

# MIAMI BEACH

## City Commission Meeting SUPPLEMENTAL MATERIAL 2

City Hall, Commission Chambers, 3rd Floor, 1700 Convention Center Drive  
April 17, 2013

Mayor Matti Herrera Bower  
Vice-Mayor Jonah Wolfson  
Commissioner Jorge R. Exposito  
Commissioner Michael Góngora  
Commissioner Jerry Libbin  
Commissioner Edward L. Tobin  
Commissioner Deede Weithorn

City Manager Jimmy Morales  
City Attorney Jose Smith  
City Clerk Rafael E. Granado

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### ATTENTION ALL LOBBYISTS

**Chapter 2, Article VII, Division 3 of the City Code of Miami Beach entitled "Lobbyists" requires the registration of all lobbyists with the City Clerk prior to engaging in any lobbying activity with the City Commission, any City Board or Committee, or any personnel as defined in the subject Code sections. Copies of the City Code sections on lobbyists laws are available in the City Clerk's office. Questions regarding the provisions of the Ordinance should be directed to the Office of the City Attorney.**

### SUPPLEMENTAL AGENDA

#### C7 - Resolutions

C7N A Resolution Accepting A Donation In The Amount Of \$25,000.00 From The Prentice Foundation To Be Used By The City Of Miami Beach For The Restoration And Conservancy Of Monument Island And The Flagler Memorial.

(Requested By Commissioner Michael Góngora)

(Legislative Tracking: City Attorney's Office)

**(Resolution)**

**R7 - Resolutions**

- R7C A Resolution Approving In Substance The Terms Of A Professional Services Agreement With The International City/County Management Association ("ICMA") For Review And Recommendations For Efficiencies For The Fire Department; Authorizing The City Manager And City Attorney's Office To Negotiate And Draft The Agreement Based Upon The Approved Terms; And Authorizing The Mayor And City Clerk To Execute The Final Agreement In An Amount Not To Exceed \$70,000.  
(City Manager's Office)  
**(Attachment)**

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, ACCEPTING A DONATION IN THE AMOUNT OF \$25,000.00 FROM THE PRENTICE FOUNDATION TO BE USED BY THE CITY OF MIAMI BEACH FOR THE RESTORATION AND CONSERVANCY OF MONUMENT ISLAND AND THE FLAGLER MEMORIAL.**

**WHEREAS**, in honor of Henry Flagler, the railroad tycoon who facilitated the development of South Florida by bringing the Florida Eastcoast Railway to Miami and Key West, Carl Fisher commissioned the Flagler Memorial on Monument Island by nationally recognized sculptor, Ettore Pellagatta, who also created the "library lions" guarding the main entrance to the New York Public Library in Manhattan, as well as the carved stones figures on the bow of Vizcaya's "stone boat" on Biscayne Bay; and

**WHEREAS**, Monument Island, with its magnificent 96' Flagler Memorial obelisk, is a significant landmark in the City and is home to one of the few remaining public works of art from the early 20<sup>th</sup> Century providing a valuable sense of history and place relative to the City's early development; and

**WHEREAS**, gracing the base of the Flagler Memorial on Monument Island are four 25' masterfully sculpted allegorical statues representing Prosperity, Industry, Education, and the Pioneer; and

**WHEREAS**, due to their significant cultural and high artistic values, characteristic of an early period in the history of the City, the Miami Beach City Commission designated the Flagler Memorial and Monument Island as a local historic site on March 20, 2002; and

**WHEREAS**, in order to help preserve Monument Island and the Flagler Memorial as an ecological, educational, recreational, and historical landmark in the City of Miami Beach, the Mayor and City Commission wish to accept a donation in the amount of \$25,000.00 from The Prentice Foundation for the restoration and conservancy of this local historic treasure.

**NOW, THEREFORE, BE IT DULY RESOLVED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA**, that the Mayor and City Commission hereby accept a donation in the amount of \$25,000.00 from The Prentice Foundation, which funds shall be utilized by the City of Miami Beach for the restoration and conservancy of Monument Island and the Flagler Memorial.

**PASSED and ADOPTED** this \_\_\_\_\_ day of April, 2013.

**ATTEST:**

\_\_\_\_\_  
Rafael E. Granado, City Clerk

\_\_\_\_\_  
Matti Herrera Bower  
Mayor

APPROVED AS TO  
FORM & LANGUAGE  
& FOR EXECUTION

  
\_\_\_\_\_  
CITY ATTORNEY *DT*      4/16/13  
DATE

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# Proposal for Comprehensive Analysis of Fire / EMS Services Miami Beach, Florida



C E N T E R F O R P U B L I C S A F E T Y M A N A G E M E N T

Submitted by:  
ICMA Center for Public Safety Management  
International City/County Management Association  
777 North Capitol Street NE, Suite 500  
Washington, DC 20002  
716-969-1360

**ICMA**

*Leaders at the Core of Better Communities*



*Leaders at the Core of Better Communities*

February 22, 2013

Ms. Kathie G. Brooks  
Interim City Manager  
City of Miami Beach  
1700 Convention Center Drive  
Miami Beach, Florida 33139

Dear Ms. Brooks:

The ICMA *Center for Public Safety Management* is pleased to submit this proposal for an analysis of emergency services for Miami Beach. The ICMA approach is unique and more comprehensive than ordinary accreditation or competitor studies. In general, our analysis involves the following major outcomes:

- Examine the department's organizational structure and culture;
- Perform gap analysis, comparing the "as is" state of the department to the best practices of industry standards;
- Recommend a management framework to ensure accountability, increased efficiency and improved performance;
- Conduct a data-driven forensic analysis to identify actual workload;
- Identify and recommend appropriate staffing and deployment levels for every discrete operational and support function in the department.

This proposal is specifically designed to provide the local government with a thorough and unbiased analysis of emergency services in your community. We have developed a unique approach by combining the experience of dozens of subject matter experts in the areas of emergency services. The team assigned to the project will have hundreds of years of practical experience managing emergency service agencies, a record of research, academic, teaching and training, and professional publications, and extensive consulting experience completing hundreds of projects nation-wide. The team assembled for you will be true "subject matter experts" not research assistants or interns.

ICMA has provided direct services to local governments worldwide for almost 100 years, which has helped to improve the quality of life for millions of residents in the United States and abroad. I, along with my colleagues at ICMA, 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@icma.org](mailto:lmatarese@icma.org)

Sincerely,

Leonard A. Matarese, ICMA-CM, IPMA-HR  
Director, Research and Project Development  
ICMA *Center for Public Safety Management*

# The Association

## **International City/County Management Association (ICMA)**

The International City/County Management Association (ICMA) is a 100 year old, non-profit professional association of local government administrators and managers, with approximately 9,000 members located in 32 countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments in providing services to its citizens in an efficient and effective manner. Our work spans all of the activities of local government – parks, libraries, recreation, public works, economic development, code enforcement, Brownfield's, public safety, etc.

ICMA advances the knowledge of local government best practices across a wide range of platforms including publications, research, training, and technical assistance. Our work includes both domestic and international activities in partnership with local, state and federal governments as well as private foundations. For example, we are involved in a major library research project funded by the Bill and Linda Gates Foundation and we are providing community policing training in Panama working with the U.S. State Department. We have personnel in Afghanistan assisting with building wastewater treatment plants and have teams in Central America providing training in disaster relief working with SOUTHCOM.

The **ICMA Center for Public Safety Management (ICMA/CPSM)** is one of four Centers within the US Programs Division of ICMA providing support to local governments in the areas of police, fire, EMS, Emergency Management and Homeland Security. In addition to providing technical assistance in these areas we also represent local governments at the federal level and are involved in numerous projects with the Department of Justice and the Department of Homeland Security.

ICMA/CPSM is also involved in police and fire chief selection; assisting local governments in identifying these critical managers thru original research we have conducted identifying the core competencies of police and fire managers and providing assessment center resources.

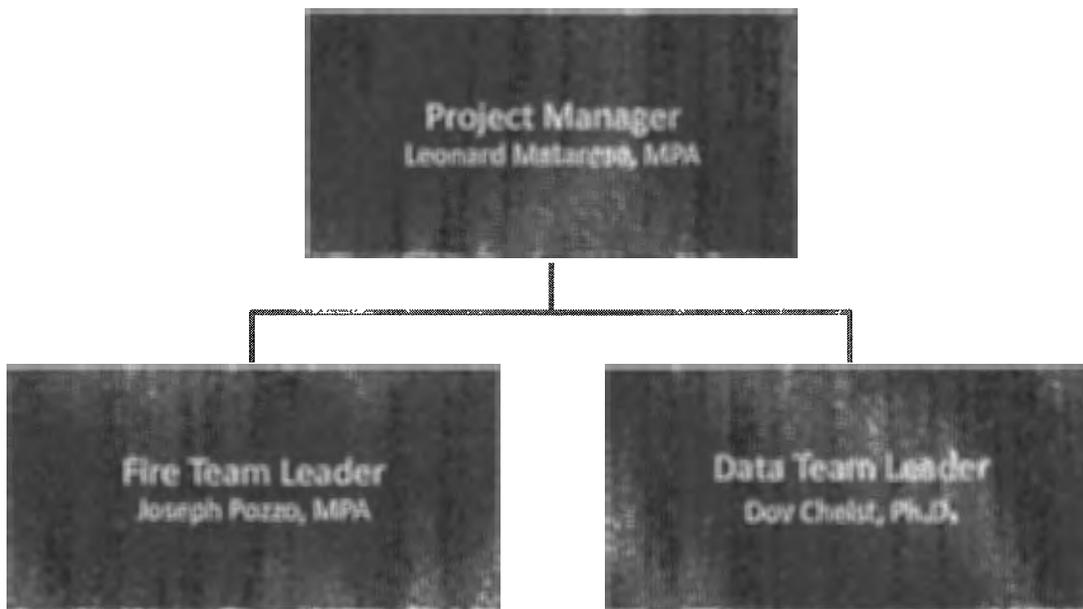
Our local government technical assistance includes workload and deployment analysis, using our unique methodology and subject matter experts to examine department organizational structure and culture, identify workload and staffing needs as well as industry best practices. We have conducted over 150 such studies in 30 states and 91 communities ranging in size from 8,000 population Boone, IA, to tourist meccas such as 586,000 population Las Vegas, to state capitols such as 800,000 population Indianapolis, IN.

Thomas Wieczorek is the Director of the Center for Public Safety Management. Leonard Matarese serves as the Director of Research & Program Development.

# Project Staffing

The proposal will look at the fire and EMS services of Miami Beach, Florida. For this project, the ICMA has assembled a premier team of experts from a variety of disciplines and from across the United States. The goal is to develop recommendations that will enable it to produce the outcomes necessary to provide critical emergency services consistent with the community's financial capabilities. The team will consist of a Project Manager, two Team Leaders and several senior public safety Subject Matter Experts selected from our team specifically to meet the needs of the community.

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



## **Project Manager**

### **Director of Research and Project Development, ICMA Center for Public Safety,**

**Leonard Matarese, MPA, ICMA-CM, IPMA-CP**

- **Background**

Mr. Matarese is a specialist in public sector administration with particular expertise in public safety issues. He has 44 years' experience as a law enforcement officer, police chief, public safety director, city manager and major city Human Resources Commissioner. 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 several hundred studies of emergency services agencies with particular 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 also 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 and is currently editing an ICMA book on the selection of police and fire chiefs.

## **Data Assessment Team**

### **ICMA Center for Public Safety Senior Team Members**

#### **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 140 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 Subject Matter Expert**

##### **Gang Wang, Ph.D., Fire & EMS Services Data Analyst**

- **Background**

Gang Wang received the dual bachelor degrees in industrial design and management science, and the M.S. in information system from Chongqing University in China and the Ph.D. degree in industrial engineering from Wayne State University. He has five years experience in enterprise information system and eight years experience in data analysis and applied mathematical modeling. He has rich experience in areas of automotive, travel and public safety with particular emphasis in fire / EMS analysis. He has published a book chapter and several journal articles.

## **Operations Assessment Team – Fire Unit**

### **Director, ICMA Center for Public Safety Management**

**Thomas Wieczorek, Retired City Manager Ionia, MI; former Executive Director Center for Public Safety Excellence**

- **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 a number of programs at Grand Valley State University, the National Highway Traffic Safety Administration (NHTSA), and Grand Rapids Junior 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 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 NFPA 1710 and 1730 Standards Committees and is a board member on the International Accreditation Service, a wholly owned subsidiary of the International Code Council.

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 Manager of Fire and EMS**

**Chief Joseph Pozzo (Ref.), MPA, CFO. Former Deputy Director, Volusia County Department of Public Protection; former Director and Fire Chief, Volusia County, Florida, Retired Fire Chief, Loudon County, Virginia, former Fire Chief Portsmouth, Virginia.**

- **Background**

Chief Pozzo has enjoyed a thirty-four (34) year career in public service. Before joining the ICMA team, Chief Pozzo served as the Deputy Director of the Department of Public Protection Volusia County, Florida, where he was responsible for the operations of Fire, EMS, Emergency Management, Medical Examiner, Beach Safety, Corrections, and Animal Services. He was formerly Chief of the Volusia County Fire Services. This agency is a combination department providing fire suppression and EMS services with career firefighters and volunteer members. The agency operates out of 23 stations.

Prior to Chief Pozzo's appointment in 2010 in Volusia County, he served as the Chief of the Loudoun County Department of Fire and Rescue. This agency is a

combination fire and rescue system providing fire, rescue, and emergency management services to one of the fastest growing counties in the nation. The fire and rescue system provides these services to over 275,000 permanent residents living in 520 square miles of diverse suburban and rural area located within the National Capital Region. Fire, Rescue and Emergency Management services are executed through 450+ career staff and over 1,300 volunteer members operating out of nineteen stations. Prior to his appointment with Loudoun County, Chief Pozzo served as Chief of the Portsmouth Fire, Rescue and Emergency Services Department. This agency is one of the oldest professional departments on the eastern seaboard and serves over 95,000 residents within a 30 square miles area. Chief Pozzo also served in the City of Virginia Beach, Va. Fire Department for 19 years reaching the level of Battalion Chief prior to embarking on his career as a Fire Chief/Director.

He holds a Master of Public Administration degree from Troy University where he graduated with honors, a B.A. in Public Administration from Saint Leo University and several associate degrees including an AAS in Fire Science and Protective Services. He holds the *Chief Fire Officer Designation from Center for Public Safety Excellence* and has served as an Adjunct Instructor for the Virginia Department of Fire Programs.

## **Senior Associate - EMS**

### **Mark O'Keefe, Operations Manager Volusia County Emergency Medical Services (EVAC) Daytona Beach, Florida**

- **Background**

Mr. O'Keefe is an expert in the management of large High Performance Emergency Medical Services (HPEMS). The Volusia County system covers 1,207 square miles, 16 cities, 47 miles of Atlantic Ocean beaches, two major rivers, urban, suburban, rural and wilderness areas as well as the many special events such as The Daytona 500, Coke Zero 400, Bike Week, Spring Break, and Biketoberfest. In addition to providing daily supervision of all on-duty employees on EMS units he also manages the System Status Controllers in the communications center and the deployment of EMS in Volusia. He has 33 years experience in the emergency medical services holding numerous field positions and supervisory and management assignments as well as serving as chief training officer for several EMS agencies. He holds the American Ambulance Association, Certified Ambulance Service Manager (ASM) credential.

Mr. O'Keefe served on the Editorial Board Journal of Emergency Medical Services (JEMS) at Elsevier Public Safety Publications for 21 years and wrote a monthly column for the journal. He is an expert in Speed Loading Inventory Control as well as Deployment Monitor Systems, having worked extensively with the Mobile Area Routing and Vehicle Location Information System™ (MARVLIS) High Performance EMS ambulance deployment monitor system for System Status Controllers.

He holds the Bachelor of Applied Science (BAS) in Supervision and Management with honors from Daytona State College. Associate of Arts (A.A.), Education Daytona State College Associate of Applied Science (AAS), Emergency Medical Services Daytona Beach Community College

## Senior Associate

**Gerard J. Hoetmer, MPA, retired Executive Director of Public Entity Risk Institute, Fairfax, Virginia**

- **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

## Senior Associate

**Chief John (Jack) Brown (Ret.), BA, MS, EFO, 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 District 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 Donald James (Ret.), MPA, Retired Assistant Chief, Miami-Dade Fire Rescue**

- **Background**

During a career spanning 30 years, Donald C. James retired in 2005 as an Assistant Fire Chief with the Miami Dade Fire Rescue Department. In that capacity he assumed oversight of various functional areas to include Fire Prevention, Facilities Management and Construction, Communications, Emergency Medical Services and Training Divisions. As a Division Director, he was responsible for multimillion dollar budgets for Community Relations, Emergency Medical Services, Communications and Fire Prevention.

In 1996 he was honored by the National Fire Protection Association as the "Learn Not To Burn Champion" with a Safe Cities Award Grant. Working in conjunction with Miami Dade Public Schools, the grant provides for the teaching of a fire safety curriculum at the elementary grade levels. Among other accomplishments, he was also instrumental in the development of the department's Infectious Disease Control Policy and Procedure – one of the first of its kind in the fire service nationwide.

Mr. James received his Associates degree in Fire Science Technology from Miami Dade College. He holds a Bachelor's degree in Public Administration from Barry University in Miami Shores, and Master's degree in Public Administration from Florida International University, Miami.

# Project Schedule

## **Milestone 1 – Full execution of the agreement**

Agreement will identify Project Launch date.

## **Milestone 2 – Project Launch**

We will conduct an interactive telephone conference with local government contacts. Our project leads will launch the project by clarifying and confirming expectations, detailing study parameters, and commencing information gathering.

## **Milestone 3a – Information Gathering and Data Extraction- 30 Days**

Immediately following project launch, the operations leads will deliver an information request to the department. This is an extensive request which provides us with a detailed understanding of the department's operations. Our experience is that it typically takes an agency several weeks to accumulate and digitize the information. We will provide instructions concerning uploading materials to our website. When necessary, the lead will hold a telephone conference to discuss items contained in the request. The team lead will review this material prior to an on-site visit.

## **Milestone 3b – Data Extraction and Analysis – 14 Days**

Also immediately following the project launch the Data Lead will submit a preliminary data request, which will evaluate the quality of the Computer Aided Dispatch (CAD) system data. This will be followed by a comprehensive request for data from the CAD system to conduct the response and workload analysis. This request requires a concerted effort and focused response from your department to ensure the timely production of required for analysis. Delays in this process will likely extend the entire project and impact the delivery of final report. The data team will extract one year's worth of Calls for Service (CFS) from the CAD system. Once the Data Team is confident the data are accurate, they will certify that they have all the data necessary to complete the analysis.

## **Milestone 3c – Data Certification – 14 days**

## **Milestone 4a – Data Analysis and Delivery of Draft Data Report – 30 days**

Within thirty days of data certification, the analysis will be completed and a draft, unedited data report will be delivered to each of the departments for their review and comment. After the data draft report is delivered, an on-site visit by the operations team will be scheduled.

## **Milestone 4b – Departmental Review of Draft Data Report – 14 days**

The department will have 10 days to review and comment on the draft unedited data analysis. During this time, our Data team will be available to discuss the draft report. The Department must specify all concerns with the draft report at one time.

## **Milestone 4c – Final Data Report – 10 days**

After receipt of the department's comments, the data report will be finalized within 10 days.

## **Milestone 5 – Conduct On-Site Visit – 30 days**

Subject matter experts will perform a site visit within 30 days of the delivery of the draft data report.

## **Milestone 6 – Draft Operations Report – 30 days**

Within 30 days of the last on-site visit, the operations team will provide a draft operations report to each department. Again the departments will have 10 days to review and comment.

## **Milestone 7 – Final Report 15 days**

Once the Department's comments and concerns are received by ICMA the combined final report will be delivered to the city within 15 days.

**TOTAL ELAPSED TIME: 105 - 135 days**

# The ICMA Approach: Fire/EMS

## Operations Review

Using information analyzed by the data team, an operational assessment by ICMA technical experts will be conducted to evaluate the deployment of emergency resources.

The ICMA team will evaluate equipment, maintenance, records, policies, procedures, mapping, implemented technology and innovations, facilities, training, and staff to create recommendations for future service delivery.

The team may meet with elected and appointed officials as well as identified community leaders to determine the outcome they are seeking from deployment of resources.

Observations and recommendations will be developed around key performance and analysis areas in the completion of the report and include:

- Comprehensive Data Analysis
  - Incident Type Workload
  - Response Time
  - Unit Workload
  - Analysis of Busiest Hour
- Governance and Administration
  - Organizational Structure
  - Organizational Leadership
  - Staffing and Deployment
  - External Relationships
- Organizational Behavior/Management/Processes
  - Time Allocation of Staff
  - Organizational Communication
  - Strategic Planning
  - Performance Measurement
- Financial Resources (Operating and Capital Resources)
- Programs (To include fire suppression, EMS, fire prevention, public education, fire investigation, technical rescue, hazardous materials, emergency management, , and other service delivery programs)
- Risk Management/All hazards approach to community protection
- ISO/Accreditation Benefit Analysis

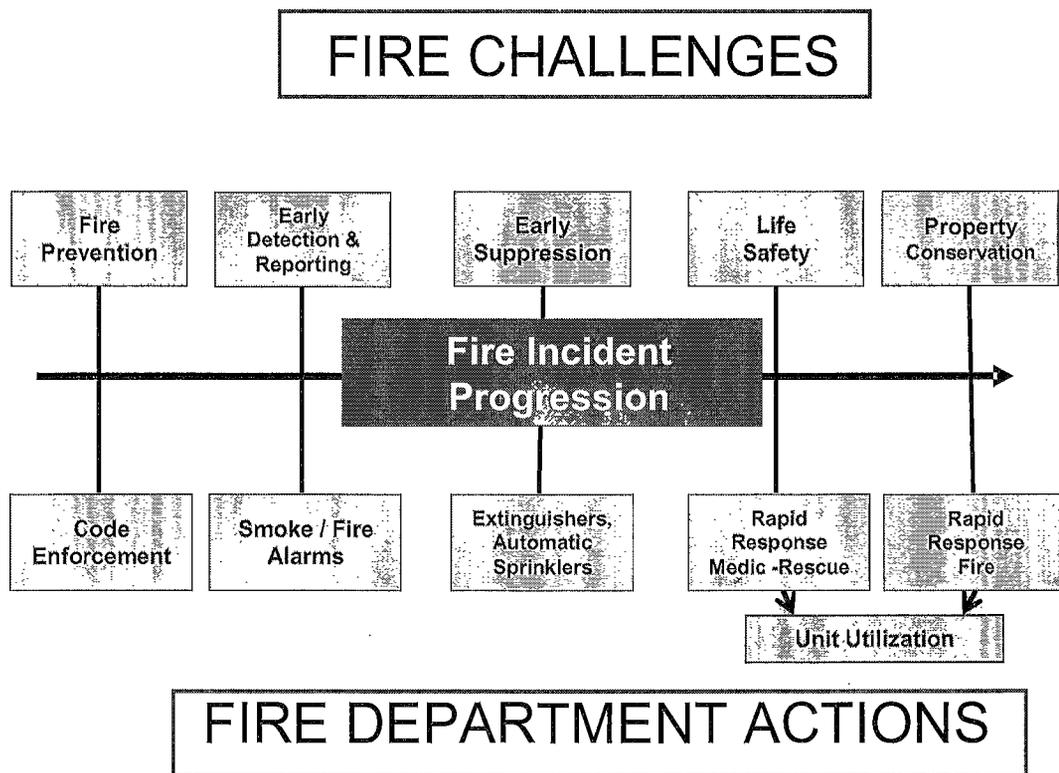
Using GIS technology we will review the current locations of deployed equipment and stations with recommendations developed for the future. Key to making these determinations will be response time for dispatched units and call density.

The ICMA data team has created a methodology for determining resource utilization that quantifies the maximum and minimum deployment of personnel and equipment. It is unlike any other approach currently used by consultants and is indicative of the desire by ICMA to deliver the right resources at the right time.

### Fire Suppression Services

Fire departments staff their stations and train their personnel to respond to a wide array of fire and vehicular accident emergencies. In addition, many departments use the long intervals between calls for service for a variety of fire prevention, training and station activities. Research in the United Kingdom as well as by FEMA has shown that the most cost-effective approach to fire deployment is the elimination of calls. If a call is received, eliminating hazards decreases the risk faced by first responders and may result in a more positive outcome. These preventive strategies should include building effective code enforcement and fire prevention activities as well as strong public education programs promoting smoke detectors fire extinguisher use and placement in homes and businesses. The effort may also include early fire suppression through the use of automatic sprinkler systems and other fire protection systems. All of these prevention and response challenges are illustrated below.

↓



The resulting data study ICMA completes will gather and analyze data on the efficiency and effectiveness of the current deployment on the fire runs. Resource utilization will be quantified for concentration, location, and unit utilization.

The study will also analyze fire call data to provide a comprehensive review of how fire services are delivered to the community including a detailed analysis of workloads and response times. The analysis of the workloads should begin with an in-depth study of the types of calls handled and their severity. The goal of this data gathering would be to explicate the fundamental nature of the fire challenge faced by the Fire Department.

The study will pay special attention to fires reported in residences or buildings. Some examples of questions to be answered as a part of the study include: What was the average response time of the first arriving fire suppression unit capable of deploying extinguishing agent? How long did the engine companies work at the scene?

For each call type, we will determine the time spent on-scene and the manpower personnel who worked the scene. This data will be aggregated to determine an overall average total time spent on fire calls per 24-hour period and by shift for each engine company. It will document any dramatic variations by time of day and day of week as well as seasonal variations. It will also require the review the department's non-emergency productive hours that fire personnel carry out between emergency calls. The study will also analyze data to determine the proportion of calls and the associated workload that arise within the community's borders compared to mutual aid calls.

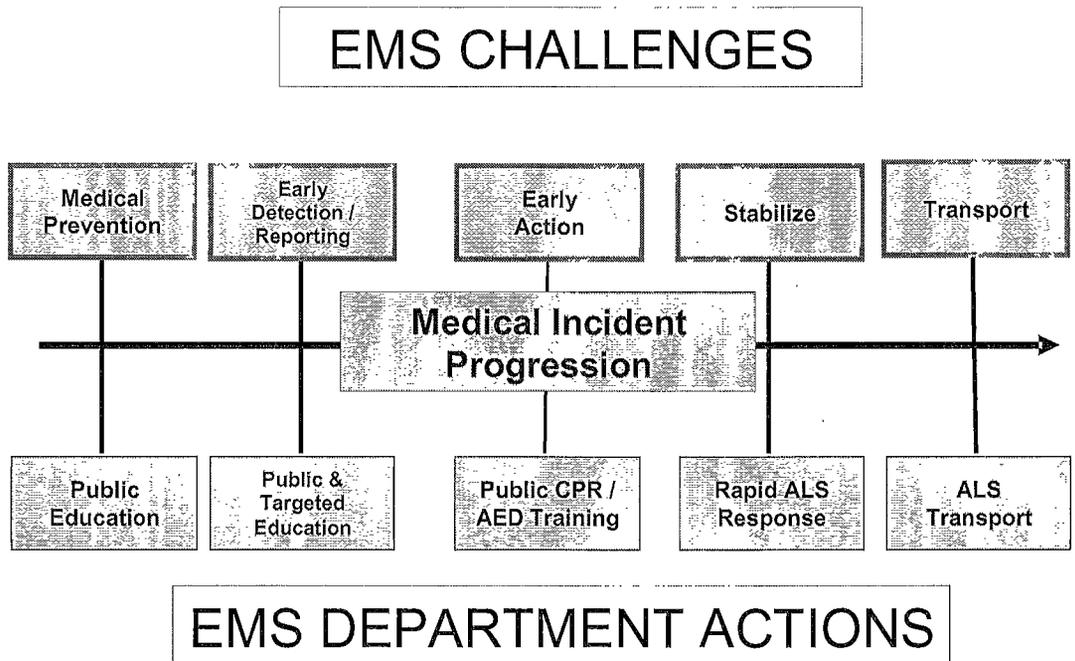
Response time is an important statistic in emergency service systems. We will determine:

- Average response time of first arriving fire suppression unit capable of deploying extinguishing agent.
- Distribution of response times for different call categories
- Response time for the second arriving engine company, where possible

We will also identify and review calls that experienced unusually long response times.

## Emergency Medical Services

Fire Departments provide emergency medical services in addition to fire suppression duties. In this project we will analyze EMS call data to provide a comprehensive review of emergency medical services including a detailed analysis of workloads and response times. The analysis of the workloads will begin with an in-depth study of the types of calls handled and their severity. The goal is to explicate the fundamental nature of the emergency medical challenge faced by the community's Fire Department. We will pay special attention to the most critical emergencies such as heart attack and serious vehicular accidents.



For each call type, we will determine the time spent on-scene and the manpower personnel who worked the scene. These data will be aggregated to determine an overall average total time spent on fire calls per 24-hour period for each ambulance company and the unit hour utilization (UHU). We will also determine how much EMS calls contribute to the workload of fire engine companies since they also respond to most calls. We will document any dramatic variations by time of day and day of week as well as seasonal variations.

Response time is an important statistic in emergency service systems. We will determine not only average response time but also the distribution of response times for different call categories. We will also identify and review calls that experienced unusually long response times.

# Analysis of the Busiest Hours of the Year

Fire departments often speak of the "worst case scenario" or "resource exhaustion" when developing staffing and deployment plans. In reality, an agency can never staff for the worst case scenario, because whatever situation can be envisioned, there can always be a more serious event that can be planned.

What is needed to make staffing and apparatus decisions is a clear understanding of what levels of demand can reasonably be expected over specific periods of time in a specific jurisdiction. For example, what are the busiest calls for service times over a one year period and what levels of staffing and apparatus were needed to handle this workload?

To answer this question requires a detailed analysis of calls for service, broken down minute by minute, identifying which units were busy and how many units remained available to respond to a new call for service. More sophisticated analysis can take into consideration available mutual aid resources.

There is significant variability in the number of calls from hour to hour. One special concern relates to the fire resources available for the highest workload hours. We tabulate the data for each of 8760 hours in the year. We identify how often the fire department will respond to more than a specified number of calls in an hour. In studying call totals, it is important to remember that an EMS run typically lasts, on average, a different amount of time than a fire category call.

## Example of "Busiest Hour Analysis"

What follows is an example of an ICMA study of a fire department with 17 units staffed all the time. For the vast majority of these high volume hours, the total workload of all units combined is equivalent to 3 or fewer units busy the entire hour. For the ten highest volume hours, 0.1% of the hours, the total workload exceeded 3 hours. All of these high volume hours occurred between 10 a.m. and 9 p.m.

The hour with the most work was between 1000 and 1100 on September 12, 2009. The 21 calls involved 34 runs. The combined workload was 417 minutes. This is equivalent to 7 firefighting units being busy the entire hour. However, in the City there are 17 units staffed all of the time. During the worst portion of the hour, there were always at least 5 units still available to respond immediately. Only 5 of the 17 units were busy more than 30 minutes during this hour.

The hour with the most calls was between 1400 and 1500 on October 13, 2009. The 23 calls involved 28 runs. The combined workload was 379 minutes. This is equivalent to between 6 and 7 firefighting units being busy the entire hour. However, in the city there are 17 units staffed all of the time. During the worst portion of the hour, there were always at least 7 units still available to respond immediately. Only 3 of the 17 units were busy more than 30 minutes during this hour.

**Table 1. Frequency Distribution of the Number of Calls**

Number of Calls in an Hour	Frequency
0-5	6397
6-10	2263
11-15	98
16 or more	2

Observations:

- A total of 6,397 hours (73%) in a year have received 0-5 calls.
- A total of 2,263 hours (25.8%) in a year have received 6-10 calls.
- A total of 100 hours (1.2%) in a year have received 11 or more calls.

**Table 2. Top Ten Hours with the Most Calls Received**

HOURS	Number of Calls	Number of Runs	Total Busy Minutes
13-Oct-2009 1400	23	28	379
12-Sep-2009 1000	21	34	417
20-Jun-2009 2000	15	16	252
02-Feb-2009 1900	15	16	213
10-Jul-2009 1000	14	15	226
15-Feb-2009 1900	14	20	317
29-Jul-2009 1700	14	18	274
23-Feb-2009 1100	14	15	180
17-Mar-2009 1500	14	17	193
01-Mar-2009 1800	13	14	185

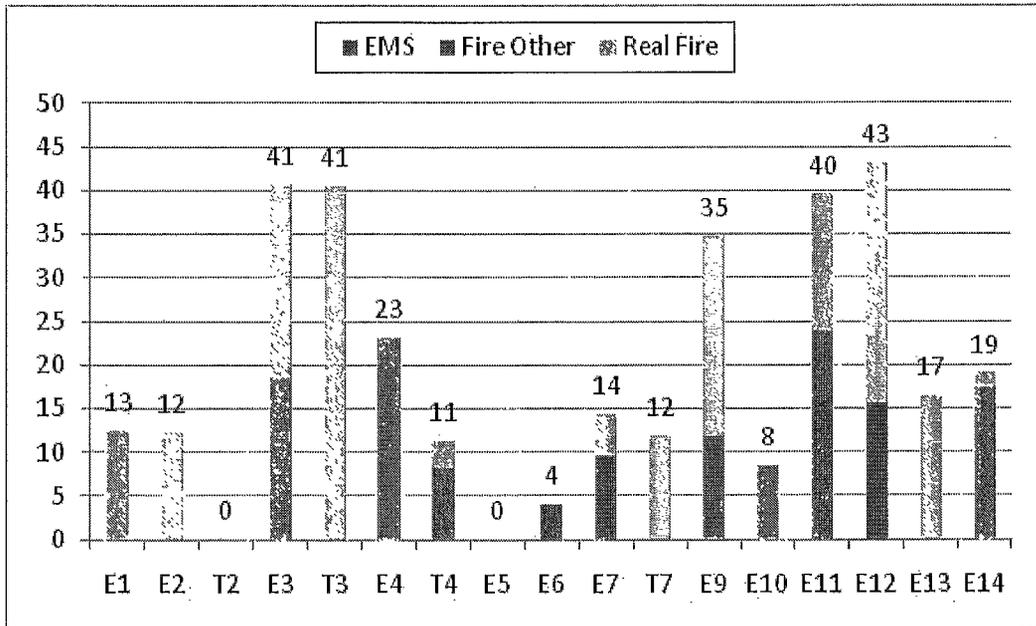
**Table 3. Deployed Minutes by Unit for the Hour between 10 a.m. and 11 a.m. on 12-Sep-2009**

Station	1		2		3		4		5	6	7		9	10	11	12	13	14	Number of Units	
Unit	E1	E2	T2	E3	T3	E4	T4	E5	E6	E7	T7	E9	E10	E11	E12	E13	E14	Busy	Free	
0-5																		3.5	1	16
5-10		1.9		0.7														3.5	3	14
10-15	5	5		5								3.7		0.6	4.8			5	7	10
15-20	5	4.5		5	0.5							5		5	4.4			4.4	8	9
20-25	4.4	1.1		4.4	1.5							3.3		5	5				7	10
25-30				5	5							5		5	5				5	12
30-35				4.3	5							5		5	5				5	12
35-40				5	5	5						5		5	1.3				6	11
40-45				5	5	5				1.2		0.7	0.7	4.7	5	1.6			9	8
45-50				5	5	5	1.8			5	1.8		1.9	1.6	5	4.9		1.7	11	6
50-55				0.9	5	5	5			3.3	5	5	2.5	0.8	2.5	5	5		12	5
55-60				5	5	5	5			0.8	5	5	5	5	5	5	5		11	6
Total	12.5	12.3	0.0	40.6	40.5	23.1	11.3	0.0	4.1	14.3	11.8	34.8	8.4	39.6	43.2	16.5	19.0			

Note: The numbers in the cells are the busy minutes within the 5 minute block. The cell values greater than 2.5 are coded as red. Observations:

- Between 10 a.m. and 11 a.m. on September 12, 2009, the fire department responded to 21 calls and dispatched 34 units to these calls.
- In the city there are 17 units staffed all of the time. During the worst portion of this hour, there were always at least 5 units still available to respond immediately. Only 5 of the 17 units were busy more than 30 minutes during this hour.

Figure 1. Workload by Unit and Call Type for the Hour between 10 a.m. and 11 a.m. on 12-Sep-2009



Observations:

- Engine companies E3, E11 and E12 were busy more than 40 minutes during this hour.
- Truck T3 was busy more than 40 minutes during this hour.
- Eleven units were busy less than 20 minutes. Two units responded to no calls.

## Proposed Fees

The quotation of fees and compensation shall remain firm for a period of 90 days from this proposal submission.

ICMA will conduct the analysis of the fire, and EMS departments for \$65,000 exclusive of travel. The project would be billed in three installments: 40% within 14 days of signing the contract; 40% with delivery of the police, fire and EMS draft data analysis; 20% with delivery of the final report. Following delivery of the draft reports, the city will have 30 days to provide comments as to accuracy and a final report will be delivered within 30 days of the comment period.

A travel budget of \$5,000 is proposed.

### **Deliverables**

Draft reports for police, fire/EMS will be provided for department review in electronic format.

In order to be ecologically friendly, ICMA will deliver the final report in computer readable material either by email or CD or both. The final reports will incorporate the operational as well as data analysis. Should the municipality desire additional copies of the report, ICMA will produce and deliver whatever number of copies the client request and will invoice the client at cost.

Should the City desire additional support or in-person presentation of findings, ICMA will assign staff for such meetings at a cost of \$1,000 per day/per person along with reimbursement of travel expenses.

## Conclusion

Part of ICMA's mission is to assist local governments in achieving excellence through information and assistance. Following this mission, ICMA *Center for Public Safety Management* acts as a trusted advisor, assisting local governments in an objective manner. In particular, ICMA's experience in dealing with public safety issues combined with its background in performance measurement, achievement of efficiencies, and genuine community engagement, makes ICMA a unique and beneficial partner in dealing with issues such as those being presented in this proposal. We look forward to working with you further.

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