GeoComm

Technical Proposal Presented to: **State of Kansas**

GIS Enhancements – Next Generation 9-1-1

Bid Event #EVT0002573

October 9, 2013

Contents

1   Bidder Information

GeoComm was founded in 1995 to provide local governments with turnkey emergency 9-1-1 development services. Over the subsequent 18 years, the company has grown to serve more than 12,000 dispatchers over 750 emergency 9-1-1 call centers in the United States, helping to keep more than 84 million people safe. Today, GeoComm has a national reputation as a leading provider of Geographic Information Systems (GIS) software, services, and consulting services. Our software systems route emergency calls to the appropriate call center, map the caller's location on a dispatchers map, and guide emergency responders to the accident on mobile displays within police, fire and ambulance vehicles.

For nearly two decades, GeoComm has been assisting our customers implement public safety GIS and communications technology, determine better operational models, and realize cost savings, while continuing to offer the best possible emergency services. Our professional staff has diverse, comprehensive industry experience from their public safety involvement dating back to the advent of basic 9-1-1. This experience has grown substantially as we assisted hundreds of jurisdictions across the nation to deploy Enhanced 9-1-1 software and services. It continues to evolve today through active participation in industry groups who are helping to shape the future of Next Generation 9-1-1 (NG9-1-1).

GeoComm's GIS and software services have been provided to a growing number of clients nationally, including the nine-county area surrounding Kansas City governed by the Mid-America Regional Council (MARC); the large metropolitan Lee County, Florida (Fort Myers); the 22 Public Safety Answering Point (PSAP) 9-1-1 jurisdiction governed by the Association of Central Oklahoma Governments (ACOG); the two-county metropolitan area governed by Jefferson and Broomfield counties, Colorado; the island of Oahu, Hawaii; and 15 US Marine Corps Installations.

Our clients receive methodical project management to ensure our project plan encompasses all aspects of project management principles based on the Project Management Institute (PMI) practices.

Contact Information
Geo-Comm, Inc. (dba-GeoComm)
601 West St. Germain Street
St. Cloud, Minnesota 56301
www.geo-comm.com

Phone: 320.240.0040
Toll Free: 1.888.436.2666
Fax: 320.240.2389

GeoComm Facts
Ownership Model: Minnesota Privately held, C-Corporation
Date of Incorporation: May 18, 1995
Number of Employees: 100

Historic Milestones
- ☐ Installed our first GIS-based E9-1-1 ALI mapping systems in July 1995 which remains operational today in Meeker County, Minnesota.
- ☐ Implemented the first Phase II wireless 9-1-1 mapping solution in the United States in October 2001 in St. Clair County, Illinois.
- ☐ Implemented one of the first NG9-1-1 ECRF/LVF systems in the country in North Central North Carolina in July 2011.

Industry Partners
- ☐ Esri – Platinum Partner, since March 2011
- ☐ Microsoft Certified Partner

Awards
- ☐ 2012 Esri Partner Conference Award for a Private Web Application
- ☐ 2008 Esri Business Partner of the Year
- ☐ 2007 Minnesota Small Business Man of the Year – Tom Grones and Dan Rudningen (co-owners of GeoComm)

GIS Experience and Qualifications

GeoComm's GIS Services Bureau has the largest professional public safety GIS staff in the nation. These staff members are dedicated to ensuring the GIS data developed and maintained is of the highest quality and meets standards embraced by the 9-1-1 industry. GeoComm works with a wide range of customers possessing varying levels of GIS and public safety knowledge, personnel, and technical environments. GeoComm's GIS Services Bureau has developed over 3 million addresses and developed more than 225,000 road miles for public safety agencies nationwide.

We provide all-inclusive GIS services tailored to implementing GIS data in E9-1-1 and NG9-1-1 environments including:

- GIS data synchronization analysis
- GIS map data development and enhancements
  - GPS field collection and verification
  - Road centerline
  - Address points
  - Emergency service area boundaries
  - Community boundaries
- GIS map data maintenance
- NG9-1-1 Quality Control and on-going provisioning services
- Master Street Address Guide (MSAG) and Automatic Location Identification (ALI) database development

Public Safety GIS and Project Management Consulting Services

GeoComm's GIS Consulting Services team provides exceptional, client-specific consulting and project management services to assist public safety agencies in making informed decisions for developing and/or improving GIS services for their communities. This team is composed of industry-recognized professionals and subject matter experts who have successfully completed various projects across the country. GeoComm listens objectively to the goals and requirements of our client's specific project. Then, we outline customized recommendations and practical implementation steps to meet our client's project goals.

GeoComm Statistics

- Customers in 43 states
- Customers in 20% of U.S. counties
- Over 1,000 GIS projects
- 736 software install sites
- Over 600 GIS consulting services projects
- Over 10,000 licenses of public safety GIS of software deployed

Public Safety Industry Involvement

- National Emergency Number Association (NENA) NG9-1-1 Partner
- NENA Industry Collaboration Events (ICE) – GeoComm participated in NENA ICE1, ICE2, ICE3, ICE8, and ICE4. ICE4 primarily focused on multi-hop Location to Service Translation (LoST) routing hierarchy envisioned in NENA 08-003. ICE4 bilateral and scenario tests included:
- Association of Public Safety Communications Officials (APCO)

GeoComm partners with you to provide expertise and knowledge as it relates to your project. We specialize in GIS public safety services for all levels of public safety agencies including:

- Maintenance Workflow
- NG9-1-1 Data Report Card
- NG9-1-1 transition management
- Project Management
- Wireless 9-1-1 Services

Public Safety GIS Applications

GeoComm, one of 11 Esri Platinum Partners worldwide and the only public safety Platinum Partner, has a unique understanding of how to maximize the value GIS can bring to public safety. GeoComm develops software products for quickly accessing needed GIS data, viewing map data, and editing regional data sets efficiently. GeoComm has been at the forefront of integrating GIS into public safety software products for years – it is what we do. The products we offer are considered "best of breed" in the public safety industry and integrate with any Customer Premise Equipment (CPE) or Computer Aided Dispatch (CAD) vendor. Our GeoLynx Family of Products includes:

- GeoLynx Server Tactical PSAP Mapping
  - ◇ Vehicle tracking (AVL)
  - ◇ Statistical querying (Stats)
  - ◇ Location-based emergency notifications (ENS)
  - ◇ GeoLynx Mobile Server Edition
- GeoLynx Desktop Tactical PSAP Mapping
  - ◇ Vehicle tracking (AVL)
  - ◇ Location-based emergency notifications (ENS)
- GeoLynx Mobile Tactical Responder Mapping
- Enterprise Public Safety GIS Data Management
  - ◇ GeoLynx DMS for desktop data management
  - ◇ GeoLynx Server Web DMS for online web editing
  - ◇ GeoLynx Server GIS Change Requests for data contributors\
  - ◇ GeoLynx Server GIS Portal
  - ◇ NG9-1-1 GIS System Provisioning
- GeoLynx Spatial Router i3 Emergency Call Routing Function and Location Validation Function
- GeoLynx CrimeAnalyst for ArcGIS for Desktop

GeoComm Project Team

To accomplish highly technical projects such as this, GeoComm establishes a project team consisting of a designated project manager who is supported by an established management team and qualified GIS Professionals. GeoComm team members will be assigned specific duties related to the technical and administrative elements of the project. The project manager will provide the guidance necessary for all elements of the project to be implemented correctly and in a timely manner. GeoComm's collaborative team approach ensures excellent ongoing communication and a high level of efficiency resulting in a successful project completion.

The following is a list of key GeoComm project team members that may potentially be assigned to the GIS Data Remediation projects. These individuals have worked closely together on many GeoComm public safety projects. They understand the scope of the project and will be able to easily accomplish the requested tasks within the 12 month project timeline.

Staff Member	Title	Years at GeoComm	Services for Project
Deb Rozeboom, ENP	Project Manager	10	Project Management
Jessica Beierman	GIS Consultant	6	Project coordination and project management support
Nate Ekdahl, ENP	GIS Manager	13	GIS Team Lead
Greg Murdock	Assistant GIS Manager	13	Project Staff Management and Coordination
Jessica Koenig	Assistant GIS Manager	11	Project Staff Management and Coordination
Craig Prisland	GIS Coordinator	8	Quality and peer review of the GIS data elements
TBD	GIS Supervisor(s)	3-13	Supervision of the GIS Specialist(s) responsible for the GIS services provided by GeoComm
TBD	GIS Specialists(s)	1-13	Completing the GIS specific tasks associated with GIS Data Gap Remediation.
Jody Sayre	Vice President of Sales and Marketing	15	Project Oversight
Stacen Gross	Account Manager	17	Project Oversight/Account Management

In total, there will be six full time employees assigned to each GIS Data Remediation project: one primary project manager, one GIS manager, one Assistant GIS Manager, one GIS Supervisor, and two GIS

Specialists. Other members of the GeoComm project team will support these individuals as needed and additional GIS Specialists will be brought as required to meet project deadlines. The GIS Supervisor and GIS Specialists will be assigned prior to project initiation based on current workload.

GeoComm's key personnel will dedicate whatever percentage of time is necessary throughout the project to complete tasks on time or ahead of project schedule. On average, key personnel will be spending 20 to 30 percent of their time on this project.

The organizational structure of GeoComm's GIS department is depicted below. A complete company org chart is also included on the following page for reference.

GeoComm GIS Team

GeoComm Staff as of October 2013

John Bryant — CEO/President

Christy Hayes — Product Manager

Heather Hoskins — Controller

Janet Grones — Advisor

Jody Sayre — Vice President of Sales & Marketing

Shirley Simon — Assistant Operations Manager

Cindy Kammermeier — CFO

Chris Hardesty, MBA, ENP — Sales Manager

Tim Torres — Director of Strategic Alliances

Amanda Romaine — Inside Sales and Marketing Manager

Neil Erickson — IT Director

Renee Theisen — Administrative Supervisor

Stacy Gross — Account Manager
Chris Knights, ENP — Account Manager

Annie Akehurst — Product Marketing Manager

Grant Salzwedel — IT Technician

Jon Greene — Account Manager
Rodger Mann, ENP — Account Manager

Susan Becker — Marketing Coordinator

LuAnn Carpenter — Receptionist
Jenny Verly — Office Assistant

John Joseph — Account Manager

Heidi Ness — Proposal Developer

Debbie Haus — Office Assistant
Shannon Koenig — Office Assistant

Sadie Stommes — Proposal Developer

Jennifer Brutger — Office Assistant

IT Team

Account Services

Inside Sales Team

Office Support Team

Nate Ekdahl, ENP — GIS Services Manager

John Brosowsky — Vice President of Product Development

Scott Wolhart, ENP — Technical Services Manager

Todd Pieper, ENP — Product Development Manager

Jessica Koenig — Assistant GIS Manager

Greg Murdock — Assistant GIS Manager

Craig Prisland — GIS Coordinator

Karl Larsen — Software Development & Testing Assistant Manager

Cole Ries — Implementation Supervisor

Anita Kask — Technical Support Supervisor

Dennis Mendoza — GIS Supervisor
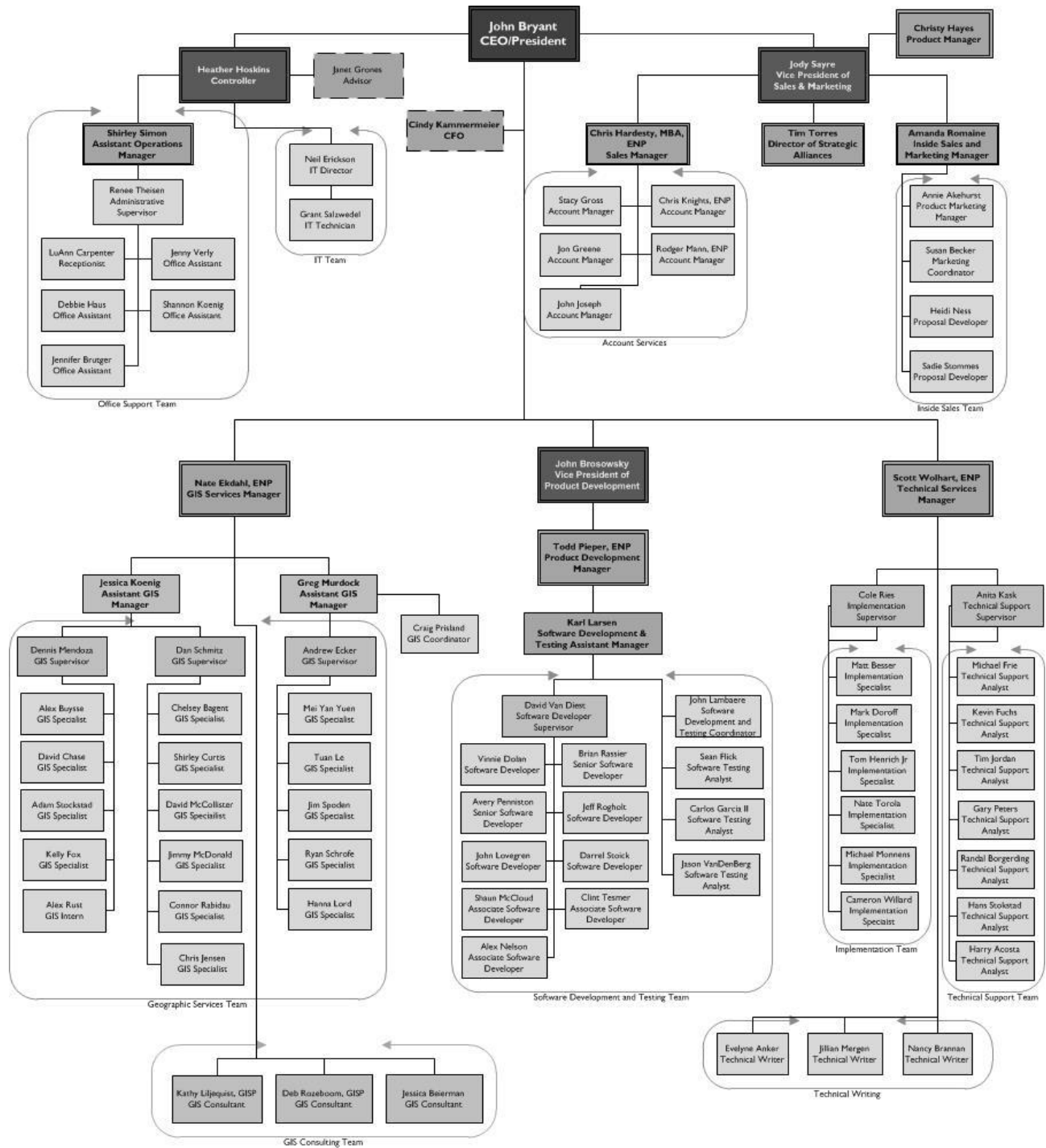Dan Schmitz — GIS Supervisor
Andrew Ecker — GIS Supervisor

David Van Diest — Software Developer Supervisor
John Lambaere — Software Development and Testing Coordinator

Matt Besser — Implementation Specialist
Michael Frie — Technical Support Analyst

Alex Buysse — GIS Specialist
Chelsey Bagent — GIS Specialist
Mei Yan Yuen — GIS Specialist

Vinnie Dolan — Software Developer
Brian Rassier — Senior Software Developer
Sean Flick — Software Testing Analyst

Mark Doroff — Implementation Specialist
Kevin Fuchs — Technical Support Analyst

David Chase — GIS Specialist
Shirley Curtis — GIS Specialist
Tuan Le — GIS Specialist

Avery Penniston — Senior Software Developer
Jeff Rogholt — Software Developer
Carlos Garcia II — Software Testing Analyst

Tom Henrich Jr — Implementation Specialist
Tim Jordan — Technical Support Analyst

Adam Stockstad — GIS Specialist
David McCollister — GIS Specialist
Jim Spoden — GIS Specialist

John Lovegren — Software Developer
Darrel Stoick — Software Developer
Jason VanDenBerg — Software Testing Analyst

Nate Torola — Implementation Specialist
Gary Peters — Technical Support Analyst

Kelly Fox — GIS Specialist
Jimmy McDonald — GIS Specialist
Ryan Schrofe — GIS Specialist

Shaun McCloud — Associate Software Developer
Clint Tesmer — Associate Software Developer

Michael Monnens — Implementation Specialist
Randal Borgerding — Technical Support Analyst

Alex Rust — GIS Intern
Connor Rabidau — GIS Specialist
Hanna Lord — GIS Specialist

Alex Nelson — Associate Software Developer

Cameron Willard — Implementation Specialist
Hans Stokstad — Technical Support Analyst

Chris Jensen — GIS Specialist

Harry Acosta — Technical Support Analyst

Geographic Services Team

Software Development and Testing Team

Implementation Team

Technical Support Team

Evelyne Anker — Technical Writer
Jillian Mergen — Technical Writer
Nancy Brannan — Technical Writer

Kathy Liljequist, GISP — GIS Consultant
Deb Rozeboom, GISP — GIS Consultant
Jessica Beierman — GIS Consultant

Technical Writing

GIS Consulting Team

Financial Statement

Since the company's inception in 1995, GeoComm has seen the growth and development from a company making $325,021 in sales in 1995 to a company making over $8.0 million in sales in 2011. GeoComm's hold on the market in 43 states is attributable to the vast knowledge of government operations and public safety specifically paired with the company's strategic vision for client service and satisfaction. A full and detailed presentation of the condition of GeoComm's assets, liabilities, and net worth are available upon request.

2   Qualifications

GeoComm's experience in public safety GIS is demonstrated by our client base in 500 counties across 43 states. Utilizing knowledge gained from years of combined experience, our staff has completed over 1,200 public safety GIS-related projects. GeoComm prides itself in utilizing sophisticated techniques to build the most accurate and cost effective map and address databases possible specifically for the public safety environment. Our experience has included:

☐ Over 300 GIS data analysis projects
☐ Over 500 GIS data remediation projects
☐ GIS-MSAG-ALI database synchronization
☐ seamless region-wide base map development
☐ GIS maintenance workflow consulting
☐ address conversion
☐ wireless cell sector development
☐ surrounding map data creation
☐ map data conversion
☐ field data collection GPS technology
☐ ESZ mapping
☐ MSAG and ALI Database construction
☐ Maintenance of city, county, and region wide GIS, address, and MSAG data sets for 92 clients in 15 states.

In working with scores of GIS departments at all levels and in multiple technical environments, we have amassed a library of knowledge on how GIS information can best be utilized in public safety mapping applications. This experience has yielded established data development and QC procedures which incorporate the use of our specialized GeoLynx DMS data management tools. These tools, developed in-house by GeoComm based on our 18 years of public safety GIS data development, analysis, and maintenance experience, help streamline processes and save time.

GeoComm fully understands the framework necessary for integration of GIS data into existing public safety systems. We are familiar with architectures development, data integration, and data modeling for public safety. For example, GeoComm created a data model for MARC, to provide the framework for gathering all the data information from multiple jurisdictions and combining that data into single-working layers of geospatial information – the data model currently being maintained and used for wireless 9-1-1 call location in the MARC region.

GeoComm staff members participate in industry organizations such as NENA and APCO to ensure integration of the latest tools and knowledge into our development methodology and our approach to successful project implementation. In addition, we infuse our industry standard methodologies into maintenance workflows that fit within each agency's standard practices.

GeoComm's GIS Services are completed with the overarching goal of ensuring PSAPs across the nation are successfully plotting the location of wireline and wireless 9-1-1 calls and that their GIS data is prepared for the transition to Next Generation 9-1-1. Our comprehensive knowledge of public safety communication systems, coupled with our extensive GIS experience, provides GeoComm with an exceptional understanding of the services and tasks required to assist the State with the GIS Data Remediation project.

The State of Kansas will benefit by choosing GeoComm, a proven company with the following qualifications that will provide quality deliverables within the required timeline:

- Over 18 years of public safety GIS data development and management experience
- Has developed over 225,000 miles of road centerline layer
- Has mapped over 3 million address points
- Is a Platinum Tier Esri Partner experienced with various Esri GIS file formats and technology for creating and maintaining GIS
- Uses the proposed commercial-off-the-shelf tested and proven public safety GIS data management software, GeoLynx DMS, which contains over 20 automated QA/QC audits, leverages Esri technology, and is implemented at over 132 sites nationwide
- Understands the fundamentals of synchronizing GIS map data, ALI database, and MSAG and the importance of doing so for public safety systems
- Involved in the development of public safety GIS standards - including leading and participating in NENA workgroups that formulate industry standards for GIS data schema, maintenance, and much more - many of which the State of Arizona's standards are based on
- Provides a one year data guarantee for all GIS projects
- Continuously educates our staff on the latest tools and industry knowledge and integrates these elements into our project approach
- Completes GIS services for public safety only
- Understands the specific GIS requirements outlined in the State of Kansas RFP as a result of our experience with similar projects throughout the US
- Has an excellent track record for coming in on budget – we have procedures in place for accurately predicting project completion hours based on hours expended for similar past projects
- Does not utilize subcontractors for any portion of the project and does not offshore any work
- Collectively, GeoComm GIS staff members have completed hundreds of GIS data development and remediation projects specifically for 9-1-1, including the following projects completed by the proposed key personnel and other staff members over the last five years:

  - 9-1-1 ACOG, OK
  - Jefferson & Broomfield Counties, CO
  - Sumner County, TN
  - Bledsoe County, TN
  - Sequatchie County, TN
  - SPAWAR Systems Center Atlantic

  - Whitfield County, GA
  - Dickenson County, VA
  - Henderson County, NC
  - Luzerne County, PA
  - City of Barstow, CA
  - City of Glendora, CA
  - State of North Dakota (Phase 1)

  - City of Vernon, CA
  - Mendocino County, CA
  - Henderson County, TX
  - City of Tomball, TX
  - Scott County, IA
  - Lee County, VA
  - Haywood County, TN

Added to our experience is the value GeoComm brings to our projects by employing the largest GIS development staff dedicated solely to public safety in the country. We have over 30 degreed GIS professionals; therefore, we are well suited to take on, and successfully complete a project of this size.

Resumes for key personnel that may be assigned to this project are included on the following pages.

Deb Rozeboom, ENP

Project Manager/ GIS Consultant

Deb has been actively involved in over 150 public safety GIS projects during her tenure with GeoComm. Starting as a GIS specialist over five years ago, Deb has progressively increased her knowledge of GIS and her responsibilities in GIS projects for 9-1-1. In her role as GIS supervisor and consultant, Deb was responsible for overseeing projects involving GIS, data development, GIS data aintenance, address conversions, and GIS data analysis. These projects have ranged from rural counties to large urban regions including Jefferson/Broomfield, Colorado and the Mid America Regional Council, Kansas City, Missouri. Deb also recently completed a large GIS Consulting Project that included addressing and GIS Maintenance workflow development for 15 US Marine Corps Installations.

Deb's experience includes:

- ☐ Assisting in the systemization of data analysis procedures for compliance with 9-1-1 industry guidelines and standards
- ☐ Designing workflow documents and training programs designed to the customer's unique specifications
- ☐ Coordinating and supervising GIS 9-1-1 based projects
- ☐ Efficiently managing the progress and Quality Control of new and continuing GIS 9-1-1 based projects
- ☐ Advanced ability to perform GIS related procedures
- ☐ Working knowledge of different software packages such as, MapInfo, ArcView 3.x, ArcGIS 9, GeoLynx, GeoPoint, and all Microsoft Office Suite Software
- ☐ Creating and maintaining map data for use within E9-1-1 software systems including GeoLynx 9-1-1 and GeoLynx DMS
- ☐ Fieldwork experience photographing property and attaching to GPS location and address information
- ☐ Fieldwork experience creating GPS point layer and interviewing residents to obtain information for address conversion projects in McIntosh County, Georgia
- ☐ Supervising team of Video Map technicians creating data for use in MAF/TIGER Accuracy Improvement Project
- ☐ Developing and maintaining cellular map data layers
- ☐ Communicating with county officials with regard to contract scope and project details
- ☐ Working with customers to ensure the projects are completed on time and to the customer's satisfaction
- ☐ Performing map layers quality control tests to ensure data accuracy

Professional Experience

GeoComm | 2004-present
St. Cloud, Minnesota
- ☐ GIS Consultant
- ☐ GIS Supervisor
- ☐ GIS Specialist
- ☐ Video Mapping Supervisor

Education

St. Cloud State University
St. Cloud, Minnesota
- ☐ Masters Certificate in GIS | 2005
- ☐ B.S. in Ecology and Field Biology | 2000

Esri System Design Workshop
St. Cloud, Minnesota
- ☐ System Architecture Design Strategies Three Day Training | October 2011

Memberships and Certifications

- ☐ Certified NENA ENP
- ☐ Member, NENA NG9-1-1 GIS Data Model Workgroup
- ☐ Member, NENA Next Generation Data Development (NGDD) Discrepancy, Reporting, and Audit Workgroup

Performance Excellence

- ☐ Professional presenter at state of Wisconsin NENA conference

Deb Rozeboom, ENP

Project Experience

- SPAWAR Systems Center Atlantic |
  January 2012-October 2013
  Maintenance Workflow Development and Training

- Iowa Statewide Interoperable Communications Systems Board |
  February 2012
  9-1-1 Feasibility Study

- Charles City County, Virginia: January 2012
  GeoLynx CrimeAnalyst Installation and Training

- Kauai, Hawaii: November 2011
  GeoLynx DMS and CAD Geofile Training

- Iberia Parish, Louisiana: September 2011
  Maintenance Workflow Development and Training

- Madison County, Illinois: September 2011
  Maintenance Workflow Development, Customized E9-1-1 Training,
  and Data Report Card

- Macon County, Illinois: July 2011
  Data Report Card

- Luzerne County, Pennsylvania | August 2011
  MSAG Creation

- Tazewell County, Virginia | March 2011
  Maintenance Workflow Development

- Wise County, Virginia | January 2011
  Data Report Card

- Botetourt County, Virginia | September 2010
  GeoLynx CrimeAnalyst Installation and Training

- City of Brook Park, Ohio | December 2010
  GeoLynx CrimeAnalyst Installation and Training

- Scott County, Iowa | June 2010
  GIS Workflow Development and Training

- Powhatan County, Virginia | April 2010
  GIS Workflow Development and Training

- Jefferson and Broomfield Counties, Colorado | August 2007
  GIS Needs Analysis

- Mid-America Regional Council, Missouri | May 2007
  Comprehensive Needs Analysis and Recommendations for
  Creating and Maintaining a Regional GIS Data Set

Jessica Beierman

GIS Consultant

Jessica has immense project experience specific to public safety, GIS, and Next Generation 9-1-1 (NG9-1-1). For over 7 years she has devoted herself to the public safety industry to assisting agencies across the nation in improving the services they provide to their communities.

Jessica's experience includes:

- Ensuring quality assurance/quality control standards are met
- Proficiency in ArcGIS 9.3 and ArcGIS 10 at the ArcView, ArcEditor, and ArcInfo licensing level
- Coordinating and supervising over 80 ArcGIS-based, public safety GIS projects
- Efficiently managing the progress and quality control of new and continuing GIS 9-1-1 based projects
- Advanced ability to perform GIS related procedures
- Designing, creating, and maintaining ArcGIS geodatabases for customers
- Processing and quality checking field data
- Setting up and testing GIS data in GeoComm software
- Developing enhanced GIS processes and procedures for Client Services department
- Coordinating and participating in the communications between customer and various agencies
- Utilizing analysis procedures to ensure accuracy of map data, MSAG, and 9-1-1 databases
- Assisting in training new GIS Specialists
- Coordinating with customers on issues regarding the scope of services for all projects
- Maintaining a working knowledge of aerial photography and the different formats
- Creating mosaics and image catalogs from existing aerial imagery
- Working with customers and residents to ensure successful project completion to the customer's satisfaction
- Creating GIS map data for use within E9-1-1 software programs

Professional Experience

GeoComm | July 2006–Present
St. Cloud, Minnesota

- GIS Consultant
- GIS Supervisor
- GIS Specialist

St. Cloud State University | September 2007- May 2008
St. Cloud, Minnesota

- Graduate Assistantship

Sherburne County | May-June 2008
Elk River, Minnesota

- GIS Internship

Education

St. Cloud State University
St. Cloud, Minnesota

- Masters of Science; Geography with an emphasis in GIS

Bemidji State University | May 2003
Bemidji, Minnesota

- Bachelor of Applied Science; Industrial Management

Central Lakes College | May 1999
Staples, Minnesota

- Associate of Applied Science; Photographic Imaging.

Nathan Ekdahl, ENP

GIS Manager

For the past 13 years Nathan Ekdahl has served in a variety of GIS leadership roles for GeoComm. Nathan is a member of the National Emergency Number Association (NENA) and is a certified NENA Emergency Number Professional (ENP). Nathan currently oversees GeoComm's GIS Division of Client Services and is responsible for overseeing and directing all GIS client project and service offerings. Nathan leads a team of GIS professionals with the combined experience of over 70 years focused on public safety GIS services. He provides direct support to this GIS team for hundreds of active GIS projects for customers throughout the United States ensuring that each project is completed on time and with the quality deliverables expected.

Nate's experience in overseeing the development of quality GIS data for emergency environments include:

- 13 years of overall public safety specific GIS experience including: map data development, map data maintenance/management, data collection, and project management.
- Over 10 years of experience directly supervising and managing public safety GIS projects and services.
- Extensive, current knowledge of Esri products.
- Analyzing GIS workflows and revising development processes.
- Project planning and developing workflows, data quality assurance, and data processing procedures.
- Determining the status of customer's GIS staff and end-user needs resulting in project work plans.
- Reporting to local advisory committees and management teams on all aspects of on-going projects.
- Developing, implementing, and refining GIS QA/QC processes.
- Ensuring processes and procedures are current with technology and meeting the needs of each project.
- Developing and refining fieldwork processes to provide more accurate data gathering and attribute processing.
- Providing on-site project management, attending on-site customer meetings, and field-verifying GIS data.
- Processing and quality checking field data by monitoring and implementing existing quality control programs and processes.
- Efficiently managing the progress and quality control of new and continuing GIS 9-1-1 projects.
- Managing GIS project schedules to ensure timeliness and quality deliverables.
- Advanced ability to perform GIS related procedures.
- Developing enhanced GIS processes and procedures for the GIS Division.
- Coordinating and participating in communications between customer and various agencies.

Professional Experience

GeoComm | May 2000-Present
St. Cloud, Minnesota

- GIS Services Manager
- Assistant GIS Services Manager
- GIS Supervisor
- GIS Specialist

Education

St. Cloud State University
St. Cloud, Minnesota

- B.A. in Geography and a Minor in Community Development | May 2004

Alexandria Technical College
Alexandria, Minnesota

- A.A.S in Geographic Information Systems | May 2000

Supervisor/Manager Training Program
- St. Cloud Area Chamber of Commerce | 2003

Memberships and Certifications

- Emergency Number Professional
- Participant in NENA Site/Structure Address Points (SSAP) workgroup

Highlighted Projects

Project size ranges from small city and county projects to large-scale projects. Each of the following projects included Nate analyzing, consulting on, and implementing GIS systems to work in a 9-1-1 environment.

- Oahu County, Hawaii
- 9-1-1 Association of Central Oklahoma Governments (ACOG)
- Yuma County, Arizona
- Lee County, Virginia
- Dickenson County, Virginia

Greg Murdock
Assistant GIS Manager

Greg will be responsible for managing the day-to-day GIS services operations. He will work closely with your project team to ensure quality deliverables and a timely project completion. He specializes in GIS data development and maintenance of jurisdictions of varying size and complexity.

Greg's experience in overseeing the development of quality GIS data for emergency environments includes:

- 13 years of E9-1-1 and GIS experience including:
  - ◇ data development
  - ◇ data collection
  - ◇ project management
- Coordinating over 100 GIS, 9-1-1 projects in over 34 states that are currently in progress or completed
- Extensive, current knowledge of Esri products
- Analyzing GIS workflows and writing and revising development processes
- Project planning and developing workflows, data quality assurance, and data processing procedures
- Determining customer needs resulting in project work plans
- Reporting to local advisory committees and management teams on all aspects of on-going projects
- Developing, implementing, and refining GIS QA/QC processes and standards
- Ensuring processes and procedures are current with technology and meeting the needs of each project
- Developing and refining fieldwork processes to provide more accurate data gathering and attribute processing
- Providing on-site project management, attending on-site customer meetings, and field-verifying mapping data
- Quality checking field data by monitoring and implementing existing quality control programs and processes
- Developing enhanced GIS processes and procedures for the Client Services Department
- Managing GIS projects to ensure on-time, quality deliverables

Professional Experience

GeoComm | July 2000–Present
St. Cloud, Minnesota
- Assistant Client Services Manager
- Assistant Geographic Services Manager
- GIS Supervisor
- GIS Specialist

Todd County, Minnesota GIS Department | 1998–2000
Long Prairie, MN
- GIS Technician

Education

Moorhead State University
Moorhead, Minnesota-General Studies

Alexandria Technical College
Alexandria, Minnesota
- A. A. S. GIS Program

United States Marine Corps
- Amphibious Warfare School Associate Instructor
- Nuclear, Biological, Chemical Warfare Instructor

Highlighted Projects

Project size ranges from small city and county projects to large-scale projects. Each of the following projects included Greg analyzing, consulting on, and implementing GIS systems to work in a 9-1-1 environment.
- Crawford County, Missouri
- Whitfield County, Georgia
- Jefferson County Emergency Communications Authority Board, Colorado

Professional Affiliations
- NENA member

Jessica Koenig

Assistant GIS Manager

Jessica is responsible for managing the day-to-day GIS services operations. She will work closely with your project team to ensure quality deliverables and a timely project completion. She specializes in GIS data development and maintenance of data for jurisdictions of varying size and complexity.

Jessica's experience in overseeing the development of quality GIS data for emergency environments includes:

- 10+ years of knowledge of GIS services, software, and consulting services specifically for 9-1-1
- 4+ years of direct hands-on GIS experience
- Coordinating over 100 GIS, 9-1-1 projects in over 34 states that are currently in progress or completed
- 8+ years of experience with Esri products
- Analyzing the quality of existing map data and synchronization rates between the GIS map data, ALI database, and MSAG
- Coordinating with clients to understand their goals
- Determining customer needs resulting in project work plans
- Managing GIS projects to ensure on-time, quality deliverables
- Analyzing project budgets to ensure pricing for new projects is based on the actual amount of hours needed to complete tasks based on past project experiences.
- Managing numerous projects at one time by utilizing resources available and seeking input from other staff members and clients as needed for successful project completion
- Managing the project schedules
- Consistently meeting deadlines for all assigned projects
- Understanding of many NG9-1-1 elements
- Improving proposed methods for project completion
- Quality communication skills
- Coordinating on-site customer presentations/training
- Highly skilled in Microsoft Word and Excel
- Skilled in organizing and continuously enhancing processes for implementing new efficient procedures

Professional Experience

GeoComm | 2002–Present
St. Cloud, Minnesota

- Assistant GIS Services Manager
- Proposal Developer
- GIS Proposal Developer
- GIS Supervisor
- GIS Specialist

Education

St. Cloud State University
St. Cloud, Minnesota | 2001-2002

St. Cloud Technical College
St. Cloud, Minnesota | 1999-2001

- A.A.S. – Advertising Program

Professional Affiliations

- NENA member

Craig Prisland

GIS Coordinator

Craig provides GIS technical input and expertise for GeoComm GIS services and products. He is responsible for analyzing GIS workflow, writing and revising processes, and developing procedures and quality standards for GIS. He is also responsible for meeting all training requirements; whether it is new hire training or ongoing training for all internal departments.

Craig's experience includes:

- Researching and developing methods to ensure GIS procedures are optimized for effectiveness and efficiency
- Keeping abreast of current GIS industry standards and maintaining the company standards based on these standards
- Assisting in researching and developing products and services
- Maintaining a working knowledge of Next Generation 9-1-1 (NG9-1-1)
- Providing technical expertise and assistance to customers
- Researching, developing, and training staff on procedures and tools to improve efficiency and quality
- Developing, organizing, facilitating, and monitoring GIS and software training courses
- Being knowledgeable in how GIS interfaces with public safety software
- Coordinating multiple Esri-based GIS development projects
- Creating and maintaining Esri geodatabases for customers
- Completing analyses of customer GIS map data, ALI databases, and MSAGs
- Creating GIS map data for use in E9-1-1 software programs including GeoLynx 9-1-1 and GeoLynx DMS
- Assisting in setting up E9-1-1 applications including GeoLynx 9-1-1 and GeoLynx DMS
- Maintaining knowledge of aerial photography and the different formats
- Maintaining a working knowledge of software applications such as ArcGIS and the GeoLynx Family of Products
- Creating and plotting various hard copy maps for customers
- Coordinating with customers on issues regarding their scope of services
- Working with customers and residents to ensure a successful project completion and customer satisfaction
- Monitoring and completing quality control on GIS map data
- Completing regular project status reports
- Conducting fieldwork in various locations across the United States

Professional Experience

GeoComm | January 2005–Present
St. Cloud, Minnesota

- GIS Coordinator
- GIS Specialist

Education

University of Wisconsin – La Crosse
La Crosse, Wisconsin

- B.S. in Geography
- Minor in Statistics

Dan Schmitz

GIS Supervisor

Dan is one of three GeoComm GIS Supervisors who may provide the GIS team's supervision for this project. This responsibility includes leading project kickoff meetings, assisting with ongoing training of current and new employees, monitoring schedules and providing updates to the project team, providing timely project status reports, and ongoing QA/QC of data.

Dan has worked at GeoComm for over 13 years, three of which were as the Quality Control Coordinator. In that role, Dan monitored the quality of all GIS data. He also, created QA/QC procedures.

His experiences includes:

- Proficient using ArcGIS for Desktop, ArcGIS for Server, and ArcPad
- Coordinating and supervising over 170 GIS 9-1-1 based projects
- Efficiently managing the progress and quality control of new and continuing GIS 9-1-1 based projects
- Advanced ability to perform GIS related procedures
- Designing, creating, and maintaining ArcGIS geodatabases for customers
- GPS data collection using ArcPad
- Processing and quality checking field data
- Training GIS Specialists in GPS data collection using ArcPad
- Setup and testing of GeoComm software for use in E9-1-1
- Developing enhanced GIS processes and procedures for Client Services department
- Coordinating and participating in the communications between customer and various agencies
- Utilizing analysis procedures to ensure accuracy of map data, MSAG, and 9-1-1 databases
- Assisting in the training of new GIS Specialists
- Maintaining a working knowledge of various software such as, ArcGIS, MapInfo, the GeoLynx Family of Products and Microsoft Office Suite
- Coordinating with customers on issues regarding the scope of services for all projects
- Creation of mosaics and image catalogs for existing aerial photography
- Managing the quality control of map layers
- Working with customers and residents to ensure successful project completion to the customer's satisfaction

Professional Experience

GeoComm | July 2000-Present
St. Cloud, Minnesota

- GIS Supervisor
- Quality Control Coordinator
- GIS Specialist

Education

University of Wisconsin
River Falls, Wisconsin

- B.S. in Conservation
- Minors in GIS and Biology

Highlighted Projects

Dan's daily reviews of data for quality and documentation and project experience is highlighted in the following recent projects:

- NCTCOG, Texas: Verified synchronization of MSAG, ALI database, and map data
- Franklin County, Florida: Reviewed and processed collected GPS data for quality and accuracy
- Luzerne County, Pennsylvania: Coordinated with multiple jurisdictions to resolve addressing discrepancies

Adam Stokstad

GIS Specialist

Adam has been a GIS Specialist with GeoComm for nearly nine years. He has extensive experience working in Esri's ArcGIS software and GeoComm's Esri-based GIS data management software, GeoLynx DMS. Adam is very familiar with all aspects of utilizing these tools for maintaining and developing GIS map data for the purpose of using the data for public safety.

Adam's experience includes:

- Ensuring QA/QC standards are met
- Proficient in ArcGIS 9.3 at the ArcInfo/ArcView level
- Coordinating and supervising over 70 GIS projects for 9-1-1
- Efficiently managing the progress and quality control of new and continuing GIS projects for 9-1-1
- Working with versioned geodatabases in an Esri multi-user disconnected editing environment.
- Advanced ability to perform GIS related procedures
- Designing, creating, and maintaining ArcGIS geodatabases for customers
- GPS data collection using ArcPad
- Processing and performing QA/QC procedures on field data Assisting in training GIS Specialists to collect GPS data using ArcPad and Trimble units
- Setting up and testing GIS data in GeoComm software
- Developing enhanced GIS processes and procedures for Client Services Department
- Coordinating and participating in communications between customer and various agencies
- Utilizing analysis procedures to ensure accuracy of GIS map data, MSAG, and 9-1-1 databases
- Assisting in training new GIS Specialists
- Coordinating with customers regarding the scope of work
- Maintaining a working knowledge of aerial photography and the different formats
- Creating mosaics and image catalogs from existing aerial imagery
- Working with customers and residents to ensure successful project completion to the customer's satisfaction
- Creating GIS map data for use within E9-1-1 software programs
- Coordinating with customers on issues regarding their scope of services for all projects

Professional Experience

GeoComm | November 2004-Present

St. Cloud, Minnesota

- GIS Specialist

Education

University of Wisconsin

Eau Claire, Wisconsin

- B.A. in Comprehensive Geography; Emphasis in Natural Resource and Land Management

Nicolet Area Technical College

Rhinelander, Wisconsin

- Transfer Credits

Highlighted Project

Midland Emergency Communications District (MECD) in Midland, Texas

- Reviewed data to correlate with GeoComm standards
- Coordinated with the MECD GIS department
- Set up the dispatch GIS software
- Completed an analysis of the map data, Master Street Address Guide (MSAG), 9-1-1 database
- Developed the final analysis report

Jody Sayre
Vice President of Sales and Marketing

Jody Sayre, one of the most experienced public safety GIS professionals in the country, offers invaluable insight into GeoComm's continued vision for its projects and services. Jody has a Bachelor's degree in Geography and has been invaluable to GeoComm during her 15 years with the company. Over the past 15 years she has managed the design and development of over 200 projects involving the analysis of existing and required GIS data within the context of both wireline and wireless 9-1-1 applications. Jody has been the principal GIS investigator on all of GeoComm's major projects including projects for the 9-1-1 Association of Central Oklahoma Governments (9-1-1 ACOG), the Jefferson County Emergency Telephone Authority Service Board (JCETASB) in Colorado, and the city and county of Honolulu, Hawaii. Jody's experience reaches all the way from being the GIS technician at the customer site collecting data to developing the overall project approach during the procurement phase, to managing the entire project team.

Jody served as Vice President of Client Service for GeoComm from March 2006 to November 2012 where she managed seven managers who oversaw all of GeoComm's client services operations comprised of professional GIS specialists, consultants, software developers, and client services staff members who focus on varying aspects of all GeoComm public safety projects. She was an active participant in all company and customer projects from project strategy to product development to project oversight.

In November 2012, Jody achieved her current position of Vice President of Sales and Marketing largely due to her continued success in growing GeoComm's large base of satisfied customers as a result of her vision of quality products, successful project completions, and outstanding customer service. As a member of GeoComm's executive committee, Jody is involved with all company goal development including offering strategic guidance for industry-related developments.

Jody's experience includes:

- Ensuring the goals approved for each specializing area: Implementation, Customer Support, GIS, Software Development and Testing, and Consulting are implemented

- Providing guidance on customer relations, project management, and project team supervising

- Policy and procedure development and implementation for the Client Services Department

- Experience coordinating more than 75 9-1-1 telephone database conversions

- Experience monitoring and maintaining project schedules for over 250 GIS 9-1-1 projects at any given time

- Managing the development of 300 countywide GIS databases for public safety systems in 34 states

- Assisting in developing internal project management tracking systems

- Extensive knowledge of Esri GIS technologies

Professional Experience

GeoComm | March1998-Present
St. Cloud, Minnesota

- Vice President of Sales and Marketing
- Vice President of Client Services
- Project/Geographic Services Manager
- GIS Project Manager
- GIS Supervisor
- GIS Specialist
- GIS ALI Database Technician

Education

St. Cloud State University
St. Cloud, Minnesota

- B.A. in Geography

Memberships and Achievements

- URISA member
- 2010 Recipient of Central Minnesota "5 Under 40" award

Highlighted Projects

Jody has been the principal GIS investigator on all of GeoComm's major projects including projects for:

- 9-1-1 Association of Central Oklahoma Governments (9-1-1 ACOG)
- Jefferson County Emergency Telephone Authority Service Board (JCETASB) in Colorado
- The City and County of Honolulu, Hawaii

Stacen Gross
Account Manager

Stacen is our most experienced Account Manager, having been with GeoComm since 1996. Throughout his 20 year career in public safety, Stacen has served as Project Manager for both GIS and consulting projects throughout the Midwest. He has also provided consulting and technical expertise to numerous counties on issues surrounding 9-1-1, communications, cooperative agreements between units of government and issues pertaining to funding and 9-1-1 surcharges.

Stacen's experience includes:

- Personally consulted with 400 units of county government
- Project manager for $21 million in public safety project budgets
- Obtained $4.5 million in project grants for units of county and local government
- Managed the development of 202 countywide E9-1-1 systems
- Defining, communicating, and fulfilling contractual obligations, goals, and breaking complex issues into manageable parts
- Excellent communication skills and ability to establish long-term working relationships with individuals in diverse industries
- Exceptionally skilled at facilitating problem-solving meetings with clients and representatives from all industries
- Coordinating and participating in communication between customers and various agencies involved in a given project
- Developing strategic marketing and sales plans for assigned GeoComm sales territory
- Following sales process from initial prospective client contact through appropriate sales and proposal presentations

Professional Experience

GeoComm | July 1996-Present
St. Cloud, Minnesota
- Project Manager
- Account Manager

Elert & Associates | 1992-1993
Stillwater, Minnesota
- Project Manager

Metropolitan Area Planning Agency | 1992-1993
Omaha, Nebraska
- Community Development Planner

Washington County, Nebraska | 1991-1992
Blair, Nebraska
- Assistant Planner

Education

Iowa State University | 1988-1992
Ames, Iowa
- B.S. in Community and Regional Planning/Public Administration

Professional Affiliations
- NENA Member
- APCO Commercial Member

Technical Knowledge
- Wireless Communications
- E9-1-1 Implementation
- Public Safety GIS
- Intergovernmental Cooperation

3   Requirements Response

The following pages contain GeoComm's response to the requirements in sections five through nine of the RFP. Our compliance with each specific requirement and details supporting our response are provided in blue text in the boxes immediately following each requirement.

GeoComm   Uniting Public Safety GIS and Communications
www.geo-comm.com
October 7, 2013

5. SPECIFICATIONS

The Kansas 9-1-1 Coordinating Council ("Council") desires to assist Public Safety Answering Points (PSAPs) transition to NG9-1-1 call handling and services. As part of this strategy, the Council is issuing this RFP for GIS Enhancement as three (3) projects.

5.1 Introduction

This RFP issued for NG9-1-1 GIS Enhancement for the approximately 117 PSAPs in the 105 counties of Kansas. Three (3) separate projects are being tendered:

a. Project A - **GIS Data Gap Analysis and Report**. The objective is to determine conformance of the PSAP GIS data to NENA standards. GIS Data Gap Analysis of approximately 112 Kansas PSAPs and their respective areas of interest.
b. Project B - **GIS Data Gap Remediation** for approximately 117 PSAPs. Remediation ensures that GIS data for each PSAP is complete and in conformance with referenced standards based on the Gap Data Analysis of Project A.
c. Project C - **GIS Data Quality Assurance (QA) Audit** validates the integrity of the GIS remediation data for approximately 117 PSAPs addressed during Project B.

During the Kansas NG9-1-1 Pilot, five (5) PSAPs were analyzed and will not need to be addressed during this Data GAP Analysis; Clark, Kingman, Reno, Sedgwick Counties, and the City of Emporia-Lyon County. However, all of our approximately 117 PSAPs shall to be addressed during this Data Remediation and Data QA Audit.

5.2 Objectives

The overall objectives for this procurement are:

a. **Standardization**. Early leadership and proper Tech Requirements ensure standard, homogenous NG9-1-1 tech solution statewide.
b. **Rapid Deployment**. Counties follow common solution; intelligent rollout and implementation schedule.
c. **Affordability**. State contract leverages economy of scale procurement channel for counties.
d. **County Consensus**. A strong "Good Will" marketing plan establishes leadership, instills patience, promotes cooperation, and inspires collaboration.
e. **High Availability**. Solution must be High Availability (HA) public safety criticality.
f. **Compatibility**. National: NENA standards, latest revision at time of contract award.
g. **O&M**. Commitment to Operations and Maintenance (O&M) work flow to maintain relevance of data.

5.3 Contract Awards

The State may award Project A - GIS Data Gap Analysis and Project C - GIS Data QA Audit to the same bidder or bidders.

The State may award Project B - GIS Data Remediation to multiple bidders. Bidder(s) awarded Project A and Project C is/are excluded from award for Project B.

Therefore, Bidder need only respond to that section(s) applicable to the Project of interest.

> **Bidder's response goes here.**
> **For which Project(s) are you submitting a Bid and Proposal (B&P)?**
> GeoComm respectfully submits a Bid and Proposal for Project B - GIS Data Remediation.

5.4   Progress Payments

Bidder(s) may invoice based on percent complete at:

a. 30% complete
b. 60% complete
c. 90% complete

Note: 10% withheld as retainage until signed Letter of Acceptance (LOA).

6. APPLICABLE DOCUMENTS

The following documents are relevant to this RFP. However, the RFP including SOW and Specification take precedence over Applicable Document.

a. NENA 02-014 GIS Data Collection and Maintenance Standards (latest issue at time of RFP)
b. NENA 71-501 Synchronizing GIS with MSAG and ALI (latest issue at time of RFP)
c. PSAPs of Kansas
d. PSAP GIS Survey Results

> **Bidder's proposal response to this requirement(s) goes here.**
>
> (*select one*) **Fully Compliant,** Partially Compliant, Non-Compliant
>
> **Describe here your familiarity and involvement with NENA GIS standards and specifications. Describe your active participation of any NENA committees; if none, so state:**
>
> Through our active involvement in the NENA Next Generation Partner Program and various NENA workgroups, GeoComm is acutely familiar with the standards required for NG9-1-1 systems and the importance of accurate, well maintained GIS data. We understand the need for standardized NG9-1-1 GIS data across a geographic area: a region or state as well as the need to maintain accurate, synchronized, standardized, GIS data for NG9-1-1.
>
> Our staff involvement and industry participation ensures that the products and services we bring to NG9-1-1 will meet NG9-1-1 Standards as they emerge. Staff involvement includes:
> - ☐ Leading the NENA Next Generation Data Development (NGDD) Discrepancy Reporting and Auditing Workgroup
> - ☐ Leading the NENA Emergency Call Routing Function/ Location Validation Function (ECRF/LVF) Workgroup
> - ☐ Leading the NG9-1-1 Systems Management Workgroup
> - ☐ Leading the NENA Site/Structure Address Points (SSAP) workgroup
> - ☐ Participating in the NGDD GIS Working Group - NG9-1-1 GIS Data Model V1
> - ☐ Participating in the LIS Workgroup

☐ Participating in the Joint NENA/APCO NG9-1-1 Public Safety Answering Point (PSAP) Workgroup

☐ Participating in the Emergency Incident Data Document (EIDD) subgroup

☐ Participating in NENA Industry Collaboration Events (ICE)

7. IMPLEMENTATION SCHEDULE

The project basic timeline is shown in the table below.

Project	Activity	Months Post Contract	Remarks
A	**GIS Data Gap Analysis** a. Preliminary b. Intermittent c. Final	 0-4 5-8 9-12	Each phase will capture a group of the PSAPs.
B	**GIS Data Remediation** a. Preliminary b. Intermittent c. Final	 5-8 9-12 13-16	Data remediation may commence after first group of PSAPs analyzed. Each phase will capture a group of the PSAPs.
C	**GIS Data QA Audit** a. Preliminary b. Intermittent c. Final	 9-12 13-16 17-20	Data QA Audit may commence after first third of PSAPs remediated. Each phase will capture a group of the PSAPs.

Bidder's proposal response to this requirement(s) goes here.

(*select up to 2*) On which Project(s) are you bidding? A **B** C

(*select one*) **Fully Compliant,** Partially Compliant, Non-Compliant

Describe here your ability to adhere to our Implementation Schedule. Include any applicable past experience and lessons learned in regard to implementation timelines. Describe any assumptions and caveats; if none, so state.

GeoComm's experience creating and successfully implementing over 1,200 GIS-related projects over the last 18 years has provided us with the tools, procedures, and knowledge necessary to provide you with a well-managed project which adheres to the project implementation schedule. GeoComm's project manager will follow well-established project management practices based on the Project Management Institute (PMI). By partnering with GeoComm you will know the status of your project and have confidence your objectives will be met well within the designated project timeline.

The following project management techniques will be used to keep costs low and to stay on track to meet project deadlines:

☐ Regular Conference Calls and Status Reports

- ☐ Project Management Web Portal
- ☐ Continuous Review of Work in Progress
- ☐ Cost and Schedule Management

Regular Conference Calls and Status Reports

GeoComm knows from experience that ongoing communication throughout a project helps team members to work more efficiently, keep project costs down, and meet project deadlines.

Project status is discussed internally at GeoComm on a regular basis. The project manager holds weekly status meetings with the GIS supervisor overseeing daily GIS data development to discuss project progress and identify any concerns. This proactive, hands-on approach allows the project manager to be involved in day-to-day project activities and to identify and mitigate potential project road blocks.

> "On paper, many firms look similar and it's frequently difficult to measure certain intangibles like project management, communication, or culture until you actually begin working with them. We've been very impressed by the professional and responsive nature of GeoComm's staff. Communication has been consistent, frequent, and well prepared in the form of project status reports, conference calls, and day-to-day contact as tasks require it. In short, our working relationship with GeoComm has been effortless which has made them seem like an extension of our own staff."
>
> **Ray Weiser- GIS Coordinator**
> **Scott County, Iowa**

GeoComm will hold regularly scheduled conference calls with the PSAP and the State to keep all parties informed of the project status. The communication during these calls is necessary to ensure timely completion of the project. The team will set milestones at the beginning of the project that will be used to assess overall project progress. GeoComm will review the overall schedule with the PSAP and State to determine the frequency of regular conference calls.

GeoComm's GIS professionals will also provide the PSAP and State with formal monthly status reports outlining the following:
- ☐ Work completed
- ☐ Meetings held, planned, or needed
- ☐ Issues encountered or anticipated
- ☐ Production goals for next reporting period
- ☐ Schedule review

Project Management Web Portal

If needed, GeoComm will configure and host a password-protected Web portal, accessed via the Internet, to serve as a data gateway and project management tool. We have found these project portals to be an important communications tool by allowing easier access to data and offering enhanced communication among project members.

The Web portal will include items to ensure timely sharing of data and necessary communication for this project. Items included are:
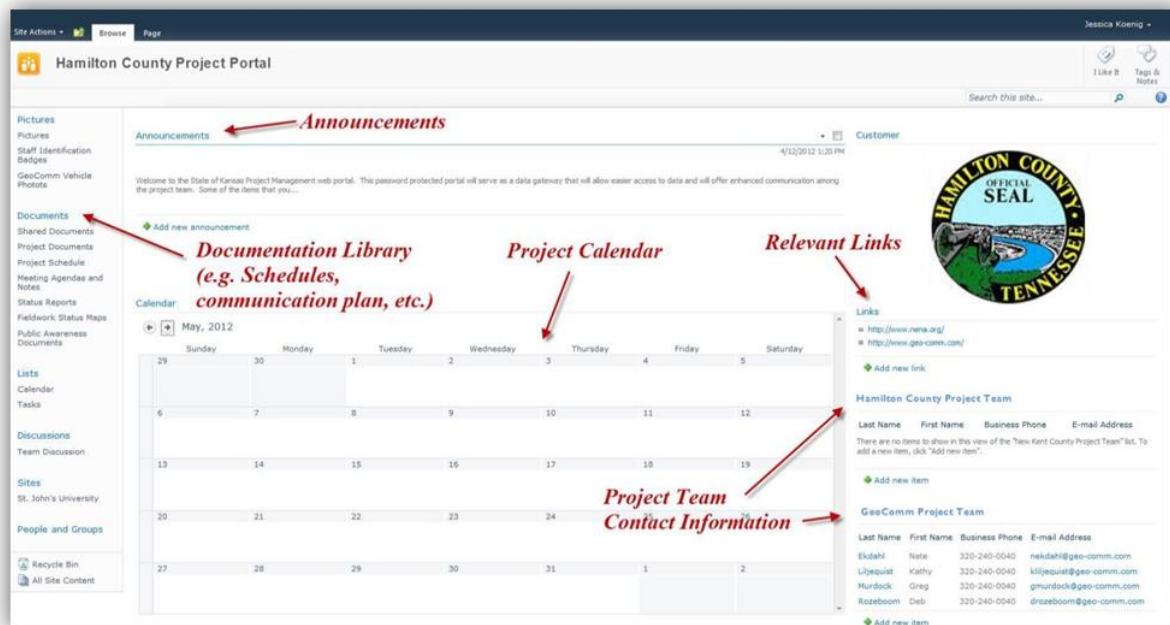- ☐ support and maintenance issue tracking

- ☐ a documentation library
- ☐ schedules
- ☐ the ability to upload and download data files
- ☐ tracking data delivery status
- ☐ project status reports

The web portal includes role-based user management so that administrators can control information accessible to individual users and/or groups of users.

Continuous Review of Work in Progress

GeoComm tracks all projects using Microsoft Dynamics Great Plains software. Using this software we are to forecast, review, and evaluate where the project is at and where it will be in the near future. For the duration of the project, GeoComm monitors the actual status of the project in relation to expended hours to fully ensure the project needs are being met.

Along with standard project management steps such as monthly status reports and regular conference calls, our account management software permits GeoComm to proactively track project tasks to ensure they will be completed on time and within budget.

Cost and Schedule Management

GeoComm recognizes the importance of cost management for any project. To ensure our prices are fair, we determine project pricing based on the unique scope of work for each project. Project price is calculated based on the required deliverables and estimated number of hours, materials, and travel expenses needed to complete them. Using statistics extracted from our accounting software for past completed projects, we can predict the time necessary to complete a project.

GeoComm does not increase the cost to meet contracted deliverables unless an amendment is made to the scope of services. This process has ensured that all GeoComm projects have been completed within budget. If we underestimate the number of hours required to complete a project, our customers do not pay the difference.

GeoComm has a proven history of completing projects on time and within budget. We are dedicated to completing project tasks within our control according to the agreed upon project schedule. On average, a project of this nature can be completed within several months; however, project duration can vary widely depending on the number of errors to resolve, the quality of resources provided, and PSAP clarification of project questions and assumptions. We will allocate the necessary resources and staff members to ensure all project milestones are completed within this timeframe.

Assumptions and Caveats

From past experience, GeoComm knows that GIS data remediation projects can sometimes be challenging. Successful project completion is often dictated by the quality of resources available and the level of PSAP involvement throughout the project.

We believe our clients play a critical role in the overall project success. From time to time throughout the project we will seek your input because no one understands the available resources, local terrain, politics, and needs like the people who live and work within your community. Also, as the contracting agency, you are looked to for project accountability by community members. So while GeoComm will lead the project efforts, we will partner with you to ensure you have in-depth project knowledge and are informed regarding the status of meeting the project goals.

The PSAP will be expected to provide local support so the project is completed in an efficient and timely manner. PSAP responsibilities include:

- ☐ Assisting in coordinating meetings and/or conference calls
- ☐ Providing a single point of contact to assist with any questions and provide clarification
- ☐ Provide pertinent project information and documentation
- ☐ Assist in the ongoing quality assurance
- ☐ Providing existing GIS data, in Esri format and including map projection information. The layers required for this project include:
    - ◇ Street Centerlines containing:
        - ♦ Road names
        - ♦ High/low and odd/even address ranges
    - ◇ Address points containing:
        - ♦ Structure address numbers
        - ♦ Structure road names
    - ◇ Jurisdictional Boundaries
- ☐ Providing current digital copies of the MSAG and ALI database in a standard format (.txt, .xls, etc)
- ☐ Providing resource information showing the location of missing roads, one-way streets, and overpasses/underpasses (if needed)
- ☐ Providing resource information depicting road surface type (if needed)
- ☐ Reviewing ESN Boundary Map and provide feedback on updates needed prior to giving final approval

8. REQUIREMENTS
8.1 Requirements Overview

During all phases of NG9-1-1 GIS development (Analysis, Remediation, Audit/QA), Contractor shall include, but not be limited to, addressing the following typical Kansas Dispatch Center data:

a. Does PSAP have a GIS Operations and Maintenance (O&M) Workflow (for example Address Assignment)
   a. Documented
   b. Undocumented
   c. Does not exist
b. Who in the PSAP is responsible for issuing addresses (Agency, Organization, Department…)
c. What is the policy of the PSAP for Address Point Placement
   a. Center of structure
   b. Entrance of driveway
   c. does urban placement policy differ from rural placement
   d. Other
d. What is the policy of the PSAP for handling multi-address structures and/or sites such as businesses, shopping centers, apartments, mobile home parks…
   a. On-point with a related table or listing of sub-addresses
   b. On-structure at approximate location of sub-address
   c. Other
e. What CAD/Mapping software is used by PSAP
f. Does PSAP have ArcGIS Desktop
g. Who maintains GIS database for the PSAP
h. Who is responsible for MSAG / ALI synchronization (add, delete, correct address points, street centerlines, ESN boundaries for the appropriate data layer)
i. If PSAP is not responsible for MSAG, then how is the PSAP informed of changes (add, delete, correct)
j. When was the GIS database last updated and how frequently
k. Is GIS data co-shared and/or co-maintained with other PSAPs
l. How current is the aerial imagery captured
m. What resolution is the latest aerial imagery
n. What GIS Data Layers are captured by the PSAP
   a. Street Centerline
   b. Address Points
   c. ESN Boundaries
   d. EMS Boundaries
   e. County Boundary
   f. Municipal Boundary
   g. Fire District Boundaries
   h. Law Enforcement Boundaries
   i. Emergency Service Agency locations (fire, EMS, law enforcement)
   j. Cell Site Tower Locations

  k. Cell Site Geographic Coverage

  l. Other

  m. None of above

Many of these questions were answered by Kansas PSAPs in the form of a survey (Appendix A). The Survey Responses are posted on our website for large/multiple attachments: http://da.ks.gov/purch/adds/default.htm (attachments are listed by bid closing date and Bid Number).

Bidder's proposal response to this requirement(s) goes here.

(*select one*) **Fully Compliant**, Partially Compliant, Non-Compliant

(*select up to 2*) On which Project(s) are you bidding? A **B** C

Describe here your general experience with tasks above:
GeoComm knows firsthand that individual PSAPs have unique requirements and specifications which directly affect their GIS data needs. As part of the project plan development process, GeoComm will review the PSAP site survey, attempt to acquire incomplete responses, and identify how each PSAP's unique needs will impact the data remediation process. Project plans for each PSAP will be unique taking into account, but not limited to, elements of the PSAP site survey responses including:

☐ Workflows and policies

☐ Data availability

☐ GIS data, MSAG, and ALI database status and quality

☐ Aerial imagery status and quality

☐ Software

☐ Authoritative data managers

All of these elements will be factored into the final data remediation plan to ensure the updated GIS map data meets the PSAP's functional needs.

8.2 Project A – GIS Data Gap Analysis

8.2.1 In preparation of a Next Generation 9-1-1 (NG 9-1-1) system, Kansas must analyze the status of 9-1-1 specific geographic information system (GIS) data across approximately 117 PSAPs. The data must be analyzed both between and within Public Safety Answer Point (PSAP) service areas for topology and standardization. Kansas is in search of a Contractor who will provide a comprehensive analysis of GIS data integration issues, field standardization and data completeness [pertaining to telephone number (TN) listings and Master Street Address Guide (MSAG) data] for the development of a statewide GIS database, accessible to any and all of the PSAPs.

8.2.2 Since many unknowns remain in the implementation of NG 9-1-1, Kansas has chosen to use standards for GIS layers and fields as set by the National Emergency Numbers Association (NENA). The selected Contractor shall provide services that meet, are capable of meeting, or will meet NENA NG9-1-1 requirements and standards now available, or as they become available in the future.

8.2.3 The Kansas 9-1-1 Coordinating Council requires a representative sample (no less than 25%) of GIS analysis for consistency within each PSAP service boundary and for consistency between adjoining PSAP service boundaries. All data, GIS, telephone number listings, Automatic Location Information (ALI), and

MSAG[1] needed for the analysis will be furnished. The following guidelines shall serve to develop the Contractor's GIS Gap Analysis project plan.

8.2.4 GIS Data Analysis

The GIS data analysis shall consist of various topology, attribute, and field name checks. Analysis tasks by PSAP shall be conducted to assess:

   a. Misalignments
   b. Duplications
   c. Splits Needed
   d. Road Name Consistency
   e. MSAG-Centerline Errors
   f. Telephone Number (TN) List – Site/Structure Location Errors
   g. Multi-Address Types
   h. Field Name Errors
   i. Attribution Errors
   j. Non-Standardized Fields

8.2.5 Centerline Layer

Road Name Consistency is dependent upon each PSAP. Under some circumstances road name changes should occur due to jurisdictional boundary changes. Examples:

   a. Acceptable situations

   a. A highway that changes to a city street name near the city limits

   b. A straight road that changes names at a city limit or county boundary.

   b. Unacceptable situations

   c. A highway that switches back and forth from a city street name to a highway name several times within the city limits

   d. A straight road with one name for most of the length and a different name on one or two segments with no corresponding boundary (municipal or county) in the area.

   Other

   c. Number of misalignments
      a. Overlaps
      b. Gaps
      c. Overhangs
      d. Number of duplicate features
      e. Line segments with the same name
      f. Line segments with different name
   d. Number of road segments running the incorrect direction (Those segments that run high address [from node] to low address [to node])
   e. Number of road segments not broken at intersections and/or ESN boundaries
   f. Road name consistency for entire span of the road
   g. Comparison of MSAG and their centerline segments, provide the number of inconsistencies
   h. Compare fields within the layer to the NENA NG 9-1-1 standards for field names, content, and formatting

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[1] No emergency service only proprietary data will be provided as a part of this project. This includes but is not limited to, individual names and phone numbers.

i. List of non-NENA NG 9-1-1 standard fields

8.2.6 Polygon features

(Emergency Service Number (ESN) Boundaries [including the individual fire, EMS, law enforcement boundaries], County Boundary, Municipal Boundary, PSAP Service Boundary)

- ESN Boundary
- Fire District Boundary
- EMS Boundary
- Law Enforcement Boundary

a. Number of misalignments
    a. Overlaps
    b. Gaps
b. Duplication of features between PSAPs
    a. Contains matching ESN numbers
    b. Contains different ESN numbers
c. Analyze for inclusion (overlap) of all subordinate boundaries (fire, EMS, law enforcement) to the ESN boundary
d. Compare fields within each layer to the NENA NG 9-1-1 standards for field names, content, and formatting
e. List of non-NENA NG 9-1-1 standard fields

8.2.7 Site/Structure Location Layer

a. Number of discrepancies between the telephone companies telephone number (TN) list and site/structure location layer (a.k.a. address point layer) (NENA 71-501)
b. List of all multi-address structure formats (i.e. point separated out on building, points collocated [all in a single location], pull separate address from flat file)
c. Compare fields with the layer to the NENA NG 9-1-1 standards for field names, content, and formatting
d. List of non-NENA NG 9-1-1 standard fields

Bidder's proposal response to this requirement(s) goes here.

(*select one*) Fully Compliant, Partially Compliant, Non-Compliant

Describe here your general experience and proposal for accomplishing the tasks above:
    a.

8.3   Project B – GIS Data Gap Remediation

Contractor shall remediate all deficiencies identified by the GIS Data Gap Analysis. The following guidelines shall serve to develop the Contractor's GIS Data Gap Remediation project plan.

a. GIS Data Gap Remediation to NENA standards
    a. PSAP closes gap using own internal resources, or
   b. PSAP purchases services from statewide pre-approved Contractor schedule by Task Order purchase order

      c.   Database to Kansas Data Access and Support Center (DASC)
  b. Develop highly accurate GIS data coordinated on statewide basis
      a.   Street centerlines
      b.   Address points
      c.   Jurisdictional boundaries
  c. Migration from current 9-1-1 to NG9-1-1 without degradation in 9-1-1 services (Risk Element)
      a.   Credibility
      b.   Accountability
      c.   Measurable results

Bidder's proposal response to this requirement(s) goes here.

(*select one*)   **Fully Compliant**, Partially Compliant, Non-Compliant

Describe here your general experience with and proposal for remediation of GIS data deficiencies:

GeoComm specializes in GIS for use within mission-critical E9-1-1 and NG9-1-1 systems; therefore, we know the importance of accurate GIS map data. Of equal importance is the synchronization of the GIS map data, ALI database, and MSAG. With higher accuracy and synchronization rates between these three components, comes a greater probability for accurately pin-pointing emergency call locations in a dispatch mapping system. In addition, for NG9-1-1 systems, accuracy and synchronization is crucial for call routing, call handling, call delivery, location validation, and emergency response.
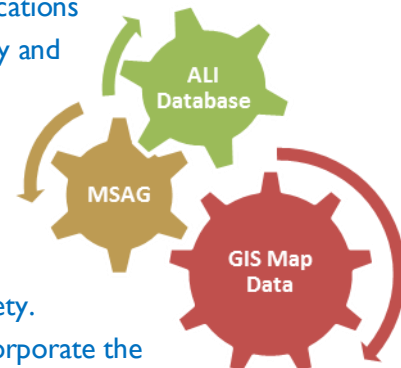
Having completed over 300 GIS data analysis and 500 GIS data development/remediation projects in the past five years, GeoComm has an extensive background in optimizing GIS map data layers for public safety. This experience has yielded time tested and proven procedures that incorporate the use of our specialized GeoLynx DMS data management tools. GeoLynx DMS is designed to streamline public safety GIS data analysis, development, and maintenance. It addition to numerous time-saving tools for GIS data editing, GeoLynx DMS contains over 20 automated quality control audits to identify errors in key GIS layers as well as inconsistencies between the GIS map data, MSAG, and ALI Database. With these tools, GeoComm GIS Specialists are able to quickly zoom to each error on the map for efficient error correction. Audit results can also be easily exported in report format.

GeoComm has the experience and tools to successfully assist State of Kansas PSAPs in preparing their GIS data for NG9-1-1. We follow a methodological approach to each project that includes the following distinct tasks:
- ☐ Task One: Project Initiation
- ☐ Task Two: Project Plan Development
- ☐ Task Three: GIS Data Gap Analysis Review and Remediation
- ☐ Task Four: GIS Data Remediation

Task One: Project Initiation

The first step in GeoComm's project approach is making certain the project team has an in-depth understanding of the PSAP and State's project goals. During an initial internal meeting, project management staff will provide the GeoComm project team with information regarding any nuances in the scope of work based on PSAP surveys, schedule, and their individual responsibilities for the project. This is an effective step to assure the project's successful and timely completion.

Following the internal project team meeting, GeoComm will schedule a project initiation conference call with the PSAP and State's project team. The following items will be discussed:

- ☐ Introductions: participating stakeholders and GeoComm staff
- ☐ Review of project objectives and goals
- ☐ Defining customer expectations
- ☐ Establishing communication processes
- ☐ Reviewing project timeline
- ☐ Initial GIS data schema
- ☐ Existing resources that may be used in remediating the GIS data layers

If the PSAP prefers, GeoComm's Project Manager can optionally attend the project initiation meeting in person. Regardless of the logistics, this meeting will facilitate a broader understanding of the full project scope and promote open communication between GeoComm, the PSAP, the State, and the chosen Contractor(s) for Projects A and C.

Task Two: Project Plan Development

To help smoothly guide the GIS Data Remediation efforts relative to the overall project, GeoComm will develop a project plan outlining our proposed project approach. The initial steps of project planning have occurred as part of this proposal development. Supplemental planning will occur during scope validation and project initiation meetings. The final project plan will be laid out in a document submitted to the PSAP and State within two weeks following the project kickoff meeting.

The project plan will detail the following topics:

- ☐ Project Assumptions and Constraints
- ☐ Deliverables Acceptance Practices
- ☐ Scope of Work Definition
- ☐ Communications Management Plan
- ☐ Change Request Procedure
- ☐ GIS Data Remediation plan including
  - ◇ GIS Data Analysis Review
  - ◇ GIS Data Remediation Methodology
  - ◇ Discrepancy Issue Examples
  - ◇ Unique GIS Data Considerations (based on PSAP survey)
  - ◇ Description of GIS Data Standards
- ☐ Project schedule with milestone projections for each task

The final project plan will be submitted to the PSAP and State for review and approval prior to initiating

analysis verification and GIS data remediation tasks. The approved plan is a working document to be maintained throughout the life cycle of the project and shall be amended as needed.

Task Three: GIS Data Gap Analysis Review and Remediation

Once the project plan has been approved, GeoComm will complete a thorough review the GIS Data Gap Analysis furnished by the State. This report will provide a detailed account of issues identified in the sample GIS data initially analyzed. Because only a portion of the PSAP's service area is required to be analyzed in Project A, GeoComm proposes to complete an independent analysis on the complete GIS dataset. This analysis will provide a more comprehensive picture of the overall state of the GIS data and will produce tangible error lists that can be used as a basis for remediating the GIS data. The full analysis will include GeoComm's standard analysis procedures plus any additional audits completed during project A.

GeoComm will first analyze the GIS Map Data Layers individually and then complete a synchronization review of the GIS Map Data, MSAG, and ALI Database. Specific analysis procedures that will be conducted are detailed in the following table.

Street Centerlines	Polygon Boundaries	Address Points
The street centerline layer will be reviewed to identify: ☐ Road name consistency for entire span of road within a given jurisdiction ☐ Misalignments such as gaps, overlaps overhangs, and duplicate features ☐ Inconsistent and incorrect line direction ☐ Address range issues such as overlaps and from node greater than to node ☐ Street centerlines that are unbroken at true intersections as well as at ESN boundaries ☐ Street centerlines that are incorrectly broken at overpasses/underpasses and ramps for routing purposes ☐ MSAG validity of street centerlines ☐ Compliance with NENA standards and current NG9-1-1 Data Model	The ESN and subsequent Fire, Law, and EMS boundary layers will be reviewed to identify: ☐ Overlapping boundaries ☐ Gaps between boundaries ☐ Duplicate boundaries ☐ Inconsistencies between individual Fire, Law, and EMS layers and the combined ESN boundary layer ☐ Polygons not snapped to street centerlines ☐ Compliance with NENA standards and current NG9-1-1 Data Model	The address point layer will be reviewed to identify: ☐ The number of duplicate addresses ☐ Multi-address structure formats (i.e. points on individual buildings, points collocated on a single structure, address pulled from flat file) ☐ Synchronization issues with the ALI database ☐ The number of primary search layer features without an address ☐ Compliance with NENA standards and current NG9-1-1 Data Model

Digital results lists will be developed for each audit to aid in the GIS Data Remediation effort.

Each review will identify issues that could adversely affect emergency response. Examples include:

- ☐ not being able to accurately plot wireline 9-1-1 calls,
- ☐ routing emergency service personnel to the wrong location, and/or
- ☐ routing an emergency call to the wrong Public Safety Answering Point (PSAP).

Note: To complete a full analysis, the PSAP must provide all requested resources.

After the analysis is complete, GeoComm will incorporate elements from our full PSAP analysis into the State-furnished GIS Data Gap Analysis report. Any inconsistencies, omissions, or errors in the GIS Data Gap

Analysis will be documented. GeoComm will work with the GIS Data Gap Analysis Contractor to clarify results that are questionable or otherwise unclear.

Task Four: GIS Data Remediation

GeoComm proposes to update the PSAP's GIS map data layers based on the state-furnished GIS Data Gap Analysis Report and our comprehensive in-house analysis. The goal of these updates will be to correct the GIS map data issues identified, to bring the data in line with NENA standards, and to achieve a 98% synchronization rate between the GIS map data, ALI Database, and MSAG.

Note: To attain a 98% synchronization rate, the PSAP may be required to resolve deficiencies identified in the ALI Database and MSAG.

During migration from the current E9-1-1 environment to NG9-1-1, GeoComm will continually focus on the credibility, accountability, and measurable results of GIS data throughout the remediation process, thereby ensuring no degradation to the current level of 9-1-1 service.

The scope of the GIS Data Remediation will vary based on the type of issues identified through the GIS Data Gap Analysis and GeoComm's analysis; however, the following section provides an overview of the type of updates that may potentially be needed. If applicable, the following update processes will be completed for the corresponding map data layers:

- ☐ Field Structure Updates
- ☐ Street Centerline Layer Updates
- ☐ Jurisdictional Layer Updates
- ☐ Address Point Layer Updates
- ☐ Quality Assurance/Quality Control (QA/QC)

GeoComm will add four tracking fields to each of the map data layers updated during this project. The tracking fields will help the PSAP identify which features have been modified, what type of change was made, who made the change, and the date the feature was last updated.

Field Structure Updates

GeoComm will adjust data schema for the street centerline, address point, and jurisdictional boundary layers to reflect NENA requirements for NG9-1-1. As noted in the RFP, the data schema will follow the NG9-1-1 GIS Data Model as defined by NENA at the time contract award.

Attributes required by the CAD or PSAP mapping system will also be added, if necessary, such as road centerline attributes for vehicle routing. GIS Specialists will work with the PSAP to obtain resources depicting required attributes. The specific attributes that will be added will vary depending on the particular mapping software; however, typical attributes for routing may include road surface type, one-ways, speed limit, and overpasses.

Note: GeoComm does not propose to populate all fields with missing attributes. Fields will contain attributes that are available in the provided GIS layers or where GeoComm states they will edit or add attributes in this scope of work.

Street Centerline Layer Updates

GeoComm will update the existing street centerline layer based on fallout results and inconsistencies noted in the state-furnished GIS Data Gap Analysis Report and our comprehensive in-house analysis. If there are any discrepancies between the approved resources for this project, GeoComm will work with the PSAP for verification. Road layer update processes may include a combination of, or all of, the following:

- ☐ Attribute Field Structure Updates
- ☐ Spatial Updates
- ☐ Road Name Attribute Updates
- ☐ Address Range Attribute Updates
- ☐ Topological Corrections
- ☐ Left and Right Field Attribution
- ☐ Routing Attribute Enhancements

Spatial Updates

If it is determined that a road is missing, GeoComm will add it to the street centerline layer using resources provided by the PSAP.

If deemed necessary, GeoComm will also ensure roads are spatially aligned to aerial images provided by the PSAP or downloaded from a publicly available site. Spatial adjustment will occur at a zoom scale of no more than 1:386 feet. The final positional accuracy of the street centerline layer will be primarily dependent on the aerial images.

When roads are added or adjusted, GeoComm will, if needed, make corresponding adjustments to the ESN, Fire, Law, and EMS boundary layers to ensure multi-layer topological accuracy.

Road Name Attribute Updates

GeoComm will update road names attributes in the street centerline layer to accurately correspond to those in the MSAG based on fallout results presented in the map data analysis reports. Road name inconsistencies throughout a span of road in the same jurisdiction will also be corrected at this time. If the correct road name is for some reason unclear, GeoComm will provide a list that displays the difference in road name spelling between the resources. The PSAP will then be asked to confirm the correct spelling or provide GeoComm with appropriate resources to determine the approved road name.

Note: GeoComm is not responsible for making updates to the ALI database or MSAG. If it is determined that fallout is the result of a road name not spelled correctly in the ALI database or MSAG, GeoComm will notify the PSAP for resolution.

Address Range Attribute Updates

GeoComm will update address ranges in the street centerline layer based on the fallout results presented in the GIS Data Gap Analysis. Utilizing resources provided by the PSAP, GeoComm will investigate and

correct the following issues, if present, in the street centerline layer:
- ☐ Overlapping address ranges
- ☐ High address range is less than the low address range
- ☐ Odd/even address ranges in both the from and to fields
- ☐ ALI database address could not be found in compatible ranges

Note: If it is determined an ALI database address did not match the street centerline layer because it was incorrect in the ALI database, GeoComm will notify the PSAP or resolution.

Topological Corrections

All topology errors will be resolved during the GIS data remediation process. GeoComm will break and snap road segments where necessary to create topological accuracy for proper interpolation of addresses and routing. Roads will be broken at:
- ☐ Jurisdictional boundaries
- ☐ True intersections with other roads, including those at PSAP borders

Roads will not be broken where there are overpasses and underpasses.

Line direction will also be adjusted, if needed, in accordance with vehicle routing requirements for the PSAP's dispatch mapping system. This may include line direction following the direction of house number increase, and on one-way streets, the direction in which traffic flows. Or line direction may follow the direction of house number increase for all roads with attributes designating the direction of traffic flow for one-way streets. High/low address ranges will be exchanged accordingly to ensure addresses plot on the correct end of each road segment.

Left and Right Field Attribution

GeoComm will populate left right fields in the street centerline layer with corresponding boundary attributes for each side of the road. The required attributes may vary depending on the status of the NENA NG9-1-1 data model and PSAP specific requirements, however, left and right fields that may potentially be updated include.
- ☐ ESN_L and ESN_R
- ☐ Municipality_L and Municipality_R
- ☐ Postal_Community L and Postal_Community_R
- ☐ Zip_Code_L and Zip_Code_R
- ☐ MSAG_Community_L and MSAG_Community_R

These fields are recommended by NENA on a conditional basis, meaning that if an attribute value exists, it must be included. If no value exists for the attribute, the data field is left blank.

GeoComm can derive the left/right attributes in one of several ways depending on the available project resources. Attributes can be automatically pulled from a polygon layer* using GeoLynx DMS, they can be manually updated based on MSAG synchronization fallout, or they can be manually updated using some other resource as a guide.

Note: The PSAP or State must provide the municipality, postal, zip code, and/or MSAG community boundary polygon layers for populating left and right fields in this manner. Attributes will be added as-is. GeoComm is not responsible for confirming the accuracy of these boundaries.

Jurisdictional Boundary Layer Updates

GeoComm will update the PSAP's ESN layer based on topological errors and inconsistencies between the ALI database, MSAG, and ESN layer identified during the GIS Data Gap Analysis and GeoComm's internal analysis. GeoComm will work with the PSAP to determine the correct location of ESN boundaries.

After these updates are complete, GeoComm will ensure the subsequent Fire, Law, and EMS boundaries and their respective attributes mirror the final ESN layer.

Address Point Layer Updates

GeoComm will update the address point layer based on ALI database synchronization issues identified during the two analyses. The goal will be to ensure the ALI database and address point layer are at least 98 percent synchronized, Updates may include adding missing points and updating road name, house number, community (MSAG and Postal), and ESN attributes to improve the synchronization rate. If GeoComm is unable to distinguish whether a given synchronization issue is an address point or ALI database error, the PSAP will be responsible for confirming which resource has the correct information.

GeoComm will also spatially adjust points if needed to ensure all multi-unit structures are consistently represented. At the onset of the project, GeoComm will work with the PSAP to determine how multi-unit structures should be handled – examples include points placed on individual buildings, co-located on a single building, or represented by a single point with unit information being pulled over from a flat file. Once established, the agreed upon methodology will be incorporated into the overall project plan.

Quality Assurance/Quality Control

Quality control is an integral part of all our projects. GeoComm utilizes documented internal processes to assure the highest quality of deliverables are developed and documented. While official quality control will be handled by the QA Vendor assigned to Project C, GeoComm proposes to complete several in-depth project QA/QC steps to ensure the final map data deliverables are accurate.

QA/QC audits will be performed on the:
- ☐ Street Centerline Layer
- ☐ Jurisdictional Boundary Layers
- ☐ Address Point Layer
- ☐ Multi-Layer Topology

Street centerline layer

GeoComm will perform several audits to ensure the overall quality of the street centerline layer. The audits used for checking the street centerlines layer include:
- ☐ Address Range Audit

☐ Topology Audit
☐ Missing Attribute Audit

Jurisdictional Boundary Layers

GeoComm will perform several audits to ensure the overall quality of the ESN boundary layer and associated Fire, Law, and EMS boundary layers. The audits used for checking these layers include:

☐ Topology Audit
☐ Missing Attribute Audit
☐ Duplicate Audit
☐ Number Audit

Address Point Layer

Per NENA 71-501, GeoComm will geocode the updated address points to the roads layer to verify that addresses contained in the points layer match the associated roads.

Multi-Layer Topology

The Multi-Layer Topology audit checks street centerline segments to determine if they touch or cross any ESN or community boundary.

Synchronization Review

To assist the PSAP in identifying possible updates needing to be made to their MSAG and ALI database, GeoComm will compare the MSAG to the street centerline layer and the ALI database to the address point layer one final time. The PSAP or State must provide the MSAG and ALI database in order for these comparisons to be made. The results of the comparison will be provided to the PSAP for determination as to which database needs to be updated. If the PSAP determines that updates to the map data are needed rather than updating the MSAG and ALI database, GeoComm will make the updates to the associated map data layers if identification of these updates is provided by the county within 30 days of being provided the results of the comparison.

8.4 Project C – GIS Data QA Audit

The Contractor shall certify that GIS remediation has successfully brought the GIS data for each PSAP into compliance with NENA standards using a robust set of QA analytical tools according to the NENA NG9-1-1 GIS data model and GIS data layers. The following guidelines shall serve to develop the Contractor's GIS Data QA Audit project plan.

a. GIS Statewide Gap Analysis and Audit
    a. GIS Data Collection and Maintenance Standards according to NENA 02-014
    b. GIS Database to MSAG and ALI Synchronization Process according to NENA 71-501 or equivalent at time of contract award
    c. NG9-1-1 GIS Data Model according to or equivalent at time of contract award
    d. Dual-pass QA process to ensure data integrity by developing State-accepted validation and comparison checkpoints.
    e. Establish border standards
    f. Performs Gap Audit post-remediation

> **Bidder's proposal response to this requirement(s) goes here.**
>
> (*select one*)   Fully Compliant, Partially Compliant, Non-Compliant
>
> **Describe here your general experience with and proposal for remediation certification:**
>   a.

9. DELIVERABLES

All deliverables shall include a signed Letter of Acceptance (LOA). The LOA shall be signed by an authorized member of the Customer and Contractor.

9.1 Project A – GIS Data Gap Analysis

The contractor shall deliver a Detailed Analysis Reports for each item listed under the GIS Data Analysis section by PSAP:

a. Project Plan proposing Contractor's methodology for accomplishing SOW and satisfying specification requirements
b. Preliminary Detail Analysis Report captures results of first group of PSAPs
c. Interim Detail Analysis Report captures results of second group of PSAPs
d. Final Detail Analysis Report captures results of last group of PSAPs
e. Reports shall be delivered electronically as a Microsoft® Excel® spreadsheet
f. The GIS Data QA contractor may require assistance interpreting the GIS Data Gap Analysis. The GIS Data Gap Analysis contractor shall provide that collaboration in a timely manner.
g. Notification shall be made immediately to the State's single point of contact (*to be announced*) of any difficulties or problems meeting the requirements of the deliverables or schedule.

The reports shall address the following categories as a minimum:

a. Analysis of redundancy, misalignment and others errors in topology
b. Analysis for NENA NG 9-1-1 standardization
c. Analysis of the accuracy between the telephone number (TN) list and/or ALI and the site/structure location layer
d. Analysis of the accuracy between the MSAG and the centerline layer
e. Identify all deficiencies in data using latest current NENA standards as basis for identifying gaps.

> **Bidder's proposal response to this requirement(s) goes here.**
>
> (*select one*)   Fully Compliant, Partially Compliant, Non-Compliant
>
> **Describe here your general experience with and proposal for the Detail Analysis Reports.**
> **What additional categories are you proposing?**
>   a.

The Contractor shall deliver Rough Order of Magnitude (ROM) Cost Estimates for the following items:

a. Remediation of identified errors in topology (misalignments, redundancies, etc) of all layers analyzed, by PSAP boundary;
b. Standardization of all data layers analyzed to meet the NENA field standardization requirements by PSAP boundary;
c. Synchronization of the telephone number (TN) list and/or and site/structure location layer (a.k.a. address point layer) (NENA 71-501) by PSAP boundary;
d. Creation of standardized GIS data layers found in for PSAP boundaries who do not have them (priced per layer);
e. Creation of a standardized geodatabase template that enforces both attributes (fields) and topology for applicable layers.

Bidder's proposal response to this requirement(s) goes here.

(*select one*)   Fully Compliant, Partially Compliant, Non-Compliant

Describe here your general experience with and proposal for developing ROM Cost Estimates for remediation of GIS data:
   a.

9.2   Project B – GIS Data Gap Remediation

9.2.1 As GIS Data Gap Analyses become available for each PSAP boundary under review, the respective PSAP(s) may elect to remediate their own data, or they may ask the State to assist with remediation. This RFP will establish a list of pre-qualified contractors for GIS Data Gap Remediation.

9.2.2 In the event that a PSAP or groups of PSAPs prefer not to remediate their own GIS Data Gap, the State may issue individual Work Orders (WO) for pre-qualified contractors to bid the effort.

9.2.3 Once the remediation resource is identified, the State will furnish the GIS Data Gap Analysis for remediation.

9.2.4 The Contractor shall deliver:

a. Project Plan proposing Contractor's methodology for accomplishing the SOW and satisfying specification requirements
b. The review and remediation of State-furnished Data Gap Analysis, reporting any inconsistencies or errors in Data Gap Analysis
h. Final Data Gap Remediation Report(s) electronically as a Microsoft® Excel® spreadsheet
c. The GIS Data QA contractor may require assistance interpreting the remediated GIS data. The GIS Data Gap Remediation contractor shall provide that collaboration in a timely manner.
d. Notification immediately to the State's single point of contact (*to be announced*) of any difficulties or problems meeting the requirements of the deliverables or schedule.

Bidder's proposal response to this requirement(s) goes here.

(*select one*)   **Fully Compliant**, Partially Compliant, Non-Compliant

Describe here your general experience with and proposal for Gap Remediation and Reporting.
GeoComm understands and fully complies with the project deliverables outlined above.

After the GIS Data Remediation is complete, GeoComm will run each of the analysis procedures a final time to obtain post-remediation analysis results. Updated statistics will be presented in a Final Data Gap Remediation Report, in Microsoft Excel format, similar to the Data Gap Remediation Report furnished by the State at the beginning of Project B. The report will include a list of any remaining errors with revision recommendations for the PSAP to review, including suggested updates for the ALI database and MSAG.

The final GIS map data layers will be delivered in Esri format in current layer's projection. They will be provided on a CD and will include metadata information. The CD shall be accompanied by a Letter of Acceptance (LOA), signed by an authorized representative from GeoComm. A designated member of the PSAP will also be asked to sign the LOA signifying their acceptance of the final deliverables. If any discrepancies are identified, a plan for resolution will be developed.

After the report and updated GIS data is delivered, GeoComm will work with the PSAP, the State, and/or the GIS Data QA Contractor selected to complete Project C to clarify any questions pertaining to the remediated GIS data.

9.3   Project C – GIS Data QA Audit

As GIS data is remediated, the State will furnish to the GIS Data QA contractor the Final Data Gap Remediation Report(s) for audit.

Contractor shall deliver:

a. QA Audit Project Plan proposing Contractor's methodology for accomplishing SOW and satisfying specification requirements
b. GIS Remediation Checklist (based on current NENA standards)
c. QA Audit Initial report addressing GIS Data Readiness of PSAPs
d. QA Audit Intermediate report addressing GIS Data Readiness of PSAPs
e. QA Audit Final Report addressing GIS Data Readiness of PSAPs delivered as a Findings Report in electronic format stating that remediation is acceptable or not acceptable
f. Notification immediately to the State's single point of contact (*to be announced*) of any difficulties or problems meeting the requirements of the deliverables or schedule

Bidder's proposal response to this requirement(s) goes here.
(*select one*)   Fully Compliant, Partially Compliant, Non-Compliant
Describe here your general experience with and proposal for GIS Remediation Checklists, and QA Audit Reports.
   a.

4   References

GeoComm's experience specifically relating to public safety GIS is demonstrated by the projects and client references on the following pages. These projects illustrate our broad range of 9-1-1 expertise and our ability to successfully accomplish highly technical projects across the United States. Our past experience provides us with the professional credibility, background, and first-hand knowledge necessary to complete the work sought by the State of Kansas..

The highlighted states on the map below depict GeoComm's nationwide customer base.

Current Customer States

Future Customer States
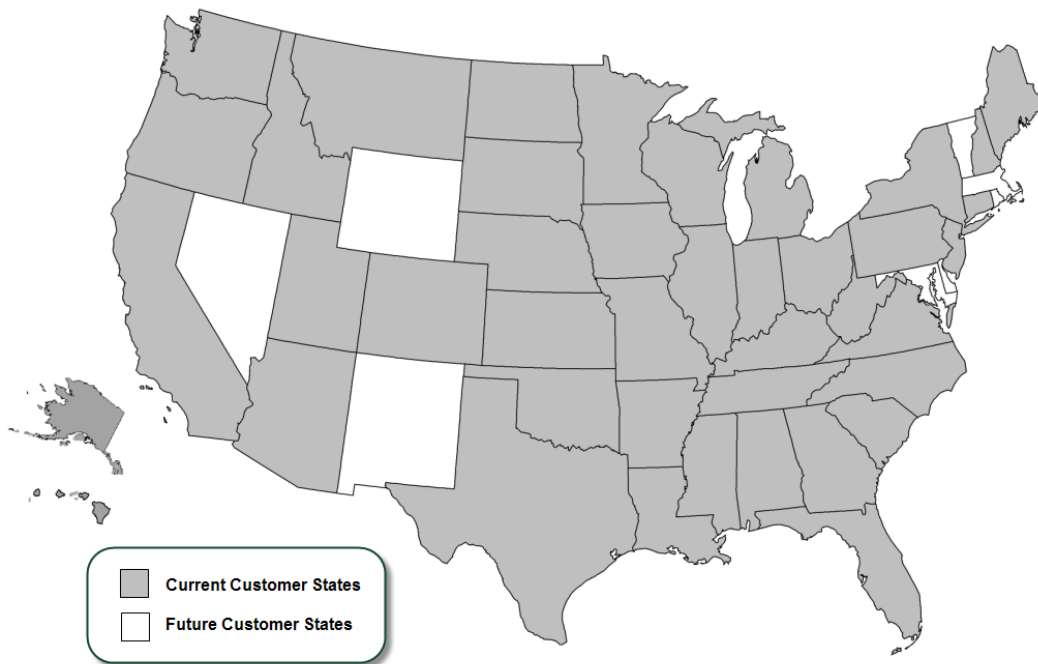
Scott County, Iowa

Project: In October 2009, through a Request for Proposal (RFP) process, Scott County awarded GeoComm an extensive GIS map data development project. The project involved providing the county with the planning, GIS data analysis, and development services to create an implementation plan and countywide data set for use in the newly consolidated communications center.

GeoComm created accurate digital addressing map layers for Scott County and provided solutions for the integration and ongoing maintenance of the data, including the creation of an Address Integration and Maintenance Plan. The project included utilizing all existing addressing data and coordinating all efforts to complete:

- digital centerline mapping,
- address point placement,
- synchronization of the GIS map data, MSAG, and ALI databases,
- improved workflows, and
- knowledge transfer of address maintenance tools/practices.

Since the award of the initial project, Scott County also contracted with GeoComm to complete additional field collection and to create police and fire beat and reporting area boundaries.

The completed project provides the address data and process improvements necessary to ensure reliable, high quality support of public safety agencies in providing Computer Aided Dispatch (CAD), emergency response, and related services.

This project was featured in the Fall 2011 edition of Esri's quarterly ArcNews publication. Please visit the following website for more information: http://www.esri.com/news/arcnews/fall11articles/scott-county-takes-no-risks.html

Software

- 1 GeoLynx DMS GIS Data Manager license
- 1 GeoLynx DMS MSAG Manager license

Services

- Project Management
- Street Centerline Database
- Address Point Database
- MSAG/ALI Database Development/Update
- Supporting Layers
- Integration Maintenance Plan
- Field Data Collection

Client Contact

Ray Weiser, GIS Coordinator
600 West. 4th Street
Davenport, Iowa 52801
Telephone: (563) 328-4137
Fax: (563)326-8669
rweiser@scottcountyiowa.com

Client Information

Population: 164,690
Region Size: 468 square miles

Customer Since
2009

State of North Dakota

Project: GeoComm was hired by the State of North Dakota GIS Technical Committee to conduct a study to document the status of current road centerline data in the state and to plan for the eventual development of a statewide road centerline data set. Another important goal for the GISTC was to be as inclusive as possible in requirements for development of a statewide road centerline layer. While this was a public safety project, the GISTC wanted to create standards that would accommodate as many GIS user groups as possible. The goals, as outlined by the GISTC were to:

- Identify best available road centerline GIS data
- Recommend GIS road centerline standards
  - ◇ Ability to plot E9-1-1 calls
  - ◇ Standardization across the state
- Identify existing address ranging specifications
- Determine centerline development costs
- Determine centerline maintenance options
- Identify funding mechanisms for centerline development

All of the data required for conducting the study was collected through an online survey and telephone calls. The purpose of the survey was to evaluate the GIS data inventory in the State of North Dakota along with collecting information related to current maintenance processes. The survey data along with recommendations on development were documented in a final report that was delivered to the GISTC in April 2007.

There were six main deliverables including:

- Centerline Survey Results
- GIS Standards Document
  - ◇ Spatial Standards
  - ◇ Attribute Standards
- Sample Data Development (Two Adjacent Townships)
- Data Development Options
- Pricing Options
- Data Maintenance Plan

GeoComm's report and plan met all of the goals set forth at the beginning of the project.

Services

- GIS Consulting for Statewide Road Centerline Study

Client Contact

Bob Nutsch
600 East Boulevard Ave., Dept. 112
Bismarck, ND 58505
Telephone: (701) 328-3212
Fax: (701) 328-3000
bnutsch@nd.gov

Client Information

Population: 635,867
Region Size: 68,867 square miles

Customer Since
May 2002

Jefferson County Emergency Communications Authority Board, Colorado

GeoComm was hired in June of 2005 to conduct a GIS needs analysis for Jefferson and Broomfield counties to outline available options to develop and maintain a regional GIS data set for use in ten PSAPs. GeoComm GIS Consultants met with all end users and decision makers, examined disparate GIS data sets, and made recommendations for the best use of the available resources. In the first quarter of 2006 the Jefferson County Emergency Communications Authority Board (JCECAB) solicited an RFP for implementation of a regional data development, maintenance, and distribution project. The RFP also included the procurement of mapped ALI software.

GeoComm was hired to work with Jefferson and Broomfield counties to establish GIS data standards, clean-up GIS data, append GIS data to create one regional data set, and then deploy 59 GeoLynx Desktop Dispatch GIS software licenses in each PSAP in accordance with the terms of their RFP. Implementation services for the software included on-site installation and a customized training program. To automate the distribution of updated GIS data, GeoComm also deployed 59 licenses of GeoLynx Sync Interoperable Replication and Propagation software.

GeoComm implemented 500 GeoLynx Mobile Mobile Response GIS software licenses. GeoLynx Mobile was implemented for emergency service personnel to view the same GIS data as in GeoLynx Desktop in the JCECAB emergency service vehicles. Ten licenses of GeoLynx Stats Dispatch Analyst Extension software licenses have been implemented too. This application provides graphic display of incident history on the map.

Software

- ☐ 59 GeoLynx Desktop licenses
- ☐ 10 GeoLynx Desktop Admin licenses
- ☐ 500 GeoLynx Mobile licenses
- ☐ 59 GeoLynx Sync Server licenses
- ☐ 2 GeoLynx Sync Client licenses
- ☐ 10 GeoLynx Stats licenses
- ☐ 9 GeoLynx AVL licenses

Services

- ☐ GIS Needs Analysis
- ☐ GIS Map Data Update Services
- ☐ GIS Training
- ☐ Ongoing GIS Data Maintenance Services

Client Contact

Jeff Irvin
Communication Unit Manager
Jefferson County Sheriff's Office
200 Jefferson County Parkway
Golden, CO 80401
Telephone: (303) 539-9410
jirvin@jceca.org

Client Information

Population: 568,520

Region Size: 808 square miles

Customer Since

June 2005

Ellis County, Kansas

Project: In September of 2008, GeoComm was awarded a GIS data development project for Ellis County and the City of Hays. The intent of the county's RFP was to combine various existing GIS data resources with the 9-1-1 Master Street Address Guide (MSAG) and addressing information to create a highly functional GIS data set to be used with their CAD software to graphically depict the locations of 9-1-1 calls, CAD incidents, and future Automatic Vehicle Location (AVL) data.

GeoComm provided the customer with GIS data development services and an analysis and comparison of the final GIS data to the existing MSAG which resulted in the need to process numerous MSAG updates with the county's 9-1-1 database provider, AT&T. GeoComm then provided the city and county each with a license of our GeoLynx DMS E9-1-1 GIS data management tools which includes a toolbar operating with ESRI's ArcGIS software coupled with a Trimble GPS unit and custom ArcPad field data collection template to be used to keep the newly created GIS data updated.

GeoComm's GIS Consultants evaluated the existing GIS, addressing, and MSAG maintenance processes, and provided recommendations on the implementation of a new, more efficient maintenance workflow for these three critical components.

The project was completed in May 2009.

Software
- ☐ 2 GeoLynx DMS licenses

Services
- ☐ GIS Map Data Development
- ☐ MSAG Updates
- ☐ Maintenance Workflow Consulting
- ☐ Software Support and Maintenance
- ☐ Software Installation and Training

Client Contact

Eamonn Coveney
GIS Specialist / I.T. Division
City of Hays / Ellis County
P.O. Box 490
Hays KS, 67601
Telephone: (785) 628-7390
ecoveney@haysusa.com

Client Information

Population: 25,507

Region Size: 900 square miles

Customer Since

2008

Graham County, Kansas

Project: In June 1999, Graham County contracted with GeoComm for the following three primary tasks:

- ☐ GIS Mapping
- ☐ Database Development
- ☐ GeoLynx Desktop Implementation

GeoComm developed the following GIS map data layers:

Streets	Water
Railways	Fire districts
Boundaries	Ambulance service areas
Landmarks	Law enforcement areas

These layers were developed using provided resources. Upon completion of intense QA/QC procedures, the layers were used in database development.

Database development included creating an E9-1-1 ALI database and MSAG. These databases were developed using internal processes based on the map data to ensure synchronization among all three components used in an E9-1-1 system for automatically plotting wireline 9-1-1 calls: the GIS data, MSAG, and ALI database.

Shortly after data development, Implementation Specialists traveled to Graham County and installed GeoLynx Desktop and trained system administrators and users.

Since software implementation GeoComm has been assisting the county with ongoing software and GIS map data support and maintenance and miscellaneous other services.

Most recently, Graham County signed a contract with GeoComm to convert their current software to GeoLynx Desktop.

Software

- ☐ 1 GeoLynx Desktop license

Services

- ☐ Installation and Training
- ☐ GIS Set Up Services
- ☐ Map Data, 9-1-1 Database, and MSAG Analysis
- ☐ Software Support and Maintenance
- ☐ GIS Map Data Update Services
- ☐ GIS Map Data Development
- ☐ Surrounding Map Data Addition
- ☐ ALI Database Updates
- ☐ MSAG Development

Client Contact

Sheriff Cole Presley
410 North Pomeroy
Hill City, KS 67642
Telephone: (785) 421-2107
Fax: (785) 421-2891
sheriff@ruraltel.net

Client Information

Population: 2,677

Region Size: 898 roadway miles

Customer Since

June 1999

5   Required Forms

As requested in the RFP, GeoComm has completed and included the following forms required by the State of Kansas

The forms included in this section are:

1. Event Details
2. Signature Sheet
3. Tax Clearance Certificate
4. Addendum Acknowledgement
5. Certification Regarding Immigration Reform and Control Form

STATE OF KANSAS
Event Details

PeopleSoft Strategic Sourcing

ent ID	Format	Type	Page
/300-EVT0002573	Sell	RFx	1

Event Round	Version
1	1

Event Name
GIS Enhancement for Next Gen 9-1-1

Start Time	Finish Time
08/23/2013 11:00:00 CDT	10/09/2013 14:00:00 CDT

Event Currency: US Dollar
Bids allowed in other currency: No

Bidder: GEOCOMM
601 W SAINT GERMAIN ST
SAINT CLOUD MN 56301-3665
United States

Submit To: Department of Administration
Procurement and Contracts
800 SW Jackson
Suite 600
Topeka KS 66612
United States
Contact: Jerry Clements
Phone: 785.296.7251
Email: jerry.clements@da.ks.gov

Event Description

The Kansas 9-1-1 Coordinating Council desires to assist Public Safety Answering Points transition to NG9-1-1 call handling and services. The Council is issuing this RFP for GIS Enhancement as three projects.

General Comments

****

0005 - Request for Proposal pursuant to K.S.A. 75-37,102

ATTC - See the attachment for additional information.

****

Pre-proposal Conference - A pre-proposal conference will be held at 9:30 am, on September 5, 2013, at the following location:

Landon State Office Building
900 SW Jackson
7th Floor, Director's Conference Room
Topeka, KS, 66612

Interested parties may participate via teleconference:
Phone: 866-620-7326
Conference Code: 7852967251

Attendance is not required at the pre-proposal conference. Impromptu questions may be permitted and spontaneous unofficial answers provided, however bidders should understand that the only official answer or position of the State of Kansas will be presented in writing. Subsequent questions must be submitted electronically (MS Word) to the Procurement Officer (Event Contact) indicated above prior to close of business on September 17, 2013.

Failure to notify the Procurement Officer (Event Contact) of any conflicts or ambiguities in the Bid Event may result in items being resolved in the best interest of the State. Any modification to this Bid Event as a result of the pre-proposal conference, as well as written answers to written questions, shall be made in writing by addendum and dispatched to all bidders associated to this event. Only written communications are binding.

Answers to questions will be available in the form of an addendum on the Procurement and Contracts' website, http://da.ks.gov/purch.

It shall be the responsibility of all participating bidders to acquire any and all addenda and additional information as it is made available from the web site cited above. Vendors/Bidders not initially invited to participate in this Bid Event must notify the Procurement Officer (Event Contact) of their intent to bid at least 24 hours prior to the event's closing date/time. Bidders are required to check the website periodically for any additional information or instructions.

****

MANDATORY REQUIREMENT: If you are interested in bidding on this transaction you MUST BE OFFICIALLY INVITED to the event. Contact the person named above at least 24 HOURS BEFORE the official finish date and time to request the official invitation.

Due to State of Kansas SMART Strategic Sourcing System requirements, any bidder with an interest in bidding on any State of Kansas SOURCING EVENT must officially request an invitation from the Procurement Officer (Event Contact) at least 24 hours before the Bid Event official finish date and time. If you fail to request such in a timely fashion, your bid may be rejected in its entirety.

EXCEPTION: If you have received a Bid Event Document with your company's name in the upper right hand corner of the document, your company has already been invited to the bid event.

If you are not a registered bidder/vendor with the state of Kansas you must register as a bidder AND request official invitation at least 24 hours before the Bid Event official finish date and time. To register as a bidder visit the following web site: http://www.da.ks.gov/purch/BidderRegistration.doc

STATE OF KANSAS
Event Details (cont.)

PeopleSoft Strategic Sourcing

ent ID	Format	Type	Page
.7300-EVT0002573	Sell	RFx	2

Event Round	Version
1	1

Event Name
GIS Enhancement for Next Gen 9-1-1

Start Time	Finish Time
08/23/2013 11:00:00 CDT	10/09/2013 14:00:00 CDT

Event Currency: US Dollar
Bids allowed in other currency: No

Bidder: GEOCOMM
601 W SAINT GERMAIN ST
SAINT CLOUD MN 56301-3665
United States

Submit To: Department of Administration
Procurement and Contracts
800 SW Jackson
Suite 600
Topeka KS 66612
United States
Contact: Jerry Clements
Phone: 785.296.7251
Email: jerry.clements@da.ks.gov

****

BIDDER MUST OBTAIN A CURRENT TAX CLEARANCE CERTIFICATE
A "Tax Clearance" is a comprehensive tax account review to determine and ensure that the account is compliant with all primary Kansas Tax Laws administered by the Kansas Department of Revenue (KDOR) Director of Taxation. Information pertaining to a Tax Clearance is subject to change(s), which may arise as a result of a State Tax Audit, Federal Revenue Agent Report, or other lawful adjustment(s).

INSTRUCTIONS: To obtain a Current Tax Clearance Certificate, you must:
• Go to http://ksrevenue.org/taxclearance.html to request a Tax Clearance Certificate
• Return to the website the following working day to see if KDOR will issue the certificate
• If issued an official certificate, print it and attach it to your bid response
• If denied a certificate, engage KDOR in a discussion about why a certificate wasn't issued

Bidders (and their subcontractors) are expected to submit a current Tax Clearance Certificate with every event response.

REMINDER: You will need to sign back into the KDOR website to view and print the official tax clearance certificate.

Information about Tax Registration can be found at the following website:
http://www.ksrevenue.org/busregistration.html

Procurement and Contracts reserves the right to confirm tax status of all potential contractors and subcontractors prior to the release of a purchase order or contract award.

In the event that a current tax certificate is unavailable, Procurement and Contracts reserves the right to notify a bidder (one that has submitted a timely event response) that they have to provide a current Tax Clearance Certificate within ten (10) calendar days, or Procurement and Contracts may proceed with an award to the next lowest responsive bidder, whichever is determined by the Director of Purchases to be in the best interest of the State.

****
Email Bid Submission will NOT be accepted for this Bid Event.

General Questions

Question	UOM	Best	Worst	Response
Does your organization accept the State of Kansas terms and conditions as stated?				Yes

Required: Yes Mandatory ResponseNo

Response Comments

Political Subdivisions: Political subdivisions (City, County, School Districts, etc.) are permitted to utilize contracts administered by Procurement and Contracts. Conditions included in this contract shall be the same for political subdivisions. The State has no responsibility for payments owed by political subdivision. The vendor must deal directly with the political subdivision.

pricing available to political subdivisions? | Yes |

Required: Yes Mandatory ResponseNo

STATE OF KANSAS
Event Details (cont.)

Event ID	Format	Type	Page
7300-EVT0002573	Sell	RFx	3

Event Round	Version
1	1

Event Name
GIS Enhancement for Next Gen 9-1-1

Start Time	Finish Time
08/23/2013 11:00:00 CDT	10/09/2013 14:00:00 CDT

Event Currency: US Dollar
Bids allowed in other currency: No

Bidder: GEOCOMM
601 W SAINT GERMAIN ST
SAINT CLOUD MN 56301-3665
United States

Submit To: Department of Administration
Procurement and Contracts
800 SW Jackson
Suite 600
Topeka KS 66612
United States
Contact: Jerry Clements
Phone: 785.296.7251
Email: jerry.clements@da.ks.gov

Response Comments

Procurement Card (P-Card): Presently, many State
Agencies use a State of Kansas Procurement Card
(Visa-branded P-Card) in lieu of a state warrant to pay
for some of its purchases. No additional charges will
be allowed for using the card.
May agencies use their P-Card for contract purchases?

Required: Yes Mandatory ResponseNo

Yes

Response Comments

Is a current Tax Clearance Certificate included with
this bid event submission (refer to Item #3, Appendix B
- Terms and Conditions, Event Details document)?

Required: Yes Mandatory ResponseNo

Yes

Response Comments

Is a completed Immigration Reform and Control form
included with this bid event submission (refer to Item
#4, Appendix B - Terms and Conditions, Event Details
document)?

Required: Yes Mandatory ResponseNo

Yes

Response Comments

PeopleSoft Strategic Sourcing

Event ID	Format	Type	Page
7300-EVT0002573	Sell	RFx	4

Event Round	Version
1	1

Event Name
GIS Enhancement for Next Gen 9-1-1

Start Time	Finish Time
08/23/2013 11:00:00 CDT	10/09/2013 14:00:00 CDT

Event Currency: US Dollar
Bids allowed in other currency: No

Bidder: GEOCOMM
601 W SAINT GERMAIN ST
SAINT CLOUD MN 56301-3665
United States

Submit To: Department of Administration
Procurement and Contracts
800 SW Jackson
Suite 600
Topeka KS 66612
United States
Contact: Jerry Clements
Phone: 785.296.7251
Email: jerry.clements@da.ks.gov

Line Details

Line: 1   Item ID: Line Qty: 1   UOM: Batch Lot   Bid Qty:
Required: No   Reserve Price: No

Min/Max Qty: No min / No max

Description: GIS Enhancement Services for NG9-1-1 Implementation

Question	UOM	Best	Worst	Response
Do NOT input any pricing here. Please respond thoroughly to the RFP as requested and respond to questions contained in this document.				

Required: No   Mandatory Response: No

Response Comments

STATE OF KANSAS
Event Details (cont.)

PeopleSoft Strategic Sourcing

Event ID	Format		Type	Page
17300-EVT0002573	Sell		RFx	5
Event Round	Version			
1	1			
Event Name				
GIS Enhancement for Next Gen 9-1-1				
Start Time		Finish Time		
08/23/2013 11:00:00 CDT		10/09/2013 14:00:00 CDT		

Event Currency: US Dollar
Bids allowed in other currency: No

Bidder: GEOCOMM
601 W SAINT GERMAIN ST
SAINT CLOUD MN 56301-3665
United States

Submit To: Department of Administration
Procurement and Contracts
800 SW Jackson
Suite 600
Topeka KS 66612
United States
Contact: Jerry Clements
Phone: 785.296.7251
Email: jerry.clements@da.ks.gov

Bidder Information

Firm Name: Geo-Comm, Inc.	
Name: Heather Hoskins	**Signature:** Heather Hoskins **Date:** 10/2/13
Phone #: 320.240.0040	**Fax #:** 320.240.2389
Street Address: 601 W. St. Germain Street	
City & State: St. Cloud, MN	**Zip Code:** 56301
Email: hhoskins@geo-comm.com	

SIGNATURE SHEET

Item: Next Generation 9-1-1 Professional Services

Agency: Kansas 9-1-1 Coordinating Council

Closing Date: October 9, 2013

By submission of a bid and the signatures affixed thereto, the bidder certifies all products and services proposed in the bid meet or exceed all requirements of this specification as set forth in the request and that all exceptions are clearly identified.

Legal Name of Person, Firm or Corporation Geo-Comm, Inc.

Mailing Address 601 W. St. Germain Street   City & State St. Cloud, Minnesota   Zip 56301

Toll Free Telephone 888.436.2666   Local 320.240.0040   Cell: Fax 320.240.2389

Tax Number 41-1811590

CAUTION: If your tax number is the same as your Social Security Number (SSN), you must leave this line blank. DO NOT enter your SSN on this signature sheet. If your SSN is required to process a contract award, including any tax clearance requirements, you will be contacted by an authorized representative of the Division of Purchases at a later date.

E-Mail hhoskins@geo-comm.com

Signature _Heather Hosk_   Date 10/2/13

Typed Name Heather Hoskins   Title Controller

In the event the **contact for the bidding process** is different from above, indicate contact information below.

Bidding Process Contact Name Stacen Gross, Account Manager

Mailing Address 601 W. St. Germain Street   City & State St. Cloud, Minnesota   Zip 56301

Toll Free Telephone 888.436.2666   Local 320.240.0040   Cell: Fax 320.240.2389

E-Mail sgross@geo-comm.com

If **awarded a contract and purchase orders** are to be directed to an address other than above, indicate mailing address and telephone number below.

Award Contact Name Heather Hoskins

Mailing Address 601 W. St. Germain Street   City & State St. Cloud, Minnesota   Zip 56301

Toll Free Telephone 888.436.2666   Local 320.240.0040   Cell: Fax 320.240.2389

E-Mail hhoskins@geo-comm.com

Kansas
Department of Revenue

CERTIFICATE OF TAX CLEARANCE

Geo-Comm, Inc.

DBA as GeoComm

ISSUE DATE
09/05/2013

TRANSACTION ID
TDU2-775H-ADDA

CONFIRMATION NUMBER
CC44-45EV-ENUR

TAX CLEARANCE VALID THROUGH 12/04/2013

Verification of this certificate can be obtained on our website, www.ksrevenue.org, or by calling the Kansas Department of Revenue at 785-296-3199

Office of Facilities & Procurement Management
800 S.W. Jackson St., Room 600
Topeka, KS 66612-1216

Jim Clark, Acting Secretary
Mark J. McGivern, Director

Kansas
Department of Administration

Phone: (785) 296-2376
Fax: (785) 296-7240
http://www.da.ks.gov/purch

Sam Brownback, Governor

AMENDMENT
Request for Proposal

Amendment Date:	September 6, 2013
Amendment Number:	1
Bid Event ID:	EVT0002573
Closing Date:	October 9, 2013 at 2:00 PM
Procurement Officer:	Jerry Clements
Telephone:	785-296-7251
E-Mail Address:	jerry.clements@da.ks.gov
Web Address:	http://da.ks.gov/purch
Item:	GIS Enhancement – Next Generation 9-1-1
Agency:	Kansas 9-1-1 Coordinating Council
Period of Contract:	One (1) year from date of award (with the option to renew for two (2) additional one-year periods)

Conditions:

1. RFP Section 6 references two "PSAP" documents (#c & #d). These documents are available for download from the following website (scroll down and locate them by bid number):

    http://da.ks.gov/purch/adds/default.htm

2. A document containing population density per square mile by Kansas County is available for download from the website listed above.

There are no other changes at this time.

A signed copy of this Amendment must be submitted with your bid. If your bid response has been returned, submit this Amendment by the closing date indicated above.

I (We) have read and understand this amendment and agree it is a part of my (our) bid response.

NAME OF COMPANY OR FIRM: Geo-Comm, Inc.

SIGNED BY: Heather Hoskins

TITLE: Controller   DATE: 10/3/13

Kansas
Department of Administration

AMENDMENT
Request for Proposal

Amendment Date:	September 24, 2013
Amendment Number:	2
Bid Event ID:	EVT0002573
Closing Date:	October 9, 2013 at 2:00 PM
Procurement Officer:	Jerry Clements
Telephone:	785-296-7251
E-Mail Address:	jerry.clements@da.ks.gov
Web Address:	http://da.ks.gov/purch
Item:	GIS Enhancement – Next Generation 9-1-1
Agency:	Kansas 9-1-1 Coordinating Council
Period of Contract:	One (1) year from date of award (with the option to renew for two (2) additional one-year periods)

Conditions: below are responses to questions received subsequent to and during the pre-proposal conference.

1. Section 8.2.3 states that the "The Kansas 9-1-1 Coordinating Council requires a representative sample of GIS analysis...for consistency between adjoining PSAP service boundaries." Given that the PSAPs will be provided to the Project A Vendor in three groups there will always be the situation where some PSAP boundaries cannot be analyzed as to consistency until all of the adjacent PSAP data is provided. Does the council plan to divide the State into three equivalent partitions? If so, this could mitigate the problem somewhat; the partition boundaries could be analyzed and remediated at a later date. However, if the PSAPs would be randomly selected by thirds throughout the State this would further complicate the boundary analysis (and remediation). Given this specification, has the council some idea on how they would wish this to be handled?
RESPONSE: the State intends to use three (3) major geographic regions that will be defined at contract award.

2. Section 8.4.a(f). Section 8.4 specifies that the Project C contractor shall, "perform Gap Audit post-remediation". Would it be correct to assume that this would be the case if the Project C contractor finds minor errors that may have been missed by the Project B contractor? This would seem to make sense if only a small number of items were missed that could be more

easily corrected than coordinating between C (auditing) and B (remediating) contactors? If a large number of corrections were required, would it be correct to assume that the C contractor would have the option of sending the data back to the B contractor with a detail of what corrections were needed?

RESPONSE: All edits or corrections shall be made by the Project B contractor or the individual PSAP. The Project C Contractor shall audit the work performed by the Project B contractors and report their findings and deliverables to the State.

3. Section 9.2.2 alludes to the possibility that individual PSAPs may elect to remediate their own data. In that event should the Project C contractor still assume that these PSAPs will follow the process dictated in the proposal (i.e. furnish a Project Plan that the Project C contractor shall audit for compliance)? If not, the QA Audit cannot be expected to proceed as specified in the RFP.

RESPONSE: Yes, the Project C contractor may assume that any individual PSAP will meet the same requirements.

4. Section 5.3 of the RFP states *"Bidder(s) awarded Project A and Project C is/are excluded from award for Project B."* Would the state consider any exceptions to this requirement? It is understood that by having multiple vendors review the data, an added level of quality control and objectivity is gained. However, there are also certain advantages to having the same vendor complete project A and project B. A few of these are listed below:
    a. Less duplication of efforts - no need for vendor B to analyze the analysis completed by vendor A.
    b. Improved efficiency - less time spent clarifying another vendor's analysis results.
    c. Clearer understanding of the GIS data issues - after completing the analysis, vendor A will be acutely familiar with the GIS data and better prepared to take on the work in Project B.
    d. More accurate price estimate - Vendor for Project A is responsible for providing ROM cost estimate for Project B. Gap remediation methodology may differ between vendors, making it difficult for one vendor to accurately estimate the amount of work for another vendor.

Would the state consider awarding projects A & B to the same vendor, with project C being completed by a neutral 3rd party?

RESPONSE: No.

5. Section 8.2.3 of the RFP states *"The Kansas 9-1-1 Coordinating Council requires a representative sample (no less than 25%) of GIS analysis for consistency within each PSAP service boundary and for consistency between adjoining PSAP service boundaries."* Does this mean that only 25% of the data is expected to be analyzed?
    a. If yes, it states in Section 8.3 that the "Contractor shall remediate all deficiencies identified by the GIS Data Gap Analysis". Does this mean the contractor for Project B is

only expected to remediate the issues identified in the 25% of the data sampling analyzed in Project A

RESPONSE: Yes, no less than 25% of the data will be analyzed for Gap Analysis. No, the Project B Contractor is expected to remediate all typical issues identified in the initial sampling, relative to 100% of the data.

6. Please describe how the State anticipates funding this work? Will it vary for A, C and B.

RESPONSE: The State does not consider project funding to be a bidder concern.

7. Referring to 9.2.2 –
   a. Can contractors become pre-qualified without responding to this RFP?
   b. Other than the response to this RFP will there be any additional criteria used to determine pre-qualification?

RESPONSE:
   a. Yes. A vendor in good standing and already doing business with a county/city will be considered to be qualified. However, all vendors wishing to be considered for award to any of the projects must submit a response to the RFP.
   b. No.

8. Page 26: What does the following statement mean?
   "a. Migration from current 9-1-1 to NG9-1-1 without degradation in 9-1-1 services (Risk Element)
   a. Credibility
   b. Accountability
   c. Measurable results"

   What does the above mean?

RESPONSE: NG911 is essentially the replacement of the current analog system to digital communications. NG9-1-1 will require a different means to automatically identify a caller's location and successfully route the "call" to the appropriate PSAP. NG9-1-1 will rely heavily on geographic information systems (GIS), which must be standardized and have near real-time accuracy. Therefore, during migration from the current E9-1-1 environment to NG9-1-1, B-contractor shall ensure no degradation occurs in the current level of 9-1-1 service by continually focusing on the credibility, accountability and measurable results of GIS data throughout the remediation process.

9. Page 28: Section 9:2 … General Questions:
   a. Will Project A contractor provide MSAG and TN data or is the Project B contractor to acquire it from the phone company?
   b. Remediation will likely involve updating the MSAG and TN files with phone carrier. Will the Remediation Contract (Contractor B) perform this function or will a list of "changes to be made" be provided to the PSAP?

RESPONSE:
      a. Project A contractor shall acquire MSAG and TN data, analyze and provide results to the State of Kansas. The State will provide that information to the appropriate Project B contractors.
      b. Project B contractor shall identify corrections to be made to the MSAG or TN data and furnish that information to the PSAP.

10. What is the criteria for a qualified (not "preferred") vendor?
RESPONSE:
A vendor in good standing and already doing business with a city/county will be considered to be qualified. For a new company, we would need to look at their business model to ensure they are competent and capable of performing the work. The State/Council will work with PSAPs to match up best remediation partner. The State will select a group of remediation vendors but there is no guarantee of work.

11. Is a 25% review of county an adequate geographic sample?
RESPONSE:
Finding the best information is more important than necessarily reviewing all of the data. Amendment #1 provided a link to a document containing population density per square mile by Kansas County. That link is repeated here: http://da.ks.gov/purch/adds/default.htm

12. Requirement for gap analysis refers to "117" and "112"; which is it?
RESPONSE:
Previous gap analysis provided 5 data sets; therefore 117 – 5 = 112. The point is that some work has already been done. At a 911 Coordinating Council meeting in Hutchinson on Friday September 6th, we received information that led us to decide to include all 117 PSAPs in the GAP Analysis. Bidders responding to Project A should consider all PSAPs in their response.

13. On page 27, 9.1.f. Gap analysis only needs to collaborate with QA contractor?
RESPONSE:
No, the idea is that we all need to work together; we don't want silo'ed information stacks that restrict information flow.

14. Can you clarify the "Project Planning?"
RESPONSE:
The intent is that we want the vendor(s) to assist with developing the master implementation of all 3 phases in a collaborative way to make the entire GIS effort as seamless as possible for a win-win-win effort.

15. Do you want the actual GIS data?
RESPONSE:
The State does not want to receive actual data; we only want the analytical evaluation. We want the report delivered in Excel format.

16. Once RFP is signed, who is "single point of contact?"
    RESPONSE:
    That is to be determined. The contact may depend on the information needed.

17. Does DASC have a specific role on project?
    RESPONSE:
    Not specifically, but may have fringe influence. They may have a role in the future.

18. What if the 75% / 25% rule is not representative sample and all the problem areas are lumped into the 25% outside the analysis... the remediation vendor may be at risk?
    RESPONSE:
    The State anticipates that the gap analysis performed as such that most types of problems are uncovered. If, however, there are more than expected issues, we will use change management process to request grant funding for additional work, if justified. It is already the responsibility of each jurisdiction to maintain reliable data. Paragraph 9.2.4 states that "Remediation vendor to report any errors." We welcome any remediation vendor to run an (independent) analysis of the furnished analysis.

19. There are a few GIS applicable documents that may conflict since NENA still reviewing. What do we do about that?
    RESPONSE:
    We assume that any qualified firm involved in NG-911 migration knows more about best practices than the local PSAPs. Although a specific NENA GIS data model has not yet been released, good quality data is more important than full compliance with formal NENA final requirements.

20. Can you please elaborate on the requirements of paragraph 8.1?
    RESPONSE:
    Paragraph 8.1 is a General overview of what this RFP is all about, rather than a firm requirement on the bidder. We are looking for only a general description of your capabilities from a holistic perspective to GIS enhancement.

21. For what period of time are bidders excluded from competitive work?
    RESPONSE:
    After the conclusion of the GIS Data QA projects, there would be no exclusions.
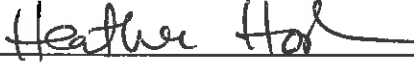
[Remainder of page intentionally left blank]

There are no other changes at this time.

A signed copy of this Amendment must be submitted with your bid. If your bid response has been returned, submit this Amendment by the closing date indicated above.

I (We) have read and understand this amendment and agree it is a part of my (our) bid response.

NAME OF COMPANY OR FIRM: Geo-Comm, Inc.

SIGNED BY: Heather Hoskins

TITLE:Controller   DATE: 10/3/13

CERTIFICATION REGARDING
IMMIGRATION REFORM & CONTROL

All Contractors are expected to comply with the Immigration and Reform Control Act of 1986 (IRCA), as may be amended from time to time. This Act, with certain limitations, requires the verification of the employment status of all individuals who were hired on or after November 6, 1986, by the Contractor as well as any subcontractor or sub-subcontractor. The usual method of verification is through the Employment Verification (I-9) Form. With the submission of this bid, the Contractor hereby certifies without exception that Contractor has complied with all federal and state laws relating to immigration and reform. Any misrepresentation in this regard or any employment of persons not authorized to work in the United States constitutes a material breach and, at the State's option, may subject the contract to termination and any applicable damages.

Contractor certifies that, should it be awarded a contract by the State, Contractor will comply with all applicable federal and state laws, standards, orders and regulations affecting a person's participation and eligibility in any program or activity undertaken by the Contractor pursuant to this contract. Contractor further certifies that it will remain in compliance throughout the term of the contract.

At the State's request, Contractor is expected to produce to the State any documentation or other such evidence to verify Contractor's compliance with any provision, duty, certification, or the like under the contract.

Contractor agrees to include this Certification in contracts between itself and any subcontractors in connection with the services performed under this contract.

Heather Host
_____
Signature, Title of Contractor

_10/3/13_
_____
date