

RESOLUTION 23-1

WHEREAS, Sangamon County is very conscientious and determined to provide for the safety of the public and of the First Responders who serve the County citizenry; and,

WHEREAS, Sangamon County currently utilizes a Rural Fire Radio System that is aging and in need of major upgrades; and,

WHEREAS, the Sangamon County Radio Governance Committee has recommended that a Rural Fire Radio Feasibility Study be conducted; and,

WHEREAS, the Sangamon County Office of Emergency Management Board has seconded the recommendation that a Rural Fire Radio Feasibility Study be conducted; and,

WHEREAS, a Rural Fire Radio Feasibility Study will provide detailed options, projected costs, and recommendations toward a solution to improve or replace the current system; and,

WHEREAS, Sangamon County has chosen Tusa Consulting Services to conduct the Rural Fire Radio Feasibility Study; and,

WHEREAS, Sangamon County has negotiated a tentative agreement with Tusa Consulting Services to conduct the Rural Fire Radio Feasibility Study and provide a comprehensive "Needs Assessment Report" at its conclusion; and,

WHEREAS, Tusa Consulting Services would like to enter into a contract to conduct the feasibility study for an amount not to exceed \$27,100; and,

NOW THEREFORE, BE IT RESOLVED, BY THE COUNTY BOARD MEMBERS OF SANGAMON COUNTY, in session this the 12th day of November, 2019 A. D., that the above contract with Tusa Consulting Services be approved for a Rural Fire Radio Feasibility Study in an amount not to exceed \$27,100.

County Board Chairman

FILED

NOV 08 2019

Don May
Sangamon County Clerk

**I AGREEMENT BETWEEN SANGAMON COUNTY, ILLINOIS
and
TUSA CONSULTING SERVICES II, LLC
for
ANALYSIS OF COUNTY RADIO COMMUNICATIONS**

This Agreement is entered November 12th, 2019 by and between Sangamon County, Illinois, (the “County”) and TUSA Consulting Services II, LLC (the “Contractor”).

Recitals

- A. Sangamon County desires a contract for professional services from the Contractor to conduct an analysis of its public safety radio communications system, capabilities and new-system requirements as described by the Contractor in its subsequently provided services proposal dated March 18, 2019.
- B. The Contractor has the requisite qualifications and experience to perform the services needed by the County and desires to perform those services pursuant to the terms of this Agreement.

The parties, in consideration of the mutual promises set forth in this Agreement, agree and covenant:

- 1. **Definitions.** Capitalized words used in this Agreement shall have the following meanings:

“**Agreement**” means this Agreement for the analysis of specific Sangamon County emergency radio communications systems and capabilities, as amended and supplemented from time to time.

“**County**” means Sangamon County, Illinois; 200 South 9th Street, Springfield, IL 62701.

“**Contractor**” means TUSA Consulting Services II, LLC; 75757 Highway 1082; Covington, LA 70435, and its successors.

- 2. **Exhibits.** The following Exhibits are attached to and made a part of this Agreement:

Exhibit A: TUSA Proposal (3/18/19)

Exhibit B: TUSA Insurance Certificate

- 3. **Responsibilities of the Parties.** The parties agree to perform the responsibilities outlined in the attached and incorporated by Exhibit A.
- 4. **Term; Schedule.** The Contractor agrees to perform its responsibilities during the term and according to the timeframe and schedule described in Exhibit A, subject to the potential for prior termination pursuant to the terms of this Agreement.
- 5. **Payment.** The County shall pay the Contractor for the performance of its responsibilities pursuant to this Agreement as set forth in Exhibit A.
- 6. **Insurance Requirements.**
 - 6.1. **Types and Amount of Coverage.** The Contractor agrees to obtain insurance coverage as specified in Exhibit B, attached hereto, and shall not make any material modification or change from these specifications without the prior approval of the County. If the Contractor subcontracts any of its obligations under this Agreement, the Contractor shall require each such subcontractor to obtain insurance coverage as specified in Exhibit A. Failure of the Contractor or its subcontractors to comply with these requirements shall not be construed as a waiver of these requirements or provisions and shall not relieve the Contractor of liability.

- 6.2. **Rating.** All insurance policies shall be issued by insurance companies rated no less than A- VII in the most recent "Bests" insurance guide and admitted in the State of Illinois. Except as otherwise specified in Exhibit A, all such policies shall be in such form and contain such provisions as are generally considered standard for the type of insurance involved.
- 6.3. **Certificate of Insurance.** The parties acknowledge that the Contractor has provided the County with a certificate of insurance listing the County as the Certificate Holder and evidencing compliance with the insurance requirements in this Agreement. The County reserves the right to require complete certified copies of all insurance policies procured by the Contractor pursuant to this Agreement, including any and all endorsements affecting the coverage required hereunder.
7. **Injury to Persons or Damage to Property.** The Contractor acknowledges responsibility for any injury to person(s) or damage to property caused by its employees or agents in the performance of its duties under this Agreement and shall immediately notify the County's Risk Management Department at in the event of such injury to person(s) or damage to property.
8. **Indemnification.** To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the County, its agents, representatives, officers, officials and employees from and against all claims, damages, losses and expenses (including but not limited to attorney fees and court costs) attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property, including loss of use resulting therefrom, to the extent that such claims, damages, losses, and expenses relate to, arise out of, or are alleged to have resulted from the wrongful acts, negligent acts, errors, omissions, or defective work or services of the Contractor, its employees, agents, or any tier of subcontractors in the performance of this Agreement.
9. **Voluntary Termination.** Either party may terminate this Agreement, with or without cause, upon thirty (30) days advance written notice to the other party. In the event of such termination, the Contractor shall be compensated for such services as have been satisfactorily performed through the date of termination, but no compensation shall be earned after the effective date of the termination. Within five (5) days of any such termination, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, reports or other material prepared by the Contractor pursuant to this Agreement shall be delivered to the County. Notwithstanding the above, the Contractor shall not be relieved of any liability to the County for damages sustained by the County by virtue of any breach of this Agreement by the Contractor, and the County may withhold any payments to the Contractor for the purposes of set-off until such time as the exact amount of damages due the County from the Contractor may be determined.
10. **Default.** If either party fails to comply with any term of this Agreement within ten (10) days after written notice to comply has been mailed by the non-defaulting party to the defaulting party, such failure shall be deemed an immediate breach of this Agreement ("Event of Default").
11. **Remedies.** Upon the occurrence of an Event of Default, the non-defaulting party shall have the following rights and remedies, in addition to any other rights and remedies provided under this Agreement or by law:
- 11.1 **Termination.** The non-defaulting party shall have the right to terminate this Agreement or terminate the defaulting party's rights under this Agreement.
- 11.2 **Other Remedies.** The non-defaulting party may pursue any available remedy at law or in equity (including specific performance) by suit, action, mandamus or other proceeding to enforce and compel the performance of the duties and obligations set forth in this Agreement, to enforce or preserve any other rights or interests of the non-defaulting party under this Agreement or otherwise existing at law or in equity and to recover any damages incurred by the non-defaulting party resulting from such Event of Default.
12. **Non-Assignable.** Due to the unique qualifications and capabilities of the Contractor, neither the rights nor responsibilities provided for under this Agreement shall be assignable by either party, either in whole or in part.
13. **Notices.** All notices required or permitted to be given pursuant to this Agreement shall be in writing and delivered personally or sent by registered or certified mail, return receipt requested, or by generally recognized, prepaid,

commercial courier or overnight air courier service. Notice shall be considered given when received on the date appearing on the return receipt, but if the receipt is not returned within five (5) days, then three (3) days after mailed, if sent by registered or certified mail or commercial courier service; or the next business day, if sent by overnight air courier service. Notices shall be addressed as appears below for each party, provided that if any party gives notice of a change of name or address, notices to the giver of that notice shall thereafter be given as demanded in that notice.

COUNTY: Sangamon County OEM
Attn: Christopher S. Mueller
2000 Shale Street
Springfield, IL 62703

CONTRACTOR: TUSA Consulting Services II, LLC
Attn: Dominic F. Tusa, Founder/CEO
75757 Highway 1082
Covington, LA 70435

- 14. **Retention and Inspection of Records.** The Contractor shall maintain complete, accurate, and clearly identifiable records with respect to all costs and expenses incurred under this Agreement. The records shall be maintained during the term of this Agreement, and for a period of three (3) years from the date of final payment under this Agreement (the "Retention Period"); provided, however, that if any litigation, claim or audit is commenced prior to the expiration of the Retention Period, then the Retention Period shall be extended until all litigation, claims or audit findings have been completely terminated or resolved, without right of further appeal. During the Retention Period, the Contractor shall allow a representative of the County during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to, or arising under, this Agreement. The County agrees to responsibly utilize all information obtained pursuant to this paragraph for the purposes of reviewing, confirming, and verifying the nature and amount of all costs and expenses incurred under this Agreement. The County agrees to take reasonable precautions not to disclose such information outside the scope of those stated purposes, subject to the State of Illinois open records act or other applicable law.
- 15. **Non-appropriation.** The County is subject to a local municipal budget and operates on a fiscal year. If this Agreement involves financial obligations spanning multiple fiscal years for the County, it is subject to annual appropriation by the County's governing body for future fiscal years. If the County's governing body does not appropriate the funds necessary to fulfill the County's financial obligations pursuant to this Agreement, the County shall so notify the other parties to this Agreement and this Agreement shall be null and void for purposes of the fiscal year(s) affected by the decision of the governing body not to appropriate.
- 16. **Relationship.** It is expressly understood that Contractor in performing services under this Agreement, does so as an independent contractor. The County shall neither have nor exercise any control or direction over the methods by which Contractor performs its responsibilities as outlined in Exhibit A. The sole interest and responsibility of the County is to see that the services covered by this Agreement are performed and rendered in a competent, efficient, and satisfactory manner. Contractor shall be exclusively responsible for all taxes, withholding payments, employment-based benefits, deferred compensation plans, including but not limited to its workers compensation and social security obligations, and the filing of all necessary documents, forms, or returns pertinent to the foregoing.
- 17. **Subcontracting.** Contractor shall not subcontract any work or services under this Agreement without the County's prior written consent.
- 18. **Compliance with Applicable Law.**
Contractor shall comply with all applicable federal, state, and local law in the performance of this Agreement.
- 19. **Equal Opportunity.**
The Contractor and its subcontractors, if any, agree that:

- (1) The Contractor shall not discriminate against any person in the performance of work under this Agreement because of race, sex, religion, age, color, national origin, ancestry or disability;
 - (2) The Contractor shall include in all solicitations, or advertisements for employees, the phrase "equal opportunity employer," or a similar phrase to be approved by the County's human relations director;
 - (3) The Contractor shall not discriminate against any employee or applicant for employment in the performance of this Agreement because of race, sex, religion, age, color, national origin, ancestry or disability; and
 - (4) The Contractor shall include similar provisions in any subcontract under this Agreement.
20. **Administration of Agreement.** All references in this Agreement requiring the County's participation or approval shall mean the participation or approval of the County Board Chairman or his designee, unless otherwise provided herein.
 21. **Attorney Fees.** If any suit or action is instituted by either party hereunder, including all appeals, the prevailing party in such suit or action shall be entitled to recover reasonable attorney fees and expenses from the non-prevailing party, in addition to any other amounts to which it may be entitled.
 22. **Right to Independent Legal Advice.** The Contractor understands and acknowledges the right to have this Agreement reviewed by legal counsel of the Contractor's choice.
 23. **Applicable Law; Venue.** This Agreement and its validity, construction and performance shall be governed by the laws of Illinois. In the event of any legal action to enforce or interpret this Agreement, the sole and exclusive venue shall be Sangamon County, Illinois.
 24. **Interpretation.** This Agreement shall be interpreted according to its fair meaning, and not in favor of or against any party.
 25. **Time.** Time is of the essence of this Agreement. No extension will be granted unless in writing and signed by the parties. Should the end of a time period fall on a legal holiday that termination time shall extend to 5:00 p.m. of the next full business day.
 26. **Severability.** The unenforceability, invalidity, or illegality of any provision of this Agreement shall not render the other provisions unenforceable, invalid, or illegal.
 27. **Authority and Consent to Transaction.** Each party represents to the other that the person executing this Agreement has full and legal authority to bind such party to the terms of this Agreement, and that the execution and delivery of this Agreement have been duly and validly authorized by the governing body of each party.
 28. **Persons Bound.** This Agreement shall extend to and bind the heirs, executors, administrators, trustees, successors and authorized assigns of the parties hereto.
 29. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, or in multiple originals, and all such counterparts or originals shall for all purposes constitute one agreement.
 30. **Amendments.** Neither this Agreement nor any of its terms may be changed or modified, waived, or terminated except by an instrument in writing signed by an authorized representative of the party against whom the enforcement of the change, waiver, or termination is sought.
 31. **Waiver.** No failure or delay by a party hereto to insist on the strict performance of any term of this Agreement, or to exercise any right or remedy consequent to a breach thereof, shall constitute a waiver of any breach or any subsequent breach of such term. No waiver of any breach hereunder shall affect or alter the remaining terms of this Agreement, but each and every term of this Agreement shall continue in full force and effect with respect to any other then existing or subsequent breach thereof.

- 32. **Conflict Resolution.** No interpretation of this Agreement shall be allowed to find the County has agreed to binding arbitration.
- 33. **No Third Party Beneficiaries.** Solely the parties to this Agreement shall have rights and may make claims under this Agreement. There are no intended third party beneficiaries under this Agreement, and no third parties shall have any rights or make any claims hereunder.
- 34. **Typewritten or Handwritten Provisions.** Typewritten or handwritten provisions inserted or attached, and initialed by all parties, shall supersede all conflicting printed provisions.
- 35. **Feminine-Masculine, Singular-Plural.** Wherever used, singular shall include the plural, plural the singular, and use of any gender shall include all genders.
- 36. **Headings.** The headings of the sections of this Agreement are included for the purposes of convenience only and shall not affect the interpretation of any provision hereof.
- 37. **Merger Clause.** These terms are intended by the parties as a complete, conclusive and final expression of all the conditions of their Agreement. No other promises, statements, warranties, agreements or understandings, oral or written, made before or at the signing thereof, shall be binding unless in writing and signed by all parties and attached hereto.
- 38. **MWBE.** The County has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. The Consultant attests that it also shall take affirmative action to insure equality of opportunity in all aspects of employment and to utilize MWBE suppliers of materials and labor when available.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their authorized representatives.

COUNTY OF SANGAMON, ILLINOIS

By: _____

Attest: _____

Date: _____

TUSA Consulting Services II, LLC

By: _____ Dominic F. Tusa

Attest: _____

Date: _____

Exhibit A

TUSA Proposal (3/18/19)

See attached PDF document (15 pages) entitled:

**“SANGAMON COUNTY, ILLINOIS
PROPOSAL TO PROVIDE CONSULTING SERVICES”**

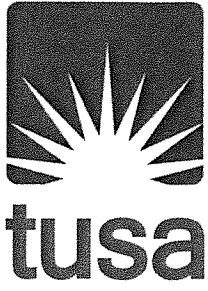
Exhibit B

TUSA Insurance Certificate

See attached PDF document (1 page) entitled:

“ACORD Certificate of Liability Insurance”

23-9



Sangamon County, Illinois

PROPOSAL TO PROVIDE CONSULTING SERVICES

2510



March 18, 2019

Chris Mueller
2000 Shale
Springfield, IL 62703

Subject: Proposal to Evaluate Sangamon County's Radio Communication System

Dear Mr. Mueller,

It is my pleasure to submit Tusa Consulting Services' (TUSA) proposal to provide Sangamon County, Illinois with consulting services for the analysis and feasibility assessment for your County-owned public safety radio system. TUSA has been in business for over 27 years, assisting public safety clients with value-based radio communications solutions. TUSA was one of the first firms to embrace open-standards Project-25 (P25) as a means of competitive procurement; and in doing so we have been nationally recognized by Mission Critical Magazine as one of the top public safety consultants in the industry.

TUSA has performed similar assessments, expansions and modernizations of radio systems for hundreds of public safety clients across the country. In some instances, clients pursue new radio systems due to equipment-obsolescence concerns. Others migrate from legacy analog to new digital radio solutions or to correct coverage/capacity shortfalls. Still others embrace modernization as a means of securing enhanced network reliability, resiliency and interoperability. TUSA excels in each of these categories and, as you read our proposal, you'll come to find we do so in many more.

TUSA Consulting Services has no affiliation with radio equipment vendors and have always believed that an open procurement is the best approach to maximize the use of funding, while achieving guaranteed performance. As a result, our solutions are structured solely to assist you in evaluating viable options, receiving what's agreed upon, and assuring the satisfaction of the user's needs, at the most reasonable cost possible.

Sincerely,

Dominic F. Tusa
Founder, Tusa Consulting Services, LLC
75757 Highway 1082
Covington, LA 70435
(985) 249-6467
nick.tusa@tusaconsulting.com

About Tusa

In 1978, a good friend of mine was working for a petrochemical service company in the Gulf of Mexico. Well a fire broke out on his rig and he was severely burned. The owner spent over an hour trying to radio for assistance, but the radio system was so poorly designed he couldn't get a hold of anyone. The rig's owner eventually loaded my friend onto a workboat, and ferried him to another platform to radio for help.



The rescue action took many hours, and for a person who was burned over 70% of his body, the agony was beyond description. My friend later succumbed to his injuries, but that one incident made a lasting impression on me: NEVER design or field an unreliable radio communications system with inadequate coverage.










- Nick Tusa



TUSA Consulting Services was formed in 1992. The company began implementing microwave shots for offshore oil rigs in the Gulf of Mexico, where some of the most stringent conditions exist. Shortly afterwards, the company started designing public safety systems. In July 2005, the company was reformed into Tusa Consulting Services II, LLC (TCS-II) to expand the business toward a national scale with the introduction of partner-owners. In July 2015, the last remaining partner's business interest was bought and once again, the firm is owned by its original founder.

While our business continues its principal focus on Land Mobile Radio/Microwave, in 2014 TUSA expanded into the design and development of NG9-1-1 communication centers and related CAD/RMS technology. Soon, the radio industry will see a gradual acceleration into shared narrowband/broadband solutions as LTE voice standards are developed and refined. TUSA started planning and preparing for this integration of technologies months before the release of the US House Bill 2482

TUSA by the numbers:

 tusa Founded in 1992	27 Years in Business 	National Consulting Firm 
 1,000+ Projects	25% to 45% Average Client Savings 	30% Lower Ongoing Maintenance Costs 
 2,000+ New Tower Sites	35 States 	 1,000,000+ Satisfied Users

in July 2011, which subsequently led to the creation of FirstNet and a nationwide initiative to construct a public safety broadband facility serving urban and rural communication needs.

Our Commitment to Cost, Coverage, and Reliability

As you review our proposal, you will notice these three words popping up over and over again – **Cost, Coverage, and Reliability**. These three words are the most important aspects in designing a new radio system, and it is something we take very seriously. You might say they are the bedrock of our work, and the themes of this proposal.

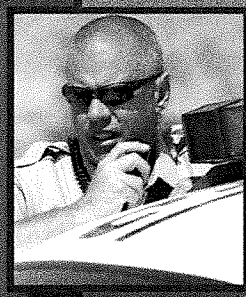
On Coverage

Coverage is the most important consideration when designing a new system. Just like our founder experienced on that oil rig platform, if a radio doesn't have coverage, then it prevents a first responder from completing his mission critical job. TUSA will take the time to educate you on your different coverage options. We'll also work with you to identify critical infrastructure that must be covered. You have our commitment to design a system that maximizes coverage while protecting your pocket book.



On Cost

Deploying a new radio system can be a very expensive challenge. TUSA recognizes that you don't have unlimited funds, which is why we will go out of our way to show you alternative solutions and strategies to reduce costs. We will also show you alternative ways to purchase a system, including lease options that won't affect your bond rating. You have our commitment to help you find ways to stretch your limited funds, while not sacrificing coverage and reliability.



On Reliability

You need a reliable radio system that is designed to withstand the harshest of elements. TUSA designed systems have withstood ice storms, tornados, hurricanes, and earthquakes. In fact, when Hurricane Katrina struck New Orleans, the eye of the storm made a direct hit on Gulfport, Mississippi, Gulfport's radio system was the only thing still working thanks to the stringent specifications created by TUSA. You have our commitment to deliver a reliable radio system.





SECTION **A** *Scope of Work*

PHASE 1 - NEEDS ASSESSMENT

Before we can recommend improvements to the rural Fire analog system, or look at other communication solutions for Sangamon County, TUSA must conduct a comprehensive needs assessment geared toward determining radio coverage expectations, operational needs, functional requirements, and capacity requirements for the County's Police, Sheriff, Fire and Emergency Medical Services users, along with all other city/county agencies.

TUSA has been conducting radio system needs assessments of this type for over 27 years, and through our experience, we have developed a proprietary evaluation approach we call the three I's: Investigate, Interview, and Inspect. By using this approach, we can accurately develop a foundation of information that frames the basis for the development of solutions and strategies that address important coverage and reliability criteria, using the Industry's best standards-based practices. This best captures our approach to Sangamon County's project.



Investigation Stage

During the investigation stage, TUSA collects all the data that the County has on its existing radio system. We then cross-reference it with information we collect from the FCC licensing database. This allows us to create coverage maps to provide an "as-is" view of coverage provided to the various radio users within Sangamon County. This allows us to see how the system should be performing and where there are coverage shortfalls.

Our coverage maps are unique because they are integrated into Google Earth. This allows you to zoom in and out on the streets, giving you a 3-D experience when looking at the coverage. It also allows us to quickly look at different types of coverage (mobile, portable 6db, portable 12db) all with just the click of a mouse.

TUSA will also investigate neighboring radio systems to determine what types of systems are currently in operation, or are being planned, as well as what interoperability systems are currently in place. It is important to understand current and desired mutual aid/backup relationships between surrounding agencies and neighboring jurisdictions. In addition, it is important to understand what type of talkgroup or channel patching is necessary, as well as what outside frequency bands and radio platforms are involved. Our approach focuses not only on interoperability, but also operability and how internal and external departments and agencies can best communicate – simply and effectively.



Scope of Work (continued)

INTERVIEW STAGE

TUSA will meet with all project staff members, stakeholders, and appropriate agency and department representatives to conduct user interviews. Different agencies and departments often have different perceptions of how a radio system performs. For example, police might have the best “big picture” view because they travel all over the county; these users are more aware of wide-area coverage challenges. A local fire department however might have problems with in-building portable radio performance due to poor coverage, or there are communications challenges when on mutual aid calls. Public service departments might have problems using portables, or do not have enough channel capacity. Dispatch center operations might be hampered by inefficient/obsolete equipment, or ergonomic issues.



The results of the interviews are used to develop a “picture” of how the radio system performs from the user’s standpoint. The interviews allow us to identify important areas of coverage that will be taken into consideration as part of the overall design. TUSA prefers to do the interviews on-site in a central staging area, but is progressive enough to conduct the interviews using video conferencing or by telephone if doing so is more conducive for some interview candidates. The average interview runs about an hour.

INSPECTION STAGE

TUSA will inspect all infrastructure equipment, observing the physical and operational condition of equipment, shelters, towers/water tanks and antennas, lightning protection grounding, interconnection systems, backup power, age of batteries and/or generators, etc. We will take note of available space for new-system equipment and antennas.

TUSA will also visit Sangamon County’s Public Safety Answering Points (PSAPs) to observe how the center operates the radio system, and inspect the radio dispatch consoles and “back room” where radio control, recording equipment, backup power (UPS), and interconnect systems are located. The Inspection Stage allows us to identify any issues that might hamper a new solution.

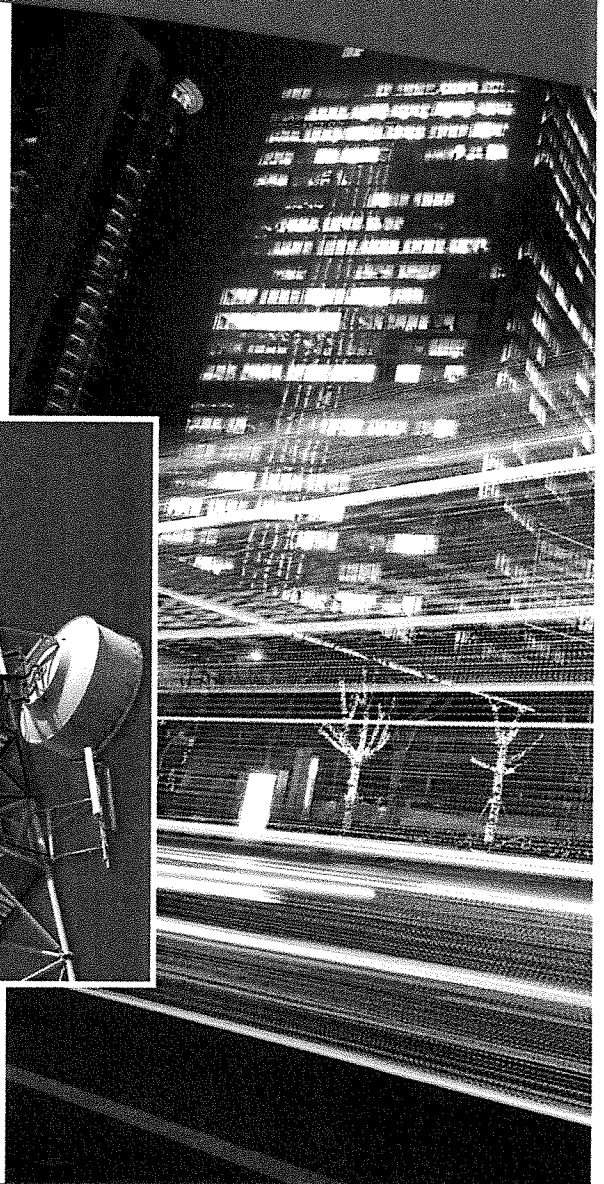
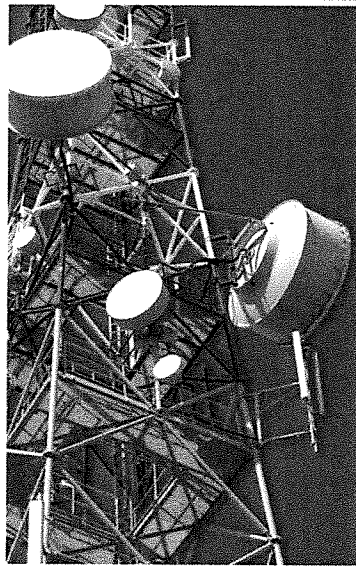
DELIVERABLE - NEEDS ASSESSMENT REPORT

TUSA will deliver a comprehensive Needs Assessment Report and present our findings in person to Sangamon County. The report will include conceptual solutions to improve the rural fire analog system, as well as potential digital solutions, conceptual shared City/County trunked radio system configurations, and hybrid solutions involving others such as STARCOM21. TUSA will also provide cost estimates that look at the total cost of ownership over a 15 year period. This will allow the County to know all costs, including infrastructure and maintenance, for the total lifecycle of the system. The information contained in the report will allow Sangamon County to make an informed decision on the best direction forward with enhancing communications for its users.

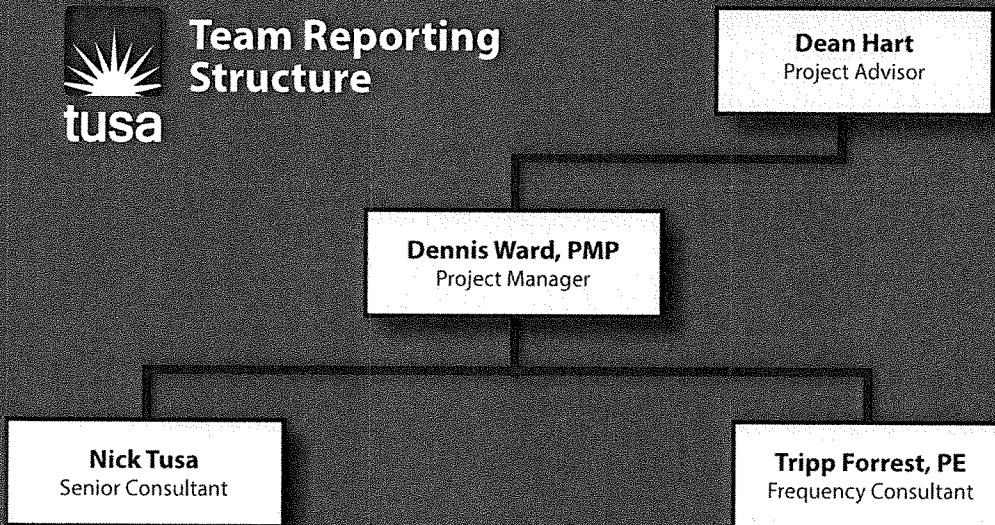
SECTION **B** *Project Team*

Tusa Consulting Services has assembled the right team for Sangamon County, Illinois. Each of these members brings with them a unique skill set and depth of experience in the field of land mobile radio. What's more, the entire team is available to start supporting your project today, and will be available through the project's completion. All of our consultants have sufficient hours available to support this project in addition to their other projects.

All projects are overseen by our Chief Operating Officer, Dean Hart. Dean serves as a project advisor, and helps to mitigate risks and ensure quality results in all company deliverables. Dean is available at any time, not only to the Sangamon County project team, but to the County directly should they have any concerns.



Team Reporting Structure





Dennis Ward, PMP

Profession

Seasoned Project Manager for Tusa Consulting Services, specializing in the oversight of complex Needs Assessments, system design, and implementation of public safety communication systems. Drawing upon the experience gained from M/A-COM (now Harris), and as a principle consultant for MWF Enterprises, Inc., Mr. Ward has worked as a project manager for public safety for over 20 years, overseeing the implementation of complex, hardened radio networks. He brings with him a wealth of knowledge infused with public safety experience that relies heavily on the Project Management Institute's best practices, ensuring overall project success!

Experience

2012 - Present: Tusa Consulting Services – Paola, Kansas

Project Manager

- Project Manager for Lancaster County, PA – Recently completed a \$26-million-dollar deployment of a 25 site, UHF T-Band P25 radio network that brought over 80 Fire Departments, 35 Police Departments, and 20 EMS Companies onto a common radio platform.
- Project Manager for the State of Wisconsin – Recently completed a sustainability study that investigates the staffing, technology, and financial business models of the Wisconsin Interoperable System for Communications (WISCOM).
- Project Manager for Harris County, Georgia – Currently overseeing the deployment of a NextGen 9-1-1 system and CAD system upgrade.

2005 - 2012: MWF Enterprises, Inc. – Lancaster, Pennsylvania

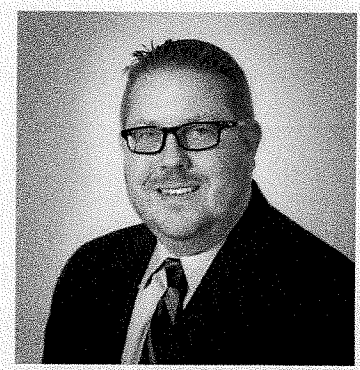
Principle Consultant

- Project Manager for numerous public safety projects, including work with the Commonwealth of Pennsylvania.
- Performed narrowbanding work for numerous MWF clients, including a project for the South Central Task Force that required coordinating with 16 counties, 4 task forces, and 2 states.
- Performed rebanding work for several MWF clients, including Lancaster County, Pennsylvania.
- Oversaw the development of over a hundred training videos for numerous clients, including Hartford, CT and Waterbury, CT.

1999 - 2005: M/A-Com & Com-net Ericsson – Harrisburg, Pennsylvania

Site Manager

- Managed the deployment of 80 control stations in every 9-1-1 facility across 67 counties for the Pennsylvania Emergency Management Agency.
- Managed the statewide deployment of 5,000+ radios with a value of approximately \$12M over two years.



Key Clients

- State of Wisconsin
- Lancaster County, PA
- Harris County, GA
- Georgetown, KY
- Metropolitan Area Regional Radio System (Kansas City)
- Auburn, ME
- Lewiston, ME
- Emergency Health Services Federation, PA

Key Qualifications

- Project Management
- Needs Assessment
- Risk Management
- Quality Management
- Specification Development and Scoring
- Implementation Oversight
- Acceptance Testing
- Coverage Testing
- P-25/EDACS/ASTRO

National Speaker

- 2015 APCO International
- 2016 IWCE

Published Author

- 2017 APCO's PSC Magazine

Education

- University of Kansas - Bachelors Degree in Communication Studies
- Liberty University - Masters

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Dominic (Nick) Tusa

Profession

Principal for Tusa Consulting Services (TCS), specializing in the design and implementation of public safety communication systems. Drawing from a professional career span of 35 years involving virtually every aspect of public and private radio communications (HF-SSB, analog and digital voice FM radio systems, private microwave, multiplex and telephone signaling systems), Tusa has a documented record of successful, high performance radio solutions. This expertise was put to the ultimate test when three radio networks designed by Tusa were subjected to the force and destructive power of Hurricane Katrina. Katrina proved to be one of the worst natural disasters to impact the United States, and all three TUSA designed radio networks operated during and after the storm's passage.

Experience

1992 - Present: Tusa Consulting Services – Covington, Louisiana

Principal Consultant

- Provided private microwave design services to Exxon Company, USA
- Completed 25 public safety radio systems valued at over \$310M
- 800MHz rebanding support to 44 TUSA clients
- Development of TUSA process standards
- Provide radio consultant services to private and municipal agencies
- Trial expert—ComNet (CNE) v. Tyco. Provided key technical services and trial testimony instrumental in \$126MM judgment award to ComNet
- Expert in design and implementation of VHF, UHF, 700/800 MHz P25 simulcast solutions

1985 - 1992: Crescent Radio Electronics, Inc. - Metairie, Louisiana

Co-Owner

- Start-up radio service and product development firm
- Provided contract radio engineering services for Exxon Company, USA
- Designed and implemented voice radio systems for Chevron
- Developed digital modulators for private carrier for Chevron
- Developed base/repeater station controllers for oil industry use

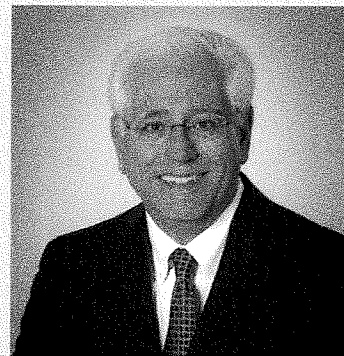
1980 - 1985: CSM/EB Communications, Inc. - Lafayette, Louisiana

Contract Radio Engineer

- Designed/implemented HF-SSB Shore Station
- Developed signaling system for Gulf Oil M/W Network
- Implemented M/W modernization project for Gulf Oil
- Developed UHF point-to-point radio telephone systems
- Designed/implemented helicopter flight-following radio systems

Articles Authored

- Options for Funding Your Radio Network – Digital Radio in the Americas” (Mission Critical Magazine Educational Series, December 2014)



Key Clients

- Kansas City, MO Region
- West Palm Beach, FL
- New Orleans, LA
- Mobile, AL
- Harrison County, MS
- New Bern, NC
- St. Tammany Parish, LA
- ComNet Communications

Key Qualifications

- Simulcast Network Design
- P-25/EDACS/ASTRO
- VHF/UHF Conventional
- Project Management, RF
- Coverage Designer
- Antenna System Specialization
- Network Evaluation Studies
- Trial Expert – RF Comm/ Propagation

Education

- BSEE Tulane University

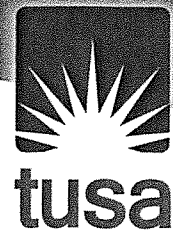
Interests

- Amateur radio operator and experimenter (K5EF)
- Fabrication of HF no-tune amplifiers using proprietary power coupling devices
- Restoration and collecting of antique radio devices

Awards

- Energy Telecommunications and Electrical Association (ENTELEC) Silver Scribe Award
- Co-Recipient of Gulf Oil's Outstanding Achievement Award

23-18



Jack "Tripp" Forrest, P.E.

Profession

Tripp is the inhouse frequency expert for Tusa Consulting Services. Tripp served as a lead in-house engineer on the State of Florida's Statewide Law Enforcement Radio System (SLERS) from 2007 through 2011. This system encompasses 211 radio towers and 22,000 users operable on the statewide system. Since 2011, Tripp has served as a Tusa project engineer on numerous radio communications projects and he is a registered professional electrical engineer licensed to practice in numerous states. Tripp has created a proprietary software tool that can be used to "find" licensable radio channels from within the FCC's extensive licensing database. EZ-Spectrum™ analyzes frequencies to determine if they have any potential for interference to, or from, neighboring FCC-licensed systems and can determine the suitability of channel sets for simulcast designs, combiner schemes, etc.

Experience

2011 - Present: Tusa Consulting Services

Frequency Specialist

- Subject matter expert for Thorp Reed and Armstrong
- Radio system design and simulcast system optimization
- System implementation overview and Supervision
- Custom software development
- Assistance with interference resolution
- Subject matter expert for 700/800 MHz frequency coordination
- Awarded Professional Engineer (P.E.) designation, 2011
- Created Google Earth based frequency planning software tools
- Created Google Earth based site acquisition software tools
- FCC licensing for experimental technologies
- Spectrum planning and FCC licensing expertise

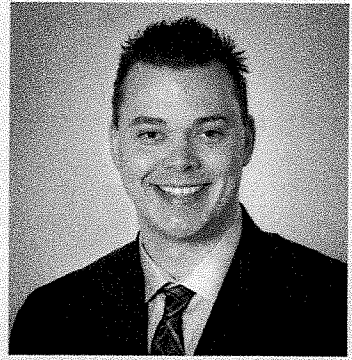
2007 - 2011: State of Florida – 800MHz Frequency Coordinator

Software Tool Designer for 800MHz Communications

- Spectrum Manager – Statewide Law Enforcement Radio System (SLERS)
- Co-Author and Manager of the Florida Region-9 Interference Program (FRIP)

2006 - 2007: Hines Hartman

- Commercial power and lighting system design
- AutoCAD drafting



Key Clients

- Sumter County, FL
- City of Kansas City, MO
- City of New Bern, NC
- Harrison County, MS
- Hancock County, MS
- Wagoner County, OK
- City of Broken Arrow, OK
- City of New Orleans, LA
- St. Tammany Parish, LA
- Lee County, GA
- Gordon County, GA
- Floyd County, GA
- Mobile County, AL
- West Palm Beach, FL
- Washington County, WI
- Hot Springs, AR
- EF Johnson
- Janus Spectrum
- Harris Corporation
- Communications International
- Thorp, Reed and Armstrong
- Motorola Solutions

Education

- BSEE – Florida State University
- Specialization in RF
- Specialization in Digital Communications
- National Merit Scholar, 2001

Licensed Professional

Engineer: AL, CA, CO, FL, GA, KS, LA, MS, MO, NY, NC, SC, TN, TX

Dean Hart



Profession

Senior Consultant for Tusa Consulting Services. Drawing from a professional career span of over 29 years of management and technical leadership provided to state, county, and local government clients in developing system's needs assessments, design, acquisition, contract negotiations, and implementation management of Public Safety Mobile Radio (LMR) systems. Core competencies include program management, contract negotiations, systems implementation and maintenance management.

Experience

2005 - 2011 and 2014 - Present: Tusa Consulting Services

Senior Consultant

- Senior Consultant responsible for the technical oversight of the State of Florida's Sustainability Study and Business Case.
- Senior Consultant for the MARC network in Kansas City. Oversaw the implementations of this five county system that covers two states.

January 2012 - May 2014: Motorola Solutions Inc.

Project Director, State of Missouri, Missouri Statewide Interoperable Network

- Project Director responsible for direct management of overall project, implementing a P25 VHF system with AT&T MPLS connectivity for all state public safety agencies.
- Direct day-to-day responsibility included design and construction of 73 communication sites and 13 dispatch center renovation under budget and on a critical short time schedule.

November 2004 - May 2006: Motorola Inc.

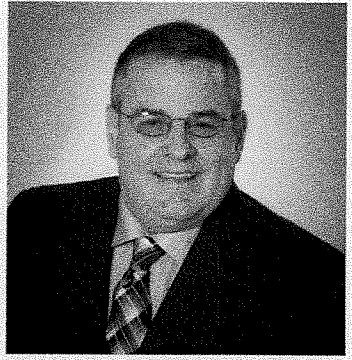
Program Manager, Commonwealth of Virginia, Statewide Agency Radio System

- Lead project manager responsible for direct management of five project managers, implementing a P25 VHF system with microwave and fiber ring connectivity for all state law enforcement agencies.
- Direct day-to-day responsibility included design and construction of 20 communication sites and one dispatch center renovation under budget and on a critical short time schedule.

December 2000 - November 2004: M/A-COM, Inc.

Field Service Manager, State of Florida, Statewide Law Enforcement Radio System

- Technical, contractual and operational manager of over 200 sites and 8 dispatch centers.
- Network telecom with Alcatel microwave connectivity in support of fully digital encrypted EDACS provoice communications system for all state law enforcement agencies. Established and oversaw Network Operations Center (NOC), monitoring system 24/7/365 in support of public safety agencies.



Key Clients

- State of Florida (SLERS)
- West Palm Beach, Florida
- McPherson, Kansas
- Miami Beach, Florida
- Mid America Regional Council
- Kansas City, MO
- Overland Park, KS
- Johnson County, KS
- Clay County, MO
- Lancaster County, PA

Key Qualifications

- Statewide Radio Networks
- Project Management
- Tower Site Acquisition
- Maintenance Planning
- Radio Shop Supervision

Education

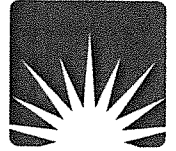
- U.S. Army Fort Gordon, Georgia
- Electronics Institute Honor Graduate

Awards

- KCPD Meritorious Service Award
- Motorola Leadership, Council 2005-2006, STARS Project
- Motorola Leadership, 2013, MOSWIN Project

Articles Authored

- Installation Checklist (Mission Critical Magazine, June 2009)
- An Ounce of Prevention (Mission Critical Magazine, April 2007)
- Warranty Maintenance (Mission Critical Magazine (March 2016)



Current Client Reference

Client:

McPherson County, Kansas

Client Contact:

Julie L. McClure, Director
 McPherson Co. Emergency
 Management &
 Communications – 911
 1177 West Woodside St
 McPherson, KS 67460
 (620) 245-1260 Office

Project Dates:

2017 to Present

System Cost:

\$7.18 Million



System Overview:

McPherson County will be upgrading from EDACS to a new Project-25 700/800 MHz digital simulcast trunked radio network. The new system will be in compliance with Industry-recognized Project-25 open standards, as well as current or future P25 networks within the State of Kansas. TUSA was retained by McPherson County to conduct a full needs assessment, as well as develop conceptual solutions and budgetary estimates to support a fifteen year life cycle. After reviewing the needs assessment, the County authorized TUSA to create an RFP specification for a new P25 radio system. Through an open procurement process, the County selected Harris. The new P25 system will consist of six sites. TUSA has been retained to help the County oversee the implementation and administer the coverage and final acceptance test.



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Current Client Reference

Client:

Douglas County, Georgia

Client Contact:

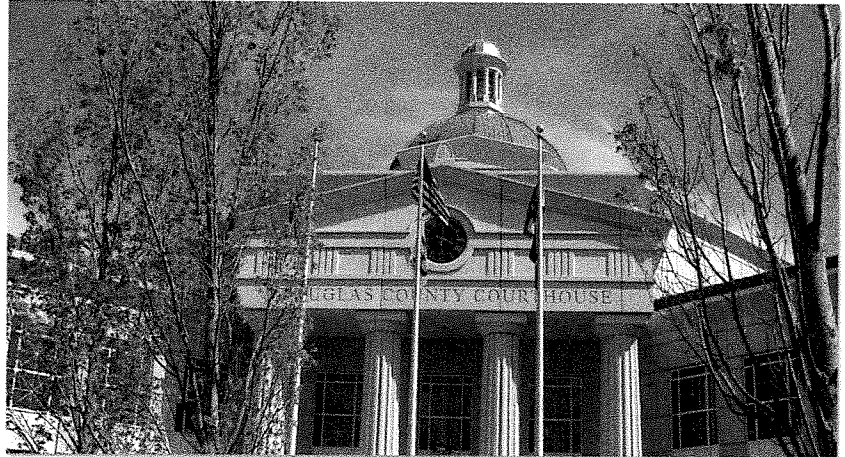
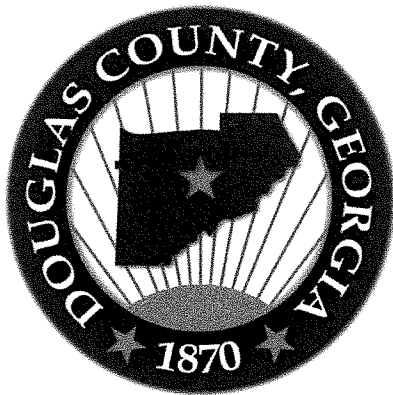
Jason Milhollin
8480 Earl D Lee Blvd
Douglasville, GA 30134
770-527-4771
jmilhollin@co.douglas.ga.us

Project Dates:

2018 to Present

Project Costs:

\$14.9 Million



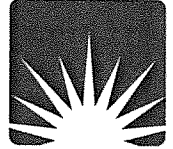
Project Overview:

Douglas County had multiple radio systems operating within the County, including a VHF MotoTRBO system and a single site, phase 1, Motorola 800mhz P25 trunked system. TUSA helped perform the Needs Assessment, develop the RFP and Technical Specification, and oversee the implementation of the new system. The new system is a 9 site, 10 channel, phase 2 capable, Motorola 800 MHz P25 system. This system will connect into the overall Atlanta Regional Radio system via the Cobb County master site, thereby providing interpretability throughout the region.



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2322



Current Client Reference

Client:

Norman, Oklahoma

Client Contact:

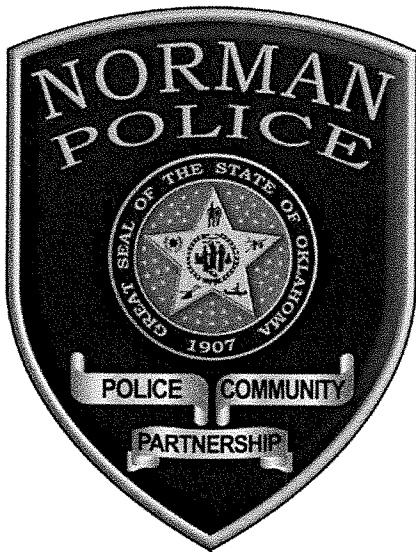
Major David Teuscher
Norman Police Department
201 West Gray
Norman, OK 73069
Office (405) 366-5249
Cell (405) 834-7271
David.Teuscher@NormanOK.gov

Project Dates:

2015 to Present

System Cost:

\$13.7 Million



System Overview:

The City of Norman, located along Oklahoma’s “tornado alley,” has been operating a two-site 800 MHz trunked radio system that was tied to the Oklahoma State system in Tulsa. The system provided minimal coverage in the western portion of the City and was susceptible to outages due to its “T1 telephone line” connectivity to the central controller in Tulsa. TUSA was retained to assess the current system, develop an upgrade recommendation, and provide procurement and implementation services. TUSA worked with the City to develop a comprehensive RFP that focused on provision of a highly-reliable “portable-on-hip” City-wide system. The RFP defined all user needs in regards to system performance and subscriber equipment features. After a thorough proposal evaluation process, TUSA recommended award of the system contract to Harris Corporation. The City is currently finalizing the contract. TUSA will provide complete system implementation project management support through system testing and acceptance.



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2725

SECTION **D** Fee Proposal



The following fee proposal is based off an hourly rate of \$165 an hour. All expenses are invoiced at cost, with no markup. The price listed on the following page is a not to exceed price. If TUSA misjudged the amount of time to perform the tasks in this scope of work, TUSA will perform the additional work at no additional cost to Sangamon County. In addition, TUSA will only invoice for actual work performed.

OUR HOURLY RATES

<u>Rate of Services</u>	
<u>Description</u>	<u>Hourly</u>
Project Manager	\$150.00
Project Supervisor	\$150.00
Drafting	\$75.00
Administrator	\$60.00

<u>Phase I Needs Assessment/Conceptual Design (Estimate 60 days)</u>	<u>Total</u>	
<u>Description</u>	<u>Hours</u>	<u>Cost</u>
Task 1 - Investigation	16	\$2,400.00
Task 2 - Interviews (Online Survey and Face to Face Interviews)	24	\$3,600.00
Task 3 - Inspection of Infrastructures and Dispatch Center	16	\$2,400.00
Task 4 - Coverage Modeling (including Current and Conceptual Solutions)	32	\$4,800.00
Task 5 - Creation of Needs Assessment Report	60	\$9,000.00
Task 6 - Presentation Needs Assessment Report	16	\$2,400.00
	Expenses	\$2,460.00
	Phase I Total	\$27,060.00

