

**Board of Trustees Agenda Item**

**Board Meeting Date:** July 12, 2010

**Title of Item:**

De Anza College, Measure C - Project 251 Install Photovoltaic Arrays – Campus wide  
Contract for Services: Photovoltaic Solar Energy Engineering Services, the Preparation of a Request for Proposal Solicitation, and for Evaluation Services for the Installation of Photovoltaic Arrays Campus-wide.

**Background and Analysis:**

De Anza Measure C Project #251 Install Photovoltaic Arrays – Campus wide will provide on-site electrical generation to offset electrical usage purchased from outside sources. The first portion of this project included the installation in Summer 2009 of a fixed canopy array south of the Stelling Parking structure that generates approximately 100,000 Kw of power. A small educational demonstration system is planned for installation at the Kirsch Center for Environmental Studies in summer 2010. The final portion of this project - and the eventual outcome of this RFQ/RFP process - will be the installation in summer 2011 of at least a one (1) Megawatt system on campus, likely in parking lots A & B. This project is intended to support the College's desires to improve energy sustainability by reducing the Colleges' present operating costs while demonstrating sustainability to the community.

At the June 21, 2010 Board of Trustees meeting, the Board authorized the District to enter into contract negotiations with the selected firm – Newcomb Anderson McCormick. The outcome of contract negotiations resulted in a comprehensive consulting services proposal from Newcomb Anderson McCormick which includes: energy production /cost analysis; schematic level system design with mechanical / electrical layouts; develop technical specifications to support (RFQ) Request for Quotation and (RFP) Request for Proposals process; review contractor's qualifications; and RFP review / negotiation support. Newcomb Anderson McCormick will ensure that system design will accommodate on-going campus operations, parking needs, traffic circulation, construction timing, and aesthetic issues.

The fees associated with these services in the amount of \$126,040 appear to be comprehensive and should provide quality and cost effective proposals from interested Solar Energy firms for the construction of new Photovoltaic systems at De Anza College.

**Recommendation:**

Approve the Contract for Services with Newcomb Anderson McCormick for Architect / Engineering services for this project.

Submitted by:	Charles Allen
Additional contact names:	Donna Jones Dulin, Tom Armstrong, Frank Nunez
Is backup provided?	Yes

**Foothill-DeAnza Community College District**

**AGREEMENT FOR DESIGN PROFESSIONAL SERVICES Less than \$350,000  
(short form)**

This agreement shall be used for professional services when the scope of services includes *pre-design, programming, special and conceptual studies, planning, and assessment work*. Pursuant to Civil Code section 2782.8 a design professional is defined as an architect, landscape architect, engineer, or land surveyor.

This Agreement entered this July day of 13, 2 010, by and between the Foothill-De Anza Community College District, a community college district of the State of California, hereinafter called "District" and Newcomb Anderson McCormick hereinafter called "Design Professional."

**W I T N E S S E T H**

WHEREAS, pursuant to Foothill-DeAnza Community College District Board Policy 3140 and Board of Trustees Resolutions, specified District employees have the duty to engage contractors to perform sundry services for the District, with or without the furnishing of material; and

WHEREAS, it is necessary and desirable that a Design Professional be engaged by District for the purpose of performing services hereinafter described:

NOW, THEREFORE, IT IS HEREBY AGREED by the parties as follows:

1. Services to be performed by Design Professional. In consideration of the payments hereinafter set forth, Design Professional shall perform services for District in accordance with the terms, conditions and specifications set forth herein and in Exhibit "A" attached hereto and by this reference made a part hereof. Design Professional shall perform all the services described in Exhibit A for the sum not to exceed \$ 126,040.00.
2. Payments. In consideration of the services rendered in accordance with all terms, conditions and specifications set forth herein and in Exhibit "A", District shall make payment to Design Professional in the manner specified in Exhibit "A".
3. Relationship of the Parties. It is understood that this is an Agreement by and between contractor(s) and is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of Design Professional.
4. Non-Assignability. Design Professional shall not assign this Agreement or any portion thereof to a third party without the prior written consent of District, and any attempted assignment without such prior written consent in violation of this Section automatically shall terminate this Agreement.
5. Contract Term. This Agreement shall be in effect from July 12, 2010 through June 30, 2012 as specified in Exhibit "A". The District may terminate this contract at any time for any reason by providing 30 days notice to Design Professional. Termination to be effective on the date specified in the notice. In the event of termination under this paragraph, Design Professional shall be paid for all work provided to the date of termination.

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PROJECT # 251C CONTRACTOR Newcomb , Anderson , McCormick  
BREIF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.

**Foothill-DeAnza Community College District**

6. **Design Professional's Indemnity of District.** To the fullest extent permitted by law, except to the extent caused in whole or in part by indemnitee, the Design Professional shall indemnify, defend and hold harmless the District and its employees, officers, Trustees, agents and representatives from any and all claims, demands, losses, responsibilities or liabilities for: (a) injury or death of Design Professional's or the Design Professional's Design Consultants' employees arising out of this Agreement; (b) injury or death of persons or damage to property, including the removal or replacement of any in-place work during or after Project Completion; or (c) other costs or charges, to the extent the liabilities, damages and losses are caused by willful misconduct, recklessness, or negligence, including concurrent negligence, of the Design Professional or Consultant of the Design Professional. The foregoing shall include without limitation, attorneys fees and costs incurred by the District, and shall survive the termination of this Agreement until any such claim, demand, loss, responsibility or liability covered by the provisions hereof is barred by the applicable Statute of Limitations.

This indemnity agreement shall not be construed to limit the enforceability of other contractual provisions between the District and the Design Professional requiring cooperation with the public agency regarding any claim by a construction Design Professional.

It is the intent of the District that this indemnity agreement shall be in accordance with California Civil Code Section 2782.8 and shall be a Type II (comparative/proportionate) agreement and not a Type I agreement, which would otherwise shift all indemnity obligations to the Design Professional.

**Design Professional Reimbursement of the District's Attorneys Fees and Indemnity Payment.** The Design Professional shall immediately tender demand(s) for indemnity made by the District to its insurance carrier for a determination within 30 days from the date of tender. The insurance company shall be required to agree to a rough approximation of potential liability of the Design Professional, and agree to reimburse the District for its defense fees incurred in proportion to that approximation. At the conclusion of the underlying matter or claim for which indemnity is sought (through voluntary settlement, arbitration award, or court judgment), the Design Professional shall within 30 days reimburse the District for all settlement monies paid. Should the Design Professional and/or its insurance company fail or refuse to proportionally reimburse the District for: (a) its attorneys fees; or (b) indemnity paid, then either matter shall be submitted to binding arbitration for determination within 60 days, after failure or refusal to make payment to the District.

**Design Professional Bound to Arbitration by Other Claims.** In the event of any claim, arbitration demand filed on behalf of the prime Design Professional or any Design Professional sub-consultants in which design deficiencies or errors, or Design Professional contract administration deficiencies are alleged as a basis for said claim, Design Professional agrees to participate as a party in any such arbitration or state court litigation, and shall further be bound as a party to any arbitration set forth or required under California Public Contract Code § 20104, et seq.

**District's Indemnity of Design Professional.** The District shall indemnify and hold harmless the Design Professional, its employees and consultants from all claims arising of bodily injury (including death) and physical damage (other than to the Project itself and property covered by insurance), but only to the extent that they arise out of the willful acts, omissions or other conduct of the District, and/or the sole negligence of the District.

7. **Insurance.** If applicable, insurance requirements are attached as Exhibit "I."

8. **Non-Discrimination.**

A. **General.** No person shall, on the grounds of race, color, national or ethnic origin, religious affiliation or non-affiliation, gender, marital status, sexual orientation, age, physical or mental disability, or political affiliation, be excluded from participation in, be denied the benefits, or be subjected to discrimination under this Agreement.

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PROJECT # 251C CONTRACTOR Newcomb , Anderson , McCormick  
BRIEF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.

**Foothill-DeAnza Community College District**

**B. Employment.** Design Professional shall insure equal employment opportunity based on objective standards of recruitment, selection, promotion, classification, compensation, performance evaluations, and management relations, for all employees under this Agreement. Design Professional's personnel policies shall be made available to District upon request.

9. **Substitutions:** If particular people are identified in Exhibit "A" as working on this contract, the Design Professional will not assign others to work in their place without written permission from the District Purchasing Agent. Any substitution shall be with a person of commensurate experience and knowledge.

10. **Sole Property of the District:** Any system or documents developed, produced or provided under this contract shall become the sole property of the District. Notwithstanding any other provision herein, any intellectual property discovered or developed by Design Professional in the course of performing or otherwise as a result of its work hereunder shall be the sole property of the District.

11. **Contract Renewal.** This Agreement may be renewed for additional time periods as long as the original contract term plus the renewal periods does not exceed five years, provided that both parties sign the renewal, insurance coverage pursuant to paragraph 7 is still in effect, and the cost of the terms combined will not exceed (a) \$350,000.00.

12. **Expenditure Of Public Funds.** Design Professional agrees to comply with Government Code Section 8546.7 which provides that the contracting parties for any contract involving expenditure of public funds in excess of \$10,000.00 shall be subject to examination and audit by the State Auditor for a period of three (3) years after final payment under the contract.

13. **Confidentiality.** In performing its duties hereunder the Design Professional may from time to time gain incidental access to confidential information and records including student record information as defined by 20 USC section 1232(g). The parties agree that such incidental access is not a provision or conveyance or disclosure to Design Professional of student record information in violation of section 1232(g) or of any similar state law. Design Professional agrees that if in the performance of its duties it does obtain such access it shall refrain from any removal, use or disclosure to any third person of such information and records and shall take any and all necessary affirmative steps to maintain the confidentiality, and avoid such removal, use or disclosure, whether intentional or inadvertent, of such records and information.

14. **Merger Clause.** This Agreement, including Exhibit "A" attached hereto and incorporated herein by reference, constitutes the sole agreement of parties hereto and correctly states the rights, duties and obligations of each party as of the document's date. Any prior agreement, promises, negotiations or representations between the parties not expressly stated in this document are not binding. All subsequent modifications shall be in writing and signed by the District Purchasing Agent. In the event of a conflict between the terms, conditions or specifications set forth herein and those in Exhibit "A" attached hereto, the terms, conditions or specifications set forth herein shall prevail.

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PROJECT # 251C CONTRACTOR Newcomb , Anderson , McCormick  
BRIEF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.

**Foothill-DeAnza Community College District**

Authorized Design Professional Signature	Date
Print Name	
Newcomb , Anderson , McCormick	
Design Professional's Company Name	
Design Professional's Tax I.D. Number	

**FOOTHILL-DE ANZA COMMUNITY COLLEGE DISTRICT**

By \_\_\_\_\_  
Authorized signature and Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_

\_\_\_\_\_  
Date Approved By Board of Trustees

**(Board approval is required prior to commencement of services if total cost exceeds \$20,000.00.)**

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PROJECT # 251C CONTRACTOR Newcomb , Anderson , McCormick

BREIF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.

**Foothill-DeAnza Community College District**

**EXHIBIT "A"**

Contract between Foothill-DeAnza Community College District Newcomb, Anderson, McCormick

\_\_\_\_\_, hereinafter called "Design Professional".

- I. Detailed description of services to be performed and work product to be delivered to District by Design Professional: (reference and attach additional pages, if necessary)

See attached Scope of Services

**Completion:**

Kirsch PV project RFQ/RFP development, review, initiation, construction oversight, and project completion is intended to be finished by winter 2010/2011.

Parking Lot A & B project RFQ/RFP development, review, initiation, construction oversight, and project completion is intended to be finished by fall 2011.

Overall completion and DSA close-out of the projects has been established as June 30, 2012. The date of contract completion can be extended, at no additional cost, by mutual agreement for up to two additional six month periods to allow for DSA documentation management and for administrative closure of the Agreement.

- II. Amount and Method of Payment: (indicate lump sum payment or rate of pay; also include a list of tasks which must be completed prior to each progress payment and show the timeline for progress payments, if applicable)

All work will be determined by a Time and Material Basis not to exceed the contact amount and will be billed monthly at standard rates per published rates.

In any event, the total payment for services of Design Professional shall not exceed \$126,040.00 and District shall have the right to withhold payment if District determines that the quantity or quality of the work performed is unacceptable.

- III. Term of the contract: The term of this contract shall commence on the date specified in the first paragraph of this contract, and shall continue until June 30, 2012.

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PROJECT # 251C CONTRACTOR Newcomb, Anderson, McCormick

BREIF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.

**Foothill-DeAnza Community College District**

**Exhibit "I" Insurance Requirements**

**Contractor shall not commence work under this Agreement until required insurance has been approved in writing by District. Certificates of insurance, in form and with insurers acceptable to District (A M Best rating of A-VII or better or otherwise approved by District Risk Manager) shall be submitted to District Risk Management Department. Such certificate shall evidence all coverages and limits required by District in this Agreement and shall specify that insurers will give District thirty (30) days prior written notice of non-renewal or cancellation.**

**Contractor shall maintain in force, throughout the term of this Agreement, insurance as follows:**

1. Workers' Compensation (statutory limits) and Employers' Liability insurance with limits not less than \$1,000,000 each accident, \$1,000,000 employee and \$1,000,000 each disease, provided that contractor has employees as defined by the California Labor Code;
2. Commercial General Liability insurance, with limits not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage, including coverages for contractual liability, personal injury, broadform property damage, independent contractors, products and completed operations;
3. Commercial Automobile Liability insurance, with limits not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage, including coverages for owned, non-owned and hired vehicles, as applicable;
4. Professional Liability insurance, with limits not less than \$1,000,000 each claim/annual aggregate, with respect to coverage for errors and omissions arising from professional services rendered under this Agreement, and with any deductible not to exceed \$50,000 each claim.

If any of the required insurance is written on a claims-made coverage form, such insurance shall be maintained for a period of three years following termination of this agreement. General and Automobile liability policies shall include as Additional Insureds, the District, its officers, agents, employees and servants, shall be primary to any other insurance or self-insurance available to the Additional Insureds and shall apply separately to each, except the inclusion of Additional Insureds shall not operate to increase the required limits of such insurance.

Maintenance of the required insurance is a material condition of this Agreement and failure to maintain such insurance may, at the District's option, result in a declaration of material breach and suspension of Contractor's further work under this Agreement.

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PROJECT # 251C CONTRACTOR Newcomb , Anderson , McCormick

BREIF DESCRIPTION OF TYPE OF SERVICE Provide engineering consulting services for PV projects that include Parking lots A & B and the Kirsch Center.



**De Anza College  
Solar Photovoltaic Project  
Scope of Work for Consulting Services  
June 25, 2010**

Newcomb Anderson McCormick, Inc. (NAM) is pleased to submit this Scope of Work for Consulting Services to the Foothill-De Anza Community College District for the Solar Photovoltaic (PV) projects planned for De Anza College. De Anza College would like to construct two PV projects at the campus: a roughly one megawatt parking lot shade structure system on Lots A and B on the northeast side of campus, and; a combination of small systems adjacent to the Kirsch Center for Environmental Studies to be used for student education purposes and curriculum development.

This Scope of Work describes the energy consulting services to be performed by NAM and our sub-consultants to implement these projects as described below:

- An engineering, energy production, and cost analysis for the proposed parking lot shade structure systems that will define the criteria for system construction and performance. This analysis will include the development of a life-cycle energy production and cost model that can be used to evaluate future Design-Build contractor proposals for the PV systems. For the educational system at the Kirsch Center, a basic engineering and capital cost analysis will be performed as the purpose of these systems are not geared toward energy production. The total budget for the PV projects will not exceed \$10 million for the Parking Lot project and \$50,000 for the Kirsch Center project.
- Development of the technical sections for two Request for Qualifications (RFQ) / Request for Proposals (RFP) documents for solar photovoltaic Design-Build Installation Contractors; one for the parking lots system and one for the Kirsch Center system.
- Perform a review and analysis of design-build contractor qualifications and proposals, and recommendations for contract award that best meets the goals of the District for each project. In addition, NAM will participate in contract negotiations with potential contractors if desired by the District.
- NAM will accomplish the scope to support a Spring 2011 completion of the Kirsch Center project and a September 2011 completion of the Lot A and B system.

A detailed description of each phase of the proposed scope is as follows:

***Task 1 – Engineering, Energy Production, and Cost Analysis of Parking Lot PV Systems***

It will be critical for the District to gain an understanding of the engineering, energy generation and cost parameters of the proposed PV systems as a first step in planning this large parking lot project. NAM will accomplish this by performing an analysis of the factors that will establish the criteria for a future RFQ/RFP. The steps for this analysis will include:





- A site analysis of Lots A and B to determine the opportunities and design constraints for the systems, locations to take advantage of the solar resource and observe the physical conditions that will affect system design including shading issues, orientation, and electrical interconnection to the campus distribution system and to the utility grid. In conjunction with District staff, NAM will evaluate the impacts of PV systems on parking needs, existing lighting, traffic circulation, and construction timing, as well as aesthetic issues, especially those relating to nearby residential neighborhoods. A requirement of the system design will be that the current number of parking spaces will remain, but a reorientation of the parking lot arrangement may be necessary to achieve optimum PV production.
- NAM will work with campus staff to ensure that PV system equipment and layout will accommodate the monthly Flea Market event held at the parking lot, including adequate clearance under shade structures for flea market trucks, that module rain run-off controls are included, and that suitable personnel safety measures will be implemented during the construction period to protect market attendees and safeguard equipment. In addition, NAM will work with the campus to accommodate the annual "Auto-Cross" event held at the lot.
- Starting with the nominal one-megawatt system, NAM will analyze technical issues such as PV array sizing, fixed vs. tracking system considerations, location, orientation, technology, Data Acquisition System requirements, and the location of inverters, transformers, switchgear, as well as safety issues related to equipment location and isolation from students and staff. The study will include an evaluation of system performance, installation considerations, and cost. Performance simulations and economics will be preliminary in nature, and will be estimated using industry standard software such as PV SYST. System capacity will be designed to meet current utility net-metering requirements. System output will be summarized in a table and detailed calculations will be provided in appendices.
- NAM will analyze the appropriate interconnection locations for the PV system to the campus electrical systems based on system output. NAM will work with the on-site construction management firm, Gilbane, to ensure that plans for new 12kV system and switchgear upgrades at the campus are considered in the analysis. NAM requests copies of architectural plan view drawings of the campus delineating the A and B parking lots, as well as electric single-line diagrams and site electrical conduit and switchgear location arrangement drawings to evaluate potential service tie-in locations and routing of trenching and new conduits.
- Schematic-level system design engineering, PV array arrangements, mechanical and electrical layouts and single-line diagrams, utility interconnection design, and module, inverter, and switchgear sizing will be accomplished as a part of this scope. The design deliverables will be of sufficient detail for inclusion in a future Design-Build RFP. Additional detailed system design engineering and equipment specification will be required of the design-build contractor for the installation of the PV system.



- NAM will explore pilot project opportunities for emerging technology PV systems on a portion of the site with the California Energy Commission (CEC) Public Interest Energy Research (PIER) program.
- For the parking lot sites chosen, NAM will review existing geotechnical reports to ensure that soils are suitable for the installation of parking shade structure foundations and piers and that no significant geotechnical issues exist that would preclude the installation or result in excessive costs. This step will especially be critical due to the height of the shade structures to accommodate Flea Market trucks. This analysis will consist of a review of existing reports only. If additional soils analysis or boring is required it would be outside the scope of this contract.
- We will identify all regulatory requirements for generation and utility interconnection to ensure that proposed system design will comply with utility requirements. NAM will identify required Division of State Architect (DSA) review and approval requirements; however the successful design-build contractor will be responsible for DSA submittals based on final system design and for obtaining approvals. We will also conduct a review of relevant legislation that could affect system configuration, and confirm applicability and limitations regarding the California Solar Initiative (CSI) incentive program to ensure our analysis are comprehensive across all of these dimensions. Based on a Notice to Proceed, NAM will immediately file CSI paperwork on behalf of the District to reserve incentives for this project.
- We will estimate the capital, operations, and maintenance costs of the proposed systems based on current market data, industry standards, as well as recent parking shade PV systems installed at other K-12 and Community College campuses. We will include the CSI incentive funding in the cash flow models. In addition, our analysis will address the potential value from Renewable Energy Credits (REC's) awarded to the project. As described by campus staff, we will assume an outright purchase of the PV systems by the District using existing construction bond funding with a total budget of \$10 million.
- The short- and long-term economics will be analyzed using a pro forma analysis over the life cycle of systems on a portfolio basis. Financial analysis will include simple payback as well as Net Present Value (NPV) life-cycle calculations. The goal of the economic models will be to design a system that provides the most optimum performance and the best value for the project budget.
- The economic feasibility analysis will include a "No Project" alternative to compare the economics of the base case of continued utility electricity purchases to the proposed PV systems over a 25 year period. Sensitivity Analysis will also be run based on variations in utility rate escalation factors and the cost/watt of PV. We will run the models, analyze the outputs and include the results in the draft Feasibility Analysis report.
- NAM will prepare recommendations for a system replacement plan based on the anticipated useful life of the PV system. The analysis will include factors such as necessary investment by the District, potential revenue stream from the PV



production, depreciation, and a “visioning” process that attempts to forecast future PV technological improvements into the replacement system plans.

- As requested by campus staff, NAM will participate in neighborhood and community meetings to present project details, answer questions, and get feedback from community members on the project.
- Finally, NAM will refine the schedule for the RFQ/RFP, contract award, equipment procurement, installation, and commissioning of the PV systems as part of the Feasibility Analysis with the goal of achieving the completion targets described above.

**Task 1 Deliverables:** A Draft and Final Analysis Report will be prepared and submitted that describes the findings from the study and providing recommendations for a PV project that meet the District criteria. A Draft report will be issued eight (8) weeks after a notice to proceed and will be performed concurrently with the Kirsch Center project. The results will be reviewed with District staff and changes and comments will be incorporated into a final report, which will be issued two weeks after comments are received. NAM will also prepare a Power Point presentation summarizing the study results and recommendations that will be suitable for presentation to the District Board of Trustee's, and will participate in Board hearings if requested.

### ***Task 2 – Kirsch Center Educational PV Systems Evaluation***

NAM will perform engineering and cost analysis for the proposed educational-based PV systems to be located adjacent to the Kirsch Center for Environmental Studies. As currently anticipated, the system will consist of three components: a single parking lot shade structure-type pole mounted PV array; a single dual-axis tracking array, and; a “mock-up” conventional roof mounted array located at ground level. A preliminary system design has been performed by Kirsch Center students and will be a starting point for system evaluation.

The following steps will be performed for Task 2:

- Work with District staff, faculty, and students to better understand the goals and objectives for the project related to educational opportunities, finalize PV technology and equipment selection, PV array arrangement, identify appropriate interconnection locations, and desires for connection into the existing Fat Spaniel Data Acquisition System located at the Kirsch Center.
- Based on PV technology and array sizing, an analysis of system generation will be necessary to ensure electrical system interconnection into the Kirsch Center switchgear is designed properly.
- Schematic-level system design engineering, PV array arrangements, mechanical and electrical layouts and single-line diagrams, utility interconnection design, and module, inverter, and switchgear sizing will be accomplished as a part of this scope. The design deliverables will be of sufficient detail for inclusion in a future Design-Build RFP. Additional detailed system design engineering and



equipment specification will be required of the design-build contractor for the installation of the PV system

- A review of existing geotechnical reports will be performed to ensure that soils are suitable for the installation of parking shade structure foundations and piers and that no significant geotechnical issues exist that would preclude the installation or result in excessive costs. This analysis will consist of a review of existing reports only. If additional soils analysis is required it would be outside the scope of this project.
- We will identify all regulatory requirements for generation and utility interconnection to ensure that proposed system design will comply with utility requirements. NAM will identify required Division of State Architect (DSA) review and approval requirements; however the successful design-build contractor will be responsible for DSA submittals based on final system design and for obtaining approvals.
- Since energy production, performance, and life-cycle costs are not a consideration for this project, NAM will estimate capital construction costs for the systems only and will not prepare detailed economic and production models.
- NAM will work with campus staff to facilitate participation of Kirsch Center students in the feasibility study process as an element of "green curriculum" opportunities.

**Task 2 Deliverables:** A Draft and Final Analysis Report will be prepared and submitted that describes the findings from the study and providing recommendations for a PV project that meet the District criteria. A Draft report will be issued eight (8) weeks after a notice to proceed and will be performed concurrently with the Parking Lot project. The results will be reviewed with District staff and changes and comments will be incorporated into a final report, which will be issued two weeks after comments are received. NAM will also prepare a Power Point presentation summarizing the study results and recommendations that will be suitable for presentation to the District Board of Trustee's, and will participate in Board hearings if requested.

### ***Task 3 – Request for Qualifications (RFQ) / Request for Proposals (RFP)***

As desired by District staff, two separate solicitation processes will be used for the Kirsch Center and Parking Lot projects. NAM will develop the technical sections for a Request for Qualifications (RFQ) / Request for Proposals (RFP) for Design-Build PV installation contractors for each of projects. NAM will also work with campus staff to facilitate participation of students in the solicitation process for the Kirsch Center project as an element of "green curriculum" opportunities.

The RFQ will require bidders to provide basic information about their firm, detailed project history narratives for similar PV projects, identification and qualifications of key staff, and information regarding contractor licensing, insurance, and references. NAM will also check contractors against the California State Contractor's Licensing Board to determine if any complaints have been filed or fines have levied against each firm.



NAM will develop all technical and implementation sections of the RFP. For the parking lot system the RFP will focus on requirements, performance specifications, and a description of existing conditions, and will allow bidders to propose systems that meet the performance requirements.

We will develop a list of potential solar design-build contractors based on our knowledge of the industry, recently completed similar projects, and resources such as the CEC PV contractor database and the California Solar Initiative project database.

NAM will work with District staff to incorporate the standard terms and conditions for design-build construction contracts utilized by the District into the RFQ/RFP. NAM will recommend changes to the standard T's & C's as appropriate to better reflect the nature of the PV projects.

A scoring methodology will be developed based on qualifications, price, and other criteria to be developed so that proposals can be reviewed and ranked accordingly. Finally, the RFQ/RFP document will be sent to the list of potential firms requesting that they submit proposals addressing the requirements of the solicitation.

NAM engineering staff will participate in pre-bid meetings and site walks, and assist the District in answering questions and requests for clarification from proposers during the proposal preparation process. This support continues through the receipt of proposals by the District.

This proposed scope assumes that the District will manage the overall RFQ/RFP process, including the solicitation process and receipt of proposals.

**Task 3 Deliverables:** NAM will prepare the technical sections of the RFQ/RFP documents for each project that includes technical specifications, submittal requirements, and evaluation criteria. A draft RFQ/RFP for each project will be submitted for District review and comments five (5) weeks after the start of this task. A final RFQ/RFP for each project will be submitted two (2) weeks after receipt of District comments to the Draft.

#### ***Task 4 - Design-Build Proposal Evaluation and Negotiation Support***

NAM will accomplish a two-phase process for the review of contractor proposals for each RFP. We will conduct a preliminary review of the design-build contractor proposals to determine if proposing firms meet the minimum qualifications for the project and the technical compliance with the RFQ/RFP. We will assess the proposed equipment, PV output models, and the implementation approach. Based on these elements and our experience in the solar industry, we will then recommend a short list of proposers for detailed evaluation and negotiation, and identify potential problem areas in each of the proposals. NAM will develop a list of clarification questions for each shortlisted proposer, and evaluate answers to which will support more detailed analysis in the next phase of the evaluation.



NAM will provide the following services during the initial proposal evaluation and shortlist phase of work:

- Preliminary review of proposals to determine technical compliance with specifications and evaluation criteria
- Assessment of proposed equipment, PV performance calculations and models
- Ensure that proposed system meets economic criteria established by District for bond repayment
- Evaluation of Design-Build Project Team, project implementation approach, and ability to meet schedule
- Identification of problem areas and areas of ambiguity for follow-up
- Recommended a “short list” of proposers for detailed evaluation and potential negotiations

In the second phase, NAM will perform a detailed evaluation of the short-listed proposals and provide the District a recommendation on which vendor should be selected for negotiation to implement the solar PV system. We will thoroughly assess the shortlisted bids, validate the proposers’ PV output estimates, their design, and the track record of the proposed equipment.

In addition to recommending a vendor for contract negotiations and award, NAM will update the cost and energy savings analysis developed for the District as part of the analysis performed under Task 1 for the parking lot systems. The updated analysis will use pricing from the shortlisted proposals and model solar output based on proposed system designs. This will result in a more accurate estimate of energy and cost savings as a result of implementing the project.

NAM will provide the following services during the detailed evaluation and vendor selection phase of work:

- Perform a “peer review” independent evaluation of proposers’ PV output models to validate system performance (parking lot system only).
- Analyze technical proposal to include PV array sizing, location, orientation, technology, and the location of inverters, transformers, switchgear, as well as safety issues related to equipment location and isolation from students and staff
- Review proposed PV module mounting systems and civil, structural, and geotechnical considerations (to the extent permitted by the detail in the proposals), especially those related to soils and groundwater issues at the site
- Validate equipment capabilities and confirm key components are compliant with PG&E and CSI requirements
- That the contractor has addressed all District or other approval authority requirements for site development
- Ensure that DSA requirements will be adequately addressed



- Ensure that proposed system production and interconnection design meets all utility and regulatory requirements for net-metered systems
- Assess proposers' system design and identify potential problems and areas for improvement
- Review proposed data acquisition and monitoring system against contract requirements
- Thorough evaluation of the Design-Build Project Team, identification and qualifications of key staff, project history, capabilities to accomplish scope, and information regarding contractor licensing, and references.
- Ensure that all RFP requirements for insurance, bonding, system and equipment warranties, and performance guarantees (if any) are met
- Detailed evaluation of proposed implementation approach and ability to meet schedules
- Review proposed maintenance procedures and offerings
- Ensure that proposed system meets economic criteria established by District for bond repayment
- Coordinate technical, cost, and legal/terms & conditions issues with the District legal or contracts team, as required

NAM will support the District in price and contract negotiation by identifying cost drivers and other key issues for discussion with the selected PV contractor.

NAM will provide the following services during the negotiations and contract execution phase of work:

- Assist the District with the contract negotiation phase with selected proposers, including negotiation strategies, economic and performance targets, schedules, and terms and conditions
- Review any changes to proposal based on negotiations prior to contract award
- Participate in negotiation process as requested by District
- Provide recommendations and assist District with final decision on a contract award

**Task 4 Deliverables:** NAM will prepare a memo describing the results of initial proposal screening phase and short list of proposers recommended for the detailed proposal evaluation for both the Kirsch Center and Parking Lot projects. An additional memo will be prepared describing the strengths and weaknesses of each shortlisted proposal, assessing areas of concern, and recommending a vendor for contract negotiations and award of the project. Updated lifecycle cost and energy savings estimates will be prepared for the recommended solar vendor. For contract negotiations, NAM will



develop a list of cost drivers for use in negotiations, agendas and other materials needed to facilitate the negotiation meetings, and any required modifications to technical specifications or contract language resulting from the negotiations.

NAM will complete the initial screening phase of proposal review and selection of short listed firms within one week of proposal receipt. The detailed proposal review and recommendation for negotiations will be completed within four (4) weeks of proposal receipt.

### ***Project Budget***

The budget to accomplish the scope of work is described below. All work will be performed on a Time and Materials, Not-to-Exceed basis and will be billed monthly at our standard published rates. If additional scope is added at a later date NAM will work with campus staff to adjust the budget as necessary.

#### **Estimated Budget**

<b>Task Number</b>	<b>Description</b>	<b>Estimated Hours</b>	<b>Travel &amp; Direct Costs</b>	<b>Estimated Budget</b>
Task 1 and Task 2	Engineering and Cost Analysis for Parking Lot and Kirsch Center PV Systems	396	\$1,000	\$66,340
Task 3	RFQ/RFP Development	260	\$150	\$43,050
Task 4	Design-Build Proposal Evaluation and Negotiation Support	100	\$150	\$16,650

**Not-to Exceed Budgetary Estimate: \$126,040**

Note: Composite rate of \$165/hr used for estimating purposes.  
Actual billing will be based on consultant published rates.

The budget for Task 1 and Task 2 have been combined as it is assumed that both tasks will occur simultaneously to maximize cost effectiveness of the projects.

### ***Project Team***

NAM will perform the majority of the tasks described in this scope document, will manage all budgets, schedules, and billing for the project, and will serve as the point of





contact for campus staff. To round out our capabilities, we will team with two sub consultants who will perform specialized technical areas of the scope. Michael Wall Engineering (MWE) will review electrical distribution and interconnection requirements, prepare schematic level design drawings for the electrical systems, and ensure that utility requirements are met. Stantec Engineers will review existing civil and geotechnical documentation to ensure that soils are suitable for the installation of PV structure foundations.