## SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

# REQUEST FOR PROPOSAL

The San Joaquin Valley Unified Air Pollution Control District (District) is seeking a qualified Contractor to establish a new air monitoring station at the District's designated site in the northwest corner area of Sierra High school in Manteca, California located at:

Sierra High School 1700 Thomas St. Manteca, CA 95337

Submittal: Five (5) hard copies and one (1) electronic copy of the

proposal must be received at the address below on or

before:

Friday, April 19, 2010 – 5:00 PM

PROPOSALS RECEIVED AFTER THE TIME AND DATE

STATED ABOVE WILL NOT BE ACCEPTED.

Address to: Michael Carrera

Compliance Manager

San Joaquin Valley Unified Air Pollution Control District

1990 East Gettysburg Avenue

Fresno, CA 93726

Mark Envelope: "PROPOSAL – Air monitoring station in Manteca, CA"

Issuance Date: March 24, 2010

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#### 1.0 OVERVIEW

The San Joaquin Valley Unified Air Pollution Control District (District) jurisdiction includes the counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and the western and central portions of Kern. The State, District, Federal Government, and Tribes are responsible for operating air monitoring networks within its jurisdiction. These air monitoring networks collect ambient air quality and meteorological data. The principal reasons for the collection of ambient air pollutant and meteorological data are to show compliance with the National Ambient Air Quality Standard (NAAQS), and the need for a more comprehensive air quality database. Air monitoring stations in the District are operated and maintained by the District, the California Air Resources Board (ARB), Tribal agencies, the National Park Service, and the United States Forest Service.

The District will be building an air monitoring site in San Joaquin County in order to continue to comply with United States Environmental Protection Agency (EPA) monitoring criteria. The District is seeking a qualified Contractor to establish a new air monitoring station in Manteca, CA. This station will provide important air quality information to represent the city of Manteca and vicinity. This project is scheduled for completion by November 2010.

## 2.0 BACKGROUND

This Request For Proposal (RFP) solicits two (2) proposals to the District of which the District will make a preferred selection. The two (2) proposals will be henceforth known as 'Proposal 1' and 'Proposal 2'. Proposal 1 will be for a fully operational air monitoring station without instruments. Proposal 2 will be for a fully operational air monitoring station equipped with fully operational instruments as outlined in this RFP to be located in Manteca, CA. Unless otherwise denoted as instrumentation specific to Proposal 2, all requirements outlined in this RFP apply to both Proposal 1 and Proposal 2. This station will monitor PM<sub>2.5</sub> and meteorological parameters on property owned by the City of Manteca. The proposed location is at Sierra High School. The entrance to the proposed location is at 1700 Thomas Street. The exact location of the station will be identified by the District prior to the commencement of construction. Successful respondents to this RFP will have demonstrated proficiency in such work. Specifications are provided in Section 11 of this RFP. Images of the optimal air monitoring station configuration are provided in Section 16 of this RFP.

The District will provide information on the proposed location of the station, however reserves the right to relocate the station at any time prior to construction commencement. If the District changes the station location, the Contractor will have the opportunity to modify the proposal amount. If the proposal amount is modified, the District will evaluate the new proposal amount and reserves the right to select a different Contractor if the revised proposal amount is not agreeable to the District.

The District will be available to meet and discuss project requirements and development at key times in the process.

#### 3.0 SCOPE OF WORK

The selected Contractor will be expected to use professional staff to complete the tasks. All staff must have all licenses and certification available for the tasks they perform, worker compensation insurance covering them at all times that they are on site, and adhere to all applicable local, state, and federal regulations. The Contractor must demonstrate that he/she has the appropriate staff and/or Subcontractors as part of his/her team to accomplish the objective of the applicable components of this RFP and to comply with all legal requirements. The Contractor's team will include one or more members with experience in operating and installing particulate and gaseous ambient air monitoring equipment and meteorological equipment. The Contractor's team must include a Contractor licensed by the State of California to install the equipment shelter, electrical, concrete pad, and meteorological tower as described in Section 11. The District recommends that a local Contractor be employed as a Subcontractor to obtain required permits and construct the cement pad and tower footing. The Contractor should include the Contractor's license number in the proposal. The Contractor must demonstrate that staff has the certifications, licenses, training, and experience appropriate for the project.

The air monitoring station design and construction must meet all federal and state OSHA safety requirements. All components described in Section 11 must be included. The design and installation of all safety equipment installed at the site must be approved by the District Safety Officer or other person designated by the District APCO/Executive Officer.

#### 4.0 WORK PRODUCTS/DELIVERABLES

- 4.1 INITIAL MEETING/CONFERENCE CALL: At the start of the contract period, the Contractor's project manager and key personnel will meet with District staff via telephone or in person to discuss the overall plan, details of performing the tasks, the project schedule, items related to personnel or changes in personnel, and any issues that shall be resolved before work can begin.
- 4.2 Periodic conference call and progress reports: At regular intervals defined by the District (approximately every 2 weeks), the project manager and key personnel will meet with District staff via telephone to discuss the overall plan and details of task progress. Prior to the conference call (preferably at least one work day before), Contractor will email the District a brief progress report that includes:
  - Brief summary of last meeting, including list of attendees;
  - Current status of work progress;
  - Action items and significant upcoming tasks;

- Action items in progress; and
- Action items completed.

The Contractor must be willing to receive guidance and direction from the District and adjust procedures and methods.

- 4.3 OBTAIN ALL NECESSARY PERMITS: The Contractor will obtain all necessary permits as specified by law, including building permits from city and county and permits from the FCC, FAA, and other agencies as required. The cost of acquiring all necessary permits including but not limited to permitting fees should be included in the proposal.
- 4.4 Construct Station: The Contractor will construct the air monitoring station, which includes a 10 meter meteorological tower which is to be secured against the shelter. The air monitoring station and all equipment shall be constructed and installed in a manner to ensure that they meet all applicable local, state, and federal regulations, requirements, and standards. The Contractor shall guarantee all work for a period of no less than 12 months after completion of work and acceptance of work by the District.
- 4.5 ARRANGE FOR UTILITY CONNECTION: The Contractor will coordinate with utility companies to bring power and phone service to the site/station.

All installation work shall be performed according to published industry guidelines, rules and regulations. If disputes occur, local, state, and national codes have precedence; then, owner policies and procedures; then standards such as TIA/EIA; then guidelines from firms such as Building Industry Consulting Services International (BICSI); then finally, manufacturer recommendations.

The Contractor will coordinate phone installation with the District's Information Technology Services (ITS) department. The communication line infrastructure requires in-ground 1" conduit from the 1.1 Terminal Entrance to a NEMA/EEMAC Type 4X demarcation point mounted on the exterior of the air monitoring station structure, and including a 66-block punchdown terminal. The conduit must also have a pull line of sufficient strength to enable future cable pulls. The communication line must be direct burial grade wire, have lightning protection on all lines, contain at least four (4) separate wiring pairs, and be terminated on the 66-block with industry-standard and appropriate labeling.

The inside wiring for the communication line requires installing two separate phone lines from the exterior demarcation point to two separate wall jacks on the inside of the structure. Both phone lines must be CAT5 4-pair 22-gauge wire, with all 4 pair punched down at the demarcation point and the phone jack. One phone line will be terminated at an ivory RJ45 modular jack in an ivory flush-mounted face plate, installed at the

same height as the power outlets by the desk. The second phone line will be terminated at an ivory RJ45 modular jack in an ivory flush-mounted face plate, installed in the ceiling in the center of the shelter. Both face plates shall allow for removable labeling of the jack for future phone number labeling.

- 4.6 PURCHASE, INSTALL AND CALIBRATE INSTRUMENTS: For Proposal 2 the Contractor will purchase, install, and calibrate instruments in accordance with all applicable requirements necessary as a fully operational air monitoring station equipped with fully operational instruments in 'turn-key' condition, and the Contractor will train District staff in the operation of the instruments and the station.
- 4.7 Invoices and Progress Reports: The Contractor will submit invoices in accordance with the requirements of a legally binding contract. The invoices must list the contract number and shall itemize all expenses incurred during the payment period completed. Each item in the invoice will correspond to one of the tasks. Direct labor charges and Subcontractor and Contractor charges shall be subdivided into the number of hours spent by each staff classification (e.g., project manager, instrumentation technician) for the invoice period.

The Contractor will be paid for the payment period within thirty (30) days of when the invoice and a progress report are deemed by the District to reflect and demonstrate work done in accordance with the contract.

#### 5.0 PROJECT TIMELINE AND SCHEDULE OF DELIVERABLES

The District may amend the following tentative timeline for completion of work products. The Contractor may propose an alternative deliverable and payment schedule. If the Contractor would like an alternative deliverable and/or payment schedule, the revised alternative schedule shall be included in the proposal submitted. Payments must correspond with deliverables.

TABLE 1
Proposed Project Schedule of Deliverables and Payments

Action/Work Product	Approximate Date		
Release of RFP	March 24, 2010		
Proposal Deadline	April 19, 2010		
Contractor Selection	April 28, 2010		
Contract To Governing Board	May 20, 2010		
Contract Effective	May 20, 2010		
Shelter Construction Complete	September 15, 2010		
Station Operational	October 30, 2010		

### 6.0 REQUIRED QUALIFICATIONS

In order to be considered by the District, the Contractor must have a valid California business license; have worker's compensation coverage for all employees that would work on this project and not presently be debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded from participation or otherwise excluded from or ineligible for participation under federal assistance programs.

The Contractor must demonstrate in the proposal by references or other methods that the Contractor has excellent working relationships with government agencies. In addition, the Contractor must demonstrate that the Contractor has extensive experience and expertise in the following areas:

- 6.1 Design and construction of air monitoring stations;
- 6.2 Placing air monitoring stations on site in operational condition;
- 6.3 Installing and calibrating air monitoring and meteorological equipment;
- Obtaining necessary permits from government agencies including, but not limited to, the city, county, FAA, FCC; and

The Contractor must demonstrate in the proposal that the Contractor has the ability and resources to produce the deliverables requested in this RFP. The District reserves the right to reject any proposal deemed non-responsive, not responsible, and/or not reasonable.

#### 7.0 RESPONSE SUBMITTAL REQUIREMENTS

#### 7.1 CONTENTS OF PROPOSAL

Submitted proposals must follow the format outlined below and all requested information <u>must</u> be supplied. Failure to submit all requested information may result in the proposal being deemed unresponsive and disqualified from consideration. The submitted proposals shall be limited to 24 pages, single sided or 12 pages, double sided, with 1" margins. Proposals shall be printed on white paper with black Arial font no smaller than 12 point. The page limit applies to the body of the proposal only and does not include resumes or appendices. Failure to submit proposals in the required format may result in elimination from proposal evaluation.

7.1.1 COVER LETTER: Must include the name, address, and telephone number of the company, total project cost, the name of the contact

person for the proposal, and be signed by the person or persons authorized to represent the company. Submission of the proposal will be considered to be a binding commitment (firm offer) by the Contractor to provide the proposed services by the identified personnel at the specified cost.

- 7.1.2 TABLE OF CONTENTS: Clearly identify material contained in the proposal by section and page number.
- 7.1.3 SUMMARY (SECTION 1): State the overall approach to the project and specific objective(s). Demonstrate a clear understanding of the project goal. Include total project cost and a list of general tasks to be performed to complete the project. Provide specific examples of steps to be taken to complete the project.
- 7.1.4 WORK PROGRAM (SECTION 2): Describe work activities or tasks to be performed including the sequence of activities and a description of methodology or techniques to be used.
- 7.1.5 PROGRAM SCHEDULE (SECTION 3): Provide projected milestones or benchmarks for all tasks and reports within the total time allowed. This must demonstrate that the project will be completed 168 days after the contract is signed.
- 7.1.6 PROJECT ORGANIZATION (SECTION 4): Describe the proposed management structure, project monitoring procedures, organization of the contracting group, and facilities available.
- 7.1.7 ASSIGNED PERSONNEL (SECTION 5): Identify the principals having primary responsibility for implementing the project. Discuss their professional and academic backgrounds, including all certifications and licenses held. Provide a summary of similar work they have previously performed. List the amount of time, on a continuous basis, that each principal will spend on this project. Describe the responsibilities and capacity of the technical personnel involved. Substitution of the project manager and/or lead personnel will not be permitted without prior written approval of the District.
- 7.1.8 DISTRICT RESOURCES (SECTION 6): Describe any District services and staff resources needed to supplement Contractor activities to achieve identified objective(s).
- 7.1.9 Subcontractors (Section 7): If Subcontractors are to be used, identify each of them in the proposal. The Subcontractor's name and address must be included in the proposal. Describe the work to be performed by them and the number of hours or the percentage of

- time they will devote to the project. Provide a list of their assigned staff, qualifications, relationship to project management, schedule, costs, and hourly rates. Note that the Subcontractors must have all items listed in section 10.0 of the RFP except for the performance bond and the payment bond.
- 7.1.10 CONTRACTOR CAPABILITY AND REFERENCES (SECTION 8): Provide a summary of the company's relevant background experience. Discuss the applicability of background experience to this RFP. Include examples of related projects completed for other parties that are of a similar nature to the work requested herein with references. Please include telephone numbers and e-mail addresses of references.
- 7.1.11 Costs of Proposal (Section 9): Identify all costs associated with the execution of this RFP. Agreements established from the proposal are considered to be fixed price, including sales tax (currently 8.975%) and other miscellaneous expenses. The cost of each component that the Contractor is responding to must be specified along with any reduction in price if the District chooses not to have the Contractor complete the component. If the proposal includes multiple alternatives for the completion of a task the cost of each alternative should be listed separately (e.g. manual crank winch \$10,000 or electrical crank winch \$20,000).
- 7.1.12 CONFLICT OF INTEREST (SECTION 10): Identify any actual or potential conflicts of interest resulting from any contractual work performed, or to be performed, for other clients, as well as any such work done, or to be done, by proposed Subcontractors. Specifically, Contractors must disclose any recent or current contracts with the District, business entities regulated by the District, and/or any environmental or business interest group. In addition, Contractors must disclose any contracts with the District, public or private entities, which are scheduled to be performed in the future, or which are currently under negotiation. The District will consider the nature and extent of such work in evaluating the proposal (see Section 9.0).
- 7.1.13 ADDITIONAL INFORMATION TO DEMONSTRATE PREVIOUS EXPERIENCE (SECTION 11): Attach a description of any work prepared similar to what is requested in this RFP. These attachments will not be considered part of the 24-page limitation set for the proposal. Provide other essential data that may assist in the evaluation of this proposal.

# 7.2 Proposal Submission

All proposals must be submitted according to the specifications set forth in Section 7.1 - "Contents of Proposal" and this section. Failure to adhere to these specifications may be cause for rejection of proposal.

- 7.2.1 SIGNATURE: All proposals shall be signed by an authorized representative of the Contractor.
- 7.2.2 DUE DATE: The Contractor shall submit an electronic copy of the proposal in Microsoft Word (Microsoft Office 2003 Professional or older versions of Microsoft Office). The electronic copy shall be emailed to: michael.carrera@valleyair.org. The Contractor shall also submit five (5) complete hard copies of the proposal in a sealed envelope plainly marked in the upper left-hand corner with the name and address of the proponent and the words:

"PROPOSAL - Air monitoring station in Manteca, CA"

Proposals must be received at the address below, no later than 5:00 p.m. on April 12, 2010, and shall be directed to:

Michael Carrera Compliance Manager San Joaquin Valley Unified Air Pollution Control District 1990 E. Gettysburg Avenue Fresno, CA 93726-0244

Late proposals will not be accepted. Any correction or resubmission by the proponent will not extend the submittal due date.

- 7.2.3 ADDENDA: The District may modify the request for proposal and/or issue supplementary information or guidelines relating to the RFP at any time. If the District modifies the request for proposal the modification will be posted on the District website. Contractors whose proposals are received prior to the proposal modification will be notified that a proposal modification has been made and will be allowed to submit a new proposal. However, if a new proposal is submitted the new proposal must be received prior to the deadline. The new proposal will be evaluated in lieu of the prior proposal. The District will not review multiple proposals from a single Contractor
- 7.2.4 GROUNDS FOR REJECTION: A proposal may be immediately rejected if it is:

- Received at any time after the exact due date and time set for receipt of proposals;
- Not prepared in the format prescribed; or
- Not signed by an individual authorized to represent the company.

The District reserves the right to reject all proposals and make no awards.

- 7.2.5 DISPOSITION OF PROPOSALS: All proposals become the property of the District. Unless the Contractor specifically requests otherwise and the District approves such a request, all-proposals are considered public information.
- 7.2.6 Modification or Withdrawal: Once submitted, proposals, including the composition of the contracting team, cannot be altered without prior written consent of the District. All proposals shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the last day to accept proposals.

## 8.0 ESTIMATION OF COSTS

Costs must be itemized by the following categories:

- 8.1 TASK: List a total cost per task for each task. The District reserves the right to remove tasks if it is deemed necessary to remain within the budget, provides cost savings to the District, or is determined to be in the District's best interest;
- 8.2 LABOR: List an hourly labor rate for each assigned principal and technical specialist. The rate quoted must include labor, general, administrative, and overhead costs. The labor rate must adhere to all state and local requirement for projects funded with state or federal funds;
- 8.3 SUPPLIES AND EQUIPMENT: Provide an itemized list of supplies to be purchased or leased specifically for the program. The cost of each item shall be listed separately. The District will not pay for any equipment unless adequately justified. Any equipment paid for by the District will become the property of the District and shall be delivered to the District prior to the final payment being issued by the District or within thirty (30) days of when it is no longer needed by the Contractor for the project, whichever is first;
- 8.4 SUBCONTRACTOR COSTS: Identify Subcontractors by name, list their cost per hour or per day, and the number of hours or days their services will be used; and

- 8.5 TRAVEL COSTS: Identify estimated travel costs, including the number of trips required, destinations, and approximate costs of travel. Travel costs are reimbursed at prevailing rates for the contracting company or District rates, whichever is lower, unless negotiated otherwise.
- 8.6 MISCELLANEOUS COSTS: If there are any miscellaneous costs these shall be specifically identified with the cost of each listed.

Total cost must be clearly indicated in the Costs of Proposal section of the proposal. It is expected that general overhead and administrative costs are included in the hourly rate for labor. It will be assumed that all contingencies and/or anticipated escalations are included. No additional funds will be paid above and beyond the original quote given by the Contractor unless the site location is modified or District requests things beyond the scope of the original RFP and a new quote is submitted to and the new quote is accepted by the District, and the District and the Contractor both sign a change order or contract amendment accepting the new quote. There is no guarantee that the District will approve any new quotes.

#### 9.0 Proposal Evaluation and Contractor Selection

For clarification purposes, during the selection process, District staff may interview Contractors with scores above a natural break. This may include interviews to confirm statements made within the proposal and clarify sections of and equipment specified in the proposal. Contractors shall not provide new material at this time.

A contract will be awarded to the Contractor that in the sole discretion of the District is deemed to best and most cost-effectively meet the needs of the District. The District may choose not to award this contract if it is deemed that such action is in the best interest of the District. Failure to adhere to specifications in this RFP may be cause for rejection of the proposal.

The contract is subject to approval by the District Air Pollution Control Officer (APCO)/ Executive Director and the Governing Board. All proponents will be notified of the results by letter after the Governing Board has approved a contract.

#### 10.0 LICENSE/INSURANCE/BOND

The Contractor and all Subcontractors used for the project shall have valid business licenses, valid certifications and licenses for the tasks they are performing (e.g. Contractor's license, electrician's license), and provide insurance coverage in amount acceptable to the District. Copies of all licenses, certifications, and certificates of insurance for the Contractor and all Subcontractors to be used on the project must be submitted prior to commencing any work on the project. The insurance shall be from an insurer acceptable to the District.

Before commencing any work on the project, Contractor shall furnish a faithful performance bond and a payment bond with good and sufficient sureties acceptable to the District in the sum of fifty thousand dollars (\$50,000) each.

- 10.1 Without limiting the District's right to obtain indemnification from the Contractor, all Subcontractors, or any third parties, the Contractor and all Subcontractors, at their sole expense, shall maintain in full force and effect throughout the term of the Agreement the following insurance policy(s):
  - 10.1.1 Liability insurance for bodily injury, including automobile liability, with limits of coverage of not less than Five Hundred Thousand Dollars;
  - 10.1.2 (\$500,000) per person and one million dollars (\$1,000,000) per occurrence;
  - 10.1.3 Liability insurance for property damage with limits of coverage not less than fifty thousand dollars (\$50,000) per occurrence;
  - 10.1.4 Workers compensation insurance in accordance with the California Labor Code; and
  - 10.1.5 Commercial general liability insurance with minimum limits of coverage of not less than one million dollars (\$1,000,000) per occurrence.
- 10.2 The foregoing insurance policy(s) shall not be canceled, reduced, or changed without a minimum of thirty (30) calendar days advance, written notice given to District and written approval by the District to do so.

Each bond and insurance policy shall be listed as an item in the budget with an associated cost. If the bond or insurance policy cost is included in general overhead or will not be billed to the District, please note that in the line item and put "N/A" for the cost.

#### 11.0 Project Requirements and Specifications

The specifications and project design provided in this section shall be used by the Contractor. Images of the station configuration are provided in Section 16.0. Project requirements and specifications are as follows:

#### 11.1 MANAGEMENT:

The project manager will meet with District staff for an initial kick-off meeting and site visit within thirty (30) days of signing of the agreement between the Contractor and the District. Contractor is required to report on the project's progress in short, 15 minute or less, bi-weekly conference calls to the designated District contact.

## 11.2 PERMITS & BUILDING CODE:

The Contractor and/or Subcontractors will obtain the appropriate building permits and any other permits from the city, county, and any other government agency require for construction, installation, or operation of the equipment shelter, pad, electrical service or meteorological tower. All equipment and structures installed as part of this project must meet the following: Wind Load Design Factor of 75 MPH, Seismic Zone 4 (http://www.seismic.ca.gov/) and Exposure C building specifications (http://www.bsc.ca.gov/). To the extent required by law and pursuant to Chapter 1 of Part 7 of Division 2 of the Labor Code (commencing with Section 1720), Contractor agrees to comply with all prevailing wage requirements relating to the construction of the site improvements to be provided by Contractor, either by itself or through any Subcontractor. In addition, before commencing any work on the project, Contractor shall furnish a faithful performance bond and a payment bond with good and sufficient sureties acceptable to the District in the sum of fifty thousand dollars (\$50,000) each.

## 11.3 CONCRETE PAD:

The Contractor shall install a concrete pad for the monitoring shelter. The concrete pad including meteorological tower footing (Section 11.7) shall be rectangular shaped with dimensions of 24 feet by 18 feet and a surface area of 432 square feet. The pad is to extend 2 feet beyond the exterior of the shelter in three directions and 6 feet in front. The concrete pad is to be a minimum of 6 inches thick and shall be at least 4 inches above the ground, with a slight slope for water runoff. Composition is to be a "6 sack" mix, or better. No "filler material" such as broken concrete, etc. may be used in any fashion. Pad is to contain reinforcing, either "driveway mesh" or fiber reinforcement added at the batch plant. The pad is to have a trowel sweat or broom finish for slip resistance. A layer of sand (1 inch minimum) is to be placed under the slab to minimize cracking from settling. The sand is to be wet down and compacted. The underlying soil is to also be properly compacted to prevent settling of the slab. Should the pad be improperly installed, the Contractor will remove and replace it at their expense. The design and location of the pad and shelter must allow room for the ARB audit van to be parked adjacent to the station to perform audits and have adequate outlets and support equipment to support operation of the ARB audit van.

#### 11.4 EQUIPMENT MODULAR BUILDING:

The Contractor shall install a modular building (no other type of building will be allowed). The modular building must conform to the following requirements and Contractors are encouraged to conform to all recommended and preferred specifications. Please note that a portion of the scoring of proposal is to what degree the proposal meets the needs and preferences of the District.

### 11.4.1 GENERAL BUILDING SPECIFICATIONS:

The modular building shall be 10 feet wide by 20 feet long and 8-9 feet high with a minimum 7.5 feet interior height.

No hemlock fir is to be used in the framing of the structure. Steel studs shall be used.

The modular building shall have a weather resistant exterior finish that resembles the aesthetics of the high school architectural design including style and colors. A visit to the high school may be set up with those interested in submitting a proposal. Please contact Compliance Manager Michael Carrera at (559) 230-5976 or at <a href="michael.carrera@valleyair.org">michael.carrera@valleyair.org</a> to schedule a visit to the high school. Exact finish of the modular building will be finalized between the Contractor, manufacturer, and the District prior to construction of the modular building.

The modular building shall be painted with at least two coats of exterior grade, high quality paint. The exact color will be determined and approved by the District prior to construction.

The modular building shall have a weather resistant exterior finish.

The modular building shall have either R-21 in the roof, floors, and walls <u>or</u> R-25 insulation in the roof and either R-19, R-21, or R-25 insulation in the floors and walls.

One steel 36 inch wide reinforced secure entry door is to be installed. The door shall be full steel construction and not just steel frame. A Schlage (brand) double-cylinder deadbolt is to be installed in the door as well. The District will have the lock re-keyed after delivery. The hinges used are to be the type with index pins to prevent opening of a closed door through removal of the hinge pins. The doorframe is to have a good quality weather seal to keep moisture, dust and insects out. The door shall face in a direction to be determined by the District prior to commencement of construction. For security, no windows within the doors or structure are to be mounted.

The enclosure will have entry ports for sample probes and meteorological cabling. Two ports, each 6 inch by 6 inch weatherproof box installed on the exterior wall upper area, with a 3 inch I.D pipe extending from the back of the box straight through the wall to the inside of the structure. The pipe shall extend through the wall approximately 2 inches. Another similar port shall be installed in the lower area to serve as the exhaust port. In addition, at least four roof ports shall be installed. This roof flange ports shall be compatible with the design of the sampler. A black ABS pipe port must be installed to serve as an exhaust manifold under the roof. The roof hatch will be an OSHA compliant Roof Hatch

System, 36 inches x 36 inches with Safety Post. The exact locations of the roof and wall flanges will be determined in cooperation with the District contact prior to commencement of construction.

The interior walls are to have a structural covering with a minimum thickness of 7/16 inches covered by wood veneer paneling. The District will accept paneling that combines both layers in one.

The load bearing capacity of the floor must be at least 150 pounds per square foot for the full length of the structure. The floor of the structure shall be made with ¾ inch exterior grade plywood. The floor is to be completely covered with high quality, commercial grade flooring tile (12-inch squares) or commercial grade linoleum.

## 11.4.2 LADDER SPECIFICATIONS:

The modular building shall include an internal permanent ladder mounted inside to prevent unauthorized access to the roof. Please note that exterior ladders will **not** be accepted and inclusion of an exterior ladder in the proposal may result in the proposal being disqualified from consideration.

The ladder shall include hand rails and shall meet all state and federal OSHA requirements and have a 400 pound or greater weight rating. The ladder shall be designed in a manner that enables easy and safe exit from the roof hatch onto the roof. The design must be approved by the District Safety Officer or other person designated by the Executive Officer/APCO.

The ladder shall be located at one end of the modular building and below the roof hatch that the Contractor has installed in the modular building.

The ladder roof entry must have a safety feature that prevents the technician from falling through the hatch while it is open such as railing with a gate surrounding the roof hatch.

#### 11.4.3 GENERAL ROOF SPECIFICATIONS:

The roof must have adequate slope/grade to allow for rain run-off.

The roof must be able to hold a 1000 pound total weight load.

The roof must be able to hold at least 100 pounds per square foot.

Minimum thickness of the roof sheathing is ¾ inch exterior grade plywood or oriented strand board (OSB) on roof supports set a minimum 16 inch on center and sufficient to support 100 pounds per square foot.

There must be a drip cap along the edge of the roof on each side.

The modular building roof shall have guardrail approximately 4 feet high meeting federal and state OSHA standards completely surrounding the edges of the roof area with no gaps through which a person could walk through.

A toe kick must be placed at the foot of the railings in a manner that allows one inch space between the roof surface and the bottom of the toe kick (to allow moisture to pass under the toe kick and not pool behind the toe kick - picture on page 25). The toe kick must be OSHA compliant.

The roof shall have two 24" by 24" steel grate platforms to support equipment that needs anchoring. The roof and platforms shall be designed such that equipment can be mounted on the roof by District staff without voiding the roof warranty or affecting the weather-proofness of the structure.

The roof shall be covered with a non-slippery weather resistant material that is rough enough to enable a person to walk on it safety during freezing days.

#### 11.4.4 GENERAL ELECTRICAL SPECIFICATIONS:

The modular building shall have power outlets, doors, lighting, etc., in locations determined by the District prior to commencement of construction.

The modular building shall have all exterior conduits constructed with metal and not plastic. The conduits shall be recessed into the wall.

The building shall have a 220 V 50 Amp receptacle on the exterior of the building. The desired receptacle shall be a Leviton 279 or similar model, see illustration at the end of this RFP.

The roof shall have two electrical 120V 20 amp outlets; the exact location of the outlets will be determined by the District in consultation with the Contractor prior to commencement of construction.

A 150 Amp/220 Volt split phase sub-panel that meets all applicable state and federal electrical codes is to be placed inside the structure.

A 150 Amp/220 Volt electrical power panel with a 200 Amp/220 Volt calibrated meter is to be provided and wired by the structure manufacturer. This power meter will be mounted on the exterior of the structure and both the meter and the structure must meet all applicable state and federal electrical codes.

A subpanel with at least 16 circuit slots will be mounted on the interior wall of the structure.

The circuit breaker panel and outlets will be recessed in the inside wall or mounted to the wall in a manner approved by the District Safety Officer or other person designated by the APCO/Executive Director.

All breakers are to meet all state and federal electrical codes.

There are to be a minimum of eight separate /120 Volt outlet circuits inside the modular building; two of them to be twist-lock Nema L5-30 receptacles rated at 30 Amps each and mounted on the ceiling in the middle of the facility. The other six are to be wall mounted.

For the exterior walls there shall be one 20-amp circuit for a GFCI protected outside outlet and one 50-amp 220 V connector. This is in addition to the outlets on the roof. The exterior receptacles are to be weather resistant and shall be installed on the side away from the door.

All power receptacles are to be commercial/industrial grade units.

All wiring is to be 12 gauge or better, solid copper and run through the wall, above the ceiling or beneath the floor.

All connections of the wire to the receptacles are to use only the screw terminals on the sides.

Chrome plated smooth finished metal covers shall be used on all outlets.

All wall outlets and electrical panels are to be flush with the surface of the wall, as found in residences, and are to be mounted between 12 inches and 16 inches above the floor or are to be mounted to the wall in a manner approved by the District Safety Officer or other person designated by the APCO/Executive Director.

The conduit where the primary power enters the shelter shall be located under the shelter, beneath the panel. Shelter must be grounded, separately from the other ground connections.

#### 11.4.5 GENERAL INSTALLATION SPECIFICATIONS:

The structure shall be securely anchored to the concrete pad via rustproof metal straps meeting a Wind Load Design Factor of 75 MPH, Seismic Zone 4, and Exposure C building specifications so that no movement can occur vertically or horizontally.

If the installation requires it, the modular building shall include appropriate framing that will allow raising the floor at least 36 inches. This minimum 36-inch raised framing area shall be completely skirted with similar shelter siding material and paint. There shall be no gap under the modular building that will allow rodents or trash to enter.

If required, the modular building shall be raised sufficiently off the ground to prevent flooding in case of a flood event.

The modular building shall be installed such that one side is at an elevation of one inch higher than the other side of the modular building to facilitate drainage.

## 11.4.6 WINCH:

The Contractor shall provide and install a winch with the building that meets all applicable state and federal OSHA requirements. The design must be approved by the District Safety Officer or other person designated by the APCO/Executive Director.

The winch must be able to carry at least 500 pounds from the ground safely over the guardrail.

The winch must be able to be operated by a single person.

The winch may be operated by a hand crank mechanism or by an electrical mechanism. In the proposal you may and are encouraged to include the cost for both alternatives.

### 11.4.7 AIR CONDITIONER:

The modular building is to have a wall mounted air conditioner (A/C) unit for both heating and cooling with 10 KW Heat Strips installed inside the structure. It must include an electronic autochangeover thermostat mounted 5 feet above the floor. The District's preference is a Bard Model #WA182 A/C unit or similar model. The outlet of the A/C will be distributed by two ceiling mounted registers, approximately 12 square inch each, which have flow-regulating levers.

Additionally the modular building is to have a backup A/C unit installed. The District's preference is to have this backup A/C unit mounted next to the main A/C unit. The backup A/C shall be a window type unit (that can be removed easily during transport) with 18,000 BTUs of cooling power. The backup A/C unit will be supported on the exterior of the structure with a metal housing designed for the unit. The bottom of the both A/C units shall be about 42 inches from the floor.

Both the main and the backup A/C units must be a major brand such as Bard, General Electric, Westinghouse, Frigidaire, etc. Failure to list a Bard, General Electric, Frigidaire, or Westinghouse model for the main and/or backup A/C unit may result in the proposal being scored lower than proposals that do offer these units.

### 11.4.8 OTHER SPECIFICATIONS:

The modular building shall include removable metal steps meeting federal and state OSHA requirements. The platform dimensions shall be approximately 6 feet by 4 feet. The length of the platform as measured along the side of the platform that abuts and is parallel to the side of the building will be 6 feet long. The width of the platform as measured along the side of the platform that is perpendicular to the side of the building will be 4 feet wide. The height of the platform will allow normal access through the structure door after mounting on jacks, and a skirting must be provided with the structure.

Lighting will consist of no less than four (4) separate fluorescent fixtures. Each one is to be a four (4)-foot twin-tube light fixture. They are to be center mounted along each side of the structure. A switch next to the entrance door will control the front fixture and a second switch will control the other fixtures. The modular building shall have an exterior light fixture by door with interior switch to control its operation.

The Contractor shall provide and install a work desk running the full length of the enclosure, along the 8 or 10-foot wide wall. The desk will consist of 3 pull out drawers that are each 24 inches wide, a 30 inch wide base cabinet with hinged doors that each have two hinges, and an open space below the desk top on one end to act as a desk-type sitting area for working. The work desk shall be covered with a suitable protective covering (Formica or better).

The Contractor shall provide a movable equipment bench. The bench shall be 24 inches wide by 48 inches long by 36 inches high. The bench shall be constructed with a ¾-inch plywood top covered with a suitable protective covering (Formica or better). The equipment bench will have a ¾ inch plywood shelf located 14 inches above the floor.

The District will only accept proposals for a modular building that directly sits on the pad or is on supports on the pad. The cost of this modular building must include delivery and complete installation. The cost for a modular building will also include all California Department of Motor Vehicle fees if applicable.

## 11.5 FENCING:

The Contractor shall install a permanent fence around the monitoring station. All components of the fencing and gates (fabric, poles, top rails, gates, etc.) shall be commercial grade and constructed to match current materials used by Sierra High School or as requested by the MUSD (Manteca Unified School District). The fence fabric is to be 6 foot high chain-link, of heavy gauge wire (minimum 11 gauge) with heavy zinc

coating. The fence poles are to be galvanized with galvanized top caps. The fence poles are to be anchored at least 2 ½ feet into the ground, and spaced no more than 8 feet apart. The fence perimeter is a minimum 40 feet by 24 feet. The fence shall have a 3 foot wide gate at the north side of the fence. The fence shall also have a 12 foot wide opening, double gate at the west side. The location of the gates may be modified by the District prior to commencement of construction.

### 11.6 UTILITIES:

The Contractor is responsible for all aspects of the installation of power (nearest electrical source that the District is aware of is located approximately 450 feet away) and telephone service; shall contact the responsible companies and agencies for such services; and shall arrange for physical installation (including, but not limited to, trenching, permits, service pole(s), additional transformer(s), breaker boxes, conduit work, cabling installation and termination, etc.), and connection of such services. The contractor will work with the District's ITS department to coordinate phone service logical installation and turn-up (including, but not limited to, line definition and characteristics, account and billing information, transfer of ownership, etc.).

All communications cabling must be installed, tested, and certified to the carrier's specifications. This includes, but not limited to, conduit types and sizing, cabling type and pair count, and testing procedures and test equipment. Testing results and reports must be submitted to the District with final project documentation.

#### 11.7 Tower:

The meteorological tower must have a feature that allows the tower to be safely cranked up and down in a slight breeze to a servicing height by a single technician standing on the roof.

Instrumentation will be located at 10-meters above ground level. These requirements are necessary to insure accurate measurement of meteorological information.

The design must allow instruments to be easily accessible from the roof of shelter. This means that the instruments should be approximately 4 feet above the roof line when the tower is lowered. Fully extended, the tower must allow for installation of air monitoring equipment on the tower at a height of 10-meters (33 feet high).

The tower must be constructed to remain stable and plumb at the top when the tower is fully extended, and this must be accomplished without the use of guy wires.

The tower must be attached to the structure for added support. Care shall be taken to insure that the structure is properly reinforced at the points of

attachment, using steel plates or other suitable support material. The tower is to be installed and inspected in accordance with the requirements of San Joaquin County, the City of Manteca, MUSD, the FCC, the FAA, and all other applicable codes.

The costs for the meteorological tower must include the tower foundation; anchor bolts and all necessary material to secure the meteorological mast into the ground per the tower manufacturer's footing/foundation plan details.

The Contractor is responsible for obtaining a wet stamp engineered drawing of the tower from manufacturer ensuring the tower and tower footing/foundation construction meets or exceeds the 1997 UBC Code as amended by the 2001 California Building Code for 1 square foot wind load design factor of 75 mph – Exposure "C" and Seismic Zone 4.

The Contractor is responsible for the complete delivery to the site and installation of the meteorological tower.

The meteorological tower is an MA-40 tubular crank up type that when fully extended will reach 33 feet in height. The tower must meet all applicable guidelines for wind load, exposure, and seismic zone without the use of guy wires.

A grounded lightning rod must be mounted atop the tower, above the instrumentation. The tower shall be independently grounded in accordance with all applicable electrical, local, and state regulations and guidance.

#### 11.8 METEOROLOGICAL AND AIR MONITORING INSTRUMENTATION SPECIFICATIONS

For Proposal 2 the District strongly encourages proposal instrument specifications that correspond with the monitoring equipment listed in this section, in order to be consistent with equipment currently in use in the District network. Images of the optimal station configuration are provided in Section 16. Optimal project requirements and specifications are as follows:

## 11.8.1 METEOROLOGICAL INSTRUMENTATION:

The District uses the following Met One meteorological instrumentation: wind speed 010C, wind direction 020C; radiation shield 076B air temperature 06A-2; barometric pressure 092; radiation shield 076B; 120 translator with power supply; external junction box; and Hampshire C interior shelter temperature 125-125HV. The barometric pressure unit and the junction box will be installed outside at the top of the roof next to the met tower.

#### 11.8.2 PM Monitors:

Continuous  $PM_{2.5}$  instruments that have FEM designation will be installed inside the shelter and the inlet will be mounted on the roof. The  $PM_{2.5}$  instrument is a Met One BAM 1020 beta attenuation

monitor that meets the latest California Air Resources Board specifications.

#### 11.8.3 DATA LOGGER:

The District will be providing the data logger for this installation. The Contractor shall coordinate with the District's ITS Department to arrange for installation of the data logger.

#### 11.8.4 RACK:

All monitoring equipment and other instruments will be rack mounted. Two racks shall be connected together; the instrument's rails shall be able to attach to it in the front and the rear. Uprights shall be tapped with #12-24 holes on E.I.A. universal spacing. Load rating on the rack shall be 1000 pounds. The rack(s) will be APG Brand Model #PM22 MT6130M, Power Strip APG Model EPV3910-B20P, solid side panels with Power Management Panels. Include one fixed shelf for the P.C. and one slider shelf for the keyboard and firmly attached to the floor of the structure with adequate room on all sides for access to the equipment.

#### 11.8.5 Instrument Check:

All instruments will be carefully inspected by the Contractor and checked for proper operation upon receipt. The Contractor shall perform the initial multi-point calibrations to confirm proper operation of all instrumentation. All calibration data shall be recorded from the data logger and submitted to District for verification and storage at the completion of the project.

#### 11.8.6 THREE MONTH CHECK:

Contractor will be responsible for a three month check of all air monitoring instrumentation and data collection equipment. This includes, ensuring all air monitoring and meteorological equipment pass their calibration checks. This will also include a check of the meteorological tower for proper operation of the lowering mechanisms (if applicable). The Contractor will correct/repair all deficiencies found by the Contractor or District at this check.

## 11.9 WARRANTY:

All equipment, pad, structures, A/C and building shall be warranted against defects by the Contractor for a period of one year after the three month check; after all repairs requested by the District have been completed; and after the District determines that the station is completely functional. For electronics and instrumentation this may be a manufacturer's warranty. Copies of all warranties including, but not limited to manufacturer and Contractor warrantees, must be provided to the District.

A two (2) year construction warranty is required. A two (2) year infrastructure warranty on the communication installation is required.

A one (1) year warranty is required for monitors, sensors, and workmanship.

#### 11.10 BOND:

The cost of the \$50,000 performance and payment bonds shall be listed as separate line items in your proposal. If your firm must acquire professional liability insurance specifically for this project and it will result in an additional cost, Contractor may also show that as a separate line item cost.

#### 12.0 Non-Debarment Certification

The contract for this project will include the following language addressing nondebarment certification:

"CONTRACTOR certifies by signing the signature page of this original document and any amendment signature page(s) that the Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded from participation, or otherwise excluded from or ineligible for participation under federal assistance programs. The Contractor must complete and return the certification regarding debarment, attached as Exhibit X, before the contract can be finalized. Contractor must ensure that all Subcontractors employed for conduct of this project certify to Contractor compliance with this provision of law."

#### 13.0 INQUIRIES

Technical and administrative questions concerning this RFP shall be directed to Michael Carrera, Compliance Manager, San Joaquin Valley Unified Air Pollution Control District at (559) 230-5976.

#### 14.0 CONFIDENTIAL INFORMATION

All responsible proposals received by the District are public records and will be available for review by the public after the selection process is completed. Proposals containing information the Contractor requires to be kept confidential will be rejected as non-responsive.

# 15.0 REFERENCES

Federal Register, 40 CFR Parts 53 and 58, October 17, 2006.

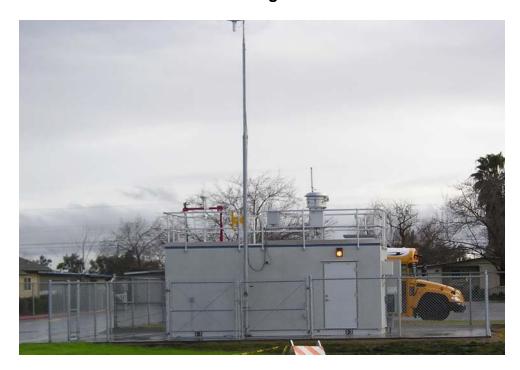
Kern County Air Pollution Control District (2007), Request for Proposal – Tehachapi Air Monitoring Station.

United States Environmental Protection Agency, Air Monitoring Guidelines

# 16.0 IMAGES OF MONITORING SHELTER AND SUPPORT EQUIPMENT

Images of Monitoring Shelter and Support Equipment

# Modular building and tower



Roof platform with roof hatch, guardrail, non-slip walkway and toe kick.



# Crank up meteorological tower – tower cranks down to allow technician easy access to instrumentation from the roof platform



Modular building is anchored to the concrete pad



# Interior shelf for monitoring equipment above interior work desk



# Interior desk work area and racks for monitoring equipment and other instruments



# Interior work desk



# Air conditioning units



# Safety railing and winch on roof platform



# 220 V Receptacle Used By ARB to Connect with Station (Leviton 279)

