



To: Town Manager Jamie Justice, Mayor Rusty Knox, TOD Board of Commissioners
Date: January 26, 2023
Subject: 2022 Davidson Fire Department Annual Report

On behalf of the members of the Davidson Fire Department, I am pleased to present the 2022 Annual Report. This report outlines the operations, training, accomplishments, and opportunities that the fire department addressed for the 2022 calendar year. The past year was significantly busy around all areas within the department. Responses to emergency calls, training requirements, public education events, emergency management and special projects were just a few examples of areas where the organization dedicated a tremendous amount of time.

This past year brought the highest number of emergency incidents responded to in department history along with responding to the highest amount of service calls over a two-day period between Christmas Eve and Christmas Day. As has been previously stated, calls for emergency service response will continue to increase as the town and surroundings areas continue to grow. The addition of new Tower 1 in May 2022 will allow the department to operate at a more efficient level on the incident scene from a tactical standpoint.

The department also focused a tremendous amount of time in planning the future direction of the organization. The completion of the Community Risk Assessment/Standards of Cover and the Strategic Plan were two critical elements completed that will help establish the future growth and development of the department for many years.

In closing, I would like to thank the staff members of the fire department for their level of professionalism and dedication over the last year. Each member of our organization plays a key role in helping to provide emergency service delivery to the citizens of Davidson. Without their diligence, professionalism, and dedication, the fire department would not be able to successfully meet the emergency service delivery demands within the town.

Respectfully,

J. Ryan Monteith



Emergency Management

One of the functions of the fire department is to help facilitate the Town of Davidson's Emergency management function through planning, preparation, response, and command and control. The Town of Davidson has consistently taken a proactive approach in proper planning and preparation regarding "All Hazard" events. Managing emergencies cannot only be the sole responsibility of Davidson Police Department and Davidson Fire Department. It takes a combined effort of all town departments to help facilitate management and response of large-scale incidents within the town. For the last few years the town has steadily improved the ability to effectively manage large scale incidents and events. Through proper planning, preparation, and coordination, the town is ensuring that we are better prepared for tomorrow than we are today.

For 2022, the Town of Davidson activated the Emergency Operations Center on (3) separate occasions to help manage events and incidents. The town responded accordingly to the natural weather events of Winter Storm Izzy (January 16th, 2022) and Hurricane Ian (September 30th, 2022) to ensure that public safety and public works had the appropriate resources to mitigate any issues during these events. The response to Winter Storm Izzy was unique in that the town housed North Carolina National Guard assets for this particular event. The town was proactive in reaching out to county emergency management to request additional assets. This request was filled by state emergency management and those state assets were positioned accordingly at Fire Station 1 and Fire Station 2 during the weather event. The town also effectively managed a "Pro Choice Gathering" that occurred on June 26th, 2022. And as with tradition, the town effectively managed operations for "Christmas in Davidson" and the "North Meck Holiday Parade" December 1st – 3rd, 2022.

With changes coming to the former town hall, the additional space obtained through renovation will allow the town to be better prepared to address future events and incidents. The additional space gained in the former board room will create a more sustainable and dedicated Emergency Operations Center which will provide space for more enhanced technology. The town also submitted a UASI (Urban Area Security Initiative) grant request for more technology options within the EOC. We hope to receive positive news on this grant request by Spring 2023.



Fire Prevention and Public Education

This past year brought a more sense of a “return to normal” approach with regard to interacting with the community. With Covid statistics improving throughout 2022 and along with the removal of state gathering restrictions, the department was able to get back to delivering fire prevention and public education events. Over the course of the year, many education classes were held offsite and at the station locations for citizens as well as citizen groups. This was a positive change as it allowed the department to focus on prevention and education which serves as a primary core of our mission statement. Over the course of the year, the department participated in events such as Town Day, the Farmer’s Market, the Halloween March, Christmas in Davidson, and the North Meck Holiday Parade. These events allow our firefighters to interact with our citizenry in a non-emergency manner which often creates a better setting as it is a non-stressed environment. Citizens are able to take the time to look at the apparatus and ask questions about department responses to certain emergencies. This also allows our members to provide safety education tips to our community members.

Annually, the department will perform check on smoke and carbon monoxide detectors for residents. This is an important service provided by the department because these are critical for “first line of defense” notification in the event of an emergency. The department was fortunate to receive a “Smoke Detector Canvass Grant” from the North Carolina Office of State Fire Marshal (OSFM) in early 2022. This grant provided free smoke detectors to the department which allowed our members to canvass more areas of Davidson. The goal of this project was to ensure all residents in Davidson have the opportunity to receive a working smoke detector within their residence. This program was successful as the fire department was able to target geographical areas such as West Davidson and East Davidson (Highway 73 @ Stanley McElrath Road).

Moving forward, we anticipate more opportunities in 2023 for the fire department to expand on our fire prevention and public education efforts. The department is refining certain “benchmark” areas internally to ensure more focused classes and events occur. This will ensure that we are meeting the requests and needs of the citizens moving forward.



Training

Training is the “back bone” of every fire department across the country. A department must ensure that the members are highly trained to accomplish the core mission of the organization. Davidson Fire Department is no different in that our training division does a tremendous job in providing quality training to our members. Annual training topics include EMS, incident command, fire ground strategy and tactics, officer training, rescue training, and driver operator training. The training division also administers the required annual OSHA training which is required by federal law.

The department is fortunate to employ dedicated members that are qualified as instructors through the North Carolina Department of Insurance / Office of State Fire Marshal. These department instructors are well versed in facilitating training sessions that test the limitations of our members while also ensuring that the department is applying “best practices” when transitioning from the training setting to the operations world. The training sessions are designed to challenge the members while also improving on their skill sets that they utilize daily.

For 2022, the department captured more than **11,000** training hours among department members. This equates to an average of **183.3** training hours per department member. Many hours were spent in 2022 completing driver training on new Tower 1. To ensure compliance and understanding of the new apparatus, a robust “Driver Operator Check-out” program was developed specifically for that apparatus. Staff members spent a great deal of time starting in May 2022 of understanding the features, advantages, and limitations of the new apparatus. This required a tremendous amount of tactical training along with driver training so that our members were consistent in their skill sets with the apparatus. There will be more advanced training with Tower 1 in Spring 2023. This training will be centered on more “tactics and strategies” and will be delivered by current FDNY personnel who specialize in tower apparatus operations.

This past year also saw advanced training within the area of Active Violence / Active Shooter Training. All full time employees received an (8) hour training session in November 2022. This also included sending the Battalion Chiefs and members of the Command Staff through an additional (8) hour Command and Control class on these types of events. The department was also able to partner with DPD to send (4) members to a “Train the Trainer” class so that specific training on these types of events can be delivered at the local level by Davidson PD and Davidson Fire Staff members.



Operations

Operations is the core service that the Davidson Fire Department delivers to Town of Davidson citizens. The department is charged with providing fast, effective, and efficient emergency service delivery. The goal of this department is to mitigate someone's problem when they are having the worst day of their life. The department accomplishes this by providing services in fire suppression, EMS first responder, hazardous materials mitigation, technical rescue, and many other critical areas. The department provides these services from two staffed engine companies that respond from Fire Station 1, which services the downtown and West Davidson area, and Fire Station 2 which services East Davidson to include River Run, West branch, and Summers Walk. The addition of Fire Station 2 has dramatically lowered response times to those areas. This has ensured that a fire truck with qualified personnel is arriving on scene within minutes of a citizen activating the 911 system.

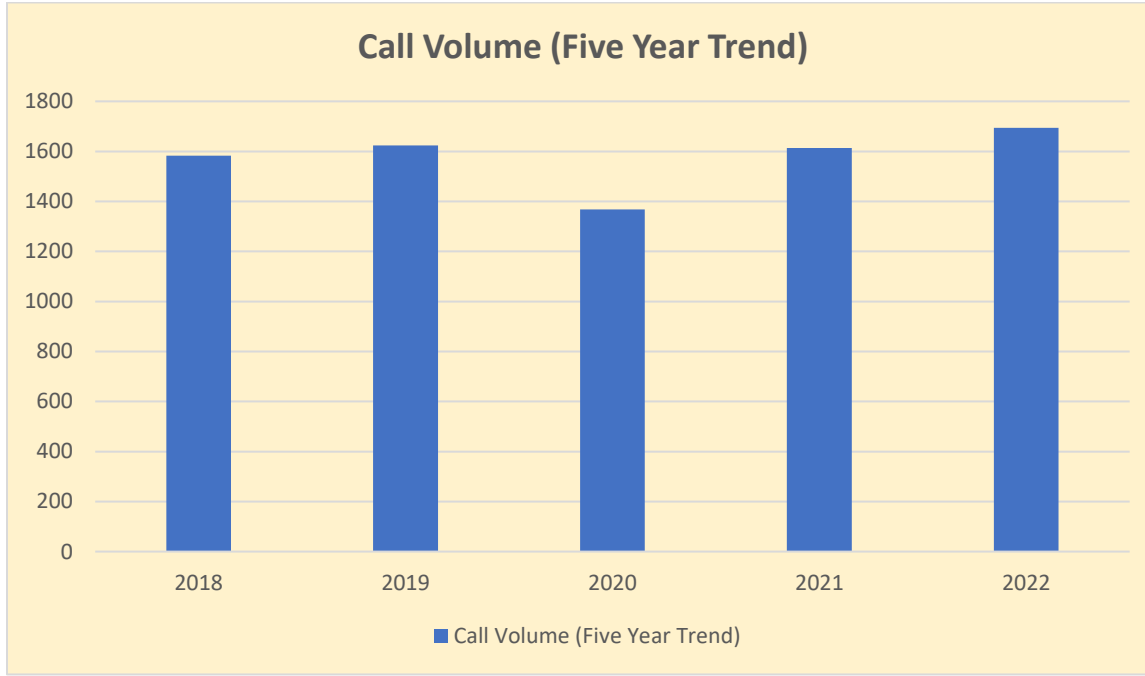
Call Volume:

This past year saw the largest number of incidents responded to in the history of the department. The Davidson Fire Department responded to a total of 1,694 calls for service in calendar year 2022.

2022 Call Volume	2021 Call Volume
1,694	1,613

This represented an overall increase of 81 calls from 2021 to 2022.

The five-year historical trend is listed on the next page:



As outlined above, with the exception of the 2020 outlier year due to Covid impacts, the department is continuing to see a rise in service demand. This is an area that the Command Staff is monitoring closely to ensure that our current service delivery model is responsive to these increases.

Planning for the future to ensure appropriate service delivery is a high priority for the department, and the town. Department leadership is committed to planning accordingly to ensure that the near future does not reflect operating in “crisis mode”. Data is utilized in the long term fire department planning process to help better answer these questions. By looking at overall call volume, along with concurrent call volume, department leadership is better prepared to address these issues in the short and long term.



Call Volume for Response Zones:

To better track response data within our incident reporting software system, the department divides the response jurisdiction into zones so that more definitive data can be tracked. These zones include all of Davidson but also include our mutual aid partners as well. Call volumes for the response zones for 2022 is listed below:

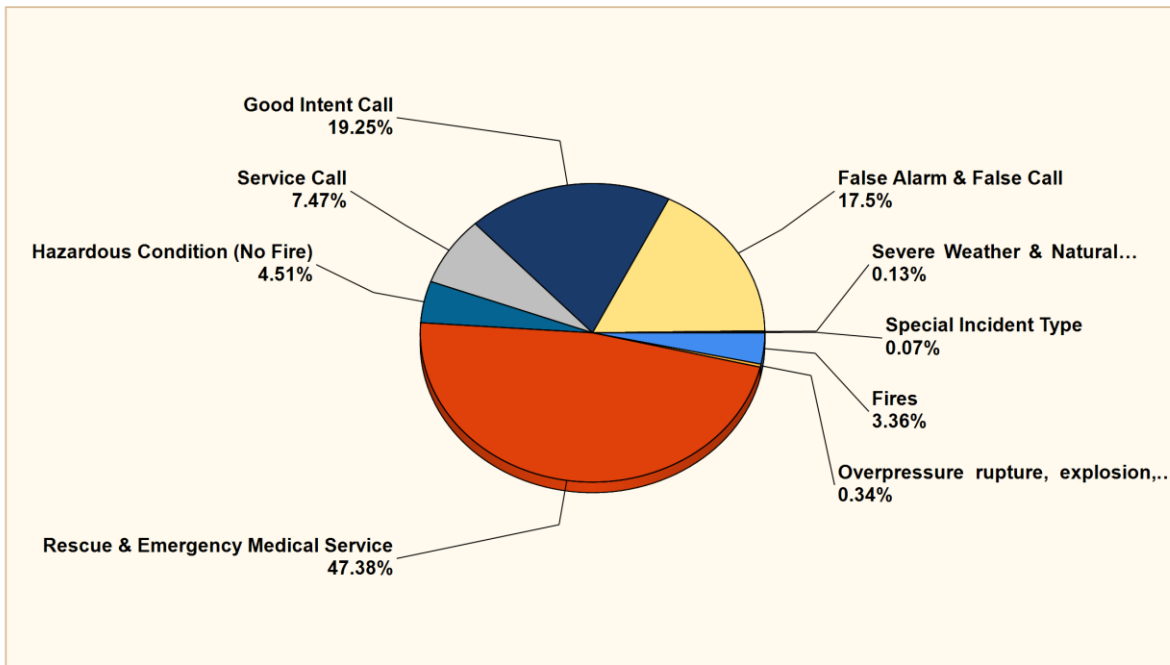
Zone	Number of Calls
Odell FD	5
Lake Norman FD	3
Mooresville FD	2
Mount Mourne FD	84
Shepherds FD	1
Cornelius FD	202
Huntersville FD	17
Bradford Park	10
CMC – Davidson Behavioral Health	15
Davidson - West	592
Davidson College	113
Davidson East	112
Davidson Pointe	1
ETJ	28
Fisher Farm Park	1
Interstate 77	39
Kenmare	3
Narrow Passage	1
River Run	69
Summers Walk	11
The Pines at Davidson	62
Westbranch	9
Williams Place	106



Call Types:

The list for call types for 2022 are listed below. These calls reflect calls for service that Davidson Fire Department responded to within 2021.

MAJOR INCIDENT TYPE (2022)	# INCIDENTS	% of TOTAL
Fires	50	3.36%
Overpressure, rupture, explosion, no heat	5	0.34%
Rescue & Emergency Medical Service	704	47.88%
Hazardous Condition (No Fire)	67	4.51%
Service Call	111	7.47%
Good Intent Call	286	19.25%
False Alarm & False Call	260	17.5%
Severe Weather & Natural Disaster	2	0.13%
Special Incident Type	5	0.07%

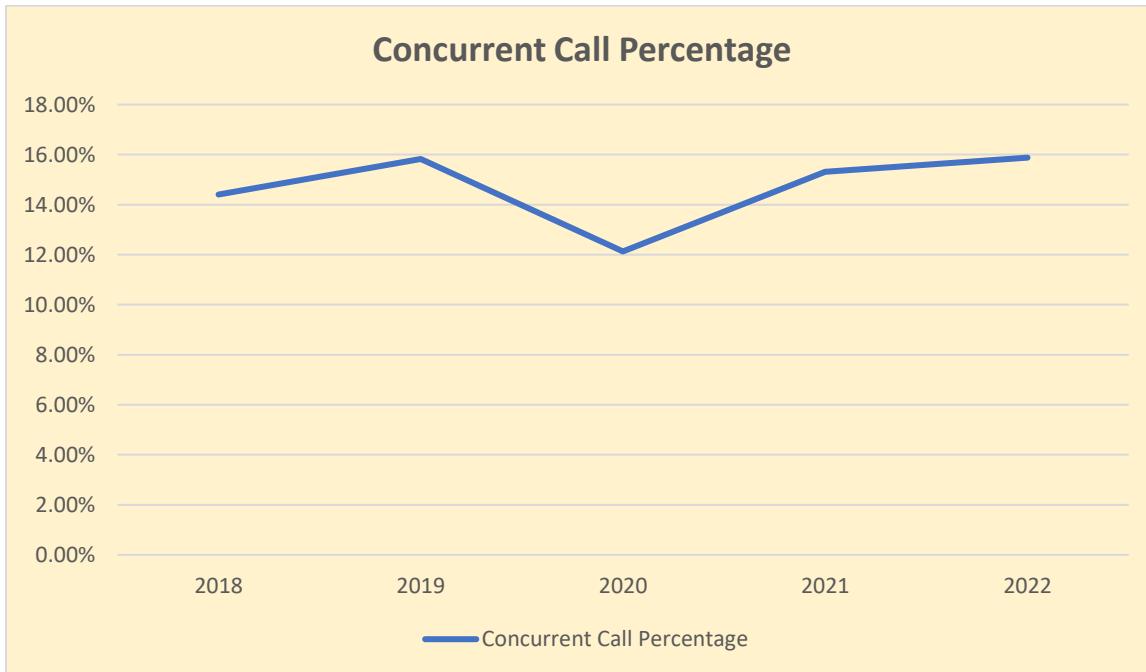




Concurrent Calls:

As the population of the area continues to grow, so does the number of emergency responses. The fire department deals with concurrent or overlapping calls annually. This is when there are two or more emergencies occurring at the same time. This is not new and we anticipate this trend to continue as our population within the area continues to grow. Concurrent call volume for 2022 is listed below along with a five-year graph showing historical growth.

# OVERLAPPING (2022)	% OVERLAPPING (2021)
236	15.88





Response Times:

Traditionally, the fire department has utilized “average response times” to paint a picture on how quickly apparatus are arriving on the scene. While these numbers may look good from a global perspective, they do not show how efficiently a fire department is responding to calls for service. The department has taken the approach of utilizing aggregate response times to show a true picture of where our response times are at. The goal of this organization has always been to have the first due apparatus on scene within 6:00 minutes, 80% of the time. Response times are determined by multiple factors:

- Call Taking (911 Center)
- Call Processing and Dispatch (911 Center)
- Turnout Time (Time it takes for apparatus to check enroute)
- Travel Time (Time it takes for apparatus to respond to the incident)

Unfortunately, Davidson Fire Department can only control the turnout time and response time as we rely on Mecklenburg County to control the 911 system. If a dispatcher is delayed in processing the call, that delays the response time. Conversely, if our members delay getting on the apparatus and out the door is delayed then that also affects the overall response time.

The department set an aggressive benchmark of improving the aggregate response times for the first due (arriving) and second due (arriving) apparatus. The benchmark goal for 2022 was:

- ***First due apparatus arriving on scene within 6:00 Minutes at 85% of the time***
- ***Second due apparatus arriving on scene within 8:00 Minutes at 80% of the time***

The department was able to improve the overall aggregate response times for both the first due and second due apparatus. The department was able to meet the goal for the first due arriving apparatus and exceed the goal for the second due arriving apparatus.

- ***(2022) First due apparatus arrived on scene within 6:00 Minutes at 85% of the time***
- ***(2022) Second due apparatus arrived on scene within 8:00 Minutes at 84% of the time***

For comparison, in 2021, the first due arriving apparatus arrived on scene within 6:00 Minutes at 84% of the time and the second due apparatus arrived on scene within 8:00 Minutes at 83% of the time.



Moving forward, the department has once again looked at our performance objectives to see where improvements can be made. The completion of the Community Risk Assessment / Standards of Cover was critical in having an outside consultant to take a “deep dive” into our data to get a more “reflective” picture of how the department is performing within the response matrix. What was noted was that there are still some challenges in meeting some of the response performance objectives. While our staff does a fantastic job of responding when called upon, there is some challenges to lower those aggregate response times due to factors such as dispatch limitations, highway congestion/limitations/human factors, and concurrent calls. The “deep dive” into the response data proved beneficial as it provides the department a true account of where we are currently at.

At the December 13th, 2022 Board of Commissioner’s meeting, the fire department provided a new list of performance objectives to be adopted. These performance objectives outline the response goals for the department to include apparatus, staffing, turnout time, response time, and Effective Firefighting Force (EFF). These performance objectives were supported by town administration and adopted by the town’s elected body in a resolution format. This was an important step as it ensures that the town government is committed to providing the highest level of emergency response delivery to our citizens as possible.

Over the next year, the department will continue to ensure that we are doing everything possible to meet the outlined performance objectives. We are committed to looking at new and innovative ways to ensure that our citizens are receiving a response within a timely manner. I am personally excited to watch and see how the department tackles these performance objectives.



Administration

The administration function of the fire department continues to work daily to manage the overall growth and direction of the organization. The members of the Command Staff, which include the Fire Chief and (3) Deputy Chief's, work daily with Town Administration and other town departments to ensure the mission statement of the town is being met. This includes overall management of the organization, planning for future growth, management of the annual department budget, employee recruitment and retention, and employee professional development.

This past year proved to be tremendously busy from an administration standpoint. Multiple projects were either started or completed to ensure that the department is growing and progressing in a manner that is consistent with the needs of our community.

The list of projects and accomplishments are listed below to help provide better insight into the hard work department staff performed in 2022.

- *Hired the first (3) full time Captain positions for Engine 1* *April 2022*
- *Completion of Community Risk Assessment and Standards of Cover* *May 2022*
- *Smoke detector grant through OSFM* *Winter of 2022*
- *Placed new Tower 1 in service* *May 2022*
- *Hired (2) new Engineers due to promotion* *June 2022*
- *Contracted with Lexipol to begin comprehensive policy re-write* *July 2022*
- *Started new part-time retirement plan for selected members* *September 2022*
- *Development of five-year Strategic Plan* *September 2022*
- *Secured capital funding for enhancements at Station 2* *December 2022*
- *Moved to First Due for new RMS capabilities* *December 2022*
- *Adoption of department performance objectives* *December 2022*
- *And we still found time to help bring Santa into town in early December!!*

I would encourage our citizens to look at our web page on the town's website and read our Community Risk Assessment/Standards of Cover and our Strategic Plan. These publications really help address how the department is planning for the future and the steps we are taking to ensure that our department is responsive to our citizen's needs.

