



**City of Lodi  
Public Safety UHF Radio System Upgrade  
Request for Proposals**

**July 20, 2009**

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## Section 1 – Request for Proposal (RFP)

The City of Lodi is requesting sealed proposals from qualified firms to provide interoperable UHF radio communication systems for the existing City of Lodi public safety UHF radio system, primarily located at 230 W. Elm Street, Lodi, CA. 95240.

Proposals are to be received by the Purchasing Officer, Finance Division, 310 W. Elm Street, PO Box 3006, Lodi, California, 95241-1910 until 11:00 a.m. on September 15, 2009, at which time the Purchasing Officer will announce publicly the names of those firms submitting proposals. No other public disclosure will be made until after the award of contract.

## Section 2 – Purpose for RFP

The goal is to create a citywide interoperable UHF radio communications system that will be compliant with the Telecommunications Industry Association /Electronic Industry Association-102 (TIA/EIA-102) suite of standards and specifications related to APCO Project 25 narrowband digital conventional systems as adopted at the RFP release date.

The City of Lodi is replacing the Lodi Police Department's UHF Channel #2 radio system and the existing Lodi Fire Department's VHF Channels #1 and #2 with new 450MHz UHF radio transmitters and voter receivers that are narrow band compliant and digital capable as mandated by the FCC.

The intent of the new City of Lodi system is to be a fully functional self-contained UHF radio system that can become part of the San Joaquin regional interoperable radio system as specified in the San Joaquin Regional Radio Master Plan.

## Section 3 – Instructions to Vendors

Proposals must be addressed and delivered to the Purchasing Officer, City Of Lodi, Finance Division, 310 W. Elm Street, PO Box 3006, Lodi, Ca. 95241-1910, on or before the time and date set for closing.

Proposals should be in a sealed envelope marked with:

1. Name of Vendor
2. Contractor License #
3. RFP Description: "**Public Safety UHF Radio System Upgrade**"
4. Date and Time Proposal is Due (September 15, 2009 11:00 AM.)

No telephone, telegraphic, facsimile, or email proposals will be considered. Proposals received after the time for closing will be returned to vendor unopened.

Vendors mailing their proposal package must allow sufficient time to ensure receipt of their proposal package by the time specified. It is the responsibility of the Vendor to

ensure that the proposal package arrives at the City of Lodi Finance Division by the proposal opening date and time as specified.

Proposals mailed through the U.S. Postal Service will be considered responsive only if received by the City of Lodi Finance Division prior to the proposal opening time.

Proposals should be submitted with one signed original and two (2) copies of the original.

Vendors may withdraw proposals at any time prior to the time and date set for opening.

**Proposal shall include, at a minimum, the following information**

- VENDOR'S NAME
- VENDOR'S CONTRACTOR LICENSE NUMBER AND TYPE
- VENDOR'S EXPERIENCE AND QUALIFICATIONS
- WRITTEN DESCRIPTIONS OF SIMILAR PROJECTS**  
**[a minimum of (3) three public agency examples to include details of project, project scope, timeline, cost, and agency contacts.]**
- REFERENCES [a minimum of (3) three]
- PROJECT TECHNICAL OVERVIEW
- PROPOSED SCHEDULE (Delivery, Installation, and testing)
- STAFF PROFILE(S) FOR LODI PROJECT
- EQUIPMENT PROPOSED
- EQUIPMENT SPECIFICATIONS, CUT SHEETS / INFORMATION
- PRICE - ITEMIZED (MATERIAL, TAX 8.75%, SHIPPING, AND LABOR)
- PRICE – TOTAL
- DETAILED SYSTEM TESTING PROCEDURE PLAN
- SYSTEM ACCEPTANCE PLAN
- WARRANTY STATEMENT(S) AND COST
- PROPOSED ON-GOING MAINTENANCE
- SIGNATURE
- DATE
- PHONE AND FAX NUMBERS, E-MAIL ADDRESS

**Failure to include these items may be grounds for rejection of the proposal.**

Each proposal shall be prepared simply and economically, providing a straightforward, concise delineation of the Vendor's capabilities to satisfy the requirements of the RFP. Fancy binding, colored display and promotional material are not desired. However, technical literature, drawings and pictures of proposed equipment should be included in the proposal. Manufacturers, model numbers, and specification sheets must be provided for all equipment proposed. Emphasis in each proposal must be on completeness and clarity of contents. In order to expedite the evaluation of proposals, it is essential that vendors follow the format and instructions contained herein.

All proposals submitted in response to this RFP must be submitted at the sole expense of the Vendor, whether or not any agreement is signed as a result of this Request for Proposal.

No department or office at the City has the authority to solicit or receive official proposals other than the **Purchasing Officer**. All solicitation is performed under the direct supervision of the Purchasing Officer and in complete accordance with City policies and procedures.

Vendors submitting proposals which meet the selection criteria and which are deemed to be the most advantageous to the City may be requested to give an oral presentation to a selection committee. Scheduling of these oral presentations will be done by the City of Lodi Representative. If an oral presentation is given it will be at no additional cost to the City of Lodi.

Award shall be made to the responsive vendor whose proposal is determined to be the most advantageous to the City taking into consideration the proposal criteria set forth in the Request for Proposal. Price, although a consideration, will not be the sole determining factor. Quality of equipment, warranty terms, vendor's experience and qualifications, delivery and installation schedule, etc. will be weighed in making the final selection. Prices must be good for thirty (30) days.

All proposals must be signed by an individual authorized to extend a formal proposal. Proposals that are not signed may be rejected. The City may, at its option and discretion, reject all proposals.

The City is not liable for any errors or misinterpretations made by the Vendor in responding to this RFP.

The City will not give verbal answers to inquiries regarding the specifications, or verbal instructions prior to and after the award of the contract. A verbal statement regarding same by any person shall be non-binding. The City is not liable for any increased costs resulting from the Vendor accepting verbal directions. Any explanation desired by the Vendor must be requested of the City of Lodi's representative in writing, not later than

Month/day/year, and if an explanation is necessary, a reply shall be made in the form of an addendum, a copy of which will be forwarded to each Vendor who has received a set of the proposal documents. **To obtain a complete copy of the RFP direct all inquiries to:**

City of Lodi  
 Information Systems Division  
 Mark White, IS Coordinator  
 PO Box 3006  
 Lodi, CA 95241-1910  
 (209) 333-6800, ext.2664  
[mwsubscription@lodi.gov](mailto:mwsubscription@lodi.gov)

### **Mandatory Project Walk-Through**

A mandatory project walk-through of the project sites will be held at **10:00 a.m. on Tuesday, August 18, 2009**. The tour will begin at City Hall at 221 West Pine Street, and include the following:

1. Lodi radio tower and radio room: 230 W. Elm Street, Lodi, CA, 95240
2. Voter Site –Fire Station #2: 705 E. Lodi Avenue, Lodi, CA 95240
3. Voter Site –Fire Station #3: 2141 S. Ham Lane, Lodi, CA 95242
4. Voter Site –Fire Station #4: 180 N. Lower Sacramento Road, Lodi, CA 95242

Vendors participating in the mandatory project walk-through must provide their own transportation to sites indicated above.

**Vendors who fail to attend the mandatory project walk-through will not be allowed to submit proposals.**

### **PROJECTED RFP TIMELINE**

The following table shows the projected timeline for this RFP:

<b><u>Item</u></b>	<b><u>Date</u></b>
RFP Issuance	July 20, 2009
Mandatory Walk Through	August 18, 2009
Deadline to submit written questions	August 25, 2009
Addenda issued with answers to written questions, if necessary	September 01, 2009
Proposals Due	September 15, 2009 11:00 AM
Evaluation of written proposals	September 16, 2009 to October, 19, 2009
Interview finalists (if necessary)	October 2009
Award contract	November 2009

## **Section 4 – Specifications/Scope of Work**

### **Technical Overview**

The Vendor shall provide a detailed technical overview of the proposed UHF radio system. The overview shall discuss exact key element of the functional and interface specifications, identifying significant problems and challenges, and the Vendor's technical approach to solving these challenges. This section must respond to and specifically recognize all elements of the specifications and programs set forth in the RFP. This section shall also contain the Vendor's discussion and justification for any alternatives offered or exceptions taken to the Specifications/Scope of Work section.

### **Schedule**

The Radio system is used on a regular basis. The system replacement will have to be scheduled. The vendor shall provide a schedule with the number of days expected to order and receive material, and days to complete construction and testing. When work commences it will be required that the vendor work steadily on the project until it is completed, without interruption. The schedule will be coordinated with, and approved by, the City of Lodi.

### **Existing Radio System Overview**

The existing Lodi radio communications system is composed of:

City departments utilize radios in three frequency ranges. Two departments utilize 450MHz (UHF) while three departments utilize 150MHz (VHF) and two departments utilize 800MHz systems. Each requires system specific equipment and redundant infrastructure to work properly and reliably. The city also owns equipment capable of patching radio channels together to enhance interoperability. This solution has merit, but, relies on the use of numerous channels at once. Practically, this can cause a draw down of available channels during an emergency and at a time when additional channels are most needed.

Additionally, our present infrastructure equipment is 18+ years old. Much of the equipment is so old that parts are not available from vendors. Should a component fail, the City may not have access to any parts to repair it. A failure of a single component can bring our individual systems down.

The Lodi Fire Department currently has two VHF analog channels utilizing Motorola equipment. Voter sites are connected to the main repeater via 4-wire telephone circuits. San Joaquin County is performing frequency coordination on behalf of the City of Lodi and the San Joaquin Communications Region.

Lodi Police has two 450 MHz UHF channels utilizing Motorola equipment. Voter sites are connected to the main repeater via 4-wire telephone circuits. The radio equipment for Police Channel One is digital capable and was replaced in the fall of 2008. The second channel remains analog as does much of their mobile and portable inventory. Like the Fire Department, Police has been replacing the subscriber units with digital capable units in anticipation of the need to narrow band in the near future. Lodi Police is actively operating on an 800 MHz data system.

Electric Utility Department (EUD) has not made any upgrades to their radio infrastructure in years. Although the radio frequency they utilize is UHF 450 MHz it is a commercial, not public, band and therefore can not be utilized in a city wide solution.

Public Works Department (PW) is actively operating on an 800 MHz system.

Parks and Recreation Department is currently utilizing mobile VHF radio equipment.

## **What radio equipment is being replaced**

This project consists of replacing the Lodi Police Department's UHF Channel #2 analog radio system and the existing Lodi Fire Department's VHF Channels #1 and #2 analog radio systems with new 450MHz UHF radio transmitters and voter receivers that are narrow band compliant and digital/analog capable as mandated by the FCC. The intent is to initially support a mixed of UHF analog subscriber and new digital subscriber units. Replacement of older subscriber units with newer digital narrow band UHF subscriber units is outside of the scope of this RFP.

## **Integration with Existing Equipment**

It is critical that the proposed equipment integrate with the existing Motorola transmitters, comparators, and satellite/voter equipment. It is the desire to have similar equipment for ongoing, single point of contact for maintenance and support.

## **Site Surveys**

It is anticipated that the transmitters will be installed in the existing radio room, and that required antennas and cabling shall be install on the existing radio tower at that site. Satellite (voters) receivers will be installed at Satellite/Voter sites.

The vendor shall perform site surveys of the following locations before ordering equipment and installation of equipment.

1. Lodi radio tower and radio room: 230 W. Elm Street, Lodi, CA, 95240
2. Voter Site –Fire Station #2: 705 E. Lodi Avenue, Lodi, CA 95240
3. Voter Site –Fire Station #3: 2141 S. Ham Lane, Lodi, CA 95242
4. Voter Site –Fire Station #4: 180 N. Lwr. Sacramento Road, Lodi, CA 95242

## **Radio System**

### **Communications between Sites**

Currently 4-wire telephone circuits connect each of the remote voter sites to the Lodi radio tower and radio room.

The City of Lodi has single-mode fiber optic cable that goes past all voter sites with the exception of Fire Station #3. It is anticipated that City of Lodi will extend the fiber optic cable into Fire station #2, #3 and #4 as well as to the main radio room at 230 W. Elm Street by the time this radio project has started. It is preferred that the new voters will utilize IP communications. However, should the fiber optic cable not be available at the time this project begins, then the vendor shall provide an alternate method of communications that will allow communications over traditional 4-wire telephone circuits.

The City of Lodi will provide either fiber optic patch panels or order 4-wire telephone circuits for each site. The City of Lodi will also provide necessary IP network switching equipment.

### **Antenna Sub-System**

It is anticipated that the transmitters will be installed in the existing radio room located at 230 W. Elm Street, Lodi, CA, 95240, and that required antennas and cabling shall be installed on the existing radio tower at that site. As part of providing a complete radio system in this proposal, the vendor shall:

- Install new antennas, brackets, antenna cables, couplers, lightning arrestors and tie into existing and/or install new grounding systems as required.
- Provide labor to install the antennas.
- Provide necessary lifts, ladders, or boom-truck to install the antennas.
- Provide racking & power strips and rack installation and rack grounding.

### **Engineering Reports**

1. Vendor is to provide City and County with Engineering Reports detailing the following:
  - a. Proposed grounding methodology of new equipment on tower and in radio room must meet federal, state and industry standards.
  - b. Proposed placement of new antennas on tower to ensure additional load will not exceed tower capacity.
  - c. Electrical analysis to verify additional equipment will not exceed power thresholds.

2. Engineering reports are due prior to any equipment being installed and are subject to approval by City and County.

## **Equipment Rack**

The existing equipment rack is in the radio room which is located at the base of the Lodi radio tower at 230 W. Elm Street, Lodi, CA, 95240. There appears to be adequate room to add three (3) additional radio transmitters. Vendor shall verify space requirements for additional equipment specified in this project. The older Police UHF Channel #2 transmitter equipment will be removed as part of this project. It is NOT anticipated that the older Fire VHF transmitter equipment will be removed during this project.

## **Execution**

The installation shall be done in neat and orderly fashion and coordinated with the City of Lodi and San Joaquin County staff.

1. All cables shall be labeled with a permanent machine label on both ends of each cable.
2. Terminate all cables as required.

## **Warranty and Ongoing System Support Plan**

All installed equipment, cabling and workmanship shall be warranted for a period of one (1) year from the City of Lodi's acceptance of the system. The vendor shall provide warranty service for any defects within 24 hours from the time of notification from the City of Lodi staff.

**Vendor may propose an alternate extended warranty and ongoing system support plan**, but it must be included along with the original proposal. If the extended warranty requires additional cost, those fees/terms must be separately listed. If no additional cost is listed, the alternate extended warranty will be deemed as included in the Proposal Total Cost at no additional fee.

The system support shall include:

1. Unlimited telephone support
2. Repair and replace if component cannot be repaired.
3. On site labor
4. Emergency response: 24X7 with an onsite one (1) hour response time.
5. Two (2) preventive maintenance visits during warranty period.

## **Testing Procedure and System Acceptance Plan**

A detail testing procedure and system acceptance plan must be included along with the original proposal.

## **Frequency Coordination**

The vendor is not responsible for assisting the City of Lodi with FCC frequency coordination as it pertains to this project. The City of Lodi anticipates obtaining newly available narrow band 450 MHz UHF frequencies for the Fire Department. The Police Department is currently licensed for two 450MHz UHF frequencies. San Joaquin County is acting as the regional frequency coordinator for the narrow band 450 MHz UHF frequencies.

# **Request for Proposal Outline (Minimum) Checklist**

**VENDOR'S NAME**

**VENDOR'S CONTRACTOR LICENSE NUMBER AND TYPE**

**EXPERIENCE AND QUALIFICATIONS**

**WRITTEN DESCRIPTIONS OF SIMILAR PROJECTS**

[a minimum of (3) three public agency examples to include details of project, project scope, timeline, cost, and agency contacts.]

**REFERENCES [a minimum of (3) three]**

**PROJECT TECHNICAL OVERVIEW**

**PROPOSED SCHEDULE (Delivery, Installation, and testing)**

**STAFF PROFILE(S) FOR LODI PROJECT**

**EQUIPMENT PROPOSED**

**EQUIPMENT SPECIFICATIONS, CUT SHEETS / INFORMATION**

**PRICE - ITEMIZED (MATERIAL, TAX 8.75%, SHIPPING, AND LABOR)**

**PRICE – TOTAL**

**SYSTEM TESTING PROCEDURE PLAN**

**SYSTEM ACCEPTANCE PLAN**

**WARRANTY STATEMENT(S) AND COST**

**PROPOSED ON-GOING MAINTENANCE**

**SIGNATURE**

**DATE**

**PHONE AND FAX NUMBERS, E-MAIL ADDRESS**

## Appendix A

### Proposed Equipment:

#### Police radio channel 2 (UHF)

Quantity	Description	Unit Price	Extended Price
1	DIGITAL REPEATER, UHF, 100 WATT		
3	UHF SATELLITE (VOTER) RECEIVER		
1	COMPARATOR		
1	DIGITAL INTERFACE UNIT		
6	4-WIRE COMMUNICATION MODEM		
	INSTALLATION*		
	A single site, mixed mode - Analog/Digital, UHF, 100 Watt Repeater, with three remote site voting receivers.		
	<i>*Installation includes required antenna systems &amp; optimization</i>		
	<b>Sub-total 1:</b>		

#### Fire radio channel 1 & channel 2 (UHF)

Quantity	Description	Unit Price	Extended Price
2	DIGITAL REPEATER, UHF, 100 WATT		
6	UHF SATELLITE (VOTER) RECEIVER		
4	COMPARATOR		
1	DIGITAL INTERFACE UNIT		
12	4-WIRE COMMUNICATION MODEM		
	INSTALLATION*		
	A single site per channel, mixed mode - Analog/Digital, UHF, 100 Watt Repeater, with three remote site voting receivers each.		
	<i>*Installation includes required antenna systems &amp; optimization</i>		
	<b>Sub-total 2:</b>		
	<b>Total Labor:</b>		
	<b>Estimated Tax:</b>		
	<b>Grand Total:</b>		

--- End of Request for Proposal ---