

EXHIBIT "A"
SCOPE OF SERVICES (required)



Federal Engineering, Inc.

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Fairfax, VA 22030
703-359-8200

STATEMENT OF WORK (SOW)
Issued: November 1, 2016

ATTACHMENT TO CONTRACT NAME
CONTRACT NO.: _____
Dated: _____

COUNTY OF MARIN
MERA PHASE 2 NEXT GENERATION WIRELESS COMMUNICATIONS
CONSULTING SERVICES
MARINCA-PSMR-IMPL

1. INTRODUCTION AND ISSUES

1.1 Project Overview

The County of Marin (County), on behalf of the Marin Emergency Radio Authority (MERA), seeks the services of Federal Engineering (**FE**) to provide project management and technical support during the implementation phase of their new P25 Phase 2 trunked radio system. **FE** will provide oversight for the transition from the existing radio system to the new P25 Phase 2 radio system.

The implementation phase services described herein include project initiation, planning, and design review and extend through installation, testing, cutover, and final acceptance. **FE** will oversee the construction vendor and help coordinate activities between both the radio system vendor and construction vendor.

FE will track and manage scope, schedule and budget, and allocate and assign **FE** staff as necessary to meet the project schedule and budget constraints. **FE's** Project Manager will effectively allocate the appropriate resources to make certain that work performed is at a high-quality level and meets the scope of work, as identified herein.

1.2 Project Assumptions

- **FE** anticipates the project duration will be two and a half years from the start of the implementation phase. **FE's** implementation support tasks will align with the selected vendor's schedule to provide oversight and management of the vendor's specific activities. Upon vendor contract award, **FE** will provide an

implementation oversight schedule that aligns with the vendor's implementation schedule.

- **FE** proposes a Senior Consultant who will fulfill the role of Project Manager. This individual will be on-site at the client facility for the estimated two-and-a-half-year project implementation period and support Tasks 1 through 6 as defined in Section 2 of this SOW. This individual will provide necessary support to the project for 40 hours per week. The Project Manager will work for 47 weeks per year with the remainder being vacation and holiday time.
- **FE** proposes a Senior Consultant who will fulfill the role of Technical Lead. This individual will be located remotely and support Task 2 as defined in Section 2 of this SOW including attending the preliminary and final design review meetings.

2. TASKS TO BE PERFORMED

2.1 Task 1: Implementation Project Management

Implementation support services take a project from the initiation, planning, and design review phases through installation, testing, and final cutover. **FE** will assess the vendor's plan before major commitments are made and will provide the County management with recommendations in order to mitigate risk and create a proactive project management environment. We will assess if the radio vendor's implementation plan is consistent with the contract regarding system requirements, schedule, and cost milestones.

Our implementation support tasks will align with the selected vendor's schedule to provide oversight and management of the vendor's specific activities. Upon vendor contract award, **FE** will provide an implementation oversight schedule that aligns with the vendor's implementation schedule.

The following activities are typical of this type of project. **FE** will coordinate with the County to determine which of these tasks will be necessary based upon the radio system vendor's implementation tasks and schedule, and the County's requirements.

1. Coordinate and participate in the Implementation Kickoff Meeting to discuss project goals, objectives, tasks, schedule, and deliverables with the County and the selected vendor.
2. Participate in weekly project status teleconferences, or as required.
3. Participate in weekly on-site project status meetings.
4. Participate in other project meetings as required.

EXHIBIT “A”
SCOPE OF SERVICES (required)

5. Assist in the development of project execution processes as they relate to milestone processing, effective communications across teams, roles and responsibilities, and documentation formats.
6. Review frequency plans, coordination, and license applications as required.
7. Prepare and maintain an independent punch list of items during implementation activities including issue, responsible party, target date for completion, actual date of completion, and resolution.
8. Assist with California Environmental Quality Act (CEQA) / National Environmental Policy Act (NEPA), Coastal Development Permit and other environmental/permitting processes, including preparation of a Request for Proposals (RFP) for environmental consulting services to a) develop CEQA Initial Study, b) conduct required special studies and analyses (biological, cultural resources, visual, etc.), and c) prepare environmental determination documentation (EIR, Negative Declaration, Notice of Determination, etc.). **FE** will also assist in preparation of required permit applications.
9. Assist the County in resolving vendor implementation issues, oversee the vendor’s punch list development and resolution process, identify any vendor performance issues, and make appropriate recommendations to the County.
10. Coordinate actions such as risk mitigation with the County project management personnel

2.2 Task 2: Preliminary Design Review (PDR) and Final Design Review (FDR)

FE will participate in the radio system vendor’s contract/preliminary design review and a final design review. These design reviews will be as defined in the vendor’s contract.

1. **FE** will review vendor PDR documents and attend the PDR design presentation by the vendor. The review typically includes items identified in the vendor’s project plan such as:
 - Project schedule
 - Individual site designs (including feasibility)
 - Frequency plan
 - Detailed system design (including station alerting, paging, and conventional resource integration)
 - Updated equipment list (by site)
 - Updated system drawings
 - Factory acceptance test plans and procedures (FATP)
 - Site testing plans and procedures

- Radio coverage methodologies and coverage acceptance test plan (CATP)
 - Cutover plans
 - System acceptance test plans
 - Training Plans
 - List of manuals and documentation
 - Final PDR package
 - Decommissioning process for old equipment
2. **FE** will identify areas of deficiency, document in a punch list, and provide recommendations to correct the deficiencies. **FE** will assist the County with change order negotiations, if any, resulting from the PDR.
 3. **FE** will review FDR documents and attend the FDR presentation to ensure PDR punch list items are adequately addressed.
 4. **FE** will make recommendations to the County regarding the vendor's readiness to move on to the next phase and supplemental facility requirements for integration of conventional resources not included in vendor's system design.

2.3 Task 3: Factory Testing, Equipment Delivery, and Installation Verification

1. **FE** will attend factory staging of the system at the vendor's facility acting as the County's technical advisor to assess operational compliance.
2. **FE** will conduct an independent inventory of equipment upon delivery to each site to determine if the County is receiving what they paid for. The completed inventory will be provided in the form of a spreadsheet.
3. **FE** will oversee the radio system project implementation tasks to assess timely completion and adherence to schedule.
4. **FE** will inspect each site to determine if the equipment installations are in accordance with the specifications, meet industry workmanship practices, and are within equipment standards. For the following inspection-related activities as identified in the vendor's schedule, **FE** will typically:
 - Review shelter preparation and facilities design activities to determine if they have been performed correctly and in time for installations.
 - Assess if the required facility improvements have been made.
 - Observe site installations.
 - Observe the site equipment installation and initial testing including antenna, transmission line, radio system infrastructure equipment, and microwave equipment
 - Prepare punch list of deficient items

EXHIBIT “A”
SCOPE OF SERVICES (required)

- Observe the results of the vendor’s final site tests.
- Review each site’s punch list and determine if it includes deficiencies noted during the site preparation and test verification. Determine that corrective actions are taken before any punch list items are removed.

2.4 Task 4: Coverage and System Testing

FE will participate in the following testing activities as identified in the vendor’s schedule.

1. *FE* will observe the coverage tests as the County’s representative. *FE* will accompany the system vendor for the coverage testing to assess methodology, testing equipment calibration, and data collection completeness. *FE* and the County will mutually define the coverage testing area.
2. *FE* will review coverage test results.
3. *FE* will attend final system testing and assess the test results.
4. *FE* will provide a memo to the County that identifies coverage and system testing results and a punch list for the vendor to correct deficiencies in the test documentation. *FE* will review the independent punch list and vendor punch list and assess retesting results to confirm that the deficiencies have been corrected.

2.5 Task 5: System Acceptance and Cutover

1. *FE* will work with the County and radio system vendor on the development of the subscriber fleet map and will review the subscriber fleet map to identify deficiencies or areas for improvement.
2. Prior to the system acceptance process, *FE* will review the final vendor cutover plan and identify deficiencies or areas for improvement to the County. *FE* will assist the County in negotiating final changes to the cutover plan with the vendor.
3. Final system acceptance will begin after the system tests have been successfully completed by the vendor and the fully functional system has been delivered. *FE* will oversee acceptance testing activities, assess the testing results, and make any necessary recommendations for the vendor to correct deficiencies noted during the testing.
4. Upon completion of system acceptance testing and correction of deficiencies, including punch list and documentation items, *FE* will make a recommendation in memo format to the County regarding acceptance of the system and cutover.
5. *FE* will observe the cutover to determine if cutover procedures are executed properly and success criteria met.

2.6 Task 6: Documentation

1. **FE** will assess the delivery and adequacy of manuals identified in the contract and during the FDR.
2. **FE** will determine if the corrections have been made to the final manuals by the vendor after final system acceptance testing and discrepancies are corrected.
3. **FE** will review and assess the accuracy of as-built drawings.
4. **FE** will review training plans and curricula and make recommendations for modifications as necessary to the County.

3. STAFFING/ORGANIZATION

A Senior Consultant will serve as the Project Manager. This individual will be on-site at the client facility for the estimated two-and-a-half-year project implementation period. A Senior Consultant will serve as Technical Lead and will be located remotely to support Task 2 as defined in Section 2 of this SOW.

4. COST

Services defined in Section 2 (Tasks 1-6) of this SOW will be billed at a fixed-price of \$989,250.00 **FE** will notify the County should additional support hours be required during implementation and this SOW will be amended in writing via a mutually agreeable addendum. The labor rates for these services are documented in the fee schedule in Schedule A.

The on-site Project Manager will be full-time on the project for the entire two-and-a-half-year project implementation.

4.1 Invoicing

FE will submit 30 monthly invoices in the amount of \$32,975.00 each, starting on January 31, 2017.

4.2 Cost for Optional Services

Any optional or additional tasking will be authorized by mutual agreement of the County of Marin and **FE**. Such tasking will be performed on a time and materials basis in accordance with the rates in Schedule A or on a fixed price basis as mutually agreed upon in a task order by the County of Marin and **FE**.

EXHIBIT “A”
SCOPE OF SERVICES (required)

5. BASIS FOR OUR SCOPE OF WORK

1. This SOW assumes Federal Engineering, Inc. will perform all of the tasks as called out in Section 2 (excluding any optional or additional tasks). The deletion of a task or significant change in scope of one or more tasks may affect the overall price.
2. The detailed design of the system as well as the development of acceptance and other test plans, implementation schedules as well as meeting coverage and all other performance criteria shall be the responsibility of the system vendor.
3. **FE's** ability to fulfill this task order depends, in part, on the willingness and ability of the County, County participants, the equipment vendors, service providers, third parties, and others to provide information in a timely manner and upon the accuracy of the information as supplied. The accuracy of input data, whether provided in electronic or hard copy form, and the recommendations, actions, system designs, and license filings resulting therefrom cannot, therefore, be warranted by **FE** nor can the performance, suitability, or reliability of said systems be warranted by **FE**.
4. This proposal is based upon a start date on or before January 1, 2017. The schedule for procurement and implementation oversight will be adjusted after determination of the County's procurement schedule and the vendor's final approved implementation schedule. Delays to the project schedule due to actions or lack of actions on the part of the County, County participants, third parties, and others including, but not limited to vendor protests, protracted contract negotiations, vendor delays that impact the program schedule and/or costs to the County will be brought to the attention of County's project manager in a timely manner, and will be reduced to writing via a mutually agreed upon contract amendment.
5. This SOW assumes that the **FE's** project manager will assist the client PM to schedule meetings, notify attendees, and arrange for on-site visits. The County will arrange for meeting facilities.

SCHEDULE A

LONG TERM CONSULTING RATES

Effective January 1, 2015 through December 31, 2018

Assistant Vice President	\$ 245.00 per hour
Director/Chief Consultant	\$ 215.00 per hour
Senior Consultant	\$ 180.00 per hour
Consultant	\$ 155.00 per hour
Senior Analyst	\$ 130.00 per hour
Analyst	\$ 95.00 per hour
Administrative / Computer Services	\$ 65.00 per hour

TERMS AND CONDITIONS

1. Long term rates do not include state or local taxes.
2. Subcontracts, travel, meals on a per diem basis, and other direct non-labor charges will be invoiced as actual cost plus 20 percent to account for general and administrative costs.
3. Hours expended for travel in support of the SOW are billable hours.
4. Invoices will be rendered monthly. All invoices are due and payable 30 days from issuance. Late balances are subject to a finance charge of 1.5 percent per month (or fraction thereof).

This document is proprietary to Federal Engineering, Inc. and shall not be disclosed to third parties without prior written permission from Federal Engineering, Inc.