

PROPOSAL FOR

Fire Operational Analysis

CORNELIUS, NC

December, 2018



CPSM[®]

CENTER FOR PUBLIC SAFETY MANAGEMENT, LLC
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ICMA

Exclusive Provider of Public Safety Technical Services for
International City/County Management Association



Center for Public Safety Management, LLC

December 28, 2018

Mr. Andrew Grant
Town Manager
Cornelius, N.C. 28105

Dear Mr. Grant:

The Center for Public Safety Management, LLC, the exclusive provider of public safety technical assistance for the International City/County Management Association, is pleased to submit this proposal to provide professional services to perform a comprehensive operational analysis of fire services for the Cornelius. The CPSM approach to conducting this analysis is unique and comprehensive in that we will link operational information, and service delivery systems with a review of the department's response workload. We utilize this approach to establish the "current state" of the operational department's service delivery model. This approach will assist us in developing considerations and recommendations linked to increasing the efficiency and effectiveness of the fire operational services-service delivery model and resource allocation for the Cornelius.

Primary goals of the study include:

- **Capital improvement plan.** Making recommendations on the city's CIP (stations and apparatus).
- **Potential revenue sources** (ambulance services, fire inspections, any others). CPSM will evaluate the existing operations of the Cornelius operations and provide likely areas of improvement drawn from national experience of the CPSM team.
- **Management/Operating structure--** full-time vs. part-time, etc.
- **Potential consolidation with neighboring Towns of Huntersville and Davidson.**

To accomplish these goals we will:

- Conduct a review of operational workload utilizing data provided by Cornelius (NFIRS data) that has a focus on response types, workload dedicated to fire and EMS first response; station response workload; and apparatus/unit workload.
- Determine if the Fire Department can meet the present and future needs of the community and region?
 - CPSM will analyze the current functional and operational service delivery model for fire operational services and make recommendations on the most viable and sustainable fire service delivery model. The forensic data performance analysis will provide the benchmark for performance which will be compared to national standards, recommendations, and best practices to form future options.
 - CPSM will analyze current operational deployment resources, staffing, structural design, and operational staffing deployment model and make recommendations on the most viable and sustainable staffing model to include alternative shift staffing strategies. CPSM will utilize GIS mapping to evaluate response times and gaps from current fixed facilities. The resulting recommendations can be used in

- developing a Master Plan, Strategic Plan, or capital improvement plan.
- Identify ways to improve the department and position it to meet future needs.
- How should current and future needs inform planning for future facilities and replacement of apparatus?

Potential Consolidation

Additionally, we are prepared to review the possible consolidation of the Cornelius Fire Department with the departments from Huntersville and Davidson. Should the Town desire such an analysis we would need to conduct a full data analysis to determine actual workload in the three communities and the effects of a consolidation.

This proposal is specifically designed to provide the Cornelius with a thorough and unbiased analysis of the fire operational-service delivery model. To accomplish this, CPSM combines the experience of dozens of subject matter experts in the areas of emergency services. The team assigned to this project will have over 100 years of practical experience managing emergency service agencies, academic, teaching and training, and professional publications, and extensive consulting experience completing projects nationwide and in Canada.

The Project Manager for this project will be the director for the Center for Public Safety Management, Thomas Wieczorek. Working with him will be Chief Peter Finley (Ret.) who is highly experienced working with volunteer and combination departments and Chief Jack Brown (Ret.).

I, along with my colleagues at CPSM, greatly appreciate this opportunity and would be pleased to address any comments you may have. **You may contact me at 716.969.1360 or via email at lmatarese@cpsm.us.** However, I will be having major surgery the first week of October and would ask that you contact Director Wieczorek with any questions or follow-up. He can be reached at 616-813-3782 or twieczorek@cpsm.us.

Sincerely,



Leonard A. Matarese, ICMA-CM, IPMA-SCP
Managing Partner Center for Public Safety Management, LLC

THE ASSOCIATION & THE COMPANY

The International City Management Association is a 104-year old, nonprofit professional association of local government administrators and managers, with approximately 13,000 members located in 32 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments and their managers in providing services to its citizens in an efficient and effective manner. ICMA advances the knowledge of local government best practices with its website (www.icma.org), publications, research, professional development, and membership. The ICMA Center for Public Safety Management (ICMA/CPSM) was launched by ICMA to provide support to local governments in the areas of police, fire, and emergency medical services.

ICMA also represents local governments at the federal level and has been involved in numerous projects with the Department of Justice and the Department of Homeland Security.

In 2014, as part of a restructuring at ICMA, the Center for Public Safety Management (CPSM) was spun out as a separate company. It is now the exclusive provider of public safety technical assistance for ICMA. CPSM provides training and research for the Association's members and represents ICMA in its dealings with the federal government and other public safety professional associations such as CALEA, PERF, IACP, IFCA, IPMA-HR, DOJ, BJA, COPS, NFPA, and others.

The Center for Public Safety Management, LLC, maintains the same team of individuals performing the same level of service as when it was a component of ICMA. CPSM's local government technical assistance experience includes workload and deployment analysis using our unique methodology and subject matter experts to examine department organizational structure and culture, identify workload and staffing needs, and align department operations with industry best practices. We have conducted more 305 such studies in 41 states and provinces and 215 communities ranging in population from 8,000 (Boone, Iowa) to 800,000 (Indianapolis, Ind.).

THE CPSM APPROACH – COMPREHENSIVE FIRE AND EMS ANALYSIS

Firm Qualifications

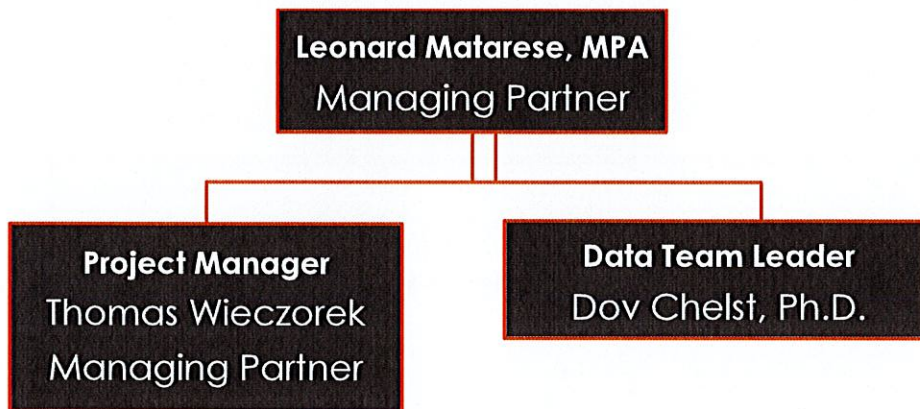
CPSM has conducted over 110 fire and emergency medical services projects to include comprehensive fire and EMS analyses, fire and EMS consolidation analyses, analyses of emergency communications centers, fire and EMS department strategic plans, and fire and EMS department staffing plans. CPSM utilizes current and former fire and EMS chief officers who also served as practitioners, line officers and middle managers. When conducting a fire and emergency services agency analysis, CPSM combines a forensic response workload analysis, with an operational analysis designed to provide the client with an unbiased review of the fire and EMS agency, to include considerations and recommendations to improve the effectiveness of agency operations with a focus on efficiencies. For fire and EMS projects, CPSM has ten (10) subject matter experts that are discipline specific, and who are supported by five (5) data assessment subject matter experts. When the project needs additional expertise, CPSM has twelve (12) additional subject matter experts representing the disciplines of law enforcement, education and training, as well leadership and management.

CPSM understands that the current fire services are delivered using a hybrid-type model which includes a 501 (3)(c) volunteer company contracted to the city. Under the existing system, the company requests yearly contributions from the town. This operation will be analyzed for effectiveness, efficiency and safety to the city as well as current members. Another component of the study will determine what best service model will serve the city in the future as well as opportunities to consolidate with surrounding communities. Benchmarks developed in the forensic data performance analysis will be evaluated to determine impacts that can be made in ISO ratings (Insurance Standards Office), consolidation opportunities, capital expenses, station location and personnel deployment.

Revenue is an issue with the fire and EMS services, particularly with changes to the Affordable Care Act (ACA) and insurance reimbursements. CPSM will look at EMS revenues as well as schedules for capital improvement plans.

For this project, CPSM has assembled a premier team of experts who have fire, emergency medical services, senior level fire and EMS agency management, and response time and workload experience, as well as fire and EMS program and project management experience. The team for the project will consist of a Project Manager, and several public safety Subject Matter Experts selected from our team specifically to meet the needs of this project.

The management organizational chart for the project includes the following Key Team Members



LEONARD A. MATARESE, MPA, ICMA-CM, IPMA-SCP

Managing Partner

BACKGROUND

Mr. Matarese is a specialist in public sector administration with particular expertise in public safety issues. He has 49 years' experience as a law enforcement officer, police chief, public safety director, city manager, major city Human Resources Commissioner and public safety consultant. He was one of the original advisory board members and trainer for the first NIJ/ICMA Community Oriented Policing Project which has subsequently trained thousands of municipal practitioners on the techniques of the community policing philosophy over the past 18 years. He has managed over three hundred studies of emergency services agencies with attention to matching staffing issues with calls for service workload.

Recognized as an innovator by his law enforcement colleagues he served as the Chairman of the SE Quadrant, Florida, Blue Lighting Strike Force, a 71 agency, U.S. Customs Service anti-terrorist and narcotics task force and as president of the Miami-Dade County Police Chief's Association – one of America's largest regional police associations. He represents ICMA on national projects involving the United States Department of Homeland Security, The Department of Justice, Office of Community Policing and the Department of Justice, Office Bureau of Justice Assistance. He has also served as a project reviewer for the National Institute of Justice and is the subject matter expert on several ICMA / USAID police projects in Central America. As a public safety director, he has managed fire / EMS systems including ALS transport. He was an early proponent of public access and police response with AEDs.

Mr. Matarese has presented before most major public administration organizations annual conferences on numerous occasions and was a keynote speaker at the 2011 annual PERF conference. He was a plenary speaker at the 2011 TAMSEC Homeland security conference in Linköping, Sweden and at the 2010 UN Habitat PPUD Conference in Barcelona, Spain.

He has a Master's degree in Public Administration and a Bachelor's degree in Political Science. He is a member of two national honor societies and has served as an adjunct faculty member for several universities. He holds the ICMA Credentialed Manager designation, as well as Certified Professional designation from the International Public Management Association- Human Resources. He also has extensive experience in labor management issues, particularly in police and fire departments. Mr. Matarese is a life member of the International Association of Chiefs of Police and of ICMA.

FIRE OPERATIONS TEAM

DIRECTOR

THOMAS WIECZOREK

Retired Director, City of Ionia Department of Public Safety and Ionia City Manager.
Director for CPSM, LLC

BACKGROUND

Thomas Wieczorek is an expert in fire and emergency medical services operations. He has served as a police officer, fire chief, director of public safety and city manager and is former Executive Director of the Center for Public Safety Excellence (formerly the Commission on Fire Accreditation International, Inc.).

He has taught programs at Grand Valley State University, the National Highway Traffic Safety Administration (NHTSA), and Grand Rapids Community College. He has testified frequently for the Michigan Municipal League before the legislature and in several courts as an expert in the field of accident reconstruction and fire department management. He is the past-president of the Michigan Local Government Manager's Association; served as the vice-chairperson of the Commission on Fire Officer Designation; and serves as a representative of ICMA on the NFPA 1710 and 1730 career committee.

He most recently worked with the National League of Cities and the Department of Homeland Security to create and deliver a program on emergency management for local officials titled, "Crisis Leadership for Local Government Officials." It has been presented in 43 states and has been assigned a course number by the DHS. He represents ICMA on the EMAC Board of Directors and serves as an alternate to the National Homeland Security Coalition.

He received the Mark E. Keane "Award for Excellence" in 2000 from the ICMA, the Association's highest award and was honored as City Manager of the Year (1999) and Person of the Year (2003) by the Rural Water Association of Michigan, and distinguished service by the Michigan Municipal League in 2005.

SENIOR ASSOCIATE

CHIEF JOHN (JACK) BROWN (RET.), BA, MS, EFO

Retired Director, Arlington County Office of Emergency Management, Retired Assistant Chief Fairfax County Fire & Rescue Department

BACKGROUND

Jack Brown's 40 year public safety career includes 29 years with the Fairfax County, Virginia Fire & Rescue Department, where he retired as Assistant Fire Chief of Operations. He served in a number of operational and staff positions, including the Office of the Fire Marshal where he attained NFPA certification as a Fire Inspector II and Fire Investigator. As an investigator, he conducted post fire and post blast investigations, assisting in the prosecution of offences involving arson and illegal explosives. He served as a Planning Section Chief and Task Force Leader for the Fairfax County Urban Search and Rescue Task Force (VA TF-1). He deployed

to Nairobi, Kenya as Plans Chief in response to the 1998 embassy bombing and as Task Force Leader on a deployment to Taiwan in response to an earthquake in 1999.

Upon his retirement from Fairfax County in 2000, he became the Assistant Chief for the Loudoun County Department of Fire, Rescue and Emergency Management, where he led a team of firefighters to the Pentagon on 9/11 and assisted the Arlington County Fire Department as the initial Planning Section Chief for the incident. Jack served as Planning Section Chief on a Northern Virginia multi-jurisdictional emergency management task force that reestablished the New Orleans Emergency Operations Center just after Hurricane Katrina. He retired from Loudoun County in 2006 to pursue a career in emergency management.

Brown retired from the Coast Guard Reserve as a Chief Warrant Officer 4, specializing in port safety and security, with 33 years of combined Army and Coast Guard Reserve service. After 9/11, he served on active duty for 47 months, including 15 months in the Middle East. He received the Bronze Star Medal for actions in Baghdad, Iraq while supporting combat operations during Operation Iraqi Freedom.

Brown holds a bachelor's degree in Fire Science Administration from the University of Maryland and a master's degree in Quality Systems Management from the National Graduate School, Falmouth, Massachusetts. He is a 1997 graduate of the National Fire Academy's Executive Fire Officer Program at the National Emergency Training Center, Emmitsburg, Maryland. He has been an adjunct professor at the Northern Virginia Community College and the University of the Department of Columbia in the Fire Science curriculums. He is a graduate of the Executive Leadership Program in the Center for Homeland Defense and Security at the Naval Postgraduate School, Monterey, California.

SENIOR ASSOCIATE

CHIEF PETER J. FINLEY, JR. (RET.), BA, EFO

Retired Chief of Department City of Vineland Fire Department and Winslow Township Fire Department. Past President NJ Career Fire Chiefs Association.

BACKGROUND

Pete Finley's 36-year career in the fire and emergency services includes 28 in a career capacity with several different fire departments. He has served as Chief of Department for two New Jersey Fire Departments, most recently the Winslow Township Fire Department where, significant among other accomplishments, he was responsible for the planning, establishment, and initial deployment of the career component of the department as it transitioned from fully volunteer to combination status. Prior to that he served for more than 20 years with the City of Vineland Fire Department holding every operational rank (Firefighter, Fire Prevention Specialist, Captain, Deputy Chief, Fire Chief) including 4 ½ years as Chief of Department. In this position, he initiated significant changes within the department including implementing numerous improved operational and safety initiatives, updating, and modernizing equipment, providing the department's first ever formal officer training and development program, and, significantly increasing the capabilities of the regional hazardous materials and special operations response team. During his tenure, the department received more than one million dollars in various grants. He formerly commanded the Vineland Rescue Squad gaining significant EMS operations and command experience, and, completing a complete overhaul of that organization's operations.

Chief Finley currently serves as an Adjunct Professor in the Fire Science Program at Camden County College. In addition, since his retirement, he has been involved in

conducting numerous fire department operational readiness and organizational evaluations including several under the auspices of the United State Coast Guard related to domestic port security assessments. He has also been involved in the development and administration of several fire service promotional examinations and assessment processes. Chief Finley received his Associate in Applied Science degree from Atlantic Community College in New Jersey, and, earned his Bachelor of Science degree in Fire Science/ Administration from the University of Maryland. He is a 2003 graduate of the National Fire Academy's Executive Fire Officer Program earning an Outstanding Research Award for his 2002 paper titled, "Residential Fire Alarm Systems: The Verification and Response Dilemma". He has earned more than two dozen state and national fire service certifications, most of them the highest level attainable. Chief Finley has been a member of several fire service organizations and served on numerous committees throughout his career. In 2008 and 2009 he served as President of the New Jersey Career Fire Chiefs Association, a professional association that represents and advocates for the interests of the state's full time professional fire chiefs and the fire service in general. From 2003–2005 he was a member of the Training and Education Committee of the Governor's Fire Service and Safety Task Force.

SENIOR ASSOCIATE

GERARD J. HOETMER, MPA

Retired Executive Director of Public Entity Risk Institute, Fairfax, VA. Former Director of Research & Development, ICMA.

BACKGROUND

Gerry Hoetmer is an expert in fire services, emergency management, and risk management. He served as the founding executive director of the Public Entity Risk Institute, a nonprofit organization that provided training, technical assistance, and research on risk management issues for local government and other public and quasi-public organizations. During his tenure as executive director he was a member of the National Academy of Sciences Disaster Roundtable. Prior to his position as executive director at PERI, Mr. Hoetmer worked at ICMA for 19 years, most recently as the director of research and development. He has written extensively on local government emergency management, the fire service, code enforcement, and risk management issues.

Seminal works include the first report to Congress on fire master planning and the first edition of *Emergency Management: Principles and Practices for Local Government*. In addition to providing expert testimony before Congress and local arbitration boards on fire staffing and scheduling issues, Mr. Hoetmer represented ICMA on the NFPA 1500 Standard on Occupational Safety and Health; NFPA 1201, the Standard for Providing Emergency services to the Public; and the NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. Mr. Hoetmer has developed and conducted training programs and seminars at FEMA's Emergency Management Institute and the National Fire Academy in Emmitsburg, Maryland.

He holds a Bachelors from the State University of New York, New Paltz and the Master of Public Administration degree from the University of Colorado at Denver.

DATA ASSESSMENT TEAM

DOV CHELST, PH.D.

Director of Quantitative Analysis

BACKGROUND

Dr. Chelst is an expert in analyzing public safety department's workload and deployment. He manages the analysis of all public safety data for the Center. He is involved in all phases of The Center's studies from initial data collection, on-site review, large-scale dataset processing, statistical analysis, and designing data reports. To date, he has managed over 240 data analysis projects for city and county agencies ranging in population size from 8,000 to 800,000.

Dr. Chelst has a Ph.D. Mathematics from Rutgers University and a B.A. Magna Cum Laude in Mathematics and Physics from Yeshiva University. He has taught mathematics, physics and statistics, at the university level for 9 years. He has conducted research in complex analysis, mathematical physics, and wireless communication networks and has presented his academic research at local, national and international conferences, and participated in workshops across the country.

SENIOR PUBLIC SAFETY SUBJECT MATTER EXPERT

DAVID MARTIN, PH.D.

Senior Researcher in the Center for Urban Studies, Wayne State University

BACKGROUND

Dr. Martin specializes in public policy analysis and program evaluation. He has worked with several police departments to develop crime mapping and statistical analysis tools. In these projects, he has developed automated crime analysis tools and real-time, dashboard-style performance indicator systems for police executive and command staff. Dr. Martin teaches statistics at Wayne State University. He is also the program evaluator for four Department of Justice Weed and Seed sites. He is an expert in the use of mapping technology to analyze calls for service workload and deployments.

SENIOR PUBLIC SAFETY DATA ANALYST

PRISCILA MONACHESI, M.S., B.A.

BACKGROUND

Priscila Monachesi is a Senior Data Analyst with CPSM and has worked on over 40 data analysis projects for city and county public safety agencies. She has over ten years' experience as a Project Leader/Senior System Analyst in auto manufacturing and financial systems. She has a M.S in Statistics from Montclair State University, a B.A. in Economics from Montclair State University, and a Technical Degree in Data Processing from Pontifícia Universidade Católica in Brazil.

PUBLIC SAFETY DATA ANALYST

SHAN ZHOU, PH.D.

BACKGROUND

Dr. Shan Zhou specializes in the analysis of police data. Shan brings extensive experience in scientific and clinical data analysis. Prior to CPSM, she worked as an associate scientist at Yale School of Medicine. Shan has a MS in Business Analytics and Project Management from University of Connecticut and a PhD in Cell biology, Genetics and Development from University of Minnesota.

PUBLIC SAFETY DATA ANALYST

RYAN JOHNSON, B.A.

BACKGROUND

Ryan Johnson is a new addition to the CPSM data analyst team, specializing in the analysis of fire data. He has helped complete fire analysis projects for several cities and has handled ad hoc requests for modeling optimum staffing levels for police departments. Ryan brings experience in financial data analysis from the telecom expense industry, where he was the lead analyst for four clients; 3 fortune 500 companies and the Top Architectural Engineering Firm in the country. He also brings experience in spatial analytics from his time with Homeland Security. Ryan has a B.S. in Economics from Georgia State University and he is completing his M.A. in Economics from Rutgers University.

EMS SPECIALIST

MATT ZAVADSKY, MS, BA

Chief Strategic Integration Officer, MedStar Mobile Health Care, Operations Manager Rural Metro Ambulance Service-Orlando Fla.

BACKGROUND

Matt has 37 years' experience in EMS and holds a Master's Degree in Health Service Administration with a Graduate Certificate in Health Care Data Management. He is a frequent speaker at national conferences and has done consulting in numerous EMS issues, specializing in mobile integrated healthcare, high performance EMS system operations, public/media relations, public policy, EMS economic models and EMS research.

Matt is the Chief Strategic Integration Officer at [MedStar Mobile Healthcare](#), the Public Utility Model EMS agency that provides exclusive emergency and non-emergency EMS and Mobile Integrated Healthcare services for Fort Worth and 14 other cities in North Texas. MedStar provides advanced life support ambulance service to 436 square miles and more than 936,000 residents and responds to over 140,000 calls a year with a fleet of 57 ambulances.

Coming to MedStar in 2008 as the Operations Director, Matt has helped guide the continued development and implementation of numerous innovative programs with healthcare partners

that have transformed MedStar fully as a Mobile Integrated Healthcare (MIH) provider, including high utilizer, CHF readmission reduction, observational admission reduction, hospice revocation avoidance, 9-1-1 nurse triage programs and partnerships with home health agencies. He is also the co-author of the book "[Mobile Integrated Healthcare – Approach to Implementation](#)" published by Jones and Bartlett Publishing.

Matt is the President-Elect of the National Association of EMTs and chairs their EMS Transformation Committee. He is also Adjunct Faculty for the University Of North Texas Health Science Center, Department of Health Management and Policy, as well as an appointed committee member to the Joint Commission's Home Care Professional and Technical Advisory Committee (PTAC) and the Lewin Group's Hospital Outpatient Quality Reporting (HOQR) Program Stroke and AMI Expert Work Group, developing metrics for use in value-based purchasing measures for emergency departments.