Article shall be strictly complied with and in no case will an extension of time for completion of the contract be granted because of Contractor's failure to provide substitution requests at the time and in the manner described herein.
- H. The Contractor shall bear the costs of all the City work associated with the review of substitution requests.
- I. If substitution requests approved by the Engineer require that Contractor furnish materials, methods or services more expensive than that specified, the increased costs shall be borne by Contractor.

ARTICLE 7 -SUBSURFACE AND PHYSICAL CONDITIONS; UTILITIES

7.1 Soils Investigations.

- A. When a soils investigation report for the Site is available, such report is provided for informational purposes only. Any information obtained from such report as to subsurface soil condition, or to elevations of existing grades or elevations of underlying rock, is approximate only and is not guaranteed. Contractor acknowledges that any soils investigation report (including any borings) was prepared for purposes of design only and Contractor is required to examine the Site before submitting its Bid and must make whatever tests it deems appropriate to determine the condition of the soil.

7.2 Ownership of Site Materials Found.

- A. The title to water, soil, rock, gravel, sand, minerals, timber and any other materials developed or obtained in the excavation or other operations of Contractor or any of its Subcontractors in the performance of the Contract, and the right to use said items in carrying out the Contract, or to dispose of same, is hereby expressly reserved by the City. Neither Contractor nor any of its Subcontractors nor any of their representatives or employees shall have any right, title, or interest in said materials, nor shall they assert or make any claim thereto. Contractor will, as determined by the City's Representative, be permitted to use in the Work without charge, any such materials which meet the requirements of the Contract Documents, provided the City shall have the right to use or consume these materials without payment to a third party.

7.3 Existence of Utilities at the Work Site.

A. Existing Utilities

1. The location of known existing utilities and pipelines are shown on the Plans in their approximate locations. However, nothing herein shall be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the site of the project can be inferred from the presence of other visible facilities, such as buildings, cleanouts, meter and junction boxes, on or adjacent to the Site of the Project.
2. The City will assume the responsibility for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Project site if such utilities are not identified by the City in the Contract Documents or which cannot reasonably be inferred from the presence of other visible facilities.

B. Utility Location

1. It shall be the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective utility owners and which the Contractor believes may affect or be affected by the Contractor's operations. The Contractor shall not be entitled to additional compensation nor time extensions for work necessary to avoid

interferences nor for repair to damaged utilities if the Contractor does not expose all such existing utilities as required by this Article.

2. The locating of utilities shall be in conformance with Government Code Section 4216 et seq. except for the City's utilities located on the City's property and not on public right-of-way.
3. A "High Priority Subsurface Installation" is defined in Government Code Section 4216 (j) as "high-pressure natural gas pipelines with normal operating pressures greater than 415kPA gauge (60psig) or greater than six inches nominal pipe diameter, petroleum pipelines, pressurized sewage pipelines, high-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60kv, or hazardous materials pipelines that are potentially hazardous to workers or the public if damaged."
4. A "Subsurface Installation" is defined in Government Code Section 4216 (s) as "any underground pipeline, conduit, duct, wire, or other structure, except nonpressurized sewer lines, nonpressurized storm drains, or other nonpressurized drain lines."
5. Pursuant to Government Code Section 4216.2 the Contractor shall contact the appropriate regional notification center at least two (2) working days but not more than 14 Days before performing any excavation. The date of the notification shall not count as part of the two-working-day notice. Before notifying the appropriate regional notification center, the Contractor shall delineate the area to be excavated. The Contractor shall request that the utility owners conduct a utility survey and mark or otherwise indicate the location of their service. The Contractor shall furnish to the Engineer written documentation of its contact(s) with the regional notification center prior to commencing excavation at such locations.
6. After the utility survey is completed, the Contractor shall commence "potholing" or hand digging to determine the actual location of the pipe, duct, or conduit and in accordance with Government Code Section 4216.4 if the excavation within the "tolerance zone" of a subsurface installation. The Engineer shall be given notice prior to commencing potholing operations. The Contractor shall uncover all piping and conduits, to a point one (1) foot below the pipe, where crossings, interferences, or connections are shown on the Drawings, prior to trenching or excavating for any pipe or structures, to determine actual elevations. New pipelines shall be laid to such grade as to clear all existing facilities, which are to remain in service for any period subsequent to the construction of the run of pipe involved.
7. The Contractor's attention is directed to the requirements of Government Code Section 4216.2 (c) which provides: "When the excavation is proposed within 10 feet of a high priority subsurface installation, the operator of the high priority subsurface installation shall notify the excavator of the existence of the high priority subsurface installation to set up an onsite meeting prior to the legal excavation start date and time or at a mutually agreed upon time to determine actions or activities required to verify the location and prevent damage to the high priority subsurface installation. As part of the meeting, the excavator shall

discuss with the operator the method and tools that will be used during the excavation and the information the operator will provide to assist in verifying the location of the subsurface installation. The excavator shall not begin excavating until after the completion of the onsite meeting.” The Contractor shall notify the Engineer in advance of this meeting.

C. Utility Relocation and Repair

1. If interferences occur at locations other than those indicated in the Contract Documents with reasonable accuracy, the Contractor shall notify the Engineer in writing. The Engineer will supply a method for correcting said interferences in accordance with the responsibilities of this section and Government Code Section 4215. To the extent any delay is caused thereby, Contractor shall submit a notice of delay within five (5) Days of discovery of the circumstances giving rise to the delay in accordance with Article 9.1 Change Orders and Time Extensions.
2. Care shall be exercised by the Contractor to prevent damage to adjacent existing facilities and public or private works; where equipment will pass over these obstructions, suitable planking shall be placed. If high priority subsurface installations are damaged and the operator cannot be contacted, the Contractor shall call 911 emergency services.
3. The City will compensate the Contractor for the costs of locating and repairing damage not due to the failure of the Contractor to exercise reasonable care, and for removing or relocating such main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy, and for the cost of equipment on the Project necessarily idled during such work. The payment for such costs will be made as provided in Article 9.1 Change Orders and Time Extensions. The Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay is caused by the failure of the City or utility company to provide for removal or relocation of such utility facilities. Requests for extensions of time arising out of utility relocation or repair delays shall be filed in accordance with Article 9.1 Change Orders and Time Extensions and Article 9.3 Time for Completion and Liquidated Damages.
4. The public utility, where it is the owner of the affected utility, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The right is reserved to the City and the owners of utilities or their authorized agents to enter upon the Work area for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct its operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such forces and shall allow the respective utilities time to relocate their facility.
5. When the Contract Documents indicate that a utility is to be relocated, altered or constructed by others, the City will conduct all negotiations with the utility company and the work will be done at no cost to the Contractor, unless otherwise stipulated in the Contract Documents.

6. Temporary or permanent relocation or alteration of utilities desired by the Contractor for its own convenience shall be the Contractor's responsibility and it shall make arrangements and bear all costs for such work.

D. Construction at Existing Utilities

1. Where the Work to be performed crosses or otherwise interferes with water, sewer, gas, or oil pipelines; buried cable; or other public or private utilities, the Contractor shall perform construction in such a manner so that no damage will result to either public or private utilities. It shall be the responsibility of the Contractor to determine the actual locations of, and make accommodations to maintain, all utilities.
2. Before any utility is taken out of service, permission shall be obtained by the Contractor from the owner. The owner, any impacted resident or business owner and the City Representative will be advised of the nature and duration of the utility outage as well as the Contractor's plan for providing temporary utilities if required by the owner. The Contractor shall be liable for all damage which may result from its failure to maintain utilities during the progress of the Work, and the Contractor shall indemnify City as required by the Contract Documents from all claims arising out of or connected with damage to utilities encountered during construction; damages resulting from disruption of service; and injury to persons or damage to property resulting from the negligent, accidental, or intentional breaching of utilities.
3. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete this work, shall be included in Contractor's bid and distributed in the schedule of pay Items. No additional compensation shall be made to the Contractor for this work.

7.4 Trenches

A. Trenches Five Feet or More in Depth.

1. Contractor shall submit to the Engineer at the preconstruction meeting, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from hazards of caving ground during the excavation of any trench or trenches five feet or more in depth. If such plan varies from shoring system standards established by the Construction Safety Orders of the California Code of Regulations, Department of Industrial Relations, the plan shall be prepared by a California registered civil or structural engineer. The plan shall not be less effective than the shoring, bracing, sloping, or other provisions of the Construction Safety Orders, as defined in the California Code of Regulations. The Contractor shall designate in writing the "competent person" as defined in Title 8, California Code of Regulations, who shall be present at the Work Site each day that trenching/excavation is in progress. The "competent person" shall prepare and provide daily trenching/excavation inspection reports to the Engineer. Contractor shall also submit a copy of its annual California Occupational Safety and Health Administration (Cal/OSHA) trench/excavation permit.

B. Excavations Deeper than Four Feet.

1. If the Work involves excavating trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly within three (3) Days, and before the excavation is further disturbed, notify the City in writing of any of the following conditions:
 - a. Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - b. Subsurface or latent physical conditions at the site differing from those indicated.
 - c. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.
2. The City shall promptly investigate the conditions, and if it finds that the conditions do so materially differ, or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described in Article 9.1 Change Orders and Time Extensions.
3. In the event that a dispute arises between the City and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the parties.

ARTICLE 8 -PROSECUTION OF THE WORK

8.1 Contractor's Means and Methods.

- A. Contractor is solely responsible for the means and methods utilized to perform the Work. In no case shall the Contractor's means and methods deviate from commonly used industry standards.

8.2 Construction Schedule.

- A. General Requirements. The schedule shall be prepared in a Critical Path Method ("CPM") format and in an electronic scheduling program acceptable to the City and as specified in the Contract Documents. Contractor shall deliver the schedule and all updates to the City in both paper and electronic form. The electronic versions shall be in the format and include all data used to prepare the schedule. Copies are not acceptable.

- B. Schedule. The receipt or approval of any schedules by the City shall not in any way relieve the Contractor of its obligations under the Contract Documents. The Contractor is fully responsible to determine and provide for any and all staffing and resources at levels which allow for good quality and timely completion of the Project. Contractor's failure to incorporate all elements of Work required for the performance of the Contract or any inaccuracy in the schedule shall not excuse the Contractor from performing all Work required for a completed Project within the specified Contract Time. If the required schedule is not received by the time the first payment under the Contract is due, Contractor shall not be paid until the schedule is received, reviewed and accepted by the City.
- C. Schedule Contents. The schedule shall allow enough time for inclement weather. The schedule shall indicate the beginning and completion dates of all phases of construction; critical path for all critical, sequential time related activities; and "float time" for all "slack" or "gaps" in the non-critical activities. The schedule shall include appropriate time allowances and constraints for submittals, items of interface with Work performed by others, and specified construction, start-up and performance tests. All float shall be owned by the Project. Schedules indicating early or late completion shall not modify or have any effect on the Contract Time, regardless of whether the schedules are reviewed and/or accepted by the City. For purposes of determining Liquidated Damages, the Contract Time shall control and may only be altered by a duly authorized Change Order.
- D. Schedule Updates. Contractor shall continuously update its construction schedule. Contractor shall submit an updated and accurate construction schedule to the City: (1) prior to the start of construction, if there are any changes to the initial schedule; (2) with each progress payment request; and (3) whenever requested to do so by the City. The City may withhold progress payments or other amounts due under the Contract Documents if Contractor fails to submit an updated and accurate construction schedule. Upon the City's request, Contractor shall submit any schedules or updates to the City in the native electronic format of the software used to create the schedule. Contractor shall also submit schedules showing a two-week detailed look-ahead at weekly meetings conducted with the City. The two-week look-ahead schedule shall clearly identify all staffing and other resources which in the Contractor's judgment are needed to complete the Work within the Contract Time, and it shall clearly state the number of staff to be used on each daily segment of the Work.
- E. Acceptance. Acceptance of the schedules by the City will not impose on responsibility for accuracy, for sequencing, scheduling, or progress of the Work, or compliance with the Contract Documents. Acceptance will not interfere with or relieve Contractor from Contractor's full responsibility therefor.
- F. Recovery Schedule.
1. Should any of the following conditions exist, City may require Contractor to prepare, at no extra cost to City, a plan of action and a recovery schedule for completing the Work and achieving all contractual milestones within the allotted Contract Time:

- a. The Contractor's monthly progress report indicates delays that are, in the opinion of City, of sufficient magnitude that City questions the Contractor's ability to complete the Work;
 - b. The schedule shows the Contractor to be thirty (30) or more days behind the critical path at any time during construction;
 - c. The Contractor desires to make changes in the logic or the planned duration of future activities of the schedule which, in the opinion of City, are major in nature.
2. The recovery schedule shall include proposed revisions to the Construction Schedule, demonstrating how Contractor intends to achieve all contractual milestones including Contract completion within the allotted Contract Time. The submittal shall include a narrative describing the actions planned by the Contractor to recover the schedule.
 3. Contractor shall submit the Recovery Schedule within seven (7) Days of City's request. If Contractor asserts that City is responsible for the delay, failure to submit the recovery schedule within seven (7) Days of City's request, will be considered a concurrent delay event attributable to Contractor, and Contractor shall only be entitled to non-compensable adjustments to Contract Times. If Contractor is responsible for the delay, this provision will not limit or affect Contractor's liability and failure to submit the recovery schedule with seven (7) Days of City's request may result in City withholding progress payments or other amounts due under the Contract Documents.
 4. Contractor is responsible for all costs associated with the preparation and execution of the recovery schedule, including any necessary recovery actions, which may include, but are not limited to, assignment of additional labor, and/or equipment, shift or overtime work, expediting of submittals or deliveries, overlapping of activities or sequencing changes to increase activity concurrence. Regardless of whether City directs Contractor to prepare a recovery schedule pursuant to this Section, Contractor shall promptly undertake appropriate action at no additional cost to City to recover the schedule whenever the current construction schedule shows that the Contractor will not achieve a milestone and/or complete the Work within the allotted Contract Time.

8.3 Time for Completion and Liquidated Damages

- A. Time for Completion. The time for completion set forth in Article 2 of the Contract for Construction shall commence: (1) on the date stated in the Notice to Proceed, or (2) if the Notice to Proceed does not specify a commencement date, then on the date of the Notice to Proceed and shall be completed by Contractor in the time specified in the Contract Documents. The City is under no obligation to consider early completion of the Project; and the Contract completion date shall not be amended by the City's receipt or acceptance of the Contractor's proposed earlier completion date. Any difference in time between the Contractor's early completion and the Contract Time shall be considered a part of the Project float. Contractor shall not be entitled to compensation, and the City will not compensate Contractor, for delays which impact early completion. Contractor shall not, under any

circumstances, receive additional compensation from the City (including but not limited to indirect, general, administrative or other forms of overhead costs) for the period between the time of earlier completion proposed by the Contractor and the Contract completion date.

- B. Liquidated Damages. If the Work is not completed within the Contract Time(s), it is understood that the City will suffer damage. In accordance with Government Code section 53069.85 and Public Contract Code section 7102, being impractical and infeasible to determine the amount of actual damage, it is agreed that Contractor shall pay to the City as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Contract for each calendar day of delay until the Work is fully completed. Contractor and its surety shall be liable for any liquidated damages. Any money due or to become due the Contractor may be retained to cover liquidated damages.
- C. Inclement Weather. Contractor shall abide by the Engineer's determination of what constitutes inclement weather. Time extensions for inclement weather shall only be granted when the Work stopped during inclement weather is on the critical path of the Project schedule. Contractor shall not be entitled to reverse liquidated damages for time extensions resulting from inclement weather.
- D. Extension of Time. Contractor's entitlement to an extension of the Contract Time is limited to a City-caused extension of the critical path, reduced by the Contractor's concurrent delays, and established by a proper time impact analysis. Contractor shall not be charged liquidated damages because of any delays in completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor (or its Subcontractors or Suppliers). The City shall ascertain the facts and extent of delay and grant extension of time for completing the Work when, in its judgment, the facts justify such an extension. Contractor shall not be entitled to an adjustment in the Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.
- E. Reverse Liquidated Damages. Consistent with Public Contract Code Section 7102, Contractor will be compensated for damages incurred due to unreasonable delays to the critical path for which the City is responsible. The parties agree that determining Contractor's exact delay damages are and will continue to be impracticable and extremely difficult. As such, for each calendar day in excess of the time for completion set forth in Article 2 of the Contract for Construction, the City shall pay to the Contractor the sum stipulated in the Contract per day. Such amount shall constitute the only payment allowed for any City-caused delays and shall necessarily include all overhead, all profits, all administrative costs, all bond costs, all labor, materials, equipment and rental costs and any other costs, expenses and fees incurred or sustained as a result of such delays. Contractor shall not be entitled to reverse liquidated damages for any change in the Work in which Contractor is compensated for overhead and profit through a change in Unit Price Work or a Change Order resulting in a lump sum or allowed mark-up for the additional Work. The amount of reverse liquidated damages shall be reduced by Contractor's concurrent delays.

- F. Force Majeure. In accordance with subparagraphs “D” and “E” above, the Contractor shall not be charged liquidated damages, and the City shall not be responsible, for any delays resulting from a Force Majeure Event. If a delay to the critical path results from a Force Majeure Event, the Contractor will be entitled to a time extension but will not receive an adjustment to the Contract Price or any other compensation. Such a non-compensable adjustment shall be Contractor’s sole and exclusive remedy for such delays.
- G. No Damages for Reasonable Delay. The City’s liability to Contractor for delays for which the City is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the City be liable for any costs which are borne by the Contractor in the regular course of business, including, but not limited to, home office overhead and other ongoing costs. Damages caused by unreasonable City delay shall be based on actual costs only, no proportions or formulas shall be used to calculate any delay damages.
- H. Procedure for Time Extensions and Delay Damages. Contractor shall not be entitled to any extension of time or any reverse liquidated damages unless Contractor properly notices the delay and adjustment to compensation and requests a Change Order in accordance with Article 9.1 Change Orders and Time Extensions. Contractor’s failure to timely and fully comply with the Change Order procedures in the Contract Documents shall constitute a waiver of Contractor’s right to a time extension or reverse liquidated damages.

8.4 Contractor’s Responsibility for Work.

- A. Until the acceptance of the Work by the Engineer as evidenced in writing, it shall be under the charge and care of the Contractor. The Contractor shall take every necessary precaution against injury or damage to any part thereof by the action of the elements or from any cause whether arising from the execution or non-execution of the Work. The Contractor shall rebuild, repair, restore and make good at its own expense all injuries or damages to any portion of the Work before its completion and acceptance. In the event of damage proximately caused by an Act of God, as defined by Section 7105 of the Public Contract Code, the City will pay for repair or restoration to damaged Work in excess of 5% of the total Bid.

8.5 Occupancy.

- A. The City reserves the right to occupy or utilize any portion of the Work at any time before completion, and such occupancy or use shall not constitute acceptance of any part of Work covered by this Contract. This use shall not relieve the Contractor of its responsibilities under the Contract.

8.6 Securities for Money Withheld

- A. Pursuant to section 22300 of the Public Contract Code of the State of California, Contractor may request the City to make retention payments directly to an escrow agent or may substitute securities for any money withheld by the City to ensure performance under the contract. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the City or with

a state or federally chartered bank as the escrow agent who shall return such securities to Contractor upon satisfactory completion of the contract. Deposit of securities with an escrow agent shall be subject to a written agreement substantially in the form provided in section 22300 of the Public Contract Code.

8.7 The City's Right to Suspend/Terminate the Contract

A. Suspension of Work by the City

1. The City may, at its sole option, decide to suspend at any time the performance of all or any portion of the Work by notice in writing to Contractor. Such notice of suspension of Work will designate the amount and type of plant, labor, and equipment to be committed to the Project during the period of suspension. Contractor shall use its best efforts to utilize its plant, labor, and equipment in such a manner as to minimize costs associated with suspension.
2. Upon receipt of any such notice, Contractor shall, unless the notice requires otherwise:
 - a. Immediately discontinue Work on the date and to the extent specified in the notice;
 - b. Place no further orders or subcontracts for material, services, or facilities with respect to suspended Work other than to the extent required in the notice;
 - c. Promptly make every reasonable effort to obtain suspension upon terms satisfactory to the City's Representative of all orders, subcontracts, and rental agreements to the extent they relate to performance of Work suspended; and
 - d. Continue to protect and maintain the Work including those portions on which Work has been suspended.
3. Except as provided by this Article, as full and complete compensation for such suspension, Contractor shall be granted an adjustment in the Contract Price based on a negotiated daily rate that reflects the Contractor's actual costs associated with the demobilized condition of the Site and an extension of the Contract Times equal to the number of days performance of Work is suspended; provided, however, that no adjustment of Contract Price or extension of Contract Times shall be granted if the suspension results from Contractor's non-compliance with the requirements of the Contract.

B. Termination for Cause by the City:

1. In the sole estimation of the City, if the Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will insure its completion within the time specified by the Contract Documents, or any extension thereof, or fails to complete such Work within such time, or if the Contractor should be adjudged a bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on

account of its insolvency, or the Contractor or any of its subcontractors should violate any of the provisions of this Contract, the City may serve written notice upon the Contractor and its surety of the City's intention to terminate this Contract. This notice of intent to terminate shall contain the reasons for such intention to terminate this Contract, and a statement to the effect that the Contractor's right to perform this Contract shall cease and terminate upon the expiration of ten (10) Days unless such violations have ceased and arrangements satisfactory to the City have been made for correction of said violations.

2. After expiration of the ten (10) Day period, the City may terminate the Contract by providing a Notice of Termination to the Contractor. The City may take over and complete the Work by any method it may deem appropriate, including enforcement of the Project performance bond. Contractor and its surety shall be liable to the City for any excess costs or other damages incurred by the City to complete the Work. If the City takes over the Work, the City may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plant, and other property belonging to the Contractor as may be on the Site.
3. Upon termination, Contractor shall not be entitled to receive any further payment from the City, except for Work which was duly performed prior to the effective date of the Notice of Termination. Contractor shall submit an invoice for final payment within thirty (30) Days of the effective date of the Notice of Termination. The City may withhold from final payment up to 150% of any disputed amounts, including any amounts which may be necessary to repair defective Work, complete unfinished Work, or are otherwise occasioned by Contractor's failure to perform its duties under the Contract.

C. Termination for Convenience by the City:

1. The City may terminate performance of the Work called for by the Contract Documents in whole or, from time to time, in part, upon ten (10) Days written notice if the City determines that a termination is in the City's interest.
2. The Contractor shall terminate all or any part of the Work upon delivery to the Contractor of a Notice of Termination specifying that the termination is for the convenience of the City, the extent of termination, and the effective date of such termination.
3. After receipt of Notice of Termination, and except as directed by the City's Representative, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this termination for convenience clause, immediately proceed with the following obligations:
 - a. Stop Work as specified in the Notice.
 - b. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.

- c. Leave the property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the Contract Document is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety.
 - d. Terminate all subcontracts to the extent that they relate to the portions of the Work terminated.
 - e. Place no further subcontracts or orders, except as necessary to complete the continued portion of the Contract.
 - f. Submit to the City's Representative, within ten (10) Days from the effective date of the Notice of Termination, all of the usual documentation called for by the Contract Documents to substantiate all costs incurred by the Contractor for labor, materials and equipment through the effective date of the Notice of Termination. Any documentation substantiating costs incurred by the Contractor solely as a result of the City's exercise of its right to terminate this Contract pursuant to this clause, which costs the contractor is authorized under the Contract documents to incur, shall: (1) be submitted to and received by the Engineer no later than 30 Days after the effective date of the Notice of Termination; (2) describe the costs incurred with particularity; and (3) be conspicuously identified as "Termination Costs occasioned by the City's Termination for Convenience." If the City rejects any costs, Contractor shall be deemed to waive the rejected costs unless Contractor files a Claim within thirty (30) Days of the rejection pursuant to Article 9.2.
 - g. Contractor shall be entitled to receive only the amounts payable under this Article, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits. The provisions in this Article are in addition to and not in limitation of any other rights or remedies available to the City.
4. Termination of the Contract shall not relieve surety of its obligation for any just claims arising out of or relating to the Work performed.
 5. Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, the City may immediately order Contractor to cease Work on the Project until such safety or liability issues are addressed to the satisfaction of the City or the Contract is terminated.
 6. If the City terminates Contractor for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Contractor shall be entitled to receive only the amounts payable under this section, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

8.8 Completion and Acceptance of Work

- A. Final Inspection. Upon written notice from Contractor that the entire Work is complete, the Engineer will promptly make a final inspection with the City and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.
- B. Final Acceptance. The acceptance of the Work on behalf of the City will be made by the Engineer. Such acceptance by the City shall not constitute a waiver of defects. After Contractor has, in the opinion of the Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, Record Documents, and other documents required by the Contract Documents, the City shall execute a Notice of Completion, constituting final acceptance and completion of the Project, except as may be expressly noted.

8.9 Warranty and Guaranty of Work.

- A. Contractor hereby warrants that materials and Work shall be completed in conformance with the Contract Documents and that the materials and Work provided will fulfill the requirements of this Warranty. Contractor hereby agrees to repair or replace, at the discretion of the City, any or all Work that may prove to be defective in its workmanship, materials furnished, methods of installation or fail to conform to the Contract Document requirements together with any other Work which may be damaged or displaced by such defect(s) within a period of one (1) year (or as otherwise indicated in the Contract Documents or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) from the date of the Notice of Completion of the Project without any expense whatever to the City, ordinary wear and tear and unusual abuse and neglect excepted. Contractor shall be required to promptly repair or replace defective equipment or materials, at Contractor's option. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstatement of equipment and materials necessary to gain access, shall be the sole responsibility of the Contractor.
- B. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one (1) year period, commencing with the date of acceptance of such corrected Work. The reinstatement of the one (1) year warranty shall apply only to that portion of work that was corrected. Contractor shall perform such tests as the City may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. In the event of Contractor's failure to comply with the above-mentioned conditions within ten (10) Days after being notified in writing of required repairs, to the reasonable satisfaction of the City, the City shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at

Contractor's sole expense. Contractor shall be obligated to fully reimburse the City for any expenses incurred hereunder immediately upon demand.

- C. In addition to the warranty set forth in this Article, Contractor shall obtain for the City all warranties that would be given in normal commercial practice and assign to the City any and all manufacturer's or installer's warranties for equipment or materials not manufactured by Contractor and provided as part of the Work, to the extent that such third-party warranties are assignable and extend beyond the warranty period set forth in this Article. Contractor shall furnish the City with all warranty and guarantee documents prior to final acceptance of the Project by the City as required.
- D. When specifically indicated in the Contract Documents or when directed by the Engineer, the City may furnish materials or products to the Contractor for installation. In the event any act or failure to act by Contractor shall cause a warranty applicable to any materials or products purchased by the City for installation by the Contractor to be voided or reduced, Contractor shall indemnify the City from and against any cost, expense, or other liability arising therefrom, and shall be responsible to the City for the cost of any repairs, replacement or other costs that would have been covered by the warranty but for such act or failure to act by Contractor.
- E. The Contractor shall remedy at its expense any damage to City-owned or controlled real or personal property.
- F. The City shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. The Contractor shall within ten (10) Days after being notified commence and perform with due diligence all necessary Work. If the Contractor fails to promptly remedy any defect or damage, the City shall have the right to replace, repair or otherwise remedy the defect, or damage at the Contractor's expense.
- G. In the event of any emergency constituting an immediate hazard to health, safety, property, or licensees, when caused by Work of the Contractor not in accordance with the Contract requirements, the City may undertake at Contractor's expense, and without prior notice, all Work necessary to correct such condition.
- H. Acceptance of Defective Work.
 - 1. If, instead of requiring correction or removal and replacement of defective Work, the City prefers to accept it, the City may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to the City's evaluation of and determination to accept such defective Work and for the diminished value of the Work. If any acceptance of Defective Work occurs prior to release of the Project retention, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and the City shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work and all costs incurred by the City. If the acceptance of

defective occurs after release of the Project retention, an appropriate amount will be paid by Contractor to the City.

I. The City May Correct Defective Work

1. If Contractor fails within a reasonable time after written notice from the City to correct Defective Work, or to remove and replace rejected Work as required by the City, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, the City may, after seven (7) Days written notice to Contractor, correct, or remedy any such deficiency.
 2. In connection with such corrective or remedial action, the City may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which the City has paid Contractor but which are stored elsewhere. Contractor shall allow the City, and the agents, employees, other contractors, and consultants of each of them, access to the Site to enable the City to exercise the rights and remedies to correct the Defective Work.
 3. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by the City correcting the Defective Work will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the City shall be entitled to an appropriate decrease in the Contract Price. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of defective Work.
 4. If the Change Order is executed after all payments under the Contract have been paid by the City and the Project Retention is held in an escrow account as permitted by the Contract Documents, Contractor will promptly alert the escrow holder, in writing, of the amount of Retention to be paid to the City. If the Change Order is executed after release of the Project retention, an appropriate amount will be paid by Contractor to the City. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the City correcting Defective Work.
- J. Nothing in the warranty or in the Contract Documents shall be construed to limit the rights and remedies available to the City at law or in equity, including, but not limited to, Code of Civil Procedure section 337.15.

ARTICLE 9 -CHANGE ORDERS; DISPUTE RESOLUTION

9.1 Change Orders and Time Extensions

All changes to the Contract, including compensation increases and time extensions, shall be through a written Change Order in accordance with this Article. The City, without invalidating the Contract, may order changes in the Work consisting of additions, deletions or other revisions, and Contractor's compensation and the time for completion shall be adjusted accordingly. Whenever any change is made as provided for herein, such change shall be considered and treated as though originally included in the Contract, and shall be subject to all terms, conditions, and provisions of the original Contract. Contractor shall not be entitled to claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease or omission of any item or portion of Work to be done. No dispute, disagreement, or failure of the parties to reach agreement on the terms of the Change Order shall relieve the Contractor from the obligation to proceed with performance of the Work, including Additional Work, promptly and expeditiously. Any alterations, extensions of time, Additional Work, or any other changes may be made without securing consent of the Contractor's surety or sureties.

A. Change in Contract Procedures

1. City Directive. The City may direct changes in the Work by delivering a written directive. To the extent the work directive results in a change to compensation or time, Contractor must timely request a Change Order and comply with all Change Order procedures in accordance with this Article. Notwithstanding issuance of a work directive, Contractor's failure to timely request a Change Order shall constitute a waiver by Contractor of any adjustment to compensation or time extension for Work performed under the directive. The City shall not be liable to Contractor for Work performed or omitted by Contractor in reliance on verbal orders.
2. Contractor's Notice of Change/Delay. If Contractor intends to initiate a Change Order Request, then Contractor shall provide the City with written notice of the underlying facts and circumstances that gave rise to the proposed change within the following times:
 - a. If due to unknown subsurface or latent physical conditions, within three (3) days from the discovery date or prior to the alterations of the conditions, whichever is earlier.
 - b. If due to a Force Majeure Event, as soon as reasonably practicable under the conditions, which shall be no longer than three (3) days from the date the Contractor discovers that the Force Majeure Event gives rise to a change, unless that the conditions are such that notice within three (3) days is not possible or practicable.
 - c. If due to any other matter that may involve an adjustment to the Contract Time or the Contract Price, within seven (7) days from the discovery date.

To be considered valid and complete, the notice of change/delay shall include a general statement of the circumstances giving rise to the notice of change/delay and a reasonable order of magnitude estimate of the additional

costs and/or time. If the circumstances give rise to both a cost adjustment and time extension, Contractor shall submit the notice of change and notice of delay concurrently.

3. Request for Change in Compensation and/or Extension of Time. Contractor shall submit a Change Order Request for any adjustment to Contractor's compensation and/or any extension of time. The Change Order Request shall be made prior to incurring any expense and within fourteen (14) Days from either Contractor's notice of change/delay or the City's directive ordering the change. The Change Order Request shall include all of the following information (unless inapplicable to the change):

- a. A detailed description of the circumstances giving rise to the request;
- b. A complete itemized cost proposal, including itemized pricing for first tier Subcontractors;
- c. Supporting documentation for all costs;
- d. A time impact analysis showing the impact of the delay to the critical path to completion;
- e. If any added costs or information cannot be determined at the time of the Change Order Request, the reason the costs or information cannot be determined at the time; and
- f. Certification to the accuracy of the Change Order Request under penalty of perjury.

The time impact analysis shall be in the critical path method format and shall show the sequencing of all critical and non-critical new activities and/or activity revisions affected by the delay, with logic ties to all affected existing activities noted on the schedule.

The City may demand, and Contractor shall provide, any additional information supporting the Change Order Request, including but not limited to native electronic format version of schedules and time impact analyses. Contractor shall provide the requested additional information within five (5) Days of the request.

For any costs or information that cannot be determined at the time Contractor submits the Change Order Request, Contractor shall submit to the City notice of the costs or information and all supporting documentation within five (5) Days of when the costs or other information become subject to determination.

4. City's Final Decision on Change Order; Ordered Changes. If the City denies the Change Order Request or disagrees with the proposal submitted by Contractor, it will notify the Contractor, and the City will provide its opinion of the appropriate

price and/or time extension. If no agreement can be reached, the City shall have the right to order the Work performed on a time and materials basis or to issue a unilateral Change Order setting forth the City's determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. The City shall also have the right to order changes in the Work to be performed promptly by the Contractor on a time and materials basis or to issue a unilateral Change Order setting forth the City's determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. The City's determination shall become final and binding if the Contractor fails to submit a Claim in writing to the City within fourteen (14) Days of the issuance of the unilateral Change Order, disputing the terms of the unilateral Change Order and providing such supporting documentation for its position as the City may reasonably require.

5. Contractor's Waiver of Further Relief. **CONTRACTOR'S FAILURE TO PROVIDE A COMPLETE AND TIMELY NOTICE OF CHANGE/DELAY AND/OR CHANGE ORDER REQUEST, OR TO COMPLY WITH ANY OTHER REQUIREMENT OF THIS ARTICLE, SHALL CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH CHANGE BY MEANS OF THE CLAIMS DISPUTE RESOLUTION PROCESS OR BY ANY OTHER LEGAL PROCESS OTHERWISE PROVIDED FOR UNDER APPLICABLE LAWS.**

Contractor recognizes and acknowledges that timely submission of a formal written notice of change/delay and Change Order Request, whether or not the circumstances of the change may be known to the City or available to the City through other means, is not a mere formality but is of crucial importance to the ability of the City to promptly identify, prioritize, evaluate and mitigate the potential effects of changes. Any form of informal notice, whether verbal or written (including, without limitation, statements in requests for information, statements in Submittals, statements at any job meeting or entries on monthly reports, daily logs or job meeting minutes), that does not strictly comply with the formal requirements of this Article, shall accordingly be insufficient.

6. Change Order Format

- a. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including any adjustment in compensation or extension of time, and the full and final settlement of all costs (direct, indirect and overhead) related to the Work authorized by the Change Order.
- b. The City may designate the forms to be used for notices, requests, and Change Orders. If so designated, Contractor may only use such forms. Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the Change Order. No Claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or

clarifications. The Contractor may not change or modify the City's Change Order form in an attempt to reserve additional rights.

B. Determining Adjustments to Compensation.

1. Limitation on Costs. Contractor shall not be entitled to any compensation for Work subject to a Change Order except as expressly set forth in this Article. The City Manager may approve Additional Work up to ten percent (10%) of the amount of the Agreement or fifty thousand dollars (\$50,000.00). Any additional work in excess of this amount shall be approved by the City Council. The mark-up added in instances of Additional Work shall constitute the entire amount of profit, any mark-ups, any field or home office overhead costs, including personnel, equipment or office space, any materials, or any costs of equipment idle time for such Work.
2. Unit Price Change Orders. When the actual quantity of a Unit Price Work item varies from the Bid Schedule, compensation for the change in quantity will be calculated by multiplying the actual quantity by the unit price. This calculation may result in either an additive or deductive Change Order. Bid items included on the Bid Schedule may be deducted from the Work in their entirety without any negotiated extra costs. Because Unit Price Work includes overhead and profit as determined by Contractor at the time of its Bid submission, no mark up or deduction for overhead and profit will be allowed.
3. Lump Sum Change Orders. Whenever possible, any changes affecting compensation shall be in a lump sum mutually agreed by the Contractor and the City.
4. Time and Materials Change Orders. The City may direct the Contractor to proceed with the Additional Work with payment to be made on the basis of actual cost of the labor and materials required to complete the Additional Work. If the Project is federally funded, a time and materials Change Order shall only be issued after a determination that no other Change Order is suitable and the Change Order shall include a ceiling price that the Contractor exceeds at its own risk.
5. Federally Funded Projects. For any change in price to the Contract, general and administrative expenses shall be negotiated and must conform to the cost principles set forth under at 2 C.F.R. Part 200, subpart E, and profit shall be negotiated as a separate element of the cost. To establish a fair and reasonable profit, consideration must be given to the complexity of the Additional Work to be performed, the risk borne by the Contractor, the Contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.
6. Allowed Costs. Estimates for lump sum quotations and accounting for time-and-material work shall be limited to direct expenditures necessitated specifically by the change and shall be segregated as follows:
 - a. Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the Additional Work is done, plus

employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the Additional Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- b. Materials. The cost of materials reported shall be at the lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials costs shall be based upon supplier or manufacturer's invoice.

- c. Tool and Equipment Use. Regardless of ownership, the rates to be used in determining equipment use shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed. The Contractor shall furnish cost data supporting the establishment of the rental rate. The rental rate to be applied for use of each items of equipment shall be the rate resulting in the least total cost to the City for the total period of use. The City shall the make the final determination as to an equitable rental rate for the equipment. No payment will be made for the use of small tools, which have a replacement value of \$1,000 or less.
 - (i) The rental time to be paid for equipment shall be the time the equipment is in productive operation on the Additional Work being performed. Rental time will not be allowed while equipment is inoperative due to breakdowns.

 - (ii) All equipment shall, in the opinion of the City, be in good working condition and suitable for the purpose for which the equipment is to be used. Equipment with no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

 - (iii) Before construction equipment is used on any Additional Work, the Contractor shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the City, in duplicate, a description of the equipment and its identifying number.

 - (iv) When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour greater than 30 minutes will be considered one hour of operation. When daily rates are listed, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation.

- d. Allowed Mark-up. The allowed mark-up for any and all overhead (including supervision and home and field office costs) and profit on work added to the Contract shall be determined in accordance with the following provisions:
 - (i) "Net Cost" is defined as the actual costs of labor, materials and tools and equipment only, excluding overhead and profit. The costs of

applicable insurance and bond premium will be reimbursed to the Contractor and Subcontractors at cost only, without mark-up. Contractor shall provide the City with documentation of the costs, including but not limited to payroll records, invoices, and such other information as the City may reasonably request.

- (ii) For Work performed by the Contractor's forces the allowed mark-up shall not exceed fifteen (15%) percent of labor costs, ten percent (10%) of material costs, and ten percent (10%) of the cost of tools and equipment use.
- (iii) For Work performed by a Subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Subcontractor's Net Cost of the Work to which the Contractor may add up to five percent (5%) of the Subcontractor's Net Cost.
- (iv) For Work performed by a sub-subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the sub-subcontractor's Net Cost for Work to which the Subcontractor and Contractor may each add up to an additional five percent (5%) of the Net Cost of the lower tier subcontractor.
- (v) No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by the City exceed twenty-five percent (25%) of the Net Cost as defined herein, of the party that performs the Work.
- (vi) Calculation of the mark-up will be subject to the limitations above and to calculation as further detailed in (b)(B)(5) above.

e. Documentation of Time-and-Material Costs.

- (i) T&M Daily Sheets. Contractor must submit timesheets, materials invoices, records of equipment hours, and records of rental equipment hours to the City's for an approval signature each day that Work is performed on a time-and-material basis. The Engineer's signature on time sheets only serves as verification that the Work was performed and is not indicative of the City's agreement to Contractor's entitlement to the cost.
- (ii) T&M Summary Sheet. Contractor shall submit a T&M Summary Sheet, which shall include total actual costs, within five (5) Days following completion of Additional Work on a time-and-material basis. Contractor's total actual cost shall be presented in a summary table in an electronic spreadsheet file by labor, material, equipment, and any other costs, along with documentation supporting the costs. Contractor's failure to submit the T&M Summary Sheet within five (5) Days of completion of the Additional Work will result in Contractor's waiver for any reimbursement of any costs associated with the Additional Work.

- f. Excluded Costs. The following costs or any other home or field office overhead costs, all of which are to be considered administrative costs covered by the Contractor's mark-up, shall not be allowed costs and shall not be included in any lump sum proposals or time-and-materials invoices:
- (i) Overhead Cost. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, timekeepers, clerks, and other personnel employed by Contractor whether at the Site or in Contractor's principal office or any branch office, material yard, or shop for general administration of the Work;
 - (ii) Office Expenses. Expenses of Contractor's principal and branch offices;
 - (iii) Capital Expenses. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Additional Work and charges against Contractor for delinquent payments;
 - (iv) Negligence. Costs due to the negligence of Contractor or any Subcontractor or Supplier, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including without limitation the correction of Defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property;
 - (v) Small Tools. Cost of small tools valued at less than \$1,000 and that remain the property of Contractor;
 - (vi) Administrative Costs. Costs associated with the preparation of Change Orders (whether or not ultimately authorized), cost estimates, or the preparation or filing of Claims;
 - (vii) Anticipated Lost Profits. Expenses of Contractor associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings, or unpaid retention;
 - (viii) Home Office Overhead. Costs derived from the computation of a "home office overhead" rate by application of the *Eichleay, Allegheny*, burden fluctuation, or other similar methods;
 - (ix) Special Consultants and Attorneys. Costs of special consultants or attorneys, whether or not in the direct employ of Contractor, employed for services specifically related to the resolution of a Claim, dispute, or other matter arising out of or relating to the performance of the Additional Work.
 - (x) Other. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in the Contract Documents; including but not limited to: submittals, drawings, field

drawings, shop drawings, including submissions of drawings; field inspection; general superintendence; computer services; reproduction services; salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries; janitorial services; small tools, incidentals and consumables; temporary on-site facilities (offices, telephones, high speed internet access, plumbing, electrical power, lighting; platforms, fencing, water); surveying; estimating; protection of work; handling and disposal fees; final cleanup; other incidental work; related warranties; insurance and bond premiums.

(xi) Compliance with Federal Cost Principles. If the Project is federally funded, any costs that are not allowable, reasonable and allocable to the Project, under generally accepted accounting principles and the applicable federal requirements.

9.2 Procedure for Resolving Claims.

Contractor shall timely comply with any and all requirement of the Contract Documents pertaining to notices and requests for changes to the Contract Time or Contract Price, including but not limited to all requirements of Article 9.1, as a prerequisite to filing any claim governed by this Article. The failure to timely submit a notice of delay or notice of change, or to timely request a change to the time for completion or Contractor's compensation, or to timely provide any other notice or request required herein shall constitute a waiver of the right to further pursue the claim under the Contract or at law.

- A. Intent. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of \$375,000 or less. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Article is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Article shall be construed to be consistent with all applicable law, including but not limited to these statutes.
- B. Claims. For purposes of this Article, "Claim" means a separate demand by the Contractor for:
1. An adjustment to the time for completion including, without limitation, for relief from damages or penalties for delay assessed by the City;
 2. Payment by the City of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract, payment for which is not otherwise expressly provided or to which the Contractor is not otherwise entitled; or
 3. An amount the payment of which is disputed by the City.

A "Claim" does not include any demand for payment for which the Contractor has failed to provide notice, request a Change Order, or otherwise failed to follow any procedures contained in the Contract Documents.

- C. **Filing Claims.** Claims governed by this Article may not be filed unless and until the Contractor completes any and all requirements of the Contract Documents pertaining to notices and requests for changes to the Contract Time or Contract Price, and Contractor's request for a change has been denied in whole or in part. Claims governed by this Article must be filed no later than thirty (30) Days after a request for change has been denied in whole or in part or after any other event giving rise to the Claim. The Claim shall be submitted in writing to the City and shall include on its first page the following words in 16 point capital font: "THIS IS A CLAIM." The Claim shall include the all information and documents necessary to substantiate the Claim, including but not limited to those identified below. Nothing in this Article is intended to extend the time limit or supersede notice requirements otherwise provided by Contract Documents. Failure to follow such contractual requirements shall bar any Claims or subsequent proceedings for compensation or payment thereon.
- D. **Documentation.** The Contractor shall submit all Claims in the following format:
1. Summary description of Claim including basis of entitlement, merit and amount of time or money requested, with specific reference to the Contract Document provisions pursuant to which the Claim is made
 2. List of documents relating to Claim:
 - a. Specifications
 - b. Drawings
 - c. Clarifications (Requests for Information)
 - d. Schedules
 - e. Other
 3. Chronology of events and correspondence
 4. Narrative analysis of Claim merit
 5. Analysis of Claim cost, including calculations and supporting documents
 6. Time impact analysis in the form required by the Contract Documents or, if the Contract Documents do not require a particular format, CPM format, if an adjustment of the Contract Time is requested
- E. **City's Response.** Upon receipt of a Claim pursuant to this Article, the City shall conduct a reasonable review of the Claim and, within a period not to exceed 45 Days, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the Claim will be processed and made within 60 Days after the City issues its written statement.

1. If the City needs approval from its governing body to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the City's governing body does not meet within the 45 Days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, the City shall have up to three (3) Days following the next duly publicly noticed meeting of the City's governing body after the 45-Day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.
 2. Within 30 Days of receipt of a Claim, the City may request in writing additional documentation supporting the Claim or relating to defenses or Claims the City may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the City and the Contractor. The City's written response to the Claim, as further documented, shall be submitted to the Contractor within 30 Days (if the Claim is less than \$50,000, within 15 Days) after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.
- F. Meet and Confer. If the Contractor disputes the City's written response, or the City fails to respond within the time prescribed, the Contractor may so notify the City, in writing, either within 15 Days of receipt of the City's response or within 15 Days of the City's failure to respond within the time prescribed, respectively, and demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand, the City shall schedule a meet and confer conference within 30 Days for settlement of the dispute.
- G. Mediation. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the City shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 Days after the City issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The public entity and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing, unless the parties agree to select a mediator at a later time.
1. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.
 2. For purposes of this Article, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution

through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this Article.

3. Unless otherwise agreed to by the City and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.
 4. The mediation shall be held no earlier than the date the Contractor completes the Work or the date that the Contractor last performs Work, whichever is earlier. All unresolved Claims shall be considered jointly in a single mediation, unless a new unrelated Claim arises after mediation is completed.
- H. Procedures After Mediation. If following the mediation, the Claim or any portion remains in dispute, the Contractor must file a Claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code prior to initiating litigation. For purposes of those provisions, the running of the period of time within which a Claim must be filed shall be tolled from the time the Contractor submits his or her written Claim pursuant to subdivision (a) until the time the Claim is denied, including any period of time utilized by the meet and confer conference.
- I. Civil Actions. The following procedures are established for all civil actions filed to resolve Claims of \$375,000 or less:
1. Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties or unless mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of this Contract. The mediation process shall provide for the selection within 15 Days by both parties of a disinterested third person as mediator, shall be commenced within 30 Days of the submittal, and shall be concluded within 15 Days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.
 2. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.
- J. Government Code Claim Procedures.
1. This Article does not apply to tort claims and nothing in this Article is intended nor shall be construed to change the time periods for filing tort claims or actions

specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.5 of Title 1 of the Government Code.

2. In addition to any and all requirements of the Contract Documents pertaining to notices of and requests for adjustment to the Contract Time, Contract Price, or compensation or payment for Additional Work, disputed Work, construction claims and/or changed conditions, the Contractor must comply with the claim procedures set forth in Government Code Section 900, et seq. prior to filing any lawsuit against the City.
3. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to adjustment of the Contract Time or Contract Price for Additional Work, disputed Work, construction claims, and/or changed conditions have been followed by Contractor. If Contractor does not comply with the Government Code claim procedure or the prerequisite contractual requirements, Contractor may not file any action against the City.
4. **A Government Code claim must be filed no earlier than the date the Work is completed or the date the Contractor last performs Work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved Claims known to Contractor or that should reasonably be known to Contractor excepting only new unrelated Claims that arise after the Government Code claim is submitted.**

K. Non-Waiver. The City's failure to respond to a Claim from the Contractor within the time periods described in this Article or to otherwise meet the time requirements of this Article shall result in the Claim being deemed rejected in its entirety, and shall not constitute a waiver of any rights under this Article.

ARTICLE 10 - MEASUREMENT; PAYMENT

10.1 Cost Breakdown.

A. Lump Sum Work.

1. Contractor shall furnish on forms approved by the City within ten (10) Days of the Notice to Proceed, a schedule of values allocating the entire Contract Price to the various portions of the Work and prepared in such a form and supported by such data to substantiate its accuracy as the Engineer may require. This schedule of values, unless objected to by the Engineer, shall be used as a basis for reviewing the Contractor's applications for payment. Contractor shall submit the schedule of values prior to submitting its first application for payment, and the City will not issue any payment until it receives and approves the schedule of values.

B. Unit Price Work.

1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified

item of Unit Price Work multiplied by the estimated quantity of each item as indicated in the Contract. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and or profit for each separately identified item.

2. Unless otherwise specified, payment will be based on the actual quantities of Work as verified and approved by the Engineer, based on the price per unit as set forth in the Bid.
3. The City or Contractor may initiate a Change Order or Change Order Request to adjust the Contract Price in accordance with Contractor Documents based on actual quantities of Unit Price Work. The City or Contractor may make a claim for an adjustment in the Unit Price in accordance with the Contract Documents if:
 - a. the quantity of any item of Unit Price Work performed by Contractor differs by twenty-five percent (25%) or more from the estimated quantity of such item indicated in the Contract; and
 - b. there is no corresponding adjustment with respect to any other item of Work; and
 - c. Contractor believes that Contractor is entitled to an increase in unit price as a result of having incurred additional expense or the City believes that the City is entitled to a decrease in unit price and the parties are unable to agree as to the amount of any such increase or decrease.

10.2 Progress Estimates and Payment.

- A. By the tenth (10th) Day of the following calendar month, Contractor shall submit to Engineer a payment request which shall set forth in detail the value of the Work done for the period beginning with the date Work was first commenced and ending on the end of the calendar month for which the payment request is prepared. Contractor shall include an adjusted list of actual quantities, verified by the Engineer, for unit price items listed, if any, in the Bid. Contractor shall include any amount earned for authorized Additional Work. Contractor shall certify under penalty of perjury, that all cost breakdowns and periodic estimates accurately reflect the Work on the Project.
- B. From the total thus computed, a deduction shall be made in the amount of five percent (5%) for retention, except where the City has adopted a finding that the Work done under the Contract is substantially complex, and then the amount withheld as retention shall be the percentage specified in the Notice Inviting Bids. From the remainder a further deduction may be made in accordance with Section C below. The amount computed, less the amount withheld for retention and any amounts withheld as set forth below, shall be the amount of the Contractor's payment request.
- C. The City may withhold a sufficient amount or amounts of any payment or payments otherwise due to Contractor, as in its judgment may be necessary to cover:

1. Payments which may be past due and payable for just claims against Contractor or any Subcontractors for labor or materials furnished in and about the performance of work on the Project under this Contract.
 2. Defective work not remedied.
 3. Failure of Contractor to make proper payments to his Subcontractor or for material or labor.
 4. Completion of the Contract if there is a reasonable doubt that the Work can be completed for balance then unpaid.
 5. Damage to another contractor or a third party.
 6. Amounts which may be due the Count for claims against Contractor.
 7. Failure of Contractor to keep the Record Drawings up to date.
 8. Failure to provide update on construction schedule as required herein.
 9. Site cleanup.
 10. Failure to comply with Contract Documents.
 11. Liquidated damages.
 12. Legally permitted penalties.
- D. The City may apply such withheld amount or amounts to payment of such claims or obligations at its discretion with the exception of subsections (C)(1), (3), and (5) of this Article, which must be retained or applied in accordance with applicable law. In so doing, the City shall be deemed the agent of Contractor and any payment so made by the City shall be considered as a payment made under contract by the City to Contractor and the City shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligations. The City will render Contractor a proper accounting of such funds disbursed on behalf of Contractor.
- E. Upon receipt, the Engineer shall review the payment request to determine whether it is undisputed and suitable for payment. If the payment request is determined to be unsuitable for payment, it shall be returned to Contractor as soon as practicable but not later than seven (7) Days after receipt, accompanied by a document setting forth in writing the reasons why the payment request is not proper. The City shall make the progress payment within 30 Days after the receipt of an undisputed and properly submitted payment request from Contractor, provided that a release of liens and claims has been received from the Contractor pursuant to Civil Code section 8132. The number of days available to the City to make a payment without incurring interest pursuant to this paragraph shall be reduced by the number of Days by which the Engineer exceeds the seven (7) Day requirement.

- F. A payment request shall be considered properly executed if funds are available for payment of the payment request and payment is not delayed due to an audit inquiry by the financial officer of the City.
- G. The City shall have the right to adjust any estimate of quantity and to subsequently correct any error made in any estimate for payment.

10.3 Final Acceptance and Payment

- A. Following the City's acceptance of the Work, the Contractor shall submit to the City a written statement of the final quantities of unit price items for inclusion in the final payment request. The City shall have the right to adjust any estimate of quantity and to correct any error made in any estimate for payment.
- B. When the Work has been accepted there shall be paid to Contractor a sum equal to the Contract Price less any amounts previously paid Contractor and less any amounts withheld by the City from Contractor under the terms of the Contract. The final five percent (5%), or the percentage specified in the Notice Inviting Bids where the City has adopted a finding of substantially complete, shall not become due and payable until as required by Public Contract Code section 7107. If the Contractor has placed securities with the City as described herein, the Contractor shall be paid a sum equal to one hundred percent (100%) of the Contract Price less any amounts due the City under the terms of the Contract.
- C. Unless Contractor advises the City in writing prior to acceptance of the final five percent (5%) or the percentage specified in the Notice Inviting Bids where the City has adopted a finding of completion, or the return of securities held as described herein, said acceptance shall operate as a release to the City of all claims and all liability to Contractor for all things done or furnished in connection with this Work and for every act of negligence of the City and for all other claims relating to or arising out of this Work. If Contractor advises the City in writing prior to acceptance of final payment or return of the securities that there is a dispute regarding the amount due the Contractor, the City may pay the undisputed amount contingent upon the Contractor furnishing a release of all undisputed claims against the City with the disputed claims in stated amounts being specifically excluded by Contractor from the operation of the release. No payments, however, final or otherwise, shall operate to release Contractor or its sureties from the Faithful Performance Bond, Labor and Material Payment Bond, or from any other obligation under this Contract.
- D. In case of suspension of the Contract any unpaid balance shall be and become the sole and absolute property of the City to the extent necessary to repay the City any excess in the cost of the Work above the Contract Price.
- E. Final payment shall be made no later than 60 Days after the date of acceptance of the Work by the City or the date of occupation, beneficial use and enjoyment of the Work by the City including any operation only for testing, start-up or commissioning accompanied by cessation of labor on the Work, provided that a release of liens and claims has been received from the Contractor pursuant to Civil Code section 8136. In the event of a dispute between the City and the Contractor, the City may

withhold from the final payment an amount not to exceed 150% of the disputed amount.

- F. Within ten (10) Days from the time that all or any portion of the retention proceeds are received by Contractor, Contractor shall pay each of its Subcontractors from whom retention has been withheld each Subcontractor's share of the retention received. However, if a retention payment received by Contractor is specifically designated for a particular Subcontractor, payment of the retention shall be made to the designated Subcontractor if the payment is consistent with the terms of the subcontract.

ARTICLE 11 - MISCELLANEOUS

11.1 Patents.

- A. Contractor shall hold and save the City, officials, officers, employees, and authorized volunteers harmless from liability of any nature or kind of claim therefrom including costs and expenses for or on account of any patented or unpatented invention, article or appliance manufactured, furnished or used by Contractor in the performance of this Contract.

11.2 Document Retention & Examination

- A. In accordance with Government Code section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment.
- B. Contractor shall make available to the City any of the Contractor's other documents related to the Project immediately upon request of the City.
- C. In addition to the State Auditor rights above, the City shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the City, for a period of four (4) years after final payment.

11.3 Notice.

- A. All notices shall be in writing and either served by personal delivery or mailed to the other party. Written notice to the Contractor shall be addressed to Contractor's principal place of business unless Contractor designates another address in writing for service of notice. Notice to the City shall be addressed to the City as designated in the Notice Inviting Bids unless the City designates another address in writing for service of notice. Notice shall be effective upon receipt or five (5) Days after being sent by first class mail, whichever is earlier. Notice given by facsimile shall not be effective unless acknowledged in writing by the receiving party.

11.4 Notice of Third Party Claims

- A. Pursuant to Public Contract Code section 9201, the City shall provide the Contractor with timely notification of the receipt of any third-party claims relating to the Contract. The City is entitled to recover reasonable costs incurred in providing such notification.

11.5 State License Board Notice

- A. Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

11.6 Assignment of Contract

- A. Contractor shall not assign, transfer, convey, sublet or otherwise dispose of the rights or title of interest of any or all of this contract without the prior written consent of the City. Any assignment or change of Contractor's name of legal entity without the written consent of the City shall be void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of Work called for under the Contract Documents in favor of all persons, firms, or corporations rendering such services or supplying such materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure or the Government Code.

11.7 Change In Name And Nature Of Contractor's Legal Entity.

- A. Should a change be contemplated in the name or nature of the Contractor's legal entity, the Contractor shall first notify the City in order that proper steps may be taken to have the change reflected on the Contract and all related documents. No change of Contractor's name or nature will affect the City's rights under the Contract, including but not limited to the bonds.

11.8 Prohibited Interests

- A. No City official or representative who is authorized in such capacity and on behalf of City to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the project, shall be or become directly or indirectly interested financially in the Contract.

11.9 Controlling Law

- A. Notwithstanding any subcontract or other contract with any subcontractor, supplier, or other person or organization performing any part of the Work, this Contract shall

be governed by the law of the State of California excluding any choice of law provisions.

11.10 Jurisdiction; Venue

- A. Contractor and any subcontractor, supplier, or other person or organization performing any part of the Work agrees that any action or suits at law or in equity arising out of or related to the bidding, award, or performance of the Work shall be maintained in the Superior Court of San Bernardino County, California, and expressly consent to the jurisdiction of said court, regardless of residence or domicile, and agree that said court shall be a proper venue for any such action.

11.11 Cumulative Remedies.

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Applicable Laws, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Article will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

11.12 Survival of Obligations.

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

11.13 Headings.

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

11.14 Assignment of Antitrust Actions

- A. In accordance with §7103.5(b) of the California Public Contract Code, Contractor and Subcontractors must conform to the following requirements:
 - 1. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, Contractor or Subcontractor offer and agree to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under §4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract.

2. This assignment must be made and become effective at the time the awarding body tenders to Contractor, without further acknowledgment by the parties.

11.15 All Legal Provisions Included

- A. Contractor shall give all notices and comply with all federal, state and local laws, ordinances, rules and regulations bearing on conduct of work as indicated and specified by their terms. References to specific laws, rules or regulations in this Contract are for reference purposes only, and shall not limit or affect the applicability of provisions not specifically mentioned. If Contractor observes that drawings and specifications are at variance therewith, he shall promptly notify City in writing and any necessary changes shall be adjusted as provided for in this Contract for changes in Work. If Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to City, he shall bear all costs arising therefrom.
- B. Contractor shall be responsible for familiarity with the Americans with Disabilities Act ("ADA") (42 U.S.C. § 12101 et seq.). The Work will be performed in compliance with ADA laws, rules and regulations. Contractor shall comply with the Historic Building Code, including, but not limited to, as it relates to the ADA, whenever applicable.
- C. Contractor acknowledges and understands that, pursuant to Public Contract Code section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code section 2717(b) in order to supply mined material for this Contract.
- D. No City official or representative who is authorized in such capacity and on behalf of City to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the Work, shall be or become directly or indirectly interested financially in the Contract.
- E. All provisions of law required to be inserted in the Contract or Contract Documents pursuant to any Applicable Laws shall be and are inserted herein. If through mistake, neglect, oversight, or otherwise, any such provision is not herein inserted or inserted in improper form, upon the application of either party, the Contract or Contract Documents shall be changed by City, at no increase in Contract Price or extension in Contract Times, so as to strictly comply with the Applicable Laws and without prejudice to the rights of either party hereunder.

ARTICLE 12 -FLEET COMPLIANCE

- 12.1 To the extent applicable, Contractor, shall comply, and shall ensure all subcontractors comply, with all requirements of the most current version of the California Air Resources Board ("CARB") including, without limitation, all applicable terms of Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments ("Regulation").
- 12.2 Throughout Project, and for three (3) years thereafter, Contractor shall make available for inspection and copying any and all documents or information associated with

Contractor's and subcontractors' fleet including, without limitation, the CRCs, fuel/refueling records, maintenance records, emissions records, and any other information the Contractor is required to produce, keep or maintain pursuant to the Regulation upon two (2) calendar days' notice from the City.

- 12.3 Contractor shall be solely liable for any and all costs associated with complying with the Regulation as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the Regulation. Contractor shall defend, indemnify and hold harmless the City, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Regulation.

PLANS AND DRAWINGS

THE FOLLOWING PLANS AND DRAWINGS ARE INCORPORATED HEREIN BY REFERENCE AS IF SET FORTH IN THEIR ENTIRETY:

1. City of Upland Drawing No. TS-70024; TRAFFIC SIGNAL MODIFICATION PROJECT, SAN ANTONIO AVENUE AT 16TH STREET

SPECIAL PROVISIONS

1. Greenbook: All work shall be accomplished in accordance with the latest Edition of the Standard Specifications for Public Works Construction (SSPWC) and all supplements thereto, hereinafter referred to as Standard Specifications, and the contract plan and specifications.
2. Person Responsible and in Charge: The Contractor shall provide for a superintendent who shall remain on the project site at all times. The superintendent shall have full authority to act for the Contractor in all matters concerning the contract.

The prime Contractor shall be held responsible for the order and cleanliness of the construction site. Should one Contractor or subcontractor follow another, he/she will take steps to not damage the others work.

3. All work included: The unit bid shall include all labor, equipment, materials, taxes, permit fees, and incidentals to construct each item complete in place. Unless otherwise specified, the plan and specifications are intended to include everything obviously requisite and necessary to the proper and entire finishing of all phases of work specified. Accordingly, all work shall be done under all headings in connection with the work to carry out the plan and specifications, whether each item is mentioned or not.
4. Estimated Quantities: No guarantee is made for the quantities estimated under the bid item. The City has the right to add, omit or reduce any portion of the work.
5. Notifications: The Contractor shall notify property owners and/or residents affected by construction activities 72 hours prior to start of work. The Contractor shall make every effort to keep driveway approaches open to vehicular traffic.
6. Working hours: Work shall be conducted only between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday.
7. Traffic Control: The Contractor shall be responsible for any and all traffic controls required for this project. Controls shall be constructed in accordance with the latest edition of the Work Area Traffic Control Handbook (WATCH Manual). Sketch of lane closures to be submitted prior to work being done.
8. Stockpiling of Materials: The Contractor shall daily remove all excess materials left on the site as a result of his operations and clean the entire site to the satisfaction of the City Engineer or his designated representative. The Contractor shall receive permission from the Agency prior to stockpiling any materials within the public right-of-way. Under no circumstances shall the stockpiled materials impede vehicular or pedestrian traffic. Sufficient barricades, delineators, lights, etc., shall be used to warn traffic of said materials.
9. Damage to Private Property: The Contractor shall be responsible for protecting from injury or damage all existing improvements, adjacent property, utility and other facilities, and trees and plants that are not to be removed. The Contractor shall solely bear all costs associated with the repair or replacement of any item damaged by his operations.

10. National Pollutant Discharge Elimination System (NPDES): The prime Contractor shall be held responsible for the order and cleanliness of the construction site. Should one Contractor or subcontractor follow another, he/she will take steps to not damage the others work.

The contractor shall implement all applicable Best Management Practices (BMPs) to prevent pollution from entering catch basins, storm, drains and the sewer system. No construction waste material - including loose aggregate, plaster, cement, paint, fuels, oils, bitumen, calcium chloride, mud or any other type of debris, shall be disposed of in the street, gutter, sidewalk or storm drain facilities. Waste materials shall be immediately removed from the job site and disposed of in accordance with all; county, state and federal regulation.

The Contractor shall keep all adjacent streets and haul routes clean of dirt and debris originating from the construction site or resulting from the project work.

11. Air Pollution: The Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes.
12. Dust Control: Contractor shall comply with any and all directives issued by the City Engineer in order to prevent dust or other material from becoming a nuisance or annoyance.
13. Fire Hydrant: Should the Contractor require access to a fire hydrant, the Contractor shall secure a permit and meter from City of Upland.
14. Roadway Markings: Should any roadway striping or raised pavement markers be damaged or removed during the operation of this contract, it shall be matched and replaced by the Contractor.
15. Protection of Work: The Contractor shall be responsible for protecting the new improvements from damage. Protection may include installation of barricades, delineators, steel plates or any other item necessary to protect the work. The City shall not make final acceptance of the project until all improvements are free of all graffiti, markings, or any other blemish determined undesirable. All repairs/replacement shall be corrected to the satisfaction of the City. This work shall be accomplished at no additional cost to the City.
16. Order of Work: The Contractor shall be responsible for scheduling the order of the work. Should one Contractor or sub-Contractor follow another, he/she will take steps to not damage the others work.
17. Contractor's Guarantee: The Contractor hereby guarantees that the entire work constructed by him under this contract will meet fully all requirements thereof as to quality of workmanship and of materials furnished by him.

The Contractor hereby agrees to:

- a. Perform at his own expense, any repairs or replacements made necessary by defects in materials or workmanship supplied by him that become evident within one (1) year after Notice of Completion of the work by the City Clerk; and
- b. Completely restore any defective materials or workmanship that are found to be deficient with respect to any provisions of the specifications.

The Contractor also agrees to hold the City harmless from any claims of any kind arising from damage due to said defective materials or workmanship. The Contractor shall make all repairs and replacements promptly upon receipt of written orders for same from the City Engineer. If the Contractor fails to make the repairs and replacements promptly, the City may do the work and the Contractor and his surety shall be liable to the City for the cost thereof.

This guarantee shall be secured by the Faithful Performance Bond furnished under the contract and said bond shall remain in force and effect until the expiration of said one year period.

PART A – GENERAL ITEMS

The unit prices and lump sum amounts to be paid for the Items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment, time, and incidentals necessary to complete the work, and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Specifications. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing, obtaining required permits and permit fees, mobilization, traffic control, public convenience and safety, protective barricading, sanitary facilities, storage of equipment and materials, security against theft and vandalism, project site maintenance, dust and runoff control, clean-up and all other items incidental to the work.

Payment for Unit Price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be as specified in Section 7-1, "Measurement of Quantities for Unit Price Work," of the SSPWC. Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with Section 7-2, "Lump Sum Work," of the Standard Specifications for Public Works Construction (SSPWC).

Each respective bid item and bid schedule as shown on the proposal form shall comply with all respective Sections of the 2021 Edition of the Standard Specifications for Public Works Construction (Green Book), its supplements, and any other publications as specified, except as modified herein. If there is a conflict between these inclusions and the Standard Specifications, these inclusions shall have precedence.

1. Traffic & Pedestrian Control, Construction Phasing, Public Convenience & Safety

This Bid Item shall include all work, materials, and equipment necessary to comply with the requirements of Subsection 7-10.4, "Safety," of the SSPWC, CA-MUTCD, Part 6: Temporary Traffic Control (latest edition), the standards contained in the "Work Area Traffic Control Handbook" (WATCH) published by Building News, Inc.; (latest edition); Section 1-9, "Temporary Traffic Control," of the General Requirements of these Special Provisions, and the City-approved Traffic Control Plan provided by the Contractor, except as modified and supplemented herein. In the case of a conflict, the highest standard shall prevail.

Ten working days prior to the start of construction work, the Contractor is required to submit to the City a traffic control & construction phasing plan prepared and signed by a licensed Traffic or Civil Engineer.

Two weeks prior to begin construction, the contractor shall place a minimum of two (2) changeable electronic message signs at locations directed by the City for the duration of the project. The contractor may relocate and change message as necessary and as directed by the City.

The Contractor shall conduct his operations in conformance with the City approved traffic control and construction phasing plans, so as to offer the least possible obstruction and inconvenience to the public, and shall have under construction, no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public. The Contractor shall furnish and maintain all construction signs, channelizing devices, barricades, k-rail,

temporary traffic striping and pavement markings, lighting devices, etc., to safely guide the traffic through the project limits, as described herein, and as directed by the Engineer.

One lane of traffic in each direction, with a minimum lane width of 12 feet, shall be provided by the Contractor at all times for local access to all businesses and residents along 16th Street and San Antonio Avenue. It is desirable to maintain two traffic lanes in each direction as much as possible. When it becomes necessary to block access to driveways for a short period of time during construction, the Contractor shall notify the affected property owners/occupants 48 hrs. in advance of such driveway closure. Contractor shall facilitate work in front of driveways so that these driveways may be opened for use immediately.

To allow for equipment movement and cleanup during various construction operations, momentary stoppage of traffic and turn movements will be permitted, using flagging procedures. During work at the intersections, the Contractor shall maintain a minimum of one 12' westbound and eastbound lane.

If at any time during the course of construction the City Engineer, or his representative, deems traffic control measure are inadequate, or construction impacts to traffic are too great, the Engineer may require changes be made to the traffic control. All costs as a result of traffic control modifications/ changes shall be borne solely by the Contractor.

Payment for the requirements of "Traffic & Pedestrian Control, Construction Phasing, Public Convenience & Safety" shall be made at the Contract Lump Sum (LS) price bid, and shall include full compensation for furnishing all labor, materials tools, equipment, handing out of construction notices to businesses and residents, furnishing and installing signs and all other incidentals required to complete the work. No additional compensation will be allowed therefore. Progress payments shall be pro-rated in proportion to the total value of work completed to date as a function of the total awarded contract amount.

2. Construction Surveying

This Bid Item includes, but is not limited to, surveying and construction staking in order to provide vertical and horizontal control necessary for this project. The Contractor shall hire a licensed land surveyor to inspect the project limits and identify all survey monuments found. The project shall be inspected following the City's Notice to Proceed and prior to beginning construction. The Contractor's surveyor shall submit to the City a letter stating that a reasonable and diligent field search was conducted and list the monuments found. The letter shall be submitted to the City prior to construction.

Contractor shall perform construction staking for underground construction and street improvements, as required on this project. Construction stakes or marks shall be set and maintained as necessary to achieve the required accuracy set forth on the Plans and Specifications. Stakes (blue tops) for subgrade and base shall be at 50-foot intervals, maximum. The Contractor shall set and maintain sufficient stakes at each cross section to match plan cross-sections, achieve the required accuracy, and to support the method of field operations. Contractor shall set and maintain stakes as necessary to establish horizontal and vertical position along intersecting road radii, vertical and horizontal curves, and curve transitions.

All Survey Cut Sheets shall be submitted to the Engineer prior to the start of excavation work.

The Contractor shall assist the Engineer for final elevation checks, if necessary. Such checks shall be made at randomly selected points.

Any questionable grade, elevation, location, or design shall be brought to the immediate attention of the Engineer in writing for clarification prior to construction. Any additional survey required to correct such construction shall be at the sole expense of the Contractor, and no additional compensation will be made therefor. The City reserves the right to verify all staking and monumentation for horizontal and vertical accuracy. Any staking, monuments, or reference points (centerline ties) found to exceed allowable error shall be reset at the sole expense of the Contractor, and no additional compensation will be made therefor. All work shall be done by or under the direction of a Professional Land Surveyor or a Registered Civil Engineer licensed to practice land surveying. Copies of all grades sheets and corner records shall be provided to the Engineer.

Prior to the commencement of construction, contractor shall obtain centerline tie notes available at the City of Upland Public Works Department to determine which monuments are in harms way. All monuments that are within 3.0 feet of the proposed construction shall be perpetuated by the witness monuments shown on the City of Upland Monument notes, or by a minimum of four (4) centerline tie points set in existing curbs or other durable features in the near vicinity of the Monument that is being perpetuated, with a measured distance from each tie point to the centerline monument. Tie point monuments shall be of the character approved by the City of Upland. After construction, replace all monuments disturbed or destroyed by construction in kind. Set Class "C" well monuments per detail available at the City of Upland; all other monuments shall be of a character approved by the City of Upland. Measure new tie distances to the replaced centerline monument and submit centerline tie notes and corner records prepared by the Contractor's surveyor, to the Engineer and to the County Surveyor's office for approval. The Contractor shall determine all monuments that need to be replaced prior to construction.

Full compensation for conforming to the requirements of Construction Surveying, including furnishing all labor, tools, equipment, documentation, and materials for doing the work and resetting monuments, shall be included in the contract Lump Sum Price bid, and no additional compensation will be allowed.

3. Storm Water Pollution Prevention Plan & Implementation

As part of this project, the Contractor shall provide a site-specific Storm Water Pollution Prevention Plan (SWPPP) to the City prior to commencing construction. The Contractor shall ensure that the SWPPP for all work is developed and amended or revised by a Qualified SWPPP Developer (QSD). The SWPPP shall conform to the requirements in the Permits, and these Special Provisions.

The objectives of the SWPPP shall be to identify pollution sources that may adversely affect the quality of storm water discharges associated with the project and to identify, construct, implement, and maintain water pollution control measures, hereafter referred to as control measures, to reduce to the maximum extent practicable (MEP, as defined in Title 33 CFR of the

United States Code) pollutants in storm water discharges from the construction site both during and after construction is completed under this contract.

Contractor shall have designated concrete wash as required per NPDES requirements prior to begin any concrete work. This Bid Item shall include all work involve in compliance with the requirements of the “NPDES Requirements,” of these Special Provisions.

Payment for the requirements of “Stormwater Pollution Prevention Plan & Implementation” shall be at the Contract Lump Sum Price bid, and shall be considered as full compensation for preparing and implementing the SWPPP, furnishing all labor, materials, tools, equipment, time, inspections and incidentals for doing all work involved in construction of this Bid Item, and no additional compensation will be allowed therefore. Payment shall be based on progress of the work completed at the City’s discretion.

PART B – STREET IMPROVEMENTS

1. Sawcut & Remove Existing and Construct PCC Curb Ramp per SPPWC Std. Plan No. 111-5 with Retaining Curb and Detectable Warning Surface (Case and Type per Plan)

This item shall include sawcut, removal and disposal of existing improvements, and construction of PCC curb ramps with detectable warning devices in conformance with Federal ADA Guidelines and SPPWC Standard Plan no. 111-5, with case and type per plan, as modified per plan. Limits of removal and reconstruction shall be from the beginning to the end of curb returns (BCR to ECR). All work shall be in accordance with the applicable provisions of Subsections 300-1.3, "Removal and Disposal of Materials," 300-2, "Unclassified Excavation," and 303-5, "Concrete Curb, Walk....," of the SSPWC.

Ramp is defined as that area between the beginning and the end of curb returns (BCR to ECR). Therefore, the limits of removal and reconstruction for each ramp shall be from the BCR to the ECR, and shall include the curb, gutter, sidewalk, within this return.

The Contractor shall install 3' x 5' cast-in-place (wetcast) Detectable Warning Devices (DWD) per SPPWC Standard Plan No. 111-5. DWD shall consist of a surface of truncated domes aligned in a square grid pattern. Detectable Warning Devices shall be Fed Yellow color per Armor-Tile, or approved equal. Detectable Warning surface shall extend 36-inches minimum (from the back of the curb face) in the direction of travel, and the full width of the curb ramp.

P.C.C. Curb Ramp shall conform to SPPWC Standard Plan No. 111-5, Case and Type per plan, as modified per plan, with Detectable Warning Devices per Federal ADA requirements and with lines and grades to match existing improvements, as shown on the plan. All P.C.C. improvements to be removed shall be sawcut at join lines prior to removal.

Concrete shall be class 520-C-2500.

All sprinkler systems encountered and damaged by the Contractor's operations shall be replaced in kind. Compensation for this work shall be included as a part of the unit price bid for curb ramps.

Contractor shall submit a sample of the detectable warning surface to the Engineer for approval, prior to start of construction.

a. Unclassified Excavation

The unclassified excavation shall consist of all excavation for the construction of sidewalk and curb ramps. The Contractor shall also cut and remove any tree roots encountered within construction limits to at least six (6) inches below the subgrade, and remove any previously removed tree stumps encountered.

Contractor shall protect and support in-place and intact all existing curb drain lines during excavation and construction.

c. Irrigation Lines and Sprinkler Heads

The Contractor shall cut interfering portions of existing irrigation lines and cap all ends for future reconnection.

The Contractor shall furnish and install all new ¾" schedule 40 PVC pipe to tie into existing pipes, new sprinkler heads equal to or better than existing, and all appurtenances. All work shall conform to Sections 212-2 and 308-5 of the Standard specifications and as directed by the Engineer.

The Contractor may salvage and reuse sprinkler heads that are still in reusable and functional condition.

Any damage beyond the construction limit shall be repaired at the Contractor's expense per Section 7-9 of the Standard Specifications.

The Contractor shall modify, relocate or replace and/or extend all encountered irrigation lines or sprinkler heads so as to give full coverage to landscape area.

All repair and replacement of the irrigation system shall be done within three (3) days or sooner after disconnection. During disconnection period of existing irrigation systems, the Contractor shall maintain the existing grass, trees, shrubs, and other existing landscape in a live condition with temporary irrigation system and/or shall water the landscaped area by hand. Homeowner's water supply shall not be used without written consent from each homeowner.

As determined in the field by the Engineer, the Contractor may be directed to extend the existing sprinkler system into the landscaped area between curb and sidewalk and other locations as necessary.

Prior to accepting work, the Contractor must turn the sprinkler system on, and it must work properly in the presence of and to the satisfaction of the Engineer and property owner. Any damaged and dead grass or landscaping beyond construction limits resulting from Contractor's operation or insufficient water supplies, shall be replaced by the Contractor at no cost to the City.

d. Sod and Modified Class "A" Topsoil

The Contractor shall furnish and place Modified Class "A" Topsoil and new sod in accordance with Section 212-1 and Section 308 of the Standard Specifications for parkways and behind the right-of-way areas. The limits of sodding shall be as indicated in this specification.

During construction, the Contractor shall protect and support existing irrigation lines and sprinkler heads in place and intact. The Contractor shall adjust them to the proper level if necessary. Prior to performing any landscaping work, Contractor shall place a 4-inch thick imported Modified Class "A" Topsoil for the top layer of landscaping area.

The modified Class "A" Topsoil shall consist of 80% content of Class "A" Topsoil per the Standard Specifications and 20% content of processed wood product of Type "I" organic soil amendment per the Standard Specifications.

The Contractor shall place new sod in the area adjoining the newly constructed concrete improvements that were disturbed by his/her operations.

The Contractor shall select the type of new sod that matches or most matches the existing sod, or as directed by the Engineer.

e. Regrading

Some areas adjoining to new sidewalk will be lower or higher than new sidewalk grade. At these locations, the Contractor shall be required to re-grade the area from the edge of the new sidewalk to meet existing ground. Also, the Contractor shall fill all low areas to meet new or existing grade by using uncontaminated project excavation materials.

f. Miscellaneous Work

The following miscellaneous work shall be included in the scope of work for the bid items stated:

1. Modifying and/or constructing transitional sidewalk to meet the existing improvements.
2. Protecting and supporting all existing improvements, not designated to be removed, adjoining and adjacent new improvements including, but not limited to, walls, fences, brick work, PCC, etc.
3. Providing forms; excavating, backfilling and compacting form areas.
4. Disposing of all excavated and removed materials (including PCC, AC, CMB, CTB, slurry backfill, dirt, ivies, plants, trees, roots, stumps, branches, grass, bricks, fences, woods, etc.)
5. Cutting and replanting existing turf to meet sidewalk.
6. Replacing any broken, cracked, or otherwise damaged water meter boxes and lids prior to placement of sidewalk.
7. Relocating any street signs or mailboxes, which interfere or conflict with construction.

Payment for the preceding requirements shall be at the contract unit price bid per EACH (EA) curb ramp constructed in place, and shall include all labor, materials, tools, time, and equipment necessary to complete this work, including protection and/or replacement of all existing drains, sawcut, removal and disposal of existing improvements, excavation, subgrade preparation, root removal, PCC and under sidewalk drain improvements, detectable warning devices, utility adjustments, restoring form areas, and all other work as required to complete the work. The unit price bid per each curb ramp or portion thereof, includes monolithic retaining curb where curbs are called for on construction drawings, furnishing and installing detectable warning surfaces per Federal and State ADA and Manufacturer's requirements, warranties, and all miscellaneous improvements located between the BCR and ECR of the curb return where the curb ramp is to be located. No additional compensation will be allowed therefore.

2. Sawcut & Remove Existing and Construct PCC Curb & Gutter per SPPWC Std. Plan No. 120-3 Type A3-6

Contractor shall sawcut and remove existing improvements and construct new curb and gutter conforming to SPPWC Standard Plan No. 120-2, Type A3-6 as indicated on the plans, and conforming to Subsection 303-5, "Concrete Curb, Walks, etc.," of the SSPWC.

Concrete shall be class 520-C-2500.

All sprinkler systems encountered and damaged by the Contractor's operations shall be replaced in kind. Compensation for this work shall be included as a part of the unit price bid for curb and gutter. New curb and gutter shall be constructed to provide a proper flow line with the existing improvements as indicated on the plans. Top of curb shall be varied where necessary to match existing driveway approaches and existing parkway hardscape and landscape.

Surveying shall be provided by the Contractor in conformance with Section 5.1.16 of the General Provisions. Any new work found to be defective shall be repaired or replaced by the Contractor in accordance with Subsection 303.5.7 of the GREEN BOOK.

Payment for all of the preceding requirements shall be per the contract unit price bid per LINEAR FOOT (LF) and shall include sawcut, removal and disposal of existing miscellaneous improvements, excavation, subgrade preparation, forms, depressed curb for driveway approaches and wheel chair ramps, backfilling behind curb and gutter, restoring form areas, replacing damaged sprinklers and landscaping, replacing curb drains, and all other work as required to complete the work. No other compensation will be allowed.

3. Sawcut & Join to Existing Pavement

The Contractor shall sawcut and remove a strip of pavement to a limit of at least 1 foot adjacent to the gutter that is to be installed and replace with 5" thick full depth AC pavement.

AC mix for slot paving shall be C2-PG-64-10.

Payment for Sawcut and Join Existing Pavement shall be measured and paid for at the contract unit price per LINEAR FOOT (LF) and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and for doing all work involved in removing existing concrete, constructing concrete, as directed by the Engineer.

4. Remove and Reconstruct 4" Thick PCC Sidewalk, Slab & Transitions

This Bid Item shall include the sawcut, removal, and disposal of existing improvements and construction of 4-inch thick Portland Cement Concrete (PCC) sidewalk and slab, as shown on the Plan, and/or as marked in the field. This shall also include excavation, root removal, subgrade preparation, backfill, compaction, cleanup, and when encountered, replacement of existing drains removed or damaged by the new construction. New sidewalk scoring shall be installed with a scoring tool and shall match existing scoring pattern adjacent to the new sidewalk improvements.

The Contractor shall construct new concrete sidewalk, curb ramps, flares, monolithic curbs, and other miscellaneous concrete construction conforming to Section 303-5 of the Standard Specifications and SPPWC Standard Drawings with lines and grades to meet existing. In order to meet ADA requirements, cross slope of new sidewalk shall be 2% max. The Contractor may be directed to construct new concrete walkways or steps in landscaped areas and on private property, where required.

Concrete shall be class 520-C-2500.

All pull boxes; meter boxes; and valve covers shall be adjusted to proposed finish grade and approved by the engineer in the field prior to placement of PCC.

The Contractor shall sawcut and remove existing asphalt concrete or existing concrete sidewalk within construction limits where encountered for constructing new sidewalk. The remaining asphalt concrete or PCC pavement adjacent to new sidewalk shall be protected in-place and intact. Any damage caused by the Contractor shall be replaced at no cost to the City.

The Contractor may also be directed by the Engineer to sawcut and remove existing improvements and construct four (4) inch concrete over four (4) inch CMB in parkway areas (adjoining to sidewalk areas) or beyond public right-of-way to match existing improvements.

The Contractor shall protect all existing drainage pipes and structures and other existing improvements not designated to be removed in-place and intact.

At all times the Contractor shall provide a safe and walkable temporary sidewalk with a minimum width of 36" clearance adjoining excavated areas within parkway limits for wheelchair and pedestrians to travel around construction areas. If such clearance is not possible, barricading, plating, filling, or other measures shall be required.

Once work is started, the Contractor has ten (10) working days to perform and complete all work (hard and softscape) at each location.

The work shall include the relocation of street signs to a condition equal to or better than existing. It shall also include the construction of the variable height retaining curb at the back of the curb ramp.

Four-inch thick PCC to be removed and reconstructed shall include, but not limited, to the following:

- a. Sidewalk
- b. Walks and walkway transitions
- c. Concrete slab not stated above

Payment for all of the preceding requirements shall be per the contract unit price bid per SQUARE FOOT (SF) and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and for doing all work involved in removing existing concrete, constructing concrete, as directed by the Engineer.

PART C – TRAFFIC SIGNAL AND SAFETY LIGHTING FACILITIES, AND SIGNS

Note: The following shall replace Part 7, “Street Lighting and Traffic Signal Systems”, and Section 700, “Materials,” of the Greenbook, Standard Specifications for Public Works Construction, 2024 Edition.

1 General

The CONTRACTOR shall furnish all tools, equipment, materials, supplies and manufactured articles and shall perform all operations necessary to construct traffic signal and street lighting facilities as shown on the drawings and as specified herein.

Reference Specifications and Standard Plans

1. **Standard Specifications** - Except as modified herein, materials and installation shall conform to the 2024 Revised Caltrans Standard Specifications (CSS), dated October 21, 2024. All references in this section to "Standard Specifications" shall be understood to be referenced to the Caltrans Standards Specifications.
2. **Standard Plans** - Except as modified herein, all references in this section to "Standard Plans" shall be understood to be referenced to the 2024 Revised Caltrans Standards Plans (CSP) and subsequent errata.
3. **Codes, Ordinances, and Regulations** - All electrical materials and equipment furnished and installed under this section shall conform to the referenced regulations and codes specified in Section 86-1.01D, “Quality Assurance,” of the Standard Specifications, and to all other ordinances, Specifications, Standards and Regulations of the authorities having jurisdiction.

2 Description

Furnishing and installing traffic signal, signal system communication, safety lighting and sign illumination systems and payment shall conform to the provisions in Division X, “Electrical Work,” of the Standard Specifications and these Special Provisions.

Prior to the commencement of any work within public right-of-way, the CONTRACTOR shall obtain a Public R/W Excavation and Construction Permit, at no cost, from the City of Upland, Public Works Division.

Traffic signal, signal communication, signing and striping work is to be performed at the following intersection:

1. San Antonio Avenue and 16th Street

3 Underground Utilities

CONTRACTOR shall call Underground Service Alert at (800) 422-4133, 48-hours before digging for location of underground utilities.

Attention is directed to all conditions of Part 4, Section 402, "Utilities," of the "GREENBOOK" Standard Specifications for Public Works Construction, latest edition.

Attention is directed to the existence of certain hazardous underground utility lines within the construction area which include (but not limited to) natural gas and electrical. It shall be the CONTRACTOR'S responsibility to "pot hole" or expose any utility facilities that need protection under direction of the utility owner(s) or Engineer. Potholing of signal foundations shall occur prior to ordering of poles, the CONTRACTOR shall provide a report of all pothole findings demonstrating no conflicts present. Depth of pothole shall be to the depth of the footing, use of vacuum equipment is acceptable.

One or more hazardous underground utility lines may necessitate the work or rearrangement to a lower elevation, by the owner(s), during construction operation. If such rearrangement work occurs, the CONTRACTOR shall allow each affected utility company ten (10) working days to rearrange its facility at any given locations.

No contractual work will be permitted over or, within 10' horizontally of, any hazardous underground utility line to be rearranged, until such rearrangement work is completed.

Where hazardous overhead utility lines exist and rearrangement is not required, the CONTRACTOR shall arrange to meet a Utilities Representative at the job site prior to work to discuss work plan. Contractor may be directed by Utilities Representative to hire a high voltage pre-qualified third party to perform work in the vicinity of utility lines. Additionally, the CONTRACTOR may opt, under his/her own accord, to protect or insulate said utility lines while performing work. All associated costs for this work shall be borne solely by the CONTRACTOR and included in the price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

4 Schedule of Values

Schedule of Values shall conform to the provision in Section 9-1.16B, "Schedule of Values," of the Standard Specifications, except as amended herein and in the Special Provisions.

CONTRACTOR is to submit a schedule of values within 15 days after Award of Contract.

The schedule of values must include as a minimum type, size, and installation method for:

1. Standards and Poles with Foundations
2. Conduit
3. Pull Boxes
4. Conductors and Cables
5. Signal Heads and Hardware
6. Pedestrian Signal Heads and Hardware
7. Pedestrian Push Buttons/APS
8. Modular Video Detection System
9. Luminaires
10. Traffic Signs and Hardware

The fifth paragraph of Section 9-1.16B, "Schedule of Values," shall be deleted.

5 City Furnished Equipment and Materials

The CITY will furnish the following equipment and materials to Contractor for installation:

Pole #1, pole #4, pole #7, and pole #10 as shown on the "Pole Schedule" on sheet 3 of the Project Plans. Anchor bolts for pole #1, pole #4, pole #7, and pole #10 as shown on the "Pole Schedule" on sheet 3 of the Project Plans.

The CONTRACTOR shall pick up CITY furnished equipment and materials from the following location(s), or as directed by the Engineer, and transport them to the project site(s):

Public Works Yard
City of Upland Public Works Department
1370 N Benson Avenue
Upland, CA 91786

The CONTRACTOR is responsible for the cost of replacing lost or damaged City furnished equipment and materials after the CONTRACTOR has taken possession of the item(s). The replacement(s) shall be the same equipment and materials as supplied or as approved by the Engineer that meet the requirements stated in the Standard Specifications and these Special Provisions.

5.1 Equipment List and Drawings

Equipment list and drawings of electrical equipment and material shall conform to the provisions in Section 86-1.01C, "Submittals," of the Standard Specifications, except as amended herein and in the Special Provisions.

Replace paragraphs 1st and 2nd of Section 1.01C(1), "General," with the following:

CONTRACTOR acknowledges and agrees that time is of the essence in the performance of work provided in the AGREEMENT. CONTRACTOR agrees that the following listed traffic signal submittals shall be delivered to CITY by CONTRACTOR on or before the fifteenth (15th) calendar day (Submittal Deadline Date) following the Notice of Award of Contract. In the event said submittals are not received by CITY on or before said Submittal Deadline Date, CONTRACTOR agrees to the deduction of one (1) working day from the number of Contract Completion Days for every day in delay of receipt by CITY of the submittals beyond the Submittal Deadline Date.

Submittal Items

1. Conductors, Cables, and Wiring (Section 11)
2. Vehicle LED Indications (Section 17)
3. Modular Video Detection System (Section 19)
4. Accessible Pedestrian Signal System (Section 20, Section 20.1)

Upon the notification to the CONTRACTOR that the submittals are approved, the CONTRACTOR shall order materials within five (5) working days and provide proof of

purchase order to the ENGINEER. No extensions of time for materials delay will be allowed without this proof.

For traffic signal equipment and material not listed above, a Certificate of Compliance with Caltrans Standard Specifications is sufficient.

~~The CONTRACTOR shall order the traffic signal poles on or before expiration of ten (10) working days following the Notice of Award of Contract and upon providing potholing report indicating that no conflicts are present. Proof of purchase order, including delivery date, shall be submitted to the ENGINEER. No extensions of time for materials delay will be allowed without this proof. Storage of traffic signal poles shall be the responsibility of the CONTRACTOR. Payment for transporting, storage or relocation of traffic signal poles shall be considered included in the contract bid price paid for construction of traffic signal and safety lighting facilities. No additional compensation will be allowed therefore.~~

After paragraph 5 of Section 1.01C(1), "General," add the following:

The controller cabinet schematic wiring diagram and intersection sketch shall be on 24"x36" size sheets, or larger, and shall be drawn in sufficiently large scale to be clearly readable by field technicians. Partial schematic diagrams of the basic cabinet wiring on smaller sheets will not be accepted. The CONTRACTOR shall furnish maintenance manual and operations manual for all controller units; controller cabinet auxiliary, accessory and detection equipment; and signal communication provided under this CONTRACT. The manuals shall be submitted at the time of the controller assemblies are delivered for testing, or prior to purchase, if requested so by the Engineer. Product information sheets or cut sheets shall not be acceptable for either maintenance or operation manuals.

After the last paragraph of Section 1.01C(1), "General," add the following:

The CONTRACTOR shall submit to the Engineer "as-built" prints prior to final acceptance of the work. The "as-built" prints shall indicate in red all deviations from the contract PLANS.

6 Maintaining Existing and Temporary Electrical Systems

Maintaining existing and temporary electrical systems shall conform to the provisions in Section 87-20, "Temporary Electrical Systems," and Section 87-21, "Maintaining Existing Electrical Systems," of the Standard Specifications, except as amended herein and in the Special Provisions.

After the last paragraph of Section 87-21.01, "General," add the following text:

Maintenance of the existing traffic signals, street lighting, signs or approved temporary replacements shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall provide a twenty-four (24) hour number where any intersection problem can be reported. He will have one (1) hour in which to respond to the maintenance call. Unless permission has been granted by the ENGINEER, the intersection shall not be left on flash more than

two (2) hours. Existing streetlights shall remain in operation during construction and until the new lighting system is in operation.

All work to be done in connection with the modification of traffic signals shall be performed in such a manner that the signals shall be in continuous operation except for one (1) hour period between the hours of 8:30 AM and 3:30 PM on weekdays when they may be turned off for necessary work. Work requiring longer periods of time must be authorized by the ENGINEER. The placement of any temporary wiring necessary to maintain traffic signal operations shall provide a minimum of 18' vertical clearance for vehicles and a minimum of 10' over pedestrian areas. All safety regulations and precautions shall be observed in the installation work.

At those locations where the existing pole and foundation conflict and must be removed to allow for installation of the new pole and foundation, temporary signals shall be constructed. Poles may be supported by attaching a metal base plate of sufficient size and weighted to prevent tipping. The temporary signal shall remain in operation until the new signal is placed into operation.

Configuration of temporary signal facilities shall conform to the requirements of the MUTCD. A minimum of two (2) clearly visible signal faces shall be provided for traffic from each signalized movement, one being adjacent to the right side of the travel way. At major intersections temporary mast arm signal indications shall be required and any additional signal equipment as determined by the ENGINEER.

It is the CONTRACTORS responsibility to perform a pre-bid site survey to identify temporary signal facility requirements to maintain signal operations for the work shown on the PLANS to include costs in his/her bid

48 hours prior to any turn-on, shutdown or flashing condition of the traffic signals, the CONTRACTOR shall notify the ENGINEER of his anticipated schedule.

During the shutdown, the CONTRACTOR shall provide a minimum of two (2) standard 36" stop signs placed on each approach of the intersection to the satisfaction of the Engineer. The CONTRACTOR shall make arrangements with the Police Department for traffic control if deemed necessary by the ENGINEER.

Existing traffic signal systems shall not be placed in proposed phasing operation until all equipment is installed and pavement markings are complete.

All signal indications, pedestrian push buttons, detectors and control equipment shall be maintained in operation except during shutdown hours as specified above.

Full compensation of maintaining existing and temporary electrical systems shall be considered as included in the price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

Foundations for signal standards shall conform to the applicable provisions in Section 87-1.03E(3), "Concrete Pads, Foundations, and Pedestals" and Section 56-3.01C(2), "Foundations", of the Standard Specifications except as amended herein and in the Special Provisions.

Portland cement concrete shall conform to Section 90, "Concrete," of the Standard Specifications, and to Section 90-2, "Minor Concrete" where applicable. Concrete for reinforced CIDH pile foundations shall contain not less than 590 pounds of cementitious material per cubic yard.

The CONTRACTOR must notify the ENGINEER 24 hours prior to any foundation pours so test cylinders may be made. All foundations poured without the ENGINEER present shall be automatically rejected. The CONTRACTOR, at his expense, shall remove and replace rejected foundations.

Foundations shall set a minimum of seven days before posts, poles, standards, pedestals, or cabinets are set.

Where an array of underground conduits exist, the CONTRACTOR shall hand excavate said site in a careful manner so as to preserve existing conduits. Existing conduits, which are disturbed by the foundation placement, shall be rerouted. The CONTRACTOR shall not encase any existing conduits in the new foundations. If existing conduits are damaged by the CONTRACTOR, they shall be repaired or replaced as determined by the ENGINEER at the CONTRACTOR's expense.

Foundation excavations shall not be prepared and left open for more than 48 hours before concrete pour.

All unused foundations shall be removed completely and disposed, unless otherwise allowed by the Public Works Construction Services Manager to be abandoned. Abandoned foundations shall comply with Paragraph 16 of Section 56-3.01C(2), "Foundations" of the Standard Specifications.

The materials, proportioning, mixing, slump, air-entrainment, transporting and curing of concrete shall be in accordance with the provisions of Section 90, of the Standard Specifications.

Reinforcing bars and steel wire placed in concrete foundations shall be in accordance with Section 52, "Reinforcement," of the Standard Specifications.

7.1 Anchor Bolts

Anchor bolts be threaded at both the top and bottom and shall have an anchor plate secured at the bottom in accordance with the Standard Plans. Anchor bolts; washers, and nuts intended for use in foundations for standard poles shall be fabricated from steel conforming to strength requirements of ASTM F1554, Grade 55 and in accordance with Sections 56-3.02, and Sections 75-1.02 of the Standard Specifications. The anchor bolts; anchor bars or

studs, washers, and nuts shall be fully galvanized in accordance with the requirements of their ASTM.

8 Standards

Standards, shall conform to the provisions in Section 86-1.02J, Section 87-1.03J and Section 56-3 of the Standard Specifications and Standard Plans, except as amended herein and in the Special Provisions.

It is the CONTRACTOR responsibility to ensure that all standards, poles, pedestals, and posts provided under this CONTRACT conform to the project PLANS. The CITY will not review or approve submittals unless otherwise specified on the Project PLANS or herein these specifications.

The final location of all standards, poles, pedestals shall be approved in the field by the ENGINEER. The final location of pole shall be potholed prior to excavation of foundation.

Signal standard installation shall maintain a 3' minimum clearance from centerline of standard to face of curb unless otherwise shown on the PLANS or directed by the ENGINEER. 4' wide clearance for ADA walkway shall also be considered. Affected PCC walk shall be restored.

Signal standards and mast arms shall be the designed per dimensions specified in the Standard Plans, unless otherwise noted on the PLANS. Slip-fit mast arms, truss arms and tie rods shall not be used with mast arm installation.

Any pipe tenons unused, or intended specifically for future use, shall be securely capped as directed by the ENGINEER. Mast arms delivered with unneeded pipe tenons shall be rejected.

Standards shall be manufactured and installed as such that the handhole access faces the downstream direction of vehicular travel.

CONTRACTOR shall ensure each standard is delivered from the manufacturer equipped with an identification tag in strict accordance with the Section 56-3.01C(3) of the Standard Specifications and Standard Plan ES-7M.

Plumbing of the standards shall be accomplished by adjusting the nuts on the anchor bolts before the foundation mortar cap is placed. Shims or other similar devices for plumbing the standard or raking will not be permitted. After plumbing the standard, anchor bolts shall be cut off 0.250-inch above the nuts. Repair newly exposed or damaged galvanized surfaces in accordance to the provisions in Section 75-1.02B, "Galvanizing," of the Standard Specifications.

The CONTRACTOR shall furnish and install all intersection signs on standards as shown on the PLANS and per the Special Provisions to the satisfaction of the Engineer.

Payment for furnishing, installing, transporting, storage or relocation of traffic signal poles shall be considered included in the contract bid price paid for construction of traffic signal and safety lighting facilities. No additional compensation will be allowed.

9 Conduit

Conduit shall conform to the provisions of Sections 86-1.02B, "Conduit and Accessories," and 87-1.03 "Construction" of the Standard Specifications, except as amended herein and in the Special Provisions.

Traffic signal conduit shall be 2½" nominal size unless otherwise specified on the construction PLANS.

Section 87-1.03B(1), Paragraph 7, Item 4, is revised to read as follows: "4" *from controller cabinet to adjacent pull box*", and Item 7 is hereby deleted.

Type 3 non-metallic conduit and fittings shall be used unless specifically noted on the construction PLANS. Where allowed, all non-metallic conduit shall be rigid, extra heavy wall schedule 80 polyvinyl chloride (PVC). The conduit shall conform to the requirements set forth in the NEMA Standard Specification TC-2 for electrical plastic conduit EPC-80.

Conduit termination in a pull box shall be of the same materials.

~~The first paragraph of Section 87-1.03B(3)b, "Conduit in Trenches," shall be deleted.~~

~~Conduit runs under some areas of A.C. pavement or dirt parkways may be installed by trenching methods with permission of the ENGINEER. Trenching methods shall conform to the requirements in Section 87-1.03B(3)(b), "Conduits in Trenches". Material and compaction for backfill shall be as specified in Section 87-1.03B(3)(b)(i), "General".~~

The CONTRACTOR shall notify the ENGINEER immediately of any foreseen necessity to use trenching methods (open cut) in any portion of the street right-of-way.

All trench, bore pit, and pilot hole excavations within paved roadways shall be backfilled and capped.

A duct sealant satisfactory to the ENGINEER shall be applied around underground conduit terminating inside the traffic controller cabinet at the point where the conduit enters the cabinet to prevent moisture intrusion.

10 Pull Boxes

Pull boxes shall conform to the provisions in Section 86-1.01C(2), "Pull Boxes"; Section 86-1.02C, "Pull Boxes"; and Section 87-1.03C, "Installation of Pull Boxes," of the Standard Specifications, Standard Plans, except as amended herein and in the Special Provisions.

Section 86-1.01C(2), "Pull Boxes," is revised to read as follows: "*CONTRACTOR to submit Certificates of Compliance for pull boxes as directed by the ENGINEER.*"

The Second Paragraph of Section 86-1.02C(1), "General" is revised to read as follows, and the third paragraph is hereby deleted"

"Cover marking must be on of the following:

1. *"TRAFFIC SIGNAL" for a signal and safety lighting system*

Plastic pull boxes shall not be used.

Pull box covers/lids shall be made of lightweight polymer concrete. Pull box and cover must comply with ANSI/SCTE 77, "Specification for Underground Enclosure Integrity," for Tier 22 load rating.

The pull boxes shown on the construction PLANS are to be installed as a minimum. The CONTRACTOR may, at his own expense, install additional or large pull boxes to facilitate his work with the approval of the ENGINEER.

Pull boxes shall be No. 6 unless noted otherwise on the construction PLANS. Pull boxes installed at locations immediately adjacent to the controller cabinet shall be No.6E unless otherwise specified by the ENGINEER.

Pull boxes shall not be installed in any part of pedestrian access ramps or driveways.

Traffic bearing pull boxes with metallic lids shall not be permitted unless otherwise shown on the construction PLANS.

11 Conductors, Cables and Wiring

Conductors, cables and wiring shall conform to the provisions in Section 86-1.02F, "Conductors and Cables," and Section 87-1.03F, "Conductors and Cable Installation," of the Standard Specifications, except as amended herein and in the Special Provisions.

~~Loop Detector Lead in Cable (DLC) shall be Type B.~~

~~Inductive loop conductors shall be Type 2.~~

The second paragraph of Section 87-1.03F(3)(a), "General," of the Standard Specifications is hereby deleted.

Three feet of slack shall be provided for each conductor or cable in each pull box.

Where new conductors are to be added to existing conduits, the CONTRACTOR shall:

1. Pull out existing conductors from the conduit and test the conductors for any defects per the Standards Specifications.
2. Clean the conduit per Section 87-1.03 of the Standard Specifications.

3. Replace all defective conductors with new conductors. Replacement of damaged conductors will be made by the CONTRACTOR. Compensation will be granted for the replacement of the conductors in accordance with Section 3 "Control of the Work," of the "GREENBOOK, Standard Specifications for Public works Construction, 2021 edition.
4. Pull new conductors into the conduit as a unit.

No splices shall be made in conduits, unless specified otherwise on the PLANS or by permission of the ENGINEER. Splices will be permitted only in the following types of circuits at the following locations:

1. Grounding signal light conductors in pull boxes.
2. Accessible pedestrian signal and push button conductors in a pull box.
3. Multiple lighting conductors in bases of standards or in pull boxes.

Color coding for conductors to pedestrian signals shall be black for pedestrian phases 2 and 6, orange for pedestrian phases 4 and 8, yellow for pedestrian phases 1 and 5, violet for pedestrian phases 3 and 7. A red stripe conductor is to be added for "Don't Walk" and a green stripe conductor for "Walk" indications.

The CONTRACTOR shall install new conductors where the PLANS designate that the existing conductors are to be "replaced".

Unless otherwise specified or permitted by the ENGINEER there will be no looping of phase wires between poles.

The CONTRACTOR may install signal cable. However, extra work to increase the conduit size shown on the PLANS, or for installation of new additional conduits to install cable shall not be granted. A conductor cable layout shall be submitted to the ENGINEER for approval.

12 Bonding and Grounding

Bonding and Grounding shall conform to the provisions in Sections 86-1.02F(2)(c)(ii), "Bonding Jumpers and Equipment Grounding Conductors"; 86-1.02O, "Grounding Electrodes"; 87-1.03F(3)(c), "Copper Conductors"; 87-1.03J, "Standards, Poles, Pedestals, and Posts"; and 87-1.03O, "Grounding Electrodes" of the Standard Specifications, except as amended herein and in the Special Provisions.

Grounding jumper shall be attached by a 3/16-inch or larger brass bolt in the standard or pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box.

Bonding jumper shall be visible after the cap has been placed on foundation.

Bond and ground metal service conduit as specified in NEC and by the City of Upland's Public Utilities Department or service utility owner requirements.

Bonding where non-metallic type conduits are allowed by the ENGINEER, a #6 gauge copper wire shall be run continuously in circuits used for series lighting, and a #10 copper wire shall be run continuously in all other circuits. Equipment bonding and grounding conductors are not required in conduits which contain only loop lead-in cable.

14 Testing

Testing shall conform to the provisions in Section 87-1.01D, "Quality Assurance," of the Standard Specifications, except as amended herein and in the Special Provisions,

Acceptance of new or modified traffic signal will be made only after all traffic signal circuits have been thoroughly tested. Perform functional test to show that each part of the system functions as specified.

The ENGINEER/Traffic Engineer shall be notified, in writing, at least five (5) days prior to the intended "turn-on" and beginning of signal operational test.

Turn-on of the new or modified traffic signal system to start the required five (5) day operational test shall not start on a Friday, Saturday, Sunday, holiday or any day proceeding a holiday. No exceptions will be made.

Prior to turn-on, all equipment, and wiring as shown on the PLANS, shall be installed and operable. A qualified representative of the CONTRACTOR shall be present to immediately correct any deficiencies (i.e., loop wiring, signal wiring, head adjustments, etc.) that arise subsequent to the turn-on. All louvers, hoods and signal heads must be aligned to provide proper visibility. All signs, striping and pavement markings as required on the PLANS shall be in place prior to turn-on.

The CONTRACTOR shall arrange to have a CITY signal technician to work on controller and the controller cabinet manufacturer, or his representative, present at the time the equipment is turned-on during the first day of the operational test and upon completion of the field installation.

Payment for conformance to this section shall be considered as included in the price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

16.1 Cabinet Wiring

Cabinet wiring shall conform to the provisions in Chapter 6, Section 5, "Cabinet Wiring," of the 2009 Caltrans Standard Transportation Electrical Equipment Specifications (TEES), except as amended herein and in the Special Provisions.

All wiring supplied in the cabinet is to conform to Military Specification: MIL-W-16878D, Type B, No. 22 or larger. Ribbon cables with gold connectors can be used for terminal connections. Terminal connections shall be by the use of mechanically wrapping and

soldering, or the use of solderless lugs with the proper crimping tool. The rear of the load bay shall be mechanically wrapped and soldered.

A minimum of 0.125-inch of tinned (soldered) wire shall protrude from hole of feed-through lugs. All integrated circuits (IC) shall be removable. There is to be no more than three terminated wires per individual terminal post. The following control circuits available in the controller shall be brought out to terminals to facilitate utilization of additional features in the future:

All A, B, and C connectors shall be NEMA designated inputs and outputs as defined in the NEMA Standards Publication No. TS-1 for Traffic Control Systems.

D-Connector pin “g” shall be wired to Auto/Flash switch of the police panel.

Pedestrian call inputs shall be routed directly to the ~~NEMA~~ controller unit. There shall not be any form of pedestrian isolation card. The return circuit for the pedestrian push button shall use controller logic ground. The logic ground shall be solely used for pedestrian calls. Field pedestrian pushbutton wires shall be wired to terminals 667-670 for pedestrian phases 2 through 8 respectively. Pedestrian return wires shall be wired to Terminals 671-672.

Each load switch shall have three (3) terminals such that three +120 V outputs are available as outputs. The vehicular load switch position shall include a terminal for Red, Yellow and Green outputs while pedestrian load switch position shall include a terminal for Don’t Walk, Pedestrian Clearance and Walk outputs.

The terminals shall be accessible without the need to move equipment stored on the shelves around. No terminals shall be located on the side of the cabinet behind the load bay.

All equipment cables shall be routed either around the interior side of the controller cabinet or under the shelf upon which the appropriate equipment is sitting. No equipment cables will be allowed to hang across the interior of the cabinet.

16.2.2—Cabinet Detection

~~Cabinet assemblies shall conform to the provisions in Chapter 5 "Specifications Detector Sensor Units, Elements and Isolators," of the 2009 Caltrans Standard Transportation Electrical Equipment Specifications (TEES), except as amended herein and in the Special Provisions.~~

~~Vehicle "call detectors" shall be two channel, rack mounted, inductive loop type with external timing switches conforming to EDI Model #LM 602t Specifications or approved equivalent. "System detectors" shall conform to the same. The "system detectors" shall be connected in numeric order to the "D" cable, as opposed to the associated NEMA phase (i.e., "D" cable pin out #1 = "system detector" #1, etc.). Two discrete detector racks shall be provided and wired for the phase configuration as directed by the City's Traffic Signal Systems Maintenance Services (714 765 6913).~~

~~Labels corresponding to detector loop grouping shall be provided on the face of the shelf supporting the detector sensor units. Detector racks are to be discreet wired and soldered.~~

~~Detector power supplies shall be rack mounted. The power supply pin out configuration shall be identical to EDI Model #PS 175 (24 volt) power supply. All detector power supplies shall be interchangeable.~~

17 Traffic Signal Faces and Fittings

Signal faces, signal heads, and mounting framework, as shown on the PLANS, and the installation thereof, shall conform to the provisions in Section 86-1.02R and 87-1.03R, "Signal Heads" of the Standard Specifications and Standard Plans No(s). ES-4A through ES-4E, except as amended herein and in the Special Provisions.

All signal faces shall be 12-inch equipped with "tunnel" visors and louvered back plates unless shown otherwise on the construction PLANS.

Signal head sections, visors, and back plates shall be metal. Plastic materials shall not be permitted. ~~Paragraphs 3 and 4 of Section 86-1.02R(3), "Backplates", and Paragraph 4 of Section 86-1.02R(4) "Signal Faces" of the Standard Specifications are hereby deleted. Replace the 5th paragraph of Section 86-1.02R(3), Backplates, with the following:~~

~~*"A retroreflective strip around the perimeter of the backplate(s) face shall not be used unless otherwise specified on the plans."*~~

For signal and lighting systems where existing backplates with reflective strips are present, reflective strips shall be required on all new backplates. The strip must be Type XI fluorescent yellow retroreflective sheeting on the Authorized Material List for signing and delineation materials."

LED signal modules proposed for installation under this CONTRACT shall be listed on the Caltrans Authorized Material List for LED traffic signal modules at the below link:

<https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/mets/led-traffic-signal-module-a11y.pdf>

Paragraphs 1 and 2 of Section 87-1.01D(2), "Quality Control," of the Standard Specifications shall be deleted.

The CONTRACTOR shall submit for the necessary product deliverables for each type of (i.e., red/yellow/green indication) LED modules proposed for installation for review and approval. Product deliverables shall consist of product information, which includes the manufacturer, model number, Specifications, wattage consumption, and a Certificate of Compliance with State Specifications.

LED modules shall be hard-wired to terminal block in signal housing compartment. Screw-in adapters shall not be allowed.

Programmed visibility signal sections shall not be used unless otherwise shown on the PLANS.

Signal head mountings with terminal compartments shall be used. All mountings shall be located to provide a minimum of 24-inch horizontal clearance from the edge of the signal visor or pedestrian head to the curb face. All terminal compartments shall be bronze.

Where signal heads are on the side of poles, the heads shall be mounted on the side away from the traveled roadway.

Costs for furnishing, transporting, installing vehicle signals, signal housings, LED modules, mounting assemblies and all necessary auxiliary equipment shall be considered as included in the bid price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

18 Pedestrian Signal Sections

Pedestrian signal heads and mounting equipment shall conform to the provisions in Section 86-1.02S "Pedestrian Signal Heads" and Section 87-1.03S, "Pedestrian Signal Heads", of the Standard Specifications, except as amended herein and in the Special Provisions.

Pedestrian signal mountings and terminal compartments shall consist of "side mount pedestrian signal" (SP) type framework unless otherwise directed by the ENGINEER.

All new pedestrian indications shall be Light Emitting Diode (LED) countdown pedestrian signal face indications. Modules shall be combination filled upraised hand and walking man type. Pedestrian Signal Face (PSF) module shall be installed into a Type A pedestrian signal housing with Z-crate type front screen conforming to Standard Specifications.

LED countdown pedestrian signal face modules proposed for installation under this CONTRACT shall be listed on the Caltrans Authorized Material List for LED Countdown Pedestrian Signal Face Modules.

<https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/mets/led-traffic-signal-module-all1y.pdf>

Pedestrian countdown timers must be compatible with new or existing Accessible Pedestrian Signal (APS) systems.

Paragraphs 1 and 2 of Section 87-1.01D(2), "Quality Control," of the Standard Specifications shall be deleted.

The CONTRACTOR shall submit for the necessary product deliverables for the LED pedestrian signal modules proposed for installation for review and approval. Product deliverables shall consist of product information, which includes the manufacturer, model number, Specifications, wattage consumption, and a certificate of compliance with these Specifications. Any LED pedestrian signal module installed without obtaining the required approvals shall be rejected. The CONTRACTOR may also be requested to submit a copy of the factory testing documentation as deemed necessary.

Costs for furnishing, transporting, installing pedestrian signals, signal housings, pedestrian signal face modules, mounting assemblies and all necessary auxiliary equipment shall be considered as included in the bid price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

19 Modular Video Detection System

19.1 General

This specification sets forth the minimum requirements for a system that detects vehicles on a roadway using a single camera or multi-sensor detection system.

The multi-sensor system shall utilize two different sensors of different technologies, video imaging and radar, to detect and track licensed and unlicensed vehicles at distances over 600 feet (180 meters). The sensor system shall fuse vehicle information from the two sensors to provide highly accurate and precise detection for simultaneous stop bar presence detection, advanced detection, and special or advanced applications. Additionally, the system shall output data related to the system operation and its detection information.

19.1.1 System Hardware

The multi-sensor detection system (MSDS) shall consist of up to four hybrid video camera/radar sensors or camera only sensors in any combination, a Cabinet Interface (CI) capable of processing from one to four sensors, one Power Injector (PI), input/output extension modules, surge suppressors, HDMI monitor and a pointing device, or any combination thereof. Additionally, a rack mounted unit for 33X style cabinets shall also be

available incorporating both the above referenced Power Injector and Cabinet Interface capabilities into a single 19" 2U height EIA rack mounted unit.

The MSDS will be deployed at locations where site conditions and roadway geometry vary. The MSDS system may also be deployed at locations where existing cabinets or equipment exist. Existing site configurations will dictate the availability of cabinet space and MSDS usage.

19.2 System Software

The system shall include software that discriminately detects the presence of individual vehicles and bicycles in a single or multiple lanes using only the video image. Detection zones shall be defined using only an embedded software application. A monitor, a keyboard and a pointing device are used to place the zones on a video image. A minimum of 32 video detection zones and 16 radar detection zones plus 5 trip lines per sensor shall be available.

Additionally, the system shall include Artificial Intelligence (AI) algorithms which will detect, track and classify objects into a plurality of classes including, cars, buses, trucks, trailers, work vans, motorcycles, cyclists, pedestrians, emergency vehicles, scooters and mobility devices. There shall be no requirement to set any configuration for the AI algorithms. The AI algorithms will detect, track and classify object anywhere in the Field Of View (FOV) irrelative of direction or location within the intersection. The system will store data on the volume of each class in the Bin Data structure for future retrieval. The system will utilize advanced Artificial Intelligence (AI) algorithms to perform this and other functions.

A separate computer shall not be required to program the detection zones. In addition to creating vehicle and bicycle zones, the system shall automatically define a pedestrian crossing area in front of the stop bar zones. The system shall provide a tracking mechanism that counts pedestrian volume moving within this crossing area, and also determine the average, maximum, and minimum speed of pedestrians moving within this crossing zone for each direction of movement. The system shall also provide discrete outputs when pedestrians are in the crosswalk during normal crossing phases (one for each direction of travel) and when a red phase input has been detected. The system shall also provide a visual indication on the video image that a pedestrian is in the crosswalk.

All the functions described in this section and detailed elsewhere below will be performed in real time at the installation location of the MSDS.

1.3 The MSDS shall be made in the U.S.A. in compliance with FTA "Buy America" regulations.

19.2 MSDS Hardware Power Injector

The MSDS Power Injector (PI) shall be supplied by the MSDS manufacturer.

All connections to the PI shall be on the front panel.

19.2.1 PI Power

19.2.1.1 The PI shall be powered from an 110V, 60Hz supply. PI power consumption shall not exceed 10 Watts.

19.2.1.2 The PI shall be appropriately grounded to the cabinet ground rod using 14 AWG (2.5mm²) minimum. PI to ground rod resistance may not exceed 20ohms.

19.2.2 Power Surge Suppression

The PI shall incorporate power surge suppression both on the input power and on the power supplied to the sensors. The PI shall be appropriately grounded to the cabinet ground rod using 14 AWG (2.5mm²) minimum.

19.2.3 Power Management

The PI shall incorporate power management for the various parts of the MSDS such that if fault conditions are detected the power supply will safely shut down the power to that peripheral.

19.2.4 Power Isolation

The PI shall incorporate isolation switches for each sensor connection such that power to individual sensors may be manually disabled. The isolation switch shall incorporate an indicator to identify is power is active to the sensor.

19.2.5 Sensor Input

Each sensor shall be connected to PI via a two part terminal block. The sensor connector shall require no specialized tools to make the connect.

19.2.6 Sensor Cabinet Interface Connection

Connection from the PI to the CI for sensor inputs shall be via four RJ-45 sockets. The connection shall be made with standard Ethernet patch cables.

19.2.7 EM BUS Cabinet Interface Connection

Connection from the PI to the CI for EM Bus shall be via one RJ-45 socket. The connection shall be made with standard Ethernet patch cables. The PI shall provide an additional output connection via a RJ-45 connection for expansion of the EM Bus. The EM Bus connection will utilize a 7-segment display to show enumeration of the EM Bus. The RJ-45 sockets will utilize two LEDs to indicate various operations of the EM Bus.

19.2.8 Indicators

- The PI shall provide a LED indicator to show power is present.
- The PI shall provide a LED indicator to show the status of the surge protection.

19.2.9 Operating Temperature

The MSDS shall operate satisfactorily in a temperature range from -30° F to +165° F (-34° C to +74° C) and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

19.3 MSDS Cabinet Interface

The MSDS Cabinet Interface (CI) shall be supplied by the MSDS manufacturer.

19.3.1 Hardware

The CI shall be supplied in following form factor. Shelf-Mount format; TS2 version. The CI shall be able to stand up on available shelf-space within the cabinet. All connections shall be made from the front of the CI.

19.3.2 CI Power

19.3.2.1 The CI shall be powered from an 110V, 60Hz supply. CI power consumption shall not exceed 60 Watts.

19.3.2.2 The CI shall be appropriately grounded to the cabinet ground rod using 14 AWG (2.5mm²) minimum. CI to ground rod resistance may not exceed 20ohms.

19.3.3 Operating Temperature

The MSDS shall operate satisfactorily in a temperature range from -30° F to +165° F (-34° C to +74° C) and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

19.3.4 On-board Memory

The CI shall utilize non-volatile memory technology to store on-board firmware and operational data so that no data is lost during power interruptions.

19.3.5 Interfaces

19.3.5.1 Extension Modules

Extension modules (EM) shall be available to eliminate the need of rewiring the detector rack, by enabling the user to plug an extension module into the appropriate slot in the detector rack to provide additional open collector outputs. The EM shall be available in both 2- and 4-channel configurations. EM configurations shall be programmable from the CI. A separate I/O module shall also be available having 32 outputs through a 37-pin "D" connector on the front panel and 8 inputs through a 15-pin "D" connector using an external wire harness for expanded flexibility.

19.3.5.2 EM Power

The EM shall be powered by 12 or 24 volts DC. EM modules shall automatically compensate for either 12 or 24 VDC operation. The EM power consumption shall not exceed 3 watts.

19.3.5.3 The CI shall provide four ports for connection to the Power Injector. The sensors may be any combination of MSDS Sensor or VDS Camera Sensor. The connector shall be an RJ-45 type.

19.3.5.4 The CI shall provide 2 USB 'A' ports and 2 USB 'C' ports on the front panel. These ports can be utilized for various functions. For example, keyboard and mouse functions

during system configuration, USB storage devices can be utilized for bin data and video collection. The USB ports shall not require special mouse software drivers. The USB ports shall be used as part of system setup and configuration.

19.3.5.5 The CI shall provide an output to a monitor. The port shall be HDMI. The native resolution of the monitor port shall be 1920 x 1080 (Full HD).

19.3.5.6 Communications

An Ethernet communications port shall be provided on the front panel. The Ethernet port shall be compliant with IEEE 802.3 and shall use a RJ-45 type connector mounted on the front panel of the CI. The Ethernet communications interface shall allow the user to remotely configure the system and/or to extract calculated vehicle/roadway information. The interface protocol shall be documented or interface software shall be provided. Each MSDS shall have the capability to be IP addressable. The CI shall support data rates of up to 100Mbps.

19.3.5.7 The CI shall provide an SDLC connection to the Traffic Controller. The connector shall be a 'D-15' type, in compliance with NEMA TS-2 specifications.

19.3.5.8 The CI shall provide an indicator when the SDLC port is active.

19.3.5.9 The CI shall provide an indicator when the unit has power.

19.3.5.10 The CI shall provide an indicator when the unit is on line.

19.3.5.11 The CI shall provide a Wi-Fi connection. The connection shall be over a standard 2.4GHz connection. The Wi-Fi connection shall be enabled and disabled by a switch on the CI. The CI shall provide an indicator when the Wi-Fi connection is active.

19.3.5.12 The CI shall provide a connection for a removable antenna. The antenna connection shall be a SMA Male type.

19.3.5.13 The CI shall provide system status via an on-board Organic Light Emitting Diode display. The display shall indicate various system parameters, such as sensor health, firmware version. The display will be enabled with a switch on the CI. The display will automatically disable 15 minutes after the button is pressed.

19.3.6 Firmware Upgrade

The CI shall enable the loading of modified or enhanced software through either the Ethernet or front-panel USB port (using a USB thumb drive) and without removing or modifying the CI hardware. The upgrade will affect all components of the system.

19.4 MSDS Multi-Sensor

The MSDS sensor shall be supplied by the MSDS manufacturer and consist of two components; a camera sensor and a radar sensor mounted in a single housing.

19.4.1 The MSDS sensor shall utilize a single minimum 16AWG 110VAC rated cable for power, communications and video. Cable termination at the camera shall not require crimping or special tools. The cable termination shall only require a standard wire stripper and a screw driver. No connectors (e.g. BNC) shall be allowed.

19.4.2 Camera Sensor

19.4.2.1 The camera sensor shall allow the user to set the focus and field of view of the camera imager via the MSDS software. Sensor control from the controller cabinet shall communicate over a 16 AWG 3-core cable. No additional wires shall be required.

19.4.2.2 The camera imager shall produce a useable video image of the features of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the minimum range from nighttime to daytime, but not less than the range 0.5 lux to 10,000 lux.

19.4.2.3 The camera imager electronics shall include automatic gain control (AGC) to produce a satisfactory image at night for the MSDS algorithms.

19.4.2.4 The camera imager luminance signal to noise ratio (S/N) shall be more than 50 dB with the automatic gain control (AGC) disabled.

19.4.2.5 The camera imager shall employ three dimensional dynamic noise reduction (3D-DNR) to remove unwanted image noise.

19.4.2.6 The camera imager shall employ wide dynamic range (WDR) technology to compensate for wide dynamic outdoor lighting conditions. The dynamic range shall be greater than 100 dB.

19.4.3 The camera imager shall be digital signal processor (DSP) based and shall use a CCD or CMOS sensing element and shall output color video with resolution of 1080P. The color CCD or CMOS imager shall have a minimum effective area of 1920(h) x 1080(v) pixels.

19.4.3.1 The camera imager shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter. The electronic shutter shall operate between the range of 1/60th to 1/90,000th second.

19.4.3.2 The camera imager shall utilize automatic white balance.

19.4.3.3 The camera imager shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

19.4.3.4 The horizontal field of view shall be adjustable from 4.5 to 48 degrees. The sensor camera lens shall be a 12x zoom lens with a focal length of 3.5mm to 35mm. The sensor lens should yield a rectilinear image.

19.4.3.5 The sensor camera lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

19.4.3.6 The sensor shall incorporate the use of preset positioning that store zoom and focus positioning information. The sensor shall have the capability to recall the previously stored preset upon application of power.

19.4.3.7 The camera imager shall be housed in a weather-tight sealed enclosure. The housing shall allow the sensor camera to be rotated to allow proper alignment between the sensor camera and the traveled road surface.

19.4.3.8 The sensor camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera sensor's field of view. The camera sensor enclosure with sunshield shall be less than 3.5" (89mm) diameter, less than 5.25" (133mm) long, and shall weigh less than 2.5 pounds (1.14kg) when the camera and lens are mounted inside the enclosure.

19.4.3.9 The enclosure shall be designed so that the pan, tilt and rotation of the camera sensor assembly can be accomplished independently without affecting the other settings.

19.4.3.10 Camera Lens

The camera sensor enclosure shall include a proportionally controlled Indium Tin Oxide (ITO) lens coating for the heating element of the front glass that maximizes heat transfer to the lens. The output power of the heater shall vary with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure. The transparent coating shall not impact the visual acuity and shall be optically clear. The glass face on the front of the camera sensor enclosure shall have an anti-reflective coating to minimize light and image reflections.

19.4.3.11 When mounted outdoors in the enclosure, the camera sensor shall operate satisfactorily in a temperature range from -30° F to +140° F (-34 °C to +60 °C) and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon DP system operation.

19.4.4 Radar Sensor

19.4.4.1 The radar sensor shall operate in the 24 GHz frequency band and shall operate without interference with other radar sensors connected to the MSDS.

19.4.4.2 The radar detection range shall be over 600 feet (180 meters) minimum, +/- 5%.

19.4.4.3 The radar sensor shall be able to track up to 64 independent objects simultaneously.

19.4.4.4 The radar sensor shall detect objects by utilization of four dimensions. Those dimensions shall be:

- Speed (Velocity)
- Distance (Range)
- Angle (Azimuth)
- Height (Elevation)

19.4.4.5 Object speed detection shall be within a range of 0 to 150 miles per hour +/- 1.0 miles per hour (240 km per hour \pm 1.5 km per hour).

19.4.4.6 The radar sensor shall be able to detect vehicles in 1 to 6 traffic lanes.

19.4.4.7 The radar sensor shall be housed in a weather-tight sealed enclosure conforming to IP-67 specifications. The housing shall allow the radar to be adjusted to allow proper alignment between the sensor and the traveled road surface.

19.4.4.8 When mounted outdoors in the enclosure, the radar shall operate in a temperature range from -30 oF to +165 oF (-34 °C to +74 °C) and a humidity range from 0% RH to 100% RH.

19.4.4.9 The radar sensor shall communicate with the sensor data combiner.

19.4.4.10 The radar sensor shall acquire its power from the sensor data combiner.

19.4.5 Both camera imager and radar sensors shall be housed in an overall, single enclosure assembly.

19.4.6 The overall size of the multi-sensor enclosure shall not exceed 14 inches x 15 inches x 17 inches (355mm x 380mm x 430mm).

19.4.7 The overall weight of the multi-sensor unit shall not exceed 11 pounds (5kg).

19.4.8 The effective projected area (EPA) shall not exceed 2.0 square feet (0.6 square meters).

19.4.9 The maximum power consumption for the multi-sensor assembly shall be less than 20 watts typical, 25 watts peak.

19.4.10 Recommended sensor placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection the MSDS sensor should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet (107 meters) for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

19.4.11 The video signal shall be fully isolated from the sensor enclosure.

19.4.12 Sensor Data Combiner

19.4.12.1 A sensor data combiner that combines sensor information from both video and radar sensors shall be employed.

19.4.12.2 The sensor data combiner shall supply primary power to each sensor unit.

19.4.12.3 The sensor data combiner shall facilitate digital communications between the sensor data combiner and each of the sensor units.

19.4.12.4 The sensor data combiner shall get its primary power from AC power sourced from the PI using outdoor rated, 16AWG 110VAC cable.

19.4.12.5 The sensor data combiner shall communicate with the CI using a single outdoor rated, 16AWG 110VAC cable. Both video imaging and radar data shall use the single cable.

19.4.12.6 The sensor data signal shall be fully isolated from the mechanical enclosure

19.4.12.7 Cable terminations at the sensor data combiner shall not require crimping tools.

19.4.12.8 The sensor data combiner shall be housed in a weather-tight sealed enclosure conforming to IP-67 specifications.

19.4.13 A weather-proof protective cover shall be provided shall be provided to protect all terminations at the sensor.

19.4.14 The sensor assembly shall include a temperature sensor. The sensor will be polled by the MSDS every minute and will supply the current air temperature. The MSDS software will display this information on the On-Screen Display for each sensor.

19.5. VDS Camera Sensor

The VDS camera sensor shall be supplied by the VDS manufacturer.

19.5.1 The MSDS sensor shall utilize a single minimum 16AWG 110VAC rated cable for power, communications and video. Cable termination at the camera shall not require crimping or special tools. The cable termination shall only require a standard wire stripper and a screw driver. No connectors (e.g. BNC) shall be allowed.

19.5.2 The camera sensor shall allow the user to set the focus and field of view via the VDS software. Camera sensor control from the controller cabinet shall communicate over a single 16AWG 3 core cable. No additional wires shall be required.

19.5.3 The camera shall produce a useable video image of the features of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the minimum range from nighttime to daytime, but not less than the range 0.5 lux to 10,000 lux.

19.5.4 The camera electronics shall include automatic gain control (AGC) to produce a satisfactory image at night for the VDS algorithms.

19.5.5 The imager luminance signal to noise ratio (S/N) shall be more than 50 dB with the automatic gain control (AGC) disabled.

19.5.6 The imager shall employ three dimensional dynamic noise reduction (3D-DNR) to remove unwanted image noise.

19.5.7 The camera imager shall employ wide dynamic range (WDR) technology to compensate for wide dynamic outdoor lighting conditions. The dynamic range shall be greater than 100 dB.

19.5.8 The camera shall be digital signal processor (DSP) based and shall use a CCD or CMOS sensing element and shall output color video with resolution of not less than 540 TV lines. The color CCD or CMOS imager shall have a minimum effective area of 1920(h) x 1080(v) pixels.

19.5.9 The camera shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter. The electronic shutter shall operate between the range of 1/60th to 1/90,000th second.

19.5.10 The camera shall utilize automatic white balance.

19.5.11 The camera shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

19.5.11.1 The horizontal field of view shall be adjustable from 4.5 to 48 degrees. This camera configuration may be used for the majority of detection approaches in order to minimize the setup time and spares required by the user. The lens shall be a 12x zoom lens with a focal length of 3.5mm to 35mm. The sensor lens should yield a rectilinear image.

19.5.12 The lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

19.5.13 The camera shall incorporate the use of preset positioning that store zoom and focus positioning information. The camera shall have the capability to recall the previously stored preset upon application of power.

19.5.14 The camera shall be housed in a weather-tight sealed enclosure. The housing shall allow the camera to be rotated to allow proper alignment between the camera and the traveled road surface.

19.5.15 The camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera's field of

view. The camera enclosure with sunshield shall be less than 3.5" (89mm) diameter, less than 5.25" (133mm) long, and shall weigh less than 2.5 pounds (1.14kg) when the camera and lens are mounted inside the enclosure.

19.5.16 The enclosure shall be designed so that the pan, tilt and rotation of the camera assembly can be accomplished independently without affecting the other settings.

19.5.17 Camera Lens

19.5.18.1 The camera enclosure shall include a proportionally controlled Indium Tin Oxide (ITO) lens coating for the heating element of the front glass that maximizes heat transfer to the lens. The output power of the heater shall vary with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure. The transparent coating shall not impact the visual acuity and shall be optically clear.

19.5.18.2 The glass face on the front of the enclosure shall have an anti-reflective coating to minimize light and image reflections.

19.5.17.3 The glass face on the front of the enclosure will include a Titanium Dioxide self cleaning coating

19.5.18 When mounted outdoors in the enclosure, the camera shall operate satisfactorily in a temperature range from -30° F to +140° F (-34 °C to +60 °C) and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon VDP system operation.

19.5.19 Power consumption shall be 15 watts typical and 20 watts or less under worst conditions.

19.5.20 Recommended camera placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection the camera should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet (107 meters) for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

19.5.21 The video signal shall be fully isolated from the camera enclosure.

19.5.22 Cable terminations at the camera for video and power shall not require crimping tools.

19.5.23 A weather-proof protective cover shall be provided shall be provided to protect all terminations at the camera. No special tooling shall be required to remove or install the protective cap.

19.5.24 The camera assembly shall include a temperature sensor. The sensor will be polled by the VDS every minute and will supply the current air temperature. The VDS software will display this information on the On-Screen Display for each camera.

19.6 MSDS Software

19.6.1 General System Functions

19.6.1.1 Detection zones shall be programmed via an embedded application displayed on a video monitor and a keyboard and a pointing device connected to the CI. The menu shall facilitate placement of detection zones and setting of zone parameters or to configure system parameters. A separate computer shall not be required for programming detection zones or to view system operation. All programming function shall occur on live video images and radar blips, no snapshots or still images are allowed.

19.6.1.2 The MSDS software shall store up to five completely independent detection zone patterns in non-volatile memory. The MSDS can switch to any one of the five different detection patterns within 1 second of user request via menu selection with the pointing device. Each configuration shall be uniquely labeled and able to be edited by the user for identification. The currently active configuration indicator shall be displayed on the monitor.

19.6.1.3 The MSDS shall detect vehicles and bicycles in real time as they travel across each camera detection zone.

19.6.1.4 The MSDS shall detect vehicles in real time as they travel across each radar detection zone.

19.6.1.5 The CI shall automatically define a pedestrian crossing area, and track pedestrians in real-time as they travel across this pedestrian crossing area in both directions of the camera image. The CI shall count pedestrians moving left-to-right, and right-to-left. The CI shall measure the speed of pedestrians moving left-to-right, and right-to-left, and provide the minimum, maximum, and average speed of the pedestrians per the bin interval. These values shall be displayed on-screen for both directions, and an option shall be provided to the user to turn this on-screen display on or off. This data will be stored in local memory for later retrieval via a remote device. The data will be stored at the Bin Interval set in the system.

19.6.1.6 The CI shall automatically define the intersection approach and track vehicles in real-time as they travel across this area of the camera image. The CI shall classify the vehicle and count each type per the bin interval. This data will be stored in local memory for later retrieval via a remote device. The data will be stored at the Bin Interval set in the system.

19.6.1.7 The MSDS will incorporate the use of Artificial Intelligence (AI) to perform some or all of the various video detection and data collection functions.

19.6.1.8 The CI shall provide a discrete output when pedestrians are being tracked in the crosswalk. A separate output may be assigned to each direction of pedestrian travel.

19.6.1.9 The CI shall provide a discrete output when pedestrians are crossing against a red phase. The CI shall allow up to 4 phase inputs to be assigned to each crosswalk.

19.6.1.10 The MSDS shall accept new detection patterns from an external computer through the Ethernet port when the external computer uses the correct communications protocol for downloading detection patterns. A Windows™-based software designed for local or remote connection and providing video capture, real-time detection indication and detection zone modification capability shall be provided with the system.

19.6.1.11 The MSDS shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

19.6.1.12 The MSDS shall send its detection patterns to an external computer through the Ethernet port when requested when the external computer uses the appropriate communications protocol for uploading detection patterns.

19.6.1.13 The MSDS shall default to a safe condition, such as a constant call on each active detection channel, in the event of unacceptable interference or loss of the video and/or radar signal.

19.6.1.14 The MSDS shall be capable of automatically detecting a low-visibility condition of the camera sensor such as fog and respond by placing all affected detection zones in a constant call mode. A user-selected alarm output shall be active during the low-visibility condition that can be used to modify the controller operation if connected to the appropriate controller input modifier(s). The system shall automatically revert to normal detection mode when the low-visibility condition no longer exists. An On-Screen Icon will be displayed while the system is in this mode.

19.6.1.15 Up to 32 detection zones per camera input shall be supported and each detection zone must be user-sizeable to suit the site and the desired vehicle detection region.

19.6.1.16 Up to 16 detection zones per radar input shall be supported and each detection zone must be user-sizeable to suit the site and the desired vehicle detection region.

19.6.1.17 Up to 5 trip lines per radar input shall be supported and each trip line must be user-positionable to suit the site and the desired vehicle detection application.

19.6.1.18 The system shall provide a Group output. When a user defined number of vehicles are present in the radar FOV the system shall activate an output.

19.6.1.19 The MSDS shall provide up to 32 open collector output channels per camera and 16 open collector outputs per radar input using one or more extension modules.

19.6.1.20 The MSDS shall provide discrete outputs when pedestrians are being tracked in the crosswalk. An output may be assigned to pedestrians crossing from left to right and a separate output may be assigned to pedestrians crossing from right to left.

19.6.1.21 The MSDS shall provide a discrete output when pedestrians are crossing against a red phase. The MSDS shall allow up to 4 phase inputs to be assigned to each crosswalk.

19.6.1.22 A single video detection zone shall be able to replace multiple inductive loops and the video detection zones shall be OR'ed as the default or may instead be AND'ed together to indicate vehicle presence on a single approach of traffic movement.

19.6.1.23 When a vehicle is detected within a detection zone, a visual indication of the detection shall activate on the video and radar overlay display to confirm the detection of the vehicle for the zone.

19.6.1.24 Detection shall be at least 98% accurate in good weather conditions, with slight degradation possible under adverse weather conditions (e.g. rain, snow, or fog) which reduce visibility. Detection accuracy is dependent upon site geometry, sensor placement, camera image quality and detection zone location, and these accuracy levels do not include allowances for occlusion or poor video due to sensor location or quality.

19.6.1.25 The MSDS shall provide dynamic zone reconfiguration (DZR). DZR sustains normal operation of existing detection zones when one zone is being added or modified during the setup process. The new zone configuration shall not go into effect until the configuration is saved by the operator.

19.6.1.26 Detection zone setup shall not require site specific information such as latitude and longitude to be entered into the system.

19.6.1.27 The RDS shall process the radar signals from each sensor at 50mS intervals. Multiple processors shall process all radar signals simultaneously.

19.6.1.28 The MSDS shall process the video input from each camera sensor at 30 frames per second. Multiple camera processors shall process all video inputs simultaneously.

19.6.1.29 The MSDS shall output a constant call during the background learning period of no longer than 3 minutes.

19.6.1.30 Detection zone outputs shall be individually configurable to allow the selection of presence, pulse, extend, and delay outputs. Timing parameters of pulse, extend, and delay outputs shall be user definable between 0.1 to 25.0 seconds.

19.6.1.31 Up to eight detection zones per camera sensor view shall have the capability to count the number of vehicles detected. The count value shall be internally stored for later retrieval through the Ethernet port. The zone shall also have the capability to set a delay before the vehicle is counted. Timing parameters shall be user definable between 0.1 to 25.0 seconds. Bin interval is set to 15 minutes.

19.6.1.32 The system shall provide an automatic count function per lane for each movement of vehicles, which includes through moving, right, and left turning vehicles. Once standard detection zones have been configured the system will determine the path of vehicles and begin

to track them. The data shall be stored at a bin interval of 15 minutes. The current count will be displayed on the video image. The current count display may be disabled by the user.

19.6.1.33 In addition, any valid detector output may be assigned to the automatic count. For each count the associated detector output will be pulsed for 100mS.

19.6.1.34 In addition to the count type zone, the MSDS shall be able to calculate average speed and lane occupancy for all of the video detection zones independently. These values shall be stored in non-volatile memory for later retrieval.

19.6.1.35 The MSDS shall automatically count Red-Light Running vehicles. The data will be recorded by lane and stored in 15 minute bin intervals. An optional channel output may be configured for each vehicle lane that is triggered when a red-light runner is detected.

19.6.1.36 The MSDS shall have an “advance” zone type where raw detection output duration to the traffic controller is compensated for angular occlusion and distance.

19.6.1.37 The MSDS shall employ color overlays on the video output.

19.6.1.38 The MSDS shall have the ability to show controller phase status (green, yellow, or red) for up to 8 phases. These indications shall also be color coded.

19.6.1.39 The user shall have the ability to enable or disable the display of the phase information on the video output.

19.6.1.40 The MSDS shall have the capability to change the characteristics of a detection zone based on external inputs such as signal phase. Each detection zone shall be able to switch from one zone type (i.e. presence, extension, pulse, etc.) to another zone type based on the signal state. For example, a zone may be a “count” zone when the phase is green but change to a “presence” zone type when the phase is not green. Another application would be zone type of “extension” when the signal phase is green and then “delay” when red.

19.6.1.41 The MSDS software shall aid the user in drawing additional detection zones by automatically drawing and placing zones at appropriate locations with only a single click of the mouse. The additional zone shall utilize geometric extrapolation of the parent zone when creating the child zone. The process shall also automatically accommodate lane marking angles and zone overlaps.

19.6.1.42 The radar sensor shall have the capability to control the output of each radar detection zone based on a minimum or maximum speed. The minimum speed can be set from 0 mph (0 kph) to 249 mph (400 kph). The maximum speed can be set between 1 mph (1 kph) to 250 mph (402 kph).

19.6.1.43 When the user wishes to modify the location of a zone, the MSDS software shall allow the user move a single zone, multiple zones or all zones simultaneously.

19.6.1.44 When the user wishes to modify the geometric shape of the zone, the MSDS software shall allow the user to change the shape by moving the zone corner or zone sides.

19.6.1.45 On screen zone identifiers shall be modifiable by the user. The user shall be allowed to select channel output assignments, zone type, input status, zone labels or zone numbers to be the identifier.

19.6.1.46 The MSDS shall have the capability to show pedestrian activity in the crosswalk through a visual indication on the video output.

19.6.1.47 The MSDS software shall support bicycle type zones where the zone can differentiate between motorized vehicles and bicycles, producing a call for one but not the other.

19.6.1.48 Bicycle zone types shall only output when a bicycle is detected. Larger motorized vehicles such as cars and trucks that traverse a bicycle zone shall not provide an output.

19.6.1.49 The MSDS software shall provide the ability to assign a separate output channel for bicycle zones to allow traffic controllers to implement special bicycle timing.

19.6.1.50 Placement of bicycle type zones in vehicle lanes shall be allowed.

19.6.1.51 Upon detection of a bicycle, the video output overlay shall indicate active detection as well as providing a unique bicycle detection identifier to visually distinguish bicycle detection versus vehicle detection.

19.6.1.52 Up to six bicycle detection zones per camera view shall have the capability to count the number of bicycles detected in addition to their normal detection function. The count value shall be internally stored for later retrieval through the Ethernet port.

19.6.1.53 Radar Zone Data Display

Current conditions for the 16 radar zones shall be displayed on the video. The conditions are; un-configured, configured and inactive and configured and active.

19.6.1.54 Radar Trip Line and Activity Display

Current conditions of the 5 trip lines and any warning flags from the radar shall be displayed on the video.

19.6.1.55 Radar Data Display

The speed of the last vehicle through the approach will be displayed on the video. The current count of vehicles passing the last trip line will be displayed on the video.

19.6.1.56 Radar Performance Display

Various icons will be deployed on the video stream as part of the On-Screen Display (OSD) to indicate radar operation. These will include Group Mode, Fallback Mode, No Radar Data and Radar Interference.

19.6.1.57 Video Performance Display

Various icons will be deployed on the video stream as part of the On-Screen Display (OSD) to indicate video operation. These will include Low Contrast Mode, Glare Mode, Video Constant Call, Alarm Activated, Algorithm Day and Night Short and Long Modes.

19.6.1.58 Automatic Turning Movement Counts

The system will display the Automatic Turning Movement count for the current bin interval as part of the On-Screen Display (OSD). The data can be disabled by phase.

19.6.2 User Interfaces

This section sets forth the minimum requirements for the MSDS to provide a single point interface to remote and local users. The MSDS shall also have the capability to stream up to eight simultaneous video streams over an Ethernet interface. These streams may be from individual sensors or a quad stream from all sensors.

19.6.2.1 The user interface shall provide capabilities to enable multiple rack-mounted detection processors to be locally and remotely accessed from a single point via an Ethernet connection.

19.6.2.2 The device shall allow the operator to view ten videos simultaneously or any one video by controls embedded in the MSDS.

19.6.2.3 The device shall allow the operator to view either individual video stream from each sensor or a quad video stream from all sensors by controls embedded in the MSDS.

19.6.2.4 Local user access to video detection programming shall be limited to the detection processor unit that is currently being displayed on the monitor.

19.6.2.5 All local programming and setup parameters for the video detection processor shall be user accessible through the interface unit without requiring the user to swap user interface cables between video detection processors.

19.6.2.6 Remote access to the device shall be through the built-in Ethernet port via access software running on a Microsoft Windows based personal computer.

19.6.2.7 Optional local programming and setup parameters for the video detection processor shall be user accessible through the interface unit with a Wi-Fi port via access software running on a Microsoft Windows based personal computer. The Wi-Fi connection shall be disable with a switch on the CI.

19.6.2.8 A Windows OS remote access firmware shall also be available for remote setup and diagnostics of the interface unit.

19.6.2.9 The MSDS shall support streaming video technology using H.264 standards to allow the user to monitor video detection imagery over the Ethernet interface. Motion JPEG streaming video shall not be allowed.

19.6.2.10 The interface unit shall allow eight independent streams, one from each detection processor, to be transported via Ethernet to four independent streaming video players simultaneously in Full HD (1080p) resolution.

19.6.2.11 The interface unit shall support the streaming and display of four concurrent streams in Full HD (1080p) resolution.

19.6.2.12 The interface unit video streams shall be compatible with ONVIF standards.

19.6.2.13 The interface shall allow the user to change the unit's Ethernet network settings of IP address, subnet mask and default gateway.

19.6.2.14 The MSDS shall allow the user to upload new application firmware through the use of the interface, remotely or on-site.

19.6.2.15 A Windows OS based application will be provided to remotely view video streams from the MSDS.

19.6.2.16 An iOS and Android based application shall be available to remotely access each configured MSDS on the agency's network. This application shall allow the user to choose between any number of pre-configured intersection locations. Using the iOS or Android device, the application will allow the user to view live video from any camera at that intersection, including vehicle and bicycle detections in real-time. The application will also allow the user to view individual intersection data, including turning movement counts and occupancy. The application will show each data set in time periods of day, week, or month, and have the capability of turning on or off right, left, and thru movement data for turning movement count data. The application will also allow the user to view current system diagnostic data, including the following, but not limited to; individual camera glare and low contrast information, system low contrast, constant call, alarm, reboots, logins, and menu access information.

19.6.2.17 A Windows based PC application shall be available to remotely access each configured MSDS on the agency's network. The application shall allow the user to choose multiple intersection locations to be displayed simultaneously on the screen. Intersections can be displayed in alphanumeric order. Groups of intersections can be configured to be displayed simultaneously to allow the user to monitor particular corridors of detection. Multiple groups may be configured in the application.

19.6.3 AI Classification Data

The system shall provide Road User Classification Data via Artificial Intelligence (AI) algorithms.

19.6.3.1 The AI Classification Data shall be automatically generated without the need for user configuration.

19.6.3.2 The AI Classification algorithm shall identify and store data for four classes of road user:

- Motorcycle

- Passenger Car
- Bus
- Truck

19.6.3.3 The AI Classification data shall be stored in the Bin Data table in 15 minute intervals and be available as part of the Real Time Data Stream in 60 second intervals.

19.6.4 Fusion

Where a MSDS Multi-Sensor is utilized the system shall use data from both the video and radar sensors to determine if a vehicle is present.

19.7 SDLC Functionality

This section sets forth the minimum requirements for a full-function BIU and integrated MSDS detection communication. The MSDS shall provide outputs to the controller of vehicle calls from DPs that reside within the detector rack.

19.7.1 Functional Capabilities

The MSDS shall have the capability of monitoring phase information and passing that information and other system data such as “time” from the controller to video detection processor modules. The DP shall also accept data from video processor modules and relay the information to the controller. The unit shall provide a maximum of 64 detector outputs to the controller via the SDLC interface.

19.7.2 Requirements

The module shall be in compliance with the following industry specifications:

- Transportation Electrical Equipment Specifications (TEES), August 16, 2002 (or latest edition), California Department of Transportation
- NEMA Standard Publication TS 1-1989 (or latest edition), Traffic Control Systems, National Electrical Manufacturers Association
- NEMA Standard Publication TS 2-2003, Traffic Controller Assemblies With NTCIP Requirements, Version 02.06 (or latest edition), National Electrical Manufacturers Association

19.7.3 Data Interfaces

The MSDS shall have two data interfaces:

- The interface to the controller shall be accomplished by the use of the TS-2 SDLC port and protocol in accordance with the TS-2 specifications. The module shall be able to be configured to respond to BIU addresses 8, 9, 10 and 11 or a combination thereof.
- The interface to communicate with card rack video detection processors shall be manufacturer specific.

19.7.4 SDLC Communication Indicators

One LED indicator shall be provided for the TS-2 SDLC interface. The indicator shall be used to inform the user of any communication activity on the SDLC port.

19.8 Real Time Data Stream

19.8.1 Data Streaming Mechanism

The MSDS shall employ a MQTT Publish/Subscribe model for publishing real time data. The Mechanism shall provide multiple data streams. Subscribers may subscribe to one or many of the data streams

19.8.2 Detection Zone Status

The MSDS shall provide the status of each configured detection zone at a 100mS refresh rate.

19.8.3 Channel Output Status

The MSDS shall provide the status of each configured channel output at a 100mS refresh rate.

19.8.4 Count Data

The MSDS shall provide the accumulated count for each configured count type zone and each automatically generated count, for example Automatic Turning Movement Counts at a 60S refresh rate.

19.8.5 AI Classification Data

The MSDS shall provide the accumulated count for each classification type at a 60S refresh rate.

19.9 Installation

19.9.1 The cable to be used between the sensor and the PI in the traffic cabinet shall be 16AWG, 3 core 110VAC, outdoor rated. This cable shall be suitable for installation in conduit or overhead with appropriate span wire.

19.9.2 The cabling between the Traffic Cabinet Interface (PI) and the Sensor Head shall allow distances of up to 750'.

19.9.3 The cabling between the Traffic Cabinet Interface (PI) and Sensor Head shall be a continuous run and shall not include the use of power injectors, signal boosters or repeaters between the two devices.

19.9.4 The detection sensor shall be installed by factory-certified installers as recommended by the supplier and documented in installation materials provided by the supplier. Proof of factory certification shall be provided.

19.10 Warranty

19.10.1 The supplier shall provide a limited three-year warranty on the MSDS.

19.10.2 During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers.

19.10.3 During the warranty period, updates to DP software shall be available from the supplier without charge.

19.11 Maintenance and Support

19.11.1 The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system. These parts shall be available for delivery within 30 days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.

19.11.2 The supplier shall maintain an ongoing program of technical support for the video detection system. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement of an acceptable order at the supplier's then current pricing and terms of sale for on-site technical support services.

19.11.3 Installation or training support shall be provided by a factory-authorized representative and shall be a minimum IMSA-Level II Traffic Signal Technician certified.

19.11.4 All product documentation shall be written in the English language.

20 Pedestrian Push Buttons

Pedestrian push buttons shall conform to the provisions in Section 86-1.02U and Section 87-1.03U, "Push Button Assemblies," of the Standard Specifications, except as amended herein and in the Special Provisions.

Use Accessible Pedestrian Signal PPB, Polara iNS model, unless otherwise specified on the PLANS or in the Specifications. A Polara iNS model assembly shall be used as specified in following section "Accessible Pedestrian Signal".

~~Use Type "B" pedestrian push button assembly unless otherwise specified on the PLANS or in the Specifications. A Type B pedestrian push button assembly may be substituted with an Accessible Pedestrian Signal pedestrian push button assembly enclosure as specified in following section "Accessible Pedestrian Signal".~~

~~Push button assemblies shall be equipped with R10-3 sign unless otherwise shown on the plans.~~

The plunger/actuator surface shall have a minimum diameter of 2 inches. The entire push button housing shall be porcelain-enameled metal.

The pedestrian push button color must match the finish of the other existing buttons at the intersection. The body of the Accessible Pedestrian Signal pedestrian push button station housing must match color no. 33538 of FED-STD-595. The color of the button housing backplate must match color no. 17038, 27038, or 37038 of FED-STD-595.

Installation of an Accessible Pedestrian Signal (APS) system shall be included as part of the push button improvements where shown on the PLANS. The APS system consists of electronic control equipment, mounting hardware, pushbuttons, and signage to provide accessible walk indication. Functionalities include audible speech message, pushbutton locator tones, tactile arrow, vibrotactile indications, tactile map of the crosswalk, and pushbutton information message.

Payment for furnishing and installing or relocating pedestrian push buttons and APS, and shall be considered as included in the bid price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

20.1 Accessible Pedestrian Signals

This work includes furnishing and installing a complete accessible pedestrian signal (APS) system at all project intersections unless otherwise shown on the PLANS. All work and materials shall comply with Section 86-1.02T and Section 87-1.03T "Accessible Pedestrian Signals," of the Standard Specifications, the Transportation Electrical Equipment Specifications (TEES), and the California MUTCD.

The third paragraph of Section 86-1.02T, *"No part of the accessible pedestrian signal must be installed inside the controller cabinet. Power for the accessible pedestrian signal must be from the pedestrian signal housing terminal block,"* shall be deleted.

CONTRACTOR is responsible for configuring and enabling the APS functions as directed on the PLANS, unless otherwise directed by the ENGINEER. Proposed APS functions are to be enabled and thoroughly tested at each location to the satisfaction of the ENGINEER.

The APS system shall be installed complete with all APS features and functions available to the CITY for implementation. Upon completion of the APS installation, if no APS function is specified to be enabled on the PLANS, the system will be enabled with vibrotactile and audible speech features as directed by ENGINEER and as determined by the CITY TRAFFIC ENGINEER.

Definitions

APS: As defined in the California MUTCD.

Accessible walk indication: Activated audible and vibrotactile action during the walk interval.

Ambient sound: Background sound level in dB at a given location.

Ambient sound sensing microphone: Microphone that measures the ambient sound level in dB and automatically adjusts the APS speaker's volume, accordingly.

APS Pedestrian Push Button (APS PPB) assembly: Assembly that connects a pedestrian push button to an APS electronic device to actuate the components of the APS.

Audible speech walk message: Audible prerecorded message that communicates to pedestrians which street has the walk interval.

Programming mechanism: Device to program the APS operation.

Push button information message: Audible prerecorded message actuated when the push button is pressed and the walk interval is not timing.

Push button locator tone: As defined in the California MUTCD.

Vibrotactile pedestrian device: As defined in the California MUTCD.

Submittals

CONTRACTOR shall submit APS product data and specifications for review and approval. Submittal must consist of product data, which includes the manufacturer, model number, specifications and a certificate of compliance with these Specifications. Any APS installed without obtaining the required approvals will be cause for rejection. The CONTRACTOR may also be requested to submit a copy of the manufacturer test documentation as deemed necessary.

Test sample unit submittals to METS specified in Paragraphs 1 and 2 of Section 87-1.01D(2), "Quality Control," of the Standard Specifications shall not be required.

Additionally, **the CONTRACTOR shall submit the proposed APS System and pushbutton station hardware for review and approval by the City of Upland.**

Arrangements for scheduling the delivery of the APS equipment can be made by contacting CITY REPRESENTATIVE. Where applicable, the APS equipment, copies of the APS product data, wiring diagram and the below referenced manuals should accompany the controller cabinet at time of cabinet testing as delineated in accordance with Section 16, "Controller Cabinet", of these Special Provisions.

Submit five (5) APS user and operator manuals for each project intersection. Manuals must include a master item index that describes the purpose of each manual and brief description to the directory. The index must include an overall description of the APS and its associated equipment and cables with illustrative block diagrams; manufacturer contact information, technical data specification, parts list, part descriptions, and settings. The manuals must include fault diagnostic and repair procedures and procedures for preventative maintenance in order to maintain APS performance parameters.

Submit a record of completed field tests, APS final configuration, audible sound levels and threshold, and a list of all parameter settings.

Quality Control and Assurance

The APS must be compatible with the Model 2070LX controller assembly.

Power to the APS must be connected the manufacturers' requirements and specifications.

Manufacturers' APS product must have successfully participated in a State monitored quality assurance testing program. Submitted product must have been representative of production unit. All functional and dimensional parameters of these Specifications were tested on the APSs. All Noncompliant materials rejected.

Functional Testing

Field tests must be completed twice, when traffic is noisy (e.g. peak traffic hours) and when traffic is quiet (e.g. off peak hours). Notify the Engineer fifteen (15) days before testing the APS. Field tests shall include all APS functionalities including audible speech message, pushbutton locator tones, tactile arrow, vibrotactile indications, tactile map of the crosswalk, and pushbutton information message, etc.

Warranty

Provide a 2-year manufacturer replacement warranty for the APS effective from the date of installation against any defects or failures. All warranty documentation must be submitted to the Engineer before installation.

Replacement parts must be provided within ten (10) days after receipt of the failed part at no cost to the CITY and must be delivered to the CITY .

Materials

The APS PPB assembly must include:

1. PPB actuator with a minimum diameter of 2 inches. The PPB must be rainproof and shockproof in any weather condition. If a mechanical switch is used, the switch must have:
 - 1.1. Operating force of 3.5 lbs
 - 1.2. Maximum pretravel of 5/64 inch
 - 1.3. Minimum overtravel of 1/32 inch
 - 1.4. Differential travel from 0.002 to 0.04 inches
2. Vibrotactile device on the push button or on the arrow.
3. Enclosure with an ambient sound level sensing microphone and weatherproof speaker. A Type B PPB assembly may be substituted with an APS PPB assembly enclosure, but must be less than 7 lb, be less than 16"x6"x5", and fit the standard. Maximum diameter of the hole for passage of wiring must not exceed 1.125". Attachment to the pole must be with 2 screws of diameter from 1/4 to 3/8 inch suitable for use in tapped holes. Clear space between any 2 holes in the post must be at least twice the diameter of the larger hole.

The APS PPB housing body color must match the color no. 33538 of FED-STD-595.

Housing backplate must match color no. 17038, 27038, or 37038 of FED-STD-595.

The APS speakers and electronic equipment must be installed inside the APS PPB assembly enclosure. Speakers must not interfere with the PPB or its mounting hardware. Speaker grills must be located on the APS PPB assembly enclosure.

~~Nine No. 20 conductor cable complying with MIL-W-16878D must be used between the APS PPB assembly and the pedestrian signal head.~~ Wiring must comply with Section 13.02 of ITE publication, Equipment and Material Standards, Chapter 2, "Vehicle Traffic Control Signal Heads" and NEC, rated for service at +105°C.

Electronic switches, a potentiometer, or a handheld device must be used to control and program the volume level and the messaging for the APS. Programming mechanism must be submitted to the Engineer upon successful APS installation.

The APS must:

1. Include a provision to enable and disable the APS operation.
2. Have a failsafe operation. In the event of APS failure, the pedestrian push buttons, when pressed, must activate the pedestrian WALK signal timing.
3. Provide information using:
 - 3.1. Audible speech walk message plays when the PPB is pressed. The message must include the name of the street to be crossed associated with that push button. An example of the message is: "Atlantic Ave walk sign is on to cross Cecilia St." The message must be repeated for the duration of the "walk" interval. The APS must include at least five sound options to be played during the "walk" interval. The Engineer may field select the "walk" sound option. The message must be activated for use from the beginning of the "walk" interval. The message must have a percussive tone consisting of multiple frequencies with a dominant component of 880Hz. If the tone is selected as the "message" it must repeat 8 to 10 ticks per second.
 - 3.2. Push button information message provides the name of the street to be crossed associated with that push button. The message must play when the PPB is pressed. An example of the message is: "Wait to cross Atlantic Ave at Cecilia St. Wait."
 - 3.3. Push button locator tone that clicks or beeps. The locator tone must come from the PPB and repeat at 1 tone per second interval. Each tone has a maximum duration of 0.15 second. The locator tone volume must adjust in response to ambient sound and be audible up to 12 feet from the push button or to the building line, whichever is less.

Construction

CONTRACTOR shall arrange, at his expense, to have a manufacturer's representative qualified to work on APS present whenever the equipment is installed, modified, connected, and reconnected. The APS must not interfere with traffic signal controller assembly, the signal installation on signal standards, the pedestrian signal heads, or the terminal compartment blocks. The APS electronic control equipment must reside inside the controller cabinet and capable of Ethernet access over fiber optic communication network. Wireless connections between push button assembly and controller cabinet in lieu of conductors shall not be allowed. All push button assemblies shall be wired to control equipment residing in the controller cabinet.

CONTRACTOR is responsible for the compatibility of the components and for making the necessary calibration adjustment to deliver the performance specified. This includes providing the necessary equipment and hardware required to install, set up, calibrate, and verify the performance of the APS.

Training

Provide a minimum of 8 hours of training by a certified manufacturer's representative for up to 6 City Traffic System Maintenance Operations staff members or other representatives selected by the Engineer. The content of the training must include instruction on how to install, program, adjust, calibrate, and maintain the APS.

Instruction materials and equipment for the training must be provided. CONTRACTOR shall notify the Engineer fifteen (15) days before the anticipated training. The time and location of the training must be agreed upon by CONTRACTOR, manufacturer's representative and the Engineer. If no agreement can be reached, the Engineer will determine the time and location.

Measurement and Payment

Full compensation for furnishing, installing, transporting, training and associated materials of accessible pedestrian signals shall be considered as included in the bid price paid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

21 Luminaires

Luminaires for traffic signal safety lighting shall conform to the provisions in Section 86-1.02K, "LED Luminaires," of the Standard Specifications and current City of Upland Public Works Department, except as amended herein and in the Special Provisions. Luminaires shall be GE Evolve LED Cobra Head or approved equal unless otherwise specified on the PLANS.

Paragraphs 1 and 2 of Section 87-1.01D(2), "Quality Control," of the Standard Specifications shall be deleted.

The Luminaires to be installed shall be Light Emitting Diode (LED) type, 120/240V equivalent to 200 Watt, $\pm 18,000$ delivered Lumens, extra-wide asymmetric distribution and Correlated Color Temperature (CCT) of 3000K. All LED luminaires for installation under this contract shall be approved by the ENGINEER. Contact ENGINEER for submittal requirements at 909-860-6222 ext. 102. Any luminaire installed without prior approval shall be rejected.

Luminaires shall be furnished with light engine, refractor or lens, housing and all appurtenances as a complete unit. The luminaire shall provide true ninety-degree (90°) cut-off with no light emitting above the 90° horizontal. The lower edge of the luminaire housing shall extend below the light source and all glassware. The provided lens shall be clear and impact resistant. Glare shields external to the luminaries will not be accepted.

The luminaire optical assembly shall be a sealed chamber in accordance with the Standard Specification to prevent contamination from infiltration of gaseous and particular matter.

Provide Type V photoelectric control for luminaires.

The lamp socket shall be factory preset to produce an IES Type III Medium light distribution. Maximum brightness measurements must comply with the provisions of paragraph 14 of the Standard Specifications. The optical assembly door shall be designed to prevent the door from swinging free of the hinge pins when opened.

For CITY “street lighting” facilities, luminaires and appurtenances shall conform to latest revisions of the City of Upland’s Electrical Specifications for Street Lighting Systems unless otherwise specified in the CONTRACT documents.

23 Photoelectric Controls

Photoelectric controls shall conform to the provisions in Sections 86-1.02M and 87-1.03M, "Photoelectric Controls," of the Standard Specifications, except as amended herein and in the Special Provisions.

The photoelectric controls for luminaires shall be Type V.

24 Removing, Reinstalling, or Salvaging Electrical

All work under this section shall conform to the provisions in Section 87-21, "Existing Electrical Systems," of the Standard Specifications, except as amended herein and in the Special Provisions.

The following materials or equipment designated for salvage in the construction PLANS, or as specified by the ENGINEER, will be removed or salvaged under this contract:

1) Type 1-A Standard

All salvaged materials or equipment shall be delivered to the City Yard (1370 N Benson Ave, Upland, CA) or Offices as directed by the Engineer. All other materials and equipment identified for removal, and not to be reused, shall become the property of the CONTRACTOR and disposed of in a timely manner.

Payment for salvaging, removing, reinstalling and disposing of electrical equipment shall be deemed to be included in the contract price bid for construction of traffic signal and safety lighting facilities and no additional compensation will be allowed.

25 Payment

Payment shall conform to the provisions in Section 9, "Payment," of the Standard Specifications, except as amended herein and in the Special Provisions.

The lump sum contract bid price for each intersection traffic signal improvement shall include such items as traffic control, maintaining existing electrical systems, and signal interconnect facilities necessary to complete the project.

26 Signs and Markers

82-1 GENERAL

82-1.01 GENERAL

Section 82-1 includes general specifications for fabricating and installing sign panels and markers and constructing roadside signs.

Signs and markers must comply with the *California MUTCD*, *California Sign Specifications*, and the FHWA publication *Standard Highway Signs and Markings*. For the *California Sign Specifications*, go to the Department's Traffic Operations website.

82-1.02 MATERIALS Not

Used

82-1.03 CONSTRUCTION Not

Used

82-1.04 PAYMENT

Not Used

82-2 SIGN PANELS

82-2.01 GENERAL

82-2.01A Summary

Section 82-2 includes specifications for furnishing sign panels.

Furnishing sign panels includes fabricating and installing sign panels.

82-2.01B Definitions background:

Dominant sign color.

legend: Letters, numerals, tildes, bars, arrows, route shields, symbols, logos, borders, artwork, and miscellaneous characters that are intended to convey specific meanings on traffic signs.

82-2.01C Submittals

Submit a certificate of compliance for:

1. Aluminum sheeting
2. Retroreflective sheeting
3. Color imaging methods and film
4. Protective-overlay film

Upon request, submit test samples of sign panels and materials at various stages of production. The samples must be at least 12 by 12 inches and include the background material and legend.

At least 15 days before starting sign fabrication, submit at least 3 copies of your QC plan for sign panels. The QC plan must include:

1. Contact information for the person responsible for sign QC
2. Acceptance criteria for incoming raw materials at the fabrication plant
3. Type, method, and frequency of QC testing at the fabrication plant
4. Types and brand names of retroreflective sheeting
5. List of the retroreflective sheeting manufacturer's approved process colors, protective overlay film, and black nonreflective film, including the manufacturer's name and product name for each item
6. Manufacturer's installation and splicing instructions for the retroreflective sheeting

7. Manufacturer's instructions for cleaning each product
8. Method of packaging, transporting, and storing signs

82-2.01D Quality Assurance

The Department may inspect signs at the fabrication plant or the job site. The Department rejects formed panel signs with holes that are slanted or incorrectly spaced. The Engineer will reject damaged signs, defective signs, and signs with spelling errors before or after installation.

The Department rejects a laminated panel if a 0.010-inch-thick by 1/2-inch-wide feeler gauge can be inserted to a depth of more than 1/2 inch between the extruded aluminum frame and the aluminum sheeting.

If instrumental testing under ASTM D4956 is disputed, the Engineer's visual inspection will determine the color of the retroreflective sheeting, screened process colors, and film.

82-2.02 MATERIALS

82-2.02A General

A sign panel must be produced at a fabrication plant.

The sign must be imprinted with the following information:

1. Phrase *Property of the City of Upland*
2. Sign fabricator's name
3. Month and year of fabrication
4. Type of retroreflective sheeting
5. Sheeting manufacturer's identification and lot number for the retroreflective sheeting

The sign information must:

1. Be imprinted in 1/4-inch upper-case letters and numerals on the back, lower right of each sign panel such that it will not be blocked by a sign post or mounting frame
2. Be imprinted at the fabrication plant by die-stamping on aluminum panels or by an equivalent method for fiberglass-reinforced plastic signs, such as affixing a die-stamped aluminum tag
3. Not be painted, screened, inked, or engraved
4. Be imprinted such that it does not damage the face of the sign

For a sign composed of multiple panels, the legend must be placed across joints such that it does not affect the size, shape, spacing, and appearance of the legend on the assembled sign.

For a formed panel sign, the retroreflective sheeting for the background and legend must be wrapped around the interior vertical edges of each panel.

A sign with a protective-overlay film must be marked at the fabrication plant with a 3/8-inch-diameter dot. The dot must be placed on the lower border of the sign before applying the protective-overlay film. The fabricator determines the application method and exact location of the dot except the dot must not be placed on the legend or near bolt holes. The dot must be black if placed on a white border and white if placed on a black border.

The exposed portion of the mounting hardware on the sign face, including rivets used to attach sheeting to framing members, must have a factory- or field-applied finish that closely matches the color of the background and legend of the sign face.

The face of a fabricated sign must be uniform, flat, smooth, and free from defects, scratches, chips, wrinkles, gel, hard spots, streaks, extrusion marks, and air bubbles. The front, back, and edges of sign panels must not have bends, router chatter marks, burns, sharp edges, loose rivets, delaminated skins, excessive adhesive over-spray, or aluminum marks.

SECTION XIV

Protect, transport, and store sign panels fabricated with screened-process colors under the retroreflective sheeting manufacturer's instructions.

Transport sign panels such that the faces of the panels are protected from damage and weather. Ship panels on pallets, in crates, or in tier racks. Ship panels vertically on edge, not stacked horizontally. Place padding and protective materials between the panels as necessary. Keep panels dry during transit.

Do not store sign panels directly on the ground. Keep sign panels dry at all times and store the panels:

1. In a dry environment
2. On edge vertically whether indoors or outdoors
3. In enclosed, climate-controlled trailers or containers in areas of high heat and humidity
4. Indoors whenever the panels will be stored more than 30 days

82-2.02B Aluminum Sheeting

A sign panel must be fabricated from aluminum sheeting of an alloy and temper complying with ASTM B209.

The aluminum sheeting must be pretreated for corrosion resistance as specified in ASTM B449. The surface of the sheeting must be cleaned, deoxidized, and coated with a light, tightly-adherent chromate conversion coating free from powdery residue. The conversion coating must be Class 2 with a weight from 10 to 35 mg/sq ft and an average weight of 25 mg/sq ft. After the cleaning and coating process, the aluminum sheeting must be protected from exposure to grease, oils, dust, and contaminants. The aluminum sheeting must be free from buckles, warps, dents, cockles, burrs, and other defects resulting from fabrication.

The base plate for standard route markers must be die cut.

82-2.02C Retroreflective Sheeting

Retroreflective sheeting used for the background and legend must comply with ASTM D4956-13 and must be on the Authorized Material List for signing and delineation materials.

Retroreflective sheeting must be Type XI, except for white background signs, it must be Type VIII or IX.

Warning sign plaques and panels must be retroreflective fluorescent orange or fluorescent yellow background.

Type VIII, IX, and XI retroreflective sheeting must have Class 1, 3, or 4 adhesive backing. Adhesive backing must be pressure sensitive and fungus resistant.

Retroreflective sheeting must be applied to sign panels at the fabrication plant under the retroreflective sheeting manufacturer's instructions without appreciable stretching, tearing, or other damage.

Orientation of the legend must comply with the retroreflective sheeting manufacturer's instructions.

Retroreflective sheeting on a sign panel with a minor dimension of 48 inches or less must be a single, contiguous sheet without splices except for the splices produced during the manufacture of the retroreflective sheeting. Sign panel with a minor dimension greater than 48 inches may have 1 horizontal splice in the retroreflective sheeting other than the splices produced during the manufacture of the retroreflective sheeting.

Unless the retroreflective sheeting manufacturer's instructions require a different method, splices in the retroreflective sheeting must overlap by at least 1 inch. The retroreflective sheeting on either side of a splice must not exhibit a color difference under incident and reflected light.

82-2.02D Color Imaging Methods and Film

The material used for color imaging methods, film, and protective-overlay must be recommended by the retroreflective sheeting manufacturer.

Colored retroreflective sheeting must be used for the background.

Signs with green, red, blue, or brown backgrounds may use reverse-screened-process color on white retroreflective sheeting for the background color. The coefficient of retroreflection must be at least 70 percent of the coefficient of retroreflection specified in ASTM D4956 for the corresponding color of retroreflective sheeting.

The sign must have outdoor weatherability characteristics equivalent to those specified for the corresponding color of retroreflective sheeting in ASTM D4956.

82-2.02E Single-Sheet Aluminum Panels

The aluminum sheeting for framed and unframed panels must be aluminum alloy 6061-T6 or 5052-H38.

A single-sheet aluminum panel must not have a vertical splice in the aluminum sheeting. A panel with a depth greater than 48 inches may have 1 horizontal splice in the sheeting.

For a framed panel, the framing members must be aluminum channel or rectangular aluminum tubing. The lengths of the framing members must be within $\pm 1/8$ inch of the lengths shown.

Aluminum channels or rectangular aluminum tubing must be welded together using the inert gas-shielded arc welding process and E4043 aluminum-electrode filler wires. The filler diameter must be equal to the wall thickness of the smallest welded channel or tubing.

The aluminum sheeting must be attached to the frame with 3/16-inch-diameter rivets. The rivets must be placed at least 1/2 inch from the web channel edges. The rivets must be made of aluminum alloy 5052 and be anodized or treated with a conversion coating to prevent corrosion.

A fabricated single-sheet, aluminum panel must be within $\pm 1/8$ inch of the dimensions shown. The panel must be flat to within $\pm 1/32$ in/ft of the panel dimensions as measured by a straightedge placed in any direction across the plane of the panel.

82-2.03 CONSTRUCTION

82-2.03A General

Deliver sign panels to the job site with the background and legend permanently affixed to the panels. Do not chip or bend sign panels.

Immediately replace sign panels exhibiting damage or flaws, including a significant color difference between daytime and nighttime.

Obtain authorization before repairing sign panels at the job site.

Use the following hardware to mount the type of sign panel shown:

1. Lag screws, nuts, bolts, and washers for roadside signs
2. Braces and wood block spacers for roadside signs
3. Type A-1 and Type A-2 mounting hardware for overhead laminated-panel signs
4. Type A-3 mounting hardware for overhead formed-panel signs

82-2.03B Laminated Panels

For laminated multiple-panel signs, place an H-section closure extrusion in the top channel of the lower panel before mounting the upper panel. When mounted, the bottom channel of the adjoining upper panel must fit together to enclose the H-section closure extrusion for the full length of the panel without gaps.

82-2.04 PAYMENT

The payment quantity for furnishing any type of sign panel is the area determined from the dimensions shown.

82-6-82-8 RESERVED

SECTION XIV

84 Markings

84-1 GENERAL

84-1.01 GENERAL

Section 84-1 includes general specifications for applying and constructing markings. Markings must comply with the CA MUTCD.

84-1.02 MATERIALS

Not Used

84-1.03 CONSTRUCTION

Not Used

84-1.04 PAYMENT

Not Used

84-2 TRAFFIC STRIPES AND PAVEMENT MARKINGS

84-2.01 GENERAL

84-2.01A Summary

Section 84-2 includes specifications for applying traffic stripes and pavement markings.

A thermoplastic traffic stripe or pavement marking with enhanced wet night visibility consists of a single uniform layer of thermoplastic and 2 layers of glass beads.

Contrast striping consists of black stripe placed on one of both side of a white or yellow stripe, adjacent to white or yellow stripe and in between double stripes. Contrast stripe can be warranty tape, paint, or thermoplastic.

84-2.01B Definitions

pavement marking: Transverse marking which includes shoulder or gore marking, traffic island marking, word or numeral or symbol marking, arrow limit line, stop line, yield line, crosswalk marking, speed measurement marking, speed reduction marking, speed hump marking, parking space marking, route shield marking, toll or HOV lane marking, transit lane marking, and bike lane marking.

traffic stripe: Longitudinal centerline or lane line used for separating traffic lanes in the same direction of travel or in the opposing direction of travel or a longitudinal edge line marking in the edge of the traveled way or the edge of a lane at a gore area separating traffic at an exit or entrance ramp. A traffic stripe is shown as a traffic line.

84-2.01C Submittals

For each lot or batch of traffic stripe material, primer, and glass beads, submit:

4. Certificate of compliance, including the material name, lot or batch number, and manufacture date

SECTION XIV

5. METS notification letter stating that the material is authorized for use, except for thermoplastic and primer
6. SDS
7. Manufacturer's Instructions

For each lot or batch of thermoplastic, submit a manufacturer's certificate of compliance and the following test results from the California Test 423:

1. Brookfield Thermosel viscosity
2. Hardness
3. Yellowness index, white only
4. Daytime luminance factor
5. Yellow color, yellow only
6. Glass bead content
7. Binder content

The date of the test must be within 1 year of use.

Submit test results for each lot of beads specifying the EPA test methods used and tracing the lot to the specific test sample. The testing for lead and arsenic content must be performed by an independent testing laboratory.

Submit the thermoplastic test stripe to the Engineer.

Submit the retroreflectivity test results within 5 days of testing the traffic stripes and pavement markings. The data must include the retroreflectivity, time, date, and GPS coordinates for each measurement.

84-2.01D Quality Assurance

84-2.01D(1) General

Reserved

84-2.01(2) Quality Control

Before starting permanent application of methyl methacrylate and two component paint traffic stripes and pavement markings, apply a test stripe on roofing felt or other suitable material in the presence of the Engineer. The test stripe section must be at least 50 feet in length.

The applied methyl methacrylate pavement markings must have a British Pendulum Number skid resistance value of 60.

Traffic stripes and pavement markings must comply with ASTM D6628 for daytime and nighttime color and the following:

1. The daytime luminance factor (Y), for green bike lane pavement markings, must be at least 7, but no more than 35. Color chromaticity limits for green bike lane pavement markings at daytime must plot within the boundaries shown in the following table:

SECTION XIV

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

2. Color Chromaticity limits for green bike lane pavement markings at nighttime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.754	0.366	0.540	0.450	0.500	0.479	0.520

3. The daytime luminance factor (Y), for green route shield pavement markings, must be at least 6, but no more than 15. Color chromaticity limits for green route shield pavement markings at daytime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.399	0.166	0.364	0.287	0.446	0.207	0.771

4. Color chromaticity limits for green route shield markings at nighttime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.007	0.570	0.200	0.500	0.322	0.590	0.193	0.782

5. The daytime luminance factor (Y), for red route shield pavement markings, must be at least 6, but no more than 15. Color chromaticity limits for red route shield pavement markings at daytime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346

6. Color chromaticity limits for red route shield pavement markings at nighttime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.650	0.348	0.620	0.348	0.712	0.255	0.735	0.265

7. The daytime luminance factor (Y), for blue route shield pavement markings, must be at least 5, but no more than 14. Color chromaticity limits for blue route shield pavement markings at daytime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	

X	Y	X	Y	X	Y	X	Y
0.078	0.171	0.150	0.220	0.210	0.160	0.137	0.038

8. Color chromaticity limits for blue route shield pavement markings at nighttime must plot within the boundaries shown in the following table:

Daytime Chromaticity Coordinates for Green Bike Lane Pavement Marking (Corner Points)

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.033	0.370	0.180	0.370	0.230	0.240	0.091	0.133

Retroreflectivity must be measured under ASTM E1710 or ASTM E3320 and the sampling protocol specified in ASTM D7585.

Upon request, apply a thermoplastic test stripe on suitable material in the presence of the Engineer during the application of thermoplastic traffic stripes or markings. The test stripe must be at least 1 foot in length.

One layer of glass beads must be on the Authorized Material List for high-performance glass beads. When using high-performance glass beads that are white and yellow, the color of the glass beads must match the color of the stripe or marking to which they are being applied.

One layer of glass beads must comply with AASHTO M247, Type 2.

Obtain authorization to proceed with the application of traffic stripes and pavement markings. Remove loose glass beads before measuring the retroreflectivity.

Within 30 days of application, test the traffic stripes and pavement markings under the test methods and frequencies shown in the following table:

Traffic Stripe Testing Frequency

Quality Characteristic	Test Method	Minimum sampling and testing frequency
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Initial retroreflectivity (min, $\text{mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$) White Yellow	ASTM E1710 or ASTM E3320	ASTM D7585 ^a
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^aUse the referee evaluation protocol for project length less than 10 miles. For project lengths greater than or equal to 10 miles, add one evaluation for every additional mile.

Verify the glass bead application rate by stabbing the glass bead tank with a calibrated rod.

Within 14 days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the retroreflectivity must be a minimum of $700 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for white stripes and markings and $500 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for yellow stripes and markings when measured under ASTM E1710 or ASTM E3320.

84-2.01D(3) Department Acceptance

The Engineer will perform a nighttime, drive-through, visual inspection of the retroreflectivity of the traffic stripes and pavement markings and notify you of any locations with deficient retroreflectivity. Test the retroreflectivity of the deficient areas to confirm striping and pavement markings meets the requirements.

The thermoplastic test stripe will be tested for yellow color, daytime luminance factor, and yellowness index requirements by METS.

84-2.02 MATERIALS

84-2.02A General

Reserved

84-2.02B Glass Beads

Each lot of glass beads must comply with EPA Test Method 3052 and 6010B or 6010C. Glass beads must contain less than 200 ppm each of arsenic and lead.

Type 1 glass beads must comply with AASHTO M 247.

Type 2 glass beads must comply with AASHTO M 247. At least 75 percent of the beads by count must be true spheres that are colorless and do not exhibit dark spots, air inclusions, or surface scratches when viewed under 20X magnification.

High-performance glass beads must be on the Authorized Material List for high-performance glass beads.

Large-gradation glass beads must be on the Authorized Material List for two component traffic paint.

Glass beads for methyl methacrylate must be on the Authorized Material List for methyl methacrylate traffic striping and pavement marking.

Glass beads for paint must comply with State Specification 8010-004.

Glass beads must be surface treated, according to the bead and the material manufacturer's instructions, to promote adhesion with the specified material.

84-2.02C Thermoplastic

Thermoplastic must comply with State Specification PTH-02HYDRO, or PTH-02ALKYD.

Sprayable thermoplastic must comply with State Specification PTH-02SPRAY.

Each lot of batch of thermoplastic must be tested under California Test 423.

84-2.02D Methyl Methacrylate

Methyl methacrylate traffic paint must:

1. Be on the Authorized Material List for methyl methacrylate traffic striping and pavement marking
2. Be Category 2

84-2.02E Warranty Tape

Warranty tape must be on the Authorized Material List for signing and delineation materials.

White warranty tape traffic stripe must have an initial retroreflectivity of a minimum 700 mcd/m².

Yellow warranty tape traffic stripe must have an initial retroreflectivity of a minimum 500 mcd/m².

When contrast is required for warranty tape, the tape must be pre-formed and retroreflective, consisting of a white or yellow film with retroreflective beads and a contrasting black film border. The contrasting black film border must be a nonreflective film bonded on one or both sides of the white or yellow film to form a continuous roll. Each black border must be a minimum of 2 inches wide.

84-2.02F Two-Component Paint

Two-component traffic paint must be on the Authorized Material List for two component traffic paint.

84-2.02G Paint

Paint must comply with the requirements shown in the following table:

Paint type	Color	Specification
Waterborne traffic line	White, yellow, and black	State Specification PTWB-01R2
Waterborne traffic line for the international symbol of	Blue, red, and green	Federal Specification TT-P-1952F

accessibility and other curb markings		
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84-2.02H-84-2.02L Reserved

84-2.03 CONSTRUCTION

84-2.03A General

Establish the alignment for traffic stripes and the layouts for pavement markings with a device or method that will not conflict with other traffic control devices.

Protect existing retroreflective pavement markers during work activities.

Remove existing pavement markers that are coated or damaged by work activities and replace with an equivalent marker on the Authorized Material List for signing and delineation materials.

A completed traffic stripe or pavement marking must:

- 1. Have well defined edges
- 2. Be uniform
- 3. Be free from runs, bubbles, craters, drag marks, stretch marks, and debris

A completed traffic stripe must:

- 1. Be straight on a tangent alignment
- 2. Be a true arc on a curved alignment
- 3. Not deviate from the width shown by more than:
 - 3.1 ¼ inch on a tangent alignment
 - 3.1 ½ inch on a curved alignment

The length of the gaps and individual stripes that form a broken traffic stripe must not deviate by more than 2 inches from the lengths shown. The gaps and stripes must be uniform throughout the entire length of the traffic stripe.

Protect newly placed traffic stripes and pavement markings from traffic and work activities until the traffic stripes and pavement markings are dry or hard enough to bear traffic.

Use mechanical methods to remove dirt, contaminants, and loose material from the pavement surface before applying the traffic stripe or pavement marking.

Use abrasive blast cleaning to remove laitance and curing compound from the surface of new concrete pavement before applying the traffic stripe or pavement marking.

Construct recesses as shown in the following table:

Recess Depth Requirements

Material	Requirement	
	Depths (mils)	Tolerance (mils)
Thermoplastic	375	+/- 5
Two-component paint	75	
Methyl methacrylate	250	
Warranty tape	150	

Construct recesses for double traffic stripes in a single pass.

Before applying the traffic stripes and pavement markings:

1. Allow wet ground recesses to dry a minimum of 24 hours
2. Remove all powdery residue from dry recess
3. Keep the recesses dry and free from debris

Apply traffic stripes and pavement markings before the end of the same work shift.

84-2.03B Application of traffic Stripes and Pavement Markings

84-2.03B(1) General

Apply material for a pavement marking with a stencil or a preformed marking.

Immediately remove drips, overspray, improper markings, or material tracked by traffic, using an authorized method.

Apply a traffic stripe or a pavement marking only to a clean, dry surface during a period when the pavement surface temperature is above 50 degrees F.

Apply traffic stripe or pavement marking and glass beads in a single pass. You may apply the glass beads by hand on pavement marking.

Embed glass beads to a depth of 1/2 their diameters.

Distribute glass beads uniformly on traffic stripe and pavement markings.

Glass beads with integral color must match the color of the stripe or pavement marking.

Apply glass beads with two separate applicator guns when two gradations are specified.

Allow enough overlap distance between new and existing striping patterns to ensure continuity at the start and end of the transition.

The retroreflectivity of applied traffic stripes and pavement markings must comply with requirements shown in the following table:

Retroreflectivity Requirements

Traffic stripe material	White (min, $\text{mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$)	Yellow (min, $\text{mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$)
Paint traffic stripes	250	125
Thermoplastic	250	125
Thermoplastic with enhanced wet-night visibility	700	500
Two-component traffic stripes	700	500
Methyl methacrylate	700	500
Warranty tape	700	500

84-2.03B(1) Thermoplastic

84-2.03B(2)(a) General

Apply primer or surface preparation adhesive under the manufacturer’s instructions:

1. To all roadway surfaces except for asphaltic surfaces less than 6 months old
2. At a minimum rate of 1 gallon per 300 square feet
3. To allow time for thermoplastic primer to dry and become tacky before application of the thermoplastic

Do not thin the primer.

Preheat thermoplastic using preheaters with mixers having a 360-degree rotation.

Apply thermoplastic in a single uniform layer by spray or extrusion methods.

Completely coat and fill voids in the pavement surface with the thermoplastic.

Apply recessed thermoplastic at a thickness so that the top is from 0 to 50 mils below the pavement surface.

84-2.03B(2)(b) Extruded Thermoplastic

Apply extruded thermoplastic at a temperature from 400 to 425 degrees F or as recommended by the manufacturer.

The applied traffic stripe must be at least 0.090 inch thick

Apply extruded thermoplastic pavement markings at a thickness from 0.100 to 0.150 inch.

84-2.03B(2)(c) Sprayable Thermoplastic

Apply sprayable thermoplastic at a temperature of of 350 to 300 degrees F.

The applied stripe must be at least 0.040 inch thick.

~~84-2.03B(2)(d) Thermoplastic with Enhanced Wet-Night Visibility~~

~~Apply extruded thermoplastic at a temperature from 400 to 425 degrees F or as recommended by the manufacturer. Apply thermoplastic with enhanced wet-night visibility at a maximum speed of 8 mph.~~

~~The applied stripe must be at least 0.090 inch thick.~~

~~The applied pavement marking must be at least 0.100 inch thick.~~

~~Place the glass bead layers in the order recommended by the manufacturer.~~

~~The glass beads used in both layers must be surface treated for use with thermoplastic under the bead manufacturer's instructions.~~

~~The high-performance glass beads and Type 2 glass beads application rates must be per manufacturer recommendations.~~

84-2.03B(3) Methyl Methacrylate

~~Apply the methyl methacrylate when the pavement surface and atmospheric temperatures are from 40 to 104 degrees F.~~

~~Apply Methyl methacrylate at a minimum thickness of 0.090 inches for traffic stripe and pavement markings.~~

~~Apply recessed methyl traffic stripe and pavement markings at a minimum thickness of 0.200 inches.~~

~~Apply the glass beads recommended by the methyl methacrylate manufacturer.~~

84-2.03B(4) Warranty Tape

~~Do not use warranty tape on existing open graded friction course or chip seal.~~

~~Prepare pavement surface and use primer under the warranty tape manufacturer's written instructions. Apply tape to clean and dry pavement surface. Roll or tamp the warranty tape in place.~~

84-2.03B(5) Two-Component Paint

~~Apply a two-component painted traffic stripe or pavement marking in a single pass and in the following order or as specified by the manufacturer:~~

- ~~1. Coat of two-component paint~~
- ~~2. Application of large gradation glass beads recommended by the two-component paint manufacturer~~
- ~~3. Application of Type 1 glass beads~~

~~Apply two-component paint when the pavement surface temperature is above 39 degrees F, and the atmospheric temperature is above 36 degrees F. The temperature of the paint must comply with the paint manufacturer's instructions.~~

~~Apply two-component paint and glass beads at a maximum speed of 10 mph.~~

~~Apply recessed two-component paint at a thickness from 0.020 to 0.025 inch.~~

84-2.03B(6) Paint

Do not apply paint if:

1. Fresh paint could become damaged by rain, fog, or condensation
2. Atmospheric temperature could drop below 50 degrees F during the drying period

Do not thin paint.

Use mechanical means to paint traffic stripes and pavement markings and to apply glass beads for traffic stripes.

The striping machine must be capable of superimposing successive coats of paint on the 1st coat and on existing stripes at a minimum speed of 5 mph.

Where the configuration or location of a traffic stripe is such that the use of a striping machine is not practicable, you may apply the traffic paint and glass beads by other methods and equipment if authorized.

Apply traffic stripes and pavement markings in 1 coat on existing pavement surfaces, at an approximate rate of 107 sq ft/gal.

Apply traffic stripes and pavement markings in 2 coats on a new pavement surface. The 1st coat of paint must be dry before applying the 2nd coat.

Apply 2-coat paint at the approximate rate fo 215 sq ft/gal for each coat.

Paint a 1-coat, 3-inch-wide black stripe between the two 6-inch-wide yellow stripes of a double traffic stripe. If the two 6-inch-wide yellow stripes are applied in 2 coats, apply the black stripe concurrently with the 2nd coat of the yellow stripes.

On 2-lane highways:

1. If the 1st coat of the centerline stripe is applied in the same direction as increasing post miles, use the right-hand spray gun of the 3 spray guns to apply a single yellow stripe.
2. If the 1st coat of the centerline stripe is applied in the same direction as decreasing post miles, use the left-hand spray gun of the 3 spray guns to apply a single yellow stripe
3. Apply the 2nd coat of centerline striping in the opposite direction of the 1st coat

Apply glass beads at an approximate rate of 5 lb of beads per gallon of paint.

Verify the application rate of paint by stabbing the paint tank with a calibrated rod. If the striping machine has paint gauges, the engineer may measure the volume of paint using the gauges instead of stabbing the pain tank with a calibrated rod.

84-2.03B(7) Contrast Striping

Apply contrast stripe paint in two coats.

Do not use glass beads or other reflective elements in contrast striping material.

84-2.03B(8)—84-2.03B(10) Reserved

84-2.04 PAYMENT

The payment quantity for a traffic stripe is the length measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

The payment quantity for a pavement marking is the area covering it.

A double traffic stripe consisting of two 6-inch-wide or 8-inch-wide are measured as 2 traffic stripes except for painted traffic stripes, warranty tape, and sprayable thermoplastic traffic stripes.

A double sprayable traffic stripe consisting of two 6-inch-wide or 8-inch-wide stripes are measured as single traffic stripe.

A double painted traffic stripe consisting of two 6-inch-wide or 8-inch-wide stripes separated by a 3-inch-wide or wider black stripe is measured as a single traffic stripe.

A double warranty tape traffic stripe consisting of two 6-inch-wide or 8-inch-wide stripes separated by a 3-inch-wide or wider black stripe is measured as a single traffic stripe.

SECTION XIV

The payment quantity for contrast stripe consisting of white or yellow stripe with a black stripe placed along one or both sides, or adjacent to traffic stripe is the length measured along the line of the contrast stripe without deductions for gaps in the broken traffic stripe.

The Department pays for contrast stripe as a separate item when adjacent to extruded thermoplastic, enhanced wet night visibility, and methyl methacrylate.



APPENDIX "A"

REQUIRED PERMITS

AND

CITY OF UPLAND BUSINESS LICENSE

PROJECT NO. 70024

BID NO. 2026-02

**16TH STREET AND SAN ANTONIO AVE TRAFFIC SIGNAL
IMPROVEMENTS**



Stamp Here

Construction Permit No. _____

Street/Lane Closure Permit No: _____

PUBLIC WORKS INSPECTOR SIGN/DATE @ PRECON: _____

(VALID ONLY W/ PRECON INSPECTOR SIGN/DATE)

Final Inspection By: _____

NOTE TO PERMITTEES: ANY WORK NOT LISTED ON THE CITY'S ACTIVE CONSTRUCTION MONITORING LIST, WILL BE SHUT DOWN IMMEDIATELY. PERMIT HOURS 7:00 AM TO 3:30 PM (M-F)

This Permit is not valid without the following items completed.

- Pre-Construction Meeting is MANDATORY. Email PWINSPECTIONS@CI.UPLAND.CA.US to schedule pre-construction meeting for each permit. WORK SHALL NOT COMMENCE UNTIL THE PRE-CON MEETING HAS TAKEN PLACE. PRE-CONSTRUCTION MEETINGS MAY BE SCHEDULED FROM THE PERMIT ISSUANCE DATE; PRE-CON MEETING WILL BE HELD AT 3 DAYS (MIN.) AFTER REQUEST. Permittee will receive email response within 24 hours.
A 'Temporary Street Closure Permit' is required. No Street shall be closed and vehicular traffic or pedestrian access impeded in any way without said permit, please allow 4 to 8 City business days for permit processing. Please contact the Permit Engineer at PWPERMITS@CI.UPLAND.CA.US for permit information.
A 'Truck Access Plan' is required before the work begins; please contact the Permit Engineer at PWPERMITS@CI.UPLAND.CA.US for necessary information to complete the Access Plan.
'At Risk Improvements' applies to Contractors requesting to work in the Public Right-Of-Way without approved plans. The Developer/Contractor is proceeding at their own risk in commencing this work without City Approved Plans. The Developer/Contractor has supplied the appropriate bonding and Indemnity Letter.
Underground Service Alert at 1-800-227-2600 shall be notified by applicant at least 2 working days in advance of any excavation and an Underground Service Alert Inquiry Identification Number shall be obtained from Underground Service Alert. CONTACTING U.S.A. DOES NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR LOCATING OR PROTECTING EXISTING UTILITIES.

Reference (Tract, P.M., S.P., C.U.P., or Address): _____

General Location/City Plan#/Project #: _____

Contact Name: _____ E-mail Address: _____

Contractor: _____ Telephone: _____

License Number: _____ Expiration Date: _____

Address: _____

Developer (Owner): _____ Telephone: _____

Address: _____

Applicant's Statement

The undersigned hereby applies for permission to undertake, or to have undertaken, construction work within public right-of-way in the City of Upland. Said undersigned has read the conditions provided as Supplemental Permit Information. Said undersigned hereby agrees to observe and comply with all permit provisions. All applicable Sections of the Upland Municipal Code and all applicable Sections of the City of Upland Standard Specification for Public Works Construction, and to complete said construction work all in accordance with the approved plan, and/or standard drawing and/or engineering directives and/or special conditions.

Applicant's Printed Name Signature Date Signed

This Permit Expires on: _____ Extension _____ Approved By _____

Permit Approval: _____ City Engineer or Authorized Representative Date

Items to be constructed or activities with this permit:

Street	Sewer	Water	Miscellaneous	
<input type="checkbox"/> AC Paving	<input type="checkbox"/> Sewer Main	<input type="checkbox"/> Water Main	<input type="checkbox"/> Pole Replacement	<input type="checkbox"/> Stockpile / Material Placement
<input type="checkbox"/> Curb & Gutter	<input type="checkbox"/> Manhole	<input type="checkbox"/> Water Lateral	<input type="checkbox"/> Vault Inspection	<input type="checkbox"/> Square Feet Soil Disturbed
<input type="checkbox"/> Drive Approach	<input type="checkbox"/> Sewer Lateral	<input type="checkbox"/> Fire Hydrant	<input type="checkbox"/> Utility Trench / Pot Hole	<input type="checkbox"/> Parkway Landscaping
<input type="checkbox"/> Sidewalk	Paid with Receipt No. _____	Storm Drain	<input type="checkbox"/> Splice Pit	<input type="checkbox"/> Pavement Repairs
<input type="checkbox"/> Miscellaneous Items		<input type="checkbox"/> Storm Drain Main	<input type="checkbox"/> Aerial Work	<input type="checkbox"/> Paint Fire Hydrant
<input type="checkbox"/> Per Attached Plan			<input type="checkbox"/> Traffic Control Inspection	<input type="checkbox"/> Paint Curbs
				<input type="checkbox"/> Parkway Landscaping
				<input type="checkbox"/> Pavement Repairs
				<input type="checkbox"/> Small Cell Tower Install
				<input type="checkbox"/> Grading Per Plan

Fees

Permit Fee: _____
 Inspection Deposit: _____
 Total Due this Permit: _____

Account Number

1015302-4205
 1010000-4645

NO WORK ON WEEKENDS AND HOLIDAYS ALLOWED BY THIS PERMIT

Permit Work Hours

Permit work hours are from **7:00 AM to 3:30 PM**, Monday through Friday (excluding holidays). Any work after 3:30 PM is subject to the overtime inspection rate. Any work outside of the permit hours must be submitted in writing a minimum of four (4) business days/permit hours in advance

PERMIT IS VALID ONLY WITHIN CITY RIGHT-OF-WAY. WORKS ON PRIVATE PROPERTIES NEED OWNER’S PERMISSION/CONSENT. ALL PERTINENT ORDINANCES APPLY. PAVING WORKS MUST BE COMPLETED WITHIN 30 DAYS FROM BACKFILL IF INCLUDED IN SCOPE OF WORKS AND MUST FOLLOW ORDINANCE 1841.

Temporary Street Closure

Temporary Street Closures require a separate permit and a minimum of 4 to 8 permit business days for processing. Prior to the start of any temporary street and/or lane closure, the applicant is required to notify and receive City approval a minimum of 72 permit business hours in advance. Permit business hours are Monday through Thursday from 8:00 AM to 5:00 PM.

Permit Fee Structure

The minimum fee for a Construction Permit is \$380.00 and is non-refundable. This minimum fee is for minor construction usually for a utility tie-in for a single-family home. Projects that are more extensive require a review on a case-by-case basis.

Public Works Inspection Deposit (Defined)

Inspections are based on an hourly rate. Staff performs an audit when the Inspector final a Construction Permit. This audit consists of deducting the Inspector’s documented time (shown on their time sheet) from the deposit.

Permit Extensions

Each permit extension will be assessed a new processing fee. The minimum fee is \$190.00 for each extension. Extension fees will automatically be assessed until the Permittee provides written notification to the City that the construction and all associated activities have been completed and that the permit has been finalized/signed-off by the Public Works Inspector.

Repair Requirements

Slurry seal to centerline will be required on all major roads, regardless of trench width or location. A compaction report will be required for parallel trenches every 100 feet in length. Additional striping will be required beyond trench to meet existing striping. No more the 15% RAP for new AC pavement per Greenbook.

Additional Comments: _____



Street/Lane Closure Permit No: _____
City of Upland Public Works
Land Development and Transportation Division

PERMIT APPLICATION TEMPORARY STREET AND LANE CLOSURES

NOTE: Please allow a minimum of 8 working days to process the permit application. For pre-construction meetings, please email PWINSPECTIONS@CI.UPLAND.CA.US.

Start Date: _____ Completion Date: _____

Location: _____

Description of Street / Lane Closure: _____

Contact Name: _____ Project Number: _____

Company Name: _____ E-mail Address: _____

Address: _____ Daytime Phone: _____

City, State, Zip: _____ Emergency Phone: _____

Traffic Control Plans (check all that apply):

- Latest edition of WATCH manual plan/sketch
- Latest edition of CATTCH manual plan/sketch
- Engineered Traffic Control Plans (TCP)

Fees

- _____ Full Closure \$220.00 (Subject to Approval)
- _____ Partial Closure \$500.00
- _____ Block Party \$40.00
- _____ Vzn/TW/SCE/Gas - WO# _____
- _____ Traffic Control Plan Check (per fee schedule)

ALL APPLICATIONS MUST CONTAIN THE FOLLOWING INFORMATION. FAILURE TO PROVIDE THE INFORMATION WILL RENDER THE APPLICATION INCOMPLETE AND WILL NOT BE PROCESSED BY CITY STAFF.

1. Proof of valid California contractor's license
2. Proof of valid City Business license
3. Certificate of Liability Insurance (min. \$1M, with City named as additionally insured)
4. Proof of Workers Compensation
5. Any applicable fees
6. Site plan
7. City Project Number (if applicable)

I agree to all terms, conditions and restrictions listed on the back of the application.

Print Name Signature Date

FOR CITY STAFF USE ONLY:

Permit	<input type="checkbox"/> 8:30 am to 3:30 pm
Effective Date(s): _____ to _____	Work Hours: <input type="checkbox"/> 8:30 am to 2:00 pm (School Zone) _____ to _____
Permit Number _____	Closure Type: <u>Full / Partial</u> (circle one)
Permit issued by City of Upland _____	Signature _____ Date _____
Invoice Number _____	Amount Paid \$ _____ CIP or Project # _____
Extended Date(s): _____ to _____	By: _____ Date Extended: _____
Permittee to contact City: _____	Contacted By: _____ Date of Call: _____
<input type="checkbox"/> (72 hours prior to date)	
Distribution	
<input type="checkbox"/> Permittee <input type="checkbox"/> Fire <input type="checkbox"/> PW Traffic <input type="checkbox"/> PW Inspector <input type="checkbox"/> PW Operations Manager	

Traffic Control Plans:

Work Area Traffic Control Handbook (WATCH) or California Temporary Traffic Control Handbook (CATTCH) – It is the responsibility of the applicant to present the City with a reasonable assessment of how the required work zone and existing field condition fits this category. The existing field condition/lane geometry must match the proposed drawing being referenced in the source document.

Engineered Traffic Control Plans (sign and stamped by a registered Traffic Engineer) – For major projects or projects affecting major arterials and/or intersections involving temporary traffic control beyond the scope of WATCH or CATTCH, an engineered traffic control plan will be required. Final determination of this requirement is made by traffic engineering staff. Engineered plans shall be stamped and signed by a registered civil traffic engineer. Allow two weeks for review of the first plan check submittal and one week for review of subsequent submittals of engineered traffic control plans.

General Notes

The Contractor shall provide and install barricades, delineators, warning devices, and construction signs in accordance with the latest edition of California Manual on Uniform Traffic Control Devices (M.U.T.C.D.). During adverse weather or unusual traffic or working conditions, additional traffic devices shall be placed as directed by the Public Works Director or Authorized Representative.

The Contractor shall relocate, preserve, and maintain the visibility of all existing signs within the project limits, which affect the flow of traffic, as directed by the Public Works Director or Authorized Representative. The Contractor at his expense as directed by the Public Works Director or Authorized Representative shall replace any signs, which are damaged or found to be missing during the course of construction.

The City of Upland and its elected officials, officers, agents, and employees shall not be answerable or accountable in any manner of any loss or damage that may happen to the work or any part thereof, or for any of the materials or other things used or employed in performing the work, or for injury or damage to any person or persons, either workmen, employees or Contractor or his Sub-Contractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the work. The Contractor shall be responsible for any damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the sole negligence or willful misconduct of City, its employees, servants, or independent Contractors who are directly responsible to City during the progress of the work or at any time before its completion and final acceptance.

The Contractor will indemnify City and its elected officials, officers, agents, and employees against and will hold and save harmless from any and all actions, claims, damages to persons or property, penalties, obligations, or liabilities that may be asserted or claimed by any person, firm, entity, corporation, political subdivision, or other organizations arising out of or in connection with the work, operation, or activities of the Contractor, his agents, employees, Sub-Contractors, or invitees provided for herein whether or not there is concurrent passive or active negligence on the part of the City, its elected officials, officers, agents, and employees, but excluding such actions, claims, damages to persons or property, penalties, obligations, or liabilities arising from the sole negligence or willful misconduct of the City, its employees, servants, or independent Contractors who are directly responsible to City, and in connection therewith: The Contractor will defend any action or actions filed in connection with any of said claims, damages, penalties, obligations or liabilities and will pay all costs and expenses, including attorney's fees incurred in connection therewith.

Conditions

- Prior to the start of the temporary street closure, the applicant is required to notify and receive City approval a minimum of 72 permit business hours in advance (909) 291-2964.
- **Pre-cons are required.** Please contact Inspection at PWINSPECTIONS@CI.UPLAND.CA.US for Pre-Con.
- All signs shall be graffiti free and monitored/replaced when damaged.
- Must use flashing arrow boards for lane closures on all streets except for local/residential streets.
- Must backfill or steel plate all trenches during non-working hours.
- Post-temporary "NO PARKING" signs in the vicinity of the work area a minimum of 48 hours prior to closure. Signs shall clearly state effective dates and time of parking restriction.
- Must maintain one (1) lane of traffic in each direction at all times (Min. 12' wide lane).
- Protect any traffic signal detection equipment in-place or restore any equipment damaged by the Permittee within five (5) working days.
- Must maintain access for emergency vehicles to all driveways.
- Must notify all affected residents by letter or door hanger of the street closure a minimum of 48 hours in advance.
- When work is within a school zone, all sidewalks and traffic lanes shall remain open during non-working hours.
- Discretion per City Engineer or Inspector to change Traffic Control.

Restrictions/Comments: _____



THE CITY OF UPLAND

Business License Division

HOW TO APPLY FOR A CITY OF UPLAND BUSINESS LICENSE

STEP 1



Zoning Clearance (Planning Division)

A Zoning Clearance is to confirm that the proposed business or land use is allowed within the zoning district of the proposed location, including home business. For more information and applications visit:

<https://www.uplandca.gov/zoning-clearance>

- Commercial businesses fill out: "Zoning Clearance Applications".
- Home businesses fill out: "Home Occupation Application".
- Apply through "CSS Online Portal" and submit application under "Zoning Clearance Review".
- Pay required fee.
- For additional questions, contact Planning Division at 909-931-4130.

City of Upland

460 N Euclid Ave., Upland, CA 91786
Monday - Thursday (8:00 am - 5:00 pm)

STEP 2



Certification of Occupancy/Inspection (Building and Safety Division)

A Certificate of Occupancy/Inspection is a document certifying a building's compliance with applicable building codes and other laws and indicating that the building is in a condition suitable for occupancy. For more information visit:

<https://www.uplandca.gov/certificate-of-occupancy>

- Apply through "CSS Online Portal".
- For inspection only: apply under "Miscellaneous Investigation".
- If tenant improvement permits are needed, a certificate will be provided after project is completed and inspected.
- Pay required fee.
- For additional question, contact Building Division at 909-931-4110.
- To call for inspections, call 909-931-4129.

STEP 3



Business License (HDL - Business License Processing Center)

For more information regarding business license visit:

<https://upland.hdlgov.com>

- Apply online or by mail.
- For mailing, download application and mail completed forms to:

The City of Upland

Business Support Center
8839 N. Cedar Ave #212
Fresno, CA 93720 1832

- With the business license application, including Zoning Clearance Approval and Certificate of Occupancy (if required).
- For additional questions, contact HDL (Business License Processor) at 909-348-0460.

All businesses located within the City of Upland, are required to obtain a Zoning Clearance and Certificate of Occupancy (excluding home businesses) from the City of Upland Development Services Department before applying for a business license.

NOTE: No payment will be required until your business license application has been reviewed and accepted. You will receive an email or telephone call verifying the receipt of application. After the business taxes are paid a business license account number will be issued. A certificate will be mailed or e-mailed to you once the process is completed. Upon receipt of your license certificate, the City Of Upland Municipal Code requires it be posted in a conspicuous place at your place of business.



CITY OF UPLAND BUSINESS LICENSE HANDBOOK

City of Upland
460 N. Euclid Avenue, Upland CA 91786
(909) 931-4100

A GUIDE FOR STARTING A NEW BUSINESS IN UPLAND

The City of Upland is excited that you have chosen to operate a business in our community, and we value the many businesses that have made Upland their home. This guide is intended to assist you through our business approval process. The process includes three steps:



Outside contractors who perform work in Upland at the request of individual property owners and who do *not* have a physical location in Upland do not need zoning approval and may go directly to Step 3 (Business License Tax Certificate).

Step	What to Do	Who to Contact
Step 1	Name your Business	
1.1	<p>Name the Business</p> <p>This is a very important part of beginning your business since it is the item that will identify you, your service and/or your product to the consumer. Once you have decided your business name, ascertain if the name is available for use. Make inquiries to confirm availability with the Secretary of State for corporate names and San Bernardino County Recorder’s office for fictitious name filings.</p>	<p>San Bernardino County Recorder’s Office 855-732-2575 https://arc.sbcounty.gov/fbn/</p>
1.2	<p>File and Publish A Fictitious Name Statement</p> <p>If the business is not a legal entity registered with the State of California, or it does not contain the owner’s surname, such as Jones Roofing, a Fictitious Name Statement must be filed with the County Recorder’s office in the county in which the business is based (San Bernardino). This is also a requirement for partnerships not recognized by the State.</p>	<p>San Bernardino County Recorder’s Office 855-732-2575 https://arc.sbcounty.gov/fbn/</p>
Step 2	Zoning Clearance and Certificate of Occupancy (not required for out of City Businesses or Property Rental)	

<p>2.1</p>	<p>Local Zoning and Building Codes</p> <p>Visit the Development Services Department section of the City’s website and review the zoning forms in this package to find out more about the zoning, land use, and building code requirements for your proposed business location. Be sure to do this before you sign leases or sales agreements, and before making any interior or exterior alterations. Prior to entering into lease agreements, occupying, or making any improvements at the site, the City of Upland encourages all new businesses to discuss their business with City staff to ensure the use can be operated at the site in compliance with applicable Code requirements.</p>	<p>City of Upland Planning Division (909) 931-4130 uplandca.gov/contact-us</p> <p>Building and Safety (909) 931-4110 uplandca.gov/contact-us</p> <p>Visit Us: 460 N. Euclid Avenue Upland, CA 91786</p> <p>Hours: Monday through Thursday (Closed Fridays) 8:00 am to 5:00 pm</p>
<p>2.2</p>	<p>Zoning Clearance</p> <p>All new businesses must complete and submit a Zoning Clearance Application. The purpose of a Zoning Clearance is to confirm that the proposed business / land use is allowed by the Upland Municipal Code or applicable zoning document at the proposed location.</p> <p>For submittal information please go to https://www.uplandca.gov/zoning-clearance or please see the instructions for submittal, starting on page 8 of this package. An approved Zoning Clearance is required prior to the issuance of a business license. <u>A business license application cannot be processed until a Zoning Clearance has been approved.</u></p>	<p>City of Upland Planning Division (909) 931-4130 uplandca.gov/contact-us</p>
<p>2.3</p>	<p>Building Permit</p> <p>Businesses wishing to make interior or exterior alterations to a building and / or tenant space must obtain any construction permits from the Building Division. Please contact the Building and Safety Division for questions or visit the Building and Safety webpage at https://www.uplandca.gov/building-and-safety.</p>	<p>City of Upland Building and Safety (909) 931-4110 uplandca.gov/contact-us</p>
<p>2.4</p>	<p>Certificate of Occupancy</p> <p>Prior to the establishment of any new business, business change of ownership or any other new occupancy, within any commercial building in the City of Upland, you are required to obtain a Certificate of Occupancy from the Building and Safety Division. If you have already applied for building permits, you will receive a Certificate of Occupancy after Building Permit Final. If you do not have building permits, you are required to apply for a Certificate of Occupancy with the Building and Safety Division. You can apply for a Certificate of Occupancy here: https://www.uplandca.gov/certificate-of-occupancy</p>	<p>City of Upland Building and Safety (909) 931-4110 uplandca.gov/contact-us</p>

STEP 3		
3.1	<p>Determine the Legal Status of Your Business</p> <p>Most businesses are classified under one of the following categories of legal status:</p> <ul style="list-style-type: none"> • Sole-Proprietor – A business owned by a single person or husband and wife who receives profits. • Partnership – Two or more persons who are co-owners of a business for profit. • Corporation – An independent legal tax entity, which remains intact even if its officers and/or directors change; must provide Articles of Incorporation or DBA (Doing Business As), if applicable. • Limited Liability Corporation (LLC) – A non-corporate business whose owner actively participates in the organization’s management and are protected against personal liability. • Non-Profit – Must be recognized by the IRS as an exempt entity; must provide supporting documentation – (Section 501C(3)). • Other <p>Check with your legal or financial advisor for the status best suited for your business. Questions concerning incorporation of a business should be directed to the Secretary of State, an attorney, financial advisor, or trade association.</p>	Legal or Financial Advisor
3.2	<p>Obtain Required Permits</p> <p>Depending upon the type of business, certain permits may be required. Below is a list of possible permits that may apply to your business.</p>	
	<p><u>Sellers Permit:</u> All retail and wholesale businesses must obtain a Sellers Permit or Resale Permit from the State Board of Equalization. This may be applied for at any local office. Every business that sells goods must collect and then remit sales tax to the State of California. This process is set in motion with the application for the sellers permit.</p>	<p>State of California State Board of Equalization 951-680-6400 800-400-7115</p>
	<p><u>Health Permit:</u> Eating establishments - food sales and handling. Any business dealing with consumable products must obtain a permit from the County Environmental Health Services Department.</p>	<p>San Bernardino County Environmental Health Services 800-782-4264</p>
	<p><u>Hazardous Materials:</u> Any business which handles hazardous materials (i.e. automotive repair) is also required to obtain a permit from the County Environmental Health Services Department. All businesses should contact the County to verify whether or not a permit is required.</p>	<p>San Bernardino County Environmental Health Services 800-782-4264</p>
	<p><u>Child/Day Care:</u> Although daycare businesses operated from a private residence are exempt from City business licensing if there are six or fewer children, a State license is required regardless of the number of children. The County and Development Services Department should also be contacted for any additional requirements.</p>	<p>State of California Community Care Licensing 951-782-4200 800-300-5616</p>

	<u><i>Alcohol Sales:</i></u> Businesses selling alcohol products consumed on or off the premises must obtain a permit from the California Department of Alcoholic Beverage Control (ABC). The City's Development Services Department should also be contacted for any additional requirements.	State of California Department of Alcoholic Beverage Control (ABC) (951) 782-4400
	<u><i>Secondhand Dealers and Pawn Shops:</i></u> Businesses are required by the Department of Justice (DOJ) to possess and display a Secondhand Dealer or Pawn Broker license. The Upland Police Department serves as a liaison between the DOJ and the business owner. Contact the Upland Police Department Detective Bureau and request an application for license and Live Scan Service.	City of Upland Upland Police Department 909-946-7624
3.3	<p>Submit Business License Application</p> <p>Be sure to include a copy of your signed zoning clearance application. After filing with all required agencies, obtaining a Zoning Clearance and Certificate of Occupancy, submit your Business License Application to the Business Support Center. Submit the Zoning Clearance, all State and County licenses and permits, your fictitious name filing, corporate or partnership documentation and your Tax ID numbers to the Business Support Center.</p> <p>You may also file online at: https://upland.hdlgov.com/. No payment will be required until your application has been reviewed and accepted. You will receive an email verifying the receipt of application. After the business tax fees are paid a business license number will be issued. An electronic copy will be emailed immediately, and a hard copy certificate will be mailed in approximately 6-8 weeks. Upon receipt, the Upland Municipal Code requires your business license be posted in a conspicuous place within the business.</p> <p>The City of Upland provides Business License management through a Consultant, HdL Companies.</p>	<p>HDL Companies Business Support Center 8839 N Cedar Ave #212 Fresno, CA. 93720 909-348-0460</p> <p>Email: Upland@hdlgov.com</p>
STEP 4	GRAND OPENING!	
	Congratulations! We hope your business thrives in the City of Upland.	



Helpful Numbers

There are several entities involved in the process of obtaining all necessary licenses and permits when opening a business at the local, State, and federal level. The following is a list of helpful numbers of these various agencies:

Upland City Offices

www.uplandca.gov

CITY HALL

460 N. Euclid Avenue
(909) 931-4100

BUILDING DIVISION

460 N. Euclid Avenue
(909) 931-4110

BUSINESS LICENSES

Business Support Center
8839 N Cedar Ave #212
Fresno, CA. 93720
909-348-0460

CODE ENFORCEMENT

1499 W. 13th Street
(909) 931-4260

PLANNING DIVISION

460 N. Euclid Avenue
(909) 931-4130

FINANCE DEPARTMENT

460 N. Euclid Avenue
(909) 931-4150

POLICE DEPARTMENT

1499 W. 13th Street
Non-Emergency (909) 946-7624

ECONOMIC DEVELOPMENT

460 N. Euclid Avenue
(909) 931-4130

PUBLIC WORKS

1370 N. Benson Avenue
(909) 291-2930

County Offices

www.sbcounty.gov

AUDITOR/CONTROLLER/RECORDER

222 W Hospitality Lane
San Bernardino, CA 92415
Fictitious Business Name
(855) REC-CLRK or (909) 387-8306

DEPARTMENT OF PUBLIC HEALTH

351 N Mountain View Avenue
San Bernardino, CA 92415
(800) 782-42 64

SAN BERNARDINO COUNTY FIRE

200 E. 3rd Street
San Bernardino, CA 92410
(909) 386-8470

Miscellaneous

BETTER BUSINESS BUREAU

www.bbb.org
(909) 825-7280

CALIFORNIA MASSAGE THERAPY COUNCIL

www.camtc.org
Sacramento
(916) 669-5336

INLAND EMPIRE SMALL BUSINESS

DEVELOPMENT CENTER
inlandempiresbdc.org
(951) 781-2345

CHAMBER OF COMMERCE

www.uplandchamber.org
215 N. 2nd Avenue STE D
(909) 204-4465

State and Federal Offices

www.ca.gov

ALCOHOLIC BEVERAGE CONTROL
(ABC)
www.abc.ca.gov
(951) 782-4400

ATTORNEY GENERAL
www.caag.state.ca.us
(800) 952-5225

BOARD OF EQUALIZATION
www.boe.ca.gov
Riverside Office
(951) 680-6400 or (800) 400-7115

CONSUMER AFFAIRS
www.dca.ca.gov
(800) 952-5210

CONTRACTOR'S STATE LICENSING
BOARD
www.cslb.ca.gov
Sacramento
(800) 321-2752

DEPARTMENT OF JUSTICE (DOJ)
www.oag.ca.gov
Sacramento
(800) 952-5225

DEPARTMENT OF SOCIAL SERVICES
COMMUNITY CARE LICENSING
www.cclid.ca.gov
Riverside/San Bernardino Office
(951) 782-4200

EMPLOYMENT DEVELOPMENT
www.edd.ca.gov
(800) 300-5616

FRANCHISE TAX BOARD
www.ftb.ca.gov
(800) 338-0505

INTERNAL REVENUE SERVICE (IRS)
www.irs.gov
(800) 829-1040

SECRETARY OF STATE
www.sos.ca.gov
Sacramento
(916) 653-3795

SMALL BUSINESS ADMINISTRATION
www.sbaonline.sba.gov
(800) U-ASK-SBA

Additional Information

Business License Requirements

Businesses operating within Upland City limits are required to have a business license. This includes home-based businesses, contractors, and outside services doing business in Upland. Chapter 5.04 of the Upland Municipal Code states in part, "It is unlawful for any person to transact and carry on any business, trade, profession, calling, or occupation in the city (Upland) without first having procured a license."

Filing Your Business License Application

The Business License Application is a general form used for all types of businesses, complete only applicable information pertinent to your business.

- Contractors: Must include their State Contractors License Number.
- Residential Property Rental: If there are less than 3 total rental units NO business license is required in the City of Upland.

- Fictitious Name Statement: If surname is not included in the business name, a Fictitious Name Statement and proof of publication must be provided.

Business Description

Provide a detailed description of the type of business you intend to operate. It may be necessary to attach a written operations summary to include a detailed analysis of what your business operations entail.

Renewal

The City will mail one courtesy renewal notice annually. It is your responsibility to renew your business license during the month following the expiration of your license. Penalties will be assessed if the City does not receive your renewal payment during this timeframe. Business licenses will expire either on June 30th or on December 31st of each year.

Closure

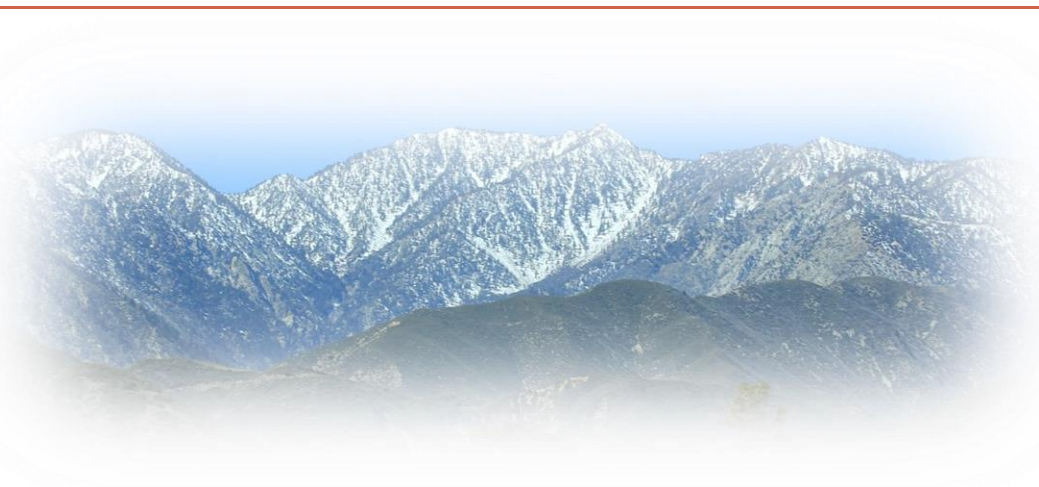
You must notify the Business Support Center in writing when you close your business. For any address or business name changes you are required to notify the Business Support Center in writing. Licenses are non-transferable. If you sell your business, it is your responsibility to notify the City and close your license. The new business owner or entity must apply for a new license.

SB-1186 Fee

State Law SB-1186 requires the City to charge a fee of \$4.00 on any application for a business license or similar instrument, permit, or renewal thereof. The purpose of this fee is to increase disability access and compliance with construction-related accessibility requirements, and to develop educational resources for businesses to facilitate compliance with federal and state disability laws, as specified.

Disclaimer

This handout is intended as a guideline and tool for business owners. The City of Upland does not guarantee these are the only steps your particular business may need prior to opening. Any technical questions should be directed to the responsible agency or your professional consultant. Upland cannot take responsibility for operation of your business.





City of Upland

Zoning Clearance Information Sheet

City of Upland | Development Services Department | Planning Division
460 North Euclid Avenue, Upland, CA 91786

- 1. What is a Zoning Clearance?** The purpose of a Zoning Clearance is to confirm that the proposed business/land use is allowed by the Upland Municipal Code or applicable zoning document at the proposed location. This is not an approval or permit to occupy a building, or an indication that the property meets all applicable code requirements. Prior to entering into lease agreements, occupying, or making any improvements at the site, you should discuss your business with the Planning Division to be certain you can operate your business at the site.

Feel free to contact the Planning Division:

By Phone: (909) 931-4130

Email: uplandca.gov/contact-us

Visit Us: 460 N. Euclid Avenue
Upland, CA 91786

Hours: Monday – Thursday (Closed Fridays)
8:00 am to 5:00 pm

- 2. Do I need a Zoning Clearance?** A Zoning Clearance is also required for any use of land within the City of Upland. A zoning clearance is required prior to the issuance of a business license for all businesses that operate or plan to operate, within the City of Upland. In some cases, specific land uses need a different type of land use approval, discussed below. Prior to entering into lease agreements, occupying, or making any improvements at the site, you should discuss your business with the Planning Division to ensure you file the correct application.
- 3. Do you Operate your business out of your Home?** If you operate a Home-Based Business, you are required to complete the Home Occupation - Zoning Clearance Application. In addition, some home-based businesses, which have the potential to impact a residential neighborhood, require an Administrative Use Permit (discussed below). Prior to application submittal, please contact the Planning Division to determine what type of Application you need.
- 4. Application Submittal and Review.**

- A. Applicants shall submit the Zoning Clearance Application via the City of Upland “Citizen Self-Serve” application portal. To submit the application, please:



- B. After you have selected “Zoning Clearance” the portal will walk you through the submittal. When the application is submitted, The Planning Division will review the application for completeness and determine if the proposed use is allowed at the proposed location.

- If the application can be approved, staff will approve the application and provide the applicant with an approval that is required to be acknowledged. A zoning clearance approval shall not become effective until the applicant submits a written acknowledgment and agreement to operate the proposed use in a manner that is consistent with the activity described in the approval.
- If the Planning Division needs more information, staff will contact the applicant requesting more information to determine if the use can be approved. If the application cannot be approved, staff will provide, in writing, a denial.
- When your Zoning Clearance has been approved, you are required to submit it to HDL companies, as part of your business license application.

5. Do I need any other approval/applications? It is possible that your business may require additional permits, which are dependent on the proposed land use, and zoning district in which you wish to operate.

- a. **Administrative Use Permit (AUP):** An Administrative Use Permit is required for uses/businesses and associated operational characteristics that may be appropriate in the applicable zoning district, but whose effects on a site and surroundings cannot be determined before being proposed for a specific site. AUP applications are approved by the Development Services Director.
- b. **Conditional Use Permit (CUP):** A Conditional Use Permit is required for uses and associated operational characteristics that may be appropriate in the applicable zoning district, but whose effects on a site and surroundings cannot be determined before being proposed for a specific site. CUP applications are approved by the Planning Commission.
- c. **Development Plan Review (DPR):** A Development Plan Review may be required when a use/business make modifications to a site. The purpose of development plan review is to provide a process for the review of specific development projects in order to:
 - i. Ensure consistency with General Plan policies related to the preservation of established community character, and expectations for high quality development.
 - ii. Respect the physical and environmental characteristics of the site.
 - iii. Ensure safe and convenient access and circulation for pedestrians and vehicles.
 - iv. Allow for and encourage individual identity for specific uses and structures.
 - v. Encourage the maintenance of a distinct neighborhood and/or community identity.
 - vi. Minimize or eliminate negative or undesirable visual impacts.
 - vii. Ensure protection of significant views from public right-of-way(s).
 - viii. Allow for different levels of review depending on the significance of the development project.
 - ix. DPR applications are approved by the Development Services Director or the Planning Commission depending on the proposed use.

Building and Safety: Prior to occupying a building or tenant suite, all business are required to apply for and obtain a “Certificate of Occupancy” from the Building and Safety Division. In some cases, tenant improvement permits are required prior to the issuance of a “Certificate of Occupancy”. Please visit the Building Division webpage: <https://www.uplandca.gov/certificate-of-occupancy> for further details.



APPENDIX "B"

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PROJECT NO. 70024

BID NO. 2026-02

**16TH STREET AND SAN ANTONIO AVE TRAFFIC SIGNAL
IMPROVEMENTS**

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- (2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.
- (3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.
- (4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.
- (5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

- (6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.
- (8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.
- (10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.
- (13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

- (14) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
- (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - (B) been paved or otherwise covered by a permanent structure; or
 - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (15) **DUST SUPPRESSANTS** are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (16) **EARTH-MOVING ACTIVITIES** means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- (17) **DUST CONTROL SUPERVISOR** means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.
- (18) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (19) **HIGH WIND CONDITIONS** means that instantaneous wind speeds exceed 25 miles per hour.
- (20) **INACTIVE DISTURBED SURFACE AREA** means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- (21) **LARGE OPERATIONS** means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

- (22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- (24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- (25) PM₁₀ means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- (27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.
- (28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.
- (29) SIMULTANEOUS SAMPLING means the operation of two PM₁₀ samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- (30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

- (31) **STABILIZED SURFACE** means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
 - (32) **TRACK-OUT** means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
 - (33) **TYPICAL ROADWAY MATERIALS** means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.
 - (34) **UNPAVED ROADS** means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
 - (35) **VISIBLE ROADWAY DUST** means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
 - (36) **WIND-DRIVEN FUGITIVE DUST** means visible emissions from any disturbed surface area which is generated by wind action alone.
 - (37) **WIND GUST** is the maximum instantaneous wind speed as measured by an anemometer.
- (d) **Requirements**
- (1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

- (A) the dust remains visible in the atmosphere beyond the property line of the emission source; or
 - (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
- (2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.
- (3) No person shall cause or allow PM₁₀ levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM₁₀ monitoring. If sampling is conducted, samplers shall be:
- (A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM₁₀.
 - (B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.
- (4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.
- (5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.
- (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

- (B) Pave the surface extending at least 100 feet and at least 20 feet wide.
 - (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
- (6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.
- (e) Additional Requirements for Large Operations
- (1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:
 - (A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;
 - (B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
 - (C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

- (D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
 - (E) identify a dust control supervisor that:
 - (i) is employed by or contracted with the property owner or developer;
 - (ii) is on the site or available on-site within 30 minutes during working hours;
 - (iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;
 - (iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and
 - (F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).
- (2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).
- (f) **Compliance Schedule**
The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

- (A) Dairy farms.
- (B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.
- (C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.
- (D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.
- (E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.

- (F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
 - (G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
 - (H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.
 - (I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.
 - (J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:
 - (i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and
 - (ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.
 - (K) sandblasting operations.
- (2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:
- (A) When wind gusts exceed 25 miles per hour, provided that:

- (i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;
 - (ii) records are maintained in accordance with subparagraph (e)(1)(C).
 - (B) To unpaved roads, provided such roads:
 - (i) are used solely for the maintenance of wind-generating equipment; or
 - (ii) are unpaved public alleys as defined in Rule 1186; or
 - (iii) are service roads that meet all of the following criteria:
 - (a) are less than 50 feet in width at all points along the road;
 - (b) are within 25 feet of the property line; and
 - (c) have a traffic volume less than 20 vehicle-trips per day.
 - (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
- (3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.
 - (4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:
 - (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
 - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
 - (5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

- (6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.
- (7) The provisions of subdivision (e) shall not apply to:
 - (A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.
 - (B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.
 - (C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.
- (8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM₁₀ pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

**TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> ✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> ✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> ✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> ✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	<ul style="list-style-type: none"> ✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	<ul style="list-style-type: none"> ✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	<ul style="list-style-type: none"> ✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	<ul style="list-style-type: none"> ✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	<ul style="list-style-type: none"> ✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> ✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	<ul style="list-style-type: none"> ✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> ✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> ✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exits
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> ✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> ✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> ✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	<ul style="list-style-type: none"> ✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> ✓ Haul waste material immediately off-site

**TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
Earth-moving: Construction fill areas:	<p>(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c) Apply chemical stabilizers within five working days of grading completion; OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Unpaved Roads	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
Open storage piles	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
All Categories	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling (Only applicable to Commercial Poultry Ranches)	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).



APPENDIX "C"

TRUCK ACCESS PLAN TRUCK ROUTE MAP

PROJECT NO. 70024

BID NO. 2026-02

**16TH STREET AND SAN ANTONIO AVE TRAFFIC SIGNAL
IMPROVEMENTS**



**Public Works Department
Land Development & Transportation Division**

Telephone (909) 931-4137
Facsimile (909) 931-4321
Revision Date: April 1, 2015

Construction Traffic (Truck) Access Plan

Project Name: _____ Construction Permit # _____
(Tract/Parcel Map Site Plan or CUP #)

Project Location: _____

Company Name: _____

Contact Person: _____

Company Address: _____

Company Telephone: _____ Fax: _____

Company Email: _____

Construction traffic (truck) access to and from the above project site is limited to the following streets:

Trucks are restricted to the approved City Of Upland truck routes except as specified above.

This plan is valid for truck traffic associated with delivery of common construction material or removal of earthen materials during grading operations. Trucks or loads exceeding the weight or size limitations as specified in Section 35000 of the California Vehicle Code may require a special permit.

Applicant Signature: _____ Date: _____

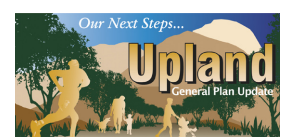
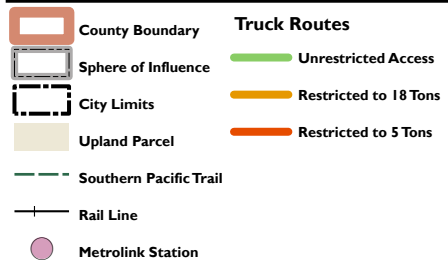
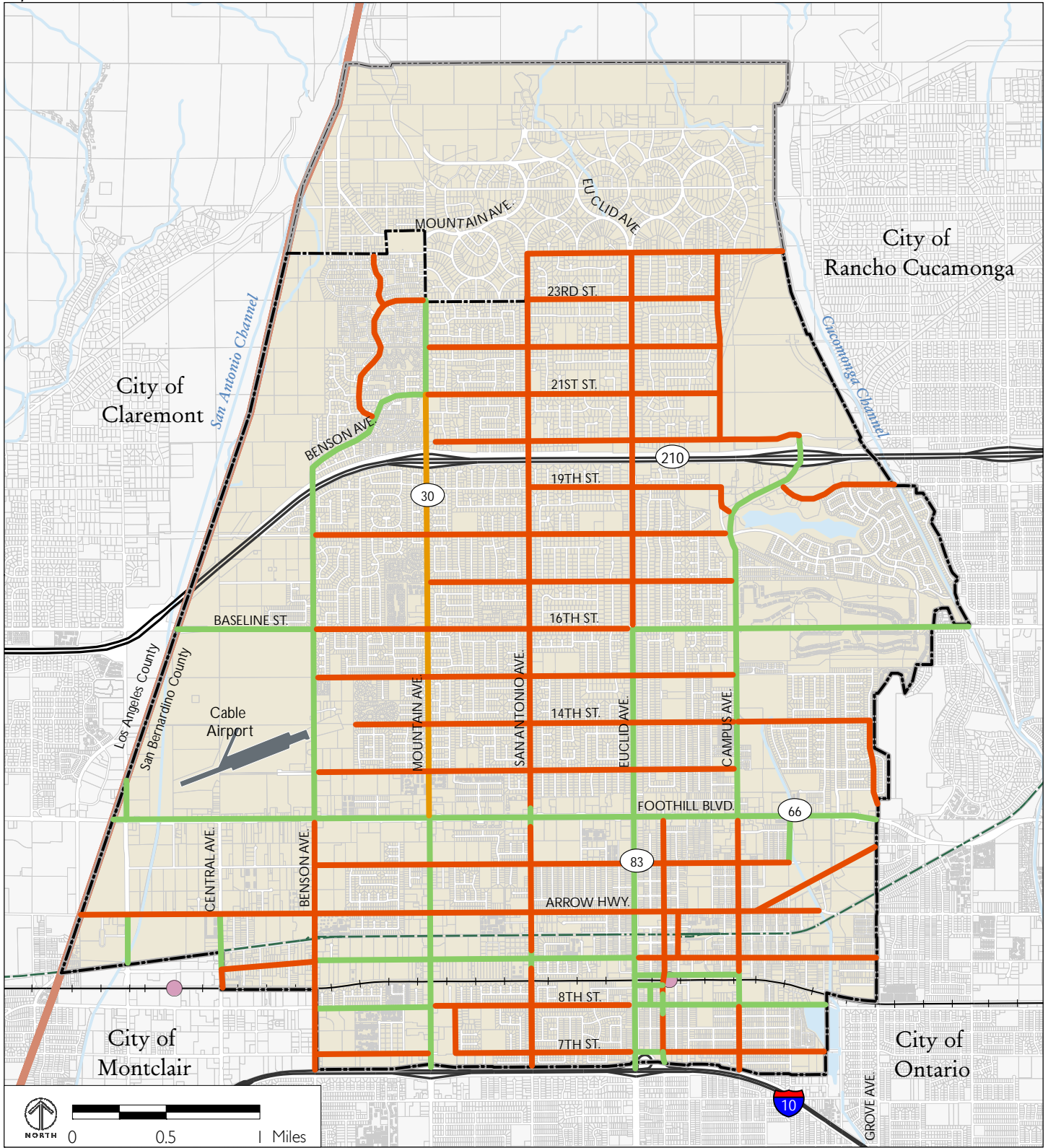
Applicant Name: (Please Print) _____

Approved By: _____ Date: _____

Routing:

- Applicant PD Traffic Division Project File PW Inspectors PW Transportation

Map Date: 07/31/12; Source: Fehr & Peers



**FIGURE CIR-4
DESIGNATED TRUCK ROUTES**