



FIRE DEPARTMENT

MONTHLY INFORMATION REPORT

December 2022

HIGHLIGHTING DATA METRICS
TO IDENTIFY OPERATIONAL TRENDS
AND
FACILITATE INFORMED DECISION-MAKING

70 E. MAIN STREET
LAKE ZURICH, IL 60047

OUR MISSION: To care for and protect our community.

OUR VISION: The Lake Zurich Fire Department is dedicated to meeting the ever-changing needs of our community, while ensuring a safe and secure environment for all, through professional development, unity, and teamwork.

OUR VALUES: Professionalism, Responsibility, Integrity, Dedication, Honor

Departmental Narrative - December 2022 Overview

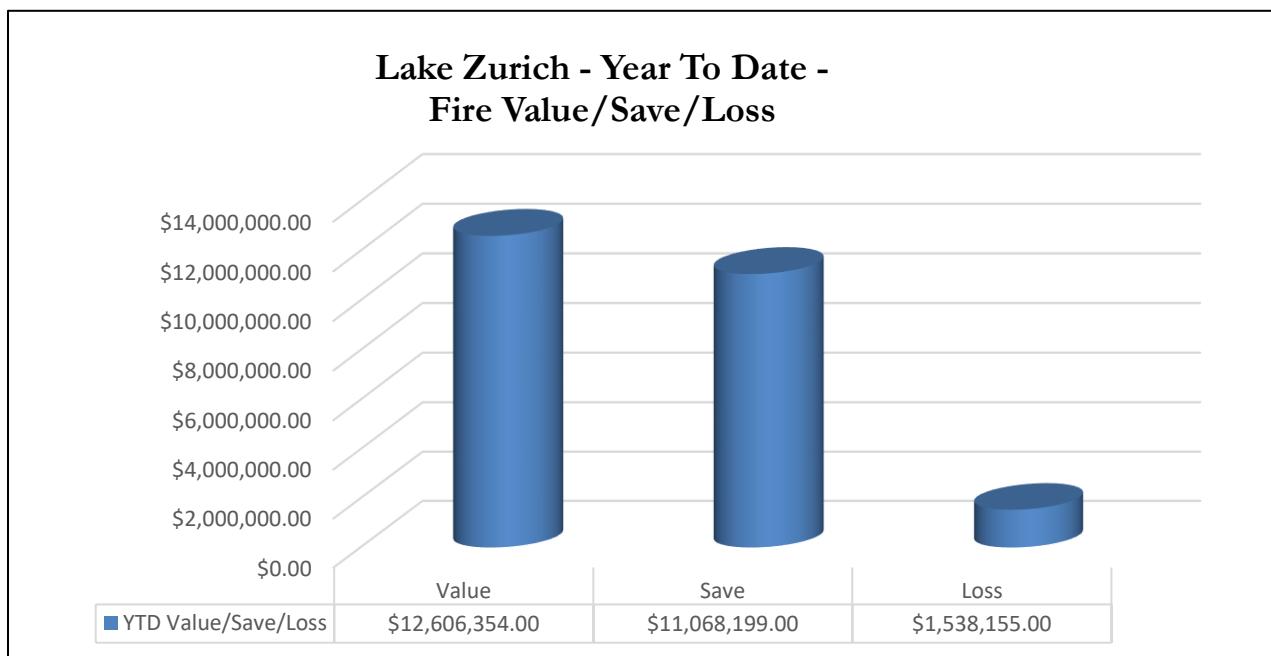
The Department responded to **443** calls for service in December. The Department averaged **14** calls per day that required **746 individual vehicle responses** to provide the necessary resources for each incident.

Forty-seven (47%) percent of the service area responses occurred while another call was in progress. Twenty (20%) percent of the service area responses required a non-primary Fire Department engine, ambulance or a mutual aid department due to multiple calls. The frequent effect of multiple calls leads to Fire Department response areas without the primary engine or ambulance to respond and increased response times.

The Department's response model frequently contributes to increased response times when simultaneous calls occur. The Department is only structured to handle a single response per station. We staff two vehicles with three personnel using a "jump company". If the call is EMS related, the personnel respond with the ambulance. If the call is fire related, the personnel responds with the engine. This leads to one vehicle being unstaffed for every incident we respond to. Once a station commits to a call, the next call for service requires another station or mutual aid department to handle the incident.



**Lake Zurich - Year To Date -
Fire Value/Save/Loss**



Letters of Gratitude

VILLAGE OF BUFFALO GROVE



Mike Baker MPA/EM, EFO CFO
Fire Chief/Emergency Management Director
Buffalo Grove Fire Department
1051 Highland Grove Drive
Buffalo Grove, Illinois 60089-7026
Phone 847-537-0995
Fax 847-537-7370

Chief David Pilgard, Lake Zurich Fire Rescue Department

On behalf of the Buffalo Grove Fire Department, I would like to thank you and the members of your department for your prompt and professional response to the trench collapse at 5:29 p.m. on Monday, December 12th at 1011 Aspen Dr. We sincerely appreciate the assistance received by the 17 fire departments, who either responded to the scene or were standing by and running other calls for us during their change-of-quarters assignments.

Upon arrival, the first responding Engine Officer noted a construction crew on scene who had been digging a new sewer line to the residence when it structurally collapsed around one of the workers and two other workers were attempting to dig out the victim.

Battalion 4 initiated a MABAS Division 1 TRT response to the scene. While multiple companies removed the spoil pile from the surrounding edge of the trench, incoming companies constructed, inserted, and secured shoring equipment to assist in the safety of the working crews.

At 6:35 p.m. the patient was removed and transported to Northwest Community Hospital, where he was pronounced dead. Additionally, the victim's stepfather, who initially attempted to dig out the victim, and the victim's mother, were transported to the hospital with non-life threatening injuries.

While we are fortunate that there were no firefighter injuries, we offer our deepest condolences to the victim's family. At this time, the investigation has been turned over to the Occupational Safety and Health Administration (OSHA).

Please extend our gratitude to those members of your organization who assisted us during this incident.

Sincerely,

A handwritten signature in black ink that reads "Mike Baker".

Mike Baker MPA/EM, CFO, EFO
Fire Chief/Emergency Management Director



GRAYSLAKE FIRE PROTECTION DISTRICT



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Board of Trustees

Ellen L. Dimock
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Terry Toth
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December 6, 2022

Chief David Pilgard
Lake Zurich Fire Department
321 S. Buesching Rd.
Lake Zurich, IL 60047

Dear Chief Pilgard,

On behalf of the Grayslake Fire Protection District, please accept my sincere thanks and appreciation for the assistance your department provided for the station coverage needed for Battalion Chief Mike Higgins wake and funeral services. We are devastated by this loss which will take a long time to heal but we are working to provide the needed support to everyone in our organization.

We sincerely appreciate the professional members and resources provided by your department. Please extend our thanks to all personnel of your department for the excellent service they provided. If we can reciprocate help to your fire department, I hope you will not hesitate to reach out.

Sincerely,

Dan Pierre
Fire Chief

Community Focus & Public Education

Examples of community focus/risk reduction/public education include but are not limited to; school talks and station tours where a safety message such as stop, drop, and roll is covered. We also monitor fire and severe weather drills in schools and educate children about fire safety. Also, we teach exit drills in the home to middle school students and provide CPR/First-Aid training.

On December 7, 2022, FF/PM Jon Corral and FF/PM Jason Kraus (*pictured right*) taught the Stop the Bleed class at Lake Zurich High School. The day's message was that bleeding is the number 1 cause of death after injury. A total of 240 students/staff went through the presentation. The lessons taught included personal and scene safety, calling for help, identifying life-threatening bleeding, and providing care with pressure, packing and tourniquets. The skills stations allowed each student hands-on experience with each topic.



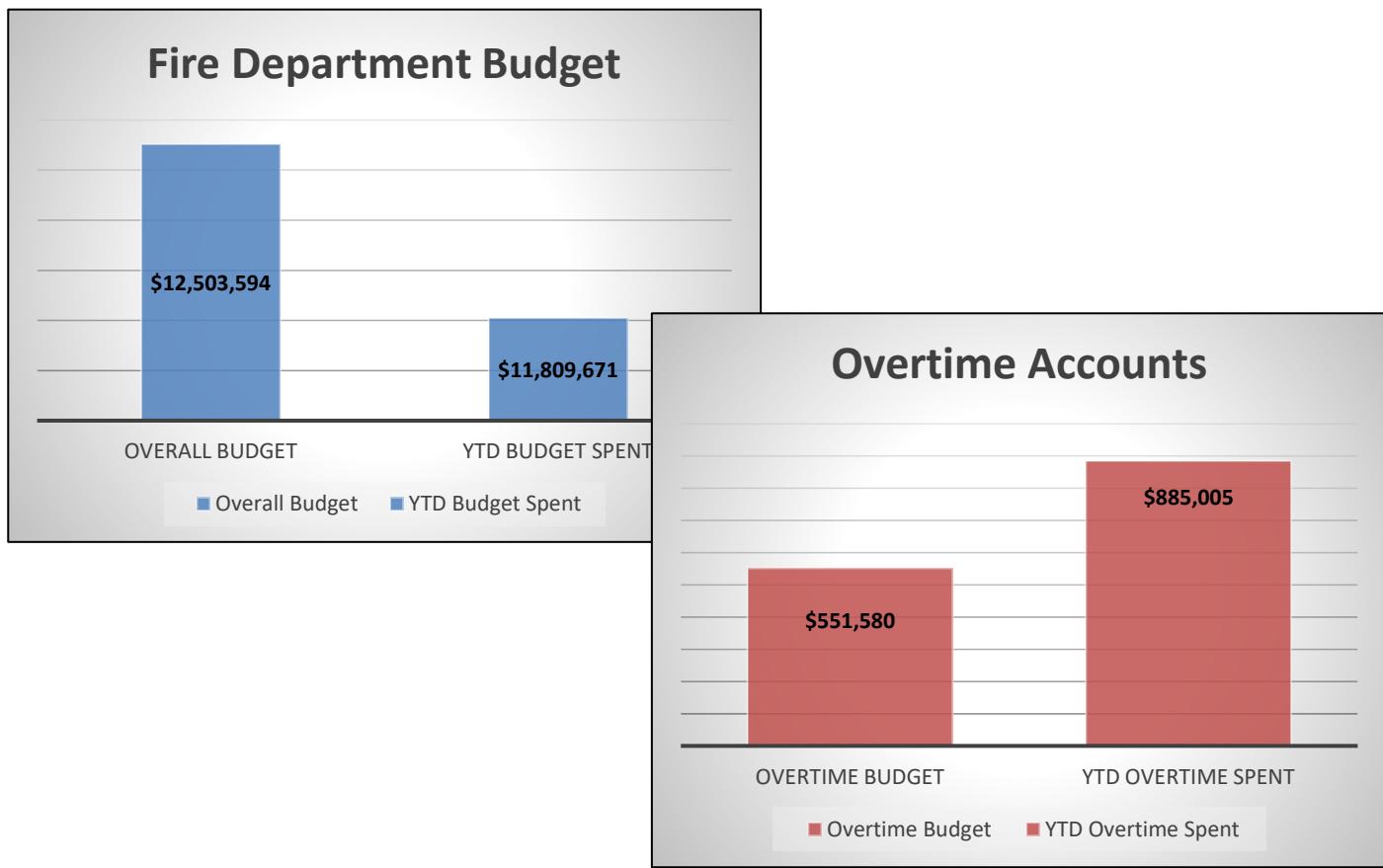
Administration Division

The Department responded to 4,733 calls for service in 2022. This is the busiest year yet for the Department with a **13.5%** increase in call volume over 2021. In addition, we had the most medical transports in a single year.

The Board of Fire and Police Commissioners (BOFPC) continue to interview and process applicants off the current firefighter/paramedic candidate list. The current Public Safety environment for recruitment, hiring and retention is facing many challenges. The Village, Department and BOFPC continue to pursue creative solutions to attract Public Safety candidates to the Department. In addition, the Department has two firefighter/paramedic vacancies, a manning increase of two full time units and seven to eight anticipated retirements. This will definitely be a year of change and challenge for the Department given the number of promotions and new hires brought on board. The BOFPC is already working on a spring 2023 testing process for firefighter/paramedic candidates as the current hiring list is exhausted.

The Department staff is working on completing operational projects. 2022 had the new squad and new extrication equipment placed in service. We are still waiting for the delivery of the ambulance we ordered in December 2021 and the SCBA compressor and cascade system from the Village 2022 budget amendment.

The 2022 department budget set ambulance billing revenues at \$746,000.00. Ambulance billing revenues and the successful implementation of Ground Emergency Medical Transportation (GEMT) have contributed to much higher than anticipated EMS revenue projections. As of December 31, 2022, ambulance billing revenues stood at \$1,684,703.09. This is an approximate 225% increase in revenue over budget.



EMS Division

EMS/Rescue call volume rose by **304** calls service over 2021. Service fees and calls for service will increase as assisted living/memory care facilities see an increase in residents and overall development throughout the service area continues.

The Centers for Medicare & Medicaid Services (CMS) website indicated the Village of Lake Zurich would be required to participate in the Medicare Ground Ambulance Data Collection System (GADCS). Failure to participate will subject Lake Zurich to a 10% payment reduction. Lake Zurich is listed in year 3 on the CMS.gov website <https://www.cms.gov/medicare/medicare-fee-for-service-payment/ambulancefeeschedule/ground-ambulance-services-data-collection-system>. As Lake Zurich does not have a full-time EMS coordinator, and this is a human resources intensive project, we will need to determine how to proceed.

Significant Call

On December 9, 2022, at approximately 1:30 p.m., Lake Zurich Fire Department responded to an unconscious person who fell. Upon arrival, crews noted a house under construction and indicated that the patient was in the basement, accessible only by ladder. Personnel requested Battalion 32 and Utility 321 to the scene for additional staffing and equipment. Once on location, the engine crew immediately utilized technical rescue equipment from Utility 321 to create a pulley system with a 5:1 mechanical advantage to remove the patient, via a secured Stokes basket, from the basement to the first floor. The patient was then transported via ambulance to Lutheran General Hospital.



- Ambulance crew: Lt. S. Cornell, FF/PM J. Brooks, FF/PM K. Mogge
- Engine Crew: Lt. C. Hedquist, FF/PM J. Corral, FF/PM. D. Frano
- Utility Crew: Div. Chief M. Wenzel
- Battalion 32: Capt. B. Yee

Operations Division

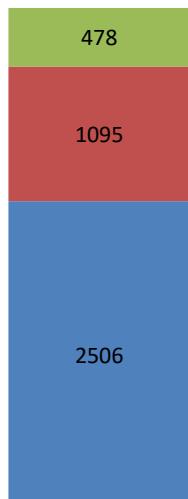
Vehicles Out of Service:

- During December, the following vehicles were out of service due to maintenance, repairs, or breakdowns:
 - **Ambulances** – 132 hours
 - **Engines** – 30.00 hours
 - **Year-To-Date Hours:**
Ambulances: **1,136.93 hours** | Engines: **1,935.58 hours**

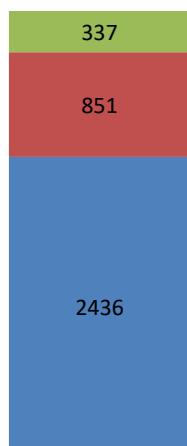
TOTAL CALLS - YEAR TO DATE

■ EMS ■ FIRE ■ MUTUAL AID

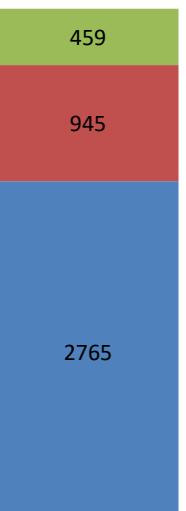
Total – 4,079



Total – 3,623



Total – 4,169



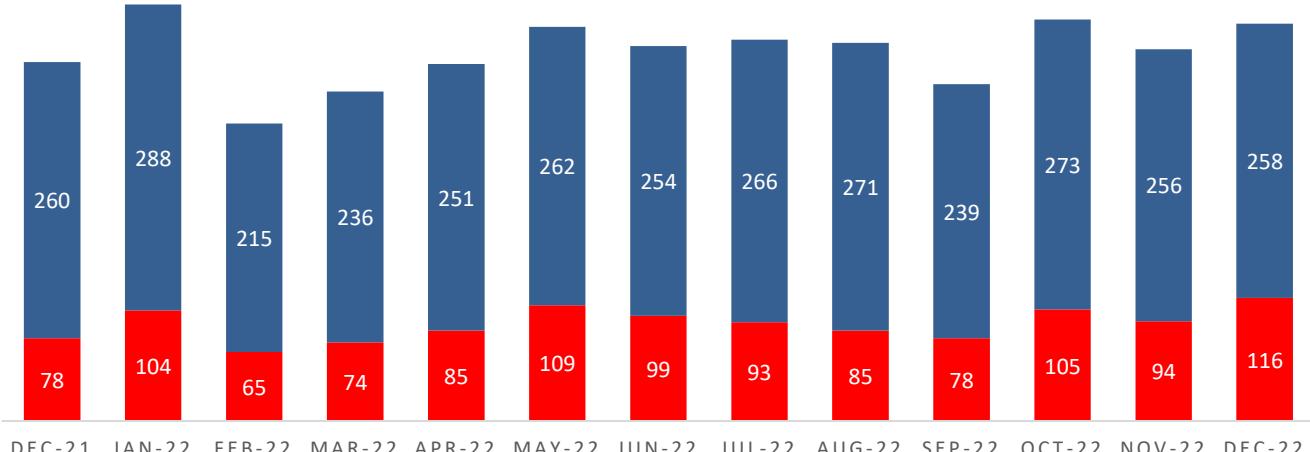
Total – 4,733



Below is the breakdown of Fire versus EMS incidents in Lake Zurich – minus aid given. Our fire calls include structure fires, car fires, grass fires, dumpster fires, wires down, and other service calls.

DECEMBER - EMS V FIRE CALLS (NO MUTUAL OR AUTO AID)

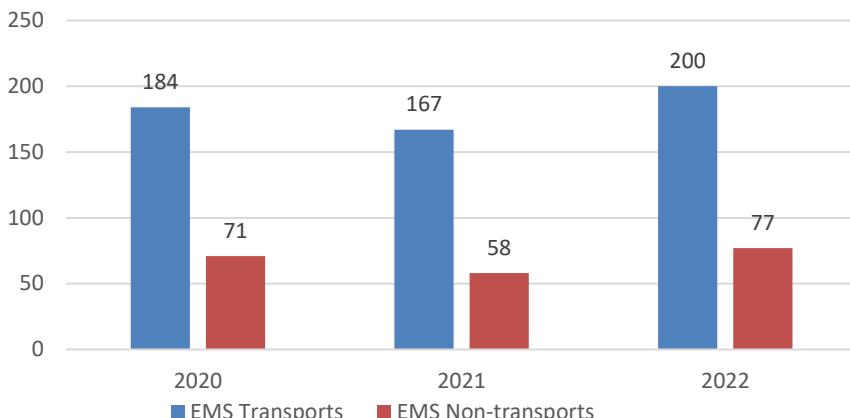
■ Fire ■ EMS



The chart shown to the right reflects activity related to emergency medical services, a core function of the fire department. Not every EMS call will result in transport; however, EMS transports always outpace refusals.

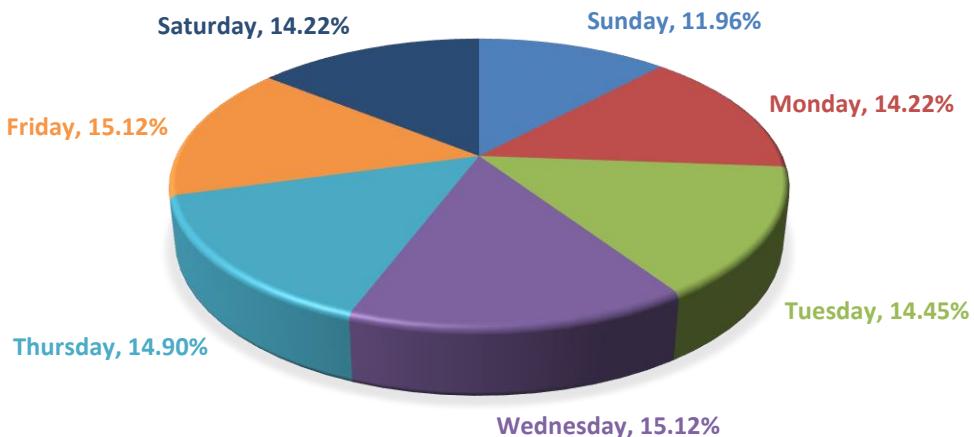
This chart compares the month of December across 3 years.

EMS Transports vs Non-Transports - (Patients)
Monthly 3 year - Comparison

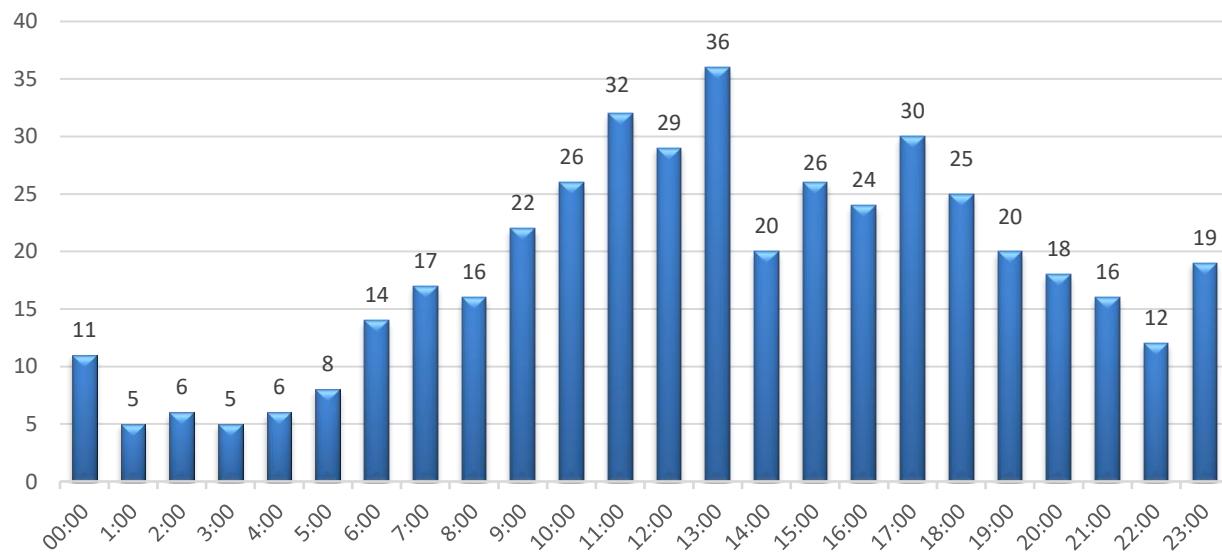


The following two charts break down calls by the day of the week and hour of the day.

RESPONSE BY DAY OF WEEK - DECEMBER



RESPONSE BY HOUR OF DAY - DECEMBER



STATION 1

321 S. Buesching Road
Lake Zurich, IL 60047

APPARATUS & STAFFING
BATTALION 32



ENGINE 321
AMBULANCE 321



STATION 2

350 W. Highway 22
North Barrington, IL 60010

APPARATUS & STAFFING

ENGINE 322
AMBULANCE 322



STATION 3

1075 Old McHenry Road
Lake Zurich, IL 60047

APPARATUS & STAFFING

ENGINE 323
AMBULANCE 323



STATION 4

21970 Field Pkwy
Deer Park, IL 60010

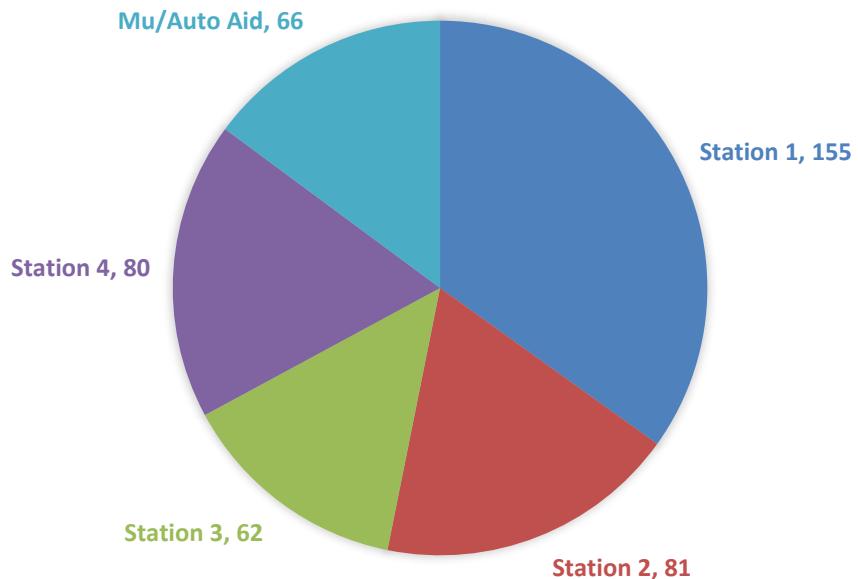
APPARATUS & STAFFING

ENGINE 324
AMBULANCE 324



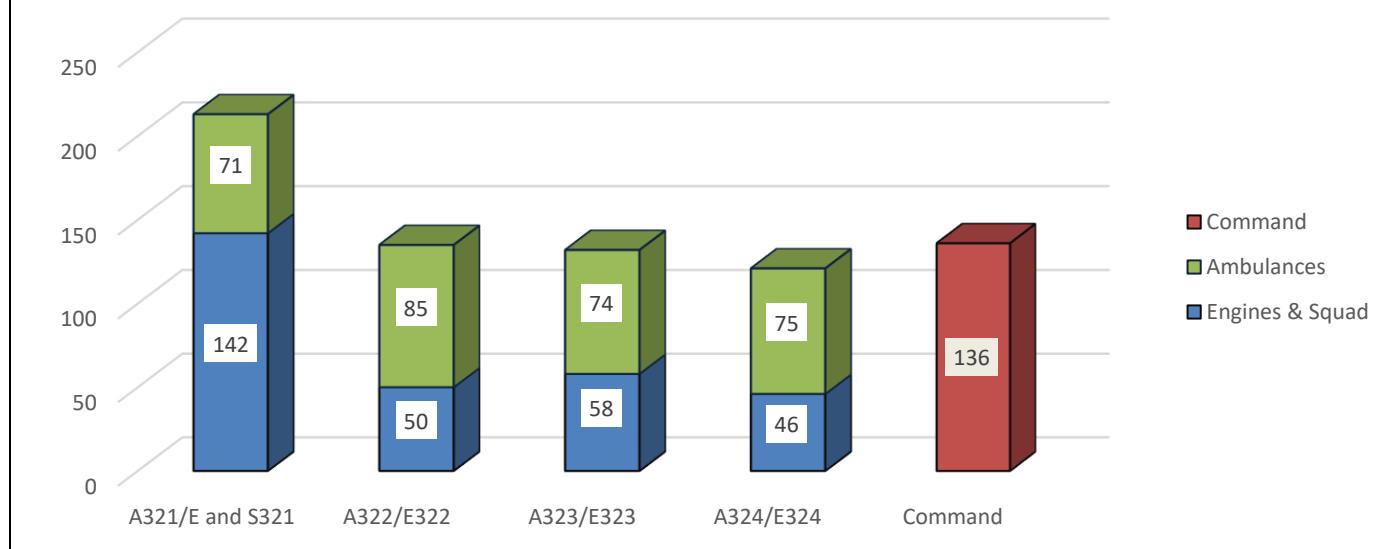
The graph below represents the percentage of calls by each station and mutual/auto aid for December 2022. The chart does **not** represent the station that responded as the primary resource to the area – it means where the call originated. Station 1 is historically the busiest district.

ORIGIN OF CALLS - DECEMBER 2022

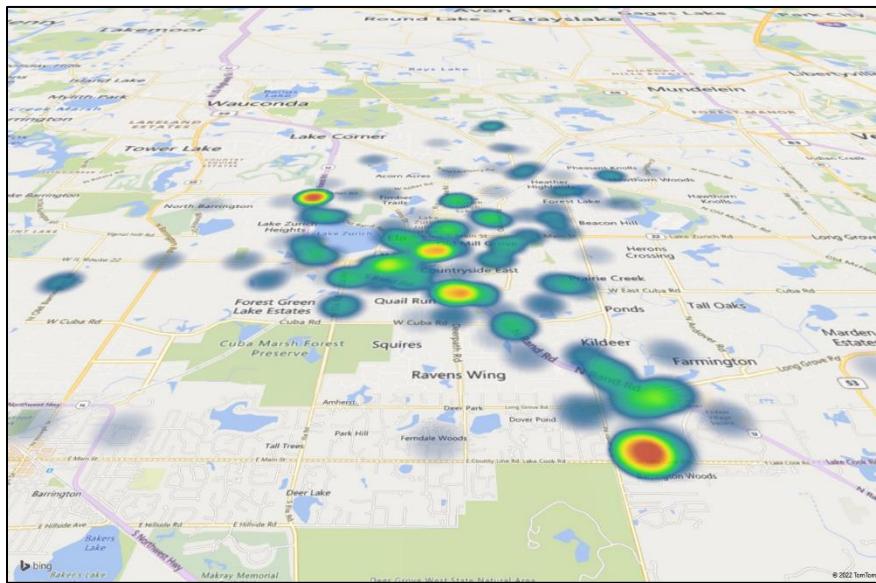


The graph below shows the responses by each unit – Ambulances, Engines, and Command Officer – in December

Total Unit Responses - Ambulances, Engines/Squad, & Command Officer



The following graphic is a visual representation of call distribution for December. As visually displayed, the assisted living/memory care facilities are a large portion of our department calls and are consistently within the top ten locations responded to each month. We frequently respond to doctor offices, health clinics, and automobile accidents near the Route 12 corridor.



Frequent Call Locations:

- 21840 Lake Cook Road – Deer Park Village Senior Living – 21 responses
- 795 N. Rand Road – Azpira Place of Lake Zurich – 21 responses
- 250 Mohawk Trail – Zurich Meadows – 12 responses
- 777 Church Street - Cedar Lake Assistant Living - 10 Responses
- 900 S. Rand Road – Avantara Health Care Center of Lake Zurich – 13 responses
- 21481 Rand Road – Northwest Community Healthcare – 8 responses

Mutual/Auto Aid Response

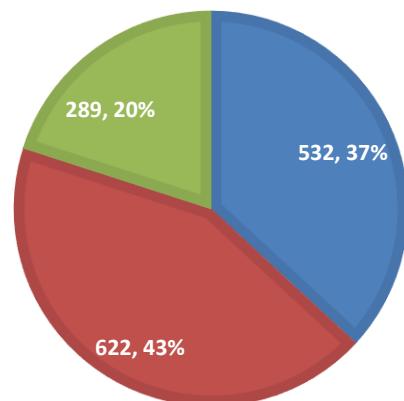
Year to Date –

The mutual aid agreements are designed not to overburden any agency and are looked at carefully for necessary adjustments. Run cards for the Department have changed, and our partners respond to assist us more often. In December, we responded to **66 mutual aid calls and returned 27 times** before arrival. The chart to the right shows YTD Aid Given/Received and how many times LZ returned before their arrival. Many of our response incidents do not require intervention from the LZPD 911 center through automated dispatching

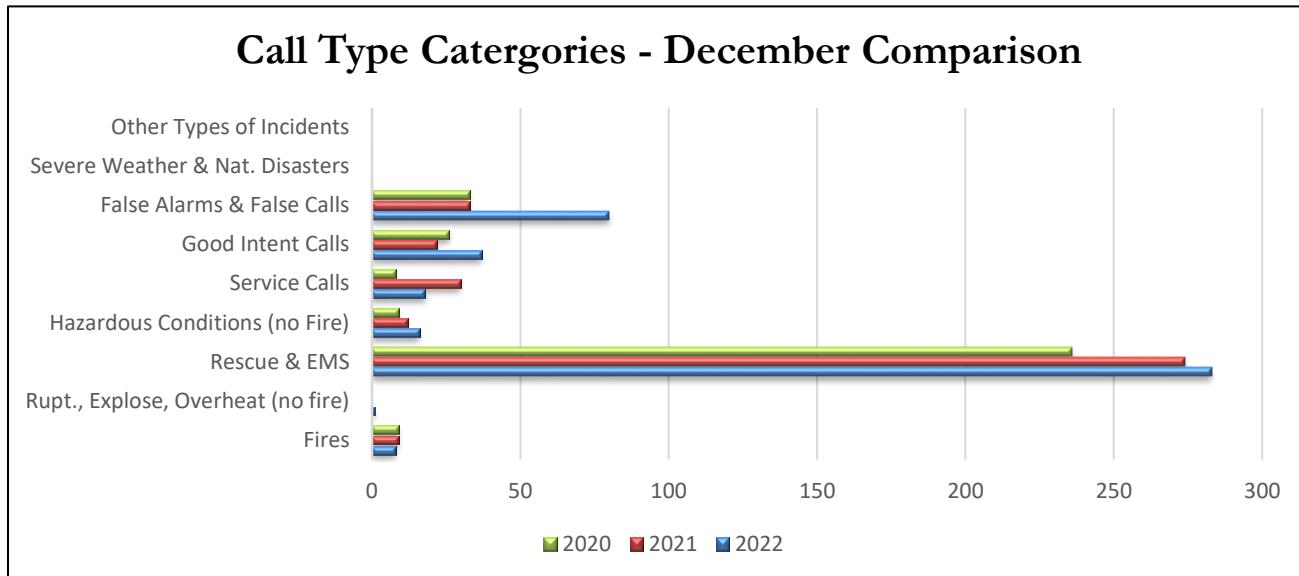
and resource sharing. They are handled by the agency requesting our response — direct cost savings to our budget and an added benefit of the automated dispatch system.

AID GIVEN/RECEIVED - YEAR TO DATE TOTAL

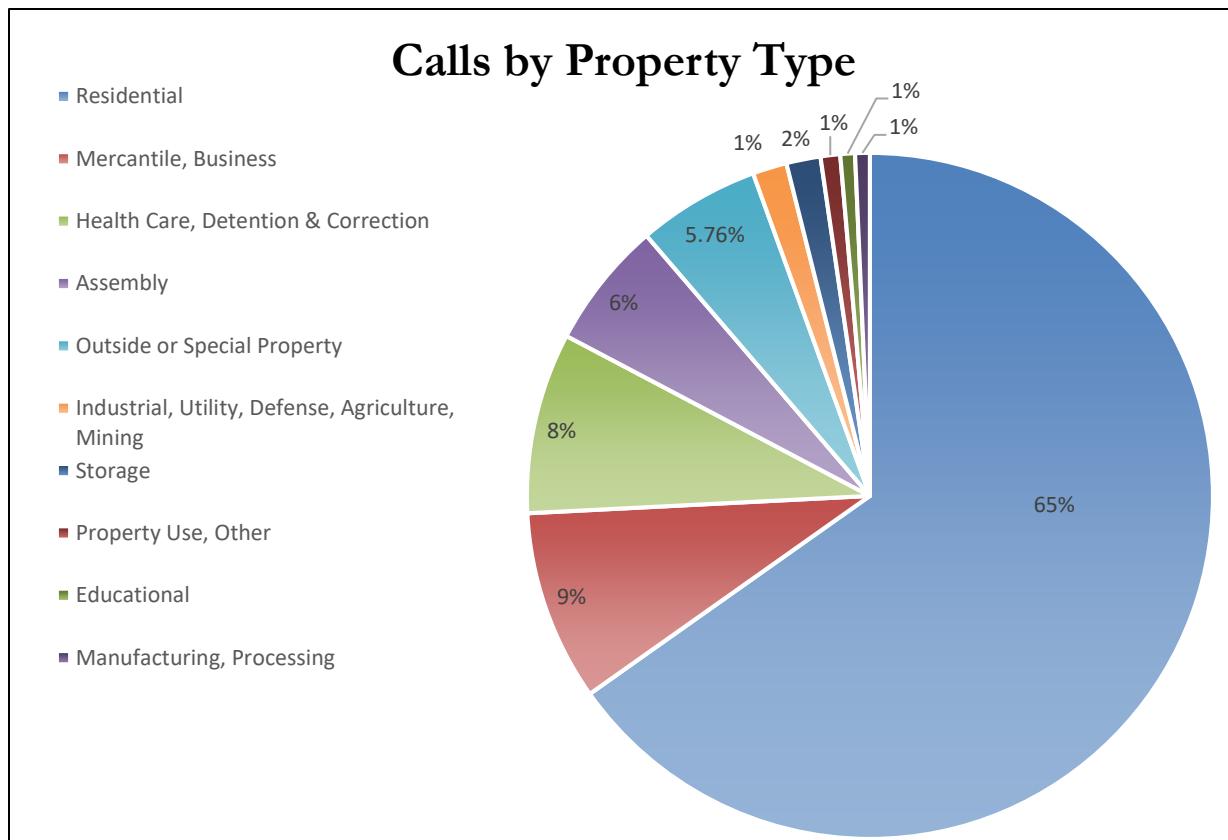
■ Aid given ■ Aid Received ■ LZ Returned



All calls we code as a department within the National Fire Incident Reporting System (NFIRS). The codes all relate to the text categories noted in the chart below. As indicated below, you will see that the trends remain mostly the same across the three years. As shown below, rescue and EMS incidents account for most calls we respond to and continue to increase.

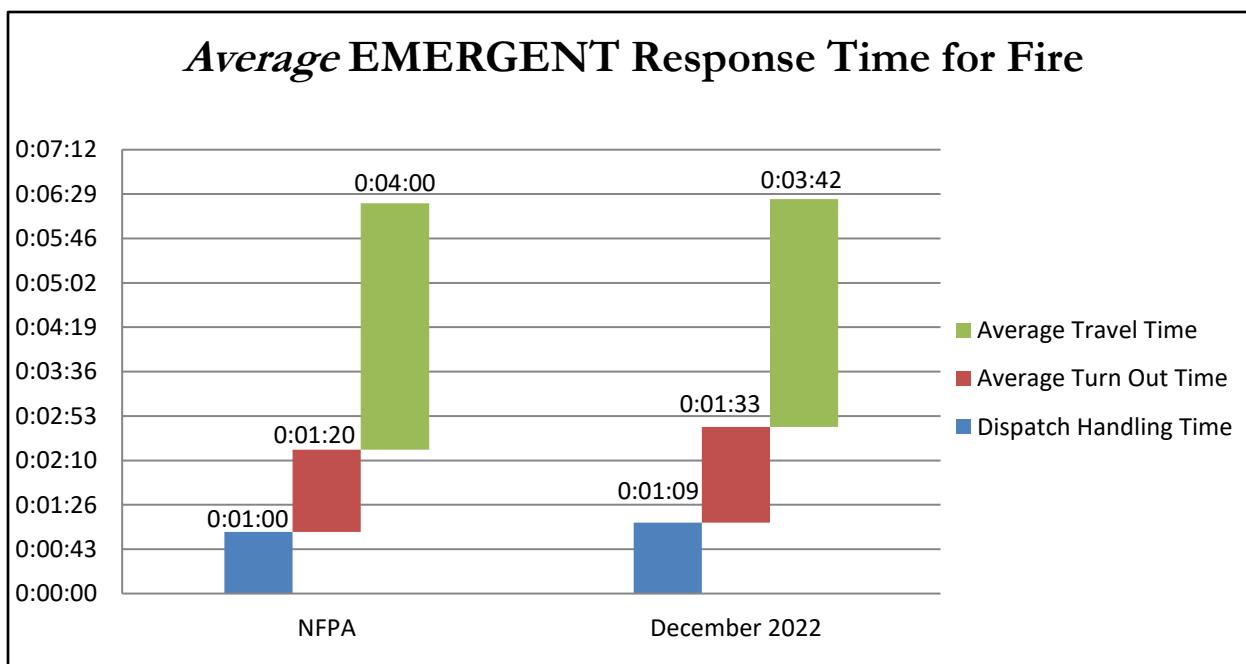
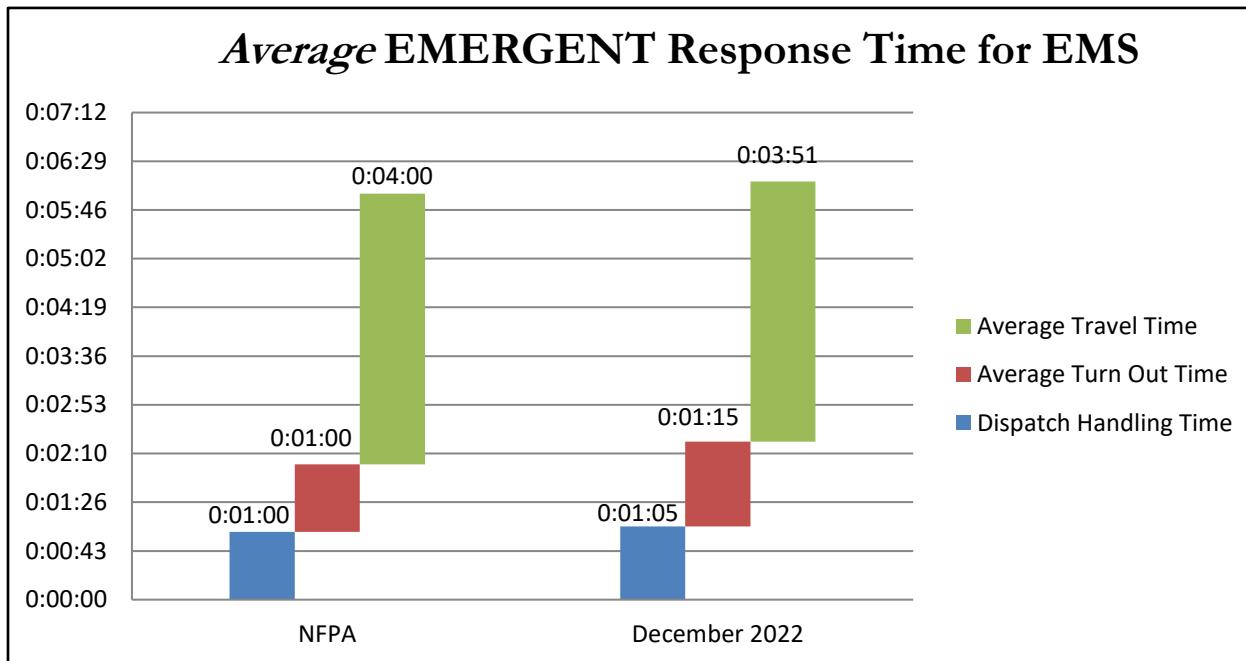


As previously mentioned, there is a national standard for coding the type of property use. How is this relevant? We see trends in various occupancies and use them to determine our service demand. For example, the healthcare category would increase if additional assisted living or nursing homes were open. As shown below, we continue to respond to Residential Properties more than any other (65%), and Mercantile/Business was second with (9%) of all calls.



Response time includes three key factors: dispatch handling, turnout, and travel time. Dispatch handling time is when dispatch takes in information and then dispatch personnel. The turnout time is when the crews receive the call to the time they get into the vehicles and hit the enroute button. Travel time reflects the time from en route to when they arrive at the incident scene. Construction, speed limits, weather, and train traffic can impact response times. The overall goal for arrival at an emergency fire call is 6 minutes and 20 seconds from the time of notification until the first unit arrives on the scene. For a response to an EMS incident, this time is 6 minutes.

The following two graphs compare the average emergency response times for Fire and EMS calls within our first arriving unit's primary response area. These times will vary based on the first responding unit's location, multiple calls, weather, time of day, and traffic conditions.



Training Division

During December, we completed the following shift training:

EMS Blood Borne Pathogens – Paramedics completed annual mandatory review of Blood Borne Pathogens knowledge and safety.

IDOL Right to Know – Members completed mandatory IDOL Right to Know training.

Hazmat Operation – Members completed training on radiation detection and the involved risks and safety procedures.

Vector Solutions In-service – Members completed an in-service training of Vector Solutions, our new training management software.

ESO In-service – Members completed an in-service of ESO, our new records management software.

EMS Restraints – Paramedics completed NCH mandatory restraint use and procedure training.

DCFS Mandated Reporter – Paramedics completed mandatory department of Children and Family Services Mandated Reporter certification training.

Company Needs – Company Officers evaluated their crew and based the training on the needs of their company. This included department SOG review and Daily Training Bulletin completion.

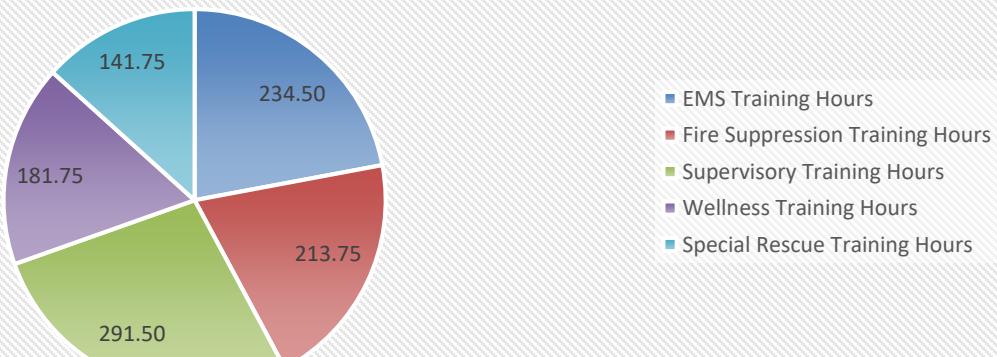
Weekly Equipment Review – On a weekly basis crews review department equipment and ensure they can operate is properly and effectively.

Probationary Program - Probationary members worked on completing Probationary Program.

The following members attended outside training:

FF/PM Holden and FF/PM Erb – Attended the 8 hour Electric Vehicle Emergency Operations class.

Monthly Training Hours - 1,063.25 Total



Fire Prevention Bureau Division

December ended what was a hectic year for the Fire Prevention Bureau. We reviewed over 350 sets of plans, the most significant number received in a year and **18%** above 2021, with all reviews completed in-house.

Plan Reviews 2021: 300

Plan Reviews 2022: 354

Plan Review Hours 2021: 372

Plan Review Hours 2022: 403

We welcomed our new part-time clerk, Mindy Kuehl to the Bureau in 2022. The clerk is responsible for the records management of over 1,500 annual inspections and FOIA requests. The clerk also handles typing a summary for every plan review and new construction inspections. Clerk Kuehl played a significant role in the conversion of the Firehouse record databases over to the new ESO Records Management system.

Part-time Inspector Rudy Perocho was unable to work most of December due to an off-the-job injury and is likely to be out for several months. The department is working to bring in temporary help while Rudy recovers.

Fire Prevention Specialist Bob Kleinheinz announced that he would retire in July 2023. The village will find it challenging to fill this position due to the many roles FPS Kleinheinz fulfills within the organization.

The Christmas weekend saw the lowest temperatures in our area in the past few years. The department responded to numerous issues caused by the low temperatures, including frozen and broken domestic and fire system water lines. The Fire Prevention Bureau provided follow up and technical assistance on the numerous broken sprinkler system pipes and frozen fire protection systems ensuring prompt repairs and the fire protection systems being placed back in service.

The picture to the right shows the damage done when systems freeze due to no heat. You will note that one Red Valve is missing its top.

Below is a picture of the new build on Enterprise, one of four (4) new projects or significant additions in the Industrial Park; 2023 is starting busy.



December 2022 Activities

- 12-3-22: Worked on the Miracle on Main Street, conducting vendor inspections and Santa setup.
- Construction Meetings
 - Gere Marie
 - 550 Enterprise
 - Heritage Church Quentin Road
 - D-95 Re-model Project
 - 495 Enterprise
- We provided a mutual aid fire investigator to the Round Lake Fire Department for a house fire, as shown in the pictures below.



Year-To-Date - 2022 (Data will be added each month)

