

Public Safety Communications Project



The Public Safety entities of Oelwein presently operate on VHF & 800 mhz. radio frequencies. The police department and some of the fire department frequencies operate on the EDACS (Enhanced Digital Access Communications System).

Thirteen years ago, when Oelwein converted to the 800 mhz. EDACS, it was the most robust system available that allowed the police department to transition from radios that did not have the range to reach each other from across town to a system that allowed its users to have range from the basement of homes and an extended range for calls that required them to be out of the city limits. It also allowed for interconnectivity with surrounding agencies.

In 2014, the EDACS technology met the deadline of no longer being maintained with parts from the manufacturer. At that time, the City of Oelwein applied for funds to replace the system and we were approved for over \$275,000 in funds for the \$425,000 project. The City of Oelwein did not have, due to budget constraints, the necessary matching funds and the grants had to be turned back.

The Iowa Statewide Interoperable Communications System Board has developed a state plan for 700 mhz. communications. This plan was intended to serve all jurisdictions but has been developed to mainly serve areas around larger communities and state highways. In addition, the state system is governed by the state.



The SARA system (Shared Area Radio Agreement), is an 800 mhz. communications system that is locally owned with agreements from other agencies to share tower and equipment resources. This lowers the financial burden placed on individual local governments while providing them a robust communications system. The SARA system has become the choice of larger jurisdictions and many near Oelwein. This will enhance the system for Oelwein and those around us and we are then in turn able to function off of their equipment.

The following jurisdictions are presently on the SARA system:

The agencies within the following counties:

Black Hawk – Dubuque – Grundy – Iowa – Jasper – Johnson – Linn – Marshall – Polk – Washington

Other entities:

All Iowa Hospitals – All Iowa County Public Health Agencies – All Iowa Medical Helicopters – All Iowa State Patrol Dispatch Centers – Iowa Department of Agriculture – National Guard Units – 95% of Iowa's Emergency Management Agencies/Emergency Operation Centers – Iowa DPS/LEIN Regional Information Sharing Officers – Civil Air Patrol – State Emergency Operation Centers – Poison Control – University Hygienic Lab

Public Safety Communications Project



The proposed system also has a potential savings for fire radios, depending on if the fire personnel feel that the proposed plan would be workable for their system. The SARA system allows for a "BeOn" program in which the fire volunteers could have a licensed phone app on their smart phone. That smart phone acts like a push to talk radio while also sending a signal as to where that person is located on a map. The system further has a distress alert button through the smart phone. If the fire personnel felt this was workable, they could acquire licenses for this system and buy less portable radios. A portable radio rack system could be installed in their fire unit and personnel that needs a handheld radio at the scene could then be issued one and return it after the incident.

The proposed project would include new mobile radios for all police and fire vehicles as well as new portable radios for necessary personnel. The project also includes the following:

- Necessary P25 equipment, site assessment, licensing and installation for the tower site
- Microwave antenna for Oelwein site to Jesup RACOM tower site.
- Project management
- 10 years pre-paid maintenance contract for all hardware & software for the site, consoles and radios.
- *Proposed pricing and trade-in value on equipment is valid if agreement is signed prior to June 20, 2019.

Evolution of Our System





271 Vinton St.
 Waterloo, IA 50703
 319-233-7747
 www.racom.net

Proposal Prepared for: **Oelwein Police Department**

Address 501 Rock Island Road
City Oelwein
State & Zip Code IA 50662
County Fayette
Phone/FAX 319-283-4311
Contact Name Chief Jeremy Logan
Contact E-mail

Oelwein P25 Network Upgrade

ITEM	QTY	PART NO.	DESCRIPTION	UNIT	EXTENDED
1	1	P25 Site	P25 Site Equipment	\$ -	\$ -
			4 Channel P25 Phase II MASTR V Trunking Site Equipment	\$ 181,029.01	\$ 181,029.01
			SAR - High Availability Site Router	\$ 7,125.00	\$ 7,125.00
			Tower Work - Remove Old Antennas, Install P25 Lines, Antennas and MW	\$ 19,950.00	\$ 19,950.00
			Licensing - P25 Frequency Coordination, Licensing	\$ 3,500.00	\$ 3,500.00
			Misc - Rackmount UPS, Grounding, Racks and Misc Electrical Work to Site	\$ 7,750.00	\$ 7,750.00
				\$ -	\$ -
2	1	Microwave	NEC 6GHz Licensed Microwave from Oelwein Tower to Jesup Water Tank	\$ 40,727.26	\$ 40,727.26
			NEC Recommended Spares	\$ 7,174.02	\$ 7,174.02
			Structural Study - Jesup Water Tank(Does Not Include Structural Changes)	\$ 3,990.00	\$ 3,990.00
				\$ -	\$ -
3	1	Antenna System	Antenna System for Oelwein Site - Coax, Tx and Rx Antennas, Combiner, and Tower Top Amp	\$ 33,250.00	\$ 33,250.00
				\$ -	\$ -
		SERVICES		\$ -	\$ -
	1	A1	Site Staging, Installation, Integration, Radio Reprogramming, Console Reconfiguration	\$ 52,500.00	\$ 52,500.00
	1	PM	Project Management - Includes Documentation Package, System Drawings, User Training	\$ 7,750.00	\$ 7,750.00
	1	ENG	Engineering - Drive Test Verification, IT Services including System Monitoring	\$ 8,250.00	\$ 8,250.00
				\$ -	\$ -
	1	MAINTENANCE	10 Year Maintenance Contract Hardware and Software for Site, Consoles, and Radios	\$ 348,000.00	\$ 348,000.00
		DISCOUNT	\$50,000 Credit for PrePayment of 10 Years of Hardware and Software Maintenance	\$ (50,000.00)	\$ (50,000.00)
				\$ -	\$ -
	5	XG-100M	Harris XG-100M P25 Mobile Radios for VHF Linkers at Oelwein Site	\$ 6,891.00	\$ 34,455.00
	5	TRADE-IN	\$500 Trade In Credit From HARRIS if Order Signed by June 20,2019	\$ (500.00)	\$ (2,500.00)
	10	XG-100M	Harris XG-100M P25 Mobile Radios for Oelwein Vehicles	\$ 6,891.25	\$ 68,912.50
	10	TRADE-IN	\$500 Trade In Credit From HARRIS if Order Signed by June 20,2019	\$ (500.00)	\$ (5,000.00)
	14	XL-200P	Harris XL-200P P25 Portable Radio with Acc(Batteries,Charger, Belt Loop, Belt Clip)	\$ 5,715.00	\$ 80,010.00
	14	TRADE-IN	\$500 Trade In Credit From HARRIS if Order Signed by June 20,2019	\$ (500.00)	\$ (7,000.00)
				Total Equipment Price	\$ 839,872.79
				Installation	\$ -
				Subtotal	\$ 839,872.79
				Taxes	\$ -
				Shipping	\$ 4,500.00
				Total	\$ 844,372.79

Terms of Purchase:
 30% Due on Equipment Order
 30% Due on Receiving of Equipment at RACOM
 30% Due on System Installation Completion
 10% Due at System Acceptance

Tax Rate

System Description: P25 Network Upgrades for Oelwein PD. Includes all site equipment, microwave to integrate with the SARA network, console reprogramming, Linker Radios for Existing VHF equipment, Engineering, Licensing, and Installation

Proposal Presented By: BRIAN PLACKE

Date: 10.12.2018

Proposal Accepted By: _____

Date: _____

What equipment will be purchased with the new loan?

- 1st out Pumper - \$375,000 - \$600,000
 - New
 - \$500,000 - \$600,000
 - Used (2-3 year old)
 - \$325,000 - \$375,000
- Radios - \$74,000
 - 20 – XG-15P Handheld Radio's
 - \$34,725.20 (\$1,736.26/ea)
 - 9 – XG-25M Mobile Vehicle Radio's
 - \$26,387.82 (\$2,931.98/ea)
 - 1 – Linker
 - \$10,000/ea
 - 20 - BeOn Smart Phone Licenses
 - \$2,640.00 (\$132/ea per year)
- Building Improvement - Any remaining funds
 - Overhead Doors (x7)
 - Should be done in all at once.

Why does the department need a new fire truck?

- NFPA 1901 requirements
 - 1st Pumper Out
 - 15 years max life
 - 772 is 2007
 - 2nd Pumper Out
 - 30 years max life
 - 771 is 1992
- ISO Fire Rating
 - Trucks age figures into equation
 - This sets city fire rating

How long will the truck last?

- Current NFPA 1901 standard say 30 years if used for 2nd out truck

Features that the new truck will have that the old one does not?

- On board foam
- Current safety standards
 - Ex: V striping on back
- Emission standards
- Remote deck gun

What year is the old one? Is it allowed to be in use? What does NFPA mean?

- 2007 (772)
- Yes, until 2037 for 2nd truck out. Current 1st truck out has 3 yrs until it must be moved to 2nd truck out. This would make 771 3rd truck out or obsolete
- National Fire Protection Association

Will this be used or new for a truck?

- Depends on budget, see notes from above.

How will the Fire Department handle the procurement of a new truck?

- New would be done by committee and bid process
- Used would find and buy

Why does the Fire Department need new radios?

- Radios have reach their useful life with other local agencies. We can no longer link with statewide system.

What is the condition of the old radios?

- Varies depending on unit. A lot of current radios are older model (2-3 models old) and were due to be replaced years ago.

If funding is still available? What will the Fire Department improve in the station?

- Fire station overhead doors. These will improve the energy efficiency and appearance of the Fire Station.

Truck Requirements

- 1250 GPM pumper (min)
- Diesel engine (360 hp min)
- Automatic transmission
- 1000 Gallon Poly Tank
- On board foam system
- Quad Cab
- Remote operated deck gun
- SCBA jump seats (min 4)
- LED lit side compartments
 - Organization hardware for compartments
- On board generator
- Telescoping scene LED scene lights
- Red with white stripping (back will safety V stripping)
- Emergency communication equipment installation
- LED exterior emergency lighting
- Automatic tire chains



271 Vinton St.
 Waterloo, IA 50703
 319-233-7747
 www.racom.net

Proposal Prepared for: City Of Oelwein
 Address _____
 City _____
 State & Zip Code _____
 County _____
 Phone/FAX _____
 Contact Name Chief Logan
 Contact E-mail _____

Oelwein Fire Portables and Mobiles

ITEM	QTY	PART NO.	DESCRIPTION	UNIT	EXTENDED
			XG-15P Handheld Radio - \$1811.26 Per Radio	\$	\$
	30	XR-PF78B-T-PH2	PORTABLE PKG,XG-15P,768-861MHZ,P25T,TDMA	\$ 1,346.25	\$ 40,387.50
	30	XR-NC8F	ANTENNA,ENHANCED,WHIP,1/4WAVE 762-870MHZ	\$ 30.00	\$ 900.00
	30	XR-PL9E	FEATURE, SINGLE-KEY AES ENCRYPTION	\$ 0.01	\$ 0.30
	60	XR-PA3R	BATTERY, LI-ION, 2400 MAH	\$ 60.00	\$ 3,600.00
	30	XR-CH9T	CHARGER, SINGLE,TRI-CHEMISTRY	\$ 90.00	\$ 2,700.00
	30	XR-AE6A	SPEAKER MIC,COILED	\$ 120.00	\$ 3,600.00
	60	XR-HC7P	BELT CLIP,METAL	\$ 15.00	\$ 900.00
	30	A1	Programming	\$ 75.00	\$ 2,250.00
				\$	\$
				\$	\$
			XG-25M Mobile Vehicle Radio - \$2931.98 Per Radio	\$	\$
	9	DM-M78B	MOBILE,XG-25M,700/800 MHZ,35W	\$ 1,575.00	\$ 14,175.00
	9	AN-125001-001	Antenna,Base,Standard Roof Mount	\$ 30.00	\$ 270.00
	9	AN-225001-004	Antenna,Element,700/800 2dB Low ProFile	\$ 45.00	\$ 405.00
	9	DM-PKGPT	Feature Package,P25 Trunking	\$ 562.50	\$ 5,062.50
	9	DM-PL9E	FEATURE, SINGLE-KEY AES ENCRYPTION	\$ 0.01	\$ 0.09
	9	DM-PL4F	Feature, P25 Phase 2, TDMA	\$ 187.50	\$ 1,687.50
	9	DM-PL7Z	Feature,512 Systems/Groups	\$ 0.01	\$ 0.09
	9	DM-MC9R	Microphone,Standard,XG-25M	\$ 60.71	\$ 546.39
	9	DM-ZN9X	Kit,Accessories,XG-25M	\$ 146.25	\$ 1,316.25
	9	A1	PROGRAMMING	\$ 75.00	\$ 675.00
	9	A1	REMOVAL OF OLD RADIO AND INSTALLATION OF NEW RADIO	\$ 250.00	\$ 2,250.00
				\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$
				\$	\$

Total Equipment Price	\$ 80,725.62
Installation	\$ -
Subtotal	\$ 80,725.62
Taxes	\$ -
Shipping	\$ -
Total	\$ 80,725.62

Terms of Purchase: 30 DAYS NET

Tax Rate

System Description: Handheld Harris XG-15P P25 Trunking portable radios with AES encryption, TDMA Phase 2 antenna, 2 batteries, charger, speaker mic. Harris XG-25M P25 Trunking mobile vehicle radio with AES encryption, antenna, mic, and installation.

Proposal Presented By: Brian Placke Date: 1/22/2019

Proposal Accepted By: _____ Date: _____

Radio Breakdown

		XG-15P Handheld Radio	\$ 1,736.26	\$ 34,725.20
20	XR-PF78B-T-PH2	PORTABLE PKG, XG-15P, 768-861MHZ, P25T, TDMA	\$ 1,346.25	\$ 26,925.00
20	XR-NC8F	ANTENNA, ENHANCED, WHIP, 1/4WAVE 762-870MHZ	\$ 30.00	\$ 600.00
20	XR-PL9E	FEATURE, SINGLE-KEY AES ENCRYPTION	\$ 0.01	\$ 0.20
20	XR-PA3R	BATTERY, LI-ION, 2400 MAH	\$ 60.00	\$ 1,200.00
20	XR-CH9T	CHARGER, SINGLE, TRI-CHEMISTRY	\$ 90.00	\$ 1,800.00
20	XR-AE6A	SPEAKER MIC, COILED	\$ 120.00	\$ 2,400.00
20	XR-HC7P	BELT CLIP, METAL	\$ 15.00	\$ 300.00
20	A1	PROGRAMMING	\$ 75.00	\$ 1,500.00
		XG-25M Mobile Vehicle Radio	\$ 2,931.98	\$ 26,387.82
9	DM-M78B	MOBILE, XG-25M,700/800 MHZ,35W	\$ 1,575.00	\$ 14,175.00
9	AN-125001-001	Antenna,Base,Standard Roof Mount	\$ 30.00	\$ 270.00
9	AN-225001-004	Antenna,Element,700/800 2dB Low ProFile	\$ 45.00	\$ 405.00
9	DM-PKGPT	Feature Package,P25 Trunking	\$ 562.50	\$ 5,062.50
9	DM-PL9E	FEATURE, SINGLE-KEY AES ENCRYPTION	\$ 0.01	\$ 0.09
9	DM-PL4F	Feature, P25 Phase 2, TDMA	\$ 187.50	\$ 1,687.50
9	DM-PL7Z	Feature,512 Systems/Groups	\$ 0.01	\$ 0.09
9	DM-MC9R	Microphone,Standard,XG-25M	\$ 60.71	\$ 546.39
9	DM-ZN9X	Kit,Accessories,XG-25M	\$ 146.25	\$ 1,316.25
9	A1	PROGRAMMING	\$ 75.00	\$ 675.00
9	A1	REMOVAL OF OLD RADIO AND INSTALLATION OF NEW RADIO	\$ 250.00	\$ 2,250.00
1		LINKER	\$ 10,000.00	\$ 10,000.00
20		BeOn Smart Phone Lease of \$11 per month per phone	\$ 132.00	\$ 2,640.00



Parks / Cemetery / Aquatics / Campground

Park and Recreation

www.cityofuelwein.org

Mayor and Council,

The aquatic facility was built in 1996 so the facility is now going into the 23th season as hard as it seems to be real. The City is looking to make the aquatic center more user friendly with an extremely visually striking replacement and improvement project.

The facility is lacking protection from the sun as the city currently only has one shade structure in place. This project will include multiple shade structures including, two – two hip post structures and two 20' diameter permabrellas that would be installed on the concrete pool deck for patrons. Next, the city would acquire a slide top canopy to provide sun protection for city employees and patrons. This project will include replacing the existing café tables in the concessions area that are pushing their useful life, these tables will include umbrellas that the existing tables once had and have disappeared over the years. In the zero-entry area, a frog slide will be included as an additional amenity for small kids to play on.

This project includes installing a shelter on the concrete area on the front of the facility, which will be available for pool party rentals. The structure will include four picnic tables and rerouting the fencing to enclose this area with a steel Decra roof to match the other two buildings. This will enclose the bathrooms on the north side of the facility within the fenced area for patrons to utilize.

This project will also replace the existing gutter system that surrounds the perimeter of the pool. The existing gutter system is obsolete and the city is running out of spare sections to replace the sections that are getting brittle and crack under use. The city would be replacing the slide pump and motor as this pump is the only original left to the facility.

Joshua Johnson MA
Oelwein Park Superintendent







Parks / Cemetery / Aquatics / Campground

Park and Recreation

www.cityfoelwein.org

Miller Construction

Shelter and fencing \$25,645

Kay Park

4 Picnic Tables \$2,908

Waterloo Tent and Tarp

6 Café Tables - replacement \$6,750

6 café umbrellas - replacement \$5,370

1 Slide Canopy \$2,985

2 Two-post hip structures \$7,920

2 Permabrellas \$7,260

Shipping \$1,790.37

\$32,075.37

Fisher Brothers

1 Frog Slide \$14,596

Grating - replacement \$20,000

Carrico Aquatics

Slide pump/motor - replacement \$5,600

\$100,824.37

Joshua Johnson MA
Oelwein Park Superintendent
20 2nd Ave. SW
Oelwein, IA. 50662
319-283-5440 – City Hall
319-283-0544 – Cell

