



Williamson County, Tennessee

# **PUBLIC SAFETY TASK FORCE REPORT**

## **2024**

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## **EXECUTIVE SUMMARY**

The Williamson County Public Safety Task Force is a courageous endeavor impacting the quality of emergency EMS and FIRE services for a community facing rapid growth that outpaces capacity. This strategic recommendation report includes the best thoughts from a collaborative team of leaders across the county. The report offers best practices and principles to assist leaders in planning and executing the highest quality of services for this community.

While it is impossible to fully predict the changes that will come over the next 15 years, the way in which this community responds to those changes will be a defining factor in the provision of emergency services. Relationships lead to collaboration, and collaboration among a team of providers leads to a profound unity in caring for a community. This task force seeks to offer a road map for this endeavor.

### **The Challenge**

The population of Williamson County, Tennessee, is projected to double by the year 2040. Maintaining and improving EMS and FIRE services for 500K people, compared to today's 250K, is unprecedented growth. It will require collaboration, innovation, and nimble planning that adapts quickly to changing technology, resources, community needs, and the unexpected outside forces to which the county must respond. Infrastructure, governance, personnel, and standards of quality are among the many facets this team considered.

### **The Collaboration**

Task Force members from a wide range of perspectives allowed this team to address complex issues from water resources, governing laws and standards, and retention of both paid and volunteer staffing. Drawing from best practices across the nation, the team has provided recommendations that match our community, culture, and capacity. Expert consultants from a variety of disciplines contributed to the work, offering insight, standards, and resources.

Where we address standards and performance measures, these are based on national standards for county-wide application, with the understanding that municipalities operate within a specific governance. As the official provider of county-wide medical services, EMS holds a legal authority and formal collaboration with each municipality in the response area.

### **The Story We Don't Forget**

This report is a sequel to the 2010 Public Safety Task Force, also convened and commissioned by County Mayor Rogers Anderson. The task force of 2010 was marked by the story of the May 2010 flood that revealed the gaps and the strengths of emergency services in our community. It served to inspire collaboration and planning that made an indelible impact on the future.



There is a story connected to this task force as well, which began with a 911 call from a residential area of the county where a 5-year-old boy, Radnor Graham, was accidentally electrocuted in a home swimming pool. His father, a critical care nurse, provided CPR. That father's preparedness, along with the response of both volunteer and on-duty EMS and FIRE units and the local ER department worked together to provide the best possible care. Radnor survived and is a healthy, growing young boy. Laura Graham is his mother.

Unique to this 2022-2023 Public Safety Task Force work is Laura's presence with this team, as a citizen, a mom, and a committed community leader to keep before us the people for whom we are planning. Our first meeting included hearing this family's story, and Laura's presence with us kept us reminded of the sobering reality that our capacity does not include the best response time 100% of the time; we won't always have the outcomes we desire.

The Graham family's story also reminds us of the challenging truth that by intentionally working together, we can create and maintain an EMS-FIRE service delivery system that offers the best care possible for this community now and in the future. We are grateful to Laura for allowing her family's experience to be shared. We appreciate Laura's willingness to engage in learning the complexities of how a community provides emergency services for an ever-changing and rapidly growing county.



The Graham Family: Laura and Erik with children Fee, Anna Clarke, and Radnor.<sup>1</sup>

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<sup>1</sup> Photos shared with permission of Laura Graham



We began with Laura’s story of her son, Radnor, and then we stepped into the challenge County Mayor Anderson gave us. The team created a word cloud in response to this question:

**In one word, what legacy do you want to leave for future leaders from this PSTF work?**

This is the result:



## The Scope

While the actualization and execution of any public safety plan is under the authority and purview of staff and appointed leaders, this task force offers recommendations that, based on our scope of reflection, research, and collaborative thinking, we believe will assist staff and leaders in moving our service delivery of emergency EMS and FIRE services forward. In essence, this task force has served as a “think tank” to bring forth critical perspectives for shaping future growth and development.



### **Statement of Mission Intention**

Over the course of the year the initial intentions of the task force continued to take shape. These statements describe the intention with which our recommendations are shared, and vision that we have observed emerging as each session evolved.

"This task force has approached our work with commitment to setting the national standard for excellence in fire and emergency medical services. Our mission as a task force has been centered on a common desire to protect and enhance the quality of life for all residents and visitors of our community through innovative response strategies, cutting-edge technology, and working together as a prepared and dedicated team of professionals. Our dedication to continuous improvement and community engagement ensures that we remain at the forefront of safety and care, making Williamson County a safer place for everyone. As we have worked to anticipate the future needs of Williamson County, we also hope this work will provide a foundation from which new benchmarks for excellence in fire and emergency medical services nationwide are realized."

### **Statement of Vision Intention**

"We envision being the cornerstone of safety and resilience in one of America's fastest-growing communities. As we look toward 2040, with an expected doubling of our population, we envision evolving alongside our community, scaling our services to meet its expanding needs without compromising on quality or efficiency. We aim to innovate continuously, leveraging advancements in technology and training to enhance our preparedness and response capabilities. By fostering strong community ties and promoting safety education, we strive to create an environment where every resident and visitor feels secure and supported. In achieving this, we will not only anticipate the future needs of Williamson County but also set new benchmarks for excellence in fire and emergency medical services nationwide."



## THE IMPACT

The following recommendations are highlighted in the report. More detailed information follows this summary. Our hope is that this work will assist staff and leaders as they shape and execute the delivery of emergency EMS and FIRE services through the year 2040.

### Governance and Organizational

- Maintain a collaborative approach for strategic planning and alignment, convened by the Director of Public Safety office as appropriate for planning reviews, adjustments and courageous action.
- Transition the volunteer fire service to one non-profit organization.
- Maintain and strengthen the on-going collaborative agreement between Williamson County and Williamson Health to provide world-class EMS services to the entire community.
- Utilize all available mutual aid/automatic aid agreements to achieve high standard performance. “All available” includes agreements with adjoining counties.
- Study updates to state law to remove funding limitations to facilitate growth of the fire service and needed personnel.
- Community engagement and involvement as the Office of Public Safety Director determines will remain a top priority.

### EMS Response Performance

Recommendation: Nine (9) minute response time 90% of the time countywide will be the overarching goal of system development and improvement.

- Develop and maintain a forecasted EMS needs assessment and strategic plan to include staffing, equipment and facilities, based on historical trending, projected community growth, and innovations to service delivery.
- Use the NFPA 1710 recommended EMS response time goal of 9 minutes or less 90% of the time in urban areas as a countywide key performance metric to support the ongoing system development plans.
- Staff rescue/medical fast cars and/or other delivery systems for the majority of calls requiring only a two (2)-person response. Mental Health First Aid certified responders are an example of staffing and equipping for appropriate response.
- Refine or develop Emergency Medical Dispatch (EMD) evidenced-based protocols that identify call acuity and prioritization with optimized response models that improve patient outcomes and system efficiencies.
- Develop alternative response capabilities and or models, appropriate for condition or acuity. E.g., alternative behavioral health response when there is no medical complaint or injury.





- Strengthen System-Wide Quality Assurance efforts to include regular key performance metric reporting, review, and collaborations designed to drive training and competency initiatives that improve outcomes.

## **FIRE Response Performance**

Recommendation: Utilize the NFPA 1720 standard across the entire Fire response area as a guide for system development and improvement. It is important to note that the task force work encompassed the unincorporated areas of fire service, while collaborating with municipalities.

- Use NFPA 1710 and 1720 standards as a guide for improving and meeting quality performance. These guides should be used both for the county response area as a whole as well as by specific station response areas.
- Combined innovative paid and volunteer staffing strategies that allow best practice performance and provide the standards of care our community desires.
- Volunteer recruitment and retention that draws upon the existing strengths of our community, collaborating with educational and vocational programs.
- Optimized response to all calls that stewards resources and maintains availability of resources for anticipated calls.

## **Staffing**

- Staff rescue/medical fast cars and/or other delivery systems for the majority of calls requiring only a two (2)-person response. Mental Health First Aid certified responders are an example of staffing and equipping for appropriate response.
- Continue to expand the Administrative Fire Captain program to maintain one per station.
- Investigate and propose the addition of Fire/EMS educators through our public and private schools across Williamson County.
  - Recruitment of volunteers through robust training and apprenticeship opportunities, collaboration with local and area high schools, community colleges, and universities.
  - Emergency services fellows program - visionary vocational tech school type approach for Williamson County emergency public services.
- Develop innovative, multi-agency, multi-disciplined, specialized rescue hazardous materials response staffed units to train and respond to the high risk low frequency events and support any large scale or staffing-intensive response in Williamson County including structure fires.
- Enhance and encourage the volunteer live-in program growing both the number of rooms available as well as keeping the program full.





- Improve volunteer retention through a longevity stipend (for example after three years of active service volunteers receive a certain amount per year of service.)
- Encourage volunteer staffing of shifts through an enhanced staffing stipend. (For example: instead of a pay per call system or a stipend by activity - encourage and reward the covering of scheduled shifts through a twice a year staffing stipend.)
- Build upon existing community strengths to develop leadership and support from the public. “Emergency Services Williamson County,” modeled after citizens academies, might be a way to begin educating the public on matters of EMS-FIRE services.
- Continue exploring a Fire Marshal for Williamson County within the Emergency Management or Codes Department.

## **Infrastructure: Water | Facilities | Fleet**

Matching the county growth plan with a robust infrastructure will continue to require innovative approaches. Recommendations:

- Establish Standards with regard to:
  - Fire flows
  - IBC/IFC regulations
  - Residential sprinklers
  - Limit building that cannot be supported by fireflow/infrastructure
- Engage in water infrastructure collaborations through grants, hydrants, and other measures.
- Collaborate with developers and utilities to ensure water lines and storage match hydrant placement and other distribution prior to placement.
- Develop partnerships between private and public sources, and the planning department to provide adequate fireflows and water storage.
- Engage proactive appointments of emergency services leadership to water boards.
- Prioritize access to fire protection through adequate roadways.
- Planning/codes and utilities continue planning for growth that matches growth projections.
- Encourage more reclaimed water systems to take load off potable H2O for irrigation, etc.
- Plan for increased EV (electric vehicle) fires and best applications to conserve water while mitigating damage to land/roads.



- Regularly engage stakeholders on the following aspects:
  - All county growth stats, fire/EMS stats, population density, heat maps, etc
  - Access, water supply, resources, timeline adjustments, local standards for building equal across the area
  - Municipalities should offer insight into their plans for annexation into the UGB
  - Current UGB adoption
  - Property development
  - Zoning
  - Utilities
  - Potential areas of growth

## **Facilities**

- Prioritize the funding of additional fire and EMS stations as currently proposed to meet other response standard recommendations contained in this report.
- Where possible, renovate existing stations with priority on adding live-in capacity.
- Assess the feasibility for all of Williamson County to be within five (5) road miles of an emergency services station. This metric serves as a guide for ongoing planning and assessment.
- Continuous seeking for land and collaborative spaces for locating future stations.

## **Emergency Communications 911**

- Continue to monitor demand on 911 center and make staffing adjustments to match the projected growth needs and department operational requirements.
- Continue to monitor dispatch alarm times, NFPA Standard 7.4.3, and put measures in place to meet NFPA standards.
- Provide dedicated telecommunicators for high intensity incidents.



## NOTE FROM THE FACILITATORS

We applaud the leaders who accepted the invitation from County Mayor Rogers Anderson to participate in this Public Safety Task Force. The time, labor, and research this team has contributed to the community is their offering for the immediate and future implementation of EMS - FIRE services in Williamson County. Each leader within our public safety system holds a platform for further development of these recommendations. We encourage our leaders to continue the work, prioritizing the strategies that will lead us forward every year.

We find it worth noting that very few communities can withstand the hard work of true collaboration across municipalities, volunteers, and a variety of perspectives. The required maturity and humility to consider what is best for the whole community is rare. We see this level of collaboration in this group. The continuity of leadership and the new persons who have arrived with fresh perspectives have afforded us capabilities many communities never experience.

With that said, the future implementation of services will require an even greater effort as new technologies such as artificial intelligence, smart traffic systems, drone enabled service or resource distribution technology, and a host of other discoveries emerge. Those given the trusted privilege of leading will be the ones who hold up the principles of leadership noted in this report.

The relationships required for collaboration will be even more essential. This level of integrity within the system and the people who lead will impact the overall care of our community. While one size does not fit all, the leaders need to speak with one voice when ready to enact the changes that will provide the best possible care for the community. A unified voice will undergird effective change.

At the conclusion of the written report we have added some suggested priorities for action. This is based on focused discussions with the current staff leadership team as we reviewed recommendations. Going forward it will be the ongoing assessment and detailed execution of appropriate improvements that will bring services into fruition.

It has been a joy for us to serve as facilitators for the task force. Thank you for your work! Thank you for trusting us to be a part of drawing out your best thoughts and giving your voices a place at the table of future EMS-FIRE services across Williamson County. May your work be blessed and enhanced by those who follow. May all who serve remain safe and equipped to deliver the best possible care for all who call Williamson County “home.”

With Peace and Hope,

Vona and Mac



## **TASK FORCE HISTORY**

### **Williamson County Public Safety Task Force: 2009 - A Collaborative Effort**

In 2009, due to rapid development, population growth, and increased business activity in Williamson County, officials realized the importance of a unified and well-coordinated approach to public safety. County Mayor Rogers Anderson led the effort by bringing together more than 50 public safety officials from different agencies across the county. Their primary goal was to tackle the current disjointed and uncoordinated provision of public safety services.

### **The Vision for Coordinated Public Safety**

The task force envisioned a future where entities within the county would collaborate, share resources, and act as responsible stewards. Their discussions centered on achieving total coordination and collaboration. While no concrete plans were set during the initial gathering, the exchange of ideas and suggestions laid the groundwork for a more effective system.

### **Key Steps Toward Coordinated Efforts**

The path to coordinated public safety involved four major components:

- Building relationships
- Gaining clear knowledge of current system
- Collaborative planning of improvements
- Provide a written report

### **Recommendations**

The final report included numerous recommendations. Approximately 95% of the recommendations have been implemented. Below, you'll find the recommendations that have been initiated or implemented since 2010.

### **Organizational Structure**

- Create an Emergency Services Department and hire a director. Actual: The County Commission created the Office of Public Safety in 2011
- Construct a public safety headquarters. Actual: Construction of the Public Safety Center started in 2015 and finished in 2016.

### **Emergency Communications 911**

- Collaborative dispatch effort between Williamson County, Brentwood, Franklin and Spring Hill. Consolidated dispatch with Franklin and Spring Hill.
- Expansion of portable radio caches
- Establishment of radio system providing operability, interoperability and sustainability
- Implement battery replacement program for portable radios
- Expand data-sharing capabilities
- Mobile Incident Communications Center
- Automatic vehicle location-based dispatch for EMS
- Automated voice alert dispatch system for EMS and Fire



- Personnel advancements and additional staffing
- Tactical repeaters and gateways at all tower sites

### **Emergency Medical Services**

- Improve planning and implementation of Information Technology projects and support.
- Simplify contractual agreements, such as EMS use of county facilities
- Allow EMS to provide coverage to Spring Hill by simple Interlocal agreement.
- Share resources with other public safety agencies (administrative support staff, emergency vehicle maintenance, etc.)
- Provide direct, daily involvement in community emergency planning for emergency preparedness and special events with other agencies.
- Establish benchmarks for dispatch, first response, and ambulance response times
- Additional peak/flex unit(s)
- Add assistant supervisor per shift to provide better coverage county-wide
- Add full-time training/QI staff (focus on first responder system)
- Conduct station location assessment to determine the most appropriate for current (renovate/ relocate) and future facilities, including the downtown Franklin station, WMC campus, etc.
- Replace field RMS tablet computers with ruggedized units
- Move record management system to county, integrated with dispatch and responder records
- Train and receive approval from medical director for: Advanced Practice Paramedics, Hypothermic Therapy, and other “cutting edge” clinical practices

### **County Fire Services**

- Conduct complete analysis of the fire protection system. Identify strength, weaknesses, equipment compatibility, training levels, station location analysis, funding sources, etc.
- Start the process of merging the independent fire departments together to form a unified department
- Hire a Fire Chief/ Coordinator
- Create staffing models for short term and long-term volunteer and career staff planning.
- Develop and implement uniform standards (training, certifications, etc.) for positions (Firefighter, Engineer, Officers, etc.)
- Continue to work toward apparatus and equipment standardization, and developing a replacement schedule for budget planning purposes.

### **Emergency Management Agency**

- Further develop staff of full-time, part-time and volunteer professional emergency managers
- Regular “monthly” meetings with county, city, volunteer and private partners.
- Emergency Management Accreditation Program (EMAP) accredited program.
- Take the lead in developing a state certified hazardous materials team/ special operations team (multiple disciplines of county and cities).
- Coordinated multi-agency training program



## **Joint Projects**

- A secured/ hardened Emergency Operations Center with multi-discipline training/ break-out rooms.
- Development of an all-hazards incident management team
- Emergency Services Public Information Officer (PIO)
- Response personnel
- Payroll/ Scheduling/ Administrative Support
- Information Technology/ Public Safety focused Geographic Information Systems (GIS) support
- Disaster and special event planning
- Exercise programs
- All future facility plans should incorporate space for EMS, Fire, Rescue, and Sheriff's Office as necessary



## 2022-2024 TASK FORCE PROCESS

Williamson County Mayor Rogers Anderson, along with Public Safety Director Bill Jorgensen and Emergency Management Agency Director Todd Horton, composed a list of 38 task force members from various agencies around the county, including public safety, the schools, the chamber, local utilities, and other county departments. The task force included a member of the public whose personal experience with first responders helped launch the group's formation.

The task force's first meeting was November 9, 2022, and the group met monthly at the Williamson County Public Safety Center until February 2023. Facilitators were Rev. Dr. Vona Wilson, Harpeth River District Superintendent of the Tennessee-Western Kentucky United Methodist Church, and former director of emergency services at Williamson Health (formerly Williamson Medical Center) and Mac Purdy, Director of Student Ministries at Christ Presbyterian Church and former director of the Williamson County Emergency Management Agency.

Session strategies were structured around three areas: Relationships, Learning, and Leading. Because relationships lead to collaboration we initiated each session with this intentional work. The task force learning was gleaned from local, national, state, governmental, and best practice sources. Each session included time for task force members to weigh in on their learning and how the research and/or practice informed our service recommendations for the future.

The task force has served as a "think tank" by intentionally setting aside 12 months to research, learn, and provide input into the best practices and considerations as we move forward in future development of EMS and FIRE services for Williamson County.

### Tasks and Objective

**Objective:** To provide excellent, responsive emergency services to the citizens of Williamson County as our population grows to a projected 500,000 by 2040.

#### Tasks:

- 1) Determine which **organizational structure** works best for Fire and EMS service in Williamson County.
- 2) Consider what **infrastructure** improvements are needed to enable public safety response to keep up with growth.
- 3) Consider **best practices** for fire and EMS response.
- 4) Recommend an effective, sustainable **staffing model**.
- 5) Consider the most appropriate **funding** sources.





## **Guiding Principles for Future Leadership**

The Williamson County Public Safety Task Force is committed to leading the way in fire and EMS services as our community faces unprecedented growth. By executing this strategic plan, we will ensure that Williamson County remains a safe, responsive, and resilient community, ready to meet the challenges of today and tomorrow.

### **Commitment to Excellence**

Leaders should constantly pursue the highest standards in every aspect of service delivery, encouraging innovation and continuous improvement.

### **Empowerment and Accountability**

Empower team members at all levels with the authority to make decisions, encouraging ownership and accountability for outcomes.

### **Collaboration and Inclusivity**

Foster a culture of collaboration and inclusivity, recognizing that diverse perspectives and teamwork strengthen problem-solving and decision-making processes.

### **Transparency and Communication**

Maintain open lines of communication within the organization and with the community.

### **Servant Leadership**

Embrace servant leadership, prioritizing the needs of the community and the organization above personal ambitions.



## SUMMARY CHART OF MEETINGS

*13 working meetings held followed by final draft presentation session*

DATE	FOCUS	TOPICS	SPEAKERS
<b>Nov. 9, 2022</b> Public Safety Center	Introductions Non-Disclosure Agreement History	Most pressing needs Barriers to vision Laura Graham's story Legacy. What do we want to leave future generations with our work?	Vona Wilson & Mac Purdy Mayor Rogers Anderson County Attorney Andrew Whitten Laura Graham
<b>Dec. 7, 2022</b> Public Safety Center	Facilities	Square Miles Coverage Baseline & current system capability	Various local leaders
<b>Jan. 4, 2023</b> Public Safety Center	Fleet and Coverage	Age & number of apparatus Volume of fire incidents Cost Overview ISO & Mutual Aid What stations are a priority and why?	Chief Bob Galoppi  Chief Brian Goss  Chief Graig Temple
<b>Feb. 1, 2023</b> No meeting: weather			



DATE	FOCUS	TOPICS	SPEAKERS
<b>March 1, 2023</b> Public Safety Center	ISO	Response Time Metrics	Todd Horton
<b>April 12, 2023</b> Public Safety Center	EMS & Fire Service Design	Standards & Models	EMS Chief, Michael Wallace Fire
<b>May 3, 2023</b> Public Safety Center	Staffing Solutions	Incidents and Type of Response	Collaboration
<b>June 14, 2023</b> Public Safety Center	Governance & Laws	Parameters	Kevin Lauer Lori Darty, Williamson County Finance Department
<b>July 19, 2023</b> Public Safety Center	Volunteerism	Impact of Volunteers on EMS & Fire Service	Chief Bob Galoppi  Chief Brian Kessler  Brian Jones
<b>August 2, 2023</b> Public Safety Center	Infrastructure & Planning	Water resources & infrastructure  UBG parameters  Master Plan	Water: Cody Lovett  Planning & Development: Mike Matteson 911 & Change: Bill Jorgensen



DATE	FOCUS	TOPICS	SPEAKERS
<b>Sept. 6, 2023</b> Public Safety Center	Virtual Panel with Fire Chiefs from around the country	<b>Best Practices:</b> Staffing Models and the Decision-Making Process	<p>1) Fairfax County Fire Rescue (VA) - Shawn Stokes</p> <p>2) Prince George's County Fire Department (MD) - Michael J. White</p> <p>3) Montgomery County Fire Rescue (MD) - Eric N. Bernard, MFS, MT</p> <p>4) International Association of Fire Chiefs – VCOS – Eastern Division (DE) – Paul Sterling, Jr.</p> <p>5) Brazoria County Emergency Services District No. 3 (TX) – Jeff Braun, Executive Director</p>
<b>Oct. 4, 2023</b> Public Safety Center	Staffing	Review and recommendations drafted	Task for members reviewed and made recommendations for staffing priorities and models. Volunteers remain an integral part of overall system.
<b>Nov. 1, 2023</b> Public Safety Center	NFPA Standards	Structure Recommendations EMS Response Performance Fire Response Performance	Task force members reviewed and made final recommendations for response performance, noting pros and cons of varying perspectives.



DATE	FOCUS	TOPICS	SPEAKERS
<b>December 2023</b>	No meeting		
<b>January 2023</b>	No meeting		
<b>Feb. 7, 2024</b> Public Safety Center	Group Recommendations	Review recommendations and discussion of vision	Table group discussion and further input into important considerations for future.
<b>March 20, 2024</b> Public Safety Center	Final Plan Presentation  Gratitude for leaders	Slide presentation with written summary.  Task force members were presented with Challenge Coins by Bill Jorgensen as gratitude was expressed for the time and expertise given to this work.	Following this session, all members received a full report and a feedback survey to offer affirmations, cautions and concerns.
<b>Sept. 2024</b>		Polishing report with formatting and organization	Reviews with County Mayor
<b>Oct. 14, 2024</b> County Commission Meeting			<b>Final recommendations shared with Williamson County Commission</b>



## **TASK FORCE MEMBERS**

### **SUPPORT LEADERS**

Rogers Anderson, Williamson County Mayor  
Vona Wilson, Facilitator  
Mac Purdy, Facilitator  
Andrew Whitten, County Attorney  
Bill Jorgensen, Williamson County Office of Public Safety, Director  
Todd Horton, Williamson County EMA, Director  
Michael Wallace, Williamson Health EMS, Chief  
Jill Burgin, Administrative Support

### **TASK FORCE MEMBERS**

Aaron Holmes, Williamson County Planning Coordinator  
Bob Galoppi, Williamson County Rescue Squad, Chief  
Brian Goss, Brentwood Fire Rescue, Chief  
Brian Jones, Williamson Fire Rescue, Chief  
Brian Stover, Town of Thompson's Station Mayor  
Celby Glass, Franklin Special School District  
Chuck Barber, Middle Tennessee Electric  
David Pair, Williamson County Association of Realtors  
David Windrow, Nolensville Fire Department, Chief  
Dr. Andy Russell, Williamson Medical Center, CMO  
Dusty Rhoades, Sheriff, Williamson County  
Gene Craft, Arrington Fire Department  
Glenn Johnson, Franklin Fire Department, Chief  
Graig Temple, Spring Hill Fire Department, Chief  
Greg Sanford, County Commissioner  
Jamie Carter, Life Point Medical  
Jay Bonson, Williamson County EMA, Fire Coordinator  
Jeff Davidson, United Communications  
John Allman, Williamson County Emergency Communications District  
Jose' Peruit, Maury County Fire, Chief  
Julie Miller, Williamson Medical Center, COO  
Kel McDowell, Williamson Chamber  
Kevin Benson, Williamson County Property Management, Director  
Kevin Glenn, Spring Hill Fire Department, Asst Chief  
Kevin Lauer, Tennessee Emergency Management Agency & CTAS  
Kristy Borden, Williamson County Emergency Communications, Director  
Laura Graham, Community Representative



Lori Darty, Williamson County Accounting Department  
Michael Fletcher, Williamson County Schools  
Robert Blair, Franklin Special School District  
Scott Hughes, Fairview Fire Department, Chief  
Sean Cothron, Williamson County IT Director  
Tabitha Hobson, Healthcare Coalition  
Wayne Franklin, Williamson County Risk Management, Director





## Governance

Governance and organizational structure are the mechanisms that connect the legal response authority with the operational resources providing service to our community. Governance includes any delegations of this authority, assignment of response areas, interlocal agreements and memoranda of understanding, or other legal establishing documents. Additionally, the boards or committees tasked with overseeing these areas of responsibility, organizational leaders and stakeholder groups, strategic plans, standard operating guidelines, response plans and emergency operations plans all make up the governance framework for Williamson County's public safety system.

Emergency Medical Services is a partnership with Williamson Health to operate and manage EMS services to all of Williamson County. This is an agreement between the county and a non-profit and has operated in this way since its inception in 1972.

Emergency Medical Services (EMS) is provided to the entire community, including unincorporated areas, townships and municipalities by an agreement between Williamson County and the non-profit Williamson County Hospital District d.b.a. Williamson Medical Center (Williamson Health) for the mutual support and cooperation regarding the operation of EMS since 1972.

Fire Service response areas in the unincorporated portions of the county are assigned by the county commission to volunteer non-profit fire departments. In 2010 there were four city fire departments and six volunteer non-profits providing fire service in Williamson County. The county also maintained an agreement with the city of Fairview to provide coverage into a response area outside the city. Today there are three non-profit volunteer fire departments serving these response areas and five city departments.

Non-profit Volunteer Departments	City Departments
Arrington Volunteer Fire Department	Brentwood Fire
Williamson Fire Rescue	Fairview Fire
Williamson County Fire and Rescue	Franklin Fire
	Nolensville Fire
	Spring Hill Fire



There are three governance or organizational strategies identified by the task force: a county operated fire department, a county non-profit partnership and a joint services model.

### County Operated Fire Department

State law allows counties to provide fire service through the support of non-profit fire departments and it allows them to establish a county fire department. While the establishment of a county fire department is the most straightforward approach it comes with two distinct challenges. First the state law limits the funds the county may use to provide fire service when it establishes a fire department to revenues from a fire tax in the unincorporated areas or a few other directed revenue sources. See attachment 1, Attorney General's Opinions on County Fire Service.

While a county fire department would simplify operational authority, if implemented under the current state law, it would limit funding allowed to provide fire service protection and tie it directly to the willingness of the County Commission to impose or raise taxes. While a direct funding stream is often looked at as a help to the fire service it restricts the county commission's ability to allocate financial resources to the greatest operational need in a given year or season.

Additionally, it very likely would slow the growth of the fire service in Williamson County by connecting the operational and financial priority work of the county commission to the political issue of taxation. Thus in trying to provide for the fire service a county fire department could very well become a political focal point representing taxation.

The task force recommends further research, analysis and development of potential updates to the state law to provide county leaders with the same funding flexibility to provide fire service as they have in other areas of public safety and emergency services.

The second challenge is that of maintaining volunteers as a critical and focal staffing priority for the system. This is a reality of all three governance solutions, though potentially most timely and impactful is the county fire department option. This is not at all a reason to move forward or away from any governance strategy, however it is the task force recommendation that the volunteer firefighter is critical to the current and future fire service in Williamson County.



### Non-profit partnership

The second governance option is a partnership between the county and the non-profit fire departments. This is the current governance model and is the task force's recommendation to maintain and enhance this model. While a county fire department is more straightforward the current funding mechanisms limit the county's ability to grow response capability in order to catch up to and keep up with population growth. This partnership requires a focus on a response system capability versus a department's response capability.

### Joint services model

As Williamson County and its cities continue to grow, future community leaders should look at the potential for the fire service to operate as one joint service. Whether departments actually merged to form one department or operated as one seamless, integrated system, the benefits to those living, working and visiting any area of Williamson County are worth exploring.

### Governance and Organizational Recommendations:

- Utilize all available mutual aid/automatic aid agreements
- Transition to one non-profit organization
- Study and recommend updates to state law to remove funding limitations



## Emergency Medical Services (EMS)

The Emergency Medical Services (EMS) department was established in 1972 by resolution from the Williamson County Court. The resolution solidified that it was necessary for Williamson County to provide emergency medical services and appropriated the necessary operating funds to be derived from a special tax levied for that purpose. In the same resolution, it was determined that the department would best be operated from the premises of the Williamson County Hospital and under the management of the hospital. Initially operating with a modest setup of 9 employees with basic first aid training and two ambulances, over the years, the EMS department has transformed into an award-winning, innovative, nationally recognized team.

EMS now boasts more than 200 licensed Advanced and Critical Care providers, operates 18 ambulances and three District Chiefs daily, along with a multi-disciplinary senior leadership team. In addition, the department is also responsible for coordinating the efforts of nearly 500 licensed emergency medical first responders, scattered throughout each county, town and municipal public safety department.

In 1982, the county government recognized the exceptional performance of the EMS department under the hospital's leadership and established a new written agreement designed to ensure a strong continued collaborative relationship. The hospital, Williamson Medical Center, was established in 1957 on behalf of Williamson County as a non-profit Hospital District, making it the perfect fit to enhance the community emergency healthcare delivery model. The agreement, which renews annually, safeguards the county government's legal responsibilities to ensure the provision of EMS services by entrusting Williamson Medical Center (Williamson Health) to manage the daily operations, medical oversight, staffing, billing and collections.

To control costs and maintain the assets necessary to provide emergency services, the county continues to leverage grants, purchasing contracts, and budget allocations to acquire and maintain the equipment, vehicles, and facilities necessary for the department to function, while the hospital handles daily operations, personnel, and the associated expenses with its resources. As with the original resolution, there continues to be an annual subsidy contribution approved by the county commission built into the agreement with the hospital to offset costs associated with providing the service.

It's crucial to acknowledge that despite reimbursements not fully covering the expenses of running a high-performance EMS system, they significantly aid in mitigating the financial burden on the local government to the tune of several million dollars a year. However, providing EMS is an essential public safety service, similar to law enforcement, fire protection, emergency management, and 911 communications, and the goal is always to minimize costs, while maximizing service delivery and quality.



The collaboration between the county government and Williamson Medical Center has proven immensely beneficial. As one of the fastest-growing and influential communities in the United States, Williamson County's EMS department has not only expanded to keep pace with demand but also consistently innovated to offer nationally recognized best practices. These efforts have led to exceptional outcomes and multiple state awards for quality of care and system performance. The department is unwavering in its commitment to exceed community expectations and aims to be the leading EMS provider in the country.

Facing the challenge of a population expected to double by 2040, the primary focus for the county government and Williamson Health is to scale services effectively while maintaining the highest standards of care and customer service. This endeavor requires a clear understanding of mutual expectations and proactive planning, particularly in securing the necessary infrastructure, personnel and sustainable funding mechanisms in an increasingly complex economic environment. A forward-thinking approach is vital for ensuring our continued success in meeting the community's needs and expectations while adapting to its dynamic growth.

## **HISTORY & PROGRESS 2010 Public Safety Task Force Recommendations EMS**

### **1. Move EMS system back directly under county government.**

The county government and Williamson Medical Center continue to find the current management relationship to be mutually beneficial and the majority of the key considerations of potential benefit have been resolved.

### **2. Reduce staff turnover and drive recruitment by providing Tennessee consolidated retirement under the county.**

The hospital was able to significantly improve salaries, shift schedules, and retirement contributions, which has greatly improved recruitment and retention. However, there are still routine questions from staff desirous of the TCRS program, which most county or city EMS systems have.

### **3. Improve planning and implementation of IT projects and support.**

- a.** The county has greatly improved planning for, purchase of, and ongoing support for IT projects related to EMS. E.g., cell phones for leadership team, wireless gateways, mobile data terminals, radio systems for the fleet, and high-speed internet systems for the stations.



- 4. Simplify contractual agreements, such as EMS use of county facilities**
  - a. While the county either provides or has assumed responsibility for the provision of EMS stations across the community, there are a few that still need to transition, and plans are in place for the provision of all future facilities.
- 5. Allow EMS to provide coverage to Spring Hill by simple Interlocal agreement.**
  - a. This was approved and resolved in 2020 and plans are in place for continued expansion to keep pace with population and call volume demands.
- 6. Share resources with other public safety agencies (administrative support staff, emergency vehicle maintenance, etc.)**
  - a. EMS admin team moved into the public safety building in 2022, allowing for improved collaboration. EMS fleet maintenance also moved into a shared facility at 306 Beasley, and is soon to be moved to 300 Beasley for the next couple of years until a permanent home can be determined. Discussions are under way for the future of a unified fleet maintenance.
- 7. Provide direct, daily involvement in community emergency planning for emergency preparedness and special events with other agencies.**
  - a. This continues to improve year after year due to the administrative team's location at the Public Safety Center.
- 8. Facilitate implementation of a Special Operations unit, in conjunction with other public safety agencies.**
  - a. At present the only participation of EMS with special operations is with the Sheriff's department SWAT and Swift Water Team. This participation is limited in scope and bandwidth due to primary EMS staffing challenges.
- 9. Establish benchmarks for dispatch, first response, and ambulance response times**
  - a. Since 2010, the primary goal for 911 EMS response times in the county has been to consistently achieve an average response time of 9 minutes or less, from the moment a call is dispatched by the 911 center to EMS arrival on the scene. The long-term aim is to refine our system to consistently meet a response time of 9 minutes or less 90% of the time, aligning with the NFPA guidelines for urban settings. However, it's crucial to recognize that a substantial part of Williamson County is rural. For these areas, the NFPA suggests a target response time of 14 minutes or less 80% of the time, acknowledging the unique challenges posed by lower population density, vast coverage areas, and fewer responses compared to urban areas.



### **EMS 6 Year Growth and Response Time Analysis**

	2018	2019	2020	2021	2022	2023
<b>Ambulances</b>	13	15	15	16	17	18
<b>Supervisors</b>	2	2	3	3	3	3
<b>Avg Response Time</b>	7:47	7:33	7:35	7:44	7:58	7:55
<b>90% Avg Response Time</b>	13:09	12:27	12:21	12:39	12:45	12:41
<b>Total Volume</b>	15,669	16,507	17,975	20,971	21,347	22,191
<b>Volume Growth Rate</b>		5%	9%	17%	2%	4%

\*Assuming a continued annual EMS call volume growth rate of 5%, the call volume projection for 2040 will be 50,862.

\*\*The task force assumption was for the population of Williamson County to double by 2040, which is consistent with the EMS volume assumptions.

#### **10. 2010 Personnel/ Staffing Recommendations:**

- a. Add additional peak / flex units
- b. Add Assist Supervisor
- c. Add Training / QA staff

#### **2010 staffing level – 100 EMS Personnel and 400 Medical First Responders**

- 9 – 24-hour ambulances – 365
- 2 – 12-hour peak units – 365
- 1 – Shift Supervisor – 365
- 2 – Training Officers
- 1 – Admin Assistant





- 1 – Assist Director
- 1 – Director

### **Actual 2010 to 2023 Staffing Upgrades**

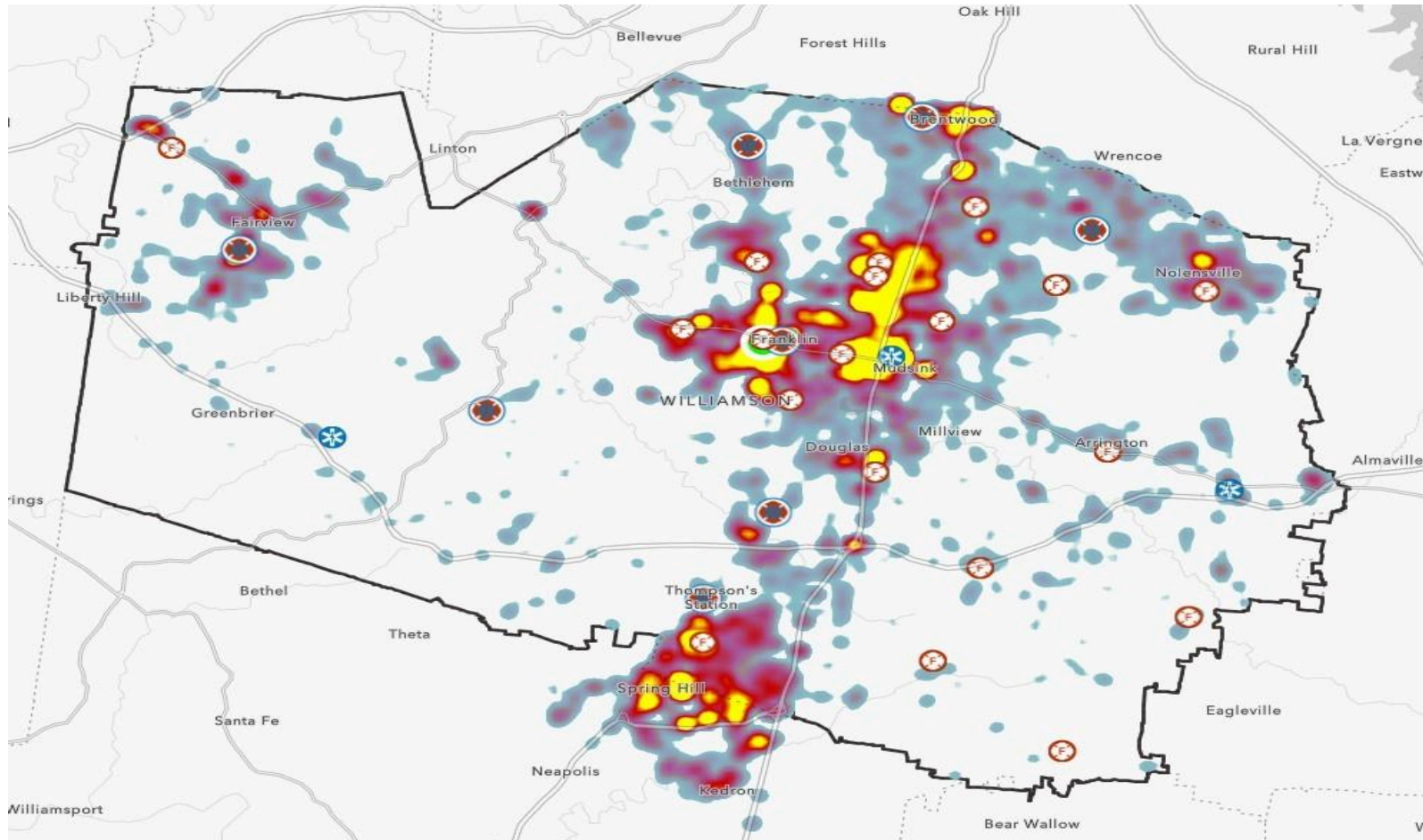
- 2016 addition of 1 – 24-hour ambulance & 6 personnel at EMS main station
- 2017 addition of 1 – 24-hour field supervisor & 3 personnel
- 2018 addition of 8 personnel to convert Medic 1 & 12 to 12 hour shifts around the clock due to call volume.
- 2019 addition of 1 – 12-hour ambulance & 8 personnel - Goose Creek
- 2020 addition of 2 – 24-hour ambulances & 1 Supervisor – Spring Hill
- 2021 addition of 1 – 24-hour ambulance & 6 Personnel - Ag Center Station
- 2022 addition of 1 – 24-hour ambulance & 6 Personnel - Heritage Brentwood
- 2023 addition of 1 – 24-hour ambulance & 8 Personnel – Nolensville
- 2023 addition of 36 full-time positions to convert 24/48 to 24/72 Schedule

### **2024 Staffing Level – 206 EMS Positions & 500 Medical First Responders**

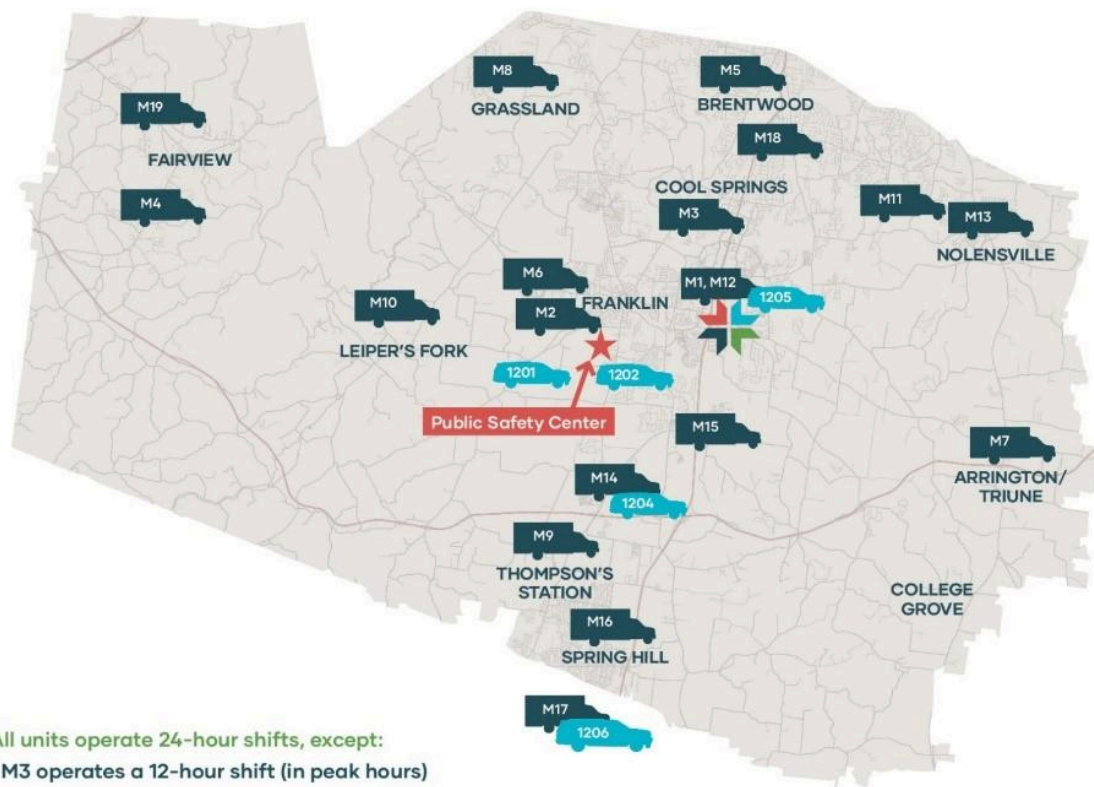
- 16 – 24 – hour ambulances – 365
- 2 – 12 – hour peak units – 365
  - *Working to add 1 - 12-hour unit in Fairview, pending facilities*
- 3 – District Chiefs (formally Supervisors)
- 1 – Training Officer
- 1 – Quality and Safety Officer
- 1 – Logistics Officer
- 1 – Fleet Manager
- 1 – Administrative Specialist
- 1 – Assist Chief – Administration
- 1 – Assist Chief Training, Quality & Safety
- 1 EMS Chief



## 2023 EMS Call Volume Heat Map



## 2023 EMS Deployment Map



All units operate 24-hour shifts, except:

- M3 operates a 12-hour shift (in peak hours)
- M14 operates a 12-hour shift (in peak hours)
- COMING SOON TO FAIRVIEW: M19



**11. The 2010 report recommended a station needs assessment and development implementation plan to determine the most appropriate action for current (renovate/ relocate) and future facilities, including the downtown Franklin station, WMC campus, etc.**

**a. Stations Planned and completed**

- i. 2011 – Fairview – moved into new main fire station
- ii. 2016 – Station 24 – Joint Fire & EMS – Supervisor & Medic 14
- iii. 2016 – Public Safety Building – EMS admin moved in 2022
- iv. 2020 - Spring Station 2 & 3 – Supervisor & Medic 16 & 17
- v. 2021 - Ag Center EMS & Franklin Fire Station – Medic 15
- vi. 2021 – Property acquired for New Triune Joint Fire EMS facility build
- vii. 2022 – Heritage Way Brentwood – Medic 18
- viii. 2022 – Finalized a 40 year land lease with FFUMC – Initiate EMS Station design, projected build start 2024 m
- ix. 2022 – Finalized property acquisition Carters Creek & 840, initiated EMS / Fire station design – project build start 2024
- x. 2022 / 2023 – Hospital Station Renovations to move admin & add bedrooms
- xi. 2023 – Fairview Fire moved into renovated building – rear of fire station
- xii. 2023 – Fire Station 16 in Nolensville – Renovations for Medic 13
- xiii. Future plans in various states:
  1. Property acquisition dollars approved for old & new highway 96 area
  2. Triune Fire / EMS station – design 2024 – build 2025
  3. Fairview Fire / EMS station – possible collaboration with Fairview Fire for a 2025 build.

**2. 2010 Equipment/ interoperability requests:**

- a. Replace field RMS tablet computers with ruggedized units
  - i. 2022 Williamson Medical Center provided new ruggedized computers and iPads for patient care documentation.
- b. Provide, through EMS, all medical devices/equipment used by other public safety agencies
  - i. This project has not occurred.



### **3. Move record management system to county, integrated with dispatch and responders**

- a. Moving the EMS medical records system to county funding has not occurred at this point, however, the county has funded First Watch in 2017 for real-time system performance surveillance and First Pass in 2023 for real-time quality assurance monitoring.

### **4. Train and receive approval from medical director for: Advanced Practice Paramedics, Hypothermic Therapy, and other “cutting edge” clinical practices**

- a. The introduction of the Critical Care Paramedic program in 2009 marked a significant advancement in Tennessee emergency medical services. This program set the stage for our team to pioneer advanced field procedures, most notably the administration of blood, making us the first ground 911 EMS system in the state and fourth nationally to adopt this practice. Since then, our capabilities continue to expand to include things like Rapid Sequence Intubation, advanced pharmacological treatments, cutting-edge mechanical ventilators, and other life-saving skills.
  - i. In 2009, our first team member achieved state-licensure as a critical care paramedic. Fast-forwarding to 2024, over a third of our department consists of licensed critical care paramedics, with another third traditional paramedics, and the remaining third Advanced EMTs. Our community 911 EMS team boasts one of the most sophisticated advanced clinical staffing models in the nation, a standard we are committed to continually enhancing.

## **2024 EMS Task Force Recommendations**

1. Develop and maintain forecasted EMS needs assessment and strategic plan to include, staffing, equipment and facilities, based on historical trending, projected community growth, and innovations to service delivery.
2. Use the NFPA recommended EMS response time goal of 9 minutes or less 90% of the time in urban areas as a county-wide key performance metric to support the on-going system development plans.
3. Refine or develop Emergency Medical Dispatch (EMD) evidenced based protocols that identify call acuity and prioritization with optimized response models that improve patient outcomes and system efficiencies.



4. Develop alternative response capabilities and or models, appropriate for condition or acuity. E.g., alternative behavioral health response when there is no medical complaint or injury.
5. Strengthen System Wide Quality Assurance efforts, to include regular key performance metric reporting, review, and collaborations designed to drive training and competency initiatives that improve outcomes.
6. Staff rescue/medical fast cars and/or other delivery systems for the majority of calls requiring only a two (2)-person response. Mental Health First Aid certified responders are an example of staffing and equipping for appropriate response.



## Emergency Communications 911

The Mission of the Williamson County Department of Emergency Communications is to:

### **Assist - Provide - Inspire**

- Assist the public in their time of need
- Provide the lifesaving flow of information between the community and response partners
- Inspire trust in public safety

The Williamson County Emergency Communications (911) Center is a medium-sized consolidated Public Safety Answering Point (PSAP), featuring 19 seated dispatch positions and six call-taking positions, catering to the needs of the entire community.

Williamson County Emergency Communications began providing EMS and fire dispatch services in 1989. Presently, the county dispatches for five law enforcement agencies, seven career and volunteer fire departments, emergency management, animal control, and emergency medical services (EMS). The exception is that the City of Brentwood dispatches their Police and Fire Departments, and 911 calls requiring Emergency Medical Services (EMS) are transferred to the county PSAP to be dispatched.

The Williamson County 911 team is composed of 47 Telecommunicators, eight Supervisors, and eight Administrative staff members. The allocated budget for salaries and benefits for these positions in FY24 amounted to \$4,826,000. Williamson County obtained a reimbursement of \$3,371,000 from the Williamson County Emergency Communications District.

2022 Statistics – 911 calls 53,965; administrative calls 139,980

2023 Statistics – 911 calls 59,105; administrative calls 182,459

2022 dispatched 25,265 calls to fire system.

Volunteer fire: 5,321 calls - 51% medical

Career fire: 19,944 calls - 58% medical

2023 dispatched 29,138 calls to fire system.

Volunteer fire: 8,786 calls - 77% medical

Career fire: 20,352 calls - 67% medical

Insurance Service Organization (ISO)

Emergency Communications accounts for 10% (or 10 points) of a Fire Department's ISO grade.

Williamson County 911 is currently receiving the full 10 points.





## **National Fire Protection Agency (NFPA)**

The NFPA standards for receiving emergency calls and alarms are detailed below.

### **NFPA Standard 7.4.1**

- 90 % of events received on emergency lines shall be answered within 15 seconds, and 95 % of alarms shall be answered within 20 seconds.
- Williamson County Communications is achieving a 96% of emergency calls being answered within 15 seconds for 2023

### ● **NFPA Standard 7.4.3**

- Emergency alarm processing for the highest prioritization level emergency events listed in 7.4.3.1 through 7.4.3.2 shall be completed within 60 seconds 90 percent of the time.
- Williamson County Communications is achieving a 84% of emergency calls being dispatched within 60 seconds for 2023

## **Training**

All telecommunicators are trained on the Association of Public Safety Communications Officers (APCO) Core Competencies and Minimum Training Standards for Public Safety Telecommunicators, Supervisors, Certified Training Officers. Pre-arrival instruction training is also being provided for all disciplines.

## **Recommendations:**

1. Continue to monitor demand on 911 center and make staffing adjustments to match the projected growth needs and department operational requirements.
2. Continue to monitor dispatch alarm times, NFPA Standard 7.4.3, and put measures in place to meet NFPA standards.
3. Provide dedicated telecommunicators that would handle high intensity incidents.
4. Continue to monitor radio communications usage and trends pertaining to growth of EMS and the fire service as relates to seated position in the dispatch center.





## **FIRE SERVICE STAFFING**

Fire service staffing is often discussed in two primary categories: paid and volunteer fire service professionals. The mixing of these in the same department is referred to as a combination department. Staffing presents itself as a seemingly straightforward and simple area and in many cases the progression is: utilize volunteers, hire staff supported by volunteers, move to all paid.

While these terms are helpful and important, they only articulate one facet of fire service staffing. This staffing overview or structure is from the perspective of firefighter's pay only and is one of many staffing considerations. As we work on staffing models (volunteer, combination and/or paid model) that best serve Williamson County, several facets are to be considered, but not limited to:

- How many firefighters do we need?
- How long should response times be, or what are the response goals for fire and EMS in Williamson County?
- What is the area that requires coverage?
- How many structures are within five road miles of the fire station?

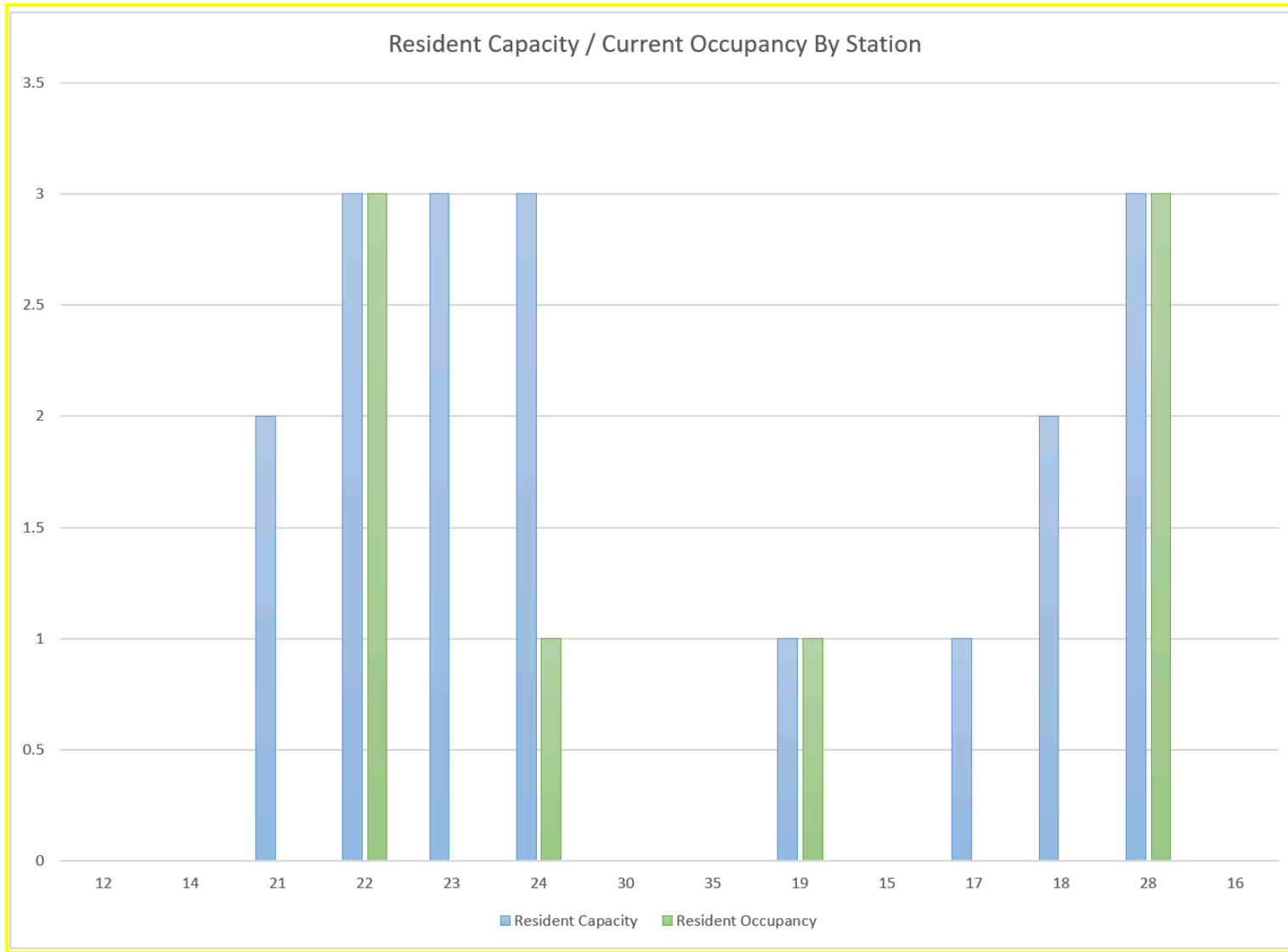
There are currently 13 stations within the three volunteer departments that serve Williamson County, with at least 7 proposed future stations; we have a planning number of 20 stations that need staffing.



Additionally the cities currently operate 17 fire stations within Williamson County. Note Spring Hill has three stations with 1 located inside Williamson County.

<b>Department</b>	<b>Brentwood</b>	<b>Fairview</b>	<b>Franklin</b>	<b>Nolensville</b>	<b>Spring Hill</b>	<b>Total</b>
# of Stations	5	2	8	1	1 (3)	17
Avg # of all fire personnel on shift	25	6	51	7	24	75
# of all paid firefighting personnel in department (including fire officers)	75	21	161	17	81	355
# of Command Staff (all fire officers)	4	9	46	5	7	71
# of Admin Staff (non-fire personnel)	2	0	12	0	2	16
# of Volunteers	0	1	0	15	0	16
ISO Rating	2	3	1	4/4y	3	N/A
Staffing makeup	All Paid	Combination	All Paid	Combination	All Paid	N/A





## NFPA STANDARDS<sup>2</sup>

The National Fire Protection Association (NFPA) is a not-for-profit corporation that develops “voluntary consensus standards” to promote the science and improve the methods of fire protection and safety related goals. These stages of the development process for the standards and codes include:

1. Public input
2. Public comment
3. NFPA Technical Committee meetings
4. Council appeals and issuance of Standard

Each technical committee is composed of a diverse group of stakeholders from the public and private sector. Within the four distinct stages there are multiple steps for the final standard to be a truly consensus-based document.

NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operation, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments and NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operation, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments contain the minimum requirements relating to the organization and deployment of career and volunteer fire departments. NFPA 1710 and 1720 are not required by law but are considered the standard used to organize and deploy resources by fire departments.

The NFPA 1710 response standard addresses staffing by structure type and size:

Structure Type	Size	Minimum Staffing/Min. with Aerial Device Deployed
Single Family Dwelling	2,000 ft <sup>2</sup>	14/ 15
Open Air Strip Mall	13,000 ft <sup>2</sup> to 196,000 ft <sup>2</sup>	27/ 28
Garden Style Apartment	1,200 ft <sup>2</sup> apartment, 3 stories	27/ 28
High- Rise	> 75 ft from fire dept. access	42/ 43

NFPA 1720 1.1 states that the standard is applicable to volunteer and combination fire departments.

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<sup>2</sup> University of Tennessee County Technical Assistance Service: Institute for Public Service. Lincoln County Fire Protection Evaluation Report



NFPA 1710 turnout and travel time apply to career fire departments. References to EMS apply to Fire Departments operating an EMS division.

	<b>Incident Type</b>	<b>Seconds</b>	<b>% of Time</b>
Turnout time	fire and special operations	80	90
Turnout time	EMS	60	90
Travel Time	arrival of a first responder with AED	240	90
Travel Time	ALS where a first responder with AED arrives in 240 seconds or less.	480	90

When volunteer stations are staffed, the turnout time expectations are:

- 90 seconds for fire and special operations, for 90% of alarms
- 60 seconds for EMS, for 90% of alarms

NFPA 1720 response standard is categorized by community demographics:

<b>Demand Zone</b>	<b>Demographics</b>	<b>Min. Staff to Respond</b>	<b>Response Time (minutes)</b>	<b>Meets Objective(%)</b>
<b>Urban area</b>	> 1,000 people/mi <sup>2</sup>	15	9	90
<b>Suburban area</b>	500-1,000 people/ mi <sup>2</sup>	10	10	80
<b>Rural area</b>	< 500 people/mi <sup>2</sup>	6	14	80
<b>Remote area</b>	Travel distance 8 miles	4	Dependent on travel distance	90



## National Institute of Science and Technology Study<sup>3</sup>

Crew size and staffing are important factors in providing a reliable and efficient delivery of emergency services. Fire departments today provide a larger variety of services compared to 30 years ago. In addition to fire suppression, fire prevention, public education, vehicle extrication, technical rescue, EMS response, hazardous materials, natural and manmade disasters require a wide variety of training and equipment, as well as the personnel needed to respond.

The National Institute of Standards and Technology (NIST) conducted more than 60 fireground field experiments and released a report titled *NIST Report on Residential Field Experiments* in 2010 to determine the effect of crew size on basic residential fireground activities. Some of the highlights from that report include:

The four-person crews completed all tasks on the fireground on average seven minutes faster (30%) than the two-person crews.

The four-person crews put “water on the fire” 16% faster than two-person crews.

Three-person crews were 10% faster than the two-person crews.

The four-person crews completed laddering and ventilation activities 30% faster than the two-person crews and 25% faster than the three-person crews.

The four-person crews started and completed primary search and rescue functions 30% faster than the two-person crews.

There is a direct correlation between crew size and the time required to complete critical fireground tasks that impact firefighter and occupant safety.

## Recommendations

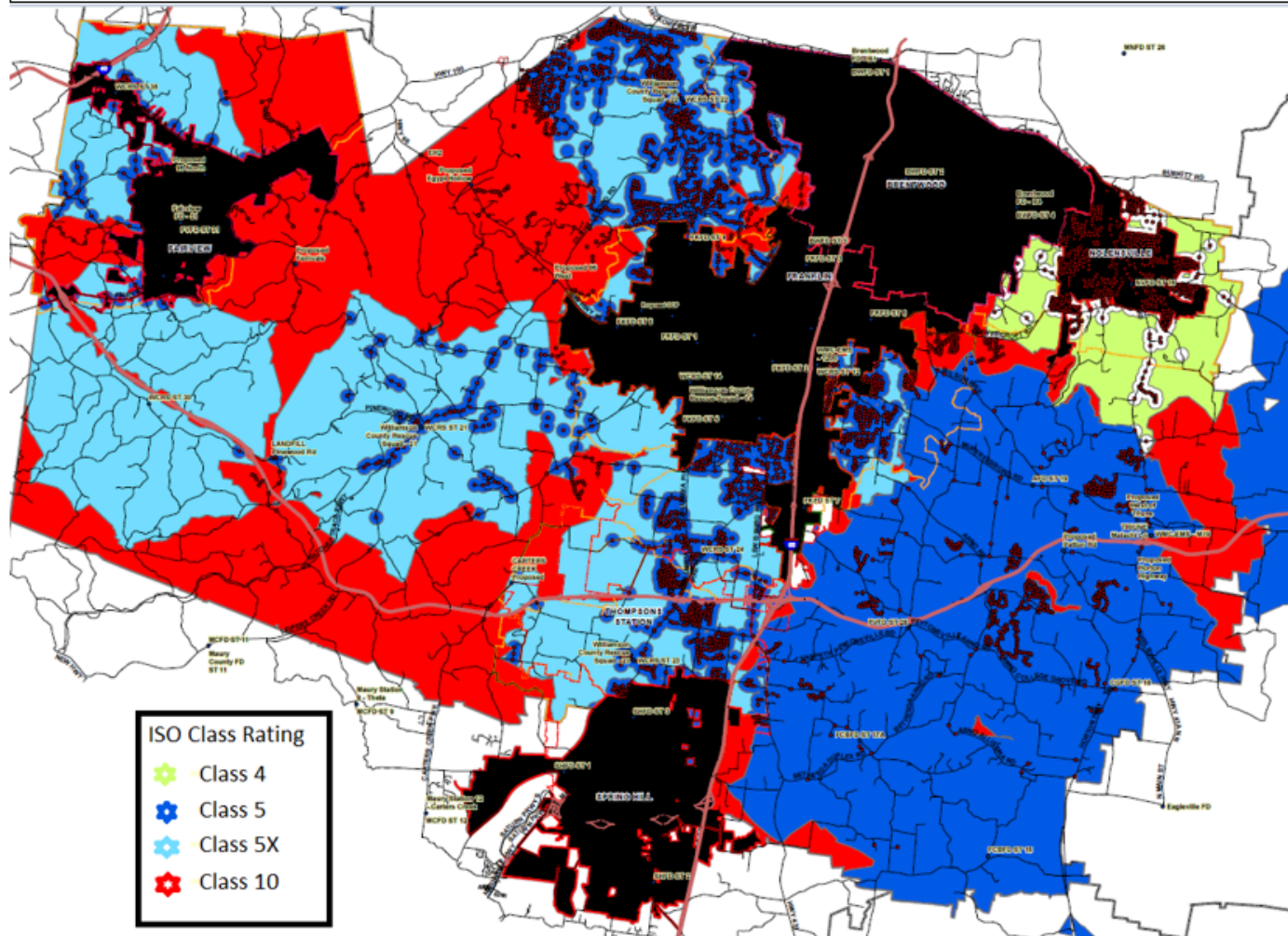
1. Using NFPA 1710 as a guide, explore opportunities for EMS to achieve the time objectives identified for Turnout Time, and Travel Time across the EMS Response Area.
2. Using NFPA 1720 as a guide, explore opportunities to achieve the staffing and response time objectives identified for structural firefighting.
3. Using NFPA 1710 as a guide, explore opportunities for Emergency Communications to achieve the time objectives identified for Alarm Handling and Alarm Processing for both Fire and EMS.
4. Explore opportunities to maintain or improve an ISO Class 5X or better in the unincorporated Williamson County.

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<sup>3</sup> Abid. Lincoln County Fire Evaluation CTAS Report



## 2024 ISO Rating Class



## Facility Location Considerations

In the University of Tennessee Lincoln County Study, two models were presented and serve as resources for Williamson County planning efforts:

*Fire station location is a complex problem involving many factors beyond geographic assessment of road networks and population distribution, including the constraints of available sites, staffing, budgets, regulatory requirements, and locally defined community needs and expectations. Even the geographic location of fire stations may be approached in different ways. Site location problems, like any typical economic distribution issue -- may lean towards either an efficient solution – the most customers served with the fewest facilities-- or an equitable solution – where facilities are located to give all customers equal access to resources. <sup>[1]</sup>*

[1] Lincoln County Fire Study 2022 29

The task force reviewed current plans for facility additions.  
It is the recommendation of the task force to:

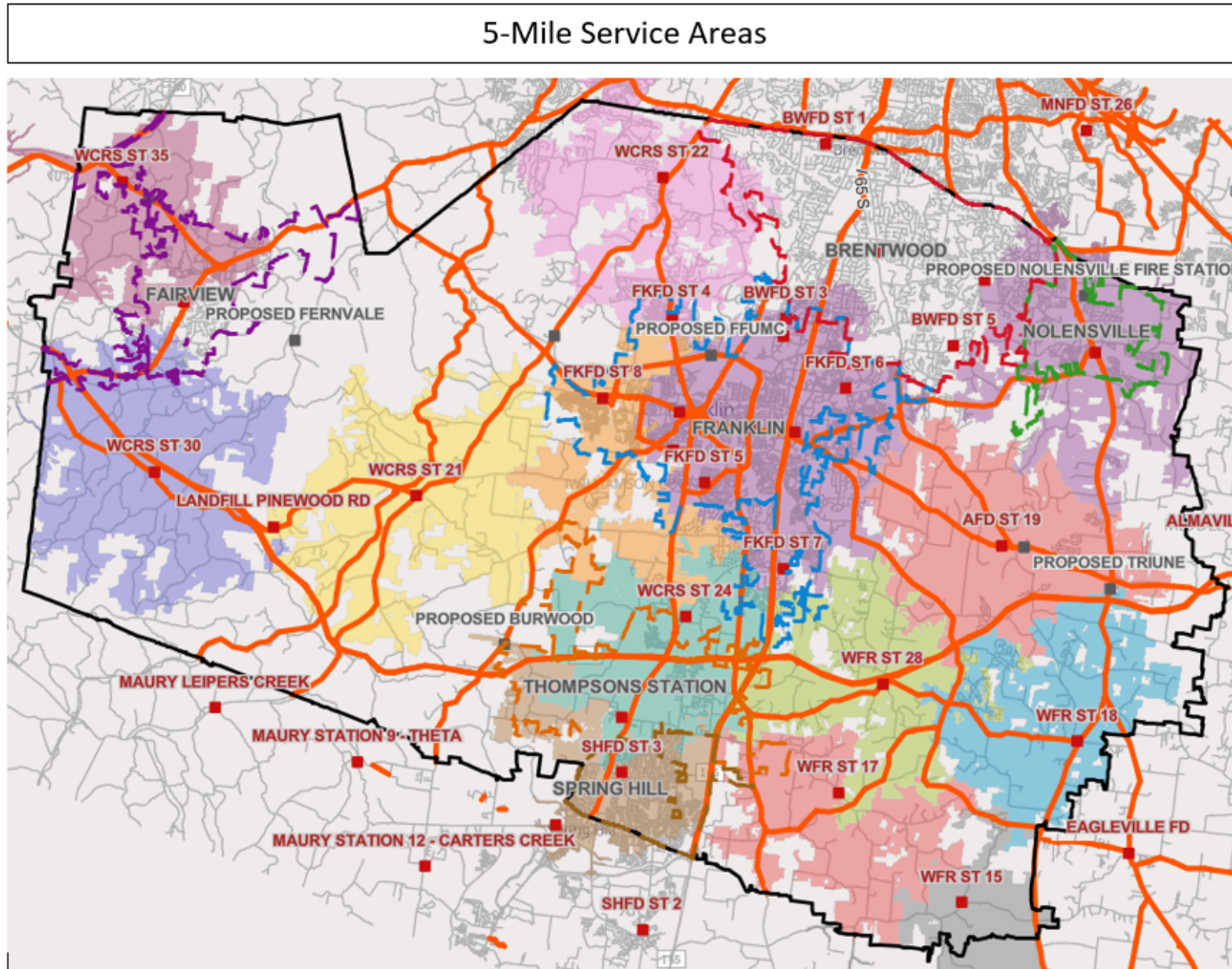
### RECOMMENDATIONS

- Prioritize the funding of additional fire and EMS stations as currently proposed to meet other response standard recommendations contained in this report.
- Where possible, renovate existing stations with priority on adding live-in capacity.
- Assess the feasibility for all of Williamson County to be within five (5) road miles of an emergency services station.
- Continuous seeking for land and collaborative spaces for locating future stations

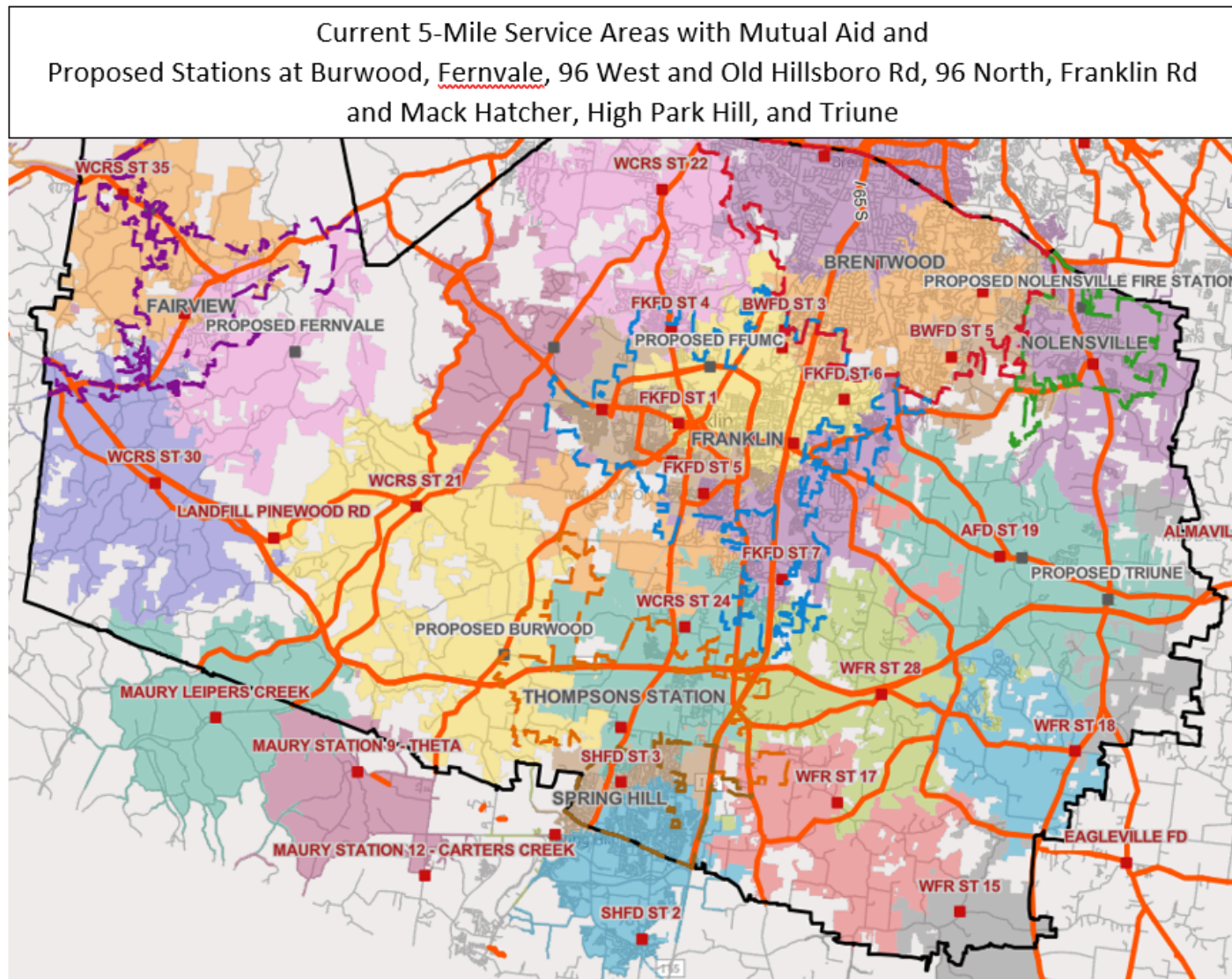




The map below portrays the current 5-mile service area from each existing fire station.

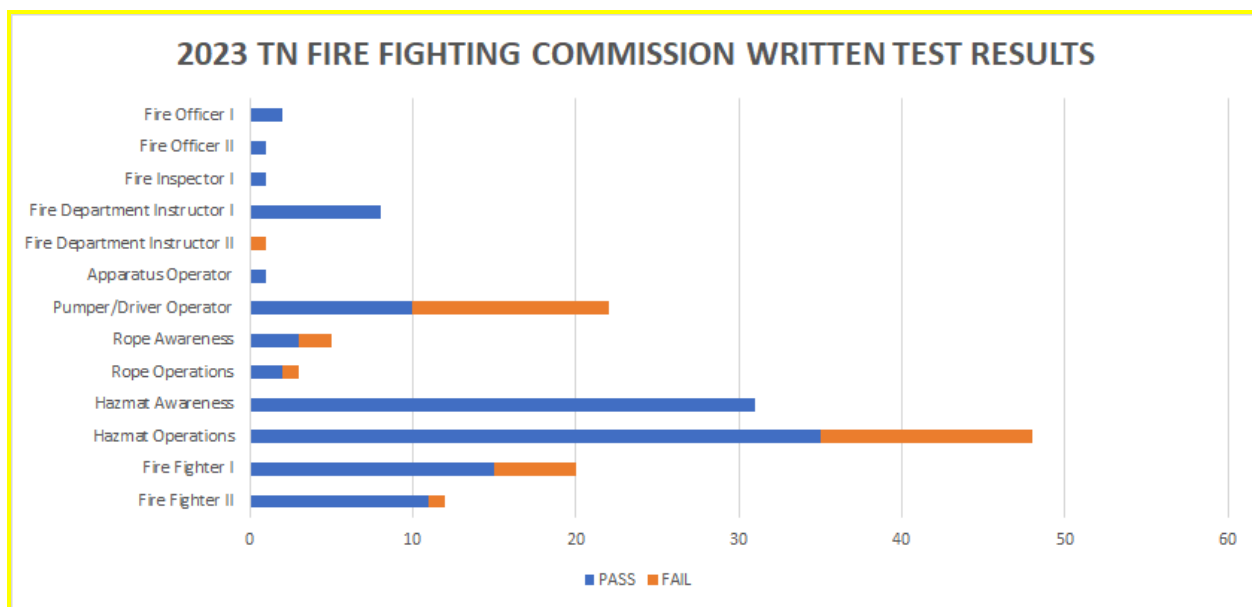


The map below portrays the future 5-mile service area with the addition of mutual aid and seven proposed fire stations.

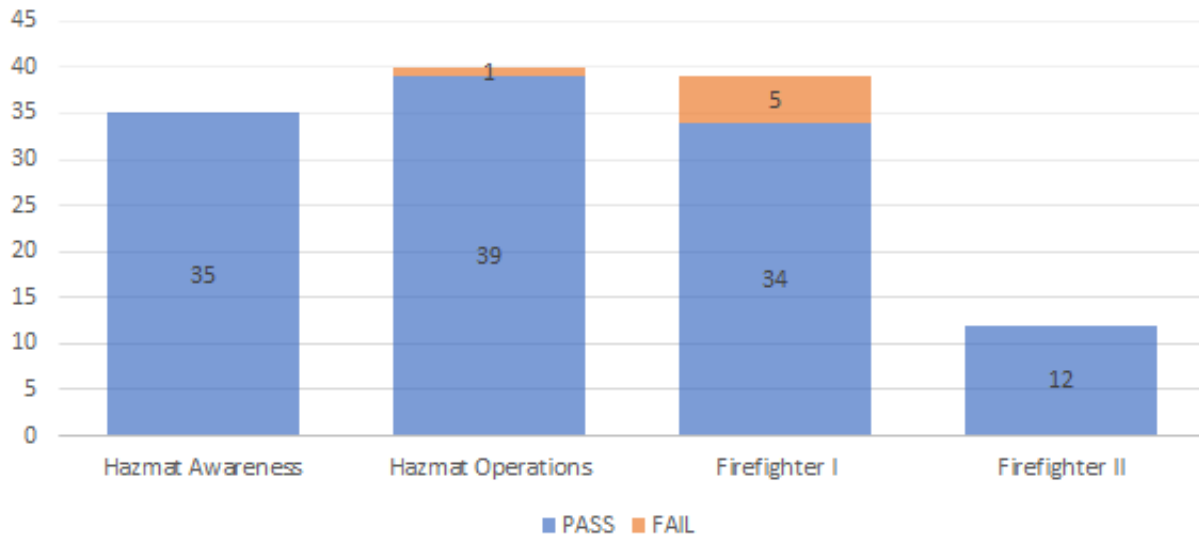


The Administrative Fire Captains, employed by Williamson County, facilitate various training classes throughout the year for the volunteer fire service. At the end of certain courses, volunteer firefighters are able to challenge the written and/or practical tests associated with the class to receive a certification that they have met the NFPA requirements for that position.

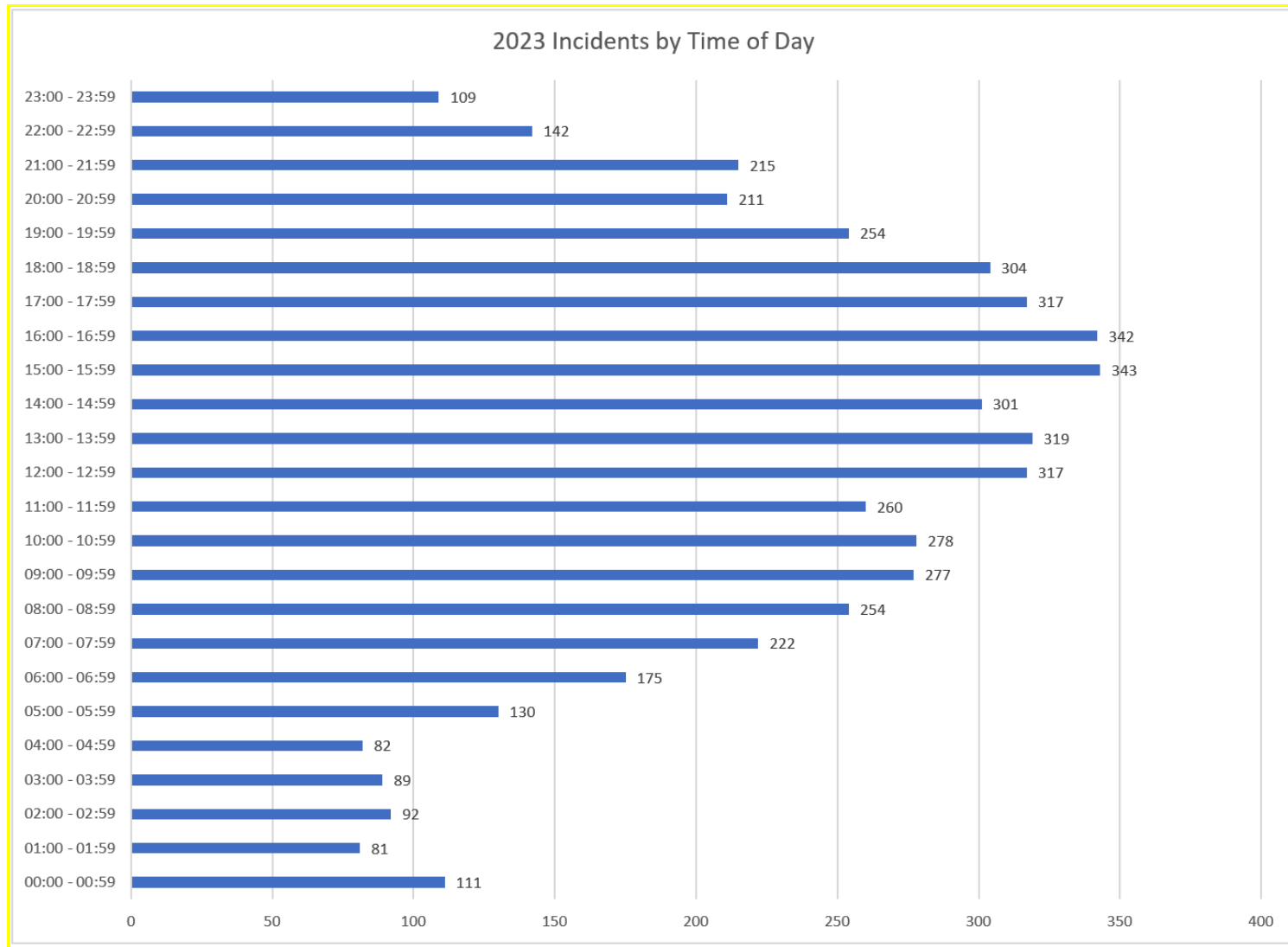
The 2023 Written and Practical test results for each of the classes are pictured in the two charts that follow. In addition to these achievements, 117 volunteers met the minimum 30-hour training requirement to receive the State Educational Incentive Program stipend.



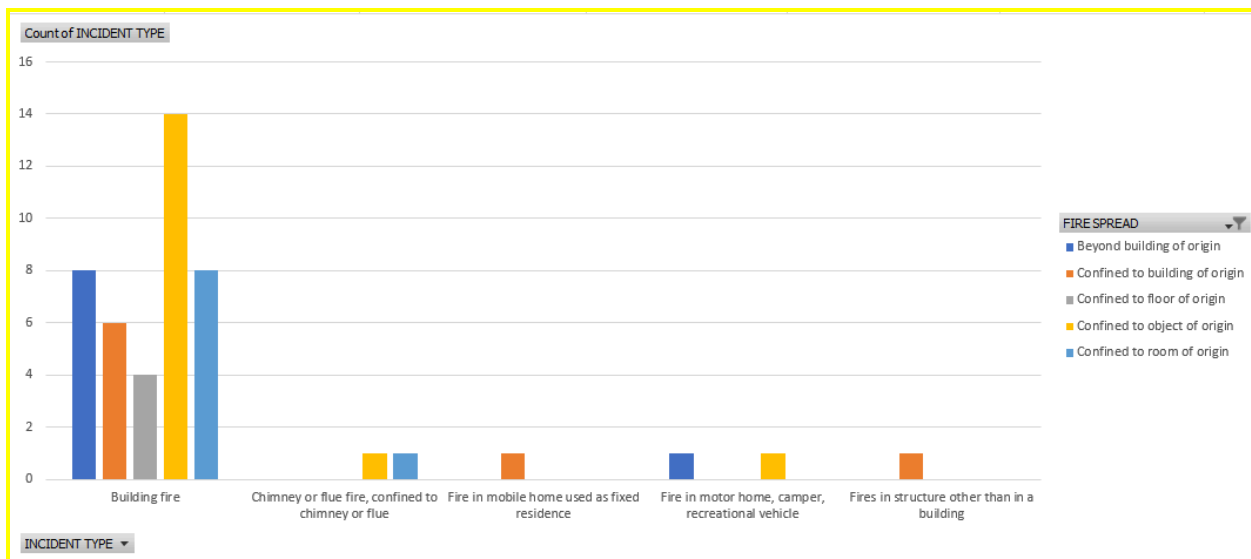
## 2023 TN FIRE FIGHTING COMMISSION PRACTICAL TEST RESULTS



The chart below portrays the 2023 incidents (fire service) by time of day and is one of many factors to be considered when evaluating staffing needs.

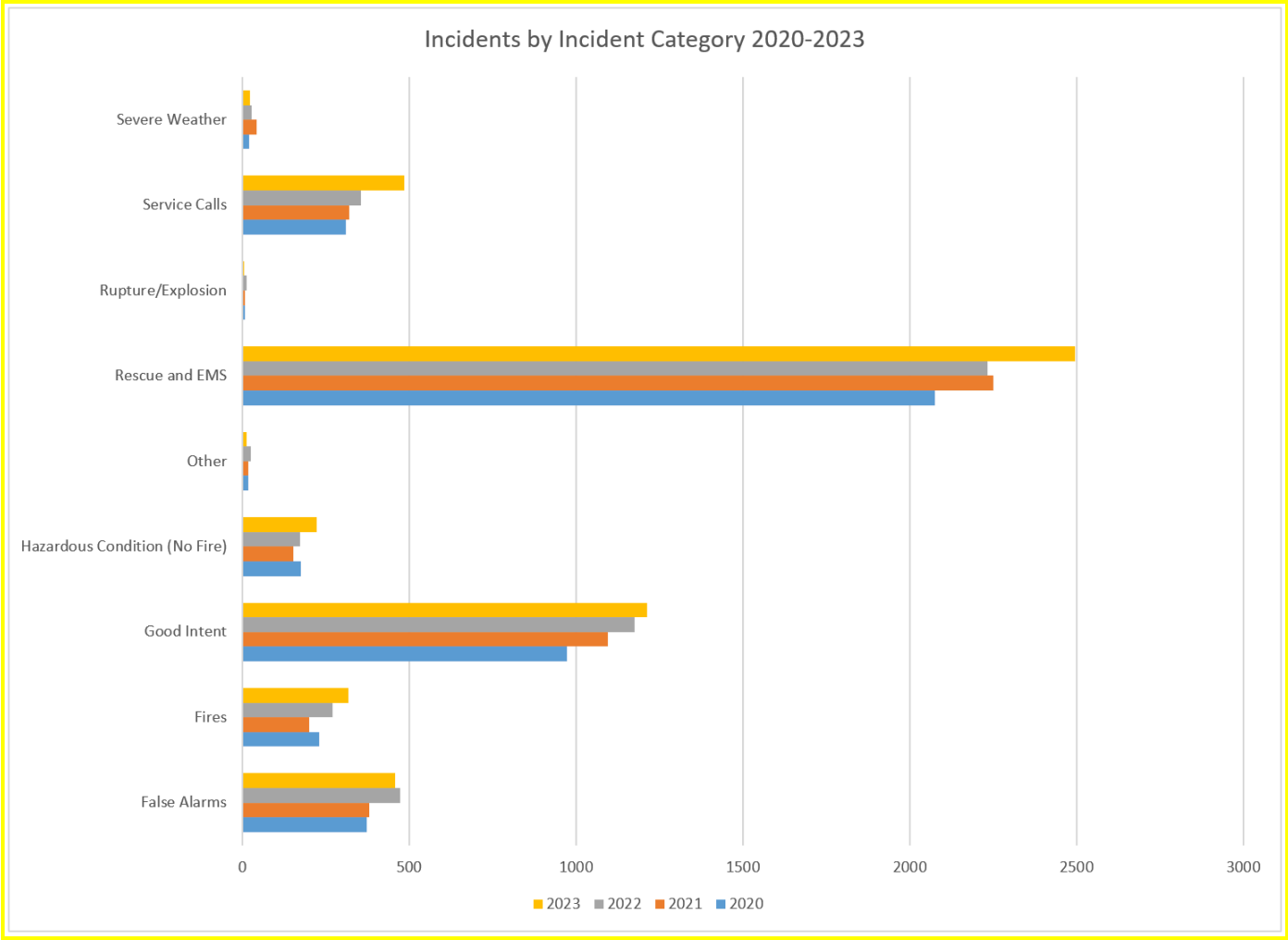


The chart below depicts how far fire spread within or beyond a structure wherein it originated and if used correctly, can be an indication of how well a fire department performs. While useful in evaluating the response of the fire department, current NFIRS data collection methods do not allow departments to document the spread of the fire prior to their arrival. In some cases in rural parts of the county, houses can be fully consumed by fire before the fire is even discovered. In other cases, a fire may be confined to an object of origin simply because it was extinguished prior to the fire department's arrival.



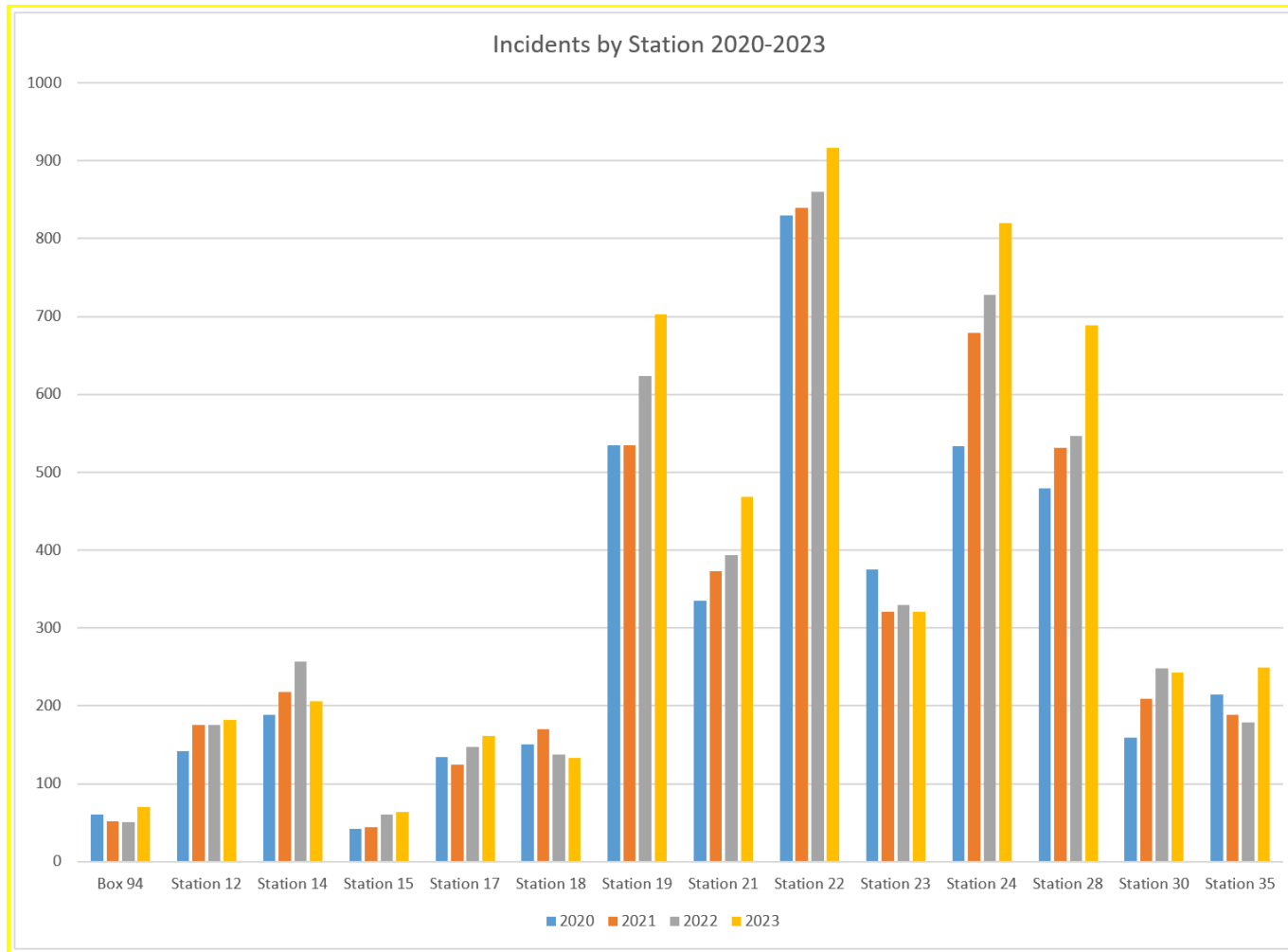
The chart below depicts the number of incidents by incident category for years 2020-2023 and helps to illustrate the current and future demands on the fire service.







The chart below depicts the number of incidents by incident category by station for years 2020-2023 and helps to illustrate the current and future demands on the fire service by station response area.





## **FIRE SERVICE CONSIDERATIONS**

### **FUNDING**

Funding models for the FIRE service are complex and involve significant study and collaboration with other entities. Once an organizational structure and standard performance have been fully agreed upon, funding strategies for that structure can be explored and determined. It is important to note that there are multiple implications for funding strategies. The staff team is responsible for determining and recommending the best funding strategy that matches our community's needs and resources.

### **BEST PRACTICES**

An important research task for this team was learning from best practice models across the nation. Chief Graig Temple coordinated a panel discussion and invited the guests to a virtual session. We are grateful for Chief Temple's planning and moderating of the panel. A summary follows:

On September 6, 2023, the Public Safety Task Force (PSTF) had the opportunity to meet virtually with several combination fire department leaders from across the country to discuss various topics centered around the migration to a combination Fire/Rescue system. Through a predetermined list of questions that was formulated by PSTF members, panelists addressed items including: governance, budgeting, communications, organizational command structure, recruitment/retention, live-in programs, and overall lessons learned.

Panelists included Chief Officers from the Montgomery County Fire and Rescue Service (MD), Fairfax County Fire and Rescue Department (VA), Prince George County Fire Department (MD), International Association of Fire Chiefs – Volunteer Combination Officers Section (DE), and the Brazoria County Emergency Services District #3 (TX).

For over an hour, the moderated dialog between the panelists and members of the PSTF allowed for an overwhelming flow of information, best practices, and take-a-ways. Although there were identified stark differences between the panelist's departments due to population density, department overall size, and call volume, the PSTF was able to glean applicable information and factors that would need to be considered and addressed here in Williamson County.

It was agreed upon by all the panelists that the "Department" had to have a singular mission, goals, and leadership structure. Policies & Procedures and Standard Operating Guidelines must also be uniform and consistent so that there is no confusion; that all operations both administratively and operationally were seamless and predictable.



## JOINT EFFORTS

Communication recommendations from the 2010 Public Safety Task Force included a Public Information Officer (PIO) position. This position was implemented and proved to be invaluable during the COVID-19 pandemic. Going forward, the communications of a united leadership for the changes and updates to services, infrastructure, and funding as we prepare for the future will be essential in increasing public awareness and support.

Transitioning from an “all respond” model to an appropriate optimized resource model will require collaboration among all departments and phase in implementation. Strategic prioritization can begin with “lift assist” and “behavioral health” calls where an “all respond” model not only places critical resources unavailable, it can be an added unintentional escalation of risk to the patient.

Drawing on our community strengths for collaboration with other entities, task force members may be most effective in collective arrangements with a variety of educators and providers, including: Columbia State Community College, Williamson County Schools (WCS), Franklin Special School District (FSSD), Williamson College, Leadership Franklin, Find Hope Franklin, etc.

Funding strategies will be best realized through the collaboration and agreement of a unified leadership team. While various funding sources may be available, once the best overall strategy is determined, the leaders will be most effective in acting as one voice when ready to pursue. Staying abreast of and engaging as needed in changes to state laws or ordinances that impact emergency services will be an important aspect going forward. At a local level, working with local planning and development leaders to address innovative affordable housing solutions that enable providers of emergency services to live and raise their families within the community where they serve, will be an attraction for recruitment and retention of staff whether paid or volunteer.



## CONCLUSION

Several recommendations contained in the report will require a long-term approach to reach the full level of service. Cultivating relationships and partnerships is a high priority.

Collaboration touchpoints with key leaders with an annual review of this report and other key performance data will assist leaders in taking steps for continuous improvement and development of services to meet community needs.

The report of the Task Force serves as a guide for the ongoing work of designing and developing a robust fire and EMS service delivery model that serves the growing needs of Williamson County for years to come.



## REFERENCES and ENDNOTES

Data sources are noted and remain the Office of Director of Public Safety for access as needed.

