



AGENDA ITEM 4b  
DATE 1-25-10

# City Council Report

**Date:** January 25, 2010  
**To:** City Council  
**Through:** Bryan Raines, Deputy City Manager  
**From:** Edward Quedens, Business Services Director  
**Subject:** Purchase and Installation of a Distributed Antenna System for the Arts and Cultural Department, Mesa Arts Center (Fully Funded by Public Safety Bonds) (Contract #2009157)

## Purpose and Recommendation

Council is requested to approve the Purchase and Installation of a Distributed Antenna System for the Mesa Arts Center as recommended. Proposals were obtained and evaluated by the Arts and Cultural and Communications Departments, and the Purchasing Division.

The Purchasing Division recommends awarding the contract to the highest scored proposal, TriPower Group, Inc. at \$248,160.00, including applicable use tax.

## Background/Discussion

Because of the concrete and steel construction materials and some areas being below ground level, significant portions of the Mesa Arts Center campus buildings receive no radio signal from the City's 800 MHz Public Safety radio system or commercial cell phone services. The Mesa Police and Fire Departments have identified the lack of wireless communications within the Mesa Arts Center campus structures as creating a situation in which lives and property may be at risk.

A Distributed Antenna System (DAS) will provide a system of antennas and radio signal distribution within the Mesa Arts Center structures which will receive and transmit signals to and from the City's Public Safety radio infrastructure by fiber optic cable. In addition, service to cellular telephones will be provided by an external antenna to the cell phone carrier's antenna sites. The cell phone capability may be enabled and disabled independently of Public Safety communications, which will remain enabled at all times.

An evaluation team comprised of City staff from the Communications, Information Technology and the Mesa Arts Center evaluated the proposals. Each person objectively scored the vendors on the bid specification's rating elements. The recommended vendor, TriPower Group, Inc. scored highest on the technical specifications, and proposed the lowest pricing for the installation of both public safety radio and cellular/PCS (Personal Communications Coverage) coverage. This vendor's proposal included all public safety and cellular wireless coverage, a comprehensive spare parts kit, initiating system alarm monitoring for the first year and equipment needed for the installation.

Four (4) of the seven (7) proposals received for the DAS system and installation were considered responsive. Three (3) of the seven (7) proposals were deemed non-responsive for not providing the correct licenses for the scope of work. Pricing ranged from \$185,443.62 to \$508,648.72 for the basic public safety radio installation. The recommended vendor's proposal offers a complete system including public safety, cellular and PCS wireless coverage.

**Alternatives**

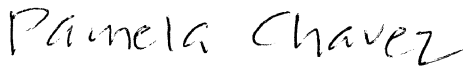
Council may choose not to award this contract and new proposals will be obtained.

**Fiscal Impact**

The total amount of \$248,160.00 is available in the Engineering Department's budget through Public Safety Bonds approved in November 2008.

**Coordinated With**

Arts and Cultural Department – Mesa Arts Center  
Communications Department  
Engineering Department  
Fire Department  
Information Technology Department  
Police Department  
Public Safety Communications



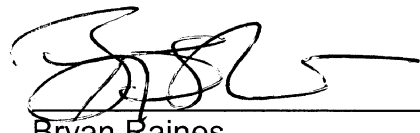
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Pamela Chavez,  
Management Assistant II



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Jim Ruiz, CPPB  
Purchasing Administrator



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Edward Quedens, CPPO, C.P.M.  
Business Services Director



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Bryan Raines,  
Deputy City Manager

**CITY OF MESA  
 AWARD RECOMMENDATION  
 DISTRIBUTED ANTENNA SYSTEM FOR THE MESA ARTS CENTER  
 (REQUEST FOR BID #2009157)**

**TriPower Group, Inc.**  
 Livermore, CA

Description	Proposal Pricing
Installation and testing of a Distributed Antenna System linked by existing fiber optic cable to the City's main public safety network.	<b>\$235,000.00</b>
	5.6% Use Tax <u>\$13,160.00</u>
	<b>Total    \$248,160.00</b>

Non-Responsive Bids Received From:

- Andrew Systems, Inc. – Joliet, IL (Provided incorrect license).
- Cellular Specialties – Manchester, NH (Did not provide license).
- Weston Consultants, LLC – Mesa, AZ (Did not provide license).

**October 2009 Proposal Results:**

	<b>Maximum Points</b>	<b>TriPower</b>	<b>BCI</b>	<b>Henkels &amp; McCoy</b>	<b>Rex Moore</b>
Flexibility and adaptability of system architecture and capacity for expansion.	20	20	20	20	11.25
Fiber optical connection to radio site preferred over exterior mounted antenna.	20	20	20	20	20
Cellular and PCS connection thru fiber optic cable preferred over exterior antenna.	20	20	20	20	0
Capability for IP based remote access for diagnostics, monitoring and alarm notification, password protected and using a Graphic User Interface (GUI).	20	20	20	20	15
Confirmation that all active in-building coverage RF devices are FCC Part 90 Type Certified.	30	30	30	30	30
All system components 100% compatible with analog and digital modulation without modifications.	20	20	20	20	20
Signal booster includes filters to reject frequencies above and below the public safety bands by not less than 35dB.	20	20	20	20	10
DAS to be capable of adjustment to accommodate frequencies that may be assigned by FCC in the future due to 800 MHz rebanding mandate.	20	20	20	15.75	20
Active system devices to be housed in NEMA 4 dust/waterproof enclosures, Cables shall be plenum rated or installed in conduit.	20	19	2.5	20	20
All powered components to have battery backup, NiMH or equivalent, to provide a minimum of 12 hours of operation without external power input and 10 year life expectancy.	20	19	10.75	7.5	20
Antennas, cabling and any conduit visible in public areas are to be aesthetically integrated into existing building architecture. (eg: use white coax cable or antenna on light colored walls etc)	20	20	20	16.25	20
Acknowledgement of necessity to schedule installation of system without interference with scheduled events such as concerts, art exhibitions or other events presented at the MAC.	20	20	20	13.75	20
<b>Technical Elements</b>	250	248	224.25	223.25	206.25
<b>Pricing Score</b>	100	100	36	59	87
<b>FINAL SCORE</b>	350	348	260.25	282.25	293.25