



Office of the Sheriff

Paul D. Laney, Sheriff

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CASS COUNTY COMMISSION

MAR 15 2016

March 7, 2016

Chad Peterson, Portfolio Commissioner
Cass County Commission

Re: Allocation of Funding for ARMER Radio Participation Plan Consultant Fee

(Allied Radio Matrix Emergency Response)

Chairwoman Scherling,

The Cass County Sheriff's Office in conjunction with cities of Fargo and West Fargo jointly seek the services of a professional consulting firm to develop the ARMER radio system Participation Plan. This plan would outline the future development of an 800 MHz radio subnetwork and potential migration of the Cass County Sheriff's Office, and the cities of Fargo and West Fargo to the State of Minnesota ARMER radio system.

Rey Freeman Communications Consulting proposes to develop for Cass County and the City of Fargo an ARMER participation plan which sets forth a technical approach for a dedicated local subsystem, the expected performance of such a system, and connectivity options to both the Red River Regional Dispatch Center and the State of Minnesota ARMER network.

We believe that Rey Freeman Communications is best prepared to address our needs, as the firm has completed the ARMER Participation Planning work for over 22 counties and tribal agencies in Minnesota, including Clay County and the City of Moorhead. The development of this plan captures all the communication needs for all emergency service entities within Cass County.

The cost for ARMER plan development, contained in the attached Scope of Work, is proposed at \$ 30,000 which also includes all travel and other expenses associated with work required to complete this project.

A copy of the Scope of Work has been provided to the Cass County States Attorney's Office for review.

Move to authorize Madam Chairwoman to approve contracting with Rey Freeman Communications Consulting for the development of the ARMER Radio Participation Plan for Cass County Sheriff's Office and the cities of Fargo and West Fargo.

Should you have any questions, please contact our office.

Respectfully,

Captain Michele D. Harmon
Administration/Court Services Division

Cass County Sheriff
211 9 St. S.
PO Box 488
Fargo, ND 58107-0488
Phone: 701-241-5800
Fax: 701-241-5805

Cass County Jail
450 34 St. S.
Fargo, ND 58103-2229
Phone: 701-271-2900
Fax: 701-271-2967

Cass County Detention
450 34 St. S.
Fargo, ND 58103-2229
Phone: 701-241-5845
Fax: 701-241-5936



WWW.RFCCRADIO.COM

REY FREEMAN

COMMUNICATIONS CONSULTING

13517 LARKIN DRIVE • MINNETONKA, MN 55305
REY FREEMAN | D • 952.541.0747
rfreeman@isd.net | C • 612.940.0711

January 15, 2016

Cass County Sheriff's Office
211 – 9th St South
Fargo, ND 58103

Attn: Sheriff Paul Laney

Subject: Proposal for ARMER Radio Participation Plan

Dear Sheriff Laney:

I am pleased to present to Cass County and the City of Fargo a proposal for the consulting and planning services to develop an 800 MHz Network and ARMER radio system Participation Plan for your agencies.

As an introduction, in August 2013 I launched "RFCC", a radio consulting and project management company, after spending 17 years with GeoComm (St. Cloud, MN) as their primary radio systems consultant. GeoComm was under new ownership as of June 2013, and the management has decided to focus their efforts on 9-1-1 and GIS software products and vendor partnerships with the NextGen 9-1-1 market. Those of us in the consulting group were free to continue working in the consulting field, and are now working directly with many of the same customers we have been serving in the past.

I have completed the ARMER Participation Planning work for over 22 counties and tribal agencies in Minnesota, including your neighbors Clay County/City of Moorhead and Becker County (Detroit Lakes), and am currently working with Norman and Marshall Counties on ARMER plan development. I also developed the existing VHF digital systems now used by the cities of Bismarck and Mandan several years ago.

The ARMER planning process is typically completed in three phases. The attached proposal and Statement of Work provides a detailed outline of our typical approach to this project, however a quick outline of the recommended phased approach is as follows:

- Phase 1: Radio system Technical Review and Operations Analysis
- Phase 2: ARMER Participation Plan Development
- Phase 3: Participation Plan Approval Process

We recognize that the development and submission of an ARMER Participation Plan for the Cass County and City of Fargo agencies is a unique and potentially challenging situation. As the two entities are geographically located outside of Minnesota's borders, it would be the first time an entity has requested to use the ARMER system for daily operational use in this manner.

The work for this plan would begin with a review of your existing radio systems; from that point we would discuss the county and city's radio needs, and begin developing the actual ARMER plan document. Once the plan is completed, we present it to your County Board and Fargo City Council for their approvals.

From there, we submit it and present it to the Northwest RAC, Northwest Radio Board, the State Operations and Technical Committee (OTC), and finally the State Emergency Communications Board (SECB).

The typical schedule for this process takes approximately 5 to 6 months, and will depend on how quickly the information can be obtained and compiled into the plan, along with the various approvals needed as noted.

The cost for ARMER plan development, contained in the attached Scope of Work, is proposed at \$30,000, which also includes all travel and other expenses associated with RFCC's work required for the project.

In summary, I appreciate the opportunity to work with Cass County and the City of Fargo on this interesting radio system planning process. Please let me know if there are any questions that we can address regarding this proposal or project.

Sincerely,

A handwritten signature in black ink that reads "Ray Freeman". The signature is written in a cursive style with a long, sweeping underline.

952-541-0747 Office
612-940-0711 Cell
rfreeman@isd.net

- Predicted RF coverage and mapping

Phase One Deliverables:

- Kickoff Meeting and On-site Visit(s)
- Status Reports
- Draft Technical Design and Implementation Document

Phase Two: Participation Plan Development

RFCC will develop the participation plan for the City of Fargo and Cass County to join the Minnesota ARMER system using the information gathered during the technical design analysis phase. Much of the information contained in the planning document will flow naturally from any previously completed project reports and supporting documentation developed during Phase one. The participation plan created for the Client will follow the format established by the State Radio Board, Mn/DOT, the Northwest Minnesota Regional Radio Board (NW RRB), and will also follow the State of Minnesota's requirements for ARMER participation plans and submittal of those plans.

RFCC will develop all necessary documentation for delivery to the Client's project team for review and comment prior to developing the final planning document.

The participation plan will follow a format similar to what RFCC has used for submitting plans to the state and regional boards for previous project clients. The format of the participation plan will use the latest version required by the state and NW RAC/RRB and will include:

- Introduction
- Background
- ARMER participation request
- Technical design capacity and operation requirements
- Point of contact information
- Operational impact on the ARMER infrastructure
- City of Fargo and Cass County fleet mapping
- Computer-generated coverage maps
- Dispatcher and Radio User Training needs (does not include developing training program)
- Proposed budget for implementation
- Proposed project schedule
- Project review and Summary

By following the participation plan sections as described above, the Client will:

- be ensured that the plan is consistent with ARMER regional plans and meets ARMER system standards
- provide county stakeholders with a detailed project schedule
- provide a plan that follows the MN/DOT requirements for system capacity and describes the affect on the ARMER backbone due to the addition of Client's local enhancements
- be ensured that the request for participation follows the requirements of the local, regional, and State Radio Boards
- identify training requirements, and
- include a fleet map (the fleet map will be developed for the Client with assistance from Client personnel)

Phase Two Deliverable:

- Draft ARMER Participation Plan Document

Phase Three: Participation Plan Approval Process

Task One: Final Participation Plan Review

RFCC will work with the Client's project team to clarify any discrepancies in the preliminary plan prior to its final version. We will then conduct a formal presentation of the final plan to the City of Fargo and Cass County staff members, along with City Council and County Board, which is required prior to any presentations to the Regional committees. RFCC will assist the Client's project team in gaining approval of the participation planning document in the next tasks.

Task Two: Participation Plan Approval

RFCC recognizes that the process of obtaining plan approval from the various committees and boards can be a challenging task. There is a specific approach that must be followed to gain approval when presenting a participation plan for joining the ARMER system. RFCC has years of experience in presenting to, and working with, these groups and has been successful in obtaining approval for similar past projects in the State of Minnesota.

RFCC will assist the Client in preparing for and providing technical assistance during the county's presentation to the Northwest Minnesota Regional Advisory Committee (NW RAC), which is the first committee that the Client must gain approval from before proceeding to the Regional Radio Board for approval. When approval is received from the Regional Advisory Committee, RFCC will continue to assist the Client as presentations are made to the Regional Radio Board and to the State of Minnesota Emergency Communications Board (SECB) and Technical Committee (OTC).

RFCC will revise the report following any recommendation from the regional and/or state radio boards and will resubmit the plans for approval if any changes are needed. RFCC will assist the Client with the following during the approval process:

- Updating participation plan as requested by the Client and the Northwest Regional Advisory Committee (NW RAC)
- Preparing approval requests and/or letters for submittal to the Client's City Council, County Board, Regional Advisory Committee, the Regional Radio Board, and others, as needed, to obtain plan approval
- Assisting in presenting the ARMER participation plan to the County Board, Regional Advisory Committee, and Regional Radio Board, as needed, to attain approval of the participation plan for joining the ARMER backbone.

Phase Three Deliverables:

- City and County Board Presentations
- Radio Board Meetings and Presentations
- NW RAC (Radio Advisory Committee) and NW RRB (Regional Radio Board)
- State Radio Board (SECB) and OTC (Operations and Technical Committee)
- Final Participation Plan Document

Project Schedule

RFCC’s specific time sequenced approach to the City of Fargo and Cass County project is subject to modifications following any specific contract negotiations and any changes agreed to at the project kickoff meeting. RFCC anticipates this project will be completed within a 5 to 6 month timeframe. This schedule is somewhat flexible as there are several tasks and meetings that are dependent on outside agencies. For example, the Northwest Regional Advisory Committee (NW RAC) meets monthly while the Regional Radio Board may only meet every other month. Also, the State OTC meeting is held the second Tuesday of the month, while the NW RAC meeting is held the second Wednesday of the month. As such, there is always a one month delay between the approval of these two groups. The timing of these meetings and gaining approval from each of these agencies could shorten or lengthen the timeframe for completion. Throughout the project, RFCC will provide regular status updates and will work with the regional boards to gain approval of the plan in a timely manner.

The following schedule provides a general timeline for the tasks outlined in this scope of service. During contract negotiations the timeline will be updated and/or modified based on mutual agreement between RFCC and City of Fargo and Cass County.

Project Element	Estimated Days to Complete
Phase One: Technical Design Analysis	
Task One: Documentation Compilation and Review	30 days
Task Two: Radio System and ARMER Status Review	30 days
Phase Two: Participation Plan Development	
Task One: Draft Participation Plan	45 days
Task Two: Final Participation Plan Delivery	15 days
Phase Three: Participation Plan Approval Process	
Task One: Final Participation Plan Review and Client Approval	25 days
Task Two: Participation Plan Approval	40 days
Total Project Duration	185 Days

Note: Estimated timeframe is based on business days and reflects the anticipated time to complete each task. Some tasks will be conducted concurrently.

Proposal Pricing

RFCC’s pricing to City of Fargo and Cass County for this project reflects the costs for services proposed within the scope of work. If the Client chooses to add or remove services from the proposed scope of work, RFCC will negotiate and adjust the proposed pricing accordingly. The price quoted is firm for 90 days.

Project Total \$30,000

Notes: The above pricing reflects the scope of work contained in this proposal. The price quoted is a fixed price sum and includes all usual and customary expenses including travel costs, travel expenses, and administrative fees.

The scope of work does not include consulting services for the actual procurement, installation, or testing of any system components. If desired by City of Fargo and Cass County, these services can be provided under a separate contract. The Client is responsible for any state sales tax(es), if applicable.

Payment Terms

RFCC’s payment terms represent equitable payment based on RFCC’s incurrence of expenses and completion of work. RFCC requests an initial payment within 30 days of contract signing. Subsequent payments will be equally distributed over the duration of the project with the final payment due upon completion and presentation of the final report. RFCC’s standard payment terms are net 30 days from the invoice date. A payment schedule will be negotiated with City of Fargo and Cass County during the execution of a project contract.

Any additional services requested by the Client not identified in the scope of work will be negotiated and an amendment will be issued to the original contract. If the county prefers, additional services will be billed at our hourly rate plus any cost for travel and expenses.



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City of Fargo/Cass County ND ARMER Plan - Scope of Services

RFCC (Rey Freeman Communications Consulting) recognizes that City of Fargo and Cass County (herein referred to as the "Client") jointly seek the services of a professional consulting firm to develop an ARMER radio system Participation Plan, to be used for planning the future development of an 800 MHz radio subnetwork and potential migration of the client's agencies to the State of Minnesota ARMER radio system. The preparation and approval of an ARMER plan is an important step in preparing the city and county for improved radio communications operations, along with greatly improved communications interoperability with neighboring city, county, and other local public safety agencies.

RFCC has completed ARMER plans for Clay County/Moorhead, Polk, and Mahnomen counties in the recent past, an ARMER system installation with Becker County (Detroit Lakes), and is currently working with Marshall and Norman counties on ARMER plans.

We recognize that the development of an ARMER plan for Fargo/Cass County will be a unique situation, as these agencies are not physically located in Minnesota. Though the technical elements of such a plan and system may not be overly challenging, the administrative and cooperative efforts needed from the many agencies involved in approving this subsystem may be a time-consuming process. It is assumed that it is the Client agencies' goal to ultimately be connected to a State of North Dakota trunked network, but as of now there are no near-term plans for that to happen. Direct connectivity with the Minnesota ARMER system is a logical option, and would greatly enhance radio communications and operations for all agencies involved in the plan.

RFCC proposes to develop for the Client an ARMER participation plan which sets forth a technical approach for a dedicated local subsystem, the expected performance of such a system, and connectivity options to both the Red River Regional Dispatch Center and the State of Minnesota ARMER network. The plan will establish radio improvement options and costs, mobile and portable radio inventories, Fleetmap/Talk Groups, and ultimately prepare the Client for future ARMER system implementation. This process includes developing cost estimates and an implementation schedule, along with obtaining the needed approvals for completion of the plan.

RFCC will create the participation plan in accordance with the requirements outlined in the State of Minnesota's ARMER program and in coordination with local and state radio boards. To create the participation plan, RFCC will develop a technical design plan for the Client identifying the required



radio system enhancements including required subscriber equipment, RF coverage predictions, tower sites, dispatch console requirements, and connectivity and microwave plans as required.

RFCC will develop an ARMER participation plan for the Client by utilizing a three-phased approach:

Phase One: Technical Analysis and Design

Phase Two: Participation Plan Development

Phase Three: Participation Plan Approval Processes

RFCC recognizes that ongoing communication is important for successful project completion. RFCC uses several different methods to ensure the project status is readily available to the entire team. To ensure a high level of ongoing project communication, RFCC will use a combination of on-site meetings, reports, and regular conference calls to ensure an effective and timely information exchange with the county. RFCC will generally communicate with the Client on a weekly basis throughout the project. The Client's project contact and RFCC consultant will establish a specific communications plan early in the project.

An important point to be made in this process, which may or may not affect City of Fargo and Cass County, is that the completion and submission of an ARMER plan to the Regional and State committees for approval does not automatically commit the county to a full ARMER implementation. The ARMER plan is an important process and document that helps both the county and the state develop an understanding of the future needs and costs for both agencies' use of the ARMER radio system.

Phase One: Technical Analysis and Design

Task One: Documentation and Data Compilation and Review

RFCC will gather and review any studies and/or recommendations previously completed for the Client agencies in preparation for development of the ARMER plan. RFCC will review the conclusions and recommendations from any previous reports or existing data and will begin developing the participation planning document. During the documentation review and planning the consultant will collect and review data including:

- Details on the technical and operational parameters of both the existing and future radio systems
- Any existing City of Fargo and Cass County radio planning efforts
- Current radio system information from Client public safety agencies and other surrounding communities

- Equipment and systems inventory
- Details on the ARMER statewide radio system
- Maintenance contracts and service providers
- Copies of FCC licenses and VHF radio system frequency data
- Radio interoperability requirements by agencies
- Any other unique operational needs, such as Native American Tribal agencies
- Communication center requirements, including equipment upgrades and training needs

In addition to reviewing the Client's needs for participation in the ARMER system, RFCC will review and provide recommendations on the client's interoperability requirements with neighboring jurisdictions. The final participation plan will address coverage, capacity, as well as interoperability with responders in surrounding communities not participating in the ARMER system and its affect with Client's participation.

RFCC will provide the following surrounding county information:

- A description of neighboring counties service providers
- A description of governmental and non-governmental primary service area response providers (EMS, public works, public utilities, etc.)
- Current and predicted interoperability with adjacent jurisdictions

Task Two: Radio System Planning and Development

Following the review of the Client's documents and discussions with Client participants on their specific radio system needs, RFCC will work with the Client to determine a local radio subsystem infrastructure plan, as the Fargo/Cass County geographical area is outside of the ARMER system's tower sites and targeted coverage area. This review will assist in determining the effect on the ARMER backbone as a result of the Client joining the system.

From this information, RFCC will then begin to draft the technical design plan for the Client. The design plan will incorporate all subsystems necessary for joining the ARMER backbone and include:

- Communication center console equipment requirements (RRRDC)
- VHF/UHF interface and integration requirements for participating on the ARMER system
- Connectivity to the ARMER system
- Compatibility with state and regional plans (Minnesota and North Dakota)
- Radio system capacity needs and loading criteria
- ARMER site stations and equipment
- 800 MHz frequency planning for the local tower sites
- Mobile and Portable subscriber radio equipment requirements