

PROJECT: EXPERIMENTAL SMART FARM

Request for Statements of Qualifications

For

Architectural Design and Engineering Services, Infrastructure Programming, and Cost
Estimating Services

University of California, Merced

Experimental Smart Farm

Project No. 042921

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University of California, Merced
Planning, Design & Construction
April 2021

University of California, Merced
Experimental Smart Farm
Project No. 042921

PROJECT BACKGROUND & DESCRIPTION

The UC Merced Experimental Smart Farm (ESF) will occupy an approximately 40-acre site near the southern boundary of campus land. The ESF will serve as the operational center for research and educational programs in sustainable agriculture. The vision for the ESF is that of a functional campus showpiece, the farm of the future. The farm will provide world class facilities and infrastructure to support research on sustainable land management, regenerative agriculture, precision agriculture, automation/robotics, machine learning/AI, and the exploration of the future of farm work. In addition, the farm will serve as a community hub, hosting a farmer's market and café, outreach events, and providing a rich array of learning opportunities for all ages.

This RFQ identifies the professional qualification requirements for consultant services needed for preparing a site plan, designing structures and facilities, and creating an infrastructure plan that meets the programmatic needs of the ESF project, including: (1) Access road, (2) Fencing, gates, and parking, (3) Restrooms, (4) Two aquifer storage and recover (ASR) wells, (5) Water storage and automated irrigation network, (6) Renewable energy generation and storage with equipment charging stations, (7) produce processing area with cold storage (8) green waste composting facilities, and (9) Farm-wide highspeed Internet connectivity. The infrastructure will support future buildings and facilities in a multi-phase delivery strategy, including:

Phase 1: (a) robotics/electronics workshop and experimental area (~400 sf); (b) aerial/drone workshop and instructional area (~400 sf); (c) unconditioned structure for tractor, equipment storage, and recharging (~1200 sf); and (d) soil and plant sample handling lab (~1000 sf); and

Phase 2: (e) community garden and market area (20,000 sf); and (f) instructional and community event space (reception gallery 400 sf; instructional rooms (3): 600 sf, 850 sf, 1,350 sf; meeting room with kitchenette 300 sf; and restrooms 600 sf). Detailed designs for these buildings and facilities are not required at this stage of the project, but their locations, footprints, and connection to the infrastructure must be included in maps and drawings.

The site is located away from the main campus buildings and infrastructure by approximately 0.25 mile and is located near an irrigation canal. The project intent is to design the ESF as an “off-grid” facility in terms of energy, irrigation, internet coverage, and waste management. The ESF infrastructure must be designed with careful attention to future buildings and facilities. The UC Merced campus is committed to sustainability and will require this project to achieve LEED PLATINUM certification and meet campus energy performance benchmarks.

Project Goals:

- Select quality yet cost-effective solutions that maximize the value of the project for the University and adjacent community, outreach, and research programs.
- Designed in a way that minimizes its environmental footprint and serves as a demonstration of the green technologies.

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- Develop an integrated design for access, security, groundwater wells, water tank, smart irrigation, potable water, wastewater management, energy generation & storage and highspeed Internet infrastructure to support the future buildings and facilities of the ESF.
- Incorporate modularity in the design to enable incremental activation of ESF land parcels into the ESF education and research programs as needs grow.
- Develop a site layout to accommodate future building footprints in relation to the infrastructure.
- Select quality yet cost-effective solutions that maximize the value proposition for the University.

The Request for Statements of Qualifications (RFQ), which sets forth details regarding the scope of services, the selection process, and other necessary information, is posted at the following website: <http://www.ucmerced.edu/rfp-rfq>. A Statement of Qualifications (SOQ) form, a Request for Supplemental Information, a registration form, and instructions for other requirements for the submittal also are included. The RFQ for this project will be available April 29, 2021

One (1) electronic PDF copy of the Statement of Qualifications (SOQ) submittal are required, and they must be uploaded to Box Folder: <https://ucmerced.app.box.com/f/7294a4381faa416ba612c77cfa80e0a7> no later than **4:00 pm, Thursday, May 27, 2021**. Address all documents to:

Campus Architect, Phil Woods
Planning, Design & Construction
University of California, Merced

The University of California is an Equal Opportunity Employer. Every effort will be made to ensure that all persons, regardless of race, religion, sex, color, ethnicity, and national origin have equal access to contracts and other business opportunities with the University.

SCOPE OF SERVICES

The University is seeking to contract a design team to create a conceptual site plan for the Experimental Smart Farm (ESF) including the design layout of buildings and structures, and infrastructure plan to accommodate the program for the ESF project. The site plan must address landscape, building and facility layout and specification of the infrastructure requirements with respect to future experimental crop parcels, buildings, and facilities. Crop parcels shall include 12 acres of irrigated row crops, 12 acres of vineyard, and 12 acres of orchard. Future buildings, facilities, and community gardens (items a-g above) will be placed on the remaining 4 acres; these should include exterior shell renderings in the drawings and should be included in the infrastructure planning needs.

- Access road from the main campus to the ESF site
- Fencing around the ESF site with gates and parking (300 sf)
- Restroom facilities (300 sf)
- Groundwater wells –two aquifer storage and recover (ASR) wells (capable of injection and extraction)
- Water storage and irrigation system for main farm (3 x 12-acre parcels) and community garden (0.5 acre), including water tank, electric pumping, flood, and drip capabilities
- Renewable energy generation and storage infrastructure to support future equipment, buildings, and facilities (e.g., solar, wind, micro-hydro, biogas)

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- Produce processing and wash station with solar-powered cold storage unit (~1000 cf)
- Green waste composting station
- Farm-wide highspeed Internet connectivity – full farm coverage with wireless connection to campus

Qualifications of the Design Professional

All responses will be evaluated by a review committee that will be comprised of UC Merced staff, faculty and students. The committee will score and recommend a design team or firm based on the following qualifications and using the selection criteria below:

- A. Demonstrated firm experience in the programming and architectural design of medium-scale (more than 10,000sq. ft) University facilities that provide a place for outdoor education, agricultural (or similar) research, and public service programs.
- B. Demonstrated excellence in providing smart and economical architectural design that is cost effective.
- C. Demonstrated firm experience in infrastructure planning and layout for outdoor educational building and facilities that are designed for flexibility and allow for future expansion.
- D. Demonstrated firm capability to respond creatively and sensitively to landscape of the ESF and surrounding area.
- E. Demonstrated ability to design low environmental impact access roads, fencing and gating, and parking.
- F. Demonstrated knowledge and creativity in planning and designing renewable off-grid, sustainable restroom facilities that are functional, architecturally cohesive, amenable to educational demonstrations.
- G. Demonstrated knowledge and creativity in planning and designing renewable energy systems that are functional, architecturally cohesive, amenable to educational demonstrations.
- H. Demonstrated knowledge and creativity in planning and designing advanced feature groundwater wells, water conveying networks, and automated irrigation systems that are functional, architecturally cohesive, and amenable to educational demonstrations.
- I. Demonstrated ability to accomplish projects in a timely manner, within budget, while ensuring project goals.
- J. Proven firm capability to provide creative, functional, flexible, and technologically sound design solutions with an economic means and within the prescribed project budget.
- K. Demonstrated experience with sustainable building design and construction, including a green building design, including green building design and innovative off-the-grid infrastructure and utilities including water, renewable energy (such as solar power), sewer, and stormwater systems.
- L. Demonstrated completion of projects that received LEED certification, or completed projects that demonstrably conserve energy and other resources.

SELECTION CRITERIA

The University is seeking a creative and talented architecture, engineering, planning, and design team. The Screening and Selection Committees will be interested in teams that:

- Displays 10 years of experience in architecture, planning, and design of sustainable agricultural/viticultural/dairy or similar operations.
- Demonstrated experience or strong potential in the qualification areas (A-L) noted above.

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- Demonstrate experience with Universities. University of California experience is preferred.
- Proven experience in delivering their contracted scope within the contract fee and schedule.
- Experience working with multiple stakeholders.
- Experience with a strong customer service culture in project delivery.
- Demonstrated capability to respond creatively and promptly to requests and alternatives.
- Experience in the public low bid environment.
- Experienced with appropriate educational background in architecture, planning, and engineering.

SCHEDULE

The selected team must be able to complete project within 6 months.

JOINT VENTURES/ASSOCIATIONS

By campus policy, proposals for joint or associated ventures will not be considered for this project.

SELECTION PROCESS

This Request for Statements of Qualification (SOQ) and attachments are available April 29, 2021 at:
<https://rfp-rfq.ucmerced.edu/>

Written SOQ's should be in accordance with the attached Submittal Format. Submittals must be received via the link <https://ucmerced.app.box.com/f/7294a4381faa416ba612c77cfa80e0a7> No later than 4:00 pm, May 27, 2021.

Please fill out the attached Non-Mandatory Registration Form and email a PDF to Yasmeen Jewel yjewel@ucmerced.edu no later than 4:00PM Thursday, May 6, 2021. The University will use the Registration Form to notify firms of any changes or updates.

The University will convene a Screening Committee to review submissions and recommend a short list of firms to be interviewed by a Selection Committee. The Selection Committee anticipates notifying short-listed firms on Thursday, June 17, 2021, and will schedule interviews shortly thereafter.

The University reserves the right to request any further documentation that it deems appropriate and necessary for the screening and selection process. Please direct any questions to Phil Woods, Campus Architect email: pwoods3@ucmerced.edu No Later than 4:00pm on Thursday, May13,2021.

UNIVERSITY OF CALIFORNIA, MERCED

SUBMITTAL FORMAT

Firms submitting their qualifications for the project must follow the format below. Material must all be in 8-1/2 x 11-inch format. Use of the University of California seal, or any University of California logo, is prohibited. Submittals shall include bookmarks labeled with the boldfaced headers below, e.g., the first bookmark would be entitled "Cover Letter", the second bookmark "Qualifications", etc. PROVIDE ONE (1) ELECTRONIC PDF BY UPLOADING TO IDENTIFIED BOX FOLDER:

<https://ucmerced.app.box.com/f/7294a4381faa416ba612c77cfa80e0a7>

NO LATER THAN 4:00 pm, May 27, 2021.

1. **COVER LETTER** (*maximum of 1 page*)
 - **identify teams – please see Item #4**
 - provide name of contact person, e-mail, phone, and fax
 - summarize qualifications most relevant to this project

 2. **RELEVANT QUALIFICATIONS** (*maximum of 2 pages*)
 - provide in summary format only
 - do not include general information
 - offer short, focused paragraphs by topic (i.e., building type; technical aspects; sustainability/LEED™; etc.)

 3. **RELEVANT PROJECT EXPERIENCE** (*maximum of 5 pages*)
 - briefly state relevance for each project
 - briefly state all work performed on any University project in the previous 5 years, whether any disputes, claims or litigation arose from such work.
 - specify role of the firm or individual if work was not exclusively by the firm (i.e., joint venture, association); **if work was done by individuals on the project team while with other firms, this must be clearly stated**
 - provide a list of the following for each project:
 - project name and location
 - beginning and ending dates of project (including construction)
 - square footage
 - main program elements
 - owner name with name of contact person
- Note: Projects that are currently in design or under construction are acceptable but completed projects may carry more weight in the evaluation.*
4. **PROJECT TEAM SUMMARY** (*maximum of 2 pages*)
 - identify key team members and state their qualifications relevant to programming services and the scope of this project

 5. **APPENDIX**
 - Firm brochure/history/background, reprints, etc. (*optional*)
 - Key team member resumes
 - UC Statement of Qualifications (per attachment)
 - UC Request for Supplemental Information (per attachment)

**UNIVERSITY OF CALIFORNIA, MERCED
STATEMENT OF QUALIFICATIONS**

1. Firm's Name: _____
2. Business Address: _____
3. Firm Established (year) _____ Telephone No: _____
4. Type of Organization (circle one):
 a. Individual b. Partnership c. Corporation

5. Principals and Associates (check P or A for each):

	Name	P	A	Degree or Certificate	Institution
a.					
b.					
c.					
d.					

6. Average staff employed in home office: (average of past five years):

- | | |
|-------------------------------|-------------------------------|
| a. Architects _____ | e. Drafting Technicians _____ |
| b. Engineers _____ | f. Clerical _____ |
| c. Landscape Architects _____ | g. Programmers _____ |
| d. Interior Designers _____ | h. Others _____ |

7. List five major projects constructed within the past five years:

	Project	Owner	Year	Building Cost
a.				
b.				
c.				
d.				
e.				

8. List all work performed on any University project in the previous 5 years:

	Project	Owner	Year	Building Cost
a.				
b.				
c.				
d.				
e.				

9. References:

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- a. _____
- b. _____
- c. _____

10. (Optional) Where do you normally look for information about proposed University of California projects?

Signed: _____

Date: _____

**UNIVERSITY OF CALIFORNIA, MERCED
PRIVACY NOTIFICATION**

The State of California Information Practices Act of 1977 requires the University to provide the following information to individuals who are asked to supply information about themselves:

The principal purpose for requesting the information on this form is for use in the selection process for Design Professionals commissioned by the University. University Policy authorizes maintenance of this information.

Furnishing all information requested on this form is mandatory failure to provide such information will delay or may even prevent completion of the action for which the form is being filled out. Information furnished on this form will be used by Planning, Design and Construction in the screening and selection process for awarding commissions to Design Professionals.

Individuals have the right to access this record as it pertains to themselves.

The official responsible for maintaining the information contained on this form is the Campus Architect for the Merced campus of the University of California.

UNIVERSITY OF CALIFORNIA, MERCED
REQUEST FOR SUPPLEMENTAL INFORMATION

Please submit the following information together with the SOQ and other required submittal material by the date noted in the Request for Statements of Qualifications. Failure to respond may affect consideration of your firm for this project. Responses may be listed on separate pages.

- 1) Please separately list each pending unresolved claim for professional negligence and each current arbitration, mediation, or litigation in which professional negligence or breach of professional services agreement is alleged or indemnity is being sought (because of such alleged negligence or breach of contract) using the following claimant categories:
 - a) The Regents of the University of California against your firm or any principal of your firm (indicate campus, medical center, or Department of Energy (DOE) Laboratory and name of project). If none, indicate none.
 - b) Any owner, person or entity against your firm or any principal of your firm (indicate project, location, and owner). If none, indicate none.
 - c) The Regents of the University of California against any of your proposed major consultants (i.e., structural engineer, mechanical engineer, and/or any other major consultant on your proposed project team. Indicate campus, medical center, or Department of Energy (DOE) Laboratory and name of project). If none, indicate none.
 - d) Any owner, person, or entity against any of your proposed major consultants (indicate project, location, and owner). If none, indicate none.
- 2) Please separately list each resolved (settled, arbitrated, litigated) claim for professional negligence or breach of professional services agreement or for indemnity (because of such alleged negligence or breach of contract) during the last 5 years using the following categories:
 - a) The Regents of the University of California against your firm or any principal of your firm (indicate campus, medical center, or Department of Energy (DOE) Laboratory and name of project). If none, indicate none.

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- b) Any owner, person or entity against your firm or any principal of your firm (indicate project, location, and owner). If none, indicate none.

- c) The Regents of the University of California against any of your proposed major consultants (i.e., structural engineer, mechanical engineer, and/or any other major consultant on your proposed project team. Indicate campus, medical center, or Department of Energy (DOE) Laboratory and name of project). If none, indicate none.

- d) Any owner, person, or entity against any of your proposed major consultants (indicate project, location, and owner). If none, indicate none.

DECLARATION

The undersigned declares under penalty of perjury that all the information submitted is true and correct and that this declaration was executed in

_____ County, California, on _____ (date)

(Name and Title – Printed or Typed)

Signature

Firm Name

(Address)

(City, State, Zip)

(Telephone Number)

(Email)

UNIVERSITY OF CALIFORNIA, MERCED

REGISTRATION FOR SUBMITTAL OF STATEMENT OF QUALIFICATIONS FOR
Architectural Design and Engineering Services, Infrastructure Programming, and Cost
Estimating Services

For

*Instructions: Firms intending to submit statements of qualifications for Architectural Design and Engineering Services, Infrastructure Programming, and Cost Estimating Services on the UC Merced campus must complete the form below and **PDF it to the attention of Yasmeeen Jewel yjewel@ucmerced.edu by no later than 4:00 p.m. on Thursday May 27, 2021.** The University will return an acknowledgment of receipt by e-mail within one working day. Failure to register with the University by Thursday, May 06, 2021 may result in firms not receiving updates to the Request for Statements of Qualifications, should any be issued. The University shall not be responsible for a firm's failure to register for updates or to incorporate any updates that are issued, or for incorrect contact information on this registration form.*

Firm Name: _____

Business Address: _____

Street Address (for deliveries): _____

Telephone Number: _____

Fax Number: _____

E-mail: _____

Principal-in-Charge (print name): _____

Principal-in-Charge (signature): _____

Date: _____