Unified Government Wyandotte County – City of Kansas City, Kansas

Municipal Services Review – Fire Suppression and Fire-Based EMS Services
EXECUTIVE SUMMARY

FACETS Consulting was selected to assess the fire and emergency medical services of the Kansas City, Kansas Fire Department (KCKFD). The purpose of this comprehensive analysis is to provide Wyandotte County and fire department leadership with a thorough assessment and unbiased review of services provided by the KCKFD. The report further provides a benchmark of the KCKFD’s existing service delivery performance, which was performed utilizing information provided by Wyandotte County and the Fire Department and gathered from other similarly situated fire departments across the United States. This data analysis in itself provides significant value to the fire department as it now has demand and workload analysis from which to move forward with future planning efforts. Also included in this report is the use of computerized deployment mapping to support the operational discussion and recommendations.

The project team collected both quantitative data as well as qualitative information gathered by making numerous visits to the Kansas City metropolitan area. Members visited with firefighters at every KCKFD fire station, on every shift. The team also met with elected leaders, community leaders, other KCK metro fire departments, organizations that work with the fire department, and managers of other Unified Government departments. An in-depth facilities assessment was completed as part of this study. A FACETS architect visited every fire station to assess the interior, exterior, mechanical, plumbing, and electrical system conditions.

Budget data were collected and analyzed as well as dispatch information for 2012-2014. This information was compiled and analyzed to look at workload, service demand, compliance to service delivery metrics, and safety standards.

Project team recommendations are based on current best practices, industry standards, and government regulations, where applicable.

Unified Government of Wyandotte County and Kansas City, Kansas

Wyandotte County and Kansas City, Kansas lie at the eastern edge of Kansas at the confluence of the Kansas and Missouri Rivers. Wyandotte County covers an area of 151.60 square miles and is home to 161,636 people according to 2014 census estimates. The population had remained fairly steady since 1990.

The Unified Government (UG) is the government of Wyandotte County and the City of Kansas City, Kansas. The governing body of the Unified Government consists of a ten-member commission and a Mayor/Chief Executive Officer. Eight Commission positions are elected within geographic districts. Two Commission positions cover half of the County, each with candidates selected in the primary election within their district and in the general election on a countywide vote. The Mayor runs countywide in the primary and the general elections. In addition, the Mayor appoints the County Administrator with approval of the Commission. The Commission annually adopts a balanced budget and establishes the amount of taxes to be levied for the support of Unified Government programs. The County Administrator has the responsibility of administering these programs in accordance with policies and the annual budget adopted by the Commission.

According to 2014 census estimates, 42.5 percent of Wyandotte County residents are non-Hispanic whites, 24.8 percent are black or African-American, 27.3 percent are Latino or Hispanic, and 3.7 percent are Asian.¹

Wyandotte County and Kansas City, Kansas are operated by a Unified Government created through a 1997 merger. The Unified Government serves all of Wyandotte County except for the cities of Bonner Springs and Edwardsville. The Kansas City, Kansas Fire Department covers the entire county, except for those two cities. Bonner Springs and Edwardsville do receive some UG services, including fire and EMS dispatch services.
The region is a rail and highway transportation hub with significant manufacturing activity. Rapid expansion of the Village West business and entertainment district has fueled population and housing growth near the intersection of Interstates 70 and 435.\(^2\)

The strategic plan developed by the Wyandotte County Economic Council calls for aggressive marketing of the I-435/K-7 highway corridor as a prime development corridor for the future. Between 2000 and 2014, permits have been issued for construction of over 5,000 residential units in Kansas City, Kansas. This area of the UG has accounted for over 3,500 new residential units or 68% of the newly constructed units since 2000.

This new construction has and will continue to have a significant impact on the Kansas City Fire Department. Currently there is only one station in the area. That station is a former volunteer fire station, built in 1979, and is in need of major renovation.

### Methodology

FACETS Consulting assembled a team of fire service leaders, academicians, and public administrators from some of the largest cities in the United States, to meet the needs of Kansas City and Wyandotte County Unified Government. The group was charged with analyzing the delivery of fire and emergency medical services to UG residents and visitors. The team collected data and comments from local government, county emergency communication records, public records, and internal performance records.

Contemporary public administration researchers point to understanding the organizational environment as central to adequately analyzing an organization. The FACETS team met with internal fire department staff and command officers and met with firefighters and company officers on every shift and in every fire station. In addition, the team met with UG leadership, including the Mayor and Commissioners, and agency heads within the UG. This included the Sheriff’s Office, Police Department, Public Works as well as Budget, Human Resources, and Finance.

The team also met with community members to discuss the services provided by the KCKFD and the community view of the KCKFD as a good place to work and as a service provider in the community.

The Notice of Need listed the following components of the study:

1. A comprehensive risk assessment.
2. A standards of cover/response time analysis for Fire and Emergency Medical Services (EMS).
3. A review of internal operations staff and management resources for the EMS and Fire departments.
4. A review of policies and procedures for the Fire and EMS departments.
5. A financial sustainability analysis, including current organizational configurations accompanied by the identification of potential efficiencies and service improvements.
6. A review of the structure and delivery of fire and EMS services, including training and operational readiness and benchmarking against established best practices.
7. A capital facilities assessment and a review of the management and condition of vehicles and equipment, including a multi-year capital improvement and asset replacement program.

The Notice of Need was structured in two parts, this initial report and implementation assistance with recommendations that would be approved or adopted by the UG. If the recommendations contained in this report are approved, the contract for services with FACETS includes the continued involvement of the project team in the implementation of recommendations, as appropriate.

For the analysis of fire department physical infrastructure, the team’s architect did an evaluation of all 18 fire station structures, their mechanical, plumbing, and electrical systems, as well as the overall age and condition of the stations.

This organizational analysis of the Kansas City, Kansas Fire Department is an extensive and comprehensive look at internal and external factors associated with the operation of the department. FACETS Consulting team began its analysis in April, 2015. Members of the team spent numerous hours on the ground working with personnel within the fire department, within the UG, as well as community members and organizations outside of government that work closely with the fire department.

A comprehensive bench marking analysis was completed to compare the KCKFD’s resources and services to those of other similar communities. The service delivery area of the KCKFD is somewhat unique with a concentrated urban core at one end of the community and a rapidly growing suburban core at the opposite end of the community.

**Scope**

From the scope of the Notice of Need, factors considered in this analysis and in the development of this report included the following:

- Fire station locations including potential new stations and renovations and expansion and/or closure of existing stations
- Deployment of staffing and apparatus
- Response times
- Safety of fire personnel and consideration of the NFPA 1710 Standard
- Additionally, the report shall evaluate and make recommendations regarding minimum staffing requirements.

A critical element in the assessment of any emergency service delivery system is the ability to provide adequate resources for anticipated and/or likely fire situations, medical emergencies, and other anticipated events in a timely manner. Properly trained and equipped fire companies must arrive, deploy, and mitigate the event within specific timeframes if successful emergency event strategies and tactical objectives are to be met. Each event, whether fire, rescue operation, major medical emergency, disaster response, or other situations, requires varying and unique levels of resources.

For example, controlling a fire before it has reached its maximum intensity requires a rapid deployment of personnel and equipment in a given timeframe. The higher the risk, the more resources needed. More resources are required for the rescue of persons trapped within a high risk building with a high-occupant load, than for a low-risk building with a low-occupant load. More resources are required to control fires in large, heavily loaded structures than in small buildings with limited contents. The level of service in a community requires making decisions regarding the distribution and concentration of resources in relation to the potential demand placed upon them by the level of risk in the community.

The objective is to have a distribution of resources that is able to reach a majority of events in effective timeframes or those identified in the adopted standard of coverage, in this instance NFPA 1710. Critical timeframes...

In Kansas, and in most of the United States, NFPA 1710 does not have the force of law. NFPA 1710 is an industry best practice and consensus standard and is a tool for communities to structure their fire department resources and deployment models. NFPA 1710 recognizes that complete compliance with the standard may take time and allows implementation over a period of time, provided a plan is developed and followed. The staffing and deployment changes recommended in this report will take time to implement.

The target timeframes from NFPA 1710 outlined below are for typical 2,000 square foot low-hazard, detached occupancies, and do not include dispatch and turnout time.

**NFPA 1710: 5.2.4.1.1** The fire department’s fire suppression resources shall be deployed to provide for the arrival of an engine company within a 240-second travel time to 90 percent of the incidents.

**NFPA 1710: 5.2.4.2.1** The fire department shall have the capability to deploy an initial full alarm assignment within a 480-second travel time to 90 percent of the incidents.

**NFPA 1710: 5.2.4.2.2** A full alarm assignment must have the capability to complete the following functions:

1. Establishment of incident command outside of the hazard area for the overall coordination and direction of the initial full alarm assignment with a minimum of one individual dedicated to this task. (1 person)

2. Establishment of an uninterrupted water supply of a minimum of 400 gallons per minute (gpm) for 30 minutes with supply line(s) maintained by an operator. (2 people)

3. Establishment of an effective water flow application rate of 300 gpm from two handlines, with each handline operated by a minimum of two individuals to effectively and safely maintain the line. (4 people)

4. Provision of one support person for each attack and backup line deployed to provide hydrant hookup and to assist in laying of hose lines, utility control, and forcible entry. (2 people)

5. Provision of at least one victim search and rescue team with each such team consisting of a minimum of two individuals. (2 people)

6. Provision of at least one team, consisting of a minimum of two individuals, to raise ground ladders and perform ventilation. (2 people)

7. If an aerial device is used in operations, one person to function as an aerial operator and maintain primary control of the aerial device at all times. (1 person)

8. Establishment of an Initial Rapid Intervention Crew (IRIC) consisting of a minimum of two properly equipped and trained individuals. (2 people)

In order to accomplish these tasks, and thus meet the goal of NFPA 1710, a minimum of 16 personnel need to be assembled for a full alarm assignment in the timeframes established within the standard.

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1 http://quickfacts.census.gov/qfd/states/20/20209.html
2 Comprehensive Annual Financial Report For the fiscal year ended December 31, 2013.
The recommendations resulting from this review are presented below. The goal of this phase of the project is to identify recommendations that can be implemented with the approval of the UG. The next stage of this work will involve assistance with the implementation of approved recommendations including ongoing support from FACETS team members, as appropriate.

**Fire Department Management**

The Kansas City Kansas Fire Department is managed by an appointed chief who reports directly to the County Administrator. The department is split into 9 divisions, each overseeing an aspect of the department’s operations. These divisions include fire administration, fire operations/suppression, emergency medical service, logistics, vehicle maintenance, training, special operations, communications, and prevention.

These divisions oversee the work of 22 fire companies which operate out of 18 fire stations scattered across the county. These companies provide fire protection, rescue, and Advanced Life Support emergency medical care to the entire county with the exception of Bonner Springs and Edwardsville.

For perspective, the chart below shows the fire department’s position in the Unified Government.
To ensure that the department evolves to meet the community needs identified in this report, it is important that KCKFD members and UG administrators create a strategic plan for implementing recommendations once they are presented and approved. A full-time research and planning officer should be assigned to oversee plan development and any related national fire department accreditation preliminary tasks.

The KCKFD should update and add to a complete set of Standard Operating Procedures (SOP’s) for emergency operations and administrative services. This would increase standardization of many activities across the department, adding clarity to areas such as employee discipline.

KCKFD members at all levels should participate in the development of these procedures, to encourage morale and increase compliance by providing employees a sense of ownership of department procedures. A system to manage and review the procedures should be part of this process.

The KCKFD should:

- Develop a comprehensive strategic plan for the implementation of the adopted recommendations of this report, once approved. Assign plan development and any related national fire department accreditation preliminary tasks as full-time responsibility of a designated research and planning officer.

- Update, complete, and manage a full set of Standard Operating Procedures for fire department emergency service and administrative operations.

- Involve KCKFD members at all levels in the development of these procedures. Wide participation improves the final product and builds support.

- Development of mutually generated procedures will increase the standardization of activities such as employee discipline and improve employee morale.

- Implement a standardized review process for all SOP’s that assures procedures are up to date. Provide for the timely distribution of updated procedures, and provide in-service training as necessary.

- Develop a plan for firefighter positions currently funded by grants or funding sources that have a sunset provision. Manage SAFER grant funded positions that end in 2016.

- Review budgeting approach to retiring firefighters. Firefighter and fire officer attrition causes additional overtime costs unless the positions are filled promptly or service levels are reduced. To the extent possible, plan for vacancies and hold smaller, more frequent recruit classes.

- Seek grants and donations to fund selected fire department programs, such as were available for past EMT training support.

- In the longer term, seek KCKFD accreditation from the Center for Public Safety Excellence (CPSE). Keep an eye toward accreditation to assure that work done in the mean time is in a format and form that can be used to support a future accreditation application.

The Role of the Fire Chief

In the United States, the position of the Fire Chief has evolved in recent decades from a paramilitary leader whose primary focus is the nuts-and-bolts operations of a department into a modern chief executive with a broader mission of community outreach, strategic planning and fiscal efficiency. Fire chiefs are expected to work with diverse community groups and other governmental and non-governmental agencies to efficiently coordinate existing services and to find opportunities to provide expanded services in the most efficient manner. Many operational tasks that would have been handled by fire chiefs in a previous era are now delegated to mid-level administrators.

This more cooperative management approach has the additional benefits of cultivating future leaders and bringing additional perspectives to the issues at hand.
The KCKFD should:

- Evolve the role of the Fire Chief to one of executive leadership, strategic-level management, serve as the face of the KCKFD, and as an organizational ambassador.
  - Market the KCKFD in the community and portray the department as a welcoming and inclusive workplace.
- Decentralize the management structure of the fire department. Give operational and budget responsibilities to deputy chiefs, division heads, and section managers.
- Empower KCKFD managers at all levels to participate in the management of their assigned areas as well as to appropriately participate in overall fire department management activities.
  - Currently, fire department budget development and administration are essentially managed from the Fire Chief’s Office. The involvement of other staff and operations officers will strengthen the organization as they work on behalf of the Fire Chief.
- Expand the level of participation of KCKFD members at all levels in the management of the Department; invite and encourage members at all ranks to become involved at their various responsibility levels. Utilize standing committees made up of managers and members as part of their regular duties.
- Develop a succession plan for executive and middle management positions in the KCKFD.

**Technology**

Technology is transforming the fire service by allowing departments to communicate faster and more efficiently within their organization and without. Modern technology can assist in the delivery of standardized training and can streamline administrative tasks. Technology can also be used to collect data that is vital for researching ways to provide the best, most efficient services.

The KCKFD should:

- Conduct regularly scheduled staff meetings, distributed department-wide using available technology such as web streaming and email.
- Implement technologies that can improve service and efficiency. For example, include a requirement in the ambulance billing contract for the provision of paperless EMS documentation and billing devices and systems – provided by the billing contractor.
- Modernize fire department administrative systems, such as daily shift staffing, through the application of currently available management systems software.
- Integrate KCKFD information technology operations as closely as possible with UG information technology operations.

**Fire - Emergency Operations**

A standardized, coherent risk management strategy is essential to reducing civilian injuries and deaths as well as reducing firefighter injuries and deaths in the line of duty. It has been a trend in the fire service to tailor fire suppression strategies based on the risk profile of an incident, and unnecessary risks are considered less and less acceptable. Proactive safety programs can also prevent problems before incidents by establishing a framework for training that can enhance firefighter safety at incidents.

The KCKFD should:

- Require standardization among the 3 on-duty shifts in both operations and administrative procedures to assure safety, effectiveness, efficiency, clarity of purpose, and to assure procedural understanding.
  - Interviews with firefighters revealed differences in operations and approaches among the 3 shifts.
  - Interviews with firefighters revealed the absence of some firefighter safety-related procedures, and inconsistencies between the shifts in their risk management approach and standard fire fighting operations.
Increase emphasis on firefighter safety-related issues, including on-scene rehabilitation, standardized emergency scene accountability, response to violent incidents, Mayday procedures, rapid intervention crews, and standardized incident management.

- Implement a standard risk management procedure to be used by KCKFD company officers and incident commanders at all emergency scenes.
- Continuing efforts are needed to incorporate and observe nationally proven best practices and industry standards into KCKFD operating procedures.
- Assign one on-duty Safety Officer per shift. Review the duties usually performed by emergency scene Safety Officers nationally, and adjust the local duties as necessary. Review the certification and training required for Safety Officer assignment and assure local compliance.
- Prepare and implement a plan to attain 4-person response crew staffing on all engine, ladder, and quint companies to comply with the requirements of NFPA Standard 1710, over a pre-defined time period.

Dispatch and Communications

The KCKFD is dispatched from the joint public safety dispatch center for Wyandotte County. The KCKFD dispatchers also dispatch for the Bonner Springs and Edwardsville Fire Departments. The KCKFD Communications Division dispatched 22,865 calls for service in 2014. There are currently 18 full-time equivalent (FTE) positions assigned to the Communications Division. Of those 18 FTE, 14 are civilian dispatch positions, 3 are fire captain positions, and one is a battalion chief position.

Salary and Turnover

KCKFD dispatchers are currently hired in at step 1 of the Fire Alarm Dispatcher class at $17.33 per hour or just over $36,000 per year. While the pay plan shows 7 steps in the pay plan, dispatchers do not ever move to step 2; they are only eligible for cost-of-living increases, which have been limited over the last several years. This leads to significant turnover in the dispatch center. Once the dispatchers get experience, they often leave to take higher paying jobs with other fire departments or in the private sector. This constant churn then leads to mandatory overtime for the remaining dispatchers, which then creates more job dissatisfaction and more turnover. According to the Bureau of Labor Statistics for May 2014 (most current data available), Police, Fire and Ambulance dispatchers in Kansas have a mean annual wage of $30,510. All other dispatchers in Kansas have a mean annual wage of $36,530. While KCKFD starts their dispatchers at a higher wage than the mean for public safety dispatchers, there is currently no opportunity for a pay increase outside of a cost-of-living increase. We recommend a compensation and benefits analysis for dispatchers. Dispatcher turnover is inefficient and has a negative impact on KCKFD operations.

Computer Aided Dispatch Upgrade

The KCK Police and Fire Departments are in the process of implementing a new computer-aided dispatch (CAD) system. While we did not study the specifics of the new system, it should enhance many functions of the Fire Department’s dispatch and communication ability. Many fire departments operate with a CAD system that will select the correct unit based on its current location, using GPS, as opposed to a fixed run-card recommendation. This will enhance response times and ensure the correct unit(s) is dispatched. In addition, many departments have CAD systems that interact with station notification equipment (lights and printers) in addition to mobile communication terminals (MCTs) in the responding vehicle. An upgrade of this nature will significantly enhance the efficiency of the dispatch and communication process.

While meeting with the dispatch professionals in KCKFD, it was indicated that few or none of the dispatchers had been asked for input in any
of the planning or implementation processes
to date. It is critical that the career dispatchers
currently performing Fire Department dispatch
functions be involved in all areas of the CAD
upgrade going forward. We recommend
completing the implementation of the new CAD
system, and assure representation of KCKFD
operations members and dispatchers in the
process.

**Dispatch Staffing**

There are currently two dispatchers assigned per
shift, along with a fire captain. If the fire captain
is on a regular day off, vacation, sick leave,
or otherwise absent, he/she is not replaced.
If one of the dispatchers is on vacation, sick
leave, or otherwise absent, he/she is replaced.
Because of the constant vacancies that exist
in the dispatcher ranks, mandatory overtime is
often required. Because these dispatchers are
responsible for monitoring all radio channels,
out of necessity), that leaves just one person to
handle both the phones and radios.

In addition to emergency dispatch functions,
these dispatchers also handle non-emergency
medical transport dispatches, mostly during the
daytime. As shown in the table below, the busiest
hours for dispatch traffic is from early morning
until late at night. When coupled with the other
administrative duties, it is essential to have
enough staff on duty to safely handle the radio
and telephone traffic. We recommend adding
a third dispatcher to the day and swing shift.
Current dispatch staffing is inadequate for the
administrative and emergency service demands
of the dispatch center.

**Supervision and Leadership**

Currently, the fire captain on-duty is the shift
supervisor. This presents difficulties in two areas.
First, if the captain is not there due to a regular
day off, vacation, illness or
other absence, the shift runs
without a supervisor. Second,
captains are assigned to the
dispatch center immediately
upon promotion, and are
often there only 6 months
to a year before moving
to another assignment.
Both of these issues leave
the dispatchers without
experienced supervision.
Without a designated lead
dispatcher or supervisor on
each shift, that leaves no
one with final responsibility
for making decisions. This
can lead to difficult working
conditions when two
dispatchers disagree about
what should be done in a
particular circumstance.

The fact that captains are assigned to the
dispatch center upon promotion, and not by
request, means they are often biding their time
to get back on a fire company (pumper, aerial,
quint). The dispatchers, meanwhile, are in the
position of training their supervisor, often more
than one per year. This leads to ineffective leadership in the dispatch center.

This problem can be handled in one of two ways, or a combination of the two. We recommend that one on-duty dispatcher be designated as “lead” or “supervisor” with commensurate out of class pay for that shift, if it is not a permanent assignment. With the addition of a third dispatcher to the day and swing shifts, these could be made supervisor positions. Current staffing provides peer dispatchers with no chain of command.

In addition, we recommend that the practice of assigning newly promoted captains to dispatch be discontinued. Constant turnover in this management position is inefficient. We recommend these assignments be bid, and that they be for a minimum of two years. If this cannot be accomplished, the role of the on-duty supervisor could be filled by a civilian employee.

Finally, we recommend enhancing the training of dispatchers to ensure that they meet the minimum standards for Public Safety Telecommunicators as defined by the Association of Public-safety Communications Officials (APCO).

**Dispatch Operating Procedures**

The more than 40-page Fire Communications Procedures and Protocols document was reviewed and revised on June 30, 2014. In the time we spent talking with dispatchers, it became apparent that much of the document was not in accord with current practice.

Many items in the document are no longer performed, or are performed differently than is described. Senior dispatchers did not participate in the process of review or revision of the document, which is likely why it is not accurate. We recommend that another review of the written dispatch center operational procedures be performed to assure that these procedures mirror actual practice. Dispatchers should be involved in the process to assure that there is common understanding and support of these policies.

As a part of this review, we recommend a review of deployment procedures to assure that the proper number of emergency response units are assigned based on the type of emergency.

The KCKFD should:

- Complete the implementation of the new Computer Aided Dispatch (CAD) system. Assure representation of KCKFD operations members and dispatchers in the process.
- Add a third dispatcher to the day and swing shift. Current dispatch staffing is inadequate for the administrative and emergency service demands of the dispatch center.
- Designate one on-duty dispatcher position as a “lead” or “supervising” dispatcher on-duty at all times in the Center. Current staffing provides peer dispatchers with no chain of command.
- Conduct a compensation and benefits analysis for dispatchers. Dispatcher turnover is inefficient and has a negative impact on KCK Fire operations.
- Seek ways to establish effective leadership and supervision in dispatch. Discontinue the practice of assigning newly promoted Fire Captains to the dispatch center. Constant turnover in this management position is inefficient. Seek ways to achieve long term supervision through civilian career supervisors or Captains on longer assignments (2-3 years).
- Review written dispatch center operational procedures to assure that these procedures mirror actual practice. Involve dispatchers in this process to assure that there is common understanding and support of these policies.
- Review deployment procedures to assign the appropriate number of emergency response units to each incident type. Seek an appropriate balance with the level of initially dispatched resources and anticipated needs.
- In many communities an ambulance may be dispatched alone to some medical emergencies and a fire suppression
unit may be dispatched alone to some emergency medical incidents. Additional resources are requested as needed.

**Training**

We recommend that the department assess its current training programs for incumbent firefighters, including driver training, and adjust them to ensure high quality and standardization across the department. Once firefighters leave the recruit academy, training in KCKFD is left almost entirely to company officers. The lack of an overarching training program can lead to insufficient and inconsistent training of firefighters. The amount and content of training at a company is overly dependent on the motivation, skill and interests of particular company officers.

Keeping accurate and complete training records is also an essential component of this process. These records are required as a part of Insurance Service Office reviews.

Seeking nationally accredited fire instructor certification for all members assigned to the Training Division would facilitate strengthening the department’s training program.

Current training facilities should be upgraded to provide quality training to both recruit and incumbent firefighters.

Establishing a professional development program would be especially beneficial given the recent and anticipated turnover in fire department executive and middle management positions. Expanding the department’s training program to complement the promotional process would strengthen and unify the next generation of drivers, company officers, command officers, and executives. Further, it would aid in succession planning and facilitate smooth transitions between ranks and from one fire administration to the next.

A portion of the professional development program should focus on enhancing the management skills of existing managers and executives as well as providing information and education to future fire department managers.

The KCKFD should:

- Provide a training facility sufficient for recruit firefighter training and in-service firefighter continuing training.
- Assess the efficacy of current incumbent firefighter training programs, including driver training.
- Seek nationally accredited Fire Instructor certification for all members assigned to Training.
- Implement a professional development program to train the next generation of drivers, company officers, command officers, and executives. Integrate promotional process regulations into the program.
- Implement a management development program to enhance the management skills of existing managers and executives as well as providing information and education to future fire department managers.
  - With the recent and expected turnover rates in fire department executive and middle management positions, this is especially important.

**Mutual Aid**

In today’s economy, communities must rely and support each other when a major event happens. This is a reciprocal relationship of one community helping the other for the day when the roles are reversed. No one community has enough resources to respond adequately to a major event. In most areas of the United States and Canada, agencies depend on neighboring communities for their surge in capability when a major event occurs.

The KCKFD currently provides mutual aid services to Bonner Springs and Edwardsville upon request. These communities are willing to reciprocate but are not often called upon to respond. Currently, regional and long-term cooperation with the KCMO Fire Department is outstanding but opportunities exist to expand and enhance day-to-day cooperation.
The KCKFD should:

- Seek closer cooperation with neighboring fire departments including opportunities for automatic mutual aid to border areas and target hazards.
  - Currently, there is limited day-to-day cooperation with the KCMO Fire Department and fire departments in Johnson County on an operational level. Opportunities to increase should be explored.

- Explore an increase in the level of involvement with Bonner Springs and Edwardsville Fire Departments. Assess the level of training and operational capability that departments can offer, and seek a quid pro quo arrangement.

- Explore options for further cooperation including joint purchasing, training, pre-planning, combined dispatch operations, and regional specialized operations capabilities.

Emergency Medical Services

The goal of any emergency medical system is the effective and coordinated delivery of health care services, under emergency conditions. Emergency medical response for the citizens and visitors of Wyandotte County, excluding Bonner Springs and Edwardsville, is proudly provided by the KCKFD. When the KCKFD began delivering medical services in 1974, it earned the distinction of being the second advanced emergency medical service provider in the entire State of Kansas. After outsourcing emergency ambulance transportation to the private sector in 1995, the KCKFD returned to providing advanced and basic life support ambulance transport services in 2004.

- Consider a pre-planned mix of peak-time and full-time ambulances to most efficiently address the need for ambulance transportation.
  - Initial analysis of deployment data indicates that at least two ambulances of the current 9 could be in service less than 24-hours per day.

The KCKFD responds to an average of 18,890 emergency medical requests for service annually. Paramedics provide emergency first response service on the closest pumper, aerial, or quint company. These 22 units are staffed with a minimum of one paramedic and the balance made up of emergency medical technicians. First response units are statically deployed throughout the county in an attempt to provide a 4-minute first response capability and a 5-minute defibrillation capability in a majority of the county. There are 9 uniquely purposed ambulances and 3 ambulances that are cross-staffed. The 9 ambulances are currently staffed to provide advanced life support 24 hours per day. The cross staffed units are put into service when the system level drops to less than 5 of the 9 available units. At that time, the apparatus driver moves to the driver position of the ambulance, the paramedic becomes the ambulance provider and the Captain remains at the station, out of service with the apparatus.

Cross staffing may be defined as utilizing a crew to staff two apparatus or functions. The functions are mutually exclusive meaning the crew will provide the function that is needed first and eliminate the possibility of offering the alternative function until the unit is back in service. Three KCKFD EMS units provide this dual responsibility of fire suppression duty response or EMS transport. Collectively, this accounted for a very small proportion (1/4 of one percent) of the requests for ambulance service over the course of the last two years.

Demand analysis over the last two years indicates peak time service use mostly during the weekday and into the evening. Demand is consistently busy from 9:00 a.m. to 9:00 p.m., regardless of the day of the week. For the study sample, Wednesday and Saturday were the busiest days of the week. Tuesdays and Fridays were the slowest days, with the busiest day only being 4% busier than the slowest.

When ambulance demand requires it, ambulances are redeployed to cover when other ambulances are out of service. This may require
on-duty crews to move in the middle of the night despite the fact that there still exists ALS first response in that area.

Unit hour utilization (UHU) is an important workload indicator. It describes the amount of time a unit is available for response. The larger the number, the greater a unit’s utilization and the less available it is for assignment to an incident.

UHU is calculated by dividing the total number of minutes that an ambulance is unavailable for response (on an incident, transporting, other out-of-service) by the total number of minutes in that time period. A low UHU means that the ambulance is available for response more often, a high UHU means that the ambulance is unavailable for response more often.

Typically, EMS organizations strive for the highest utilization rates possible, especially in the private sector.

**KCKFD Unit Hour Utilization**

When studied over the course of the last two years, all KCK EMS units exceed the 0.1 average unit hour utilization. An opportunity exists to re-evaluate ambulance deployment as stations are relocated and resources redeployed as part of this study. A target on-time response set by community leaders may help to focus this redeployment.

- Require paramedics to gather full billing information on customers. Better and more timely information will increase revenue. Technology is currently available to facilitate this function.

- Current revenue collections are lower than what might be expected. Reliance on the billing contractor to assemble needed information to prepare a bill is inefficient.

In order to collect ambulance fees, it is imperative that appropriate patient information be collected at the time of service provision.

At a minimum, patient name, birth date and address should be documented for every patient. In discussing this with KCKFD staff, it became apparent that this basic information is not collected on a large percentage of patient transports. Instead, the Department relies on the third-party billing vendor, Intermedix, to perform skip tracing in order to bill Medicare, Medicaid, private insurers or the non-insured. Medicare, Medicaid and private insurers all have specific requirements that must be met in order for them to pay. In addition, there are usually strict time requirements as to how quickly a bill must be received by the insurer, and if it is not received within that period, it will not be paid. We recommend that on-scene EMTs or paramedics be required to gather full billing information on patients. Better and timelier information will increase revenue. Technology is currently available to facilitate this function.

KCKFD uses a third-party provider to perform ambulance billing. In 2004, the UG contracted with Medibanc, who, through a series of

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**Unit Hour Utilization Range**

- .55 - .45 – High Utilization
- .45 - .35 – Above Average Utilization
- .35 - .25 – Average Utilization
- .25 - .15 – Below Average Utilization
- .15 - .01 – Low Utilization
acquisitions became Intermedix. The current contract with Intermedix was for the period of July 1, 2009 through May 31, 2012, with 3 one-year renewal periods. This contract fully expired May 31, 2015.

Intermedix is paid 7% of net collections. This appears to be high, with other governments paying 3-4% of net collections for third-party ambulance billing.

Intermedix’s collection rate runs at about 50% after adjustments required by Medicare, Medicaid and private insurers. A 70-80% collection rate after required adjustments is considered very good. See the table below for recent collections experience.

If the net collection rate in 2014 had been 70%, it would have resulted in an additional $1.7 million in revenue gross of fees to Intermedix. We believe that KCKFD’s reliance on Intermedix to obtain information needed for billing contributes to the unsatisfactory net collection rate.

- Modify the assignment procedure for firefighter paramedics and firefighter EMT’s on ambulances to allow for long term assignments to a single fire station rather than continual rotation.
- More stable assignments for firefighter paramedics will increase supervision and raise morale.
- Assign all firefighters to a fire station/shift. Allow the company officer in each station to appropriately utilize staff on engines, ladders, quints, and ambulances.

Through station visits and discussion at all levels of the organization, it is readily apparent that there exists job dissatisfaction within the ranks. In particular, paramedics who have much of the public interaction, feel least supported. This can be seen in the attempts to move to driver or other positions that will allow personnel to “escape” the ambulance. Personnel report inconsistent assignment to the ambulance. Some personnel reported that other paramedics have been prematurely removed from the rotation, while others with the same seniority date remain rotating on the ambulance. This assertion was contradicted by the Fire Chief. With the lack of new paramedics being hired, many feel “trapped” on the ambulance. This can be reflected onto the public who require service from individuals who lack the support that they need. When asked if there was an incentive for existing EMT’s to become paramedics there was a resounding no throughout the organization.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Billed</th>
<th>Req. Adjustments</th>
<th>Payments</th>
<th>Net Collection Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$13,617,542</td>
<td>$5,201,069</td>
<td>$4,331,916</td>
<td>51.5%</td>
</tr>
<tr>
<td>2013</td>
<td>$13,930,375</td>
<td>$5,412,245</td>
<td>$4,111,663</td>
<td>48.3%</td>
</tr>
<tr>
<td>2014</td>
<td>$13,247,093</td>
<td>$5,173,990</td>
<td>$3,968,506</td>
<td>49.2%</td>
</tr>
</tbody>
</table>

KCKFD currently provides ambulance transportation in non-emergency circumstances between medical facilities located in the county as well as to medical facilities outside of the county. These services generated approximately $400K in revenue in 2014. Provision of non-emergency transportation services is done by private contractors in many communities. KCKFD, in consultation with UG leadership, should conduct a cost-benefit analysis of this service. The efficiency of this service, in view of possible deployment changes for KCKFD ambulances, may be questionable.

- Perform a cost/benefit analysis of the non-emergency inter-facility ambulance transportation service detailed by the County plan.
- Allow private contractors to provide non-emergency services. Seek a franchise fee from private sector providers, provide oversight.
Steps should be taken to implement a job enrichment program for paramedics throughout the organization. In part, this would be a more consistent and equitable rotation of personnel on the ambulance. This would allow for opportunity for all providers to use their advanced skills more often and less of a reliance on a small group of individuals who are primarily assigned to an ambulance.

Organizational culture, particularly in the fire service, is set by things like member identity, group emphasis, people focus, and unit integration. Paramedics assigned to the ambulances expressed feelings of disassociation from members assigned to other units. They are regularly assigned to a variety of ambulances and have no “home”. This creates challenges of integrating the crew and for reasons of safety and accountability.

These ambulance crews are transient visitors to a station and have no real reporting function to the station Captain. Instead they report functionally to a separate Battalion Chief. Members should be assigned to stations rather than to apparatus. This would allow for greater accountability, offer station captains the opportunity to best utilize crews, and can ensure a consistent rotation of personnel to maintain skill levels in all functional areas.

We suggest that the Fire Chief convene a committee of KCKFD members from all ranks and with varying amounts of service time to discuss these issues and suggest solutions and strategy to the Fire Chief.

Fire Prevention

Model fire prevention programs incorporate code enforcement, fire prevention education, and fire investigation activities. Fire prevention employees ideally work with those on the suppression side of the organization to identify common causes of fire in the community and tailor public education toward reducing those causes. A strong code enforcement program ensures that new construction meets fire codes and that existing buildings are safe and inspected according to law. Fees collected as part of code activity may help support their work. The KCKFD does not currently charge fees for fire prevention related services. Fees should be considered for services such as new construction or building renovation plan reviews and for mandated inspections such as those for day care or senior care facilities.

The KCKFD should:

- Assess fees for Fire Prevention services such as mandated inspections, construction plan review, and permits. Set fees at a regionally acceptable level. Utilize revenue to staff Fire Prevention at a level where mandated inspections can be completed in prescribed timeframes.
- Develop a public education program to provide KCK residents with information on such topics as fire safety, injury prevention, and safety for the elderly. Consider the utilization of volunteers such as retired teachers and others to provide education for targeted groups.
- Utilize fire companies and voluntary self-inspection programs for low hazard occupancies. Boost tactical familiarization for fire companies in target hazards.
- Review the need for fire investigators to be classified as command officers and consider, instead, assigning a trained Captain Investigator to each shift

Fire Deparment Facilities

Fire stations provide workers with a safe environment to train and prepare for emergency request for service. The station can be a community safe haven for the vulnerable in the community. Lastly, the fire station houses and protects the community’s apparatus investment from the natural elements.

A review of the physical condition of all KCKFD fire stations was conducted. A full copy of the assessment is included as an appendix to this report. The condition of KCKFD facilities varies widely from stations that are essentially beyond economic repair to stations that are in good
condition. The facility assessment guided the fire station consolidations that are included in this report.

The KCKFD should:

- Develop a multi-year plan to optimize fire station deployment and structural conditions based on this report’s detailed resource deployment recommendations, “Standard of Cover”, and fire station physical condition assessments.
- Fire station coverage in the eastern part of the County is dense, while coverage in the western part of the County is too light.
- A number of interdependent deployment modifications are possible including:
  - Redeployment of selected resources from Fire Station 10.
  - Consolidation of Fire Station 3 and Fire Station 7 to a new hub facility in the area near 18th Street and Kansas Avenue. Redeployment of quint and ambulance and aerial ladder to hub station, and E7 crew redeployed to create 4 person crews at needed stations.
  - Consolidation of Fire Station 16 and Fire Station 17 to a new hub facility in the area near 55th between Metropolitan and Oak Grove. Redeployment of one pumper and crew to hub station, one ambulance and crew to selected location, and E16 crew redeployed to create 4 person crews at needed stations.
  - Consolidation of Fire Station 11 and Fire Station 14 to a new hub facility near Wood Avenue and 27th Street. Redeployment of one pumper and aerial ladder to hub Station and E11 crew redeployed to create 4 person crews at needed stations.
  - Consolidation of Fire Station 5 and Fire Station 15 to a new hub station at or near existing Station 5 location. Redeploy one pumper and crew to new hub station, the ambulance to a selected location, and the crew of E15 redeployed to create 4 person crews at needed stations.
- The addition of a new fire station in the area of Hollingsworth between 115th and 107th to provide service in an area that is currently underserved.
- The addition of a new fire station in the area of 99th and Donahoo to provide service in an area that is currently underserved.
- Utilize the above possibilities, NFPA Standard 1710, Insurance Service Office (ISO) recommendations, and local area knowledge to help guide exact County-wide station placement.

Fire Department Fleet and Logistics

Communities rely on specialized equipment to safely carry firefighters and their tools to the scenes of emergencies. Fire fighting apparatus must be reliable as they are the tools for providing fire suppression and emergency medical services.

The KCKFD should:

- Refresh the fire apparatus, ambulance, and vehicle replacement schedule. Develop a multi-year plan for replacement.
  - There is no national standard for fire apparatus replacement.
  - Fire apparatus are typically utilized for a period of time in front line service and then for a period of time as “reserve” apparatus. High reliability is important in both assignments.
- Complete the relocation of the KCKFD fleet maintenance operation to a new facility.
- Seek Emergency Vehicle Technician (EVT) certification for all fire apparatus mechanics. Evaluate the need for additional
staff to service an aging fire apparatus and ambulance fleet.

- Develop a quartermaster program to manage KCKFD inventories of supplies, protective clothing, and assets. Add a supplies clerk position to manage the program.

- Provide sufficient space in the fire department logistics facility for the appropriate storage of supplies and vehicle parts and the maintenance of equipment such as Self-Contained Breathing Apparatus (SCBA)

**Benchmarking**

The benchmarking of fire-rescue departments is a process which aims to provide useful comparisons of a given department with either its own status, cost, and performance over time, using regularized periodic assessments (self-benchmarking), or structured comparisons with other departments which are identified as "similar" (inter-department benchmarking).

Once a department identifies the elements and variables of concern plus its definitions of progress and setback, the collection of appropriate data leads readily to useful self-benchmarking indicators. However, useful comparison with other departments (inter-department benchmarking) typically requires a complex process to identify reliable, viable "similar" indicators of effectiveness and efficiency. This report presents selected inter-department benchmarking data.

The various fire service benchmarking categories may be viewed as “input” data (such as numbers of stations, apparatus, budget allocations); “operational status” data (such as daily response crew sizes, number of building inspectors on-duty, required training sessions); “service demand/output” data (such as emergency call statistics, building plans reviewed, citizen safety classes held); and “progress” data (such as diminished fire loss, savings in purchasing, reductions in overtime cost).

One advantage of benchmarking is that it allows officials to step back from their own agency and view correlations between the input data and the output data of other “semi-similar” agencies. Positive movement (progress) of a department, however, typically is best measured by periodic internal benchmarking based on strategic plan goals.

A basis for useful benchmarking is the understanding that almost every comparison made with “outside” entities requires awareness of the inherent differences between the communities they serve.

**Benchmark Fire Departments and KCK Fire Department**

The quite unique characteristics of Wyandotte County’s geography, total population, demographics, and varied structural density, coupled with the concentrated location of its fire stations, its staffing patterns, and its strong focus on ambulance transport greatly limit the identification of fire departments eligible for meaningful comparison across a spectrum of data points.

Nevertheless, after reviewing basic geographic, population, and fire service data for approximately 225 American municipalities (US census data, the National 2014 Fire Department Survey of 249 departments, the US Metro Fire Chiefs Association listings, and two confidential municipal comparison lists), the FACETS team selected 10 municipal fire departments for comparison with the KCKFD.

These are:
- Cape Coral, Florida
- Des Moines, Iowa
- Independence, Missouri
- Mobile, Alabama
- Olathe, Kansas
- Peoria, Arizona
- Port St Lucie County, Florida
- Rockford, Illinois
- Springfield Missouri
- Topeka, Kansas
Basic Comparisons

The following chart presents basic information concerning the 10 municipalities and their fire departments chosen for benchmarking with the KCK Fire Department.

We note three important caveats: Data category items submitted by the 10 departments vary with their record keeping and reporting methodologies; terminology varies considerably among regions; and the scope and nature of

Data on Benchmarked Departments

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population</th>
<th>Sq. Miles</th>
<th>Stations</th>
<th>Fire Calls</th>
<th>EMS Calls</th>
<th>Employees – Uniformed/ Civilian</th>
<th>Workweek - Shift</th>
<th>FF on Shift</th>
<th>Engine</th>
<th>Ladder</th>
<th>Amb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Coral FL</td>
<td>165,831</td>
<td>122</td>
<td>11</td>
<td>292</td>
<td>17,109</td>
<td>208</td>
<td>48h - 3</td>
<td>51</td>
<td>11ALS</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Des Moines IA</td>
<td>209,220</td>
<td>82.6</td>
<td>10</td>
<td>606</td>
<td>14,645</td>
<td>268/12</td>
<td>53h - 3</td>
<td>80</td>
<td>9A,BLS</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Independence MO</td>
<td>117,240</td>
<td>78.25</td>
<td>10</td>
<td>633</td>
<td>10,815</td>
<td>157/6</td>
<td>49.5h - 3</td>
<td>52</td>
<td>10 BLS</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Mobile AL</td>
<td>244,376</td>
<td>159.4</td>
<td>20</td>
<td>1693</td>
<td>22,375</td>
<td>522</td>
<td>56h - 3</td>
<td>123</td>
<td>21 ALS</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Olathe KS</td>
<td>133,062</td>
<td>60.42</td>
<td>7</td>
<td>265</td>
<td>6,164</td>
<td>102/29</td>
<td>56h - 3</td>
<td>34</td>
<td>4 ALS</td>
<td>4 ALS</td>
<td>0</td>
</tr>
<tr>
<td>Peoria AZ</td>
<td>166,934</td>
<td>178</td>
<td>8</td>
<td>1908</td>
<td>15,638</td>
<td>140/22</td>
<td>48h - 3</td>
<td>36</td>
<td>7 ALS</td>
<td>2 ALS</td>
<td>0</td>
</tr>
<tr>
<td>Rockford IL</td>
<td>150,251</td>
<td>61.95</td>
<td>11</td>
<td>638</td>
<td>20,732</td>
<td>261/21</td>
<td>51h - 3</td>
<td>59</td>
<td>9 ALS</td>
<td>4 ALS</td>
<td>7</td>
</tr>
<tr>
<td>Springfield MO</td>
<td>165,378</td>
<td>82.31</td>
<td>12</td>
<td>907</td>
<td>8,218</td>
<td>225/8</td>
<td>56h - 3</td>
<td>56</td>
<td>10 ALS</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>St Lucie Co FL</td>
<td>286,832</td>
<td>688</td>
<td>17</td>
<td>5491</td>
<td>40,264</td>
<td>384/51</td>
<td>48h - 3</td>
<td>116</td>
<td>17 BLS</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Topeka KS</td>
<td>127,473</td>
<td>61.47</td>
<td>12</td>
<td>673</td>
<td>14,118</td>
<td>241/4</td>
<td>56h - 3</td>
<td>48</td>
<td>12 BLS</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Kansas City KS</td>
<td>145,786</td>
<td>129</td>
<td>18</td>
<td>718</td>
<td>20,689</td>
<td>426/5</td>
<td>53h - 3</td>
<td>100</td>
<td>19 ALS</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>
local emergency medical services – while very relevant to staffing and cost – greatly influence equalized comparisons. This is especially important with the KCKFD, where all engines are staffed and equipped for Advanced Life Support services, and where a minimum of 9, possibly 12, ALS staffed transport ambulances are on duty 24/7, requiring up to 24 additional crew members each shift.

**Fire Prevention Efforts Compared**

Because the reduction of fire and emergency medical incidents is an obvious community goal, the attention and resources given to comprehensive prevention and public safety education are important. Fire Prevention inputs, in the form of personnel assignments to that division in each benchmarked municipality, are illustrated on the following chart, along with the annual number of fire calls reported by each fire department. (Most use the annual National Fire Incident Reporting System – NIFERS codes 100 thru 177 - which classify all types of fires, ranging from small fires occurring within buildings to wildland fires). Also listed are rounded population figures, the percentage of total uniformed workforce assigned to Prevention, and whether inspection/re-inspection fees are charged. Some cities, such as Cape Coral FL, apply a universal fire services tax to strengthen certain department resources.

Note: 1) *Fire Investigators* are not included in the personnel counts. 2) Olathe Fire Department has 7 typical “fire prevention” staff plus 17 staff assigned to comprehensive Building Code Enforcement. 3) Kansas City, KS Fire Department organizational chart shows 7 Fire Prevention positions, of which 4 were filled and operating as of Aug. 4, 2015.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Population rounded</th>
<th>Fire Prev Staff</th>
<th>FP Staff % WKForce</th>
<th>Annual Fire Calls</th>
<th>Inspection Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Coral FL</td>
<td>166,000</td>
<td>10</td>
<td>0.048</td>
<td>292</td>
<td>yes</td>
</tr>
<tr>
<td>Des Moines IA</td>
<td>209,000</td>
<td>8</td>
<td>0.029</td>
<td>606</td>
<td>yes</td>
</tr>
<tr>
<td>Independence MO</td>
<td>117,000</td>
<td>6</td>
<td>0.038</td>
<td>633</td>
<td>no</td>
</tr>
<tr>
<td>Mobile AL</td>
<td>244,000</td>
<td>10</td>
<td>0.019</td>
<td>1693</td>
<td>yes</td>
</tr>
<tr>
<td>Olathe KS</td>
<td>133,000</td>
<td>7 + 17</td>
<td>0.068/.235</td>
<td>265</td>
<td>yes</td>
</tr>
<tr>
<td>Peoria AZ</td>
<td>167,000</td>
<td>6</td>
<td>0.042</td>
<td>1908</td>
<td>yes</td>
</tr>
<tr>
<td>Rockford IL</td>
<td>150,000</td>
<td>5</td>
<td>0.019</td>
<td>638</td>
<td>no</td>
</tr>
<tr>
<td>Springfield MO</td>
<td>165,000</td>
<td>8</td>
<td>0.035</td>
<td>907</td>
<td>yes</td>
</tr>
<tr>
<td>St Lucie Co FL</td>
<td>287,000</td>
<td>9</td>
<td>0.023</td>
<td>5491</td>
<td>no</td>
</tr>
<tr>
<td>Topeka KS</td>
<td>127,000</td>
<td>6</td>
<td>0.026</td>
<td>673</td>
<td>no</td>
</tr>
<tr>
<td>Kansas City KS</td>
<td>146,000</td>
<td>4 of 7</td>
<td>.009/.016</td>
<td>718</td>
<td>no</td>
</tr>
</tbody>
</table>
### Fire Department Resources, Emergency Response Workload, and Cost Related to Residents Compared

<table>
<thead>
<tr>
<th>Municipality</th>
<th>On duty FF per 1000 Residents</th>
<th>Total FD employees per 1000 Residents</th>
<th>Avg Sq miles per Station</th>
<th>FD budget cost / Resident</th>
<th>Total emerg incidents /1000 Residents</th>
<th>Fire incidents/1000 Residents</th>
<th>Medical incidents/1000 Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Coral FL</td>
<td>0.31</td>
<td>1.25</td>
<td>11.1</td>
<td>159.23</td>
<td>104.9</td>
<td>1.76</td>
<td>103.2</td>
</tr>
<tr>
<td>Des Moines IA</td>
<td>0.38</td>
<td>1.33</td>
<td>8.3</td>
<td>165.45</td>
<td>72.9</td>
<td>2.89</td>
<td>70</td>
</tr>
<tr>
<td>Independence MO</td>
<td>0.44</td>
<td>1.39</td>
<td>7.8</td>
<td>140.44</td>
<td>97.6</td>
<td>5.4</td>
<td>92.3</td>
</tr>
<tr>
<td>Mobile AL</td>
<td>0.50</td>
<td>2.13</td>
<td>8</td>
<td>111.14</td>
<td>98.5</td>
<td>6.93</td>
<td>91.6</td>
</tr>
<tr>
<td>Olathe KS</td>
<td>0.26</td>
<td>0.98</td>
<td>8.6</td>
<td>125.49</td>
<td>48.3</td>
<td>1.99</td>
<td>46.3</td>
</tr>
<tr>
<td>Peoria AZ</td>
<td>0.22</td>
<td>0.97</td>
<td>22.3</td>
<td>137.78</td>
<td>105.1</td>
<td>11.43</td>
<td>93.7</td>
</tr>
<tr>
<td>Rockford IL</td>
<td>0.39</td>
<td>1.87</td>
<td>5.6</td>
<td>285.01</td>
<td>142.2</td>
<td>4.24</td>
<td>138</td>
</tr>
<tr>
<td>Springfield MO</td>
<td>0.34</td>
<td>1.4</td>
<td>6.9</td>
<td>115.43</td>
<td>55.2</td>
<td>5.48</td>
<td>49.7</td>
</tr>
<tr>
<td>St Lucie Co FL</td>
<td>0.40</td>
<td>1.51</td>
<td>40.5</td>
<td>296.86</td>
<td>159.5</td>
<td>19.1</td>
<td>140.4</td>
</tr>
<tr>
<td>Topeka KS</td>
<td>0.38</td>
<td>1.92</td>
<td>5.1</td>
<td>196.25</td>
<td>116</td>
<td>5.28</td>
<td>110.8</td>
</tr>
<tr>
<td>Kansas City KS</td>
<td>0.57</td>
<td>2.95</td>
<td>7.2</td>
<td>293.62</td>
<td>146.8</td>
<td>4.92</td>
<td>142.0</td>
</tr>
</tbody>
</table>

Observations drawn from the above chart are tempered with awareness of important differences among the benchmark cities and their fire departments and the KCK fire department.

- The number of on-duty firefighters is highest in KCK, likely because of its high number of stations (18) needing crews and the need for certified emergency medical personnel to staff a minimum of 9 ambulances 24/7, two per ambulance, with up to 3 possible additional ambulances when necessary. However, not all fire units are staffed to the national standard.

- The total number of employees for each of the departments is a function of many variables: the number of stations and fire response districts in each city; the number of apparatus deemed necessary and the staffing decided for each; the number of shift supervisors for incident command, EMS, safety, fire investigation, etc.; plus the number of fire prevention staff, training staff, repair and logistics, communications and (in some departments) dispatchers, office personnel, etc. The number is highest in KCKFD due in part to the EMS ambulance program, and in part to in-house decisions to emphasize certain functions.
The number of stations per square mile is a function of both local geography and history, coupled with the cost and consideration needed to remove stations and/or construct additional stations in developing areas. The creation of the enlarged western developing UG emergency response area, and the historical decisions to highly protect the “city” downtown area have created a station location challenge for the KCKFD, even though the present average square miles per station statistic is reasonable.

The average cost per resident for the departments illustrated varies because of how fire departments budget. In some jurisdictions, benefit costs are not included in the fire department budget. In some communities providing ambulance service, credit for revenue may or may not be reflected in the fire department budget. Without further analysis, this metric may be of limited value in assessing costs.

The number of emergency incidents per 1000 residents (146.8) is high for the KCKFD service area, but this appears driven by the high total number (20,689) of emergency medical calls to the KCK Department, since the number of fire type emergency incidents appears slightly high but not abnormally so, when compared to the other benchmark departments.

KCKFD status statistics, when compared with those of the benchmark departments, appear to indicate the following: high emergency medical service demand provided by a Department which has staffed to meet that demand; an apparent station and crew overlap in a developed area and need for additional coverage in a developing area; a relatively high number of employees in certain functions; a possible need for restructuring operational policy (in part to possibly reduce EMS demand over time); plus the assignment of firefighters to developing Wyandotte County areas, all accomplished while slightly reducing the number of total employees over a mid-range planning horizon.

Firefighter and Paramedic Recruitment

The KCK Fire Department, more than any public safety agency in Wyandotte County, fails to reflect the racial, ethnic, and gender diversity of the community it serves. The graduation in 2014 of a predominantly white male fire recruit class drew attention to this lack of diversity. Mayor Mark Holland established a public safety recruitment task force to study the issue and recommend measures to increase diversity in the KCKFD. The U.S. Department of Justice was invited to participate in this evaluation.

The International Association of Women in Fire and Emergency Services recommends 17% as
a realistic goal for women firefighters. Reaching that target would bring the fire department in line with female representation in other jobs classified by the U.S. Census Bureau as “demanding, dirty, and dangerous occupations.”

The KCKFD should:

- Develop a comprehensive recruitment, testing, vetting, and firefighter training program that eliminates any identified barriers to the employment of any Kansas City resident as a Kansas City Firefighter.
- Review the impact of current policies on age, EMT/Paramedic certification, pre-employment medical and psychological testing, interviews, and other factors. Adjust policies as appropriate.
- Consider and implement, as appropriate, the recommendations of the Mayor’s Public Safety Recruitment Task Force.
- Increase the involvement and oversight role of UG Human Resources in the selection process. Restructure the role of the Fire Chief in the selection process.
- To the extent possible, utilize nationally recognized processes and standards. For example, utilize the Candidate Physical Ability Test (CPAT) in place of the current locally-developed physical test.
- Increase the involvement and oversight role of UG Human Resources in KCK Fire Department promotional processes.

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3 National Fire Protection Association. (2010). NFPA 1710: Standard for the organization and deployment of fire suppression operations, emergency medical operations, special operations to the public by career fire departments. §5.3.3.3.1 and §5.3.3.3.2

Introduction

The term “Standards of Fire Cover” originated in Great Britain relating to the degree or “weight” of fire suppression coverage provided to a neighborhood. It provides the number of apparatus, with crew, to be dispatched to various type emergencies in urban areas, towns, and villages, and the maximum response times allowed for each. A minimum full suppression assignment in urban areas is identified as 3 pumpers and an aerial ladder, with full crews.

The term “Standards of Cover” (SOC) was widely adopted by the US Fire Service following the approval in 2001 of NFPA Standard 1710, which specifies the minimum required number of firefighters and apparatus, and the maximum response times.

The awarding of fire department accreditation requires a detailed self-examination of Standards of Cover to assure a reasonable level of protection for the local community. It is an industry standard and a best practice.

The U.S. Department of Commerce, National Institute of Standards and Technology, in its Technical Note 1661, (p.18) states that “a standard of response cover represents the policies and procedures that determine the distribution, concentration, and reliability of fixed and mobile resources for response to fire, as well as other kinds of technical response, related to service commitments to the community.”

There are 3 components of SOC: Capability, Availability, and Capacity.

1) Can the fire department get to the emergency with the technical knowledge, skills, preparation, and resources necessary to save lives and properly mitigate that particular type of incident? (CAPABILITY: Is it capable of safely doing what’s needed?)

2) Can the department arrive quickly enough, without delay, with sufficient trained responders and required apparatus and equipment, to safely and expeditiously perform the necessary tasks? (AVAILABILITY: Can it get there quickly enough to do what’s needed, considering that most emergencies require simultaneous task performance by line firefighters, not sequential?)

3) Does the department have enough responders, apparatus, and equipment to handle its typical hourly/daily call volume in a timely, safe manner with its available resources? (CAPACITY: Can it handle its regular workload adequately?)

The following provide the minimum parameters for standard emergency response operations:

- **NFPA Standard 1710:** Four minutes zero seconds road time for the first arriving pumper plus 4 firefighters minimum, and 8 minutes zero seconds for a minimum of 16 firefighters and necessary apparatus as a “full 1st alarm assignment”, for a single family detached dwelling fire, minimum 90% of annual fire runs.

- **OSHA requirements concerning numbers and assignments of responders:** “2 firefighters inside – 2 firefighters outside”, plus presence of a “Rapid Intervention Team” as required by Federal Code of Regulations 29 CFR1910.134.*

- **State and local safety and emergency medical stipulations** as directed by the Fire Chief’s General Orders/SOPs, advised by the FD Safety Chief and Medical Director.

- **American Heart Association and American Medical Association advisories**, and directives of the KCKFD Medical Director.

- **Industry Standards plus Best Practices**, providing adequate “Standards of Care” and “Prudent Man” legal defense, plus safe and cost-effective service delivery.
The policy of two-in, two-out refers to United States Occupational Safety and Administration Health policy 29 CFR 1910.134(g)(4)(i) which mandates that firefighters never go into a fire or rescue structure alone, and that there be two firefighters outside the IDLH hazard area to initiate a rescue of the firefighters inside, should they become in trouble, during the initial stages of the incident where only one crew of four is operating in the hazard area. Once a second crew is assigned or operating in the hazard area, the incident is no longer considered in the initial stages and a dedicated Firefighter Assist and Search Team or Rapid Intervention Crew is required.

The KCKFD service area has the following characteristics and relevant target hazards:

- The Kansas City Fire Department's official service delivery area encompasses all of the Wyandotte County area included under the “Unified Government” (UG) agreement.
- Neither the city of Bonner Springs (17.5 sq. miles, estimated pop. 7,500) nor the city of Edwardsville (9.5 sq. miles, estimated pop. 4,400) are included under the UG agreement, and each has provided for its own basic fire and EMS protection. Only occasional mutual aid with KCKFD takes place.
- The KCKFD service area size is approx. 129 sq. miles, with an estimated 2014 population of 146,000, all protected by the KCKFD with 18 stations.
- The historical urban development of the KCKFD service area took place in the approximate eastern half of the now UG combined City and County area, and considerably more than half of KCK’s 18 fire stations were, and still are, located in the more urbanized eastern area.

However, more recent and significant commercial and residential development has occurred in the western sections of Wyandotte County, with relatively limited new construction to the east.

- The urbanized downtown neighborhood area, with high rise structures, is located in the easternmost sector, adjacent to the river.
- There are 10 or more named residential and commercial “neighborhoods”, with several in the west County area.
- The entire UG area lies at the confluence of the Missouri and Kansas Rivers, with the land rising to the north away from the rivers. The area experiences 4 distinct climate seasons and is located on the fringe of “Tornado Alley”.
- With 62,000 housing units, the population density is approximately 1,168 / sq. mile, and the housing unit density about 497. Approximately 11% of residents are over the age of 65 and 27% are younger than 18.

Current possible target hazards for KCK Fire Department pre-planning, in addition to typical city and suburban medium and low risk occupancies, are the following:

- More than 2100 commercial occupancies including the large Associated Wholesale Grocers, Kansas City Steak Company, Cabelas, and Nebraska Furniture Mart
- About 250 day care, child care, and adult care occupancies
- Industrial and typical river areas, plus the Fairfax General Motors Assembly Plant
- 11 secondary schools
- Numerous elementary schools within 4 school districts in the County
- 3 colleges (The KCKFD operates under a State MOU giving inspection responsibility for 86 schools and colleges)
- The University of Kansas School of Medicine, Nursing, and Applied Health
- University of Kansas Medical Center
- Interstates 70, 435, 635, 670, K7 Freeway
- In the developing western area, Village West at routes 70 and 435, including Legends Shopping Mall, Nebraska Furniture Mart, the Entertainment District, Cabela’s, the
Staffing Factor

The staffing methods used for fire department positions in emergency service delivery assignments (pumper, aerial, quint, command, EMS) are unlike those used in many other governmental and private sector organizations. Each emergency response unit is staffed with a constant number of firefighters and fire officers or “constant staffing”.

Currently in the KCKFD, most pumpers are staffed with three firefighters and aerial and quint apparatus are staffed with four firefighters. If one of the assigned firefighters is not at work on a particular shift, that firefighter’s vacancy is constant staffed – or filled in with another firefighter. The absent firefighter could be off-duty due to vacation, military leave, sickness, or for other reasons.

To accommodate these planned and unplanned absences, fire departments utilize fill-in firefighters and firefighters hired back to duty on overtime. In order to provide adequate staffing to constant staff fire apparatus and minimize the need for overtime, fire departments utilize a staffing factor to determine how many firefighters should be employed by the department.

For example, a KCKFD aerial has four firefighters assigned to it and working each day. Firefighters work 24-hours on-duty followed by 48 hours off and they report for another 24-hour shift and the 24/48 cycle continues. Twelve firefighters are needed to staff the aerial on the three shifts (4 firefighters times 3 shifts = 12 firefighters. These 12 firefighters are insufficient to cover 4 on-duty spots due to the incidence of vacation and other leave so the KCKFD staffing factor is applied.

We performed an analysis of leave use for the KCKFD and found that the department’s staffing factor is approximately 4.1. In order to staff a firefighter position in operations 24-hours per day, the department needs to employ 4.1 firefighter positions.

The staffing factor for every fire department is unique and reflects contractual requirements such as leave accrual and Kelly days as well as operational leave impacts such as sick leave use, FMLA, and other types of leave.

In the KCKFD today, there are 100 on-duty positions in operations. Utilizing the KCKFD staffing factor, approximately 410 firefighters are needed to constant staff these positions. If the recommendations of this report are adopted and fully implemented, we project the need for 95 on-duty firefighters and fire officers. Applying the same 4.1 staffing factor, we project the need for approximately 390 firefighters and fire officers to constant staff these positions.

Opportunities exist to influence the KCKFD staffing factor – to either raise it or lower it. Granting additional leave to firefighters generally raises the staffing factor. Additional controls on leave types such as sick leave can reduce the staffing factor. Generally, any action taken to reduce time off will reduce the staffing factor.

The following chart lists the station, apparatus/vehicle, and personnel resources assigned to the existing 18 KCKFD fire stations in August 2015 and projected staffing if all of the deployment-related recommendations in this report are adopted and implemented:
### Current KCKFD On-Duty Staffing

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<tr>
<th>Station</th>
<th>Pumper</th>
<th>Pumper Staff</th>
<th>Aerial</th>
<th>Aerial Staff</th>
<th>Quint</th>
<th>Quint Staff</th>
<th>EMS</th>
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<th>Car</th>
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EMS4 and EMS20 cross-staffed on demand
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Consolidation of FS3 and FS7
Consolidation of FS16 and FS17
Consolidation of FS11 and FS14
Consolidation of FS5 and FS15
New Station Hollingsworth between 115th and 107th
New Station Donahoo and 99th
Two Peak-Time EMS units (2 selected at random for this illustration)
One on-duty Safety Officer
Eliminate On-Duty EMS Supervisor
Engine/Aerial/Quint on-duty staffing = 4
Pumper 10 Out of Service
KCKFD Fire Stations

The distribution of the 18 KCKFD fire stations is illustrated by MAP # 1, showing the clustering of 11 stations in the eastern third of the built-up UG area, the longer road distances between stations in the central third of the County (#2, #4, #18, #19, #20), and the remote locations of the two westernmost stations (#6 & #8) in the developing western third area.

Note that stations #15 in the northeast, #10 in the southeast, and HQ station #1 plus #3 in the east central area are each located so close to the UG boundary line that their most useful 360-degree arc response areas are seriously curtailed.

The close clustering of the 9 stations east of I 635 allows good (but not complete) response compliance with NFPA Standard 1710’s 4 minute response stipulation of 4 firefighters, but only because the 3 person pumper crews can be augmented by additional firefighter crews from nearby overlapping stations within 4 minutes travel time.
That favorable condition weakens considerably in the central area, and is absent in the far west due to Station #8's distinct isolation. **MAP #2** illustrates these existing response conditions with Station #4 as an example.

![Map #2](image)

**Kansas City Fire Department**
**Station 4 - 4 & 8 Minute Travel Time Capabilities**
MAP #3 Both NFPA and OSHA, plus Industry Standards and Best Practices, call for a minimum of 16 firefighters to be present at structure fires within 8 minute travel time. This size workforce is necessary because almost all fireground tasks must be carried out simultaneously, not sequentially, and time is of the essence. This is not possible in the southwest or the northwest section, and impossible in a much expanded NW area if quint 6 is out on a call while station 8 has an alarm.

MAP #3 also underscores a significant disability of KCKFD caused by the staffing of 14 pumpers by only 3 crew members each (except Engine Company #8 and the 4 quints and 3 aerials, each staffed with 4), and also because of the long response distances between stations in the western section of the service area.
Map #4 illustrates Station #8 engine's inability to provide aid within 8 minutes to the stations east of it, or to provide timely response to the area northeast of it.

Map #4

Kansas City Fire Department
Station 8 - 4 & 8 Minute Travel Time Capabilities
MAP #5 illustrates the inability of Station #6 to provide timely response or “2nd due” aid to the area north and west of Station #8.
MAP #6 shows the ability of the current 9 in-service ambulances to reach areas within 4 minutes running time, assuming housed at their current stations, #s 2, 3, 4, 5, 6, 9, 17, 18, and 20.
MAP #7 shows the same 9 ambulances responding for 8 minute travel time. Currently, an ambulance is dispatched to almost every EMS call, along with an ALS engine. In 2014, 84.9% of the 18,826 EMS calls resulted in hospital transport. While fire trucks are dispatched as well as ambulances to all EMS calls, they typically are not to those calls where the KCKFD ambulance is engaged in an inter-facility, non-emergency scheduled transport.
During the entire 12 months of 2014, no area serviced by KCKFD experienced fire incidents in excess of 50 per square mile, as illustrated on **MAP #8** during the mandated Federal “SAFER” grant period for the annual 4 quarters, beginning December 9, 2013 and ending December 8, 2014, the KCKFD reported 279 “Working Structure Fires”, a building fire where a “full first alarm assignment” of fire apparatus and firefighters was dispatched and used to control and extinguish the blaze.
Although day and time predictability are difficult to establish for fire, EMS, and other types of incidents, statistical reviews provide information which is valuable for determining possible variations in emergency unit scheduling to achieve efficient Standards of Cover. The following graphs illustrate, for 2014, the day of week and time of day average variations in fire and EMS alarms requiring a KCKFD dispatch:

While “day of the week” fire incident variations do not appear to be significant, “time of day” average variations indicate noticeably higher fire calls during the time from mid-morning to late evening through about midnight. For example, only 14 fire dispatches occurred over the 365 7:00 a.m. to 8:00 a.m. time periods during 2014. During 2014, however, 54 fire dispatches took place during the 365 3:00 p.m. to 4:00 p.m. time periods.
The EMS workload graphs illustrate that, during 2014, the KCKFD calls for emergency medical service peaked during the 24 hours of Wednesdays, for a total of 2542 calls over the 52 Wednesdays of that year. Two o’clock in the afternoon until three o’clock was the busiest hour of the day for KCKFD EMS calls, with a total of 969 calls occurring during those 365 time periods.
During the 12 months of 2014, KCKFD reported approximately 18,826 emergency medical calls. These calls were distributed throughout the service area as illustrated by 2014 EMS Incident Density Map #9.

**Observations/Recommendations**

Station locations do not provide optimal service delivery. Some areas are without adequate timely protection, and other areas have stations in close proximity to each other with some overlaps. Three stations are located too close to county boundary lines, with resultant limited arcs of response, for location efficiency. (HQ, #10, #15).

Computer response mapping indicates that some stations whose initial response zones overlap may be candidates for elimination in favor of a new consolidated (hub) station located advantageously between the current two. However, the existing station condition and age as rated in this study must be considered, as must county development, call volume changes, and compliance with national firefighter industry standards and practices in metro and suburban areas.
This report lists 7 fire station redeployment and construction recommendations. To be fully considered, these options will need, as strategic planning continues, consideration of the above variables, plus reported and anticipated county commercial and residential location patterns, population growth and customary resultant increased fire-EMS service needs, existing fire station activity, availability of suitable building sites, and cost/funding.

If all of these recommendations were implemented, the KCKFD will operate 16 fire stations and provide adequate response to a much larger portion of the UG. This 16 station configuration would enable the 4 and 8 minute response coverage illustrated by the following MAP #10:
When considering sites for station location, the following provide a rudimentary guide:

- Willingness of residential area developer or commercial/industrial facility to provide or fund a suitable station;
- Proximity to effects of possible natural or manmade large incidents, flooding, wind damage, power loss, major accidents;
- Site size and configuration, ramp length, drive-thru bays, single or multi story, nature of neighborhood and close-by structures, potential impacts, antennae tower;
- Ready access to higher speed response routes: n/s & e/w;
- Immediate traffic conditions, congested intersections, blockages, one way streets, effect of any necessary traffic control signal for exiting of apparatus;
- Site lines for exiting and entering; speed of normal traffic near site exit and entrance;
- Distance and response time to target hazards and known high workload areas;
- Topography of general area, needed site grading and compaction;
- Availability of necessary utilities;
- Competition for projected site; cost estimates, funding possibilities, grants;
- Need for temporary station if using existing site.

Priority augmentation of fire and EMS protection in the northwest station #8 area should be considered until a permanent plan is formed and implemented. The existing “move-up” cover plan is critical.
On May 18, 19 and 20, 2015, James Zwerg, AIA, performed physical inspections of the Kansas City Kansas Fire Department’s 18 fire stations. The intent of these inspections was to provide a third party neutral evaluation of the buildings, their structural integrity, general condition, level of upkeep and maintenance, to what extent they comply with building codes, and NFPA standards for safety. Mr. Zwerg was accompanied to each station by a Deputy Chief with very little advance notice to the on-duty crews to ensure an accurate observation of conditions and level of fairness in each evaluation.

Over half of the KCKFD stations are considered architecturally “historic”. The oldest opened in 1924 and the newest opened in 2001. The department averaged one station per decade with the largest growth of 6 stations occurring in the 1950's and 4 stations in the 1970's. These evaluations are based on current trends in maintenance and construction costs relative to square foot of building area. No property costs were included in this report.

New commercial construction in the Kansas City region of the U.S - $175 per sq. ft.

Large scale renovations in the Kansas City region of the U.S - $100 per sq. ft.

Abatement of hazardous building materials (removal only) $25 per sq. ft.

Note that the vertical wall surfaces and roof areas must be included in the area take-off and total square footages can exceed 4 to 5 times that of the floor plan. The 15 oldest fire stations would likely require complete abatement (removal) of plaster, piping, insulation and roof materials resulting in a complete “gutting” of the building. These costs, coupled with the renovation (replacement material) costs would likely exceed $250 per sq. ft.

Fire Station 1 – Administration

Opened in 1930, this station serves as the main fire station and administration building with all department division and section offices within. This 2-story structure is approximately 36,700 sq. ft. and has a partial basement used for EMS training, offices and storage space. It is constructed of limestone walls and cast in place concrete floors. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. No significant renovations were observed and the overall condition is worn and deteriorating. Several small projects have been performed such as carpeting and office partitions in the administration areas and partitions to separate dormitory spaces in the fire station areas. It is suggested that a new fire station be constructed specific to this use and that the overall original building be renovated and reconfigured to accommodate current needs. An option to this would be an alternate location for administration as the existing building will be costly to meet current ADA and code compliance.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of
hazardous materials. This scope would cost approximately $50 per sq. ft. x 36,700 = $1.83 million, not including costs to relocate staff and crews during renovations.

**Major renovations** would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 36,700 = $9.2 million not including the costs to relocate staff and crews to temporary arrangements.

**A new 4 bay fire station**, with an efficient floor plan of approximately 15,000 to 20,000 sq. ft. x $175 per sq. ft. = $2.6 to $3.5 million. Staff and crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

### Fire Station 2

**Opened in 1979**, this station serves the central portion of Kansas City and its first due area is bisected by a major arterial roadway. This 2-story structure is approximately 10,800 sq. ft. and consists of concrete foundations, concrete block walls and standing seam metal fascias. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

**Minor renovations** would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 10,800 = $810,000, not including costs to relocate crews during renovations.

**Major renovations** would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 10,800 = $2.7 million not including the costs to relocate crews to temporary arrangements.

**A new 3 bay fire station**, with an efficient floor plan of approximately 12,500 sq. ft. x $175 per sq. ft. = $2.2 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

### Fire Station 3

**Opened in 1951**, this station serves the southeast portion of downtown Kansas City and its first due area is primarily light industrial type zoning. This 1-story structure is approximately 7,000 sq. ft. and consists of concrete foundations, and multi-wythe red brick masonry walls. This station is a sister to station 7. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

**Minor renovations** would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 7,000 = $525,000,
not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 7,000 = $1.75 million not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 4

Opened in 1957, this station serves the northwest portion of Kansas City and its first due area is primarily single family residential zoning. This 1-story structure is approximately 2,500 sq. ft. and consists of concrete foundations, and multi-wythe red brick front and concrete masonry walls. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 2,500 = $187,500, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 2,500 = $625,000 million not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 5

Opened in 1955, this station serves the north-central portion of downtown Kansas City and its first due area is primarily single family residential zoning. This 1-story structure is approximately 6,300 sq. ft. and consists of concrete foundations, and multi-wythe brick masonry walls. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost
approximately $75 per sq. ft. x 6,300 = $472,500, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 6,300 = $1.575 million not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 6

Opened in 2001, this station serves the far west-central portion of Kansas City and its first due area is primarily single family residential and light commercial zoning. This 1-story structure is approximately 12,000 sq. ft. and consists of concrete foundations, and jumbo brick masonry walls. There is a small 2 story metal frame training tower in the back of the station adjacent to the drive apron. The current building is in compliance with building codes and portions of the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is fair.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 12,000 = $300,000. It is unlikely that any of these scopes of work would require the relocation of the crews during work hours.

Major renovations – No major renovations are required or necessary at this time.

A new fire station is not recommended at this location as it is the newest station in KCKFD.

Fire Station 7

Opened in 1951, this station serves the south-central portion of downtown Kansas City and its first due area is primarily light commercial and single family residential type zoning. This 1-story structure is approximately 7,000 sq. ft. and consists of concrete foundations, and multi-wythe red brick masonry walls. This station is a sister to station 3. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 7,000 = $525,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 7,000 = $1.75 million not including the costs to relocate crews to temporary arrangements.
A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 8

Opened in 1979, this station serves the far west portion of Kansas City and its first due area is primarily residential zoning. This 1-story structure is approximately 4,100 sq. ft. and consists of concrete foundations, slabs on grade and a metal building frame and metal panel exterior and roof. The fire station was originally built for the County as a volunteer fire station and has been converted to the KCKFD career station by creating interior dormitory spaces. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and replacing ceiling tiles, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 4,100 = $307,500, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 4,100 = $1.025 million not including the costs to relocate crews to temporary arrangements.

A new 3 bay fire station, with an efficient floor plan of approximately 10,000 sq. ft. x $175 per sq. ft. = $1.75 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 9

Opened in 1967, this station serves the south-central portion of Kansas City and its first due area is primarily multi-family residential, single family residential, and commercial zonings. This 1-story structure is approximately 3,060 sq. ft. and consists of concrete foundations, and red brick masonry walls. No significant additions or alterations have been made to this building. There is a large “community Room” space adjacent to the basement space accessed from the back of the building and has a separate parking area. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls, replacing ceiling tiles, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 3,060 = $229,500, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 3,060 = $765,000.
not including the costs to relocate crews to temporary arrangements.

A new 3 bay fire station, with an efficient floor plan of approximately 10,000 sq. ft. x $175 per sq. ft. = $1.75 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 10

Opened in 1996, this station serves the far southeast corner of Kansas City and its first due area is primarily multi-family and commercial zoning. This 1-story structure is approximately 13,600 sq. ft. and consists of concrete foundations, and brick masonry and cast concrete walls. The current building is in compliance with most building codes and portions of the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is fair.

Minor renovations would include prepping and repainting all walls, replacing suspended ceiling tiles, refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout. This scope would cost approximately $25 per sq. ft. x 13,600 = $340,000. It is unlikely that any of these scopes of work would require the relocation of the crews during work hours.

Major renovations – No major renovations are required or necessary at this time.

A new fire station is not recommended at this location as it is the 2nd newest station in KCKFD.

Fire Station 11

Opened in 1924, this station is in the oldest of the stations and serves the central portion of Kansas City and its first due area is primarily single family residential and commercial zoning.

This 2-story structure is approximately 3,800 sq. ft. and consists of stone foundations, and multi-wythe red brick masonry walls. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. The overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 3,800 = $285,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 3,800 = $950,000 not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.
Fire Station 14

Opened in 1956, this station serves the north-central portion of downtown Kansas City and its first due area is primarily light commercial and single family residential type zoning. This 1-story structure is approximately 7,200 sq. ft. and consists of concrete foundations, and multi-wythe red brick masonry walls. This station is similar to station 3 and 7. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 7,200 = $540,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 7,200 = $1.8 million not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 15

Opened in 1987, this station serves the far northeast corner of Kansas City and its first due area is primarily light industrial and commercial zoning. This 1-story structure is approximately 13,260 sq. ft. and consists of concrete foundations, and brick masonry and cast concrete walls. The current building is in compliance with most building codes and portions of the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is fair.

Minor renovations would include prepping and repainting all walls, replacing suspended ceiling tiles, refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout. This scope would cost approximately $25 per sq. ft. x 13,260 = $331,500. It is unlikely that any of these scopes of work would require the relocation of the crews during work hours.

Major renovations – No major renovations are required or necessary at this time. However, it is highly recommended that the Apparatus shop and all Fire Department Resource operations be relocated to an alternate facility specifically suited to these purposes. If this occurs, the former resource and shop areas would need to be renovated to be made useful.

A new fire station is not recommended at this location as it is the 3rd newest station in KCKFD.
Fire Station 16

Opened in 1936, this station is one of the oldest of the stations and serves the south-central portion of Kansas City; its first due area is primarily single family residential and commercial zoning. This 1-story structure is approximately 2,200 sq. ft. and consists of stone foundations, and cut stone masonry walls. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. The overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 2,200 = $165,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 2,200 = $550,000 not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 17

Opened in 1952, this station serves the far south portion Kansas City and its first due area is primarily light commercial and single family residential type zoning. This 1-story structure is approximately 3,600 sq. ft. and consists of concrete foundations, and multi-wythe red brick masonry walls. This station is similar to station 14. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 3,600 = $270,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 3,600 = $900,000 not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.
Fire Station 18

Opened in 1978, this station serves the north-central portion of Kansas City and its first due area is primarily single family residential and light commercial zoning. This 2-story structure is approximately 9,400 sq. ft. and consists of concrete foundations, concrete block walls and standing seam metal fascias. This station is similar to station 2. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 9,400 = $705,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 9,400 = $2.35 million not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 8,000 sq. ft. x $175 per sq. ft. = $1.4 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 19

Opened in 1972, this station serves the central portion of Kansas City and its first due area is primarily single family residential and light commercial zoning. This 2-story structure is approximately 4,600 sq. ft. and consists of concrete foundations, brick walls and stucco fascias. This station is a duplex facility and has a police department substation on the south half of the facility. The square footages indicated are for the fire station only. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. No obvious signs of maintenance or repairs being performed were observed and the overall condition is worn and deteriorating.

Minor renovations would include prepping and repainting all walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 4,600 = $345,000, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 4,600 = $1.15 million not including the costs to relocate crews to temporary arrangements.
A new 3 bay fire station, with an efficient floor plan of approximately 10,000 sq. ft. x $175 per sq. ft. = $1.75 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.

Fire Station 20

Opened in 1967, this station is in the worst condition and serves the southwest portion of Kansas City and its first due area is primarily middle to single family residential and light commercial zoning. This 2-story structure is approximately 3,500 sq. ft. and consists of concrete foundations, and brick masonry walls and wood slats front with wood fascia and beams. No significant additions or alterations have been made to this building. The current building is not in compliance with any codes or the NFPA. The overall condition is very worn and deteriorated.

Minor renovations would include removal and replacement of the wood siding, prepping and repainting all exterior wood beams and trim, caulking all joints and seams, painting interior walls and ceilings, repairing and refinishing floors, updating plumbing and electrical fixtures and making minor repairs throughout with minimal remediation of hazardous materials. This scope would cost approximately $75 per sq. ft. x 3,500 = $262,500, not including costs to relocate crews during renovations.

Major renovations would require the complete gutting of the interior and abatement of hazardous materials leaving nothing but the structural shell. This scope would cost in excess of $250 per sq. ft. x 3,500 = $875,000 not including the costs to relocate crews to temporary arrangements.

A new 2 bay fire station, with an efficient floor plan of approximately 7,500 sq. ft. x $175 per sq. ft. = $1.3 million. Crews are not affected by this type of work and once the new facility is occupied the old building can be sold or repurposed benefiting the City.
Summary of projected costs per location;

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<thead>
<tr>
<th>Location</th>
<th>Minor Renovations</th>
<th>Major Renovations</th>
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</tr>
<tr>
<td>Station 16</td>
<td>$165,000</td>
<td>$550,000</td>
<td>$1.4 Million</td>
</tr>
<tr>
<td>Station 17</td>
<td>$270,000</td>
<td>$900,000</td>
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<tr>
<td>Station 18</td>
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<tr>
<td>Station 20</td>
<td>$262,500</td>
<td>$875,000</td>
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William “Shorty” Bryson

Chief Bryson has served as the Fire Chief of two large fire departments, the City of Miami and Miami-Dade County Fire Rescue. Chief Bryson retired in 2013 after nearly 40 years of experience in the fire and emergency services.

Shorty is an expert in labor relations having served extensively on both sides of the table.

Chief Bryson serves as the chairman of the National Fire Protection Association (NFPA) 1710 technical committee on career fire department deployment. NFPA 1710 sets unit staffing and response time standards for career fire departments.

Dennis Compton

Dennis Compton is a 40 year fire service veteran recognized for his service as a fire chief and for his leadership of national fire service organizations. Chief Compton served as the Fire Chief of the Mesa, Arizona Fire Department and as an Assistant Fire Chief for the Phoenix Fire Department.

Chief Compton has served as Chairman of the Executive Board of the International Fire Service Training Association (IFSTA) and Chairman of the Congressional Fire Services Institute’s National Advisory Committee. He is currently Chairman of the National Fallen Firefighters Foundation Board of Directors.

Dennis is the author of several books including a three-part series titled When in Doubt, Lead, another titled Mental Aspects of Performance for Firefighters and Fire Officers, and many articles for various publications.

Chief Compton had received a number of honors including the 1991 George D. Post National Fire Service Instructor of the Year and the American Fire Sprinkler Association’s Fire Service Person of the Year in 2000. Dennis was also named the 2001 Distinguished Alumnus of the Year by the University of Phoenix, and received the 2003 Mason Lankford National Fire Service Leadership Award. He also received the 2007 Metropolitan Fire Chiefs Association Lifetime Achievement Award, the 2009 Arizona Fire Chiefs Association Lifetime Achievement Award, and is a charter member of the Arizona Fire Service Hall of Fame.
**Cathleen Gleason**

Cathleen Gleason has almost 30 years municipal experience with the City of Phoenix, and retired in 2011 as the City’s Budget and Research Director. In this position, she was responsible for an annual operating and capital budget of more than $5 billion. In addition to her experience in the Budget and Research Department, Cathleen also worked for the Public Works and Fire Departments.

Cathleen’s most significant accomplishment was guiding Phoenix through the worst financial crisis in its 125+ year history, including helping the City maintain its AAA investment grade rating even as revenues were plummeting, and working with labor and management to find solutions to a variety of substantial financial issues.

Cathleen served as a trustee on the City of Phoenix Employees’ Retirement System (COPERS) Board for 17 years, and also volunteered her time as a Board director for Arizona Federal Credit Union for more than 18 years. Cathleen has a Bachelor of Science degree in Business and a Master’s degree in Public Administration.

**John Granito**

John Granito is the dean of fire service consultants. Dr. Granito has served as a firefighter, a university professor, and as a consultant on over 450 fire department management assessments. His service includes consultation with fire departments, the Federal Emergency Management Agency, the Department of Defense, and many smaller organizations.

**Charles Hood**

Charles N. Hood serves as the Fire Chief of the City of San Antonio, Texas. His fire service career began as a member of the Tucson Fire Department. Charles moved to Phoenix and served for 23 years as a member of the Phoenix Fire Department. He moved through the ranks in Phoenix and retired as an Assistant Fire Chief.

Chief Hood leads one of the largest fire departments in the nation, commanding approximately 1,897 personnel with a budget of over 256 million dollars. He is ultimately responsible for providing fire, emergency medical, special operations, emergency management, and fire prevention services to over 1.4 million citizens.

Chief Hood’s educational credentials include a Bachelor of Science in Fire Service Management from Ottawa University. He was also selected to attend the Harvard Kennedy School of Executive Education on two occasions. He is an Adjunct Faculty member at the Texas A&M University National Emergency Response and Rescue Training Center.
Kevin M. Roche

Kevin Roche is a FACETS partner. He retired in 2014 as Assistant to the Fire Chief for the Phoenix Fire Department in Arizona. Kevin has over 30 years of fire service management and consulting experience. Kevin has experience as a leader and member of a number of management consulting projects in large fire departments. During his career in Phoenix, Kevin managed the fire department’s planning, fire prevention, and logistics operations.

Kevin earned a B.S. degree in Fire Protection and Safety Engineering Technology from Oklahoma State University and a Master’s degree in Political Science with a Certificate in Public Administration from the University of Florida.

James Zwerg, AIA

Jim Zwerg is the Architect/Facility Manager in charge of repairs and renovations to existing Phoenix Fire Department facilities. He has been an Architectural Project Manager for over 25 years, specializing in fire station design and construction. He has been with the Phoenix Fire Department, and has been a Registered Architect for 15 years.

Jim’s responsibilities include management of new fire station design and construction projects as well as the maintenance, repairs, and renovations of the existing 75 facilities currently in the Phoenix Fire Department. He coordinates the efforts of various support departments—primarily the Engineering and Public Works Departments. He manages the Facilities Section budgets, reviews drawings and specifications for new facilities, utilizes a diverse computerized data tracking system, and co-supervises a staff of 10 support personnel.

Jim is currently managing dozens of projects that range from routine maintenance repair requests to new design and construction meetings. He provides coordination and oversight for Public Works projects like ADA compliance, stand-by generator installations, parking lot repaving, A/C replacements, kitchen and restroom remodels.