

CITY OF SARATOGA

**SHORT FORM CONSTRUCTION AGREEMENT WITH BONDS
FOR PROJECTS WITH NO FEDERAL FUNDING**

CORPORATION YARD BUILDING SOLAR PROJECT

THIS AGREEMENT is made at Saratoga, California by and between the CITY OF SARATOGA, a municipal corporation ("City"), and _____ ("Contractor"), who agree as follows:

RECITALS

WHEREAS, City requires the services of a qualified contractor to perform the work described this Agreement; and

WHEREAS, City lacks the qualified personnel to provide the work; and

WHEREAS, in accordance with Article 3 of Chapter 2, Part 3, Division 2 (commencing with Section 22030) of the State Public Contract Code and Article 12-15 of the City of Saratoga Municipal Code the City has solicited informal bids and selected Contractor to perform the work; and

WHEREAS, Contractor is duly qualified to provide the work; and

WHEREAS, Contractor is agreeable to providing such work on the terms and conditions hereinafter set forth.

NOW THEREFORE, the parties hereto agree as follows:

1. **RESULTS TO BE ACHIEVED.** Contractor shall perform the work described in Exhibit A ("Work") in strict accordance with all plans, specifications, and other Contract Documents. Contractor is not authorized to undertake any efforts or incur any costs whatsoever under the terms of this Agreement until Contractor receives a fully executed Agreement from the Administrative Services Department of the City of Saratoga. The term "Contract Documents" means this Agreement, all documents attached to or otherwise made a part of this Agreement, including but not limited to those identified in Exhibit A, all certificates of insurance and bonds required by this Agreement, and Section 9 of the State of California, Department of Transportation Standard Specifications for Construction of Local Streets and Roads (2002) which includes procedures for determination of payments, compensation for extra work by force account, partial payments, and final payments. Where there is a conflict

between the requirements of the several Contract Documents, the more stringent requirements shall govern.

2. **TERM.** The term of this Agreement commences on October 20, 2011 and ends May 31, 2012 unless City terminates the Agreement as provided in Section 10.

3. **PAYMENT.** City shall pay Contractor for Work performed in accordance with this Agreement at the time and in the manner set forth in Exhibit B ("Payment"). The payments specified in Exhibit B shall be the only payments to be made to Contractor in connection with Contractor's performance of the Work pursuant to this Agreement. Contractor shall submit all billings to City in the manner specified in Exhibit B; or, if no manner is specified in Exhibit B, then according to the usual and customary procedures and practices which Contractor uses for billing clients similar to City.

4. **CHANGES IN WORK.**

A. Contractor shall make no changes in the Work without written direction from the City. Contractor shall not be compensated for any change made without any such written direction. No changes in the Work covered by this Agreement shall exonerate any surety or any bond given in connection with this Agreement.

B. If the City directs the Contractor in writing to make changes in the Work that materially affect the cost of performing the Work, the Contract Price will be adjusted based on one of the following:

- i. Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities involved in the changed Work;
- ii. By establishment of new unit prices and related quantities for the changed Work;
- iii. By a combination of existing and new unit prices and related quantities for the changed Work; or
- iv. By mutual acceptance of a lump sum.

C. If the City directs the Contractor in writing to make changes in the Work that Contractor demonstrates materially affect the time required to perform the work, the City will make a reasonable adjustment to the Contract Time.

5. **LABOR.**

A. The Contract is subject to the provisions of Part 7 of Division 2 of the California Labor Code (Sections 1720 and following), and Contractor and any subcontractor shall pay not less than the prevailing rates of wage to all workers employed in performance of the Work. Pursuant to the provisions of Section 1770 of the Labor Code of the State of California, the City has obtained the general

prevailing rate of wages and employer payments for health and welfare, vacation, pension and similar purposes in the vicinity of the Work, a copy of which is on file in the office of the City, and shall be made available for viewing to any interested party upon request.

B. As required by Labor Code Section 1773.8, the Contractor shall pay travel and subsistence payments to each worker needed to perform the Work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8.

C. Contractor and any subcontractor shall keep accurate payroll records, in accordance with Section 1776 of the Labor Code, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the Work.

D. The Contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article.

E. Contractor's attention is directed to the provisions in Section 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor. It shall be the responsibility of the Contractor to effectuate compliance on the part of itself and any subcontractors with the requirements of said sections in the employment of apprentices. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

F. Pursuant to the requirements of Division 4 of the Labor Code, the Contractor will be required to secure the payment of worker's compensation to its employees in accordance with the provisions of Section 3700 of the Labor Code. Prior to commencement of work, the Contractor shall sign and file with the Administrator a certification in the following form:

"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 before commencing the performance of the work of this contract."

6. LICENSE REQUIREMENT. Contractor's attention is directed to Business and Professions Code Sections 7000 et seq. concerning the licensing of contractors. At the time Contractor submits its bid to the City and all times Contractor is performing the Work, Contractor shall have a valid license issued by the Contractors State License Board in the classification stated in the **NOTICE INVITING INFORMAL BIDS**. Contractor and all subcontractors shall be licensed in accordance with the laws of this State and any contractor or subcontractor not so licensed is subject to penalties imposed by such laws.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT REGARDING A PATENT ACT OR OMISSION IS FILED WITHIN FOUR YEARS OF THE DATE OF THE ALLEGED VIOLATION. A COMPLAINT REGARDING A LATENT ACT OR OMISSION PERTAINING TO STRUCTURAL DEFECTS MUST BE FILED WITHIN 10 YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

7. TIME. Time is of the essence of this Agreement. Contractor shall provide City with scheduling information in a form acceptable to City, including any changes made by City in the scheduling of work. Contractor shall coordinate its work with that of all other contractors, subcontractors and suppliers so as not to delay or damage their performance. It is further agreed that in case Contractor fails to complete the Work in all parts and requirements within the Contract Time set forth in Exhibit A, the City shall have the right to extend the Contract Time or not, as may seem best to serve the interest of the City; and if it decides to extend the Contract Time, City shall further have the right to charge to the Contractor, its heirs, assigns or sureties, and to deduct from the payment for the Work, all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the Contract, and which accrue during the period of such extension. In the event that Contractor's work is delayed for any reason, including acts of City, Contractor's sole remedy shall be an extension of time equal to the period of delay, provided Contractor has given City written notice of the commencement of delay within 48 hours of its occurrence. If the City accepts any work or makes any payment under this Agreement after a default by reason of delays, the payment or payments shall in no respect constitute a waiver or modification of any Agreement provisions regarding time of completion and liquidated damages.

8. NOTICES. All notices or communication concerning a party's compliance with the terms of this Agreement shall be in writing and may be given either personally, by certified mail, return receipt requested, or by overnight express carrier. The notice shall be deemed to have been given and received on the date delivered in person or the date upon which the postal authority or overnight express carrier indicates that the mailing was delivered to the address of the receiving Party. The Parties shall make good faith efforts to provide advance courtesy notice of any notices or communications hereunder via e-mail. However, under no circumstances shall such courtesy notice satisfy the notice requirements set forth above; nor shall lack of such courtesy notice affect the validity of service pursuant to the notice requirement set forth above. Any Party hereto, by giving ten (10) days written notice to the other, may designate any other address as substitution of the address to which the notice or communication shall be given. Notices or communications shall be given to the Parties at the addresses set forth in Exhibit A until specified otherwise in writing.

9. ASSIGNMENT AND SUBCONTRACTING.

A. Contractor shall give personal attention to the performance of the Contract and shall keep the Work under its control.

B. For the purposes of administering this agreement no subcontractors will be recognized by the City as such, and all persons engaged in the work of construction will be considered by the City as employees of the Contractor, who will be held responsible for their work which shall be subject to the provisions of the Contract and specifications.

C. No subcontractor who is ineligible to bid work on, or be awarded, a public works project under Labor Code Sections 1771.1 or 1777.7 can bid on, be awarded or perform work as a subcontractor on the Project. The Contractor is prohibited from performing work on the Project with a subcontractor who is ineligible to perform work on a public works project under these sections of the Labor Code.

D. When a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the City, the subcontractor shall be removed immediately on the request of the City and shall not again be employed on the work.

E. Contractor may not assign performance of the Contract except upon written consent of the City.

10. TERMINATION.

A. Should Contractor fail within five (5) working days from receipt of City's written notice to correct any contractual deficiencies, including but not limited to failure to perform the Work in accordance with the Contract Documents, failure to

comply with the directions of City, or failure to pay its creditors, City may terminate this Agreement for default. Following a termination for default, City shall have the right to take whatever steps it deems necessary to correct and complete the work and charge the cost thereof to Contractor, who shall be liable for the full cost of City's corrective action, including reasonable overhead, administrative costs, and attorneys' fees.

B. City may at any time terminate the Contract at City's convenience upon five days written notice to Contractor; in the event of termination for convenience, Contractor shall recover only the amount due under the contract for Work completed to the date of termination in accordance with the Contract Documents, less amounts paid to date. Contractor shall not be entitled to any claim or lien against City for any additional compensation or damages in the event of such termination.

C. If City terminates Contractor for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Contractor shall be entitled to receive only the amounts payable under this section, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

11. HOLD HARMLESS AND INDEMNIFICATION.

A. The City of Saratoga and all officers, employees, and agents thereof connected with the Work, shall not be answerable or accountable in any manner: for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person; or for damage to property from any cause except losses due to sole or active negligence of the City's officers or employees.

B. To the fullest extent allowed by law, Contractor shall defend, indemnify and hold harmless the City, its elected and appointed officials, employees and agents, from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and other defense costs, resulting from injury to or death sustained by any person (including Contractor's employees and subcontractors), or damage to property of any kind, or any other injury or damage whatsoever, which injury, death or damage arises out of or is in any way connected with the performance of the Work, regardless of the Contractor's fault or negligence, including any of the same resulting from City's alleged or actual negligent act or omission, or its agents, contractors or employees; except that said indemnity shall not be applicable to injury, death or damage to property arising from the sole or active negligence or willful misconduct of City, its constituent entities, its and their officers, agents, or servants who are directly responsible to City. This

indemnification shall extend to claims asserted after termination of this Contract for whatever reason.

C. In addition to any remedy authorized by law, as much of the money due the Contractor under and by virtue of the contract as shall be considered necessary by the City, may be retained by the City until disposition has been made of such suits or claims for damage.

12. CLAIMS. If any dispute shall arise between City and Contractor regarding performance of the work, or any alleged change in the work, Contractor shall timely perform the disputed work and shall give written notice of a claim for additional compensation for the work to City within ten (10) days after commencement of the disputed work. Contractor's failure to give written notice within the ten (10) day period constitutes an agreement by Contractor that it will receive no extra compensation for the disputed work. Disputes arising under this Agreement shall be resolved in accordance with the procedures set forth in Section 20104.50 of the Public Contract Code.

13. LAWS TO BE OBSERVED.

A. Contractor shall keep itself fully informed of all existing and future state and federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

B. Contractor shall at all times observe and comply with, and shall cause all of its agents and employees to observe and comply with, all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the City, and all officers and employees thereof connected with the Work, against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the City's representative or their employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation to any such law, ordinance, regulation, order or decree, Contractor shall forthwith report the same to the Administrator in writing.

14. RECORDS AND AUDITS.

A. Contractor and its subcontractors shall establish and maintain records pertaining to this contract. Contractor's and subcontractors' accounting systems shall conform to generally accepted accounting principles, and all records shall provide a breakdown of total costs charged under this contract, including properly executed payrolls, time records, invoices and vouchers.

B. Contractor shall permit City and its authorized representatives to inspect and examine Contractor's books, records, accounts, and any and all data relevant to

this Contract at any reasonable time for the purpose of auditing and verifying statements, invoices, or bills submitted by Contractor pursuant to this contract and shall provide such assistance as may be reasonably required in the course of such inspection. City further reserves the right to examine and re-examine said books, records, accounts, and data during the three (3) year period following the termination of this Contract; and Contractor shall in no event dispose of, destroy, alter, or mutilate said books, records, accounts, and data in any manner whatever for three (3) years after the termination of this Contract.

C. Pursuant to California Government Code Section 10532, the parties to this Contract shall be subject to the examination and audit of representative of the Auditor General of the State of California for a period of three (3) years after final payment under the contract. The examination and audit shall be confined to those matters connected with the performance of this contract including, but not limited to, the cost of administering the contract

15. INSPECTION AND PROTECTION OF WORK.

A. Contractor shall make the Work accessible at all reasonable times for inspection by the City. Contractor shall, at the first opportunity, inspect all material and equipment delivered to the jobsite by others to be used or incorporated in the Contractor's work and give prompt notice of any defect therein. Contractor assumes full responsibility to protect the work done hereunder until final acceptance by the City.

B. When the Work is completed, Contractor shall request, in writing, a final inspection. Within ten (10) days of the receipt of such request, the City shall make a final inspection. The Contractor or its representatives may be present at the final inspection. The purpose of such final inspection shall be to determine whether the Work has been completed in accordance with the Contract Documents, including all change orders and all interpretations and instructions previously issued.

16. UTILITY FACILITIES.

A. The Contractor shall protect from damage any utility facilities that are to remain in place, be installed, relocated or otherwise rearranged.

B. If Contractor while performing the Work discovers utility facilities not identified in the Contract Documents, Contractor shall immediately notify the City and the utility provider. City shall arrange the removal, relocation, or protection of existing main or trunk line utility facilities located at the site of the Work but not identified in the Contract.

C. If the Contractor is required to locate, repair damage not due to the Contractor's failure to exercise reasonable care, and remove or relocate existing

main or trunk line utility facilities, it shall be compensated under the Changes section of this Contract, including payment for equipment on the Project necessarily idled during such work.

D. Contractor will not be entitled to damages or additional payment for delays caused solely by the failure of City, or the utility provider, to provide for removal or relocation of existing main or trunk line utility facilities not identified in the Contract Documents, except for equipment necessarily idled during such work.

E. Contractor shall not be assessed liquidated damages for delay in completing the Work solely attributable to the failure of City, or the owner of the utility, to provide for removal or relocation of existing main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy.

F. The right is reserved by the City and its authorized agents, to enter the job for the purpose of making such changes as are necessary for the rearrangement of its facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct operations in such a manner as to avoid any delay or hindrance to the work being performed by such other forces.

G. Attention is directed to the possible existence of underground facilities not known to the City, or in a location different from that which is shown on the plans or in the Special Provisions. The Contractor shall take all steps reasonably necessary to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service, including but not limited to calling USA utility locator service to mark utilities.

17. DIFFERING SITE CONDITIONS.

A. The Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:

- 1) Material that the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
- 2) Subsurface or latent physical conditions at the site differing materially from those indicated by information about the site made available to bidders prior to the deadline for submitting bids; or
- 3) Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.

B. The City shall promptly investigate the conditions, and if it finds that such conditions do materially so differ, or do involve hazardous waste, and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work, it shall issue a change order under the provisions described in the Contract Documents.

C. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in the Contract Documents.

D. In the event a dispute arises between the City and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, Contractor shall not be excused from completing the Work as provided in the Contract Documents. The Contractor shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by this Contract or by law which pertain to the resolution of disputes and protests.

18. WAIVERS OF LIEN. Contractor shall submit a complete list of major suppliers and/or subcontractors who will be providing material and/or labor for the performance of the Work. Contractor shall submit with each payment request waivers of lien from each major supplier and/or subcontractor that meet the requirements of Civil Code Section 3262.

19. BONDS AND INSURANCE.

A. Bonds. For contracts in excess of \$25,000 Contractor shall, within ten (10) days after being notified of the award of the contract, and before the City will execute the agreement for construction or issue a Notice to Proceed, furnish and file with the City Performance and Payment Surety bonds as set forth below. All bonds shall be issued and duly executed by a responsible corporate surety listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to City.

1. Contractor shall submit a Performance bond on the form provided with the Contract Documents as Exhibit E, conditioned upon the faithful performance by the Contractor of all requirements of the Contract Documents. This bond shall be in a sum no less than one hundred percent (100%) of the total Contract Price.

2. Contractor shall also submit a Payment Surety bond on the form provided with the Contract Documents as Exhibit E that in all respects complies with Civil Code sections 3247-3252, inclusive. This bond shall be in a sum no less than one hundred percent (100%) of the Contract Price.

B. Insurance. Contractor shall obtain, at its sole cost and expense, all insurance required by Exhibit D to this Agreement. Certificates of such insurance and copies of the insurance policies and endorsements shall be delivered to City within ten (10) days after being notified of the award of the contract, and before execution of the agreement by the City.

20. GENERAL TERMS.

A. No party to this Agreement may assign any right or obligation pursuant to this Agreement. Any attempted or purported assignment of any right or obligation pursuant to this Agreement shall be void and of no effect. However, with the consent of the City given in writing, Contractor is entitled to subcontract such portions of the work to be performed under this Agreement as may be specified by City.

B. Contractor shall ensure that all employees of Contractor and any subcontractor retained by Contractor in connection with this Agreement have provided the necessary documentation to establish identity and employment eligibility as required by the Immigration Reform and Control Act of 1986. Failure to provide the necessary documentation will result in the termination of the Agreement as required by the Immigration Reform and Control Act of 1986.

C. Contractor represents and warrants that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to a conflict of interest on the part of Contractor, or that the Contractor has already disclosed all such relevant information.

D. Contractor assures and agrees that Contractor will comply with Title VII of the Civil Rights Act of 1964 and other laws prohibiting discrimination and that no person shall, on the grounds of race, creed, color, disability, sex, sexual orientation, national origin, age, religion, Vietnam era veteran's status, political affiliation, or any other non-merit factors be excluded from participating in, be denied the benefits of, or be otherwise subjected to discrimination under this Agreement.

E. Contractor shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

F. Except as otherwise provided by law, if any arbitration or litigation is commenced between parties to this Agreement concerning any provision hereof or the rights and duties of any person in relation thereto, each party shall bear its own attorneys' fees and costs.

G. This Agreement shall be administered and interpreted under the laws of the State of California. Jurisdiction of litigation arising from this Agreement shall be in that state and venue shall be in Santa Clara County, California.

H. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it conflicts with said laws, but the remainder of this Agreement shall be in full force and effect.

I. Contractor understands and agrees that there is no representation, implication, or understanding that the City will request that Work performed by Contractor under this Agreement be supplemented or continued by Contractor under a new agreement following expiration or termination of this Agreement.

J. This Agreement is entered only for the benefit of the parties executing this Agreement and not for the benefit of any other individual, entity or person.

K. This Agreement incorporates the documents attached hereto as Exhibits and supersedes any and all agreements, either oral or written, between the parties hereto with respect to Contractor's completion of the Work on behalf of City and contains all of the covenants and agreements between the parties with respect to the rendering of such services in any manner whatsoever. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that no other agreement, statement or promise not contained in this Agreement shall be valid or binding. No amendment, alteration, or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

City of Saratoga

Contractor

By:

By:

Dave Anderson,
City Manager

Date: _____

Date: _____

Attest:

Ann Sullivan, City Clerk

Date: _____

Approved as to Form:

Richard Taylor, City Attorney

Date: _____

Attachments

- Exhibit A -- Work
 - Exhibit B – Payment
 - Exhibit C – Special Conditions
 - Exhibit D -- Insurance Requirements
 - Exhibit E – Bond Forms
 - Exhibit F – Notice Inviting Informal Bids
- /

Exhibit A WORK

Summary of Work to be Performed: As stated in the NOTICE INVITING INFORMAL BIDS.

Contract Time: Contractor shall complete the Work no later than 30 calendar days from issuance of the Notice to Proceed. Additional time will be provided if PG&E review, approval and permit is required.

Work to be Performed: The Work is described in the following documents which are incorporated into and hereby made a part of this Agreement:

- Notice Inviting Informal Bids dated October 13, 2011
- City of Saratoga Construction Agreement
- Technical Specifications prepared by Michael Mora, dated October 2011
- Sheet S.0 prepared by TKJ Structural Engineering, dated Sept. 19, 2011 with structural notes and an example attachment to roof
- Example support system for solar panels
- Solar panel specifications

Contractor will include description of past experience in similar projects involving design and installation of solar systems including electrical components and safety assurance. Contractor will include relevant references for each project.

BID SCHEDULE

BASE BID ITEMS				
ITEM	QUAN TITY	UNITS	DESCRIPTION	COST
1	1	LS	Mobilization	
2	1	LS	Supply and install 78 solar modules (42 of the modules are provided at no charge)	
3	1	LS	Design, supply and install reverse-till support system (including shop drawings).[e.g. Unirac, Schuco, or equal]	
4	1	LS	Supply and install inverters, concrete pad, support framing	
5	1	LS	Supply and install all electrical components including AC combiner panel, conduits (inside and outside of building), wiring, grounding, gutter, connections and all other elements necessary to complete the work	
6	1	LS	Miscellaneous items including inverter and module warranties, permits, inspections, submittals, modification of the existing antenna support system and other work necessary to complete the work	
7	1	LS	Apply for and obtain CSI rebate for the City. EPBB or PBI to be determined.	
TOTAL BASE BID				

All items include all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, testing, engineering, installation, and/or any other act or thing required to diligently and fully perform and complete the work.

The award will be based on the Total Base Bid.

Bid bond is not required.

Bidding Company name: _____

Contact (name and phone number): _____

Addenda received: _____

Signature: _____

Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the work.

Warranty: Contractor warrants to City that all materials and equipment furnished shall be new, free from faults and defects and of good quality. Contractor hereby warrants its work against all deficiencies and defects for 12 months or the longest period permitted by the law of this State, whichever is more, or as otherwise provided in the Contract Documents. Inverter(s) shall be warranted for 10 years. Modules shall be warranted by Westinghouse.

Contract Administration: This Agreement shall be administered on behalf of City by Iveta Harvancik ("Administrator"). The Administrator has complete authority to receive information, interpret and define City's policies consistent with this Agreement, and communicate with Contractor concerning this Agreement. All correspondence and other communications shall be directed to or through the Administrator or Administrator's designee.

Notices to City pursuant to this Agreement shall be sent in accordance with Section 8 to:

John Cherbone,
Public Works Director
City of Saratoga
13777 Fruitvale Avenue
Saratoga, CA 95070

With a copy to:

Ann Sullivan
City Clerk
City of Saratoga
13777 Fruitvale Avenue
Saratoga, CA 95070

Notices to Contractor pursuant to this Agreement shall be sent in accordance with Section 8 to:

Additional Conditions: Without limiting the foregoing description of the Work, Contractor's Work includes, but is not limited to, the following:

- The project includes total of 78 modules of Westinghouse Solar, Inc. WLW-235-1-DCO-0-BL. Of the 78 modules, Westinghouse Solar Inc. will provide 42 modules for no cost to the City (no cost to the contractor). The contractor shall contact Westinghouse Solar Inc. (1475 South Bascom Avenue, Suite 101, Campbell, CA 95008, ph. 888-253-3628) to arrange the pickup/delivery of the 42 modules. The contractor will supply remaining WLW-235-1-DCO-0-BL 36 modules (or equal).
- Install modules specified above, support system (racking), interconnecting DC wiring, and grounding.
- Submit shop drawings showing solar panel support racking system no later than five (5) days after the date the City issues a Notice to Proceed. The shop drawings will show in detail connection to existing roof and all elements of the reverse-tilt support system. The connection to the roof must be water-proof. The City will review the shop drawings and provide comments, if needed. The contractor shall revise the drawings to the satisfaction of the City.
- Coordinate power shutdown with PG&E to install longer line conductors from meter, routed through gutter and re-connected to main breaker. This includes all communication with PG&E to accomplish this task.
- Apply for the CSI rebate, complete all required documents for PG&E. Insure payment is received by the City prior to final payment for this contract.
- SUBMITTALS: Submit installation and maintenance manuals for Modules, Inverters, Combiner Panel, AC Disconnect switch to City and all required samples, product data, certificates, operations and maintenance instructions, and guarantees no later than five (5) days after the date the City issues a Notice to Proceed.
- Install Inverter(s) outside near gas meters. Observe PG&E Greenbook clearance to gas meters. Provide a concrete pad and mounting frame for the inverters.
- Install an AC combiner panel for inverters outputs. Wire to outdoor Meter/Main service panel.
- Install gutter, line side tap and PV disconnect at outdoor Meter/Main Panel.

- Run conduit and wire from outdoor panel to feed Corp Yard Bldg **existing** Manual Transfer Switch.
- Run conduit and wire from existing Corp Yard Bldg Meter/Main panel to existing feeders for the Community Center temporary building.
- Ensure all necessary permits and approvals for the Work have been obtained. City Building Permit (e.g. Electrical Permit) will be issued prior to work commencement. No fee will be charge for the City Building Permits.
- Contractor will work with PG&E and to obtain the CSI rebate (EPBB or PBI to be determined), and to schedule and pass service connection and solar PV interconnection inspections.
- Existing obstructions on the roof. All existing vents, antennas and skylights will remain. Contractor shall install solar panels and support system in such way that they will not interfere with existing object on the roof. Existing guy wires holding existing antenna is the only existing object that shall be modified. Contractor shall remove the guy wires and fasten the existing antenna to the building wall in such way that the antenna will be adjustable (rotation). The fastening detail to replace the guy wires shall be submitted to the City for approval.
- Contractor is responsible for safety of all workers and subcontractors complying with all applicable rules and regulations.
- Protect all materials to be used in the Work in accordance with the specifications.
- Protect existing facilities and personal property.
- Contractor will remove from the project site all debris resulting from performance of the Work no less often than daily. If Contractor fails to do so, City may, after twenty-four (24) hours' notice to Contractor, clean up the site and deduct the cost from the Contract Price.
- Prepare and submit a written daily activity report to City for each day on which work is performed, including weekends and holidays when worked, and submit the reports to the City no later than the next business day. The daily reports shall, at a minimum, include the following information: construction activities and locations, start or completion of activities, progress on construction activities (including units or portions of work completed), tests

or inspections performed, deliveries of material or equipment, delays or potential delays, visitors to the site, weather conditions, construction equipment used, and personal injuries or damage to property.

- The Contractor shall be responsible for unloading, hoisting and otherwise handling its own materials, supplies and equipment.
- The Contractor is responsible for researching and complying with all local codes, agencies and jurisdictions that regulate and govern the Work.
- Contractor shall set up, identify, coordinate, provide safe access, and obtain all inspections for its work, as required by any authorized agency or applicable code, prior to covering up work.

//

**Exhibit B
PAYMENT**

1. **TOTAL COMPENSATION.**

City agrees to pay, and Contractor agrees to accept for full performance of the Work, the unit prices set forth in Contractor's proposal dated _____ for the actual quantities of Work performed. The total amount paid to Contractor shall not exceed _____ (\$_____) (the "Contract Price") subject to adjustments for changes in the Work as may be directed in writing by City.

2. **INVOICES.** Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for work performed prior to the invoice date. Invoices shall contain the following information:

- a. Serial identifications of bills, i.e., Bill No. 1;
- b. The beginning and ending dates of the billing period;
- c. A summary containing the total contract amount, the amount of prior billings, the total due this period, and the remaining balance available for all remaining billing periods.

City shall make monthly payments, based on such invoices, for satisfactory progress in completion of the Work subject to retentions described in this Agreement.

3. **ADDITIONAL PAYMENT TERMS.**

A. Contractor shall submit a final payment application in the amount of the contract sum upon completion of the Work and satisfaction of all conditions of the Agreement. City shall make payment within 30 days of receipt of application, less ten percent retention. City shall release the retained funds no less than thirty five (35) days after the date the City accepts the Work.

B. Pursuant to Public Contract Code Section 22300, for monies earned by the Contractor and withheld by the City to ensure the performance of the Contract, the Contractor may, at its option, choose to substitute securities meeting the requirements of Public Contract Code Section 22300.

C. Contractor agrees to furnish, as a condition of payment, payroll affidavits, receipts, vouchers, and other documents, in form satisfactory to City, prior to receipt of any payment. Contractor shall submit Conditional and Unconditional waivers and release of lien (as provided in Civil Code Section 3262) on behalf of itself and suppliers that furnished labor, material, equipment or services to the Project.

D. Attention is directed to Section 9 of the State of California, Department of Transportation Standard Specifications for Construction of Local Streets and Roads

(2002) which includes procedures for determination of payments, compensation for extra work by force account, partial payments, and final payments. These provisions are Contract Documents incorporated into this Agreement.

- E. Charges from Contractor to City will not be honored or paid by City unless the charges are authorized and approved by City at the time the work is being performed.

Exhibit C SPECIAL PROVISIONS

1. LICENSE CLASSIFICATION

In accordance with Section 3300 of the Public Contract Code, the City has determined that the Contractor shall have a Class A (General Engineering Contractor) or Class B (General Building Contractor) License AND Class C 10 (Electrical Contractor) at the time it submits its bid to the City and at all times it is performing the Work.

2. LIQUIDATED DAMAGES

If Contractor fails to complete the Work within the Contract Time, the City will sustain damage. The actual occurrence of damages and the actual amount of the damages which the City would suffer if the Work were not completed within the Contract Time would be impracticable and extremely difficult to determine. Damages the City would suffer in the event of delay include, but are not limited to, loss of the use of the Work, costs of administration, inspection, supervision and the loss suffered by the public within the City.

Accordingly, the parties agree that the amount herein set forth is a reasonable estimate of the damages which the City shall incur upon failure of the Contractor to complete the Work within the Contract Time: Three Hundred Dollars per day (\$ 300/Day), for each calendar day by which completion of the Work is delayed beyond the Contract Time. Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any monies due or that may become due to the Contractor under the Contract.

Contractor will not be assessed with liquidated damages or the cost of engineering and inspection during the delay in the completion of the Work caused by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes, provided that the Contractor shall within five (5) days from the beginning of any such delay notify the Administrator, in writing, of the causes of delay. The Administrator shall ascertain the facts and the extent of delay, and the Administrator's findings thereon shall be final and conclusive.

3. COOPERATION AND CARE

A. Should construction be under way by the City, other agencies or other contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to said limits, the Contractor shall cooperate with all such other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The City reserves the

right to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

B. Until the final acceptance of the contract, the Contractor shall have the charge and care of the Work and of the materials to be used therein, including materials for which partial payment has been received. The City shall not be held responsible for the care or protection of any material or parts of the Work prior to final acceptance, except as expressly provided in the Special Provisions.

4. PROGRESS OF THE WORK

A. Hours of work - Overtime and holidays. The Contractor shall perform all work during the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday unless otherwise specified in the Special Provisions or authorized by the City in writing. If the Contractor wishes to work during any other hours or on weekends, written permission must be received from the City. The request must be received at least two (2) working days in advance of any work. No work will be allowed on legal holidays except in the case of an emergency. A listing of holidays observed by City is on file in the office of the City. If Contractor requests overtime work in which the City will incur costs, Contractor shall be responsible for payment of the City's costs incurred in connection with the overtime work. The City will invoice the Contractor at time and one half to cover the costs incurred. If Contractor does not pay the invoice within ten days, the City may deduct the amount billed from other payments due or to become due to Contractor under the Contract.

B. The Administrator or Administrator's designee shall have the authority to suspend the Work, wholly or in part, for such a period as the Administrator may deem necessary.

Exhibit D INSURANCE

Pursuant to Section 19 of this Agreement the following insurance requirements apply to Contractor and performance of the Work.

Contractor shall procure and maintain for the duration of the contract, and until the expiration of the warranty period following the final completion and acceptance by the City, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, his agents, representatives, employees or subcontractors.

Minimum Scope of Insurance

Coverage shall be *at least as broad as*:

1. Insurance Services Office Form CG 0001 covering Commercial General Liability on an "occurrence" basis.
2. Insurance Services Office Form Number CA 0001 covering Automobile Liability, Code 1 (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. **General Liability:** (Including operations, products and completed operations.)
\$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:**
\$1,000,000 per accident for bodily injury and property damage.
3. **Employer's Liability:**
\$1,000,000 per accident for bodily injury or disease.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Contractor to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. **The City, its officers, officials, employees, and volunteers are to be covered as additional insureds** with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, 11 85 or 07 04 revisions), or as a separate owner's policy, or on the City's own form.

2. For any claims related to this project, the **Contractor's insurance coverage shall be primary** insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

3. The Insurance Company agrees to **waive all rights of subrogation** against the City, its elected or appointed officers, officials, agents and employees for losses paid under the terms of any policy which arise from work performed by the Named Insured for the Agency. This provision also applies to the Contractor's Workers' Compensation policy.

4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days' prior written notice (10 days for non-payment) has been given to the City.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the City.

Verification of Coverage

Contractor shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the contractor's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications, at any time.

Waiver of Subrogation

Contractor hereby grants to City a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. This provision applies regardless of whether or not the City has requested or received a waiver of subrogation endorsement from the insurer.

Claims Made Policies

If any of the required policies provide claims-made coverage, the City requires that coverage be maintained for a period of 5 years after completion of the contract.

Special Risks or Circumstances

City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

**Exhibit E
BOND FORMS**

FAITHFUL PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the City of Saratoga, California (hereinafter referred to as “Owner”) and NAME OF CONTRACTOR, (hereinafter referred to as “Contractor”), have entered into a written contract for furnishing of all labor, materials, equipment, transportation and services for the construction of the Corporation Yard Building Solar Project (hereinafter referred to as the “Construction Contract”); and

WHEREAS, Contractor is required by the terms of the Construction Contract to furnish a bond for the faithful performance of all terms and conditions of the Construction Contract;

NOW, THEREFORE, Contractor, as principal, and _____ (hereinafter referred to as “Surety”), as surety, are held and firmly bound unto Owner in the penal sum of _____ Dollars (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made as provided in this Performance Bond.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If Contractor timely performs each and every obligation under the Construction Contract, Surety and Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
3. Surety’s obligation under this Performance Bond shall arise after:
 1. Owner has declared a Contractor Default and has notified Contractor and Surety at its address described in Paragraph 10 below that Owner has declared a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than seven days after receipt of such notice to discuss methods of performing the Construction Contract; and
 2. Owner has agreed to pay the Balance of the Agreement Price, as calculated under the terms of the Construction Contract, to Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the Construction Contract with Owner.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

1. Arrange for Contractor, with consent of Owner, to perform and complete the Construction Contract; or
2. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
3. Obtain bids or negotiated bids from qualified contractors acceptable to Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by Owner and the contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Agreement Price, as calculated under the terms of the Construction Contract, incurred by Owner resulting from Contractor's Default; or
4. Waive its right to perform and complete, arrange for completion, or obtain a new Contractor and with reasonable promptness under the circumstances:
 - A. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment thereof to Owner; or
 - B. Deny liability in whole or in part and notify Owner citing specific reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 within twenty days from receipt of the notice described in paragraph 3.1 (whether or not a conference has been held pursuant to paragraph 3.1), or such longer period upon which Owner and Surety may agree in writing, Surety shall be deemed to be in default on this Bond. If the Surety proceeds as provided in Subparagraph 4.4, and Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

6. After Owner has declared a Contractor Default, and if Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Construction Contract, and the responsibilities of Owner to Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Performance Bond, but subject to commitment by Owner of the Balance of the

Agreement Price to mitigation of costs and damages on the Construction Contract, Surety is obligated without duplication for:

1. The responsibilities of Contractor for correction of defective work, materials and equipment and completion of the Construction Contract;
 2. Additional legal, design professional, construction management and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
 3. Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of Contractor.
7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Construction Contract, and the Balance of the Agreement Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators or successors.
8. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as an item of costs.
10. Notice to Surety, Owner or Contractor shall be mailed or delivered to the address, or sent via facsimile to the facsimile number, shown on the signature page.

11. DEFINITIONS

11.1 Balance of the Agreement Price: The total amount payable by Owner to Contractor under the Construction Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Construction Contract.

11.2 Construction Contract: The agreement between the Owner and the Contractor identified on the first page of this bond, including all Contract Documents and changes thereto.

11.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

CONTRACTOR, as Principal:

SURETY:

By: _____

By: _____

Its: _____

Its: _____

Address: _____

Address: _____

Fax: _____

Fax: _____

Note: Signatures of those executing for Surety must be properly acknowledged. The bond must be accompanied by a power of attorney from the Surety authorizing its agent to bind it to this bond.

LABOR AND MATERIALS PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the City of Saratoga, California (hereinafter referred to as "Owner") and NAME OF CONTRACTOR (hereinafter referred to as "Contractor"), have entered into a written contract for furnishing of all labor, materials, equipment, transportation and services for the construction of the Corporation Yard Building Solar Project (hereinafter referred to as the "Construction Contract"); and

WHEREAS, Contractor is required by the terms of the Construction Contract to furnish a bond to secure payment for all work, labor, materials, equipment or services furnished in connection with the Construction Contract;

NOW, THEREFORE, Contractor, as principal, and _____ (hereinafter referred to as "Surety"), as surety, are held and firmly bound unto Claimants, as defined herein, in the penal sum of _____ Dollars (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made as provided in this Payment Bond.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner to pay for work, labor, materials, equipment, services, or other items furnished for use and actually used in the performance of the Construction Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2. Defends, indemnifies and holds Owner harmless from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for work, labor, materials, equipment, services or other items furnished for use in the performance of the Construction Contract, provided Owner has promptly notified Contractor and Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described below) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Payment Bond and, with substantial accuracy, the amount of the claim.
 2. Claimants who do not have a direct contract with the Contractor:
 - A. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, as required by and conforming with Civil Code Sections 3252 and 3091; and
 - B. Not having been paid within thirty (30) days of sending the required notice, have sent a written notice to Surety (at the address described below) and sent a copy to the Owner, stating that a claim is being made under this Payment Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. When the Claimant has satisfied the conditions of Paragraph 4, Surety shall promptly and at Surety's expense take the following actions:
 1. Send an answer to the Claimant, with a copy to Owner, within 20 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 2. Pay or arrange for payment of any undisputed amounts.
6. Surety's total obligation shall not exceed the amount of this Payment Bond, and the amount of this Payment Bond shall be credited for any payments made in good faith by Surety.
7. Amounts owed by Owner to Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under the Performance Bond. By Contractor furnishing and Owner accepting this Payment Bond, they agree that all funds earned by Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of

Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work or the satisfaction of Owner's claims, including liquidated damages, under the Construction Contract.

8. Surety shall not be liable to Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. Owner shall not be liable for payment of any costs or expenses of any Claimants under this Payment Bond, and shall have under this Payment Bond no obligation to make payments to, give notices on behalf of, or otherwise have any obligation to Claimants under this Payment Bond.

9. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

10. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as costs.

11. Notice to Surety, Owner or Contractor shall be mailed or delivered to the address shown on the signature page.

12. This Payment Bond has been furnished to comply with Civil Code Sections 3247 through 3252. Any provision in this Payment Bond conflicting with those statutory requirements shall be deemed deleted and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Payment Bond shall be construed as a statutory bond and not as a common law bond.

13. Upon request by any person or entity appearing to be a potential beneficiary of this Payment Bond, the Contractor shall promptly furnish a copy of this Payment Bond or shall permit a copy to be made.

14. DEFINITIONS

14.1 Claimant: An individual or entity identified in California Civil Code Sections 3181 or 3248.

14.2 Construction Contract: The agreement between Owner and Contractor identified above, including all Contract Documents and changes thereto.

CONTRACTOR, as Principal:

SURETY:

By: _____

By: _____

Its: _____

Its: _____

Address: _____

Address: _____

Fax: _____

Fax: _____

Note: Signatures of those executing for Surety must be properly acknowledged. The bond must be accompanied by a power of attorney from the Surety authorizing its agent to bind it to this bond.

Exhibit F
NOTICE INVITING INFORMAL BIDS

INFORMAL BIDS will be received by the CITY OF SARATOGA (CITY) until **Monday, October 24, 2011 at 10:00 am** for the **Corporation Yard Building Solar Project**.

Informal Bids shall be submitted to Saratoga City Hall addressed and noted as follows:

“Public Works Director

City of Saratoga
13777 Fruitvale Ave.
Saratoga, CA 95070

Corporation Yard Building Solar Project”

Following the closure of the informal bid submittal period, a decision to award a contract for performing the following work will be made.

Summary of Work to be Performed: Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the work. The work also includes mobilization, installation of 78 PV solar panels (42 of the 78 panels will be provided for no charge – see Construction Agreement for more details) on north-facing portion of the City of Saratoga Corporation Yard building to create 5 degrees minimum angle towards south (the angle between the roof plane and the face of solar panels will be approximately 10 degrees). The work also includes interconnecting wiring between the solar panels, grounding, supplying and installing inverters, concrete pad for inverters, AC combiner panel for inverters outputs, switching service between two existing panels approximately 40 feet apart, all electrical conduits, wires, breakers, connections, conductors, junction boxes, gutters, switches, and all other equipment not listed here but necessary to complete the work. The work includes design, supply and installation of support system for solar panels to create reverse tilt as described above and preparation of shop drawings of the support system and its elements to the City satisfaction and other work not specifically mentioned herein, but which may be required as directed by CITY or its designated representative to complete the work.

The work is described in detail in following attached documents:

- Notice Inviting Informal Bids dated October 13, 2011
- City of Saratoga Construction Agreement
- Technical Specifications prepared by Michael Mora, dated October 2011
- Sheet S.0 prepared by TKJ Structural Engineering, dated Sept. 19, 2011 with structural notes and an example attachment to roof
- Example support system for solar panels
- Solar panel specifications

CITY hereby notifies all Bidders that it will affirmatively ensure that in regard to any contract entered into pursuant to this Invitation for Informal Bid, Disadvantaged Business Enterprises (DBE's) will be afforded full opportunity to submit Bids in response to this invitation and will not be discriminated against on the basis of race, color, sex, national origin, in consideration for an award.

Project is to be completed within thirty (30) calendar days from the date specified in the Notice to Proceed. Additional time may be provided if PG&E review, approval and/or permit are required. **The Contractor shall pay to the City of Saratoga the sum of THREE HUNDRED DOLLARS (\$300) for each and every calendar day's delay in finishing the work in excess of the calendar day completion time.**

Bidders may obtain more information regarding the project at City of Saratoga Public Works Department, 13777 Fruitvale Avenue, Saratoga, CA 95070, 408-868-1239.

The mandatory pre-bid site walk is scheduled for 2:00 p.m. on Tuesday, October 18, 2011 in Saratoga Corporation Yard located at 19700 Allendale Avenue, Saratoga, CA 95070. Please note that you must attend this meeting to bid on the project.

Request for information and questions shall be received in writing no later than 5:00 pm on Wednesday, October 19, 2011. All questions should be addressed to Iveta Harvancik, Public Work Department, 13777 Fruitvale Avenue, Saratoga, CA 95070; phone and fax number (408) 868-1274 or email iharvancik@saratoga.ca.us .

Pursuant to California Labor Code Section 1771, the successful bidder and all subcontractors shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are available for view at the City of Saratoga Department of Public Works.

Pursuant to California Public Contract Code Section 3300, City has determined that the Contractor shall possess a valid Class A (General Engineering Contractor) or Class B (General Building Contractor) AND Class C10 (Electrical Contractor) license at the time that the bid is submitted. The contractor shall also possess a valid City of Saratoga Contractor's Business License at the time the contract is awarded. Failure to possess the specified license shall render the bid non-responsive.

The successful bidder shall insure that employees and applicants for employment are not discriminated against on the basis of age, color, race, national origin, ancestry, religion, sex, sexual preference, or marital status, and shall comply with the Americans with Disabilities Act.

CITY reserves the right to reject any and all bids, or to waive any irregularities or informalities in any bid or in the bidding procedure, or to postpone the bid opening or award for good cause.

Bid Award: The award of the contract, if it is to be awarded, will be to the lowest responsive responsible bidder whose proposal complies with all the requirements of the bid documents. The award will be based on the Total Base Bid.

Bid bond is not required. Please submit completed page 15 of the Construction Agreement (bid schedule).

All bid documents are available on the City of Saratoga web site:

www.saratoga.ca.us under “What’s New” – “Bids and RFPs”.

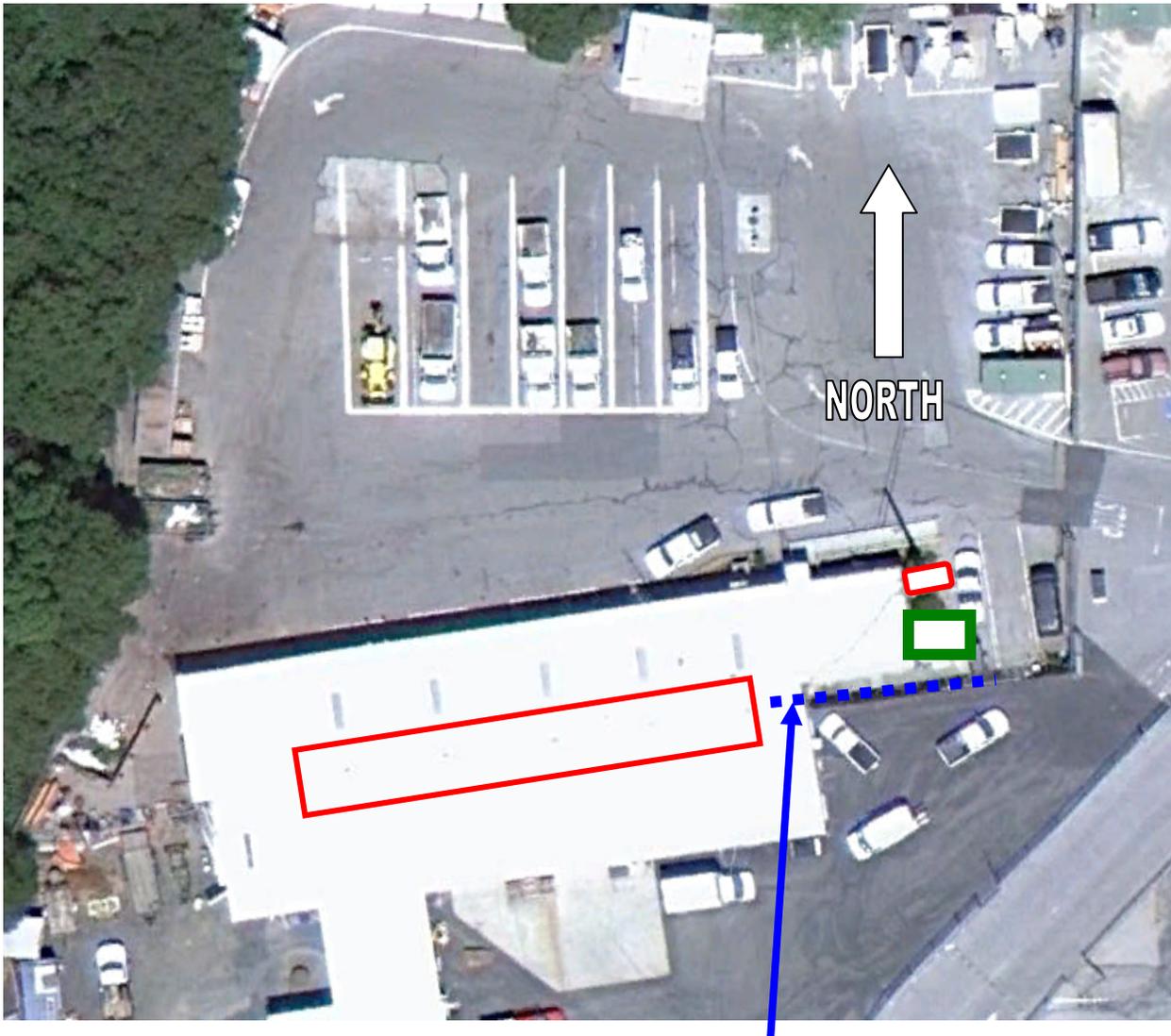
Any questions concerning this bid should be addressed in writing to Senior Engineer Iveta Harvancik, Public Work Department, 13777 Fruitvale Avenue, Saratoga, CA 95070; phone and fax number (408) 868-1274 or email iharvancik@saratoga.ca.us .

October 13, 2011

TECHNICAL DRAWINGS AND SPECIFICATIONS

Saratoga Corporation Yard building – site plan. The area available for solar panels is outlined in **RED**. The outlined roof area is approximately 114 X 19 feet. There are some obstructions on the roof – a radio antenna and one or two vents elevated above the roof. There are also skylights visible on the site plan installed flush with the roof and could be straddled by the mounting system.

Modules shall be 78 ea. Westinghouse WLW-235-1-DCO-0-BL. [Building seismic constraints limits the maximum number of modules to 84].



Approximate path of DC conduit from roof through inside of building. Also, surface mounted path of conduits connecting outside Meter panel to building Transfer switch and connecting existing building Meter Main to Community Center temporary building.

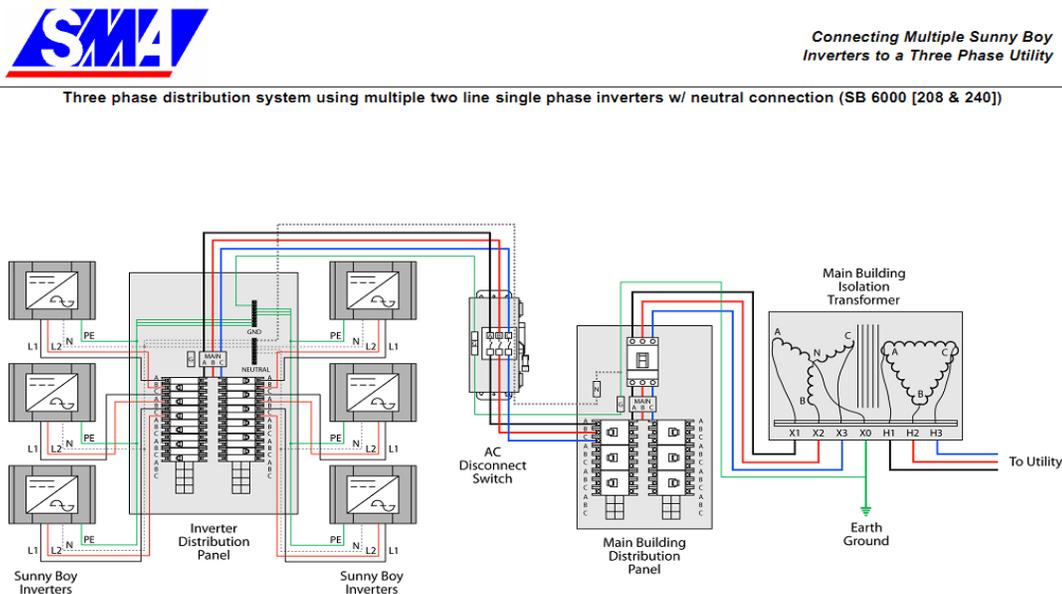
Preferred paths will be marked for the mandatory site walk. ◀

Inverter(s) will be located outside next to the HVAC package unit at the approximate location denoted. as 3 ea. SMA 6000US Inverter(s) [OR EQUAL] to provide 3 phase power. Provide a combiner panel at the inverters location as necessary.

If multiple inverters are used, connect the outputs of the inverters to 2 pole breakers in the AC Combiner Panel, phases AB, BC, CA.

Example: In the following drawing, consider only the 3 inverters on the left. Note too that the site service transformer is a center tapped delta type, not Y as shown below.

Source: Connecting Multiple Sunnyboy Inverters to a 3 phase Utility, SMA Technical Note Revision 2.1, Nov 22, 2005



Main Service panel: is located at in aerial photo, above.

Service voltage is 240/120 VAC, 3 phase, 4 wire, Open Delta (“Stinger”).

Re: NEC690.64(A)

Existing Panel: provide a Line Side tap by extending new conductors from the meter socket, routed through a gutter, and then to the existing main breaker. Tap from the new line side conductors to a fusible disconnect switch mounted on the gutter. Connect the load side of the disconnect switch to the feeders from the Combiner Panel. Provide framing channels to support the gutter and Disconnect Switch. Attach to adjacent concrete pad with 2 ea. 3/8” anchors per vertical strut.

SUGGESTED INVERTER MOUNTING FRAMING:

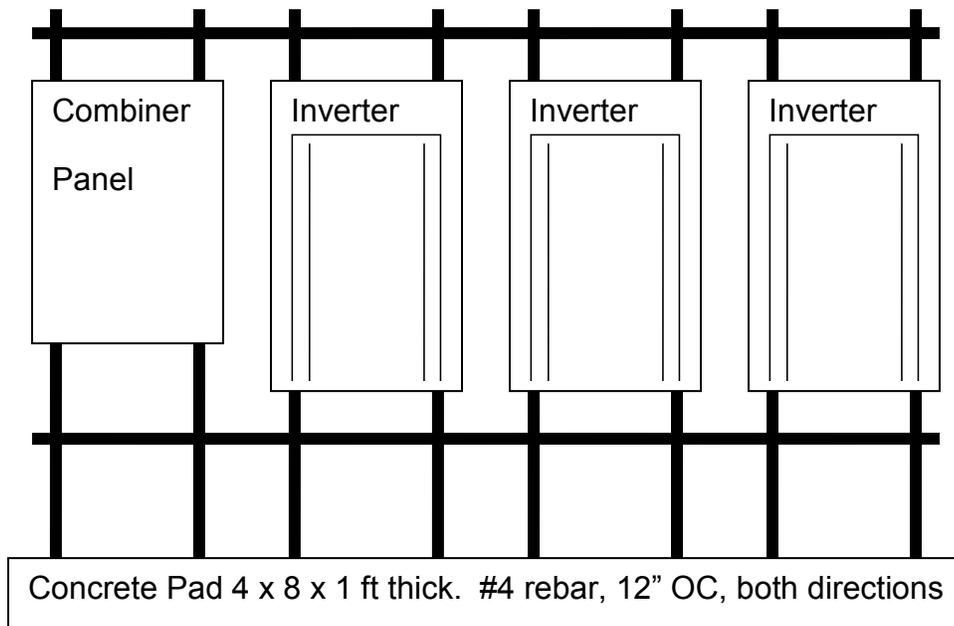
Use B-Line or equal for:

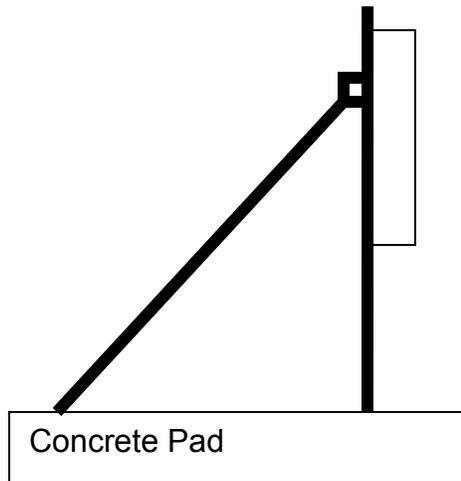
Vertical and diagonal struts: B22SH 1-5/8" galv. Strut. with 3/8" attachment hardware.

Attaching B22SH vertical struts to concrete pad use B280SQ. Anchor with 3/8" X 5" concrete anchors, Red Head, Hilti, or similar.

Provide 2 diagonal braces from the ends of the top bar to rear of pad.

Attach with B248 45 deg. Angle brackets





Main Service panel: is located at  in aerial photo, above.

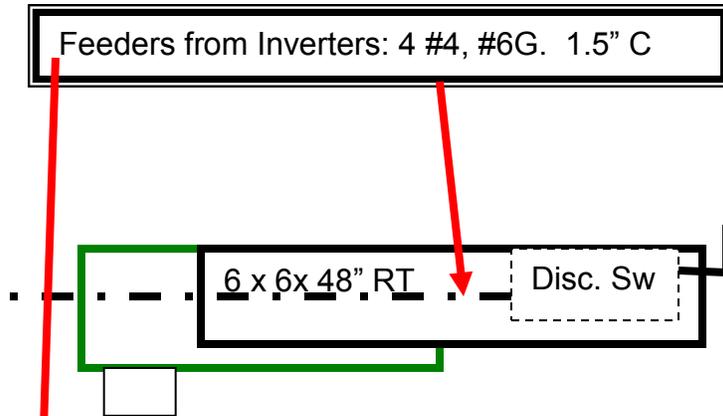
Service voltage is 240/120 VAC, 3 phase, 4 wire, Open Delta ("Stinger").

Re: NEC690.64(A)

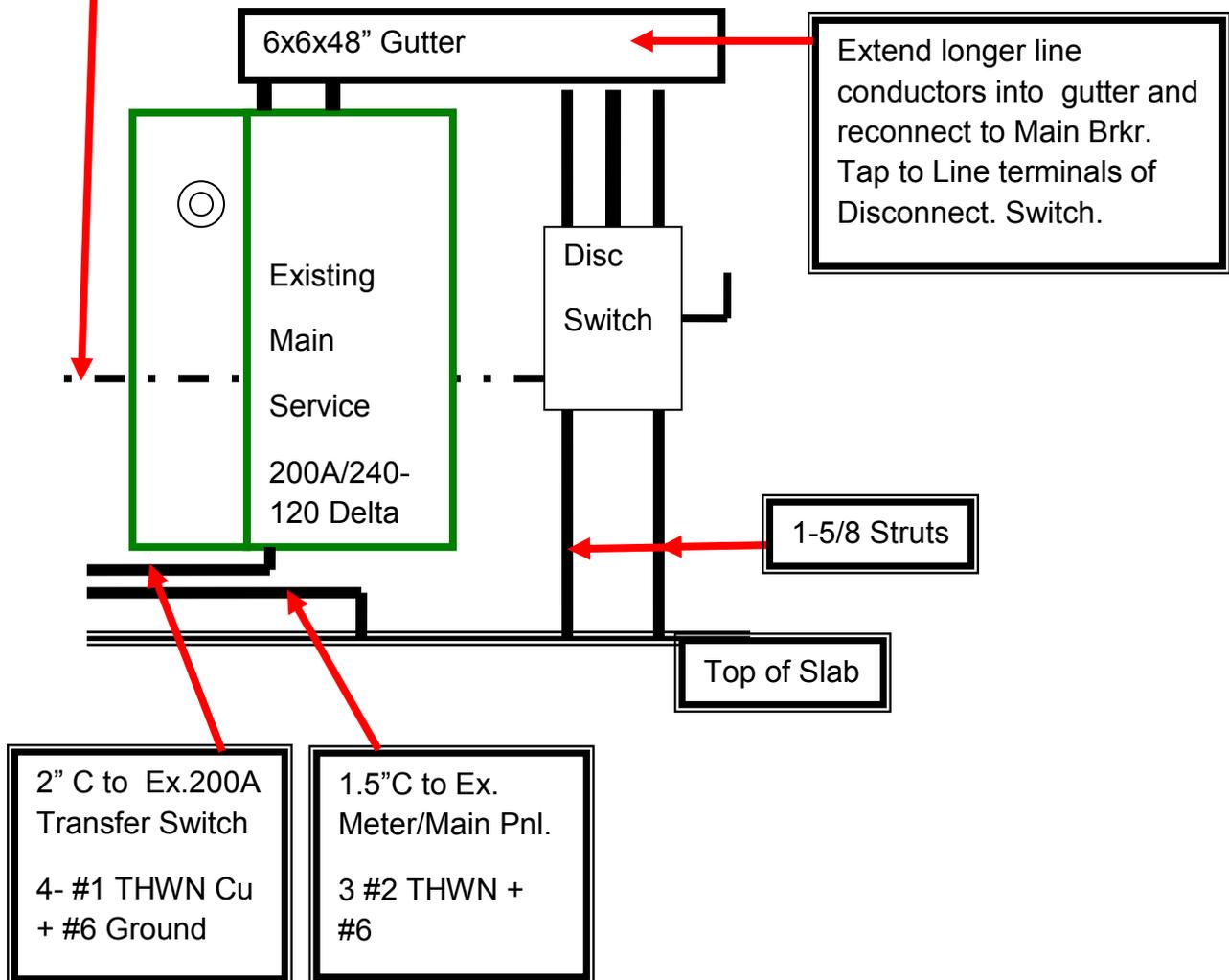
Existing Panel: provide a Line Side tap by extending new conductors from the meter socket, routed through a gutter, and then to the existing main breaker. Tap from the new line side conductors to a fusible disconnect switch mounted on the gutter. Connect the load side of the disconnect switch to the feeders from the Combiner Panel. Provide framing channels to support the gutter and Disconnect Switch. Attach to adjacent concrete pad with 2 ea. 3/8" anchors per vertical strut.

MAIN SERVICE PANEL 200A/ 240-120VAC DELTA (STINGER LEG)

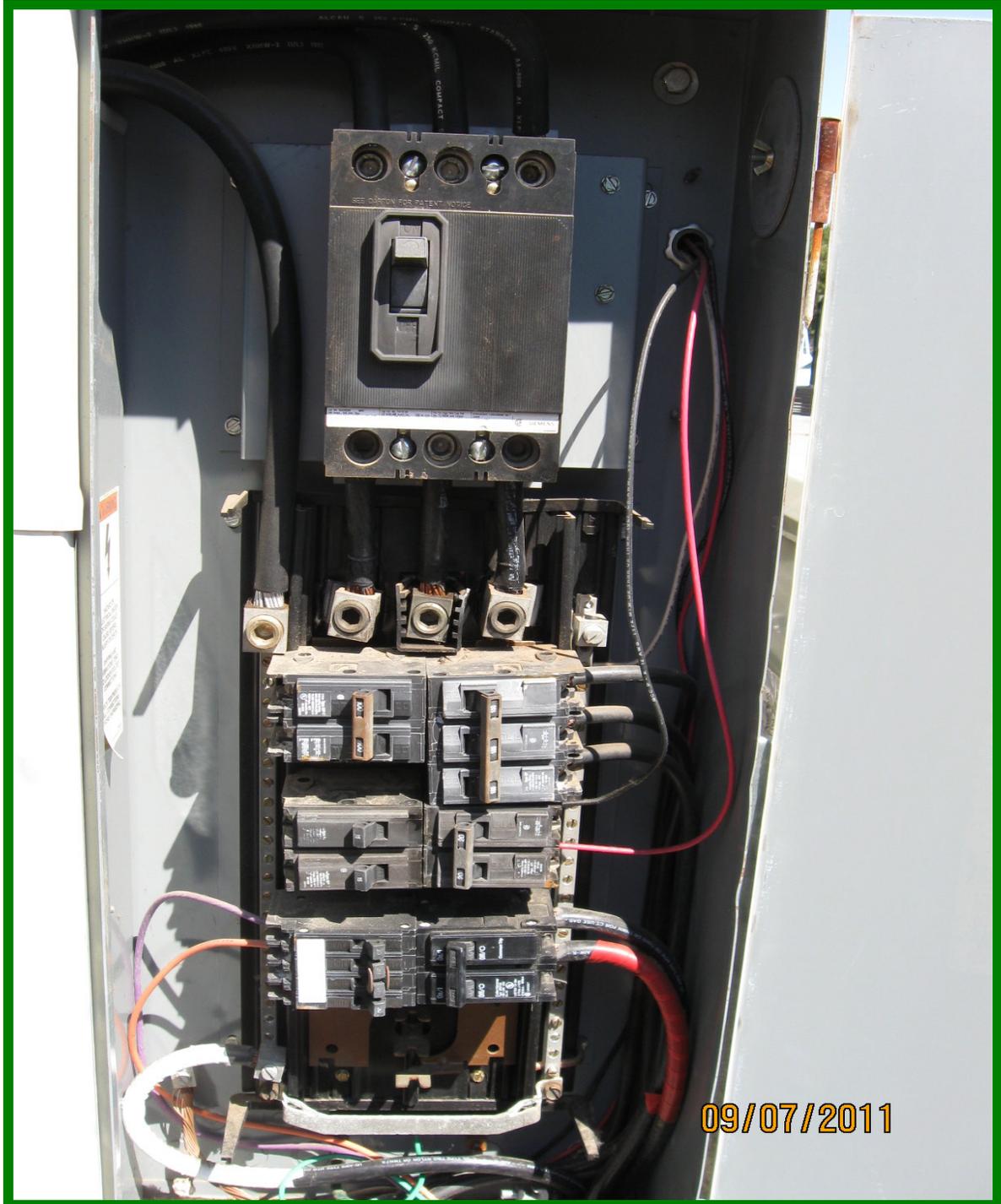
TOP VIEW NTS

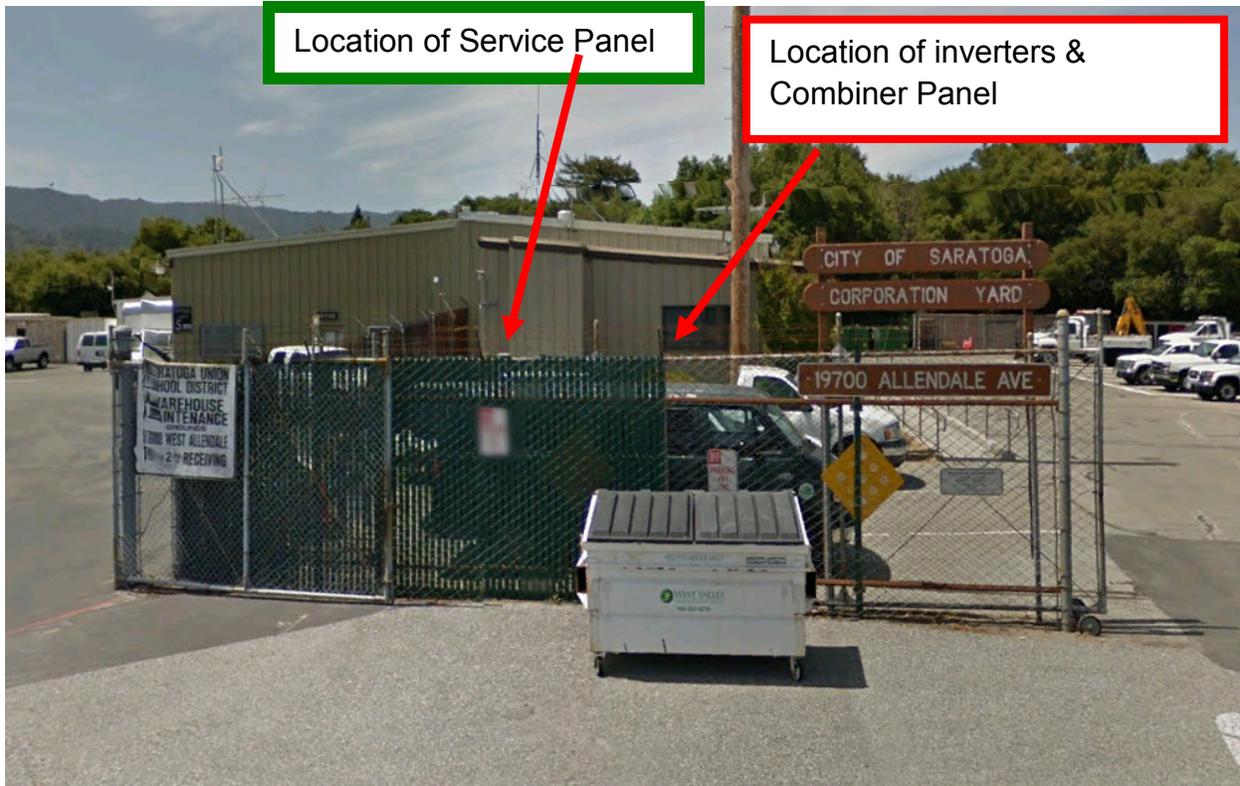


ELEVATION VIEW NTS



Use the 2 pole 100 A Breaker to feed Corp Yard Bldg via the existing Manual Transfer Switch located In the existing meter closet. The existing 100 A feed to the Community Center temporary building will be fed from the old Corp yard service panel via a Main breaker reduced to 100 A. Run conduit to old UG conduit.





Saratoga Corporation Yard building – side view. Only right half on the upper roof is available for solar panel installation. Roof slope is approximately 5 degrees (this is a north-sloping roof).

Conduits: See ELECTRICAL specifications, below.

EMT. Indoor and outdoor. Route conduits to follow building lines. Maintain headroom clearance in mezzanine area by avoiding main walking path.

Conduit fittings to be steel, set screw in interior dry locations. Outdoor to be raintight type and all connections to be made up wrench tight.

Attachment interval shall be per NEC 358.30 minimum. Attachment mounting screws to building metal framing shall be ¼" minimum, self-drilling, drilled and tapped, or machine screws, nuts, washers.

For rooftop conduits observe NEC Table 310-15(B)(2)(c) Temperature Adjustment.

Conductors: See ELECTRICAL specifications, below.

Stranded Copper: Sized per NEC Article 310. Limit voltage drop to 1.5% on both DC and AC runs.

Derate for high ambient temperatures if run through the ceiling of the building per NEC 310-16 Correction Factors and for high rooftop ambient.

Disconnect Switch: AC disconnect at main panel to be Heavy Duty rated,

60 A/ 240VAC. Square D HU322NRB or equal with 50 Amp time delay fuses sized for the continuous output of the inverters.

MARKING of EQUIPMENT: Re: NEC 690.17 and 690.53. Follow local Fire Marshall specifications regarding label wording, color, material, and weather durability.

PHOTOVOLTAIC SOURCE CIRCUITS:

Total Array consists of 6 Strings of 13 modules. String voltages and currents:

Isc 8.45 A Imp 8.0 A Voc 484 VDC Vmp 385 VDC

2 strings of 13 modules: Imp 16 A, Isc 16.9 A

If multiple inverters are used: route all 12 string conductors and equipment ground, through a 2" conduit from a roof junction box to a gutter or pull box located at the inverters

INVERTER OUTPUT CIRCUITS: [Sunnyboy 6000US example shown]

Sunnyboy 6000US max rated output current at 240vac is 25 Amps X 1.25 = 31.25.
Connect to AC combiner panel with #8 THNN

Feeders from AC Combiner panel to AC Disconnect Switch at main service panel are based on a system output of 78 modules x 210.5 W ptc = 16419 Wptc / 240/ 1.73 = 39.5 A x 1.25= **49.4 Amps per phase**. Use 4 # 4 AWG THWN-2 + #6 ground in a 1-1/2" conduit. (Oversized for future expansion)

AC COMBINER PANEL:

Sq D NQ418L1 interior; MH26 Box; NC26SHR , OR EQUAL

3 ea. Sq D QOB250 breakers

GROUNDING: GEC: Re: NEC 250.66 and 102.

Continuous GEC from inverters to Grounding Electrode at Main Service Panel.
Irreversibly bond the GEC to equipment grounds at the Disconnect Switch and the GEC to each of the inverters within the Combiner Panel.

ELECTRICAL SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH THE 2010 CALIFORNIA ELECTRICAL CODE (C.E.C.) THE LATEST EDITION OF CAL.OSHA, AND ALL APPLICABLE LOCAL RULES AND REGULATIONS.

1.1 FURNISH LABOR AND MATERIAL AND INSTALL ELECTRICAL WORK COMPLETE AS SHOWN ON THE DRAWINGS. WORK SHALL INCLUDE ALL MATERIALS ON THE PLANS AND THAT WHICH IS NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION OF THE ELECTRICAL SYSTEMS SHOWN OR DESCRIBED HEREIN.

1.2 DO ALL CUTTING, PATCHING, REPAIRING NECESSARY FOR THE PROPER INSTALLATION OF WORK AND REPAIR ANY DAMAGE DONE, COORDINATING THIS WORK WITH THAT OF OTHER CRAFTS.

1.3 CONTRACTOR SHALL BE HELD TO HAVE EXAMINED THE SITE AND COMPARED IT WITH THE SPECIFICATIONS AND PLANS AND TO HAVE SATISFIED HIMSELF AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. HE SHALL BE HELD RESPONSIBLE FOR KNOWLEDGE OF ALL EXISTING CONDITIONS WHETHER OR NOT ACCURATELY DESCRIBED, NO SUBSEQUENT ALLOWANCE SHALL BE MADE FOR ANY EXTRA EXPENSE DUE TO FAILURE TO MAKE SUCH EXAMINATION.

2. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL MATERIALS SHALL BE NEW AND U.L. LISTED.

3. THE NECESSARY FACILITIES FOR CONSTRUCTION POWER IS AVAILABLE ON SITE. ENERGY COSTS SHALL BE PAID BY OWNER.

4. PAY ALL INSPECTION AND OTHER APPLICABLE FEES; PROCURE ALL LICENSES AND PERMITS NECESSARY TO THE PROSECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING A NO CHARGE CITY BUILDING DEPARTMENT PERMIT.

5. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. IN ADDITION, CONTRACTOR SHALL PROVIDE AND COMPLETE THE MANUFACTURER'S WARRANTY DOCUMENTS PRIOR TO FINAL PAYMENT.

6. VERIFY EXISTING CONDITIONS IN FIELD AND MAKE ADJUSTMENTS AS REQUIRED TO SUIT SUCH CONDITIONS.
7. ALL WORK REQUIRING INTERRUPTION OF EXISTING CIRCUITS, USE OF OWNER'S FACILITIES, OR DISRUPTION OR INTERRUPTION OF ONGOING OWNER ACTIVITIES SHALL BE COORDINATED WITH THE OWNER.
8. AS-BUILTS: SUBMIT TO THE OWNER ONE (1) MARKED UP PRINT OF "AS-BUILT" CONDITIONS OF ALL WORK UNDER THIS SECTION.
9. SAFETY PRECAUTIONS: PROVIDE AND MAINTAIN THROUGHOUT THE WORK ADEQUATE SAFEGUARDS INCLUDING BARRIERS, WARNING SIGNS, ENCLOSURES AND LIGHTS, TO PREVENT ACCIDENTAL INJURY TO PERSON OR DAMAGE TO PROPERTY.
10. PROTECTION: PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE WHATSOEVER AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL WORK UNTIL FINAL ACCEPTANCE OF WORK BY THE OWNER, AND REPLACE ALL DAMAGED OR DEFECTIVE WORK, MATERIALS, AND EQUIPMENT BEFORE REQUESTING FINAL ACCEPTANCE.
11. DRAWINGS: THE GENERAL ARRANGEMENT OF MODULES, INVERTERS, AND EQUIPMENT, AS SHOWN ON THE PLANS, IS DIAGRAMMATIC AND APPROXIMATELY CORRECT AS TO THE LOCATIONS, WHERE MINOR CHANGES ARE REQUIRED BECAUSE OF STRUCTURAL CONDITIONS OR FOR THE CONVENIENCE OF THE OWNER, SUCH CHANGES SHALL BE MADE WITHOUT ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE LOCATIONS OF ALL EQUIPMENT, ETC., WITH RESPECT TO THE WORK OF OTHERS, NO EXTRAS WILL BE ALLOWED ON ACCOUNT OF MOVING WORK UNDER THIS SECTION TO AVOID INTERFERENCE WITH WORK OF OTHER CONTRACTORS.
12. SUBMITTALS: CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF ALL PROPOSED MATERIALS AND EQUIPMENT WITHIN 5 DAYS OF NOTICE TO PROCEED. CONTRACTOR SHALL MAKE NO SUBSTITUTIONS OF MATERIALS OR EQUIPMENT WITHOUT WRITTEN APPROVAL OF THE OWNER. ALL DIMENSIONAL OR ELECTRICAL CHANGES, OR CHANGES TO OTHER WORK WHICH ARE REQUIRED BY, OR ARE A RESULT OF, AN ACCEPTABLE ELECTRICAL SUBSTITUTION SHALL BE THE SOLE AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

13. INSPECTION: ALL WORK AND MATERIALS COVERED BY THIS SPECIFICATION SHALL BE SUBJECT TO INSPECTION AT ANY AND ALL TIMES BY REPRESENTATIVES OF THE OWNER. WORK SHALL NOT BE CLOSED IN OR COVERED BEFORE INSPECTION AND APPROVAL BY THE OWNER OR HIS REPRESENTATIVE. ANY MATERIAL FOUND NOT CONFORMING WITH THESE SPECIFICATIONS SHALL, WITHIN 3 DAYS AFTER BEING NOTIFIED BY THE OWNER, BE REMOVED FROM PREMISES; IF SAID MATERIAL HAS BEEN INSTALLED, ENTIRE EXPENSE OF REMOVING AND REPLACING SAME, INCLUDING ANY CUTTING AND PATCHING THAT MAY BE NECESSARY, SHALL BE BORNE BY THIS CONTRACTOR.

14. TESTS: UPON COMPLETION OF WORK AND ADJUSTMENT OF ALL EQUIPMENT, ALL SYSTEMS SHALL BE TESTED UNDER THE DIRECTION OF THE OWNER TO DEMONSTRATE THAT ALL EQUIPMENT FUNCTIONS ELECTRICALLY IN THE MANNER REQUIRED, ALL SYSTEMS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS AND SHALL BE FREE FROM MECHANICAL AND ELECTRICAL DEFECTS. ALL CIRCUITS SHALL BE TESTED FOR PROPER NEUTRAL CONNECTIONS. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEFECTIVE WORKMANSHIP AND/OR MATERIALS AT NO EXPENSE TO OWNER.

15. CLEANUP: AT COMPLETION OF WORK, THIS CONTRACTOR SHALL CLEAN UP AND REMOVE ALL DEBRIS AND MATERIALS NOT INSTALLED IN WORK, LEAVING PREMISES CLEAN.

16. CONDUCTORS:

16.1 CONDUCTORS SHALL BE INSULATED COPPER, NO. 12 AWG MINIMUM SIZE, THHN/THWN, SOLID OR STRANDED (EXCEPT FOR LOW VOLTAGE WIRING AND WHERE SPECIFICALLY NOTED OTHERWISE ON THE PLAN)

16.2 ALL CONDUCTORS NO. 8 AND LARGER SHALL BE STRANDED.

16.3 WIRE COLOR CODE SHALL BE AS FOLLOWS:

120/240 V

A PHASE - BLACK

B PHASE - RED

C PHASE - BLUE

NEUTRAL – WHITE

GROUND – GREEN

16.4. FOR CONDUCTORS NO. 6 AND LARGER, INSULATION COLOR MAY BE BLACK WITH TAPE BANDS (COLORED PER ABOVE) LOCATED AT EACH END OF THE CONDUCTOR RUN AND AT ALL OTHER LOCATIONS REQUIRED BY THE C.E.C.

16.5 ALL CONDUCTORS SHALL BE RUN IN APPROVED RACEWAY U.O.N.

17. CONDUIT AND WIREWAYS:

17.1. ALL CONDUITS SHALL BE U.L. LISTED AND BEAR THE LABEL OF THE NATIONAL BOARD OF FIRE UNDERWRITERS.

17.2. RIGID NONMETALLIC CONDUIT: SCHEDULE 40 PVC PLASTIC FOR UNDERGROUND OR UNDER SLAB INSTALLATIONS, RATED 90 DEGREES C WITH GLUE-ON PVC COUPLINGS AND FACTORY MADE ELBOWS AND SWEEPS; CARLON "PLUS 40". SCHEDULE 80 PVC FOR EXPOSED CONDUIT OR NIPPLES.

17.3. ELECTRICAL METALLIC TUBING (EMT): GALVANIZED STEEL. FOR DRY INTERIOR WORK PROVIDE STEEL SET-SCREW TYPE FITTINGS, FOR DAMP AND WET INTERIOR LOCATIONS AND FOR EXTERIOR WORK PROVIDE WRENCH TIGHTENED, COMPRESSION TYPE (WATERTIGHT) STEEL FITTINGS U.O.N. DIE CAST ZINC, MALLEABLE IRON OR INDENTING TYPE FITTING ARE NOT PERMITTED. ELBOWS 1" DIAMETER AND LARGER SHALL BE FACTORY MADE.

17.4. RIGID STEEL CONDUIT (GRS): HOT-DIPPED GALVANIZED WITH THREADED ONE-PIECE COUPLINGS AND FACTORY MADE ELBONS. NIPPLES THROUGH 12" IN LENGTH SHALL BE FACTORY MADE. CONNECTORS THREADED TYPE WITH BONDING LOCKNUT, INSULATED THROAT AND NEOPRENE O-RING. PROVIDE GRS FOR INSTALLATIONS SUBJECT TO DAMAGE RESULTING FROM CRUSHING OR BENDING.

17.5. NO ELECTRICAL CONDUITS SHALL BE COVERED BEFORE INSPECTION AND APPROVAL BY THE OWNER. CONTRACTOR SHALL NOTIFY OWNER THAT CONDUITS ARE READY FOR INSPECTION PRIOR TO INSTALLATION OF CONDUCTORS.

17.6. CONDUITS SHALL BE INSTALLED IN A RIGID AND SATISFACTORY MANNER WITH SUPPORT SPACED NOT MORE THAN 5 FEET APART U.O.N. CONDUITS SHALL BE INSTALLED TO OUTLET BOXES WITH LOCKNUTS AND BY BUSHING OR OTHER APPROVED DEVICES. CONDUITS SHALL BE JOINED BY APPROVED CONDUIT COUPLINGS AND SHALL HAVE ENDS BUTTED IN ALL CASES WHERE COUPLINGS ARE USED. CONDUITS SHALL BE TIGHTLY CORKED AND OTHERWISE WELL PROTECTED DURING CONSTRUCTION AND BLOWN OUT AND SWABBED BEFORE WIRES ARE PULLED. REAM ALL CONDUITS ENDS AFTER CUTTING. BENDS SHALL

BE MADE WITH STANDARD CONDUIT ELBOWS OR CONDUIT BENT TO NOT LESS THAN SAME RADIUS, ALL BENDS SHALL BE FREE FROM DENTS OR FLATTENING.

17.7 PVC CONDUITS: MAKE COUPLINGS AND CONNECTORS WATERTIGHT IN ALL RUNS. UTILIZE SOLVENT CEMENT OF TYPE APPROVED BY CONDUIT MANUFACTURER. PROVIDE ADAPTERS AND LOCKNUTS WHERE CONDUIT IS ATTACHED TO METAL BOXES AND PANELS.

17.8. RACEWAY RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. DETERMINE EXACT LOCATIONS OF ALL UNDIMENSIONED RACEWAY RUNS IN FIELD.

17.9. LOCATIONS AND ROUTES OF EXPOSED RACEWAYS REQUIRE OWNER APPROVAL PRIOR TO INSTALLATION. PREPARE LAYOUTS OF PROPOSED EXPOSED RACEWAY LOCATIONS/ROUTES AND SUBMIT FOR OWNER'S WRITTEN APPROVAL PRIOR TO ROUGH-IN.

17.10. COORDINATE PLANNED ROUTES WITH WORK OF OTHER TRADES.

18. GROUNDING: ALL DEVICES, FIXTURES, RACEWAY, EQUIPMENT ETC. SHALL BE GROUNDED VIA A GROUNDING CONDUCTOR RUN THROUGH THE RACEWAY OR CABLE. WIRING DEVICES SHALL BE GROUNDED THROUGH A COPPER WIRE, SIZED TO COMPLY WITH CODES. A GROUNDING CONDUCTOR SIZED TO COMPLY WITH CODES SHALL BE INSTALLED IN ALL CONDUITS AND CABLES.

18.1. GROUND RODS: COPPER OR COPPER-CLAD STEEL, MINIMUM 5/8" DIAMETER. PROVIDE MINIMUM 8 FOOT LONG RODS WHERE DIRECT BURIED (NON-ACCESSIBLE) AND MINIMUM 10 FOOT LONG RODS WHERE INSTALLED IN GROUND WELLS OR OTHER ACCESSIBLE LOCATIONS.

19. CIRCUIT PANELBOARDS.

PANELS: SHALL BE COPPER BUSSED, WITH RATINGS, MAINS AND BRANCH BREAKERS AS NOTED IN THE PANELBOARD SCHEDULE ON THE DRAWINGS. PANELS SHALL BE EQUIPPED WITH COPPER GROUND BUS. BRANCH BREAKERS SHALL BE OF THE BOLT-ON TYPE UNLESS OTHERWISE NOTED, AND HAVE ON-TRIPPED-OFF POSITIONS. MULTI-POLE BREAKERS SHALL BE INTERNALLY COMMON TRIPPED. BREAKERS SHALL BE RATED MINIMUM 10,000 A.I.C. RMS (SYM) AT 120 AND 240 VAC. CIRCUITS SHALL BE NUMBERED WITH ODD NUMBERS ON LEFT SIDE AND EVEN NUMBERS ON RIGHT SIDE. EACH CIRCUIT BREAKER SHALL HAVE PERMANENTLY FIXED NUMBER EITHER ENGRAVED IN BAKE-LITE AND ATTACHED TO PANEL FRONT, STAMPED IN THE STEEL PANEL FRONT OR SNAPPED INTO THE BREAKER BODY. STICK-ON "DYMO" TYPE NUMBERS NOT

ACCEPTABLE. PROVIDE A TYPEWRITTEN DIRECTORY UNDER A METAL FRAMED PLASTIC COVER ON INSIDE OF PANEL DOOR. DIRECTORY SHALL SHOW CIRCUIT NUMBER AND DESCRIPTION OF CIRCUIT CONTROLLED. CABINETS SHALL BE SURFACE MOUNTED AS INDICATED AND PROVIDED WITH SINGLE DOOR TRIM. DOOR TRIM SHALL HAVE CONCEALED MOUNTING LATCHES, CONCEALED DOOR HINGES AND FLUSH LATCH AND HOOK. PROVIDE CABINET DOOR WITH LOCKABLE LATCH AND 2 KEYS FOR EACH PANEL. PANELS SHALL HAVE NEMA 3R (FOR OUTDOOR) CONSTRUCTION. CABINET FRONT DOOR AND TRIM AND PANEL CAN (ON SURFACE MOUNTED PANELS) SHALL BE FINISHED IN GRAY ENAMEL OVER RUST INHIBITING PRIMER COAT. PANELS SHALL BE MINIMUM OF 5-3/4" DEEP, 20" WIDE, AND SHALL BE MOUNTED WITH TOP OF CABINET 6'-0" ABOVE FINISHED GRADE OR LESS U.O.N. ON THE PLANS. PANELS SHALL MEET NEMA STANDARDS AND BEAR UNDERWRITERS' LABEL. PANELBOARDS SHALL BE THE PRODUCTS OF ONE MANUFACTURER AND SHALL BE SQUARE D COMPANY OR APPROVED SIEMENS, CUTLER HAMMER OR GENERAL ELECTRICAL EQUAL.

20. MAIN ELECTRIC METER-MAIN IS EXISTING AND SHALL HAVE A LINE SIDE TAP IN A GUTTER, AS DESCRIBED ABOVE.

20.1. CONDUCTORS ENTERING AND LEAVING METER MAIN SHALL BE NEATLY BUNDLED USING NO. 12 WAXED LINEN LACING CORD OR COMMERCIALY PRODUCED CABLE TIES SUCH AS T&B STRAPS. CONDUCTORS SHALL BE CLEARLY MARKED AND IDENTIFIED AS TO TERMINAL NUMBER AND SLIPPED OVER THE CONDUCTOR NEAR ITS END. COMMERCIALY AVAILABLE WIRE MARKERS SIMILAR TO BRADY 945 SERIES VINYL ARE ACCEPTABLE AS A SUBSTITUTE METHOD.

20.2. IDENTIFICATION OF SWITCHES AND APPARATUS: ALL PANELBOARDS, CONTROL DEVICES, DISCONNECT SWITCHES, FEEDER BREAKERS AND MAIN BREAKER, AND ALL OTHER APPARATUS USED FOR CONTROL OR OPERATION OF CIRCUITS, APPLIANCES AND EQUIPMENT, SHALL BE IDENTIFIED WITH ENGRAVED LAMICOID NAMEPLATES SECURELY FASTENED IN PLACE WITH CADMIUM PLATED SELF-TAPPING SCREWS. NAMEPLATE 1/4" LETTERING (RED LETTERS-WHITE FIELD).

SPECIAL INSPECTION PROGRAM

A. GENERAL

1. DUE TO THE SCOPE AND NATURE OF THIS PROJECT, SPECIAL INSPECTION IS NOT REQUIRED.

STRUCTURAL OBSERVATIONS

1. DUE TO THE SCOPE AND NATURE OF THIS PROJECT, STRUCTURAL OBSERVATION IS NOT REQUIRED.

STRUCTURAL NOTES

A. BASIS OF DESIGN

1. THE STRUCTURAL DESIGN HAS BEEN PERFORMED IN ACCORDANCE WITH THE 2011 CALIFORNIA BUILDING CODE (C.B.C.)
 2. DESIGN LOADS (LIVE LOADS MAY BE REDUCED IN ACCORDANCE WITH THE BUILDING CODE)

ROOF SOLAR PANELS	DL 7 PSF	LL 20 PSF
3. SEISMIC DESIGN DATA		
OCCUPANCY CATEGORY	II	
SEISMIC IMPORTANCE FACTOR	Ip = 1.0	
MAPPED SPECTRAL ACCELERATION	Ss = 246%g	
SITE CLASS	D	
SITE COEFFICIENT	Fa = 1.0	
DESIGN SPECTRAL ACCELERATION	Sds = 164%g	
SEISMIC DESIGN CATEGORY	D	
ANALYSIS PROCEDURE USED	NONSTRUCTURAL COMPONENTS	

4. WIND DESIGN DATA
 BASIC WIND SPEED V = 85 mph
 WIND IMPORTANCE FACTOR Iw = 1.0
 EXPOSURE CATEGORY C (B)
 ENCLOSURE CATEGORY ENCLOSED
 GUST & INTERNAL PRESSURE COEFF GOp1 = 0.18
 DIRECTIONALLY FACTOR Kd = 0.85
 TOPOGRAPHIC FACTOR Kt = 1.00

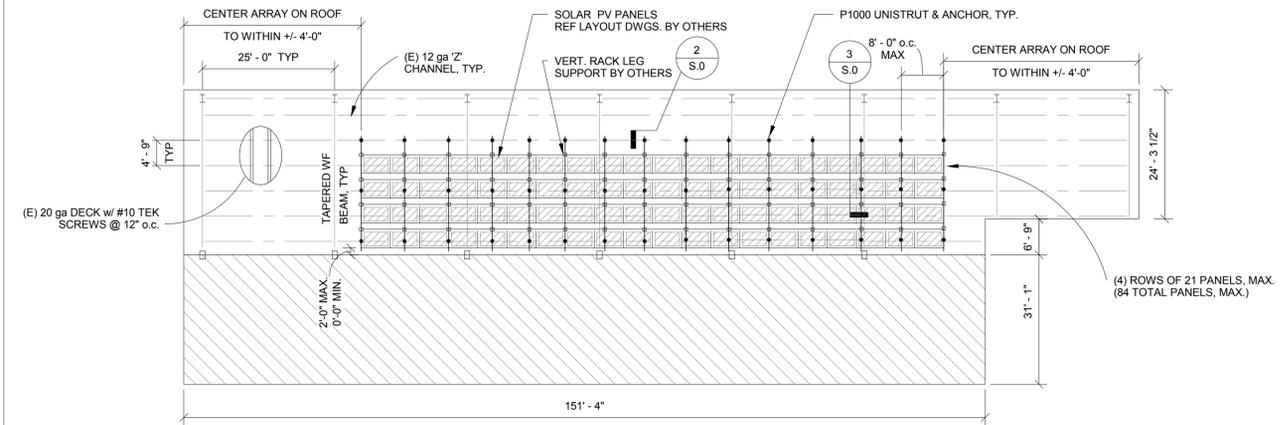
B. GENERAL:

- SPECIFIC NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- WHERE NO DETAILS ARE SHOWN OR NOTED IN ANY PART OF THE WORK THE DETAILS FOR OTHER SIMILAR WORK SHALL APPLY.
- DETAILS IDENTIFIED AS TYPICAL, SHALL APPLY IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED.
- THE STRUCTURAL DRAWINGS SHALL NOT BE SCALED. COORDINATE DIMENSIONS WITH MECHANICAL DRAWINGS.
- STANDARDS REFERENCED ON THE STRUCTURAL DRAWINGS REFER TO THE EDITION APPLICABLE UNDER THE CURRENT BUILDING CODE.
- THE RESPONSIBILITY FOR THE REVIEW AND COORDINATION OF DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF RELATED CONSTRUCTION SHALL BEAR ON THE CONTRACTOR. DISCREPANCIES THAT EXIST SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER, PRIOR TO START OF RELATED CONSTRUCTION.
- WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
- DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS SHALL BE VERIFIED BEFORE STARTING RELATED WORK AND THE ENGINEER NOTIFIED OF DISCREPANCIES IN A TIMELY MANNER.
- MATERIALS AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF APPLICABLE REGULATIONS AND THE BUILDING CODE AS AMENDED AND ADOPTED BY THE BUILDING OFFICIAL.

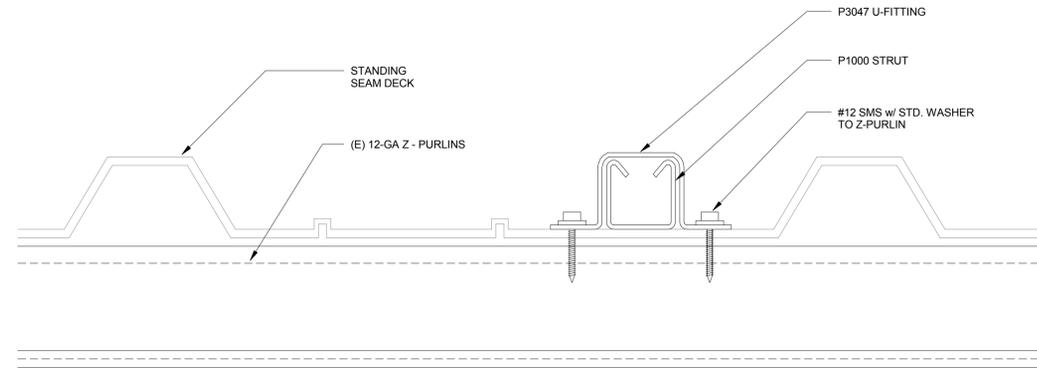
C. TEMPORARY WORK AND SITE SAFETY:

- THE STRUCTURAL DRAWINGS SHOW THE REQUIREMENTS FOR THE COMPLETED STRUCTURE ONLY. TEMPORARY WORKS REQUIRED TO COMPLETE THE CONSTRUCTION PROCESS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR FIELD VERIFICATION OF TEMPORARY AND ANCILLARY WORK.
- THE RESPONSIBILITY FOR SAFETY IN AND AROUND THE JOBSITE SHALL BEAR ON THE CONTRACTOR. PROPER AND SAFE METHODS OF CONSTRUCTION SHALL BE EMPLOYED AT ALL TIMES INCLUDING THE STABILIZING OF INCOMPLETE STRUCTURES, FORMWORK, SHORING, RESHORING, FALSEWORK, PLATFORMS, SCAFFOLDING, BARRIERS, WALKWAYS, ETC. AND INCLUDING CONTROL OF THE INTENSITY, DURATION AND LOCATION OF CONSTRUCTION LOADS.

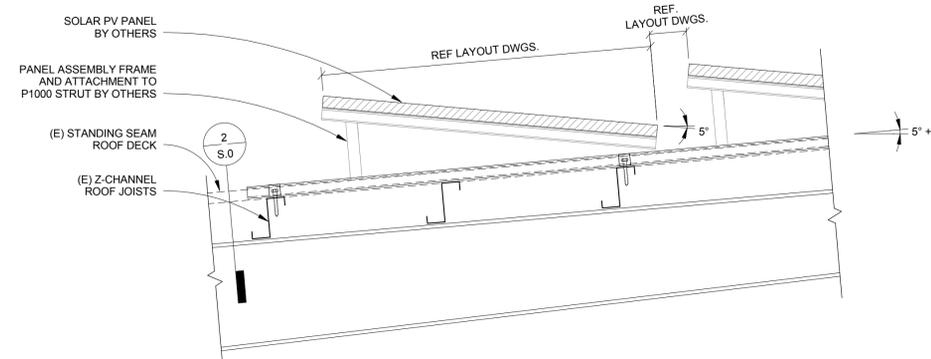
1 PLAN
1/16" = 1'-0"



2 UNISTRUT CONNECTION
N.T.S.



3 SECTION
1" = 1'-0"



NOTE: Attachment of solar panel support system to roof is an example only. Contractor shall revise/update as needed.

ENGINEER:



1330 orange avenue
 suite 301
 coronado, ca 92118
 (p) 619.869.6234
 (e) tkj@tkjse.com
 www.tkjse.com

PROJECT:

City of
 Saratoga

19700 Allendale Ave
 Saratoga, CA 95070

REVISIONS:

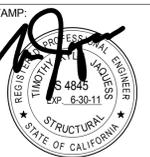
No.	Description	Date

SHEET TITLE:

PLAN

NORTH ARROW:

STAMP:



ISSUE DATE: 19 Sept, 2011

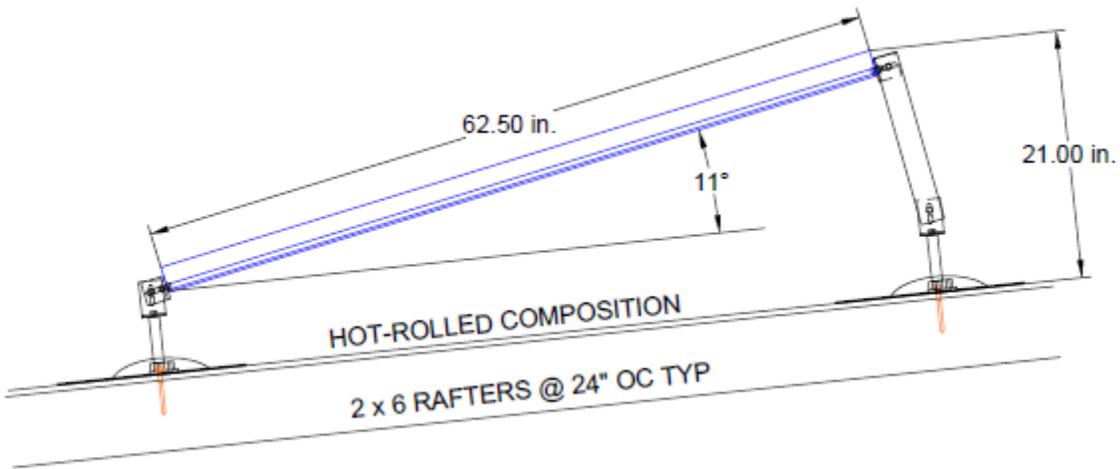
DRAWN BY: BAJ

CHECKED BY: TW

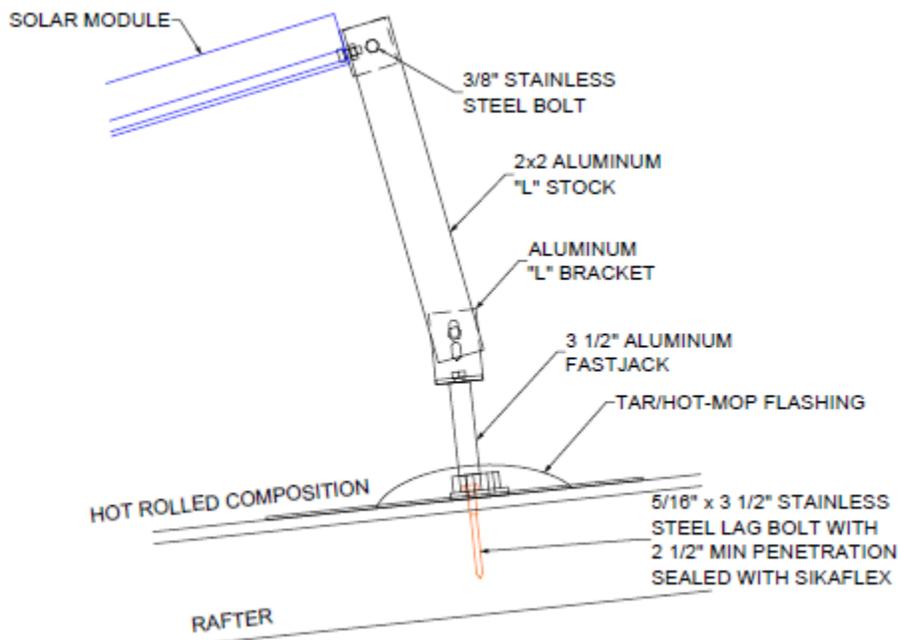
SHEET #:

S.0

Example Attachment Method for Corporation Yard Building Solar Project.



Attachment Profile

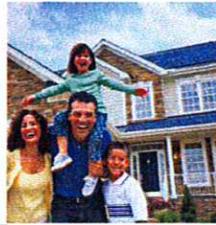


Attachment Detail

This is an example only! Shown Attachment Method needs to be modified to fit the Project!



Westinghouse | Solar



sun for everyone™



5° Flat Roof Solar Power System



Westinghouse Solar Power Systems

The Westinghouse Solar Flat Roof Solar Power System combines a lightweight, non-penetrating mounting system with the patented Westinghouse Solar panel technology to deliver a high performance solution that is both easy to install and ideal for flat rooftops with weight or area constraints.

The system is pre-engineered to a 5-degree angle to enable installation of more watts on the roof and capture more energy from the sun. Westinghouse Solar's integrated grounding and wiring delivers built-in reliability backed by a powerful 25 year panel warranty and 10 year product warranty.



Lightweight Aluminum Mounting System. Ships flat and with minimal part count. Installs and grounds faster than any other mounting system. Non-corrosive aluminum and stainless steel components are not susceptible to UV deterioration and combustion hazards.

Non-Penetrating. Aerodynamic design is resistant to high winds. Aluminum mounting trays are designed to support additional ballast where environmental or zoning requirements dictate. Mounting trays are compatible with all roof membranes to preserve roof warranties, and the system will not interfere with roof operation or drainage.

High Performance. The Westinghouse Solar 235 Watt high conversion efficiency solar panel is mounted at a 5 - degree angle, enabling enhanced energy capture and increased rooftop panel density.

Recognized By The Best, As The Best. Leading consumer and industry groups have honored Westinghouse Solar with their highest awards and accolades. Yet another example of how the Westinghouse name is known worldwide for outstanding quality and reliability.



You have our word on it. Every Westinghouse Solar Power System is backed by the proven reliability of the Westinghouse name — for more than a century a guarantee of quality. Panel warranty provides. 25 year power output warranty — 10 years/90% and 25 years/80%.

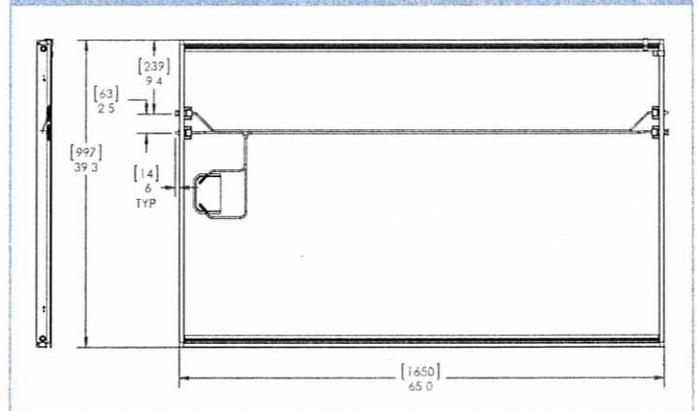


The Westinghouse Solar Power Warranty
PANELS 25-YEARS | PRODUCT 10-YEARS

Electrical Characteristics - Module

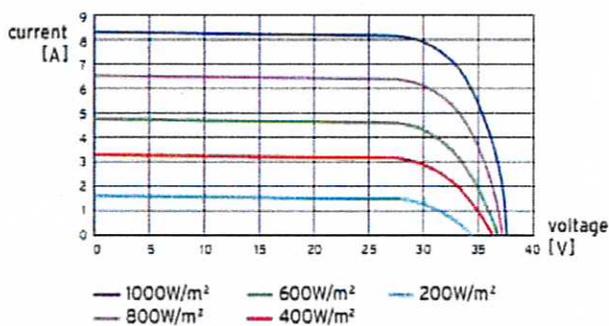
Characteristics	WLW-230-1-DC0-0-BL	WLW-235-1-DC0-0-BL
Open - Circuit Voltage (Voc)	36.6V	37.2V
Optimum Operating Voltage (Vmp)	29.2V	29.6V
Short - Circuit Current (Isc)	8.38V	8.45V
Optimum Operating Current (Imp)	7.87V	8V
Maximum Power at STC (Pmax)	230W	235W
Operating Temperature	-40°C to +85°C	
Maximum System Voltage	600V DC	
Maximum Series Fuse Rating	15A	
Power Tolerance	±3 %	

Mechanical Specifications - Module



Performance Characteristics - Module

Current-Voltage & Power-Voltage Curve



System Specifications

Array Weight	2.7 lb/ft ²
Module Slope	5 degrees
Wind Loading	Tests based on ASCE 7-05
Deployment Options	Roof and select ground sites
Power Rating	230 / 235W
Panel Warranty	25 year limited panel warranty
Product Warranty	10 year limited product warranty



Westinghouse Solar

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