

CITY OF SACRAMENTO

DEPARTMENT OF PUBLIC WORKS

CONTRACT SPECIFICATIONS

_ FOR

SACRAMENTO RIVER WATER TREATMENT PLANT SECURITY IMPROVEMENTS

CC: 1505/1595

FOR PRE-BID INFORMATION CALL:

TIM WEIS (916) 449-5898



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OFFICE OF THE CITY CLERK

SEPARATE PLANS

Sacramento California 30

Bids to be received on April 2, 1985

CITY OF SACRAMENTO

NOTICE TO CONTRACTORS Page 1

Sealed Proposals will be received by the City Clerk of the City of Sacramento at the office of the City Clerk, Room 203, City Hall, located on I Street between 9th and 10th Streets, up to the hour of 10:30 a.m. on <u>April 2, 1985</u> and opened at 10:30 a.m., or as soon thereafter as business allows, in the Council Chambers, City Hall for construction of:

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

as set forth in the Construction Documents adopted <u>March 12, 1985</u> by the City of Sacramento.

All such proposals received and any work performed thereunder must comply with the requirements of Chapter 58 of the Sacramento City Code (Ordinance No. 3129, Fourth Series).

Bids must be submitted on printed forms supplied by the City Clerk without charge to prospective bidders and enclosed in an envelope marked: "Sealed Proposal for the

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

Copies of the Sealed Proposal Forms and accompanying documents are available at the office of

City Clerk 915 I Street, Room 203 Sacramento, CA. 95814

All contractors, subcontractors and all concerned must comply with the rates of wages established by the Director of Industrial Relations under provisions of Sections 1770 and 1773 of the Labor Code of the State of California, a copy of which is on file in the office of the City Clerk; or such other rate of wages as may hereafter be established by the Director of the Department of Industrial Relations in compliance with Section 1770 of the Labor Code of the State of California.

Pursuant to Government Code Section 4590, any contract awarded pursuant to this invitation for bid shall contain a provision permitting the substitution of securities for any moneys withheld to ensure performance under the contract. The terms of such provisions shall be according to the requirements of Government Code Section 4590.

Each bid must be accompanied by security consisting only of cash, California Bank Cashier's Check, certified check, California Bank Money Order, or bid bond made payable to the order of the City Director of Finance in the sum of ten percent (10%) of the sum of the proposal.

The right to reject any and all bids or to waive any informality in any bid received is reserved by the City Council.

LORRAINE MAGANA CITY CLERK

SEALED PROPOSAL (MUST BE SIGNED BY BIDDER)

Sealed Proposals will be received not later than 10:30 a.m. on April 2, 1985, at the office of the City Clerk, Room 203, City Hall, Sacramento, California and opened at 10:30 A.M., or as soon thereafter as business allows, on April 2, 1985, in the Council Chambers, City Hall, Sacramento, California.

TO THE HONORABLE CITY COUNCIL:

The undersigned hereby proposes and agrees to furnish any and all required labor, material, transportation and services for

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595 & 1505

in the City and County of Sacramento, California.

The work is to be done in strict conformity with the Plans, City of Sacramento Standard Specifications (Resolution No. 81-042) and Special Provisions all as on file in the office of the City Clerk, at the following unit prices.

Item No.	Item	Est. Quantity	Unit	Unit Price	Total
1.	Perimeter Road, Clearing, Fencing, Lighting and Electrical Work	1	JOB	LUMP SUM	\$
2.	Additive Alternate, Security System	1	JOB	LUMP SUM	\$

Bids will be evaluated on the basis of Item No. 1 only.

If awarded the contract, the undersigned shall execute said contract and furnish the necessary bonds within ten (10) days after the notice of award of said contract and begin work within fifteen (15) days after the signing of the contract by the Contractor and the City or Notice to Proceed, whichever is applicable.

In determining the amount bid by each bidder, City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Proposal. When such a mathematical error appears on the face of the Proposal, the City shall have the right to correct such error and to compute the total amount bid by said bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Proposal, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the Engineer's estimate of the quantity of work to be performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the policy of the bidding procedure. The total paid for each such item of work shall be based upon the item price and not the total price. Should the Proposal contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by Engineer's estimate of the estimated quantities of work to be performed as items of work.

If the Proposal contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Proposal shall be disregarded.

It is understood that this bid is based upon completion of the work within a period of Two Hundred Forty Days (240) calendar days commencing on the day the Contractor begins work.

The amount of the liquidated damages to be paid by Contractor to City for failure to complete the entire work by the Completion Date (as extended, if applicable) will be \$ FIFTY DOLLARS for each calendar day, continuing to the time at which the work is completed. Such amount is the actual cash value agreed upon as the loss to City resulting from Contractor's default.

The undersigned represents and warrants that the undersigned has examined the location of the proposed work and is familiar with the local conditions at the place where the work is to be done, and the undersigned has reviewed and understands the plans, specifications and other contract documents, and the undersigned is satisfied with all conditions for performance of the work.

The undersigned has checked carefully all of the above figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

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This proposal will not be withdrawn for the periods specified in Section 3-2 of the City of Sacramento Standard Specifications for award of contract to respective low bidders. This proposal is submitted according to Sections 1, 2, and 3 of the City of Sacramento Standard Specifications.

BID DEPOSIT ENCLOSED IN THE FOLLOWING FORM:

\$_____ not less than ten percent (10%) of amount bid.

CERTIFIED CHECK MONEY ORDER CASHIER'S CHECK CASH BID BOND

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CONTRACTOR

Ву_____

(Signature)

Title

Address___

Telephone No.

Contractor's License:

Valid Contractor's License No.______is held by the bidder.

CITY OF SACRAMENTO

SUB-BIDDER FORM

In accordance with Sections 4101 and 4107, inclusive, of the Government Code of the State of California, as amended, the following information is required concerning sub-bidders:

Name Sub-Bidder	Street Address of Shop, Mill or Office	Class Of Work	Portion of Work To Be Done	Contractor's License Number
				9
	,			

IF AWARDED CONTRACT

FOLLOWING FORMS TO BE FILLED OUT AND SIGNED

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ONLY

TO THE CITY OF SACRAMENTO:

The undersigned does hereby certify that he is aware of the provisions of Section 3700 et seq. of the Labor Code which require every employer to be insured against liability for workmen's compensation claims or to undertake self-insurance in accordance with the provisions of said Code, and that he will comply with such provisions before commencing the performance of the work on this contract.

Ву	
Title	
Address	·
	
Date	
	Title Address

PLEASE READ CAREFULLY BEFORE SIGNING

To be signed by authorized corporate officer or partner or individual submitting the bid. If bidder is: (example)

- 1. An individual using a firm name, sign: "John Doe, an individual doing business as Blank Company."
- 2. An individual doing business under his own name, sign: your name only.
- 5. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, Co-Partner."
- 4. A corporation, sign: "Blank Company, by John Doe, Secretary." (or other title)

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GUARANTEE

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We hereby guarantee the

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

which we propose to install in the City of Sacramento for one (1) year in accordance with the guarantee required in the specifications. We agree to repair or replace any or all such work, together with all or any other work which may be displaced in so doing, that may be proven defective in workmanship or material within the period from the date of acceptance without expense whatsoever to the City, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above mentioned conditions within five (5) days time after being notified in writing, we collectively or separately, do hereby authorize the City to proceed to have the defects repaired and made good at our expense and will pay the costs and damages therefor immediately upon demand.

Signed:

Dated:

3.

AGREEMENT

THI	S	AGREEN	ENT	:, đ	lated	for	identific	ation	as	of		′	19,
between	the	CITY	OF	SACI	RAMENT	10, a	municipal	œrpo	rati	on,	(hereinafter	called	"City"),
and				<u></u>									

(hereinafter called the "Contractor").

The parties hereto mutually agree to the terms and conditions set forth herein.

1. CONTRACT DOCUMENTS

Each of the items hereinafter referred to is incorporated herein by reference as if set forth in full in this contract.

Work called for in any one Contract Document and not mentioned in another is to be performed and executed as if mentioned in all Contract Documents. The table of contents, titles and headings contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect or limit the interpretations of the provisions to which they refer.

The Contract Documents, sometimes also referred to as "the Contract", consist of the Notice to Contractors, the completed Proposal Form submitted by Contractor to whom the Contract is awarded, the Instructions to Bidders insofar as they relate to events which occur or actions to be taken after the submission of the Proposal, this Agreement, the Standard Specifications, the Special Provisions, Plans and Technical Specifications, the drawings and other data and all developments thereof prepared by City pursuant to the Contract, and any modifications of any of the foregoing in the form of Addenda or otherwise effected in accordance with the terms of the Contract.

The Standard Specifications shall mean and refer to the current Standard Specifications of the City of Sacramento which are incorporated herein by this reference as if set forth in full at this place.

2. DEFINITIONS

Unless otherwise specifically provided herein, all words and phrases defined in the Standard Specifications shall have the same meaning and intent in this Agreement.

3. AGREEMENT CONTROLS

In the event of a conflict between the terms and conditions as set forth in this Agreement and the terms and conditions set forth in other Contract Documents, the terms and Conditions set forth in this Agreement shall prevail.

4. SCOPE OF CONTRACT

Contractor agrees to furnish all tools, equipment, apparatus, facilties, labor and material and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of City, all the work called for, and in the manner designated in, and in strict conformity with the Contract Documents entitled:

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

including the following alternative bid items described in the Proposal Form:

5. CONTRACT AMOUNT AND PAYMENTS

City agrees to pay, and Contractor agrees to accept, in full payment for

the above work, the sum of

DOLLARS

(\$_____), which sum is to be paid according to the schedule and in the manner set forth herein and subject to additions, deductions and withholding as provided in the Contract Documents.

6. PROGRESS AND FINAL PAYMENTS

Subject to the terms and conditions of the Contract, City shall cause payments to be made upon demand of Contractor as follows:

- (A) On the first of the month, Contractor shall present to the City Engineer a statement showing the amount of labor and materials incorporated in the work during the preceding month; the City Engineer shall inspect the statement and, if the City Engineer aproves the statement, shall issue a certificate for ninety percent (90%) of the amount it shall find to be due.
- (B) No inaccuracy or error in said monthly estimates shall operate to release Contractor or Surety from damages arising from such work or from enforcement of each and every provision of the Contract Documents, and City shall have the right subsequently to correct any error made in any estimate for payment.
- (C) Contractor shall not be paid for any defective or improper work.
- (D) City shall pay the remaining ten percent (10%) of the value of the work done under this contract, if unencumbered, thirty-five (35) days after final completion and acceptance of work by City. Acceptance by Contractor of said final payment shall constitute a waiver of all claims against City arising under the Contract Document.

7. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR

When, under the provisions of this contract, City shall charge any sum of money against Contractor, City shall deduct and retain the amount of such charge from the amount of the next succeeding progress estimate, or from any other moneys due or that may become due Contractor from City. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay City's charges against him, City shall have the right to recover the balance from Contractor or his sureties.

8. COMMENCEMENT AND PROSECUTION OF WORK

Contractor shall commence the work on or before ten (10) calendar days from and after receipt of written Notice to Proceed from City to Contractor and will diligently prosecute the work to final completion. The phrase "commence the work" means to engage in a continuous program on-site including, but not limited to, site clearance, grading, dredging, land filling and the fabrication, erection, or installation of the work. Said Notice to Proceed shall be issued following execution of the Agreement and the filing by Contractor of the required bonds and proof of insurance. The continuous prosecution of work by Contractor shall be subject only to Excusable Delays as defined in this Agreement.

9. TIME OF COMPLETION

The entire work shall be brought to completion in the manner provided for in the Contract Documents on or before <u>TWO HUNDRED FORTY DAYS</u>, (<u>240</u>) calendar days (hereinafter called the "Completion Date") from and after the receipt by Contractor of the Notice to Proceed unless extensions of time are granted in accordance with the Contract Documents.

Failure to complete the work by the Competion Date and in the manner provided for by the Contract Documents shall subject Contractor to liquidated damages as hereinafter provided in this Agreement. Time is and shall be of the essence in these Contract Documents.

10. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK

The payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the work or any portion thereof and shall in no way reduce the liability of Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may not have been apparent or detected at the time such payment was made.

11. ACCEPTANCE NOT RELEASE

Contractor shall correct immediately any unfaithful or imperfect work which may be discovered before final acceptance of the entire work. Any unsatisfactory materials shall be rejected, notwithstanding that they may have been overlooked by the proper inspector. The inspection of the work, or any part thereof, shall not relieve Contractor of any of his obligations to perform satisfactory work as herein prescribed.

Failure or neglect on the part of City or any of its authorized agents to condemn or reject bad or inferior work or materials shall not be construed to imply an acceptance of such work or materials if such becomes evident at any time prior to final acceptance of the entire work or all materials, nor shall such failure be construed as barring City at any subsequent time from recovering damages or of such a sum of money as may be required to build anew all portions of the work in which fraud was practiced or improper materials used whenever City may discover the same.

12. RELEASE

If requested to do so by City, at the time of final payment, as a condition precedent to final payment, Contractor and each assignee under any assignment in effect at the time of final payment shall execute and deliver a release in form and substance satisfactory to and containing such exemptions as may be found appropriate by City which shall discharge City, its officers, agents and employees of and from all liability, obligations and claims arising under this contract.

13. CITY'S RIGHT TO TAKE POSSESSION OF THE WORK IN WHOLE OR IN PART

The City of Sacramento shall have the right at any time to enter upon the work and perform work not covered by this Contract, or to occupy and use a portion of the work, prior to the date of the final acceptance of the work as a whole, without in any way relieving Contractor of any obligations under this Contract.

Such use or occupation of the work shall not be construed as an acceptance of any portion of the work under this Contract.

14. NO WAIVER OF REMEDIES

Neither the inspection by City or its agents, nor any order or certificate for the payment of money, nor any payment for, nor acceptance of the whole or any part of the work by City, nor any extensions of time, nor any position taken by City or its agents shall operate as a waiver of any provision of this Agreement or of any power herein reserved to City or any right to damages herein provided, nor shall any waiver of any breach of this Agreement be held to be a waiver of any other or subsequent breach. All remedies provided in this Agreement shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided, and City shall have any and all equitable and legal remedies which it would in any case have.

15. GUARANTEE

Except as otherwise expressly provided in the Specifications, and excepting only items of routine maintenance, ordinary wear and tear and unusual abuse or neglect, Contractor guarantees all work executed by him and all supplies, materials and devices of whatsoever nature incorporated in, or attached to the work, or otherwise delivered to City as a part of the work pursuant to the Contract, to be absolutely free of all defects of workmanship and materials for a period of one year after final acceptance of the entire work by the City of Sacramento. Contractor shall repair or replace any or all such work or material, together with all or any other work or material which may be displaced or damaged in so doing, that may prove defective in workmanship or material within said one year guarantee period without expense or charge of any nature whatsoever to City. such liabilities of Contractor, Contractor and his sureties shall continue to remain liable to City until all such liablities are satisfied in full. No failure by City to withhold any payment as hereinbefore specified shall in any manner be construed to constitute a waiver of any right to liquidated damages or any right to any such sum.

19. INDEMNITY AND HOLD HARMLESS

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Contractor shall assume the defense of, and indemnify and save harmless, the City, its officers, employees, and agents, and each and every one of them, from and against all actions, damages, claims, losses or expenses of every type and description to which they may be subjected or put, by reason of, or resulting from, the performance of the work, provided that such action, damage, claim, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to, or destruction of property, whether upon or off the work, including the loss of use thereof, and is caused in whole or in part by any negligent act or omission of the Contractor, and subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not it is caused in part by a party indemnified hereunder.

20. CONTRACTOR SHALL ASSUME RISKS

Until the completion and final acceptance by City of all work under this Contract, the work shall be under Contractor's responsible care and charge. Contractor shall rebuild, repair, restore and make good all injuries, damages, reerections, and repairs occasioned or rendered necessary by accidental causes of any nature, to all or any portions of the work, except as otherwise stipulated.

21. GENERAL LIABILITY OF CONTRACTOR

Except as otherwise herein expressly stipulated, Contractor shall do all the work and furnish all the labor, materials, tools, power and light, and appliances, necessary or proper for performing and completing the work herein required in the manner within the time herein specified. The mention of any specific duty or liability of Contractor shall not be construed as limitation or restriction of any general liability or duty of Contractor and, any reference to any specific duty or liability shall be construed to be for the purpose of explanation.

22. INSURANCE

During the term of this Agreement and until final completion and acceptance of the work required by the Contract Documents, Contractor shall maintain in full force and effect at his own cost and expense the following insurance coverage:

(A) Worker's Compensation

Full Worker's Compensation Insurance and Employer's Liability policy or provide evidence of ability to undertake self-insurance. Limits of coverage shall be at least \$1,000,000 for any one person. In the event Contractor is self-insured, he shall furnish a Certificate of Permission to Self-Insure by the Department of Industrial Relations Administration of Self-Insurance, Sacramento. In the event that Contractor shall fail to comply with the conditions of the foregoing guarantee within ten (10) days time, after being notified of the defect in writing, City shall have the right, but shall not be obligated to repair, or obtain the repair of, the defect and Contractor shall pay to City on demand all costs and expense of such repair. Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing guarantee results in a condition which constitutes an immediate hazard to the health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Contractor shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include either temporary or permanent repairs which may be required as determined in the sole discretion and judgment of City.

16. DETERMINATION OF DAMAGES

The actual fact of the occurrence of damages and the actual amount of the damages which City would suffer if the work were not completed within the specified times set forth are dependent upon many circumstances and conditions which could prevail in various combinations, and, from the nature of the case, it is impracticable and extremely difficult to fix the actual damages. Damages which City would suffer in the event of delay include loss of the use of the project, and, in addition, expenses of prolonged employment of an architectural and engineering staff; costs of administration, inspection, and supervision; and the loss suffered by the public within the City of Sacramento by reasons of the delay in the completion of the project to serve the public at the earliest possible time. Accordingly, the parties hereto agree, and by execution of this Agreement Contractor acknowledges that he understands, has ascertained and agrees, that the amounts set forth herein as liquidated damages shall be presumed to be the amount of damages sustained by the failure of contractor to complete the entire work within the times specified.

17. LIQUIDATED DAMAGES

The amount of the liquidated damages to be paid by Contractor to City for failure to complete the entire work by the Completion Date (as extended, if applicable) will be <u>FIFTY DOLLARS</u> ($\frac{50.00}{100}$) for each calendar day, continuing to the time at which the work is completed. Such amount is the actual cash value agreed upon as the loss to City resulting from Contractor's default.

18. PAYMENT OF DAMAGES

In the event Contractor shall become liable for liquidated damages, City, in addition to all other remedies provided by law, shall have the right to withhold any and all payments which would otherwise be or become due Contractor until the liability of Contractor under this section is finally determined. City shall have the right to use and apply such payments, in whole or in part, to reimburse City for all liquidated damages due or to become due to City. Any remaining balance of such payments shall be paid to Contractor only after discharge in full of all liability incurred by Contractor under this section or otherwise. If the sum so retained by City is not sufficient to discharge all

(B) Comprehensive Auto and General Liability Insurance

Contractor must provide sufficient broad coverage to include:

Comprehensive Auto and General Liability Insurance Products and Completed Operation Liability Broad Form Property Damage Liability Contractual Liability Personal Injury Liability

The amount of the policy shall be no less than \$1,000,000 Single Limit per occurrence, issued by an admitted insurer or insurers as defined by the California Insurance Code, providing that the City of Sacramento, its officers, employees and agents are to be Named Insured under the policy, and the policy shall stipulate that this insurance will operate as Primary insurance and that no other insurance effected by City or other Named Insured will be called on to contribute to a loss covered thereunder.

(C) Certificate of Insurance

Contractor shall have City's standard Certificate of Insurance completed and filed with the Finance Director within fifteen (15) days of the execution of this Agreement. Said policies shall provide that no cancellation, major change in coverage, or expiration may be effected by the insurance company or the insured during the term of this Agreement, without first giving to City thirty (30) days written notice prior to the effective date of such cancellation or change in coverage.

(D) Worker's Compensation Certificate

Contractor shall sign and file with the Director of Finance of the City of Sacramento the following certification prior to commencing performance of the work of the Contract:

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

23. FAILURE TO MAINTAIN INSURANCE

If, at any time during the performance of this Contract, Contractor fails to maintain any item of the required insurance in full force and effect, Contractor shall immediately discontinue all work under the Contract and City will withhold all Contract payments due or that become due until notice is received by City that such insurance has been restored in full force and effect and that the premiums therefor have been paid for a period satisfactory to the Director of Finance.

Any failure to maintain any item of the required insurance will be sufficient cause for termination of the Contract.

24. EXTENSIONS OF TIME

In the event City deems it necessary, in its sole discretion, to extend the time of completion of the work to be done under this Contract beyond the required Completion Date herein specified, such extensions shall in no way release any guarantee given by contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties on the bonds executed pursuant to said provisions. By executing such bonds, the sureties shall be deemed to have expressly agreed to any such extension of time. The amount of time allowed in any extension of time shall be limited to the period of excusable delay as defined herein giving rise to the same as determined by City Council of City.

25. EXCUSABLE DELAYS

For the purpose of these Contract Documents, the term "Excusable Delays" shall mean, and is limited to, delays caused directly by acts of God; acts of the public enemy; fires, riots, insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; acts of a governmental agency; priorities or privileges established for the manufacture, assembly, or allotment of materials necessary in the work by order, decree or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the work ordered by City insofar as they necessarily require additional time in which to complete the work; the prevention by City of Contractor from commencing or prosecuting the work because of the acts of others, excepting Contractor's subcontractors; or the prevention of Contractor from commencing the work because of a city-wide failure of public utility service.

Inclement weather shall not be a reason for granting an extension of time. City may, however, grant an extension of time for unavoidable delay as a result of extraordinary inclement weather which shall then be classified Excusable Delay.

The term "Excusable Delay" shall specifically not include: (i) any delay which could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor (ii) any delay in the prosecution of parts of the work, which may in itself be unavoidable but which does not necessarily prevent or delay the prosecution of other parts of the work, nor the completion of the whole work within the time specified; (iii) any reasonable delay resulting from time required by City for review of plans and submittals required of Contractor and for the making of surveys, measurements and inspections; (iv) any delay arising from an interruption in the prosecution of the work on account of the reasonable interference from other Contractors employed by City, which does not necessarily prevent the completion of the work within the time specified; and, (v) any delay resulting from ordinary inclement weather. Excusable Delays, if any, shall operate only to extend the Completion Date (not in excess of the period of such delay as determined by City) but shall not under any circumstances increase the sum City is to pay Contractor as provided in these Contract Documents.

26. CONTRACTOR TO SERVE NOTICE OF DELAYS

Whenever Contractor foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which Contractor regards as an excusable delay, he shall notify the City Engineer in writing of the probability of such delay and its cause, in order that the City Engineer may take immediate steps to prevent if possible the occurrence or continuance of the delay, or if this cannot be done, may determine whether the delay is to be considered excusable, how long it continues, and to what extent the prosecution and completion of the work are delayed thereby. Said notice shall constitute an application for an extension of time only if the notice requests such an extension and sets forth Contractor's estimate of the additional time required together with a full description of the cause of the delay relied upon.

After the completion of any part or whole of the work, the City Engineer, in estimating the amount due Contractor, will assume that any and all delays which may have occurred in its prosecution and completion have been avoidable delays, except such delays as shall have been called to the attention of the City Engineer at the time of their occurence and found by him to have been excusable. Contractor shall make no claim that any delay not called to the attention of the City Engineer at the time of its occurrence has been an excusable delay.

27. EXTENSION OF TIME

Should any delays occur which the City Council may consider excusable, as herein defined, Contractor shall, pursuant to his application, be allowed an extension of time beyond the time herein set forth proportional to said delay or delays in which to complete this Contract; and, during an extension which may have been granted because of an excusable delay or delays, City shall not charge liquidated damages against Contractor for such delay. Only the City Council may grant an extension of time on the Contract.

28. EXTENSION OF TIME DOES NOT WAIVE CITY'S RIGHTS

The granting of any extension of time on account of delays which in the judgment of the City Council are excusable delays shall in no way operate as a waiver on the part of City of its rights under this Contract excepting only the extension of the Completion Date.

29. NO PAYMENT FOR DELAYS

No damages or compensation of any kind shall be paid to Contractor or any subcontractor because of delays in the progress of the work whether such delays qualify for extension of time under this Agreement or not.

Contractor waives all claims against City, its officials and employees, for any loss or damage sustained by reason of delays beyond the Completion Date arising out of modifications of this Agreement, including modifications deemed necessary or desirable by City for the correction of errors or omissions in this Agreement, Plans or Specifications, it being expressly understood and agreed that no damages or compensation of any kind shall be paid to Contractor because of such delays.

30. CHANGES IN THE WORK

Changes in the work made pursuant to changes issued in accordance with the Standard Specifications and extensions of time of completion made necessary by reason thereof (beyond the Completion Date) shall not in any way release any guarantee given by Contractor pursuant to the provisions of the Contract Documents, or the Contract let hereunder, nor shall such changes in the work relieve or release the sureties on bonds executed pursuant to the said provisions. By executing such bonds, the sureties shall be deemed to have expressly agreed to any such change in the work and to any extension of time made by reason thereof.

31. TERMINATION AFTER COMPLETION DATE

In addition to any rights it may have, City may terminate this Contract at any time after the Completion Date as adjusted by any extensions of time for excusable delays that may have been granted. Upon such termination Contractor shall not be entitled to receive any compensation for services rendered by him before or after such termination, and he shall be liable to City for liquidated damages for all periods of time beyond such termination date until the work is completed.

32. CONTRACTOR BANKRUPT

If Contractor should commence any proceeding under the Bankruptcy Act, or if contractor be adjudged a bankrupt, or if Contractor should make any assignment for the benefit of creditors, or if a receiver should be appointed on account of Contractor's insolvency, then the City Council may, without prejudice to any other right or remedy, terminate the Contract and complete the work by giving notice to Contractor and his surety according to the provisions of Section 33. Contractor's Surety shall have the right to complete the work by commencing within thirty (30) days as specified in Section 33; and, in the event Contractor's Surety fails to commence work within thirty (30) days as specified in Section 33, City shall have the right to complete, or cause completion of the work, all as specified in Section 33.

33. TERMINATION FOR BREACH OF CONTRACT

If Contractor should abandon the work under this Contract, or if the Contract or any portion of the Contract should be sublet or assigned without the consent of the City Council, or if the City Engineer should be of the opinion that the conditions of the Contract in respect to the rate of progress of the work are not being fulfilled or any part thereof is unnecessarily delayed, or if Contractor should willfully violate or breach, or fail to execute in good faith, any of the terms or conditions of the Contract, or if Contractor should presistently refuse or fail to supply enough properly skilled labor or materials, or fail to make prompt payment to subcontractors for material or labor, or persistently disregard laws, ordinances or proper instruction or orders of the Engineer, then, notwithstanding any provision to the contrary herein, the City Council may give Contractor and his Surety written notification to immediately correct the situation or the Contract shall be terminated.

In the event that such notice is given, and, in the event such situation is not corrected, or satisfactory arrangement for correction is not made, within ten (10) calendar days from the date of such notice, the Contract shall upon the expiration of said ten (10) calendar days cease and terminate. In the event of any such termination, City shall immediately serve notice thereof upon the Surety and Contractor; and the Surety shall have the right to take over and perform the Contract, provided, however, that if the Surety does not commence performance thereof within thirty (30) days from the date of the mailing to such Surety of notice of termination, City may take over the work and prosecute the same to completion by Contract, or otherwise, for the account and at the expense of Contractor, and his Surety shall be liable to City for any excess cost occasioned City thereby, as hereinafter set forth.

In the event City completes the work, or causes the work to be completed, as aforesaid, no payment of any sum shall be made to Contractor until the work is complete. The cost of completing the work, including but not limited to, extra contract costs, the costs of City forces, extra costs of administration and management incurred by City, either direct or indirect, shall be deducted from any sum then due, or which becomes due, to Contractor from City. If no sum sufficient to pay the difference between sums due to Contractor from City and the cost of completing the work, Contractor and the Surety shall pay City a sum equal to said difference on demand. In the event City completes the work, and there is a sum remaining due to Contractor after City deducts the aforementioned costs of completing the work, then City shall thereupon pay such sum to contractor and his Surety.

No act by City before the work is finally accepted including, but not limited to, exercise of other rights under the Contract, actions at law or in equity, extensions of time, payments, claims of liquidated damages, occupation or acceptance of any part of the work, waiver of any prior breach of the Contract or failure to take action pursuant to this section upon the happening of any prior default or breach by Contractor shall be construed to be a waiver by, or to estop, City from acting pursuant to this paragraph upon any subsequent event, occurrence of failure by Contractor to fulfill the terms and conditions of the Contract. The rights of City pursuant to this paragraph are cumulative and in addition to all other rights of City pursuant to this Agreement and at law or in equity.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date set forth opposite their names.

CONTRACTOR

DATE: ______ By ______ Title
CITY OF SACRAMENTO,
a municipal corporation
DATE: ______ By ______
City Manager
ATTEST:
City Clerk
ORIGINAL APPROVED AS TO FORM
FUNDING AVAILABLE: 4-13-3150-1505-4820
4-13-3150-1595-4820
City Attorney
Accounting Officer

SUBSTITUTION OF SECURITIES FOR MONEY WITHHELD

At any time prior to final payment, Contractor may request substitution of securities for any money withheld by the City to ensure performance of the contract. At the expense of Contractor, securities equivalent to the money withheld may be deposited with the City or with Wells Fargo Bank as escrow agent according to a separate Security Agreement. Securities eligible for substitution shall include those listed in Section 16430 of the Government Code or bank or savings and loan certificates of deposit. A fee set by the City Council shall be charged for such substitution.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the City of Sacramento, a municipal corporation, has awarded to

hereinafter designated as the "Principal", a contract for

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract, to secure payment of claims of laborers, mechanics, or materialmen employed on work under said contract, as provided by law;

NOW, THEREFORE, we the undersigned Principal and Surety are held and firmly bound unto the City of Sacramento in the sum of

DOLLARS (\$

said sum being equal to the estimated amount payable by the said City of Sacramento under the terms of the contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if said Principal, his or its heirs, executors, administrators, successors, or assigns, or subcontractors shall fail to pay for any material, provisions, provender or other supplies or teams, implements or machinery 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 for amounts due under the Unemployment Insurance Act with respect to such work or labor, as required by the provisions of Chapter 7, Title XV, Part 4, Division 3, of the Civil Code, and provided that the claimant shall have complied with the provisions of said code; or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such work and labor, the Surety or Sureties hereon will pay for the same and in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, said Surety will pay a reasonable attorney's fee to be fixed by the Court.

This bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 3181 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

Said Surety, for value received, hereby stipulates and agrees that, in accordance with the Standard Specifications or Special Provisions, no change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder, or to the specifications accompanying the same, shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this ______ day of _____, the name and corporate seal of each corporate body being affixed thereto, and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal		·····
By		
Title	<u> </u>	
Surety		
Address		
City	State	Zip
Ву	• • •	······
Address		
City	State	Zip

APPROVED AS TO FORM:

City Attorney

JURAT HERE, PLEASE

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That

WHEREAS, the City of Sacramento, State of California, has awarded to

hereinafter designated as the "Principal", a contract for

SACRAMENTO RIVER PLANT SECURITY IMPROVEMENTS CC: 1595/1505

; and

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract.

NOW, THEREFORE, we the Principal, and

as Surety, are held and firmly bound unto the City of Sacramento in the penal sum of

DOLLARS

(\$ _____), lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, ... 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 convenants, conditions and agreements in the said contract and any alteration thereof made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified and in all respects according to their true intent and meaning; and shall indemnify and save harmless the City of Sacramento, its officers and agents as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

And the surety, for value received hereby stipulates and agrees that, in accordance with the Standard Specifications or Special Provisions, no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or additions to the terms of the contract or to the work or to the specifications. IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this day of the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal		
By		
Title		
Surety		
Address		
City	State	Zip
By	<u>.</u>	
Address		
<u> </u>		
City	State	Zip

APPROVED AS TO FORM:

City Attorney

JURAT HERE, PLEASE

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EXCERPTS FROM THE CALIFORNIA LABOR CODE RELATING TO APPRENTICES ON PUBLIC WORKS

Chapter 4 of Division 3

THE SHELLEY-MALONEY APPRENTICE LABOR STANDARDS ACT OF 1939

(Note: Boldface type denotes key points.)

3098. An awarding agency whose public works contract falls within the jurisdiction of Section 1777.5 shall, within five days of the award, send a copy of the award to the Division of Apprenticeship Standards. When specifically requested by a local joint apprenticeship committee, the division shall notify the local joint apprenticeship committee regarding all such awards applicable to the joint apprenticeship committee making the request. Within five days of a finding of any discrepancy regarding the ratio of apprentices to journeymen, pursuant to the certificated fixed number of apprentices to journeymen, the awarding agency shall notify the Division of Apprenticeship Standards.

(Amended by Stats. 1974, Ch. 1095.)

Chapter 1 of Division 2 APPRENTICES ON PUBLIC WORKS

1778. Each contractor and subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice or worker employed by him in connection with the public work. The contractor's and subcontractor's payroll records shall be available for inspection at all reasonable hours, and a copy shall be made available to the employee or his authorized representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards. The body awarding the contract may charge a reasonable fee for copying such records. The body awarding the contract shall be required to retain the records filed pursuant to this section for 90 days after completion of the contract. After a complaint has been filed with the awarding body or the Division of Labor Standards Enforcement alleging that a contractor or subcontractor has paid less than the prevailing wage on a public works project, the contractor or subcontractor shall upon written notice from either the awarding body or the Division of Labor Standards Enforcement within 10 days file with the body awarding the contract a certified copy of the payroll records.

(Amended by Stats. 1976, Ch. 599.)

1777.5. Nothing in this chapter shall prevent the employment of properly registered apprentices upon public works.

Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he is employed, and shall be employed only at the work of the craft or trade to which he is registered.

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Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at Section 3070), Division 3, of the Labor Code, are eligible to be employed on public works. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he is training.

When the contractor to whom the contract is awarded by the state or any political subdivision, or any subcontractor under him, in performing any of the work under the contract or subcontract, employs workmen in any apprenticeable craft or trade, the contractor and subcontractor shall apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the site of the public work for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected; provided, however, that the approval as established by the joint apprenticeship committee or committees shall be subject to the approval of the Administrator of Apprenticeship. The joint apprenticeship committee or committees, subsequent to approving the subject contractor or subcontractor, shall arrange for the dispatch of apprentices to the contractor or subcontractor in order to comply with this section. There shall be an affirmative duty upon the joint apprenticeship committee or committees administering the apprenticeship standards of the craft or trade in the area of the site of the public work to ensure equal employment and affirmative action in apprenticeship for women and minorities. Contractors or subcontractors shall not be required to submit individual applications for approval to local joint' apprenticeship committees provided they are already covered by the local apprenticeship standards. The ratio of apprentices to journeymen who shall be employed in the craft or trade on the public work may be the ratio stipulated in the apprenticeship standards under which the joint apprenticeship committee operates but in no case shall the ratio be less than one apprentice for each five journeymen, except as otherwise provided in this section.

The contractor or subcontractor, if he is covered by this section, upon the issuance of the approval certificate, or if he has been previously approved in such craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by the contractor that he employs apprentices in such craft or trade in the state on all of his contracts on an annual average of not less than one apprentice to each five journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the contractor from the 1-to-5 ratio as set forth in this section. This section shall not apply to contracts of general contractors involving less than thirty thousand dollars (\$30,000) or 20 working days or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than two thousand dollars (\$2,000) or fewer than five working days.

"Apprenticeable craft or trade," as used in this section, shall mean a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council. The joint apprenticeship committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting a contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

(a) In the event unemployment for the previous three-month period in such area exceeds an average of 15 percent, or

(b) in the event the number of apprentices in training in such area exceeds a ratio of 1 to 5, or

(c) If there is a showing that the apprenticeable craft or trade is replacing at least one-thirtleth of its journeymen annually through apprenticeship training, either (1) on a statewide basis, or (2) on a local basis.

(d) if assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

When such exemptions are granted to an organization which represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis the member contractors will not be required to submit individual applications for approval to local joint apprenticeship committees, provided they are already covered by the local apprenticeship standards.

A contractor to whom the contract is awarded, or any subcontractor under him, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the public work, to which fund or funds other contractors in the area of the site of the public work are contributing, shall contribute to the fund or funds in each craft or trade in which he employs journeymen or apprentices on the public work in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are unable to accept such funds. contractors not signatory to the trust agreement shall cay a like amount to the California Apprenticeship Council. The contractor or subcontractor may add the amount of such contributions in computing his bid for the contract. The Division of Labor Standards Enforcement is authorized to enforce the payment of such contributions to the fund or funds as set forth in Section 227.

The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. Such stipulations shall fix the responsibility of compliance with this section for all appronticeable occupations with the prime contractor.

All decisions of the joint apprenticeship committee under this section are subject to the provisions of Section 3081.

(Amended by Stats. 1976, Ch. 1179.)

1777.8. It-shall be unlawful for an employer or a labor union to refuse to accept otherwise qualified employees as registered apprentices on any public works, on the ground of the race, religious creed, color, national origin, ancestry, sex, or age, except as provided in Section 3077, of such employee.

(Amended by Stats. 1976, Ch. 1179.)

In the event a licensed contractor 1777.7. willfully fails to comply with the provisions of Section 1777.5, such licensee shall be denied the right to bid on any public works contract for a period of one year from the date the determination of noncompliance is made by the Administrator of Apprenticeship and, notwithstanding the provisions of Section 1727, upon receipt of such a determination the awarding body shall withhold from contract progress payments then due or to become due the the sum of five thousand dollars (\$5,000). Any determination shall be issued after a full investigation, a fair and impartial hearing, and reasonable notice thereof in accordance with reasonable rules and procedures prescribed by the California Apprenticeship Council. Any funds withheld by the awarding body pursuant to this section shall be released to the contractor upon issuance of an order to that effect by the administrator, or upon completion of the contract.

The interpretation and enforcement of Sections 1777.5 and 1777.7 shall be in accordance with the rules and procedures of the California Apprenticeship Council.

(Amended by Stats. 1976, Ch. 538.)

GREATER SACRAMENTO AREA PLAN (GSAP) EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

The City of Sacramento is signatory to the "Greater Sacramento Area Plan" (hereinafter referred to as the "Plan") a joint industry-labor-minority representative agreement established for the purpose of increasing the employment of minorities in all phases and at all levels of skill in the building and construction industry within the greater Sacramento area. The City has adopted the "Plan" as its affirmative action program for City construction contracts and requires a contractor and his subcontractors be signatory to the Plan in order to be eligible for an award of a City contract. Additional information regarding the Plan is available at its head-quarters office located at 4320 Stockton Boulevard, Sacramento, 95821, Telephone No. (916) 452-5832.

1. As used in these specifications:

- a. "Covered area" means the geographical area within the following counties: Amador, El Dorado, Nevada, Placer, Sacramento, Sierra, and Yolo.
- b. "Director" means Director, of GSAP, or any person to whom the Director delegates authority;
- c. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race;
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- 3. If the Contractor is signatory under Part I of the GSAP a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of the GSAP. Each Contractor or Subcontractor participating in the GSAP is individually required to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
- 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Eng. (Rev. 3/1/79)

- b. Establish and maintain a current list of minority and female recruitment sources, provided written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
- f. Disseminate the Contactor's EED policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EED obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EED policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions, including specific review of these items with onsite supervisory personnel such as Superintendents, General foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- 1. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourace present minority and female employees to recruit other minority persons and women and where reasonable, provide after school summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR, Part 60.3.
- Conduct at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that senicrity practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contactor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- Occument and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

- 8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
- 11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalities for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended and its implementing regulations, by the Office of Federal Contract Compliance Program. Any Contractor who fails to carry out such sanctions and penalities shall be in violation of these specifications and Executive Order 11246, as amended.
- 13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number, when assigned, social security number, race, sex, status (e.g., mechanic, appentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

GSAP REPORTING REQUIREMENTS

- (1) All contract and subcontracts (over \$10,000) are subject to the reporting requirements.
- (2) Contractors must submit a CC 257 (Monthly Employee Utilization Report) to the GSAP at 4320 Stockton Soulevard, Sacramento, California 95829.
- (3) If the Contractor is already required to submit CC 257 there is no need to submit an additional form.
- (4) This report must arrive at the GSAP no later than the 5th working day of each month.
- (5) Failure to report is automatic cause to find the Contractor in noncompliance.
- (6) Each report is monitored by GSAP and measured against the specified goals for minorities and women.

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U. S. DEPARTMENT OF LABOR MONTHLY EMPLO Employment Standards Administration, OFCCP UTILIZATION REP					ORT			FEIOM:	FROM:	
A This report is required by E I cancelled, terminated or su further Government contra	spended in whote o	r in part and the co	ntractor may be dec	It in contracts being lared instigible for	2 EMPLOYENS I D NO.		FEMALE:	TO:		
				NAME AND	LOCATION OF CONTRA	CTOR			FUDERAL FUNDING AGENCY	
5.			B. WORK HOUR	S OF EMPLOYMENT	Federal & Non-Federa	1)		9.	′ <u> </u> 10, ──────	
CONSTRUCTION TRADE	Classifications	TOTAL ALL EMPLOYEES BY TRADE	BLACK (Not of Hispanic Origin)	HISPANIC PA	IAN OR ACIFIC ANDERS ANDERS ANDERS ALASKAN NATIVE	MINORITY	B. FEMALE PERCENTAGE	TOTAL NUMBERI OF EMPLOYEES	TOTAL NUMBER OF MINOHITY EMPLOYEES	
	Journey worker APPRENTICE TRAINEE	<u>M F</u>	M F	<u>M</u> F <u>M</u>	F M F			<u> </u>	<u> </u>	
	SUB-TOTAL Journey worker APPRENTICE TRAINEE SUB-TOTAL									
	Journey worker APPRENTICE THAINEE SUB-TOTAL									
	Journey worker APPRENTICE TRAINEE SUB-TOTAL									
	Journey worker APPRENTICE TRAINEE SUB-TOTAL				<u>.</u>					
TOTAL JOURNEY WOF TOTAL APPRENTICES TOTAL TRAINEES GRAND TOTAL	IKERS	: : :								
11. COMPANY OFFICIAL	'S SIGNATURE A	I ND TITLE	L	12. TELEPHONE	NUMBER (Include area cod	 0) 13. DATE	SIGNED	PAG	і ie Ог	

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INSTRUCTIONS FOR FILING MONTHLY EMPLOYMENT UTILIZATION REPORT (CC-257)

The Monthly Utilization Report is to be completed by each subject contractor (both prime and sub) and signed by a responsible official of the company. The reports are to be filed by the 5th day of each month during the term of the contract, and they shall include the total work-hours for each employee datafication in each trace in the covered area for the monthly reporting period. The prime contractor shall submit a report for its aggregate work force and collect and submit reports for each subcontractor's aggregate work force to the Federal compliance agency that has Executive Order 11246 responsibility. (Additional copies of this form may be obtained from the U.S. Department of Labor, Employment Standards Administration, OFCCP's regional office for your area.)

Compliance Agency	.U.S. Government epency stugned responsibility for equal employ- ment opportunity, Gecure this information from the contracting officerul
Federal Funding Agency	.U.S. Government agency funcing project (in whole or in part), If more than one agency, list all.
Contractor	. Any contractor who has a construction contract with the U.S. Gov- ernment or a contract funded in whole or in part with Federal funds.
Minority	, Includes Blacks, Hispanics, American Indians, Alaskan Natives, and Asian and Pacific Islanderspoth men and women.
1. Covered Area	. Geographic area identified in Notice required undar 41 CFR 60-4.2.
2. Employer's Identification Number	. Federal Social Security Number used on Employer's Quarterly Fed- ersi Tax Return (U.S. Tressury Department Form 941).
2. Current Goals (Minority & Female)	. See contract Notification.
4. Reporting Period	. Monthly, or as directed by the compliance evency, beginning with the effective date of the contract.
5. Construction Trace	, Only those construction crafts which contractor employs in the coverad area.
6. Work-Hours of Employment (a-e)	, a. The total number of mais hours and the total number of female hours worked by employees in each classification.
	b.e. The total number of male hours and the total number of temale hours worked by each specified group of minority employees in each classification.
Classification	. The level of accomplishment or status of the worker in the trade Liburney Worker, Apprentics, Trainee)
7. Minority Percentage	. The percentage of total minority work-hours of all work-hours (the sum of columns 6b, 6c, 6d, and 6e divided by column 6e; just one figure for each construction trade).
S. Female Percentage	. For each trade the number reported in 6s. F divided by the sum of the numbers reported in 6s. M and F.
9. Total Number of Employees	. Total number of male and total number of female employees work- ing in each classification of each trace in the contractor's aggregate work force during reporting period.
10. Total Number of Minority Employees	. Total number of male minority employees and total number of female minority employees working in each classification in each trace in the contractor's aggregate work force during reporting period.

APPENDIK A

The following goals and timetables for female utilization shall be included in all construction contracts and subcontracts in excess of \$10,000. The goals are applicable to the contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a covered construction contract or subcontract.

AREA COVERED

Goals for Women apply Nationwide

GOALS AND TIMETABLES

Timetable

Goals (percent)

6.9

Until further notice

APPENDIX B

Until further notice the following goals and timetables for minority utilization shall be included in all construction contracts and subcontracts in excess of \$10,000 to be performed in the respective covered areas. The goals are applicable to the contractor's aggregate on-site construction workforce whether or not cart of that workforce is performing work on a covered construction contract or subcontract.

SACRAMENTO, CALIFORNIA

Area covered - Sacramento, Yolo, and Placer Counties, California.

GOALS AND TIMETABLES

All-----

Goal Trade (percent)

Until further notice

Timetable

Eng. (Rev. 9/10/81)

----- 17.5 to 20.0

SPECIAL PROVISIONS

SPECIAL PROVISIONS

SECTION 1

GENERAL CONSTRUCTION INFORMATION

1. LOCATION, SCOPE OF WORK, COMPLETION TIME

The project is located at the City of Sacramento's Sacramento River Water Treatment Plant, 101 Bercut Drive, Sacramento, California.

These Special Provisions cover the installation of a security system which includes: land clearing and grubbing, fencing, road building and electrical work together with appurtenances and special requirements as shown on the project plans and specified herein. City standard specificiations dated May, 1981 are an integral part of this contract. If conflicts exist between these Special Provisions and the Standard Specifications, the prior will govern.

The Contractor shall furnish all plant, labor, equipment, and materials to install, test, and complete the security system in place as shown on the plans and specified herein, making the necessary connection to the existing plant facilities. The work shall be so performed that upon contract completion, the project shall be ready for use.

The Contractor shall complete all work within a period of 180 calenadar days commencing on the day the Notice to Proceed is given.

2. INSPECTION

The City will designate a field inspector for the security system installation. Telephone (916) 449-5281 48 hours prior to beginning construction for scheduling of City inspection. Coordination with treatment plant operations will be through the inspector.

- 3. SPECIAL CONSIDERATIONS
 - A. Construction methods and materials must be approved by the engineer prior to start of construction. Shop drawings should be submitted 3 weeks prior to start of construction to allow for review and approval by the engineer. Contractor shall employ only experienced workman to provide high quality of workmanship.
 - B. The Contractor shall furnish all miscellaneous material necessary for a complete project. Included in the installation is trenching, back-filling, compacting and landscaping. Incidental work includes routing around obstacles, preparing surfaces, concrete cutting and coring, and additional manpower needed to execute the work safely.
 - C. The contractor's personnel shall not occupy or trespass upon any area except those areas within the designated work site and the parking area. Damage to unauthorized areas shall be repaired by the Contractor at his expense.

Special Provisions Section 1

The Contractor may use the unplanted area shown on Drawing 1 of 9 for storage and plant.

- D. The work site is located within the operating units of the water treatment plant, consequently the City will require the Contractor to maintain a high standard of housekeeping and dust/mud abatement.
 - 1. Rubbish Control

During the progress of the work, the Contractor shall keep work site and other areas used by him in a neat and clean condition, and free from any accumulations of rubbish.

2. Dust Control

The Contractor shall at all times conduct his work so as to avoid unnecessary dust. He shall provide adequate equipment and water as determined by the Engineer to be necessary for accomplishment of this objective.

3. Cleaning Up

The contractor shall promptly remove from the vicinity of the work, all rubbish, used materials, concrete forms, equipment, and temporary stuctures used during construction.

4. TESTING OF SYSTEM

After system installation the entire security system will be tested for proper operation. The contractor shall be liable for replacement of defective materials and appurtenances installed by his forces discovered during this test and for a period of one year following the City's acceptance of this contract.

SPECIAL PROVISIONS

SECTION 2

PERIMETER ROAD/LAND CLEARING

BERM AND FENCING

1. GENERAL

All construction shall be in accordance with the City of Sacramento Standard Specifications dated May, 1981 and the following Special Provisions.

2. CLEARING AND GRUBBING

Clearing and grubbing for the perimeter road and berm shall be included with treatment plant site land clearing and fencing portion of the project.

3. NATIVE FILL

All native fill shall be free from organic materials and large nonhomogenious debris (i.e., wood, concrete, tires, etc.). Native fill for the perimeter road shall be compacted in 12 inch lifts to a relative density of 85%. Native fill may be obtained from the treatment plant site at locations specified by the engineer. Fill for the berm does not require compaction but must be free from organic materials and large debris.

4. MEMBRANE

Membrane shall be Dupout "Typar" or approved equal.

5. AGGREGATE BASE

Aggregate base shall be placed as shown on the plans in accordance with Sections 10-7 and 17 of the City Standard Specifications. The required compaction shall be 90% relative density in accordance with paragraph 14-4 of the City Standard Specifications.

6. CHIP SEAL SURFACE

Chip seal surface shall be placed as shown on the plans in accordance with Section 23-7, "Armor Tops", of the City Standard Specifications.

7. FENCING

7.01 Scope of Work

Fencing includes all material, labor and services necessary for the construction or reconstruction of an 8 foot and 6 foot high area chain link fence as required, complete with corner, gate and line posts, post anchors, top rails, gates, wire, concrete footings and other necessary appurtenances as shown or specified.

7.02 Materials

- 1) Chain Link Fence
 - a) Fabric. Fabric shall be 2-inch mesh No. 9 guage wire with barbed selvage top and bottom. Fabric shall be hot-dip galvanized after fabrication. Width of fabric shall be 8 feet or 6 feet (plus or minus 3/4 inch) as specified on the plans. Fabric shall conform in all respects with the requirements of ASTM A392 and shall have a Class II zinc coating (2.002).
 - b) <u>Bottom Tension Wire</u>. Bottom tension wire shall be No. 7 guage (W&M) zinc-coated coil-spring wire.
 - c) <u>Barbed Wire</u>. The barbed wire shall be double strand No. 12-1/2 gauge galvanized steel wire with 14-guage barbs in a 4-point pattern on 5-inch centers and shall have a class III galvanized coating per AST specification A121-66.
 - d) Posts, Braces, and Gate Frames. Line posts shall be 2-3/8-inch outside diameter schedule 40 pipe. Corner and end posts shall be 2-7/8-inch outside diameter pipe weighing not less than 5.79 pounds per foot. Gate posts shall be 6-5/8-inch outside diameter pipe. Gate frames shall be made from 2-inch outside diameter pipe connected with fittings riveted at each corner.

All pipe used shall be ASTM Al20, Schedule 40 steel pipe. All posts, braces, rails and frames shall be hot-dip galvanized after being cut to length. Galvanizing shall be applied to at least 2.0 ounces of zinc per square foot of surface.

e) Truss Rods, Extension Arms and Miscellaneous Fittings. Truss rods shall be fabricated of 3/8-inch diameter steel rods and shall have turnbuckles or similar means of adjustment. Extension arms for barbed wire shall be V-arm of pressed steel or malleable iron. Miscellaneous fittings shall include gate hinges, drop bar locking devices, malleable iron caps, gate stops and miscellaneous bolts, traps bands, etc., and shall be consistent in quality and strength to the rest of the fence.

All fittings used shall be hot-dip galvanized iron or steel with a coating of at least 2.0 ounces of zinc per square foot of surface in accordance with ASTM A392.

2) Concrete

Concrete for footings and curb shall be 3000 spi strength as specified in Section 10 of the City Standard Specificatiions.

- 7.03 Construction
 - 1) Chain Link Fence
 - a) <u>Fencing</u>. Line posts shall be equally spaced between corners, end posts and gate posts and shall not be more than 10 feet apart. All posts shall be set in the ground in concrete. Concrete base

shall be at least 12 inches in diameter by 36 inches long with the top set truly vertical, shall be accurately aligned, and shall have their tops level or at a constant slope between changes in grade. Post braces shall be provided at all corner, end and gate terminal posts. Braces shall extend at midheight of the fabric from the terminal post to the adjacent line post or posts. A truss rod shall extend from midheight of the line post or posts to the terminal post.

The fabric shall be taut and shall be firmly attached to posts and rails with galvanized fabric bands or tie wires at the spacing shown. Three strands of barbed wire shall be securely attached to extension arms. Extension arms shall overhang the outside of an angle of 45 degrees with the topmost strand of barbed wire 12 inches above the top of the fabric.

b) <u>Gate - The West Entrance</u>. This new gate shall reuse the existing electric operators and shall be double swing-type as shown, provided with suitable hinges permitting a 90-degree swing, both in and out. Tie rods from above the gates shall not be allowed.

Gate frames shall be fabricated with welded joints. The fabric shall be the same as that used for the fence and shall be rigidly attached to the frames. Frames shall be suitably braced and trussed and shall afford the same protection as the fence itself. Tie rods shall be avoided whenever possible. Welded joints and other points where fabrication has destroyed the galvanized coating shall be coated with two coats of Galvicon. Aluminum paint will not be allowed.

2) Cleanup

Upon completion of the installation, all debris shall be removed from the premises.



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SPECIAL PROVISIONS SECTION 3 ELECTRICAL

1. SCOPE

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a. <u>General</u>: The Contractor shall furnish all labor, material tools, transportation, equipment services, and installation of all electrical work shown on the plans and/or outlined in these specifications. System Voltage shall be 480/277 volt, 3 phase, 4 wire.

b. Work Included: The general extent of the electrical work includes, among others, the furnishing and installing of the following items:

1. Complete NEW Perimeter Fence 277 Volt High Pressure Sodium Lighting System.

2. Complete replacement of and additions to existing area lights, street lights, and flood lights for a 277 volt High Pressure Sodium Lighting System.

3. Alterations and additions to main substation switchgear and transformers to provide a 225 KVA 480/277 volt distribution system.

4. Demolition, removal and disposal of abandoned wire, conduit, luminaires and equipment.

5. Complete new lighting luminaires, fixtures, lamps and ballasts for a new 277 volt High Pressure Sodium lighting system.

6. New steel or aluminum masts, arms, concrete boxes, conduit, wire, pull boxes, junction boxes; and fittings for modified masts.

7. Trenching, backfill and restoration of all saw cut surfaces.

8. Core drilling of existing concrete structures.

9. Complete circuiting and connection for all lighting systems, power distribution, and controls.

10. Lighting Control additions to existing control console.

11. Panelboards, Relay Panels, Transformers.

12. Conduit for E Flex Fence Security System and Gate Microwave Security System.

13. All supports, bases, anchors, sleeves, hangers and the like, all electrical work shown and/or specified, not particularly mentioned herein.

14. Complete grounding system.

15. Additive Alternate, Complete Perimeter Fence Intrusion Alarm System Equipment, wire, cable and connections.

16. Additive Alternate, Complete Gate Intrusion, Microwave Alarm System, Equipment, wire, cable and connections.

17. Additive Alternate, Complete Equipment, drilling, mounting, wiring and connection of an 8 zone Multiplex Alarm Responder in the existing Plant Control Console.

c. Codes, Rules, Regulations: All work shall be in full accord with the latest edition of the National Electrical Code, all state, federal, local and other laws, standard specifications of the City of Sacramento, and with the requirements of the serving utility. However, when these specifications call for materials or constructions of a better quality or larger sizes than required by the above specification shall take precedence.

The Contractor shall furnish without extra charge any additional material and labor which may be required for compliance with these laws, rules, and regulations, even though the work is not mentioned in these particular specifications or shown on the drawings.

d. <u>Permits</u> and <u>Fees</u>: The Contractor shall secure all permits and pay all fees necessary for the prosecution and completion of his work.

e. Accuracy of Data: The data given herein and on the drawings are as exact as could be secured, but their absolute accuracy is not guaranteed. The specifications and drawings are for the assistance and guidance of the contractor; exact locations, distances, levels, etc., will be governed by the various structures, and Contractor shall use same with this understanding.

f. Drawings: The electrical drawings are diagrammatic, but shall be followed as closely as existing conditions and work of other contractors will permit. All deviations from drawings required to make the work conform to the structures as constructed, and to the work of others, shall be made at the contractor's expense. The Contractor shall inspect the site and verify all measurements and condition and shall be responsible for the correctness of same. No extra compensation will be allowed because of differences between work shown on the drawings and measurements at the site.

g. Inspection: All work and materials covered by this specification shall be subject to inspection at any and all times by the Engineer.

If any material does not conform with these specifications the Contractor shall, within three days after being notified by the Engineer, remove the materials from the premises; and if said material has been installed, the entire expense of removing and replacing same, including any cutting and patching that may be necessary, shall be borne by the Contractor.

Work shall not be closed in or covered before inspection and approval by the Engineer or his representative. Cost of uncovering and making repairs where uninspected work has been closed in shall be borne by the Contractor.

h. <u>Supervision and Workmanship</u>: The Contractor shall personally, or through an authorized and competent representative, constantly supervise the work covered by these specifications. The workmanship of the entire job shall be first class in every way, and only experienced and competent workmen shall be employed for this work.

i. <u>Submittals</u>: Submit to the Engineer a complete list of materials and equipment stating manufacturer's names, catalog numbers, etc., and shop drawings for switchboards, panels, controls, transformers, masts, pull boxes and lighting luminaires. No materials shall be installed until final approval is given. Submittals shall clearly indicate items being submitted. If other items are present on submittal sheet the irrelevant items shall be crossed out or hatched out. Include catalog cuts in addition to material lists.

j. <u>Cooperative Work with Others</u>: Contractor shall cooperate with others, with due regard to their work, towards promotion of rapid completion of project. If any cooperative work must be altered due to lack of proper supervision of such, or failure to make proper provision in time by Contractor, then he shall bear expense of such changes as necessary to be made in work of others.

Labor and materials, including templates, sleeves, anchors, concrete inserts and the like shall be furnished in ample quantities of such time as necessary to insure uninterrupted progress of work.

Contractor shall cease work at any particular point temporarily and transfer his operations to such points or execute such portions of work as directed, when in the judgement of the Engineer it is necessary to do so.

k. Manufacturer's Directions: Manufacturer's directions shall be followed in all cases where manufacturers of articles used furnish directions covering points not shown on the drawings or herein specified.

1. Shop Drawings: Shop drawings of certain items will be required. Work requiring shop drawings shall not be started before receipt of Engineer's written comments. Submit six copies for review. Provide: six sets of Operation and Maintenance Manuals consisting of: approved shop drawings; catalog cuts; tech information for operation and calibration; replacement parts lists; and names and addresses of suppliers.

m. <u>Warranty</u>: Guarantee all work for one year from date of acceptance against all defects in material, equipment and workmanship.

n. <u>Continuity of Service</u>: Service outages shall be held to a minimum and shall be performed at times and duration as agreed upon by the Engineer. Continuity of plant operation must be maintained at all times. No equipment can be shut down or interrupted without approval of the Chief Operator.

2. PRODUCTS:

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General: All materials shall be new. Do not use wire removed from existing conduit.

a. <u>Conduit</u>: Schedule 40 PVC and Galvanized Rigid Steel as shown on drawings complete with all approved fittings. Catalog data and catalog cuts of all fittings shall be submitted for approval.

b. Wire and Cable: 600 volt type THHN copper, minimum size #12 AWG. All wire shall be stranded, delivered to site in unbroken cartons.

c. <u>Pull Boxes</u>: Precast Concrete, with steel traffic covers, open bottom with 12 inch thick gravel sump. Christy, Brooks, or equal. Size as shown on drawings or as required for adequate splicing room and cable loops in each box. Submit shop drawings showing size and details of boxes proposed to be used.

d. <u>Masts</u>: Galvanized steel or Aluminum, 30 foot with 4 foot arms. Masts shall conform to City of Sacramento standards as detailed on drawings. Floodlight masts where shown shall be 11 1/2' x 3" diameter galvanized steel pipe with welded base as shown in detail on drawings. Mast, bolts, fittings, nuts, washer shall all be hot dipped galvanized after fabrication. Submit shop drawings for review. Flood light masts where shown hinged type shall be provided as detailed on drwings complete with winch.

e. Luminaires shall be General Electric as described in notes on drawings. Lamps shall be High Pressure Sodium. Ballasts shall be 277 volt copper wound, Regulated, High Power Factor type, except that where shonw on drawings ballasts shall be General Electric Co. "Steadilux".

f. Transformer: 225 KVA Transformer shall be oil filled weatherproof pad mounted type with primary and secondary compartments. Rating shall be 2400 volt: 480/277 volt, 3 phase, 4 wire. Impedance not more than 5%. Provide four standard taps, two 2 1/2% FCBN and two 2 1/2% FCAN. Oil shall be free of PCB.

30 KVA transformers: for location within existing 2400 volt switchgear, shall be dry type 480 volt: 120/208 volt, 3 phase, 4 wire. Provide standard FCBN Taps. Submit shop drawings of both transformers for review.

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Panelboards: All panels shall have copper busses. g. Panel "P" shall be 480 volt, 3 phase, 4 wire distribution type with molded case circuit breakers rated 25,000 Amperes IC, sized as shown on drawings. Panel "P" shall be a 90 inch high free standing unit located inside existing walk-in switchgear. Panel "H" shall be a type NLAB, 480/277 volt, 3 phase, 4 wire, 42 circuit type with main circuit breaker and 10,000 Ampere branch breakers as shown. Panel "H" shall be assembled in a 90 inch high, free standing steel enclosure together with Relay Panel "R" as shown on drawings. Match and line up with existing motor control center in basement of Head House. Relays shall be rated for 480 volt HPS lighting service with 120 volt operating coils and 20 Ampere contacts. Provide shop drawings for review. Provide typed directory for Panel "H". Provide engraved bakelite nameplates for both panels as shown on drawings.

h. <u>Hand Off Auto Switches</u>: Cutler Hammer to match existing, installed in existing Control Console in Head House. Pilot lights shall be integral with HOA Switches to match existing, in color size and style. Wiring for the group of eight switches and pilot lights shall be terminated on numbered terminal blocks. All wiring within Control console shall match existing Pan-duit encased control wiring. Provide engraved bakelite nameplates.

i. <u>Nameplates</u>: Every switch, relay, panel, circuit breaker or device shall be equipped with an engraved bakelite nameplate attached with threaded screws in drilled and tapped holes. Nameplates shall be 1/16 inch laminated black phenolic, black with white letters. Minimum size letters 3/16 inch or as called for on drawings.

j. <u>Receptacles</u>: Shall all be individually protected, Ground Fault Circuit Interruptor (GFCI) type, either single or duplex, arranged for mounting in a weatherproof, NEMA 4, galvanized cast steel box with hinged gasketed cover. Receptacles shall be Square D #GFDR-120 BC, •Slater #S1R-20-F-BR, or equal.

k. Exposed junction boxes: Shall be cast galvanized steel, Crouse Hinds, Appleton or equal NEMA 4 with threaded hubs. Non-Ferrous boxes shall not be used. Lids shall be equipped with gaskets.

1. Transformer Pad: Shall be poured in place concrete as shown on drawings. Provide steel reinforced piers as shown. Shape embankment to suit pad and size pad to match transformer. Submit shop drawings for review.

m. <u>Conduit and Wire Tags</u>: Shall be type as manufactured by 3M suitable for submerged wet locations. Conduit tags shall be attached with nylon tie-wraps. Every conduit entry into every pull box or junction box shall be tagged with embossed or waterproofed-ink labels indicating destination. Every wire in every box or terminal equipment shall be labeled with a control wire number or panelboard circuit number ie H-1, H-2 etc. Use embossed shrinkable conductor markers for underground pull boxes and in light standards. Use Brady "Delren"SCD Split bank markers in switchboards, panels, and dry locations.

n. Interconnection Drawings: The contractor shall submit six copies of drawings on 22" x 34" paper using professional drafting techniques. Show numbered interconnecting wiring between relay Panel "R", Control Console HOA/Pilot light switches, and terminals of additive alternate Fence security and Gate Security equipment.

o. <u>Splicing Materials</u>: Splices shall be 3M or equal using <u>UL</u> approved pressure connectors. Splices in underground pull boxes shall be encapsulated, waterproof, submersible.

p. <u>High Voltage Cable</u>: Cable for connecting 2400 volt primary of new 225 KVA transformer to existing "load break switch" shall be Type EP rated 5000 volts, size as shown on drawings.

3. EXECUTION:

a. Excavation and backfill: Perform as required for electrical installation. Restore all surfaces, roadways, curbs, sidewalks, lawns, shrubs, existing installations, etc, cut by this construction, to original condition and to City standards. Backfill and tamp in six inch layer with earth from excavation to finish grade. Make allowance for settlement. PVC conduit shall be protected by a 2 inch concrete cap poured directly over the conduit. Top of conduits shall be 18 inches below finished grade unless otherwise approved by the Engineer. Soil at this site is generally river sand and silt. Tree roots 2 inches and larger in diameter shall not be cut without approval of the Engineer. Exercise extreme caution during trenching to avoid cutting existing underground pipes and conduits. Repair of cut facilities shall be made at contractor's expense.

b. Underground Conduit Installation: PVC conduits shall be cemented using manufacturer's recommended solvents. All conduit elbows shall be galvanized rigid steel with PVC adapter couplings. Galvanized Rigid Steel Conduit shall be installed with threaded couplings with conductive thread compound. Cover exposed threads and tool marks at underground couplings, with asphalt compound. Exposed rigid steel conduit shall be grounded.

c. <u>Wire and Cable</u>: Pull into conduits using standard techniques. Number all wires as called for. All splices shall be submersible, waterproof using pressure connectors and encapsulating kits. Provide a loop in all pull boxes. Do not pull wire "straight through".

d. <u>Neutrals</u>: Due to the arrangement of multiple branch circuits in Common raceways it will be necessary to identity "neutral conductors" with numbers such as N-1, N-2 etc. The number of neutral wires is shown approximately. The contactor shall provide the necessary number of neutrals to balance each group of three phase conductors against a respective neutral and shall submit a written record of which neutral corresponds with respective phase conductors.

e. <u>Concrete</u> <u>Bases and Masts</u>: Install as shown in detail on drawings. <u>Adjust masts</u> for plumb. Locate masts approximately 3 feet from edge of road or as shown on prints. "Dry pack" concrete around anchor bolts after adjustment for plumb. Locations shall be first staked-out by the contractor and adjusted, after approval be the Engineer.

f. <u>Alterations to Control Console in Head House</u>: The rear of the existing control console is accessible through hinged doors in the hall way. Cut holes for new devices with care to prevent any damage to existing devices or continuity of plant operation. Protect all existing equipment with suitable covers to prevent damage or entrance of metal fillings into sensitive equipment. Method of cutting shall be subject to approval of the Engineer before any work is done. Mount lighting control auxiliary relay in rear of console.

g. Exposed Rigid Steel Conduits: Conduits installed on steel bridge work; on concrete of Pre-Treatment Works; and elsewhere shall be anchored as required by code and arranged parallel to structural members. Exact locations shall be arranged by the contractor to prevent any possiblility of tripping hazards on walkways, and shall be neat in appearance. All supports, fittings, nuts, bolts etc shall be hot dipped galvanized steel, or stainless steel. Where conduit crossings of walkways cannot be avoided provide galvanized 1/4 inch steel ramps rigidly anchored in place, subject to approval of the engineer.

h. <u>PreCast Concrete Pull Boxes</u>: Exact proposed locations of all boxes (and underground conduits) shall be staked out by the contractor before excavation. Drawings are necessarily diagrammatic and should not be scaled for exact location. After staking, the locations shall be inspected by the Engineer and any relocation arranged as directed at no cost to the City.

i. <u>"As-Built" records of underground conduits</u>: The Contractor shall maintain a separate clean copy of contract drawings and shall mark in red pencil the exact location of all new conduits installed at the time of installation. At completion, the record shall be delivered to the City. As built records shall also show any other variances from contract drawings.

j. <u>Seismic Requirements</u>: All transformers, panels, masts, equipment, and luminaires shall be securely anchored with bolts to prevent overturning sliding or falling due to seismic movements. Anchors and bolts shall meet State of California seismic requirements.

k. Luminaires: Remove all existing luminaires. Replace with new, complete with new lamps as shown and called for. Old luminaires shall be disposed of as directed by the Engineer.

1. <u>Aiming</u>: At completion of construction, aim and adjust all flood lights at night as directed by the City.

m. <u>Grounding</u>: All masts shall be securely connected to a No. 10 copper green insulated ground wire except masts bolted to steel bridge work. All neutrals of all transformers shall be connected to existing ground buses.

n. Lighting Calculations: Provide a "computer printout" of footcandle levels to be achieved for major areas, road ways and perimeter fence, to match luminaires furnished and installed.

o. <u>Service Outages</u>: Hold to a minimum scheduled at times approved by the engineer.

4. SECURITY SYSTEM (ADDITIVE ALTERNATE)

a. <u>General</u>: Install a complete intrusion detection system to monitor perimeter fence cutting, or climb-over or entry through three gates. System shall include a central alarm panel located in the existing control console in the head house. System shall also include warning horns with automatic reset at each of four fence zones. System shall be connected to automatically turn on fence lighting system when intrusion occurs at night. Conduit for security system is included in base bid item.

Cable Sensor Panels: Each of four fence zones (North b. East South West) shall be equipped with two Stellar Systems, Inc. Type E Flex or equal Sensor Panels arranged in a NEMA 4 weatherproof steel cabinet complete with: galvanized steel post; steel base; brackets; transformer rated 277-120 volts; transformer rated 120-15 volts; Double projector horn with audio oscillator; adjustable time delay stop relay; automatic reset relay; Gel Cell Battery; and all necessary accessories. All steel parts shall be galvanized after fabrication and arranged as shown on drawings. Submit drawings and wiring diagrams for review before fabrication. The system shall electronically detect intrusion due to flexing of a cable attached to a chain link fence and shall distinguish between cut-through and climb over.

The system shall automatically cause the horn to sound when intrusion occurs. The horn shall sound for an adjustable length of time 0-3 minutes and shall then automatically silence and automatically reset. c. Fence Cable: Shall be a special weatherproof sunlight resistant shielded cable as supplied by Stellar Systems Inc. Each of four zones requires two sensors with two cables each not exceeding 1000 feet in length. Provide end of line terminators.

d. <u>Signal Cable</u>: Belden or equal No. 9085 two pair cables as recommended by the manufacturer of the E Flex system, and manufacturer of the Microwave Gate Intrusion System.

e. <u>Annunciator and Multiplexer</u>: Stellar Systems Inc Miniplex II or equal, Eight Zone with rack mount enclosure. Front plate size shall be 5.2 inches high by 19 inches wide. Provide dry contacts and any necessary relays to operate light controls. Each of four zone alarms shall provide separate dry contacts for turning on corresponding fence lights. Annunciator shall also be arranged to receive alarm signal from the three Gate Microwave Systems.

f. <u>Gate Microwave System</u>: At each of three gates provide post mounted transmitters and receivers as shown in detail. System shall be Stellar Systems Inc Model M-150 SR or equal complete with: weatherproof cabinet; power supply transformer 277-120 volt; Gel Cell Batteries and all necessary accessories. All posts fittings and hardware shall be hot dipped galvanized steel. Submit shop drawings and wiring diagrams for review before fabrication.

g. Equipment Installation: Furnish concrete bases as shown on drawings. Exact location of all posts and bases for intrusion equipment shall be determined as recommended by the manufacturer subject to approval of the Engineer. Do not scale drawings. Installation of the Annunciator and multiplexer will require sawing of the panel of the control console at the location shown on the drawings. Exercise debris control as here in before specified. Provide 120 volt power to all units.

h. <u>Manufacturer's Services</u>: The manufacturer of the equipment shall provide services of a qualified field Engineer to location all equipment and devices before construction is started, and later to supervise all final connections, adjust, and put system into operation and instruct City staff regarding maintenance and operation. Provide six sets of maintenance and operation manuals. Operation and Maintenance Manual shall included: complete service, calibration adjustment information with parts lists; schematics; part locaters; and replacement part lists.

i. <u>Fence Cable Installation</u>: Attach to fence at 24 inch intervals using sun light proof tie-wraps as recommended by the manufacturer. Provide all necessary boxes, fittings, conduit, and gate crossing equipment. Install "end of line terminators".

j. <u>Rejection of Additive Bid Item</u>: If intrusion equipment is not authorized then fence cable and signal cables will not be installed. However, all conduits shall be installed with nylon pull ropes and identifying tags. Stub-up and cap all intrusion system conduits at exact correct locations as directed by the engineer for future installation of equipment as shown.

5. ADDITIONAL SPECIFICATIONS OF THE CITY OF SACRAMENTO:

a. <u>Tests of Electrical Conductors</u>: Test wiring and connections for continuity and grounds before electrical equipment is connected. Where such tests indicate faulty insulation or other defects, they shall be located, repaired, and retested at the Contractor's expense. Splices and connections shall be made according to these and any other items of the specifications. Insulating materials shall be those specified or as directed by the Engineer. Splices and connections shall be subject to inspection which may require opening of splices or connections. Removal of insulating material and reinsulation, or disconnection and reconnection of equipment for inspection purposes shall be performed at the Contractor's expense.

b. Conductors:

1. All conductors shall be copper. Insulated conductors and cable shall be stranded copper with ninety-eight percent conductivity in all sizes. Minimum size of conductor shall be No. 14 AWG.

2. Insulation for conductors and cables shall be rated 600 volts and shall be as follows:

ITEM	ITEM SIZE		
Branch Circuits Controls	No. 12 to No. 8 No. 14 to No. 12	ТННИ ТННИ	
Fixtures and Lighting Raceway	No. 12 to No. 10	THHN	
Feeders	No. 6 and above	THHN/THWN	
Grounding	A11	TW or bare	

3. All wire and cable shall be marked at least every twelve (12) inches of its length showing manufacturer, AWG size, insulation type, insulation voltage rating, and other information required by the reference Code and Standards.

4. Color Code

VOLTAGE	<u>PHASE</u> A	PHASE B	<u>PHASE</u> C	NEUTRAL	GROUND
120/208 120/240V	Black Black	Red Red	Blue	White White	Green Green
265/460V	Brown	Orange	Yellow	Gray	Green

DIRECT CURRENT: Positive is Red; Negative is Black

5. Control Conductor Color: Control conductors shall be of one unique color and the color shall be continuous throughout all the control circuitry.

6. All conductors installed for lighting and security system shall be new. Conductors removed for any reason shall not be used again and shall be replaced with new conductors.

OPERATION AND MAINTENANCE MANUALS: с.

1. In addition to catalog data and shop drawings submitted as required by these specifications, the Contractor shall furnish to the Engineer three (3) final corrected sets of all data applicable to the equipment furnished for this project.

All data shall be delivered not less than thirty (30) days before the start of operation by the Owner, or any required demonstration period, whichever may come first. This data shall be assembled in the form of Maintenance and Operation Manuals and shall be bound in three-ring, hardback, vinyl-covered binders. The binders shall be identified on the cover and the spine of the appropriate identifying title of this project as designated by the Engineer and the plan title.

A set of indexed, tabbed dividers shall be provided for easy access to the information about a particular system or portion of a system.

Holes punched in the pages shall be reinforced to prevent tearing the pages.

Manufacturer's catalog data and shop drawings shall be clearly marked to identify the make and model numbers of items installed in this project.

An illustrations and written material must be clear and legible. If an item does not reproduce clearly, original copies shall be supplied.

2. Each manual shall include as a minimum the following:

a. Names, addresses and phone numbers of each Contractor or Sub-Contractor for this project. Date of year construction began.

b. A complete, orderly arranged index of enclosed material.

c. Complete operating instruction with charts and diagrams as required to illustrate operating procedures and sequence of operations.

d. IDENTIFICATION OF EQUIPMENT:

1. Nameplates shall be installed on electrical equipment. Equipment to be labeled shall include the following:

c. Individual items such as disconnect switches, pushbuttons, contactors, relays, motor starters, level switches, resets, indicating lights, time delay relays, and similar equipment.

r.,

b. Group mounted equipment such as panelboards, switchboards, control cabinets.

c. Individual circuit breakers on switchboards.

d. Wall switches for lighting or other use where the control function is not self-evident.

2. Nameplates shall adequately described the item and its function or use of the particular equipment involved.

3. Nameplate material shall be 1/16 inch thick laminated phenolic plastic, black front and back with white core. Engraving shall be through the outer layer. Letters shall be 3/16 inch high. All nameplate lettering shall be of the same style.

4. Nameplates shall be installed upon the equipment identified when practical; otherwise, directly adjacent to the equipment.

5. View of nameplate shall not be obstructed by equipment or wiring.

6. Nameplates shall be securely fastened to the equipment with #4 Phillips round head cadmium-plated steel self-tapping screws.

7. Nameplates to identify such devices as pilot lights, switches, meters, fuses and other panel-mounted devices shall be located 1/4 inch above and centered on the devices.

8. Other methods of identification are not acceptable.

e. Electrical Shop Drawings: Shop drawings shall be submitted for acceptance prior to manufacture, for masts, pedestals, pull boxes, panel boards, control panels, security system and any other assembly of electrical equipment. The shop drawings shall provide, as a minimum, the following: 1. Detailed and dimensioned fabrication drawings showing complete elevations and layout, outline drawings, assembly drawings and a layout of the devices mounted in or upon the panels or enclosures. Sections shall be shown as necessary to indicate device location and clearances. Base layout and conduit entry shall be shown. Sufficient detail shall be provided to permit the evaluation of material choices and fabrication or construction methods.

2. Schematic drawings shall be provided for all electrical systems. Electrical schematics shall include wire numbers, terminal and device designations.

3. A full line wiring diagram shall be provide for each section, compartment or enclosure containing electrical devices or terminal boards. Diagrams shall show wire numbers, terminal numbers or other designations at terminal points. Device identification and terminal block numbering shall be shown. The drawing shall be point to point showing wire routing. Devices shall be shown dimensionally located as they will appear when installed. Each device shall be identified in accord with the schematic drawing.

f. Test and Inspection:

General Requirements:

1. All materials, equipment, installation, and workmanship included in this contract, if so required by the Engineer, shall be tested and inspected to prove compliance with the contract requirements.

No tests specified herein shall be applied until the item to be tested has been inspected and approval given for the application of such test.

Tests and inspections shall include:

a. The delivery acceptance test and inspections.

b. The installed test and inspection of items as

installed.

Tests and inspections, unless otherwise specified or accepted, shall be in accordance with the recognized standards of the industry.

The form of evidence of satisfactory fulfillment of delivery acceptance test and of installed test and inspection requirements shall be, at the discretion of the Engineer, either by tests and inspections carried out in his presence or by certificates or reports of tests and inspections carried out by approved persons or organizations.

2. <u>Delivery Acceptance Tests and Inspection</u>: The delivery acceptance tests and inspection shall be at the Contractor's expense for any materials or equipment specified herein and shall include the following:

a. Test of items during the process of manufacture and/or on completion of manufacture, comprising material tests, hydraulic pressure tests, electric tests, performance and operating tests and inspections in accordance with the relevant standards of the industry and more particularly as detailed in individual clauses of these specifications or as may be required by the Engineer to satisfy himself that the items tested and inspected comply with the requirements of this contract.

b. Inspection of all items delivered at the site in order that the Engineer may be satisfied that such items are of the specified quality and workmanship and are in good order and condition at the time of delivery.

3. Installed Tests and Inspection: All electrical equipment shall be tested by the Contractor to the satisfaction of the Engineer before any facility is put into operation. Tests shall be as specified herein and shall be made to determine whether the equipment has been properly assembled, aligned, adjusted and connected. Any changes, adjustments or replacements required to make the equipment operate as specified shall be carried out by the Contractor as part of the work. At least 60 days before the time allowed in his construction schedule for commencing testing and start-up procedures, the Contractor shall submit to the Engineer, in duplicate, details of the procedures he proposes to adopt for testing and start-up of all electrical equipment to be operated singly and together, excepting when such procedures have been covered in the specifications.

During the testing of instrumentation and electrical equipment, the Contractor shall make available experienced factory trained representatives of the manufacturers of all the various pieces of equipment, or other qualified persons who shall instruct the Owner's personnel in the operation and care thereof. Instruction shall include step-by-step trouble-shooting procedures with all necessary test equipment.

If under test, any portion of the work shall fail to fulfill the contract requirements and is altered, renewed or replaced, tests on that portion when so altered, removed or replaced, together with all other portions of the work as are affected thereby, shall, if so required by the Engineer, be repeated within reasonable time and in accordance with the specified conditions, and the Contractor shall pay to the Owner all reasonable expenses incurred by the Owner as a result of the carrying out of such tests.

Where, in the case of an otherwise satisfactory installed test, any doubt, dispute or difference should arise between the Engineer and the Contractor regarding the test results or the methods or equipment used in the carrying out by the Contractor of such test then the Engineer may order the test to be repeated. If the repeat test, using such modified methods or equipment as the Engineer may require, substantially confirms the previous test, then all costs in connection with the repeat test will be paid by the Owner, other wise the costs shall be borne by the Contractor. Where the results of any installed test fail to comply with the contract requirements for such test then such repeat tests as may be necessary to achieve the contract requirements shall be made by the Contractor at his own expense.

g. <u>Information</u> <u>For Electronic and Instrumentation</u> Devices: The Contractor shall provide as a minimum the following information:

1. Schematic of all circuit boards and associated devices.

2. Parts assembly drawings.

3. A complete parts list by generic title and identification number.

4. Trouble shooting guides.

5. Service manuals.

6. Calibration and test procedures including all test points and reference values.

7. List all special tools and measuring equipment needed to perform test and calibration procedures.

8. This information shall accompany submittals when they are provided for Engineer's review.

h. Required Technical Information:

1. Complete and detailed technical information which shall facilitate the maintenance, repair or replacement of all equipment installed or supplied for the project, shall be compiled and furnished by the Contractor.

2. Such information shall be subject to review and approval by the Engineer.

3. Equipment for which information is unavailable or restricted in any manner is not acceptable.

4. If any equipment is installed, and required information is not furnished, that equipment upon the decision of the Engineer, shall be removed and replaced at the Contractor's expense with equipment for which required technical information shall be furnished.