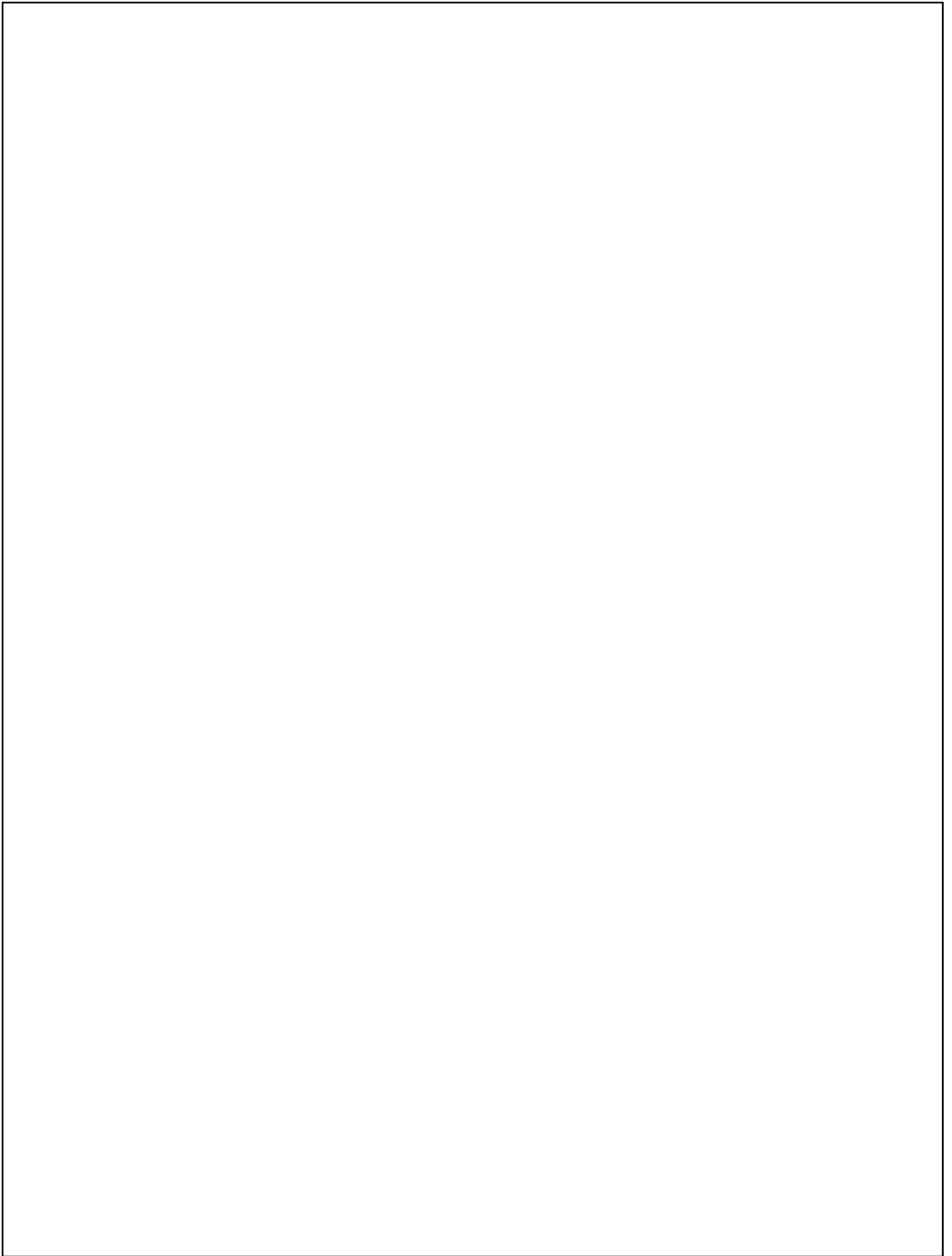




Grand Rapids Fire Department 2021-2025 Standards of Coverage



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Accreditation Core Team

Assistant Chief Ed Braman, Performance & Management Reporting Specialist Alexandria Baszler, Strategic Planning Captains (Bill Smith, Mike Myers, Scott Langlois), Strategic Planning Lieutenants (Molly McEntire, Carlye Haisma), Firefighter Scott Verkaik

The Grand Rapids Fire Department sincerely thanks all of its sworn and civilian members, and representatives from the many City departments, who helped verify the information outlined in the Self Assessment Manual (SAM) and this Standards of Coverage (SOC) document for the 2021-2025 accreditation cycle.

2025 Strategic Planning Team

Response

Deputy Chief Jack Johnson
Battalion Chief Rich Clark
Battalion Chief Ed Braman
Captain Paul Mason
Lieutenant Matt Stevens
Lieutenant Jacob Strasel
Firefighter Thomas Kunak
Firefighter RJ Tennant

Support Services

Deputy Chief Eric Freeman
Battalion Chief Mark Fankhauser
Captain David Marchinda
Firefighter Ben Ingersoll
Information Systems Coordinator Brian Block
Emergency Management Ingrid Scheer

Prevention

Fire Marshal Bill Smith
Captain Roy LaGrone
Captain Dan VanderHyde
Captain Jonathan VanLente
Captain Robert Rood
Equipment Operator Adam Lubbers
Lieutenant Tom Felix

Wellness

Assistant Chief Keith Borreson
Battalion Chief Mark Noorman
Captain Kara Johnson
Lieutenant Dan Ryan
Equipment Operator Joel MacDonald
Firefighter Jarrett Zimmer

Training

Battalion Chief Bill Race
Battalion Chief Matt Keusch
Captain Cory Kernodle
Lieutenant Greg Purser
Captain Justin Steeby
Lieutenant Paul Dobb
Lieutenant Jason Zamarron
Lieutenant Tony Beurkens
Firefighter Severiano Chavez

Introduction

The following document functions as the Grand Rapids Fire Department's (GRFD) All-Hazards Community Risk Assessment and Standards of Coverage statement for the years 2021-2025. The Commission on Fire Accreditation International (CFAI) defines the process for developing this "deployment analysis", as *a written procedure which determines the distribution and concentration of fixed and mobile resources of an organization*.

The purpose for completing such a document is to assist the department in ensuring a safe and effective response force for fire suppression, emergency medical services, hazardous materials incidents, technical rescues, and facilitating activities for domestic preparedness, emergency planning, and disaster response.

The following report will begin with a descriptive overview of the City of Grand Rapids and the Grand Rapids Fire Department. Then, an all-hazards risk assessment provides an analysis of potential risks, and describes activities the department employs to mitigate those risks. Current deployment and performance was assessed to determine the capabilities and capacities that are available. Benchmark statements and baseline performance support the department's ability to meet distribution and concentration metrics. The report concludes with plans for maintaining and improving capabilities, as well as policy recommendations to address gaps in performance or desired outcomes.

I. Executive Summary

The development of an SOC is a process involving a thorough analysis of the systems utilized by the GRFD to provide fire and rescue services to the community. It is a data driven process that describes current service levels, identifies strengths and weaknesses of the system, and establishes a clear road map for improvement. This was accomplished as a team effort between the fire department, International Association of Firefighters (IAFF) Local 366 and city leadership. Eight distinct sections were prepared, resulting in a comprehensive evaluation of baseline performance and the department's benchmark statements for service delivery.

The process was facilitated by the GRFD Planning Division and received input and approval from multiple levels (fire department, Local 366 and city leadership). The outcome is a rigorous appraisal of the risks in our community and the department's deployment of resources to mitigate those risks. This has become an iterative process for the GRFD, with annual updates to the SOC representing an incremental approach to continuous improvement. Grand Rapids is a dynamic city, with redevelopment driving a constant reassessment of the environment and deliberate adjustments by the fire department to maintain its high standards and citizen desired outcomes.

Major trends identified include dramatic increases in entertainment venues and population density in the downtown area (Bridge and La Grave first due districts), river redevelopment, continued pressure on Truck 1 operating without an engine, continued redevelopment and infill housing throughout much of the city, EMS system gaps, increase in fire prevention work with millions of square feet added and anticipated in the near future, and finally, continued staffing pressures as unit hour utilizations continue to creep upwards.

Description of Area Characteristics



Location & Historical Overview

Jurisdiction Served & Mutual Aid Responsibilities

Topography & Climate

Utilities

Profile of Governing Authority

Funding

Population & Employment

Transportation & Zoning

Education & Recreation

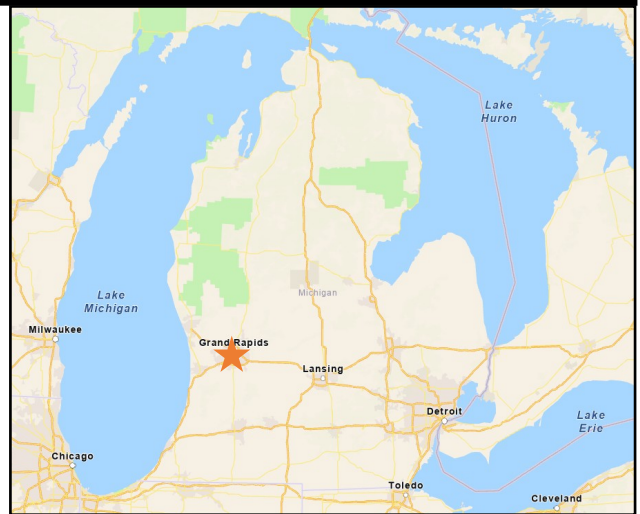
Location

The City of Grand Rapids is located in the Midwest state of Michigan, about 30 miles east of Lake Michigan and about 60 miles west of Lansing, the state's capital city.

Historical Overview

Grand Rapids was founded on the banks of the Grand River, the major economic driver of the city, providing transportation of goods and services. Gypsum (plaster) mining was the area's first major industry but in the late 1800s, Grand Rapids had become a major lumbering center, earning the nickname "Furniture City".

In 1945, Grand Rapids became the first city in the world to fluoridate its drinking water, one of the 20th century's greatest public health achievements. The city is also the childhood home of the 38th U.S president, Gerald R. Ford, who is buried with his wife Betty on the grounds of the Gerald R. Ford Presidential Museum, located on the west bank of the Grand River.



Major Historical Milestones (1838-2025)

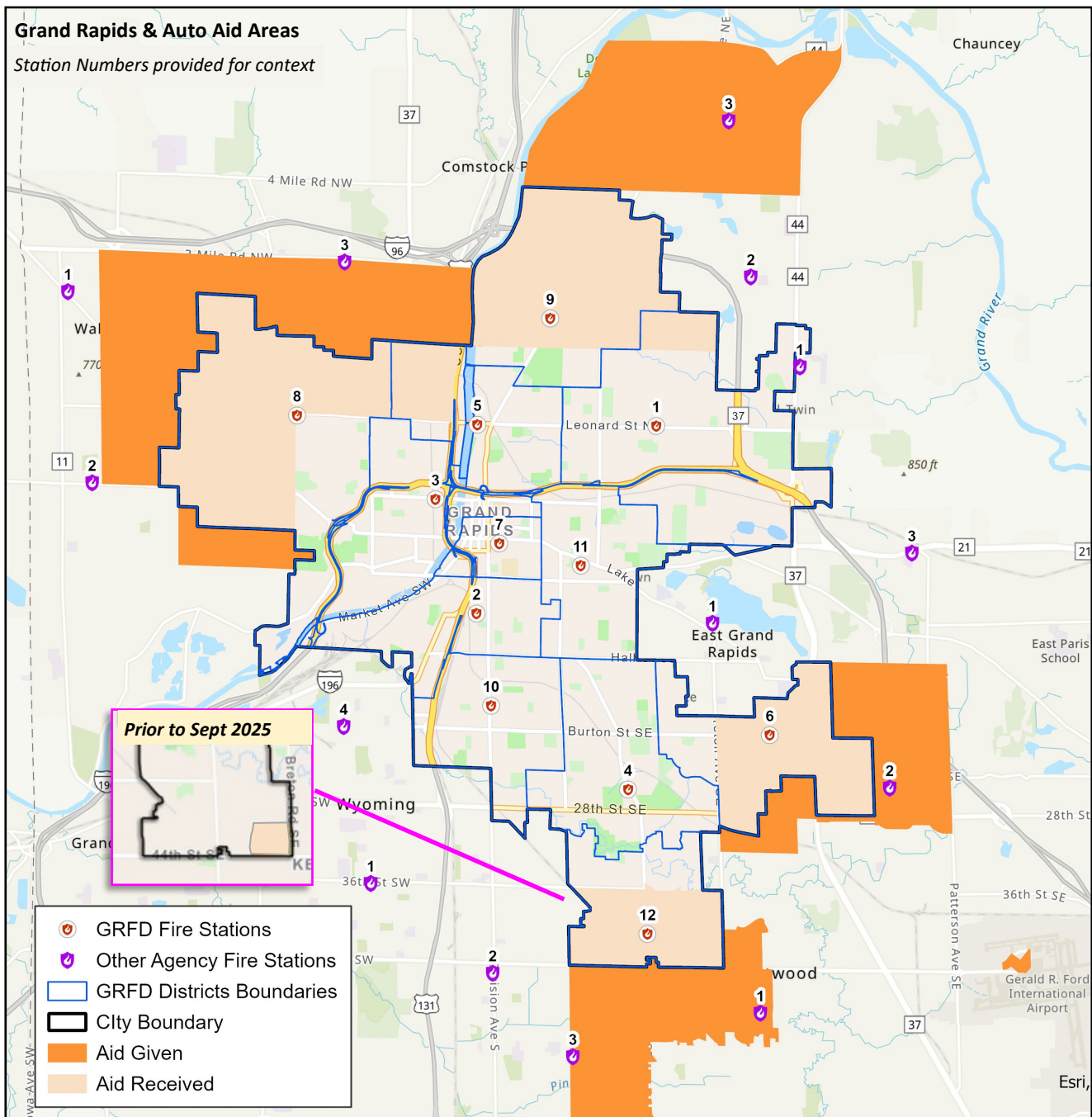
- 1838.....Village of Grand Rapids established
- 1844.....First organized fire companies formed
- 1846.....First Engine Purchased
- 1850.....City of Grand Rapids created; city charter adopted
- 1859.....City ordinance designates the Grand Rapids Fire Department
.....(GRFD) as a municipal institution
- 1900.....GRFD becomes Full Time/ Full Pay for all employees
- 1933.....IAFF Local 366 union organized
- 1945.....Insurance Services Office (ISO) Class 3 attained by the GRFD
- 1946.....GRFD Fire Inspections Bureau is formed
- 1958.....GRFD trained in CPR and begins responding on a limited basis to rescue calls
- 1969.....Fire investigation formally established
- 1975.....New training facility opened at Monroe Ave & Coldbrook St.
- 1976.....911 services for GRFD response is implemented for City residents and suburban municipalities
- 1980sSeveral original fire stations close and replaced with new stations
- 1987.....GRFD starts responding as Medical First Responder (MFR) level to emergency medical incidents
- 1991.....City charter recodified; Department of Public Safety (fire & police) established
- 2005.....Fire Dispatch transitions from sworn personnel to civilians; medical squads introduced to department.
- 2011.....Originally accredited by the Commission of Fire Accreditation International (CFAI) for 2011-2015.
- 2012.....ISO Class 2 attained and Utility 2 (the Blocker) placed into service. Residential Safety Program established.
.....Squad "mini-pumper" with compressed air foam system (CAFS) is added to deployment model (phased out in 2017).
- 2016.....ISO Class 1 attained, making the GRFD the first fire department in the state to achieve that level.
- 2021.....18-person Dive team established; Reaccredited by CFAI for 2016-2020.
- 2024.....Fire Department Medical licensure upgraded to EMT Basic Level; Groundbreaking for Kendall Station 12.
- 2025.....ISO Class 1 maintained; Groundbreaking for replacement Division Station 10 and replacement Training Center.

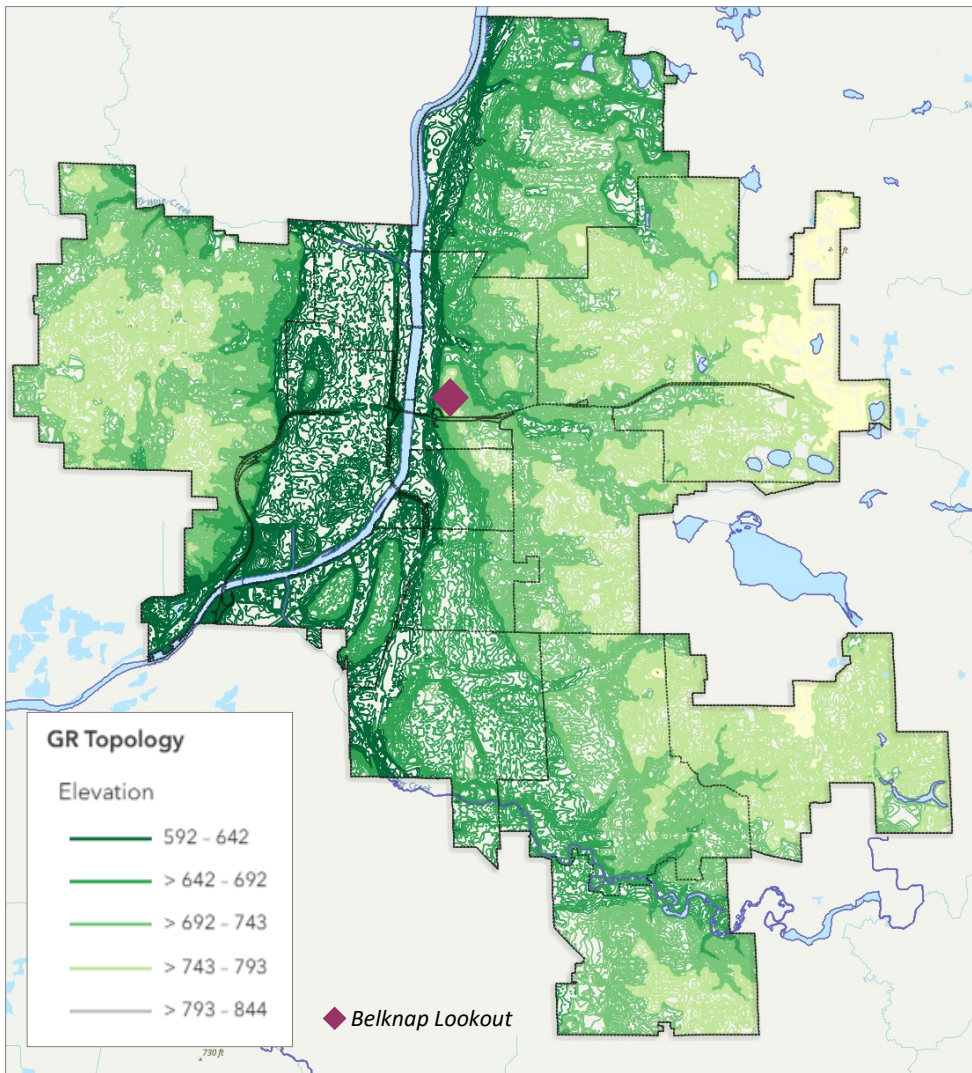


Jurisdiction Served & Auto Aid Responsibilities

As of 2025, the Grand Rapids Fire Department (GRFD) responds predominately within the city, providing a full spectrum of fire and non-transport rescue services at an EMT licensure level. The department responded into neighboring jurisdictions an average of 96 times a year from 2021 to 2025. The Gerald R. International Airport, located just southeast of Grand Rapids' borders, maintains its own independent fire department; however, Grand Rapids will respond as needed per a mutual aid agreement. The terminal, parking structure, and adjacent buildings fall under the jurisdiction of the City of Grand Rapids while all other areas of the airport fall within neighboring cities and townships.

When the new Kendall Fire Station went into service in late September 2025, the southern most auto aid area that the GRFD receives from Kentwood increased. Unlike the GRFD, which responds using Automatic Vehicle Location (AVL), surrounding fire agencies respond into designated dispatch beats; therefore, two new beats were created within the new Kendall District for Kentwood Fire to respond into. Additionally, this new GRFD district meant the creation of a new area of auto aid for GRFD to respond into Kentwood.





Topography

Sitting at between 600 and 800 feet above sea level, the largest natural feature in the city is the Grand River (the longest river in Michigan). The river runs through the downtown area and, along with other nearby waterways, is one of the many areas with a specialized emergency response risk. In the past 10 years, multiple projects have been discussed to bring the rapids back to the river, which would provide a whitewater sports venue and several development opportunities along the banks of the river.

Belknap Lookout, indicated on the map (left), sits on a bluff rising sharply 160 ft that overlooks downtown Grand Rapids; historically this has proven to be an area susceptible to straight line winds.

Elevation map overlayed with main water ways and fire first due district boundaries.

Climate

Grand Rapids has large seasonal temperature differences, with very warm and humid summers, cold and snowy winters, and short, mild springs and autumns. Owing to moisture patterns arising from the proximity to Lake Michigan, the city averages around 65.4 inches of snow and 37.4 inches of rain a year. The area often receives abrupt lake effect snowstorms, producing significant amounts of snowfall which may serve as an impediment to emergency operations. Summers are warm and severe storms are not uncommon during that time, resulting in elevated incident volumes from downed power lines. Detailed weather information can be seen in the table below.

Grand Rapids Weather	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg. Temperature	27	27	39	47	59	70	73	72	64	53	42	33	50.70
Avg. Max Temperature	32	35	41	51	62	71	76	74	67	57	44	38	52.20
Avg. Min Temperature	20	21	35	44	57	69	72	69	62	48	39	30	48.70
Max Temp of 90 F or more (days)	0	0	0	0	1	4	4	3	1	0	0	0	10
Min Temp Below Freezing (days)	14	12	2	9	1	0	0	0	0	0	2	7	34
Precipitation (inches)	2.4	2.2	3.6	3.3	2.9	3.7	4.4	3	2.1	3.9	2.4	2.6	37.37
Monthly Snowfall (inches)	19	15	6.8	0.6	0	0	0	0	0	0.1	9.6	15	65.4
Avg. Wind Speed	10	11	10	12	11	9.7	9.3	7.3	6.8	6.9	8.8	9.7	9.38
Avg. Relative Humidity	80	74	74	65	62	68	67	71	70	67	63	78	69.92

Source: <https://www.weather.gov/wrh/Climate?wfo=gr>

Utilities

The City of Grand Rapids maintains its own water supply and wastewater treatment plants, which provide services to city businesses, residents, and several surrounding cities and townships as well. The water and sewer system serves a population of approximately 280,000 and covers a service area of 137 square miles. The Grand Rapids' Lake Michigan Filtration Plant (LMFP) located on the coast of Lake Michigan, about 30 miles west of the city, processes lake water and pumps it to Grand Rapids. Businesses and residents of the city are supplied with natural gas from DTE Energy, electricity from Consumers Energy, and telephone service through multiple providers.



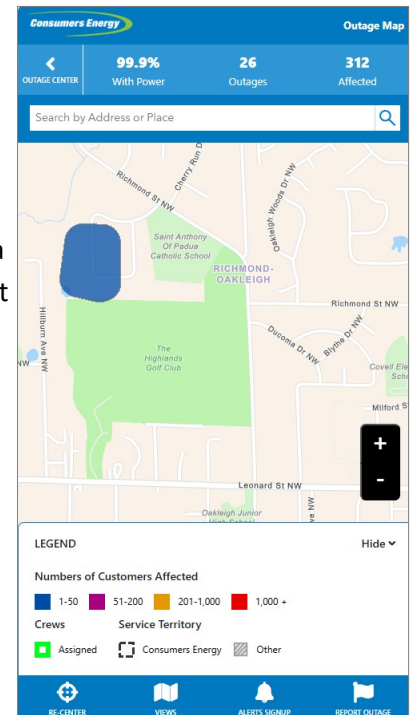
In 2022, the LMFP became partly powered by onsite renewable solar energy (0.90 megawatt (AC), 2.95-acre ground-mounted behind-the-meter solar array). The array expects to generate 1.5 million kilowatt hours per year, which accounts for 10% of the LMFP's electricity consumption.



Vicinity Energy, with 7 miles of underground pipe, supplies steam energy to 112 buildings in the downtown vicinity. Steam energy has served the City of Grand Rapids since 1897. Vicinity Energy also services Kent County with a waste to energy plant located on the southwest side of the city.

Businesses and residents of the city are supplied with natural gas from DTE Energy which is engaged in the purchase, storage, transmission, distribution and sale of natural gas to approximately 1.3 million customers in Michigan. The company owns and operates 278 storage wells representing approximately 34 percent of the underground working capacity in Michigan. There is more gas storage capacity in Michigan than in any other state. Founded in 1849, DTE Gas is one of the nation's largest natural gas utilities.

Consumer's Energy, founded in 1886, serves over 6.8 Million Michiganders with high quality clean electricity and generates over 6,906 Megawatts to power the state through 91,757 miles of electrical distribution lines serviced by over 8,000 workers.



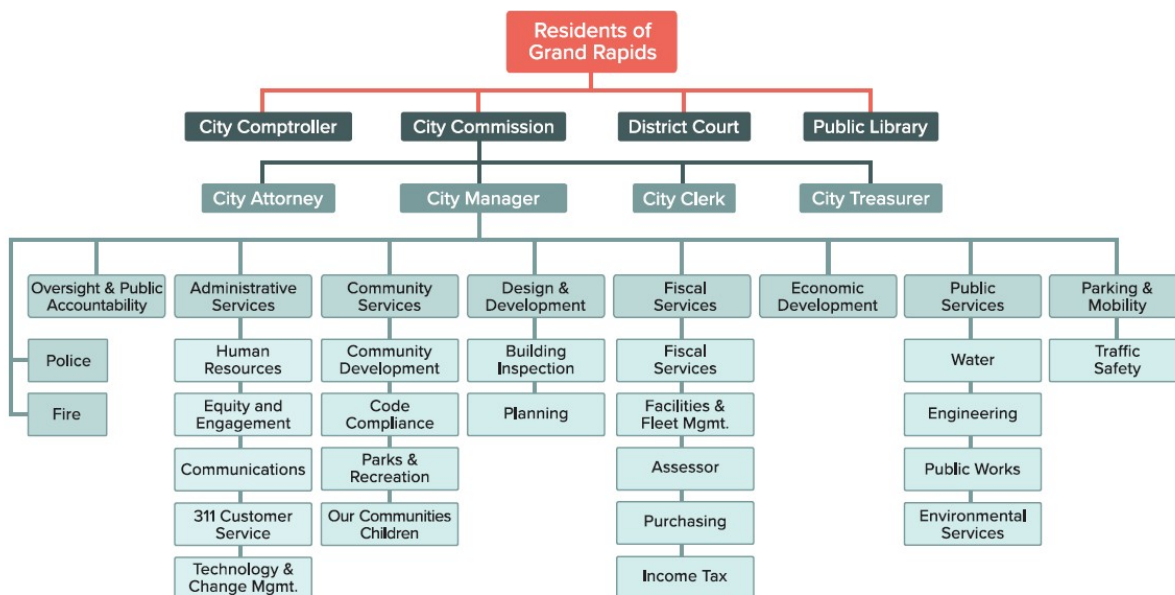
The City of Grand Rapids Street Lighting Program is a public infrastructure initiative focused on installing, upgrading, and maintaining streetlights to improve neighborhood safety, visibility, and energy efficiency. The program prioritizes converting older fixtures to LED technology, enhancing reliability, reducing maintenance costs, and lowering energy consumption citywide. It also coordinates with residents and neighborhood associations to address lighting gaps and improve overall public safety.

Profile of Governing Authority

Grand Rapids operates under a commission-manager form of municipal government, where responsibilities are divided between:

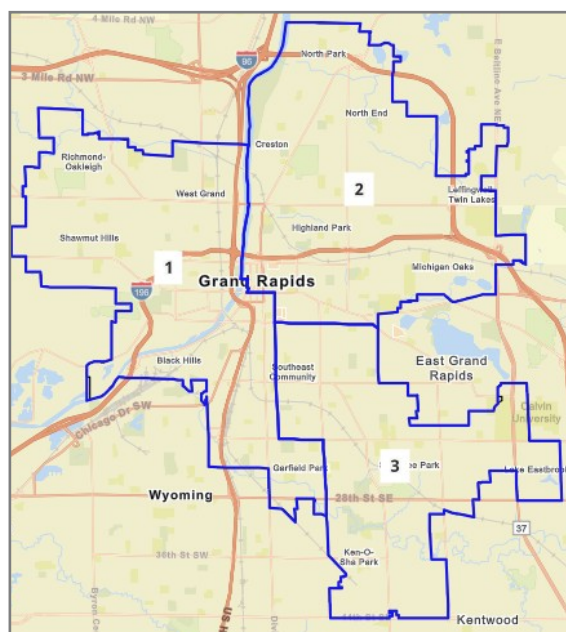
- An elected city commission, who sets strategic policy, and
- An appointed full-time city manager, who is charged with implementation of policy

The elected city commission is made up of (2) elected commissioners from each of the three Grand Rapids wards and a mayoral position chosen by entire electorate; this commission is empowered to create policies and ordinances for all city departments. *In 2014, term limits were voted into place, limiting any citizen to no more than (2) four-year terms in the position of Mayor or City Commissioner.*



Department heads are charged with creation and approval of additional policies to complement city wide direction. The GRFD, part of the public safety services group, reports to the city manager for day to day operations while the fire chief meets with the city manager on a bi-weekly basis to ensure alignment between the city's and the department's mission, vision and values.

The public safety committee, comprised of three city commissioners and the city manager, meets monthly to provide a forum for the fire chief and GRFD command staff to communicate goals and objectives to the local government and its citizens. The GRFD also interacts with city leadership on a frequent basis throughout the annual budget and fiscal approval process.



Grand Rapids Wards

Funding

The GRFD has a blend of revenues, including from the city's General Operating Fund (GOF), federal, state, and private grants, and donations through the GRFD Fire Prevention Foundation. The GRFD also contributes to the GOF by generating revenue through the prevention division, via funding from the State of Michigan through a revenue sharing program, and through cost recovery for certain response types.

The GOF is collected mostly through City income and property taxes and makes up the majority of the department's budget. City property values for levying property taxes are based on 50% of the assessed value, with annual increases limited to the inflation rate (capped at 5%) until properties are sold or transferred.

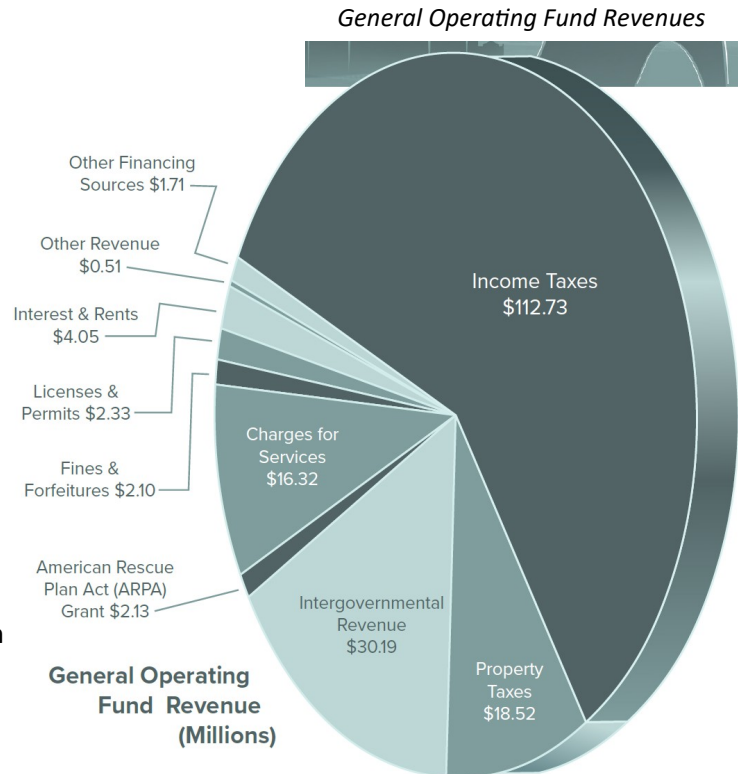
2025 Income Tax Rate (Residents): 1.5% (Employee, Non Resident): 0.75%

2025 Property Tax value: \$6.9 billion (66.28% *Residential*, 30.29% *Commercial*, 3.43% *Industrial*)

The city administers an annual budget cycle by fiscal year (FY), which is July 1 through June 30. The FY 2025 city budget was \$689,974,679. The GOF budget was \$197,878,279 and the GRFD's budget was \$43,879,596. The FY 2026 GRFD budget is targeted at \$45,353,127.

Budget Process

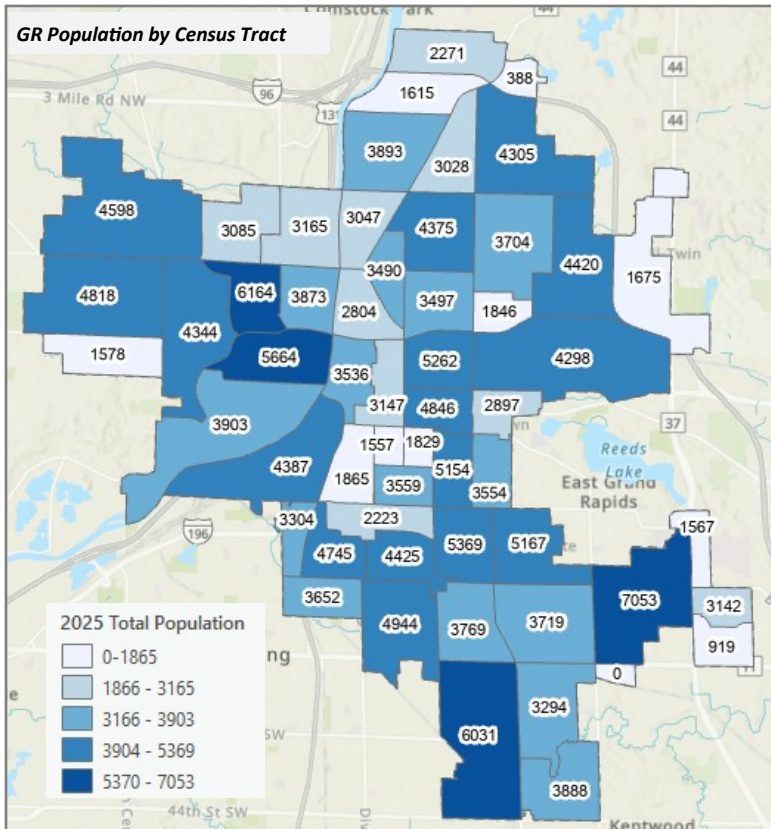
- 1.) Each November, departments receive budget instructions and assemble their upcoming fiscal year budgets.
- 2.) Budgets submitted to the city manager for review.
- 3.) Departments present their proposed budgets to the city manager and chief financial officer; final adjustments are made.
- 4.) Final budgets are endorsed by the city commission.
NOTE: Even with budget in place, purchases over a certain amount must follow the city's requirements for competitive bidding and receive final authorization by the fiscal committee.



Grant Funding

The success of the grant program has increased exponentially with the application of data analysis, accentuated by alignment with the accreditation process. Since 2020, the GRFD has been awarded over \$44 million dollars in grants, which have contributed funding towards the Residential Safety Program, cancer screenings for members and their spouses, 18 new firefighters, turnout gear, tools and equipment, and 4 new buildings (including 2 new fire stations, a training center, and 5 story burn building).

Population



The GRFD protects Michigan's second most populous city in Michigan, with an estimated 2024 population of 200,177 (the accepted number after city officials successfully challenged the original census total of 198,270). That number swells to 230,000 to 250,000 during the daytime based on Census data and commuter estimates. The metro area contains approximately 600,000 people.

The city covers an area of 45.3 square miles and Grand Rapids is denoted as urban according to CFAI guidelines.

The ESRI's Updated Demographics Database, which includes source material supplied by the U.S. Census Bureau, the U.S. Census Bureau's American Community Survey, and public and private data sources, provides the demographic information in this document. 2025 data indicated a household count of 82,614 with

42,613 families, those married or living with relatives, living in the city. As of 2025, the population of Grand Rapids was 58.9% White, 19.3% Black or African American, 2.5% Asian, and 10.3 % other races; 17.2% (roughly 34,112 residents) are of Hispanic ethnicity. 4.3% of the population speaks little or no English; 70% of that group speak Spanish while 15.4% speak a language that excludes Spanish, Asian or Pacific Islander, and Indo-European Languages.

Age and Income

Median age31.7 years

Median income.....\$71,108

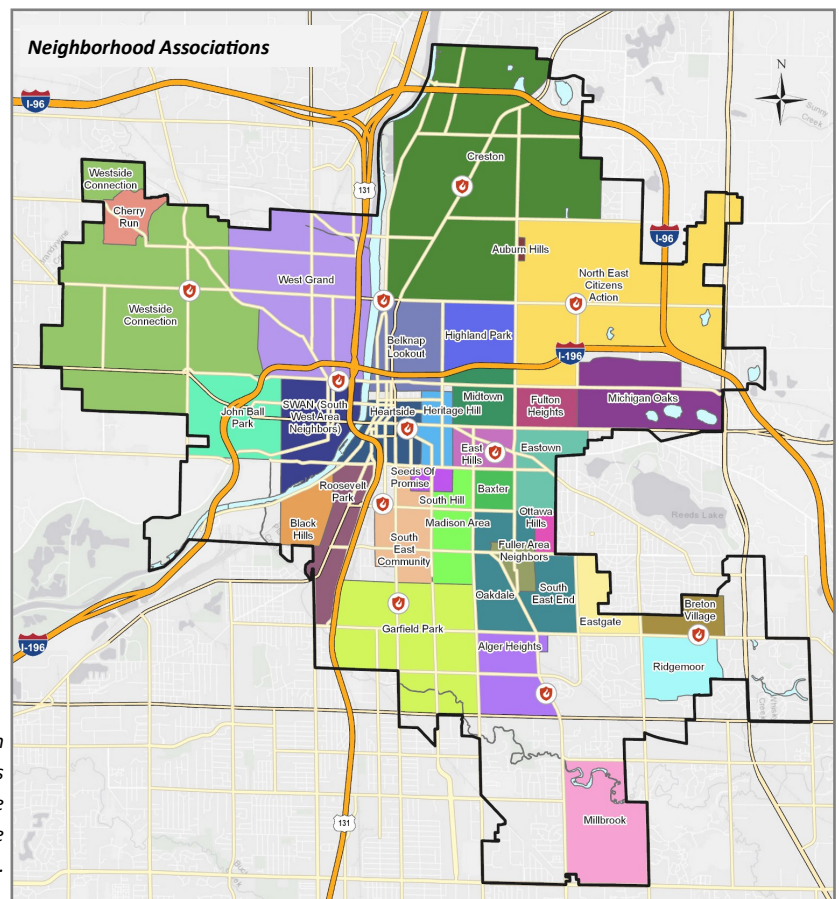
Number of residents who are:

Younger than 5 years old.....12,278

Over 65 years old.....28,173

According to the US Fire Administration, children ages 0-4 and adults older than 65 have a higher risk of dying in a fire than other ages.

The GRFD interacts with both neighborhood and business associations on a frequent basis to communicate critical information and listen to the needs of the community.



Employment

The Grand Rapids area is home to a number of well-known, industry leading companies in marketing, manufacturing, product supply, and health care. Local medical, technology, and higher education sectors continue to expand within the region, with non-manufacturing employment in the Grand Rapids area accounting for 81.3% of the labor force and 18.7% employed in the manufacturing sector.



Top 10 West Michigan Employers			
Rank	Name	Employees	Description
1	Corewell Health	25,000	Healthcare
2	Trinity Health (Mercy Health Saint Mary's)	8,500	Healthcare
3	Meritage Hospitality Group, Inc	7,000	Food/ Beverage
4	Gentex Corporation (HQ)	5,800	Manufacturing
5	Meijer (HQ)	5,000	Retailer / Grocery
6	Gordon Food Service, Inc	5,000	Wholesale / Distribution
7	MillerKnoll	3,600	Manufacturing
8	Perrigo	3,500	Manufacturing
9	Farmers Insurance Group	3,500	Insurance
10	Steelcase, INC	3,500	Manufacturing

The Right Place, Inc - 2024 West Michigan Overview

2025 Rankings

#22 - Best Run City in America & #1 in Michigan
WalletHub

#20 - Best U.S. Cities for Women in the Workplace
Checkr

#1 - Cities on the Rise: Best Locations to Grow Your Career
LinkedIn

#5 - Metros Where Young Homeownership is Most Accessible
Consumer Affairs

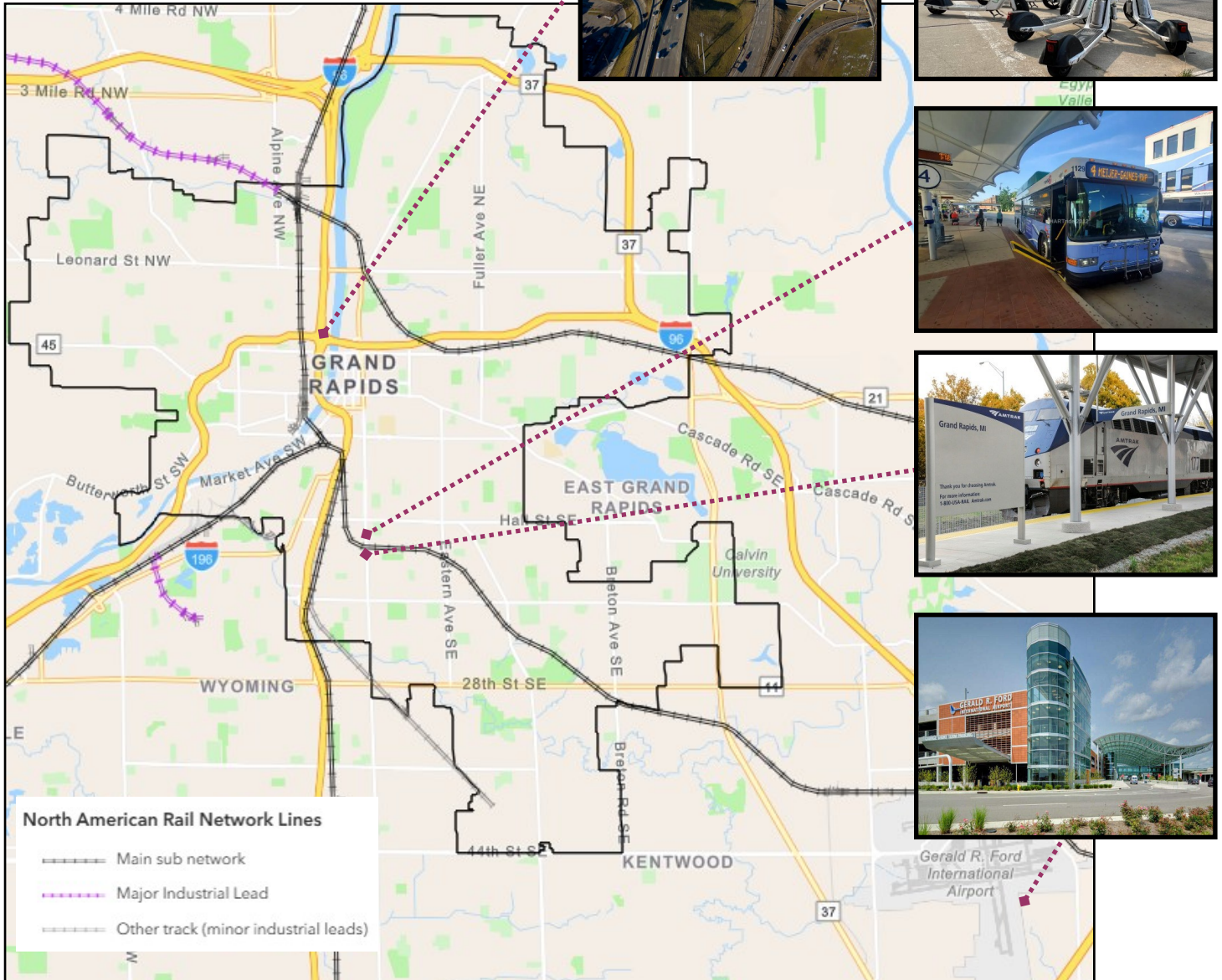
Health Care

The Grand Rapids' "Medical Mile", located on the north side of downtown Grand Rapids, has world-class health sciences facilities that attracts clinical, research, and academic institutions. This includes Van Andel Research Institute, Helen DeVos Children's Hospital, and Corewell Health Facilities (West Michigan's largest employer) that includes Butterworth Hospital, the city's only level 1 trauma center. Additionally, the "Medical Mile" is home to Grand Valley State University's Cook-DeVos Center for Health Sciences, Michigan State University College of Human Medicine's Secchia Center, and Ferris State University's College of Pharmacy. Trinity Health Saint Mary's, an accredited teaching hospital, encompasses multiple specialty health services located around the city, including The Lacks Cancer Center, the Hauenstein Neuroscience Center, an Orthopedic Center of Excellence, and the Wege Center for Health and Learning.

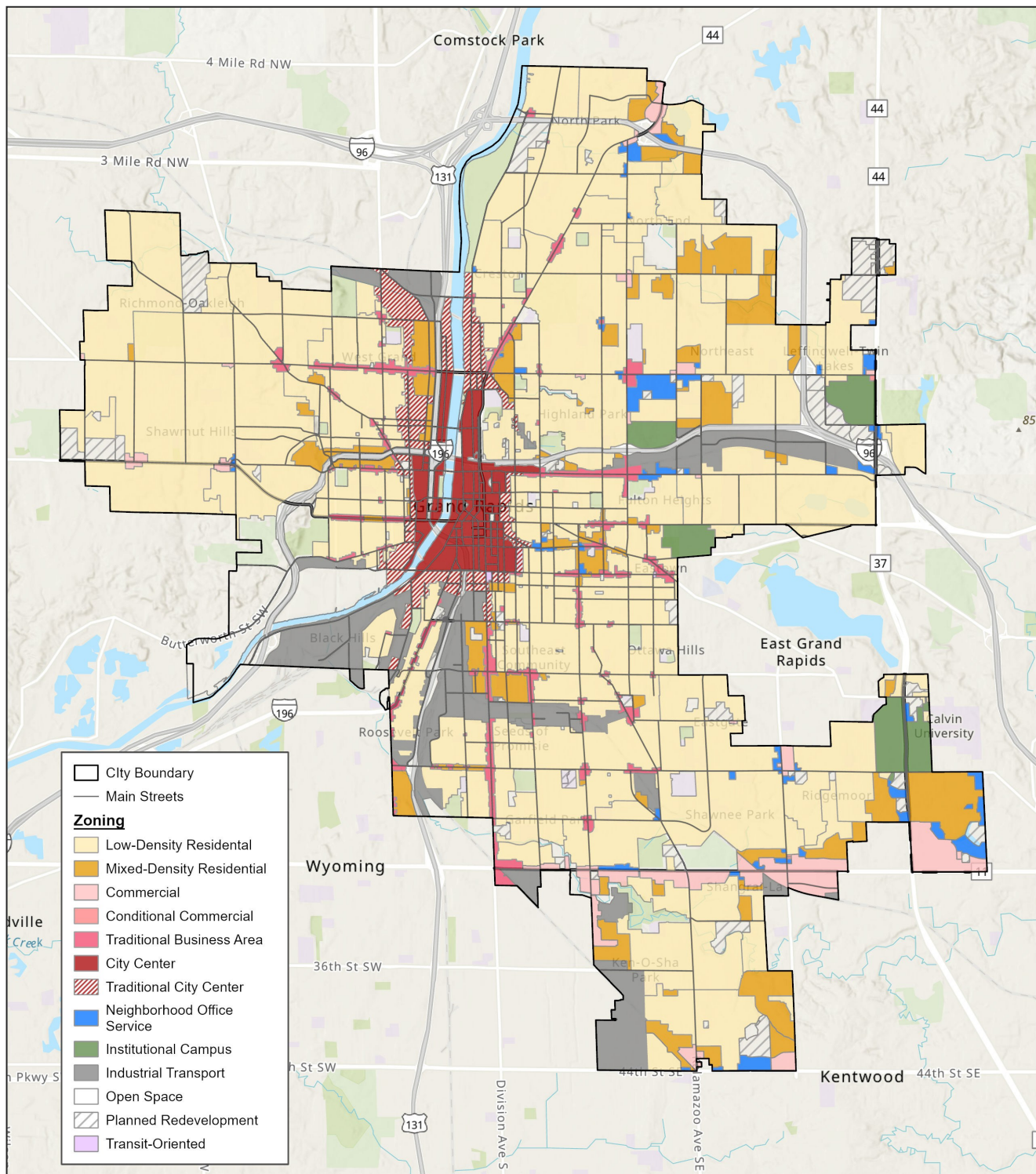
Transportation

There are multiple ways the local or visiting population can travel throughout the city, including highways, a bus transportation system, a electric mobility platform (scooters and bikes), and regional access to both rail and air travel.

- One U.S highway, two interstate highways, and five state highways cross the city. A major interchange between the U.S. highway and both interstate highways converge in the downtown area.
- Public buses serve the metropolitan region with a main transfer station for both public and private bus systems offered downtown.
- Gerald R. Ford International Airport, located outside of GR's borders, is the regions largest commercial airport. Since 2020, its terminals have expanded and additional non-stop flights are now offered.
- Federally designated high speed rail , served by Amtrak, connects Grand Rapids to Chicago.
- In summer 2022, "Lime" e-scooters and e-bikes became available in a 12 square mile area within the downtown core of the city.



Zoning



Grand Rapids approved major zoning changes in 2023 increasing allowable building heights in parts of downtown to encourage more housing and dense development. The updates raised limits in several Downtown Height Overlay districts—for example, some areas increased from 10 stories to 20 stories, while others went from 7 stories to 10 stories or slightly higher. The changes were intended to make new projects more financially feasible and concentrate growth in the city center where infrastructure already exists. Additional rezonings in 2023–2024 extended these higher height allowances to nearby areas around downtown and along the river.

Education Systems

K–12 public education is provided by the Grand Rapids Public Schools (GRPS) as well as a number of private and charter schools. City High Middle School, attracting academically talented students in the region, is ranked among the nation's top high schools (#3 in Michigan, #48 Nationally in 2025). Grand Rapids is home to Catholic Central High School, the oldest co-educational Catholic high school in the US, and is headquarters of the National Heritage Academies. A variety of college experiences are offered to tens of thousands of students at the 15+ institutions of higher learning, Grand Rapids Community College, including Grand Valley State University's Pew Campus, satellite buildings for Michigan State University and private colleges.



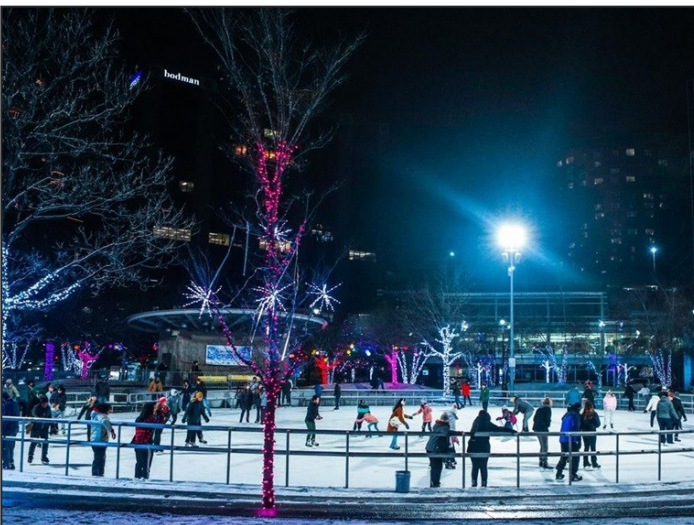
Grand Valley State University's Pew Campus

Recreation

Grand Rapids has a number of popular sports, concert, and natural attractions that are visited by thousands of tourists and residents both daily and seasonally. In addition to the large multipurpose venues like Van Andel Arena and DeVos Performance & Convention Hall, there are multiple museums and outdoor experiences available downtown and throughout the city.

Sports and Entertainment: Grand Rapids has a number of popular concert and athletic venues including Van Andel Arena, Devos Performance Hall, 20 Monroe Live, Royce Auditorium, and more; *Coming soon - New Soccer Stadium, set to open 2027; Open air amphitheater, set to open 2026.*

Museums: Grand Rapids is home to the Grand Rapids Public Museum, the Grand Rapids Art Museum, and the Gerald R. Ford Presidential Museum, part of the Presidential libraries system of National Archives and Records Administration.



Rosa Parks Circle skating rink

Zoo: The John Ball Zoological Garden is located on the west side, engaging the community on wildlife conservation and the natural environment since 1891

Outdoor venues: 90 city parks with 2,000 acres of green space and over 288 miles of bicycle trails within the city limits; The Grand River is a popular destination for outdoor enthusiasts and recreational fishing while the Rosa Parks Circle hosts an outdoor ice rink in the winter.

Festivals: A three week ArtPrize competition takes place in the fall with various heritage and cultural festivals occurring throughout the year.

Description of Agency Programs & Services



Organizational Overview

Fire Suppression

Emergency Medical Services (EMS)

Special Operations

Training

Recruitment & Wellness

Community Risk Reduction

Public Education & Residential Safety Program

Office of Emergency Management

Additional Support Programs

Community Expectations

New GRFD Construction

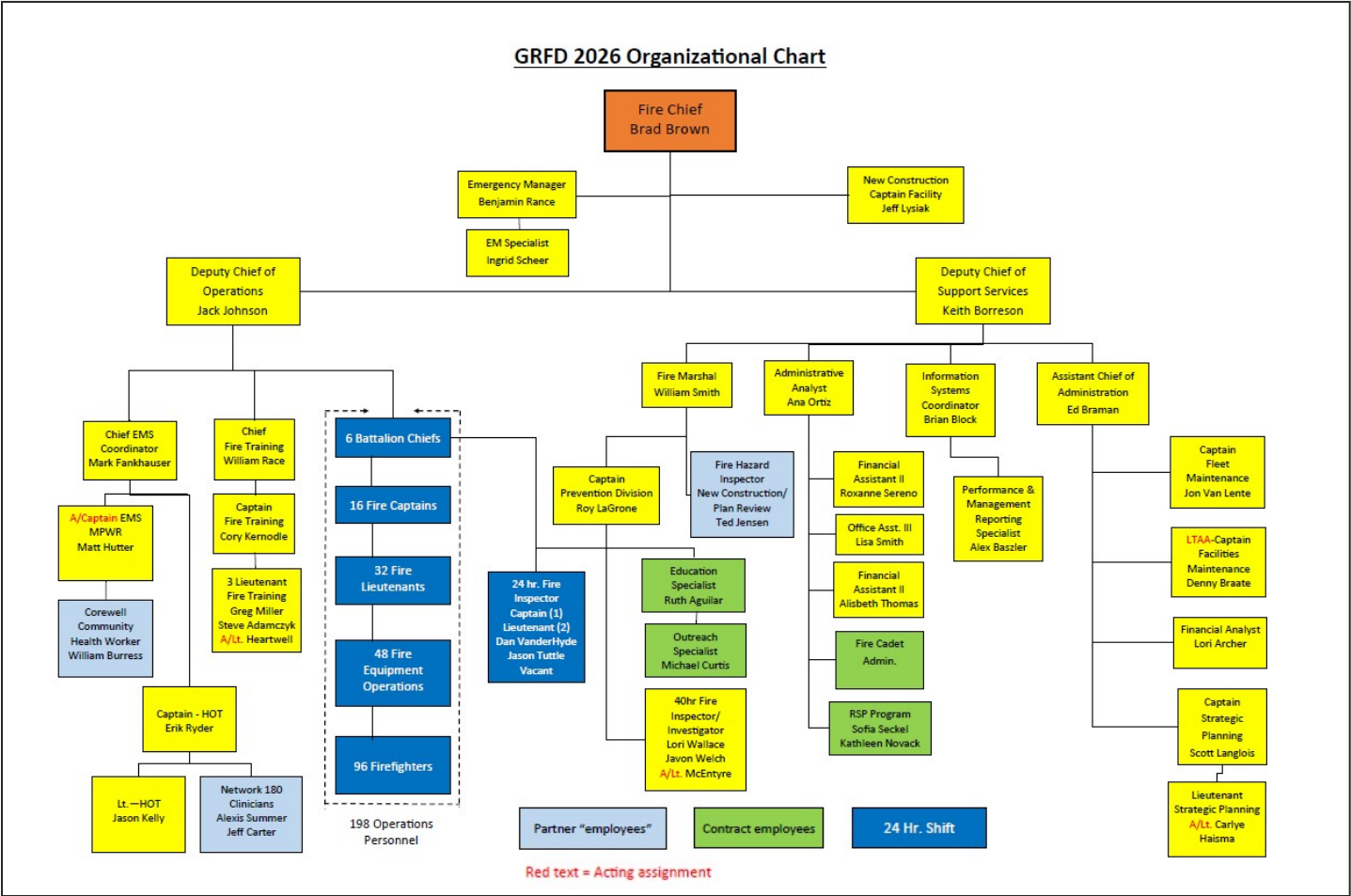
Organizational Overview

The Grand Rapids Fire Department (GRFD) provides a full spectrum of emergency responses via four main areas: fire suppression, emergency medical services (EMS), hazardous materials, and technical rescue mitigation. The department also administers many non-emergency risk based programs such as the Residential Safety Program, Homeless Outreach Team (HOT), Medical Priority and Wellness Response (MPWR), and commercial fire inspections.

The department operates under a “total authorized strength” model with 232 full time City employees. In addition to a multitude of non-emergency functions, the organization has seen steady increases in emergency incident demand. Fire Chief Brad Brown oversees a command staff of two deputy chiefs, an assistant chief, six battalion chiefs, a training chief, emergency medical services (EMS) chief, and a fire marshal.

Executive Staff

Four executive chiefs oversee the major divisions within the department; the Fire Chief, the Deputy Chief of Operations, Deputy Chief of Support Services, and the Assistant Chief who manages fleet, facilities, budgeting and planning. The organizational chart below shows the detailed breakdown of oversight.



Programs identified in the Self Assessment Manual (SAM) will be outlined in this section along with other significant programs as assigned to their respective executive level chief per the Standard Operating Guideline (SOG) 101-02.

Suppression Battalion Chiefs

Battalion chiefs serve as the link between administration and suppression personnel and supervise daily operations. There are six suppression battalion chiefs (BCs), two assigned to each of the three shifts. One BC is assigned to the north portion of the city, operating out of the Monroe Ave Station, and one BC covers the south end of the city, working out of the Division Ave Station.

The primary responsibility of a BC is operating as the Incident Commander at any large-scale incident, such as a structure fire, hazardous materials incident, or a vehicle extrication, where there are typically three or more suppression units. The BC coordinates the on scene operations, ensures sufficient resources for incident mitigation, and provides for the safety of personnel and civilians. Additionally, the BCs also manage several administrative needs, including:

Staffing - BCs review staffing to ensure the daily minimum number of personnel are on duty. They also adjust the daily placement of members to meet the needs of city coverage, training and other necessary functions.

Information - BCs start the day with a live online meeting to share information that includes all fire stations, administrative personnel, and fire dispatch. The BCs also share information utilizing incident After Action Reviews (AARs), quality assurance/quality improvement documentation for various medical incidents, monthly operations meetings, and quarterly command staff meetings. Standard Operating Guideline 401-06 details the process for AARs.

Training - BCs work closely with the training division to oversee crew reviews of monthly assigned training exercises.

Program Managers - Each BC oversees the administrative functions of their assigned programs, which will be covered further in the following pages.

Car 97 - 24/7 Safety Officer - Although the BC has ultimate responsibility for on-scene safety, they work in conjunction with Car 97, the 24 hour fire inspector/investigator/safety officer, who works on scene for the battalion chief.



Fire Suppression

The GRFD provides fire suppression services from 12 strategically located fire stations throughout the city. Frontline resources, which are staffed daily, include ten engines, two rescues, four trucks (ladders/platforms), two battalion chiefs, and one safety officer (Car 97). All frontline apparatus are staffed at minimum with three personnel. The city is divided into North and South Battalions, each overseen by a battalion chief responsible for daily operations, incident command, and scene safety.



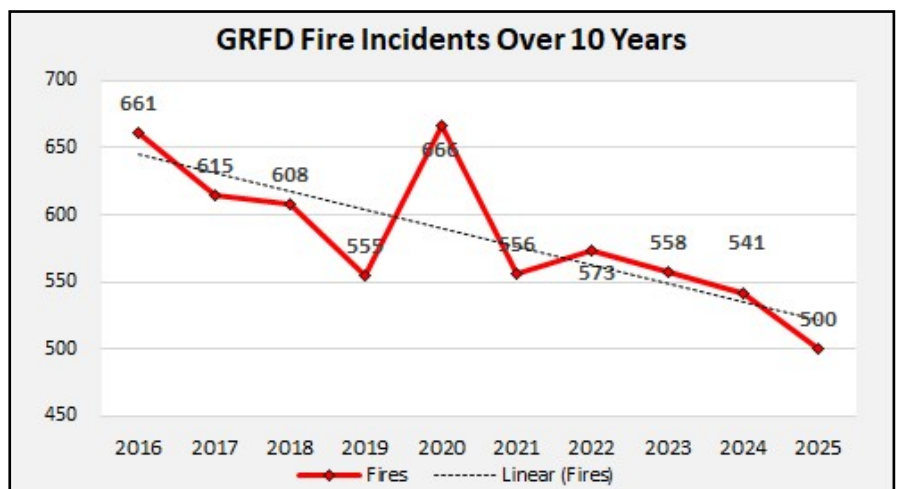
GRFD also maintains cross-staffed specialty resources to support suppression and special operations, including hazardous materials response vehicles, water rescue vehicles and watercraft, technical rescue vehicles, and Utility 2, a roadway safety blocker unit. Fire station locations, first-due districts, and apparatus assignments are detailed in the “Current Deployment and Performance” section.

Deployment Capability

A typical moderate-risk residential structure fire assignment deploys a minimum of 19 personnel, including at four engines, one truck, one rescue, and a battalion chief. This response configuration provides essential firefighting capabilities such as rapid intervention, forcible entry, adequate water supply, and suppression tools. Extended incidents are supported through crew rotation, rehabilitation, and the deployment of additional resources as necessary. Current staffing and deployment levels allow the system to manage one high-risk commercial structure fire or two simultaneous moderate-risk residential fires before system depletion occurs. When incident demand exceeds available resources, GRFD utilizes callbacks of off-duty personnel, automatic aid, and mutual aid agreements to maintain operational effectiveness. GRFD participates in the Michigan Mutual Aid Box Alarm System (MI-MABAS) to enhance response capacity during large-scale or catastrophic incidents.

Performance Outcomes

The GRFD has answered an average of 24,894 alarms over the last 5 years and an average of 546 fire type incidents were found on scene. While overall calls for response continue to climb, fire calls are trending downward. The GRFD responded to 661 fire calls in 2016, and finished the decade with 500 fire incidents found in 2025. Due to the rapid response times and effective deployment strategies, fires are typically confined to the object, room, or floor of origin. Since 2021, the average property saved rate is 93.73%, with \$875,182,078 saved compared to the \$41,510,896 lost.

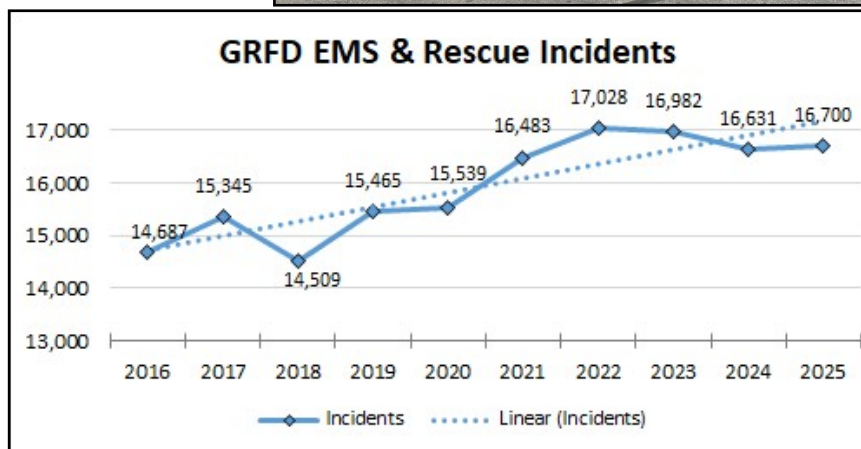
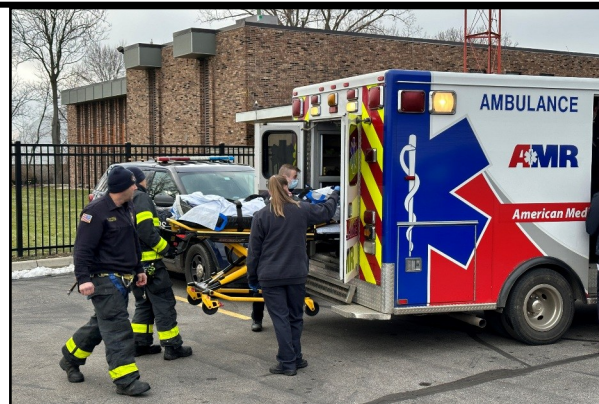


Emergency Medical Services (EMS)

The GRFD operates as an Emergency Medical Technician (EMT-B) agency under the purview of the Kent County Emergency Medical System (KCEMS). In 2024, the department transitioned from a Medical First Responder (MFR) level to EMT-B to provide a higher level of medical care to the community. Oversight of Emergency Medical Services (EMS) is provided by the Chief of EMS, who reports to the Deputy Chief of Operations. GRFD responds to approximately 16,700 medical emergencies annually,

accounting for roughly 66% of total call volume. Suppression personnel are trained to operate at EMT-B level while relying on neighboring private Advanced Life Support (ALS) agencies (primarily American Medical Response and LIFE Ambulance) for patient transport. To ensure consistent, high-quality care, the Continuous Quality Improvement (CQI) team conducts detailed reviews of procedures and documentation. This ongoing evaluation helps maintain the department's

commitment to delivering the highest standard of emergency medical service to the community. The Homeless Outreach Team and Medical Priority and Wellness Response team offer additional methods for vulnerable communities by connecting them with alternative resources built to reduce their need for emergency care.



Homeless Outreach Team (HOT):

In April 2020, the Grand Rapids launched HOT to respond to isolation, health and safety issues, and COVID mitigation within the unhoused community and has ongoing goal of building relationships with these individuals to better assist them in obtaining services and connecting to housing solutions. HOT is made up a GRFD captain and lieutenant working with two social workers. The team canvasses the community Monday through Saturday to interact with unhoused persons and engage with businesses and residents to resolve issues.

Medical Priority & Wellness Response (MPWR):

The MPWR Team (Medical Priority and Wellness Response) is a GRFD pilot program that partners with Corewell Health in an effort to reduce the number of 911 calls and ER visits from citizens who are frequent users of the 911/ ER system. This form of medical outreach is aimed at addressing the root causes of specific medical ailments and providing patients resources to better manage their health. The team is comprised of one GRFD EMS captain and one community health worker from Corewell Health. After patients are referred to the MPWR Team, primarily by suppression officers, the team makes contact with the patient and sets up a visitation schedule.



Special Operations

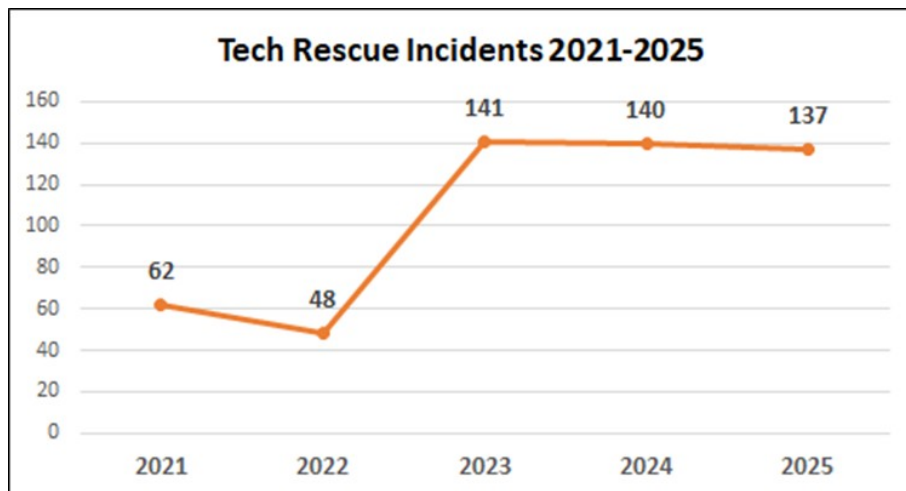
The GRFD maintains three special operations teams, each with a minimum of 36 members who respond when events require specialized skills to mitigate a technical incident. While all GRFD members are trained to the awareness level for special operations functions, special operations team members are trained to the operations or technician level, with many trained to function in a command role.

Technical Rescue

The Technical (Tech) Rescue team is specially trained and equipped to respond to complex emergencies, including rope rescues, structural collapses, trench and confined space rescues, vehicle extrications, and machinery entrapments. The team operates two heavy rescue units (Rescue 1 and Rescue 2) housed at La Grave Station, each outfitted with a comprehensive inventory of specialized tools and equipment designed for these high-risk technical operations.

Team members engage in regular trainings to maintain proficiency in these specialized, critical, though less frequently deployed, skills. Given the city's dense downtown core – characterized by numerous high-rise buildings, ongoing construction, and the presence of several industrial and manufacturing facilities – maintaining a state of operational readiness for technical rescue responses is essential. As one example, in 2025, the Grand Rapids Water Department issued 3,191 trenching permits for the City of Grand Rapids and surrounding region and most of these would be in the 5 foot depth or deeper. Callbacks for special operations team members occur as deemed necessary by the battalion chief after consulting with the on duty technical rescue special operations subject matter expert.

Approximately .54% of all incidents in 2025 required a technical rescue response. The majority of those incidents were elevator rescues, which make up 65.69% of the calls and vehicle extrications, which make up 27.74% of the calls. There are approximately 1,480 elevators in Grand Rapids and three major highways that intersect in multiple places throughout the city.

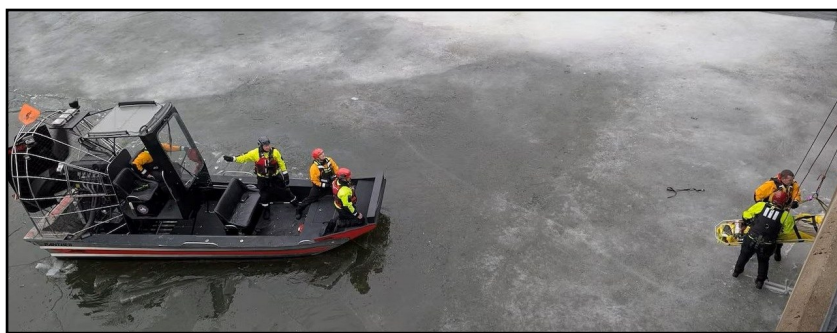


Water Rescue

The Water Rescue Team is a specialized response component of the GRFD, trained and equipped to mitigate incidents on or near bodies of water, with a primary focus on the Grand River. The team provides swift water and ice rescue capabilities and, since December 2022, dive rescue and recovery operations. These services support emergency response, life safety, and recovery for both accidental and intentional water-related incidents. The department maintains three rescue boats at Bridge Street Station and one airboat at Monroe Avenue Station allowing rapid access to multiple river sections under varying seasonal and environmental conditions. The GRFD has access to six boat launches along the river.

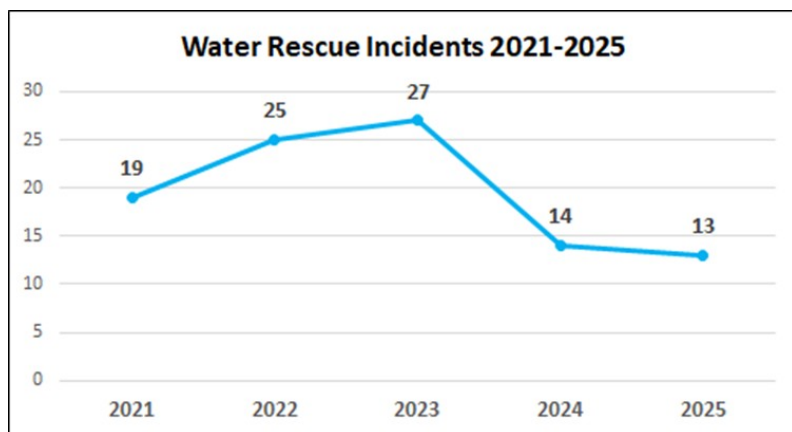
The Water Rescue Team provides technician level response capabilities that supplement first arriving companies trained to the operations level. Initial actions are life safety, hazard recognition, scene control, and upstream and downstream risk mitigation. When conditions exceed the scope of first arriving resources, the team is dispatched to provide advanced technical support; including:

- Swift water and ice rescue operations
- Boat based rescue and recovery
- Dive rescue and recovery operations
- Victim search, location, and extrication in aquatic environments
- Technical consultation and risk-based decision support to Incident Command



Dive operations follow established agency policies and national best practices emphasizing diver safety, redundancy, and conservative go/ no go decision making. The team continues to expand and refine its capabilities through training, equipment acquisition, and post incident review. All water rescue incidents are managed within the Incident Command System (ICS) and coordinated with fire suppression, EMS, law enforcement, public safety partners, and supporting agencies as required. These relationships enhance the department's ability to manage large scale or prolonged incidents that exceed single agency capabilities, particularly during periods of high water, flooding, or multi-victim events.

Water rescue incidents represent a relatively small portion of the department's overall call volume with approximately .05% of incidents in 2025. Despite their lower frequency, these incidents involve a high degree of risk and complexity in a dynamic, hazardous environment.



Hazardous Materials

The Hazardous Materials (HazMat) Team is trained to mitigate incidents involving fuel and chemical releases, unknown substance identification, and potential biological or terrorism-related threats. They also provide technical assistance and advice to fire and police units when a full team call out is not necessary, such as fuel spills, chemical spills, unknown product identification, and suspected bio-terrorism incidents.

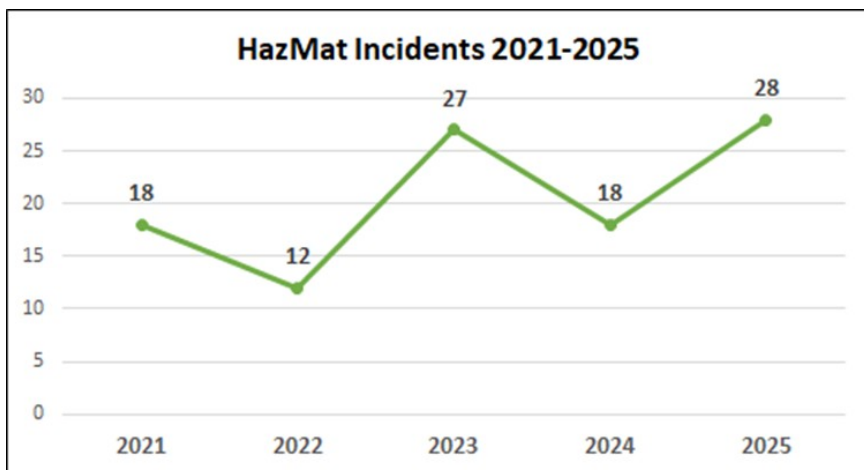
The two HazMat units, housed at the Martin Luther King Jr Street Station, are equipped with a comprehensive cache of air-monitoring instruments, personal protective equipment, and specialized tools designed to support safe and effective hazardous materials mitigation operations. All members are trained to the technician level and take classes in radiation detection and response, transportation emergencies, chemistry, and at the hazmat officer level.

The department's HazMat Team provides technician-level response capabilities that supplement first-arriving companies trained to the operations level. Initial actions focus on life safety, hazard recognition, scene isolation, and defensive control measures. When conditions exceed the scope of these actions, the team is dispatched to provide advanced technical support, including:

- Hazard identification and air monitoring
- Product control and containment operations
- Technical and mass decontamination support
- Risk-based decision support for Incident Command

In response to evolving hazards such as lithium-ion battery incidents, the HazMat Team continually adapts its training, equipment, and operational planning. The team incorporates lessons learned from national subject-matter experts, applied research, and interagency collaboration to ensure preparedness for both traditional hazardous materials incidents and emerging threats. An example would be when the GRFD sent four members to New York City to train along side the FDNY, the industry's subject matter experts in lithium-ion battery response.

The GRFD HazMat team responds to several chemical spills in the city each year, as well as assisting regional agencies with on-scene help. Similar to Water Rescue incidents, HazMat incidents may be fewer in frequency but present a disproportionately high level of operational complexity and risk, requiring advanced technical expertise, specialized equipment, and ongoing training to maintain operational readiness.



MI - Task Force 1

Michigan (MI)-Task Force 1 is a specific highly specialized team within the MI-MABAS system, focusing on Urban Search and Rescue (US&R). MABAS is the framework that allows for the organized deployment of teams like MI-TF1 and other specialized units across the state. Six GRFD members are also a part of the MI-Task Force 1 team. In the last 5 years, our firefighters deployed 8 times to locations in Texas, South Carolina, North Carolina, and Louisiana to assist in disaster relief and damage assessment.



Training

Continuing Education & Professional Development

The Training Division, one of the five pillars of the GRFD Strategic Plan, is tasked with developing new hires into GRFD firefighters and continuously training current members of all ranks to maintain sharp skills. A large amount of time and resources are committed to increasing the knowledge, skills, and abilities required to deal with the diverse emergency conditions faced by personnel while on duty. The training division is comprised of one training chief, one training captain, and three training lieutenants who oversee the recruit academy, department wide company level training, and EMS training designed to support the effectiveness and safety of our personnel. Recent examples of suppression wide training include navigating building alarm systems, the hazards of lithium-ion batteries, encountering solar panels, and firefighter survival trainings. In addition to local course offerings, many mid to senior level officers choose to attend regional or national level conferences, professional development courses aimed at managing officers, and the National Fire Academy.



The GRFD training facilities currently consist of two leased buildings that contain classrooms, an indoor fireground training prop, and a multitude of supporting equipment until the new training facility opens in spring of 2027. The new training facility will also include a new burn building on site, as the previous off-site burn building was decommissioned in 2025. The availability of the classrooms allow the GRFD to host a variety of other trainings and workshops as needed, such as Incident Command System (ICS)/National Incident Management Systems (NIMS) courses, city employee CPR classes, and Community Emergency Response Team (CERT) courses.

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Recruit Academies

Recruit academies typically begin at the start of the year and conclude after approximately 20 weeks of training. During this time, recruits complete the requirements for Michigan Firefighter 1 and 2 certification and receive orientation about daily duties in the GRFD. Recruits also achieve certification as Basic EMT's during the academy. The Training Division assists department members with either attaining or maintaining their MFFTC Instructor I certification by providing instructional opportunities during the academy.



Recruitment & Hiring

Recruitment and hiring is managed by a lieutenant under the purview of the Deputy Chief of Support Services. They actively participates in local events, career fairs, and school outreach programs to ensure the GRFD is staffed with dedicated personnel. These initiatives are aimed at building relationships within the community, promoting fire safety, and showcasing the diverse opportunities available in the fire service.

The Cadet program is a 16-week paid internship for individuals 18 and older designed to prepare aspiring firefighters with the essential skills and knowledge required for the role. This program offers an excellent hands-on opportunity to gain invaluable experience from seasoned professionals and obtain certifications in the fire service.

Through this program, the GRFD can assist cadets through the hiring process for those interested in pursuing a career of firefighting.



The Fire Youth Academy is a one-week program for young individuals aged 15-18 to experience an extremely condensed version of the GRFD fire academy that all new hires go through. During this week they will learn skills such as search and rescue, hands-only CPR, use of fire hose and extinguishers, and use of self-contained breathing apparatus (SCBA). This program offers an immersive experience that educates teens on fire safety and can spark interest in a career as an emergency responder.

Wellness

Wellness is one of five pillars in the GRFD Strategic Plan, and is overseen by the Assistant Chief of Administration. GRFD policy and the IAFF Bargaining Agreement both speak to the fitness and wellness of employees and this program ensures all department personnel receive ongoing education and resources about mental and physical health via hands on workshops and multimedia presentations. All 12 fire stations and both temporary training facilities are equipped with areas dedicated to physical fitness, with a variety of weight training, aerobic and recovery equipment. Committee member duties include:

- Evaluating exercise equipment needs and performing required maintenance
- Providing information about city wellness workshops, events, and education at no cost to city employees
- Scheduling and managing the annual GRFD physicals with our occupational health provider and improving our annual physicals to align with NFPA 1581
- In 2024, all members were offered a free cancer screening which helped identify areas of concern or risk; this prompted several GRFD staff to take immediate action for their own wellbeing and care.
- Oversight and support of the Critical Incident Stress Management/Behavioral Health Team, which includes peer support and employee assistance programs



Community Risk Reduction (Fire Prevention)

As one of the five pillars of the GRFD Strategic Plan, community risk reduction programs are provided by the Fire Prevention Division (FPD) through fire safety education, oversight of engineered systems, encouraging economic incentive, and enforcement of the fire code.

Inspections

Each year, fire safety inspections are performed by the three ward inspectors and suppression part time inspectors in accordance with the 2021 International Fire Code, which regulates and governs operations in locations that present a risk to life and property. FPD ward inspectors, who are state certified, prioritize the city's highest-risk occupancies and hazardous processes through the division's operational permit program, which is required for businesses that handle, store or use dangerous materials and for certain facilities of assembly. The division also focuses on ensuring the roughly 2,200 installed fire life and safety (FLS) systems function as designed by reviewing the work of fire service contractors that produce annual fire life safety report. This includes verifying that fire suppression systems are maintained on a prescribed schedule.

The quarterly suppression risk assessment program helps the FPD identify and validate buildings with a high or maximum fire response. Key fire protection and hazard information is also gathered by inspectors and crews and then made available to responding companies through the Tablet Command incident management program.

Other types of fire safety inspections include those for Special Events, Occupancy Management, Mobile Food Vehicles; for specialty buildings like elementary/ secondary schools and Hazardous Material Sara Title III or Bulletin 9 sites.

Construction & Plan Reviews

FPD staff provides technical expertise in the areas of fire protection system installation and acceptance for new building and remodeling projects. This application of fire protection technical expertise begins in pre-construction meetings, continues through system plan reviews, and culminates with the acceptance inspection and testing of the installed system. Throughout this process, the GRFD works closely with various city departments and is involved in preconstruction meetings with architects, engineers, and designers to coordinate on potential project considerations before plans are finalized. In 2025, 882 commercial plan reviews were completed, which include rough-ins and the final inspections.



Fire Investigation

Identifying the cause of intentional, and unintentional fires, helps the GRFD formulate its fire prevention message to the community. When on-scene fire personnel cannot determine the origin and cause of a fire or another circumstance requires a formal fire investigation, fire inspectors are credentialed through Michigan State Police or the National Fire Academy to provide those investigation services. FPD inspectors who undergo fire investigation training are qualified to provide expert testimony in circuit and district courts, as fires can potentially end with significant monetary loss, injury or death that may result in civil or criminal charges. Support is provided to our fire investigation efforts by the Grand Rapids Police Department, Kent County Sherriff's Department, The Federal Bureau of Alcohol, Tobacco, Firearms, and Explosives, and the Michigan State Police.

Car 97 - 24/7 Inspector

Car 97 is a 24/7 position staffed by one inspector per shift who is specially trained in arson detection and is responsible for responding to emergency incidents as a safety officer and providing immediate follow-up to fire and life safety system outages that may be immediately hazardous to the public. This position also assesses commercial building referrals, which are alerts from suppression crews on fire code issues they experience while responding to an incident or performing their quarterly risk assessments. While their safety officer responsibilities during emergency incidents are under the purview of a battalion chief, their work with preliminary investigation and commercial building referrals falls under the Fire Prevention Division.

Educating the Public

The GRFD is dedicated to educating the public about fire safety through an official Public Education program, which is tasked with elementary school presentations, fire extinguisher presentations, Residential Safety Program (RSP), and maintaining an active role in community and city events.

Throughout the year, the Residential Safety Program offers owner occupied homes a way to sign up for a Home Safety Assessment and/ or the installation of smoke and carbon monoxide detectors by using the city's 311 service. Since spring of 2013 (about a year after the RSP program started documenting information more reliably), the department has completed 13,710 Home Safety Assessments and installed 91,988 smoke and carbon monoxide alarms.

In the fall, a Public Education representative organizes a visit to second grade classrooms at schools across the city to educate them on fire safety. In 2025, Fire Prevention staff attended 187 public events.



Additional Fire Prevention Responsibilities

- Following up on nuisance reports regarding the City's two-year Recreational Fire Permit program with authorization to issue civil infractions to repeat offenders.
- Oversight of the Fire Match Program, which offers a one-day juvenile fire setter clinic to assist families with children who have exhibited fire setting behavior. It provides intervention, referrals, and education to high-risk arson behavior juveniles while working with the Kent County Probation Department and various counseling agencies in the area. This program is managed by two suppression crew members trained in the NFA's Youth Fire setter Intervention Specialist course with help from the program's recently retired suppression lieutenant.

Office of Emergency Management



The City of Grand Rapids now operates an independent Office of Emergency Management (OEM), marking a significant evolution from its previous reliance on Kent County for emergency management services. Since the creation of the Emergency Management Administrator position in 2019, the City has established a dedicated office focused on building a comprehensive and coordinated emergency management program. The program is currently guided by an Emergency Operations Plan (EOP) that was updated in 2025 and is the driving force for all emergency management activities. The City of Grand Rapids is also recognized as an at-large voting member on the Region 6 Homeland Security Planning Board. Though OEM services are delivered to all internal and external city customers, the office reports directly to the Fire Chief.

OEM collaborates extensively with various partners, including:

- The Office of Special Events - reviewing Emergency Action Plans (EAPs) for any outdoor permitted activities and providing guidance on severe weather monitoring criteria.
- Kent County and Ottawa County - developing a joint Hazard Mitigation Plan (HMP) adopted locally and approved by the Federal Emergency Management Agency (FEMA).



The OEM is involved in the following initiatives:

- Updating the joint Hazard Mitigation Plan (HMP)
- Developing a Disaster Recovery Framework
- Developing a Continuity of Operations Plan (COOP) to ensure city services are continuous and all personnel know what safety actions to take.
- Development of an official OEM Strategic Plan to meet accreditation and organizational goals.
- Management of the City's Community Emergency Response Team (CERT), which trains volunteers to assist their families, neighbors, and community members during emergencies when professional responders may not be immediately available to provide assistance.



The City's Emergency Operations Center (EOC) is activated during significant incidents and planned events to provide centralized coordination, resource management, and real-time decision support, ensuring a unified approach that strengthens the City's preparedness and response capabilities. Several local and regional drills are conducted throughout the year including multi-agency hazardous materials drills. The OEM supports private businesses, non-governmental organizations (NGOs) and educational institutes with incident management trainings and exercises, including tabletop and full-scale exercises.

Additional Support Services Programs

Radio & Station Alerting

The GRFD's radio program, made up of 4 team members, strives to improve training, maintenance, and communication within the department. Primary GRFD radio communications operate on a countywide fourteen-tower simulcast system that is part of the Michigan Public Safety Communications System's 800 MHz statewide radio network. All frontline apparatus are equipped with 800 MHz mobile radios and sufficient portable radios for normal staffing levels.

In 2023, the GRFD implemented a new station alerting system, PhoenixG2 that is managed by a team of 6 suppression crew members. During its inception, the team received hands on training from US Digital Designs on how to maintain and fix alerting equipment in the GRFD facilities. The G2 system has proven to be beneficial in alerting stations promptly and provides a range of alerting tones and customizations.



Building & Fleet Maintenance

The Fire Chief, Assistant Fire Chief and Captain of Building Maintenance work with city engineers and facilities departments to develop and plan major physical facilities work identified as critical by the city's rapid growth and continued need for exceptional service. These expansions include the recently opened Kendall Station and Division Avenue Station and training center replacement. The department also has Fire Station Technicians (FSTs) made up of multiple suppression members who help maintain the current GRFD facilities.

Fleet Maintenance ensures the readiness, safety, and reliability of all apparatus and support vehicles. The program is administered by the Captain of Fleet Maintenance and the Emergency Vehicle Technician (EVT) Team, who triage maintenance requests, complete minor repairs, and coordinate service needs, while most major repairs and annual pump and aerial testing are performed by certified external vendors. Preventive maintenance, inspections, and repair prioritization support frontline operations and an expanded reserve fleet is designed to offset extended repair and replacement timelines. Fleet Maintenance also plays a key role in long-term planning through implementation of the GRFD Apparatus Replacement Plan.



Grants

The GRFD grant team currently consists of a Captain, Lieutenant and Firefighter from suppression. In the last two years the team has transitioned to include our finance specialist in administration to help as well. They have procured \$5,261,036 in the last five years. Acquiring grants for the department has played a large part in our funding and helps us maintain our yearly budget. Federal grants have assisted with opening a new fire station (SAFER), procuring wellness equipment (AFG), and the installation of thousands of smoke alarms in our city (FP&S).

AFG Offers Three Grant Programs



Assistance to
Firefighters Grants



Staffing for Adequate
Fire and Emergency
Response Grants



Fire Prevention
and Safety
Grants

Honor Guard & Award Recognition

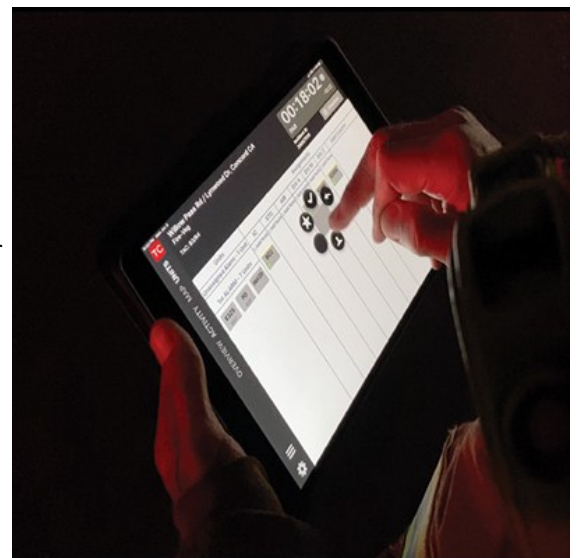
The Honor Guard is comprised of 9 members who volunteer their time to represent the GRFD at fire department functions, retiree funerals and other events such as parades, awards ceremonies, and the occasional posting of colors at community events and festivals.

The awards committee also encourages and reviews award nominations for the Medal of Honor, Medal of Merit, Commendation Medal, Achievement Medal, Unit Citation, Medical Award, Live Birth Award, Civic Award, and Distinguished Service Recognitions.



Fire IT & Record Management Systems (RMS)

The GRFD technology resources include servers, networks, station and apparatus computers, and any ancillary equipment required to support them. Technical support for the department is provided by one information systems coordinator (ISC) dedicated to the Telestaff payroll and staffing software, CAD support, and hardware or software needs for stations and apparatus. Further support is provided by a performance & management reporting specialist (PMRS) who is dedicated to the Image Trend (incident and inspection reporting) and Target Solutions (training and asset management) records management systems, in addition to GIS and data analysis. Supplementary support of agency technology needs is provided by the city's IT department, which maintains the servers and networks necessary to fulfill information management system requirements.



Community Expectations

Department's Strategic Plan Development

The FY26-28 strategic plan is a community and employee driven document that defines a clear path to improvement over three years and centers on five main pillars of the organization: response, training, prevention, wellness and support services. The strategic planning team, comprised of 36 individuals from every rank of the organization, created 5 desired outcomes and annual associated strategies towards achieving said outcomes. The result is a one page document with a clear three year department strategy that also aligns with the city's strategic plan.

As part of the planning process, community and partner luncheons are held where progress made on the last strategic plan is discussed, a presentation of current and future operations are highlighted, and participants are asked what the department is doing well (good), what the department should improve upon (better), and what services the department should consider stopping, starting, or altering (different). This feedback is reviewed by the strategic planning team during the all day retreat and considered when strategies and goals are made for the next 3 years.

Goals & Desired Outcomes

In addition to the department's one page strategic plan, an accompanying five page operational plan further breaks down the pillar's desired outcomes and annual strategies into specific tasks, each with delegated owners, support personnel, and a projected time frame of inception and completion. The strategic plan has been disseminated to every GRFD division and is available on the department's internal and public websites; the operational plan is accessible within the department's internal website and is visibly posted at fire headquarters.

FY26-28 STRATEGIC PLAN

MISSION

The Grand Rapids Fire Department values all people by saving lives, protecting property, and responding to the needs of our entire community.

VALUES

Honesty
Integrity
Loyalty
Teamwork
Excellence

VISION

Become the safest mid-sized city in the country by developing our members to provide industry leading fire and rescue services.



	RESPONSE	TRAINING	PREVENTION	WELLNESS	SUPPORT SERVICES
	Owner: Chief Johnson Support: BC Clark	Owner: Chief Race Support: Captain Kernodle	Owner: Fire Marshal Smith Support: Captain LaGrone	Owner: Chief Braman Support: Chief Noorman	Owner: Chief Borreson Support: Chief Braman
DESIRED OUTCOMES	 Increase response capabilities to meet the evolving needs of our community by achieving the 90% critical performance metric compliance	 Provide the appropriate skills and education to ensure all ranks can address existing and evolving challenges	 Provide risk reduction to the community by embracing education, engineering, enforcement, economic incentive, and emergency response	 Cultivating a healthier department through mental and physical wellness	 Ensure systems & processes meet the needs of the organization
FISCAL 2026 STRATEGIES	Identify shortcomings/gaps in response performance	Continuous Improvement of training delivery	Rebrand Fire Prevention Division to Community risk reduction (CRR)	Optimize station alerting, equipment, and mental health services	Evaluate facilities & asset management plans
FISCAL 2027 STRATEGIES	Identify how to maximize response performance	Full utilization of the new training center	Improve Communications with Internal/External Stakeholders	Improve Department Wide Wellness	Improve Information flow (Bi-directional)
FISCAL 2028 STRATEGIES	Monitor and forecast effects of response model adjustments	Ensure training resources meet our training needs	Establish Regional CRR Training Curriculum	Review & summarize FY26 & FY27 initiatives to plan for the future	Optimize and communicate with human resources and purchasing departments

Goals & Outcomes, continued

The FY26-28 desired outcomes for the organization are:

- **RESPONSE:** Effective all hazards deployment model with appropriate staff and apparatus
- **TRAINING:** Provide the appropriate skills and education to ensure sustainability and growth at all ranks
- **PREVENTION:** Create a safer community by implementing an effective community risk reduction program
- **WELLNESS:** A healthier workforce mentally and physically through researching, designing, and implementing a structured wellness program
- **SUPPORT SERVICES:** Provide continuous improvement of resources in a deliberate and planned manner

RESPONSE		FY26 - FY28 Operational Plan Desired Outcome:		Total Objectives: 28		Metrics
Owner	DC Johnson	Increase and then maintain response capabilities to meet the growing and evolving needs of our community by meeting the 90% critical performance metric compliance.		Status	Count	Percentage
Support	BC Braman			In Progress	#NAME?	#NAME?
FY26 Strategy:		FY27 Strategy:		Completed	#NAME?	#NAME?
Identify shortcomings/gaps in response performance		Identify how to maximize response performance		FY28 Strategy:		Last Updated
Identify shortcomings/gaps in response performance		Identify how to maximize response performance		Monitor and forecast effects of response model adjustments		6/10/2025
Goal 1: Gather external data and sources		Goal 1: Identify potential staffing model adjustments		Goal 1: Analyze impacts of suppression staffing additions or adjustments		
Identify potential construction projects/ community development for the next 5 years		Explore potential effects of added staffing		Compare before/after metrics of any increased staffing		
Gather population distribution data		Explore potential effects of added apparatus		Analyze before/after data in Kalamazoo/Kendall districts		
Utilize IAFF Study		Explore potential effects of added facilities		Review effects on notable incidents		
Analyze THIRA document						
Review High-rise calculation for ERF from IAFF						
Goal 2: Evaluate GRFD's response to vulnerable populations		Goal 2: Identify needs to employ staffing model		Goal 2: Assess impact of adjustments in medical outreach program		
Identify key metrics for HOT		Explore cost associated with increased staffing		Analyze utilization of MOT		
Identify key metrics for MOT		Identify cost of adding companies		Analyze critical response data		
Create feedback loop for our crews		Identify cost of adding facilities				
Report out on program impact						
Goal 3: Analyze specific internal data		Goal 3: Increase our collaboration with neighborhood associations		Goal 3: Evaluate effects of response plan		
Analyze critical performance metrics for E1 in/out of service		Identify Associations by district		Re-evaluate critical response metrics city wide		
Compare concentration time for simultaneous calls by district		Explore Association distribution issues		Analyze effectiveness of increased collaboration with NAs		
Gather & analyze 7's utilization hours over the last decade		Identify best course of action/responsibilities for engagement by station				

Clockwise from top left: Three year operations plan for the Response Strategic Plan Pillar; Training exercise at the training center; Battalion Chief mentoring; 2nd Grade fire safety presentations



ISO Compliance

In addition to city plans, internal GRFD plans, and the accreditation process, the department places a large emphasis on its ISO rating. The Insurance Services Office (ISO) helps communities assess their public fire-protection services by identifying a community's ability to suppress fires. This system provides an impartial, nationwide standard that helps fire departments plan and budget for facilities, equipment, and training.

Communities with better public protection are typically able to offer lower fire insurance premiums. The Public Protection Classification (PPC) program ranks agencies on a scale of 1 (best) to 10 and provides motivation for communities that choose to improve their firefighting services.

For several decades, the GRFD maintained an ISO Class 3 rating until 2012 when a ISO Class 2 rating was achieved.

In 2017, the department contacted ISO for another evaluation, after which an ISO Class 1 rating was achieved and maintained through the most recent evaluation in 2025 (see results, right). The Grand Rapids Fire Department is the only Class 1 agency in Michigan.

FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	4.00	4
432. Credit for Dispatch Circuits	3.00	3
440. Credit for Emergency Communications	10.00	10
Fire Department		
513. Credit for Engine Companies	5.98	6
523. Credit for Reserve Pumpers	0.49	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	3.95	4
553. Credit for Reserve Ladder and Service Trucks	0.50	0.50
561. Credit for Deployment Analysis	7.43	10
571. Credit for Company Personnel	9.42	15
581. Credit for Training	8.36	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	41.13	50
Water Supply		
616. Credit for Supply System	28.59	30
621. Credit for Hydrants	2.88	3
631. Credit for Inspection and Flow Testing	6.20	7
640. Credit for Water Supply	37.67	40
Divergence	-2.38	—
1050. Community Risk Reduction	4.33	5.50
Total Credit	90.75	105.50

2025 ISO PPC Distribution Charts

Accreditation

The GRFD utilizes the accreditation process to promote continuous organizational improvement. By applying practices aligned with Commission on Fire Accreditation International recommendations, the department has established a consistent baseline for measuring performance and progress.

Accreditation-related activities include organizing the community risk assessment process; conducting annual reviews of Self-Assessment Manual criteria with program owners; gathering information for annual program appraisals and the department's annual report; completing annual critical task reviews for fire suppression, EMS, hazardous materials, and technical rescue programs; updating the Standards of Coverage risk assessment section; collecting and analyzing data for the CFAI Annual Compliance Report; and supporting organizational efforts tied to Strategic Plan development and implementation.

The GRFD remains actively engaged in the accreditation community through participation with the Center for Public Safety Excellence (CPSE), including service on the educational taskforce, providing peer assessors for agency site visits, delivering educational sessions at CPSE events such as the Excellence Conference, and collaborating with the Michigan-Ohio-Indiana consortium to assist departments pursuing alignment with the accreditation model.

The GRFD is one of 127 agencies nationwide to hold both ISO Class 1 and international accreditation distinctions.

New GRFD Construction

Division Avenue Station (10)

In the summer of 2025, the GRFD broke ground on a new \$12 million dollar Division Avenue Station at 1823 South Division Avenue that will replace the current 100 year old station a few blocks away. The new station was designed by Integrated Architecture and will have three drive through bays , training rooms and community space on the first floor, and living quarters on the second floor. The construction is being led by EV Construction.

Groundbreaking June 16, 2025

Scheduled Opening Fall 2026



Training Facility

In August 2025, the GRFD broke ground on a new \$46 million dollar facility currently being constructed at 850 Pannell Road NW, which will be the department's first-ever site solely dedicated to training and emergency management operations. The over 98 thousand square foot facility will include the training division with live fire training and classrooms, a new Emergency Operations Center, and the Fleet Maintenance division. The five-story exterior burn building, used for live fire training, will be partially funded through a \$1.5 million Federal Economic Development Authority grant. The facility was designed by Williams Architects and construction is led by Clark Construction Co.



Groundbreaking August 26, 2025

Scheduled Opening Spring 2027



All Hazards Community Risk Assessment



Overview & Emergency Response Definitions

3-Axis Modeling

Fire

Emergency Medical Services

Hazardous Materials Services

Technical Rescue

Water Rescue

Additional Community Risk Factors

Physical Assets Protected

At Risk Populations

Historical Service Demand and Probability Analysis

City Development Projects

Overview

This section outlines each GRFD dispatched alarm type, along with its associated risks, a 3-axis risk score assessment, and critical tasking. A geospatial, natural, and manmade risk assessment comes next, followed by supplemental information associated with the City of Grand Rapids, like physical assets, infrastructure, and historical trends.

Working with 3-Axis Modeling

In 2024, the accreditation team decided to develop a means to utilize the 3 axis methodology and apply it to five years of urgent incident responses where at least one unit arrived on scene. Probability (how often the type happened), Impact (of the type on the GRFD), and Consequence (of the type to the community) on a scale of 2 (very low) to 10 (very high) was established based on criteria associated with each final alarm type. The final risk score was calculated based on a modification of Heron's formula as outlined here:

$$\text{risk} = \sqrt{\frac{(\text{probability} * \text{consequence})^2 + (\text{consequence} * \text{impact})^2 + (\text{impact} * \text{probability})^2}{2}}$$

Multiple Risk Assessment Strategies

After Action Reviews (AARs) take place after structure fires, technical rescues, and hazmat incidents to assess the effectiveness of the response and any risks that developed during the incident. The EMS program continues to monitor various metrics, like return of spontaneous circulation (ROSC), to evaluate the efficacy of its hands on training and the initial crew assignments dispatched for different types of medicals.

Suppression risk assessments and building familiarizations take place every quarter on commercial and industrial buildings and all residential buildings with more than 12 units. This type of "inspection" has a list of building elements to verify or update and offers the chance for crew members to indicate specific access or building information that may assist them in a future response. It also is one way crews can suggest a different fire response risk response.

After crews respond to structure fire calls, officers can recommend different response levels. These requests go to their battalion chiefs for initial review, then forwarded to the Deputy Chief of Operations for considerations.

About Critical Tasking

Critical Tasking was established in 2016 and is reviewed annually by the Deputy Chief of Operations and program managers for the Fire, EMS, Hazardous Materials, Technical Rescue, and Water programs. During these meetings, program managers can offer suggestions and provide subject matter expert information while reviewing the categories critical tasks and dispatch recommendations for effective response force (ERF). Any ERF changes are documented and communicated to the Emergency Dispatch Center.

Geographic Planning Zones

The geographic planning zones (GPZs) used for assessing certain risks, measuring performance, and resource deployment allocation follow the GRFD's district boundaries. This was decided based on how the department strategically positions personnel, equipment, and apparatus based on first due districts, station locations, and assign quarterly suppression risk assessments. Depending on the need, additional analysis is provided at the city ward level and U.S. Census Tract level, as shown in examples throughout this document.

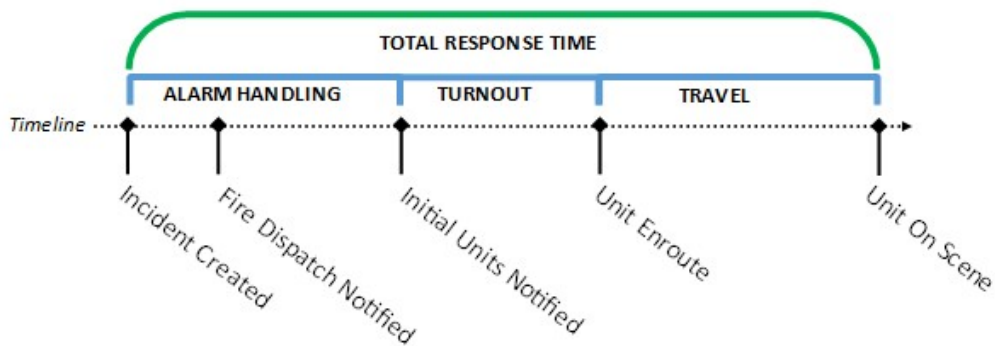
Emergency Response Definitions

The following definitions are used in further sections and should be referenced if needed.

Alarm Type: The type of call GRFD crews are dispatched to; these are coded by emergency dispatchers. Unless otherwise indicated, emergency response analysis in this document is based on alarm type.

Incident Type: The type of call GRFD crews actually encounter. This includes instances where no emergency is found and/or may offer more detail into the emergency situation, such as system malfunctions.

Simplified Emergency Dispatch Timeline



For a detailed breakdown, see the Dispatch & Alarm Handling pages in the Current Deployment section.

Alarm Handling

The time interval from when an emergency incident is created to when the initial alarm is sent to available response units.

Medical calls require an conference call to a private emergency medical dispatch (EMD) provided by ALS agencies before GRFD units are notified.

Turnout

The time interval from unit notification to unit enroute.

Travel

The time interval from unit enroute to the unit's arrival on scene.

Distribution: The ability to get the first unit on scene within a benchmark time.

Concentration: The ability to assemble an effective response force (ERF) within a benchmark time.

Effective Response Force (ERF): The minimum number of fire personnel to begin initial mitigation of an emergency incident.

Distribution Response: Total time measured from when the emergency incident is created until the GRFD reports on scene.

Concentration Response: Total response time is from when the emergency incident is created to when all necessary GRFD crews arrive on scene.

3 Axis Modeling

The GRFD 3-Axis modeling methodology began with outlining the scoring methodology for each of the three measurement categories by looking at what multiple other agencies used, their reasoning, and assessing if the same reasoning made sense for the alarm types experienced in Grand Rapids. “Probability” represents how many times a call takes place each year. The most reliable (and reportable) method for “Impact” scoring was the Effective Response Force (ERF) required for the alarm type. Multiple scoring bins were needed to represent different alarm types; “Consequence Time” (responding and addressing the incident) applies to all alarms; “Consequence Life and Dollar Loss” applies to structure fire alarm types only and “Consequence EMS” (number of patients) applied to all other alarm types. Certain alarm types were grouped together as they are often used interchangeably with the same critical tasking.

Call Taking Alarm Types

FIREALARM “Group”: Reflects fire alarm types with modifier of Multizone or Singlezone; Grand Rapids responds to both with the same critical tasking and benchmarks. These are audible smoke and/or fire alarms with no indication of smoke or flames. This usually comes from an alarm company.

FIRESTRUC: Smoke or flames reported inside a structure. Use modifier “CHIMNEY” if caller is certain it is confined to a chimney, otherwise modifier “STRUCTURE” will be used.

FIREVEH: Vehicle fires, further classified by their modifiers. CAR: Small passenger vehicle, no exposures. EXPOSURE: vehicle fire with exposure to another vehicle. RAMP: Vehicle fire in a parking ramp. TANKER: Commercial tanker on fire. TRUCKBUS: Commercial truck or bus on fire.

FIREOTHER: Various fire calls defined by their modifiers. BRUSH: Grass or tree type fires. DUMPSTER: Fires in a container of some sort, usually a dumpster. ILLEGAL: Impression of unauthorized burning. MAILBOX: Mailbox fires without exposure to a structure. SMOKE: Request to assist citizen in removing smoke from a structure. TRASH: Trash smoking or on fire outside of a structure

MEDO: These “pre-alerts” involve information quickly being sent to fire dispatchers to speed up the response for critical EMS calls, like reports of chest pain, difficulty breathing, or cardiac arrest. The final alarm type is more specific.

MED1: Medicals that ALS has determined where GRFD and ALS response emergency with lights and sirens. Patients may exhibit the following: Difficulty breathing or swallowing, significant burns, Unconsciousness/ not alert, Injury to head/ neck/ chest or there may be multiple victims. Modifiers include BLOCKER, EXTRICATE, VEHICLEACC, and ECHO.

MED2: Medicals that ALS has determined where GRFD responds emergency and ALS responds non-emergency. Modifiers include BLOCKER, EXTRICATE, and VEHICLEACC

MED3: Medicals that ALS has determined where ALS responds non-emergency and GRFD does NOT respond. Modifiers include BLOCKER, EXTRICATE, and VEHICLEACC

Medical Modifier Definitions:

BLOCKER - Medicals needing a blocker for responder safety, used any time the posted speed is above 40 mph. *Often initially coded with the VEHICLEACC modifier and then the geographical “beat name” triggers a blocker response instead.*

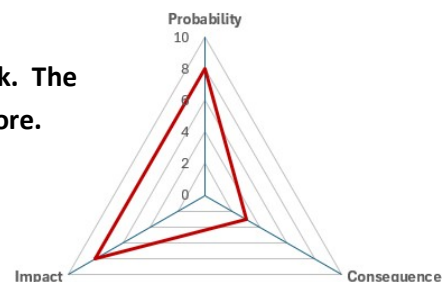
ECHO - These create an associated police call for broadcast and possible dispatch. These are patients on verge of death that need immediate help. *GRFD dispatches a unit before final code is determined by the EMD.*

EXTRICATE - Patient is trapped in the vehicle, requires much larger fire response with specialized tools/ skills.

VEHICLEACC - Any medical that results from a car accident. For the GRFD, all vehicle accidents assume a medical until assessed on scene.

The Three Axis Risk Categorization Process measures the magnitude of the risk. The greater the total surface area of the triangle, the greater the Risk Category Score.

- 2020 Quality Improvement for the Fire and Emergency Services
Center for Public Safety Excellence



Final CAD Alarm Type	Final CAD Modifier	Baseline Urgent Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
FIRESTRUC	STRUCT	Yes Fire	1707	8	3	8	51.22
TECHRESCUE	TRENCH	Yes Trench	2	2	6	10	45.52
Water Rescue Grp		Yes River	56	5	5	8	43.73
TECHRESCUE	CONFINED	Yes Confined	2	2	6	9	41.13
MED2	VEHICLEACC	Yes EMS	4558	10	4	3	36.36
MED1	EXTRICATE	Yes VehicleEx	130	6	6	4	34.99
MED1	ECHO	Yes EMS	1421	8	5	3	34.65
MED1	VEHICLEACC	Yes EMS	793	8	4	3	29.53
MED0	VEHICLEACC	Yes EMS	447	8	4	3	29.53
MED2	EXTRICATE	Yes VehicleEx	59	5	6	3	26.92
HAZMAT	HAZMAT1	Yes HazMat	15	3	6	5	26.92
Firealarm Grp		Yes Fire	9548	10	2	3	25.85
MED1		Yes EMS	56930	10	3	2	25.85
MED2		Yes EMS	24667	10	3	2	25.85
WIRE	WIRE2	Yes Other	3012	10	3	2	25.85
INVEST	INVEST_OUT	Yes Other	1195	8	3	3	24.83
TECHRESCUE	MACHINE	Yes MachineEx	6	2	5	6	23.92
MED0 Prealert Grp		Yes EMS	1542	9	3	2	23.33
MED2	BLOCKER	Yes EMS	51	5	4	4	22.98
FIREVEH	RAMP	Yes Fire	3	2	4	7	22.85
FIREOTHER	BRUSH	Yes Fire	389	8	3	2	20.83
FIREVEH	CAR	Yes Fire	720	8	3	2	20.83
MED3		Yes EMS	147	8	3	2	20.83
TECHRESCUE	ROPE	Yes Rope	4	2	5	5	20.31
WIRE	WIRE1	Yes Other	129	6	4	2	19.80
CARBON	MEDICAL	Yes EMS	39	4	4	4	19.60
FIREVEH	TANKER	Yes Fire	2	2	5	4	16.79
TECHRESCUE	COLLAPSE	Yes Collapse	4	2	4	5	16.79
HAZMAT	HAZMAT2	Yes HazMat	6	2	5	4	16.79
FIREVEH	TRUCKBUS	Yes Fire	40	4	3	4	16.49
MED1	BLOCKER	Yes EMS	13	3	4	4	16.49
FIREOTHER	DUMPSTER	Yes Fire	161	6	3	2	15.87
HAZMAT	HAZMAT3	Yes HazMat	110	6	3	2	15.87
TECHRESCUE	ELEV MED	Yes ElevatorMED	11	2	4	4	13.86
FIREOTHER	TRASH	Yes Fire	212	6	2	2	12.33
FIREOTHER	SMOKE	Yes Fire	15	2	3	4	11.05
FIRESTRUC	CHIMNEY	Yes Fire	11	2	3	4	11.05
MED0	BLOCKER	Yes EMS	2	2	3	4	11.05
MED0	EXTRICATE	Yes VehicleEx	8	2	5	2	10.39
FIREVEH	EXPOSURE	Yes Fire	1	2	4	2	8.49
AOA	URGENT	Yes Other	22	2	3	2	6.63
FIREOTHER	MAILBOX	Yes Fire	2	2	2	2	4.90

2021-2025 3-Axis Results

The Probability, Impact, and Consequence TIME scoring bins are applied to ALL alarm types.

For the Firealarm Grp, FIRESTRUC STRUCTURE, and FIRESTRUC CHIMNEY type, the Consequence LIFE and Consequence \$\$ LOSS scoring bins are also applied; for all other types, the Consequence EMS scoring bins are applied.

Probability Scoring Bins	
Score	Description
2	Occurs annually or less
4	Occurs semi-annually
6	Occurs monthly
8	Occurs weekly
10	1 or more times a Day

Impact Scoring Bins	
Score	Description
2	ERF (Crew Required) <5
4	ERF (Crew Required) 5-9
6	ERF (Crew Required) 10-15
8	ERF (Crew Required) 16-19
10	ERF (Crew Required) 20+

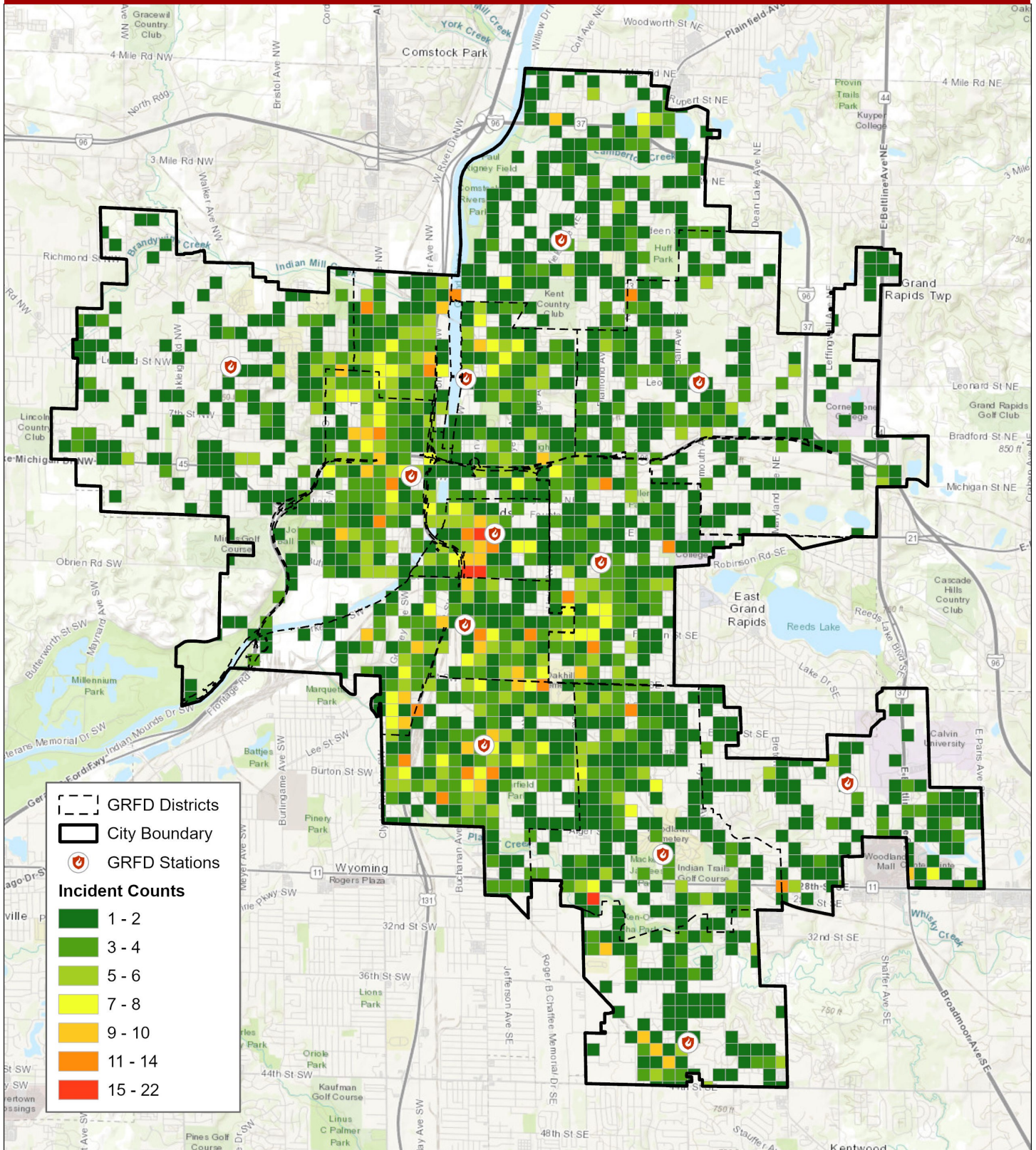
Consequence Scoring Bins: TIME (Fire Dispatch Notified to Cleared)	
Score	Description
2	<=16 minutes
4	16-30 minutes
6	30-45 minutes
8	45 min to 1 hour
10	> 1 hour

Consequence Scoring Bins: LIFE (Civilian Injuries or Deaths)	
Score	Description
2	0-1 Injury
4	2 Injuries
6	3+ Injuries
8	1 Death
10	Multiple Deaths

Consequence Scoring Bins: \$LOSS (Property + Content Loss)	
Score	Description
2	More than \$1,000 lost
4	\$1,001-\$10,000 lost
6	\$10,001-\$100,000 lost
8	\$100,001-\$1,000,000 lost
10	Over \$1,000,000 lost

Consequence Scoring Bins: EMS (Number of Patients)	
Score	Description
2	No Patient Reports
4	1 Patient Report
6	2 Patient Reports
8	3 Patient Reports
10	4+ Patient Reports

2021-2025 Fire Calls



Optimized Heat Map with Natural Jenks
classes in 200 meter grids

Only calls within Grand Rapids are shown;
Overlayed with Response Districts (GPZs)

Fire: Known Risks

In Grand Rapids, residential fire risk is shaped largely by the city's older, closely spaced housing pattern and the operational challenges that come with it. City housing analysis shows that 55.6% of renter-occupied units and 78.0% of owner-occupied units were built before 1970, which increases the likelihood of aging electrical systems, deferred maintenance, and other building-condition issues that can raise ignition risk and accelerate fire spread. In many legacy neighborhoods, homes, duplexes, and smaller multifamily buildings sit on tight lots with limited separation, so once a fire extends beyond the room or unit of origin, nearby structures face greater exposure.

Suppression can also be complicated by narrow approaches, curbside parking, rear buildings, and overhead utility lines; Grand Rapids' own permitting guidance specifically identifies overhead wires as a fire-safety issue, and the City's seasonal parking rules exist in part to keep enough room for snowplows and emergency vehicles to get through neighborhood streets during winter conditions. These access problems can become more severe during sub-zero weather and after heavy snowfall, when large snowbanks narrow streets further, hydrants may be buried, ladders and hose lines are harder to place, and crews must contend with frozen equipment, icy footing, reduced mobility around buildings, and clogged streets that can slow apparatus positioning and fire attack.

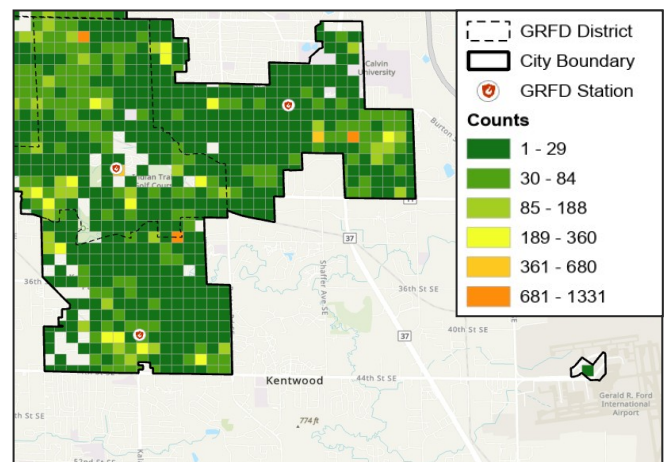
GRFD's 2025 reporting (see the "Current Deployment" section) shows that all outlying districts were below 70% on distribution compliance, with Covell Avenue District (8) the lowest at 59.69%, underscoring how travel distance, winter street conditions, and the challenge of assembling enough personnel quickly can compound risk in parts of the city.



Gerald R. Ford International Airport

The Gerald R Ford International Airport (GRR) is located about 13 miles south east of downtown Grand Rapids and is the second busiest commercial airport in Michigan, behind the Detroit Wayne County (DTW) airport. The GRR airport provides passenger, commercial freight, corporate and private air service to over 4.3 million passengers (nearly 12,000 travelers daily) served by 8 passenger airlines with over 35 non-stop destinations across the US and Canada.

While located in Cascade Township, the airport terminal, tower, parking structure, and aviation school all reside on Grand Rapids city property. The airport operates an independent fire department specifically trained for aircraft emergencies, but the GRFD has mutual aid response guidelines that includes other surrounding jurisdictions. This is outlined in Standard Operation Guideline (SOG) 201-42. The Airport FD provides response on all emergencies and serves as both incident command and the investigative group. The GRFD will respond for confirmed structure fires, if an aircraft crash is imminent (Alert 3), for large EMS incidents, special operations, or as requested by the investigative group. There were two GRFD alarms dispatched to the airport between 2021 and 2025; one was a fire alarm and the other was for a parking ramp fire. Both alarms were cancelled enroute.



Fire: Establishing Risk

3 Axis Model Results

2021-2025 Scoring Breakdown

Structure fires have the highest risk score of all alarm types due to a high probability and impact to the department. The result of a low consequence score, which looks at a combination of time, loss of life and monetary cost of property is low, which speaks to the department's efforts to

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgent	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
FIRESTRUC	STRUCT	Yes	Fire	1707	8	3	8	51.22
Firealarm Grp		Yes	Fire	9548	10	2	3	25.85
FIREVEH	RAMP	Yes	Fire	3	2	4	7	22.85
FIREOTHER	BRUSH	Yes	Fire	389	8	3	2	20.83
FIREVEH	CAR	Yes	Fire	720	8	3	2	20.83
FIREVEH	TANKER	Yes	Fire	2	2	5	4	16.79
FIREVEH	TRUCKBUS	Yes	Fire	40	4	3	4	16.49
FIREOTHER	DUMPSTER	Yes	Fire	161	6	3	2	15.87
FIREOTHER	TRASH	Yes	Fire	212	6	2	2	12.33
FIREOTHER	SMOKE	Yes	Fire	15	2	3	4	11.05
FIRESTRUC	CHIMNEY	Yes	Fire	11	2	3	4	11.05
FIREVEH	EXPOSURE	Yes	Fire	1	2	4	2	8.49
FIREOTHER	MAILBOX	Yes	Fire	2	2	2	2	4.90

mitigate loss of life and property and to prevention efforts regarding notification through alarm systems. However, the GRFD is interested in developing a more detailed risk assessment based on building information by using data collected during the quarterly suppression risk assessments, prevention inspections, and city code compliance information. This is to gain a reliable method of identifying structures that could be at a more immediate risk of fire. One example of this is to compare recent water shut off alerts with buildings that may have had multiple commercial building referrals for code violations.

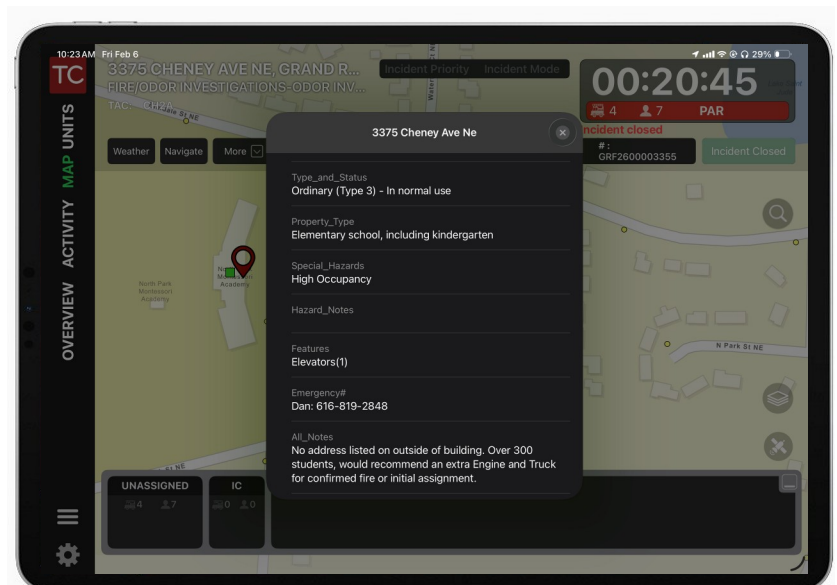
Whereas "structure fire" alarm types are triggered by an emergency reporting visible smoke or fire; "fire alarm" alarm types involve an audible smoke and/or fire alarms with no indication of smoke/ flames, usually from an alarm company. The "fire alarm" types are the second highest risk within the fire group. They have an extremely high probability of occurrence but have very low consequence and impact scores, which is why they fall below ten other alarm types from other groups.

Quarterly Suppression Building Risk Assessments

Each quarter, every station receives a list of commercial and large multi-family residential buildings for fire risk and hazard assessment. Findings are documented in an RMS system along with contact information and custom notes. Crews can use the assessment to request fire code violation reviews by GRFD's Prevention Division and Car 97.

This building information is available to all crews via the Tablet Command application, which is accessible via desktop or mobile devices.

Work began in late 2025 towards using the collected data from these assessments to create an additional "Building Risk" score that can be added to the Impact and Consequence scoring types within the 3-Axis model.



Tablet Command , after clicking on building icon (right)

Fire: Critical Tasking

The GRFD responds to all fire incidents in the following risk categories to begin initial critical tasks needed to save lives, protect property, and safely mitigate the hazard.

Fire Risk	Specifications
Low	Examples include dumpster, vehicle, and brush fires.
Moderate	Examples include typical residential or small commercial structure fires.
High	Examples include high-rises and expansive industrial occupancy fires.
Maximum	Examples include the Van Andel Arena, hazardous materials manufacturing, and hospital fires.

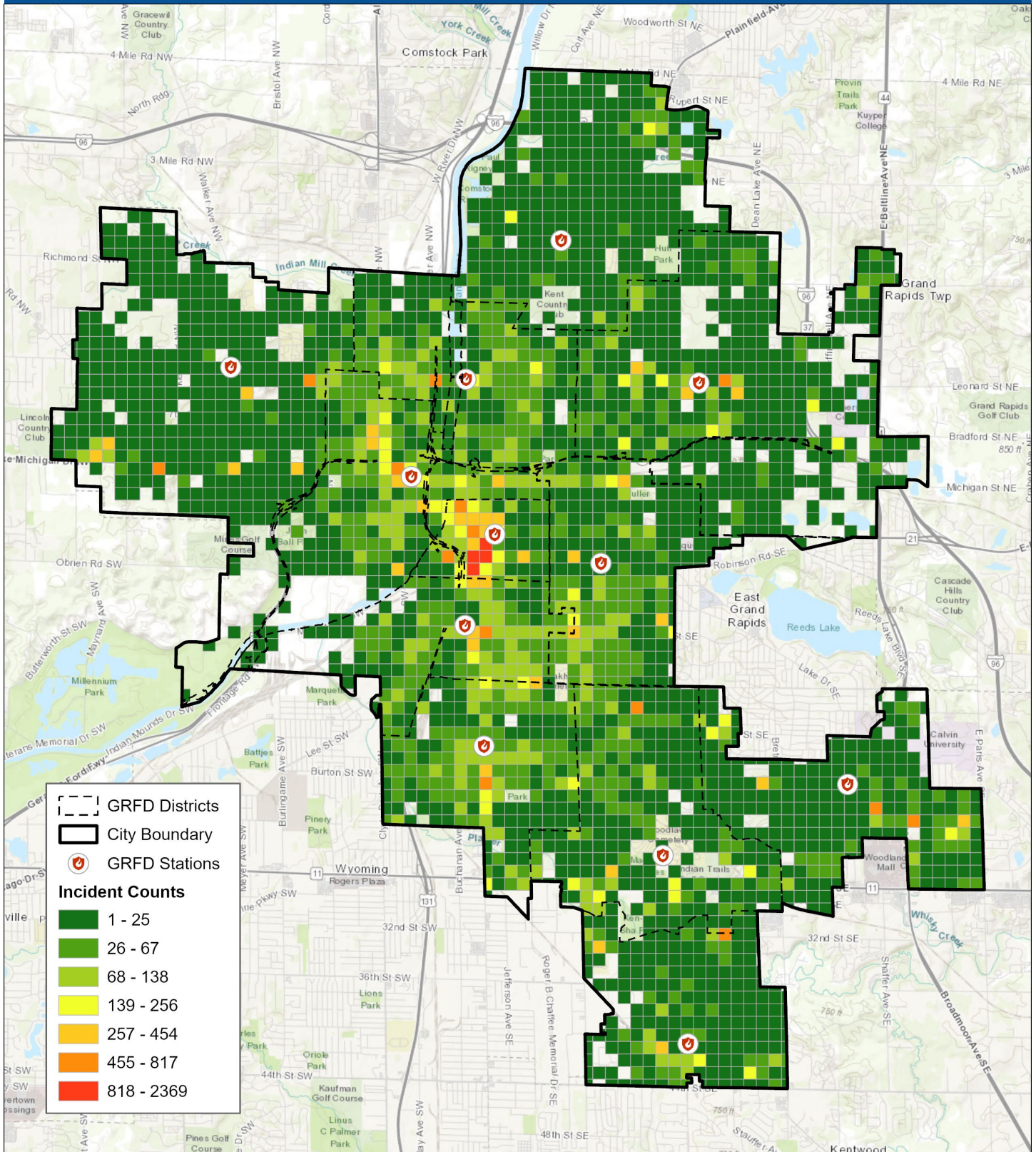
Fire	Low Risk	Mod Risk	High Risk	Max Risk
Critical Tasks	# of Firefighters			
Command	1	1	1	1
Safety Officer	1*	1	1	1
Fire Attack/Pump Operator	1	3		
Water Supply/Backup Line	1	3		
RIC or Search & Rescue		2		
RIC		3	3	3
Forcible Entry/ Search & Rescue		3	6	12
Ventilation		3	3	3
Water Supply			3	3
Lobby Control/ Operations Chief			1	1
Forward Ascent Suppression Team			5	5
Operations Support			3	3
Treatment Triage Transport				3
ERF Totals	3	19	26	35
Baseline Component	Benchmarks			
Alarm Handling	1:30	1:30	1:30	1:30
Turnout Time	1:30	1:30	1:30	1:30
Travel - Distribution	4:00	4:00	4:00	4:00
Travel - Concentration (ERF)	4:00	8:00	10:00	12:00
Total Response - Distribution	7:00	7:00	7:00	7:00
Total Response - Concentration (ERF)	7:00	11:00	13:00	15:00

*For Low Risk fires, the command and safety tasks are typically fulfilled by one individual.

Recent Adjustments

5/7/2025 - Fire travel distribution and total response distribution changed from 3:45 to 4:00 and 6:45 to 7:00 respectively - No one could remember why it was originally changed from 4:00 and 7:00 to those lower numbers, so they were changed back to the original goals.

2021-2025 EMS Calls



Optimized Heat Map with Natural Jenks
classes in 200 meter grids

Only calls within Grand Rapids are shown;
Overlaid with Response Districts (GPZs)

Dispatched medical alarm types are limited primarily to priority level (MED1, MED2, MED3, etc) as outlined in the fourth page “3-Axis Modeling” of this section. Specific dispatch reason, or caller complaint, is captured in the EMS report (next page) by crews based on dispatch notes.

EMS: Known Risk

2025 NEMSIS Medical Report Dispatch Reason (Caller Complaint)	District												Total	% of Medical
	1	2	3	4	5	6	7	8	9	10	11	12		
Breathing Problem	384	321	351	453	208	246	516	282	171	312	281	76	3601	18.96%
Altered Mental Status / Decreased Level of Consciousness (DLOC)	280	164	262	315	170	240	321	201	103	179	229	50	2514	13.23%
Unknown Problem/Person Down	82	217	247	112	166	45	413	61	24	161	115	7	1650	8.69%
Motor Vehicle Crash / Traffic Incident	149	149	228	174	158	83	147	113	87	175	120	26	1609	8.47%
Chest Pain	219	119	167	154	85	85	327	97	52	140	127	20	1592	8.38%
Falls	181	80	128	124	88	177	181	211	77	74	131	37	1489	7.84%
Convulsions / Seizure	43	50	76	81	72	34	198	25	18	96	67	15	775	4.08%
Abdominal Pain/Problems	25	36	37	56	25	33	74	31	19	50	32	10	428	2.25%
Traumatic Injury	21	28	28	60	35	28	38	4	27	29	23	7	328	1.73%
Unresponsive	23	20	34	25	27	18	84	15	14	28	35	2	325	1.71%
Stroke/CVA	55	12	17	27	17	29	26	32	17	19	19	1	271	1.43%
Overdose/Poisoning/Ingestion	21	17	34	25	32	7	41	13	14	19	29	5	257	1.35%
Psychiatric Problem/Abnormal Behavior/Suicide Attempt	24	16	29	27	32	13	44	12	3	16	24	4	244	1.28%
Vomiting	17	15	12	26	16	28	26	22	17	29	17	3	228	1.20%
Sick Person	14	29	28	34	12	5	24	10	16	28	22	5	227	1.19%
Alcohol Intoxication	9	16	51	19	8	4	54	2	3	34	14	2	216	1.14%
Cardiac Arrest / Death	27	18	17	17	10	12	18	25	13	24	14	6	201	1.06%
Bleeding	18	7	24	29	9	21	14	17	9	10	10	4	172	0.91%
Invalid Assist/Lifting Assist	20	10	9	35	8	11	7	25	15	5	12	0	157	0.83%
Diabetic Problem	15	10	11	23	12	5	21	5	6	11	11	2	132	0.69%
Weakness/Lethargic	13	6	10	21	8	10	21	18	4	8	7	5	131	0.69%
Pain	9	11	17	11	12	7	19	10	2	12	10	4	124	0.65%
Dizziness	14	8	12	12	7	12	10	17	9	7	10	2	120	0.63%
Heart Problems/AICD	21	4	17	9	5	8	8	12	7	12	9	1	113	0.59%
Syncope/near-fainting	13	6	3	16	10	14	14	7	11	10	6	1	111	0.58%
Allergic Reaction/Stings	18	7	5	15	6	8	15	7	6	7	14	0	108	0.57%
Assault	2	12	18	10	11	1	16	3	4	12	10	1	100	0.53%
Back Pain	14	4	7	14	6	7	19	10	4	4	4	3	96	0.51%
Pregnancy/Childbirth/Miscarriage	4	18	10	14	9	3	12	3	0	9	13	1	96	0.51%
Stab/Gunshot Wound/Penetrating Trauma	5	11	9	7	15	2	11	3	0	9	14	3	89	0.47%
Heat/Cold Exposure	5	5	19	4	12	2	17	0	0	7	3	0	74	0.39%
Headache	3	5	2	13	2	8	9	11	2	7	6	5	73	0.38%
Possible DOA	10	2	8	11	9	6	5	5	3	5	4	3	71	0.37%
Anxiety Attack	7	8	8	3	4	9	7	1	2	4	13	3	69	0.36%
Automated Crash Notification	13	4	4	4	10	6	3	2	4	14	3	1	68	0.36%
Unconscious/Fainting/Near-Fainting	10	6	5	9	8	2	7	0	5	4	9	2	67	0.35%
Cardiac dysrhythmia	17	1	4	4	7	9	3	3	7	3	7	1	66	0.35%
Hypotension / hypertension	8	4	4	11	2	9	4	6	1	7	7	3	66	0.35%
GI Bleed	9	1	3	8	3	8	7	10	0	8	6	0	63	0.33%
Unconscious/Fainting/Near-Fainting	7	4	4	5	6	4	10	6	3	4	5	1	59	0.31%
Choking	4	6	2	7	8	3	4	4	5	7	5	2	57	0.30%
Hemorrhage/Laceration	8	11	6	1	5	1	6	1	4	3	8	1	55	0.29%
Head Injury	4	3	10	5	4	2	8	7	2	1	4	0	50	0.26%
Battery	2	3	2	2	8	2	10	1	3	9	6	0	48	0.25%
Motorcycle Collision	2	2	5	5	4	2	1	3	5	18	0	1	48	0.25%
Pediatric - Seizure	13	4	5	11	4	1	0	1	4	2	2	0	47	0.25%
Epistaxis	5	2	4	6	3	6	1	7	5	4	2	1	46	0.24%
Pediatric - Trauma, Fall, MVA, GSW, etc	5	2	5	2	5	5	2	3	1	7	6	1	44	0.23%
ACIN - Accidental Injury	3	2	6	2	2	1	5	7	0	5	2	0	35	0.18%
No Other Appropriate Choice	7	2	7	4	3	1	2	1	0	3	3	1	34	0.18%
Nausea	5	2	4	4	0	3	4	2	2	1	3	1	31	0.16%
Medical Alarm	3	5	6	0	3	1	1	2	2	2	1	0	26	0.14%
Medication Reaction	4	0	2	1	3	1	8	0	1	1	1	1	23	0.12%
Assault with a Deadly Weapon	0	2	3	4	2	0	4	0	0	4	3	0	22	0.12%
Chronic Illness / Medical Condition	1	4	1	2	0	2	1	1	0	7	3	0	22	0.12%
Animal Bite	0	3	3	4	1	0	2	3	1	1	2	0	20	0.11%
Burns/Explosion	2	2	2	2	2	2	2	1	0	2	1	2	20	0.11%
Fever	0	2	3	1	1	2	1	2	1	3	2	0	18	0.09%
Well Person Check	3	2	2	2	0	1	4	0	0	3	0	0	17	0.09%
Eye Problem/Injury	1	0	1	2	2	1	3	0	0	3	1	1	15	0.08%
Pediatric Fever	3	1	2	2	2	1	0	0	1	2	0	0	14	0.07%
Fire	0	0	2	7	0	0	0	0	1	1	1	0	12	0.06%
Dehydration	3	1	0	2	1	0	0	2	0	0	2	0	11	0.06%
Respiratory Arrest	1	1	0	2	4	2	0	0	1	0	0	0	11	0.06%
ACHR - Accident Hit & Run	1	1	2	0	1	0	2	0	0	1	1	0	9	0.05%
Urinary problem	1	0	1	1	1	3	0	0	0	1	1	0	9	0.05%
Carbon Monoxide / Hazmat / Inhalation	0	0	2	0	0	0	1	0	2	1	0	1	7	0.04%
Pediatric - Unresponsive	0	2	0	1	0	0	1	1	0	0	1	1	7	0.04%
Diarrhea	0	1	0	0	0	0	2	1	0	1	1	0	6	0.03%
Nausea/Vomiting	0	1	1	1	0	1	1	1	0	0	0	0	6	0.03%
Pediatric - Cardiac Arrest	0	2	0	0	2	0	1	0	0	0	1	0	6	0.03%
Fracture	0	1	0	1	0	0	1	0	0	0	2	0	5	0.03%
Hanging	1	1	1	0	1	0	0	0	0	0	0	1	5	0.03%
Excessive Heat	1	0	1	0	0	0	1	0	0	0	1	0	4	0.02%
Hazardous Condition	0	0	0	0	3	0	0	1	0	0	0	0	4	0.02%
Electrocution / Lightning	0	0	0	0	0	0	2	1	0	0	0	0	3	0.02%
Industrial Accident/Entrapments	0	0	0	0	1	0	0	0	1	1	0	0	3	0.02%
Pediatric - Abdominal pain	0	1	1	1	0	0	0	0	0	0	0	0	3	0.02%
Public Service	0	0	0	1	0	1	0	0	0	1	0	0	3	0.02%
Septic Shock	0	0	0	0	1	1	0	1	0	0	0	0	3	0.02%
Assault - Sexual	0	1	0	0	0	0	0	0	0	0	1	0	2	0.01%
Drowning / Diving / SCUBA Accident	0	0	1	0	1	0	0	0	0	0	0	0	2	0.01%
Elevator Emergency	0	0	0	0	0	0	0	0	0	0	1	0	1	0.01%
Pediatric - Drowning or near drowning	0	0	0	0	1	0	0	0	0	0	0	0	1	0.01%
Standby	0	0	0	0	0	0	0	0	0	0	1	0	1	0.01%
Walk-in	1	0	0	0	0	0	0	0	0	0	0	0	1	0.01%
Total Medical Reports	1,913	1,534	2,052	2,103	1,421	1,305	2,872	1,391	821	1,687	1,561	337	18,997	

Michigan National Emergency Medical Information System (MI-NEMSIS) requires a separate HIPPA protected report for every incident dispatched as a medical where agency units arrive on scene - regardless if a patient is found. If multiple patients are found during one incident, multiple NEMSIS reports must be completed for each patient.

EMS: Establishing Risk

3 Axis Model Results

2021-2025 Scoring Breakdown

Medical alarm types are limited primarily to priority level while dispatch reasons, otherwise known as the caller complaint, are captured in the EMS report by crews based on dispatch notes. The only additional information provided by alarm types (chart right) is whether the medical

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgent	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
MED2	VEHICLEACC	Yes	EMS	4558	10	4	3	36.36
MED1	ECHO	Yes	EMS	1421	8	5	3	34.65
MED1	VEHICLEACC	Yes	EMS	793	8	4	3	29.53
MED0	VEHICLEACC	Yes	EMS	447	8	4	3	29.53
MED1		Yes	EMS	56930	10	3	2	25.85
MED2		Yes	EMS	24667	10	3	2	25.85
MED0 Prealert Grp		Yes	EMS	1542	9	3	2	23.33
MED2	BLOCKER	Yes	EMS	51	5	4	4	22.98
MED3		Yes	EMS	147	8	3	2	20.83
CARBON	MEDICAL	Yes	EMS	39	4	4	4	19.60
MED1	BLOCKER	Yes	EMS	13	3	4	4	16.49
MED0	BLOCKER	Yes	EMS	2	2	3	4	11.05

situation may require a highway blocker, related to a vehicle accident, or if it is an potentially life threatening emergency (ECHO). Vehicle accidents are always dispatched as a medical, regardless of severity.

According to the results of the 3-Axis Model review of dispatched alarm types, the largest medical risk are MED2 Vehicle Accidents, largely due to the daily response to vehicle accidents. When compared to the 2025 NEMSIS Medical Dispatch Reasons chart on the previous page, “Motor Vehicle Crash/ Traffic Incident” dispatch reasons account for 8.47% of total calls and the 4th highest of all dispatch reasons. “Breathing Problems” account for the largest volume of caller complaints at 18.95% of total calls which falls into the MED1 ECHO alarm type as identified by the 3-Axis Model as the second largest medical risk and the MED 1 alarm type identified as having the highest incident count in the 5 year period.

NEMSIS Medical Report - Dispatch Reason	District												Total	% of Medical Reports
	1	2	3	4	5	6	7	8	9	10	11	12		
Breathing Problem	384	321	351	453	208	246	516	282	171	312	281	76	3601	18.95%
Altered Mental Status / Decreased Level of Consciousness (DLOC)	280	164	262	315	170	240	321	201	103	179	229	50	2514	13.23%
Unknown Problem/Person Down	82	217	247	112	166	45	413	61	24	161	115	7	1650	8.69%
Motor Vehicle Crash / Traffic Incident	149	149	228	174	158	83	147	113	87	175	120	26	1609	8.47%
Chest Pain	219	119	167	154	85	85	327	97	52	140	127	20	1592	8.38%

Medical alarms with reports of chest pain, difficulty breathing, or cardiac arrest are initially dispatched as Med “0” calls to send basic information to the fire dispatcher before the emergency medical dispatcher (EMD) assigns a priority level to the call - all to speed up the response for critical EMS calls. This initial alarm type is usually updated to reflect the recommended priority level in its final alarm type - which is why there are so few Med 0 types in the 5 year final alarm count above. Med 0’s initial alarm types accounted for 4,799 runs in 2025, which is 18.97% of the total 25,301 calls that year. 74.22% of those Med 0 calls ended up as MED1 alarms with no modifier.

Repeat Responses - Familiarity & Fatigue

Every GRFD response district has patients or locations who repeatedly trigger an emergency response either by the patient or by others in the area. These are the focus of community outreach programs like GRFD HOT (Homeless Outreach Team) or MPWR (Medical Priority & Wellness Response), that try to reduce the amount of repeat patients by getting them access to more preventative care and offer alternative resources to that of an emergency care visit. GRFD crews, especially those in the downtown districts, become very familiar with their area’s “repeat patients” or “repeat locations”. An unfortunate by-product of this is the mental drain on those crews who start to expect the same series of unfortunate situation multiple times a day, each day, and yet still want to provide the same high level of care.

EMS: Critical Tasking

The GRFD responds to all EMS incidents in the following categories based on the ERF to begin initial critical tasks needed to effectively respond and treat patient (s) in a timely manner.

EMS Risk	Specifications
Low	The majority of EMS calls that the GRFD respond to. These incidents can still be severe but require only a minimum of 3 firefighters to effectively respond and treat a single patient.
Moderate	Includes cardiac or respiratory arrest, imminent child birth, falls over 10ft., or traumatic injuries.
Moderate Highway	Moderate EMS response, like vehicle accidents, on a highway. This response requires a blocker for safety precaution as the highway is one of the most dangerous scenes firefighters respond to.
High	Incidents with multiple patients (3 or more) and includes shootings and multi-vehicle accidents.
Maximum	Typically requires the declaration of a mass casualty incident with many patients and the potential for taxing EMS resources, this response requires a notification to the EMS Battalion Chief.

EMS	Low Risk	Mod Risk	Mod Risk Highway	High Risk	Max Risk
Critical Tasks	# of Firefighters				
Command	1	1	1	1	1
Safety	1*	1*	1*	1*	1
Patient Information	1*	1	1	1	2
Patient Care	2	4	2	7	12
Triage				1	2
Medical Branch Director			1	1	1
Hazard Abatement			1		
ERF Totals	3	6	6	11	19
Baseline Component	Benchmarks				
Alarm Handling	2:00	2:00	2:00	2:00	2:00
Turnout Time	1:30	1:30	1:30	1:30	1:30
Travel - Distribution	4:00	4:00	4:00	4:00	4:00
Travel - Concentration (ERF)	4:00	6:00	7:00	8:00	8:00
Total Response - Distribution	7:30	7:30	8:00	7:30	7:30
Total Response - Concentration (ERF)	7:30	11:00	9:30	11:00	11:30

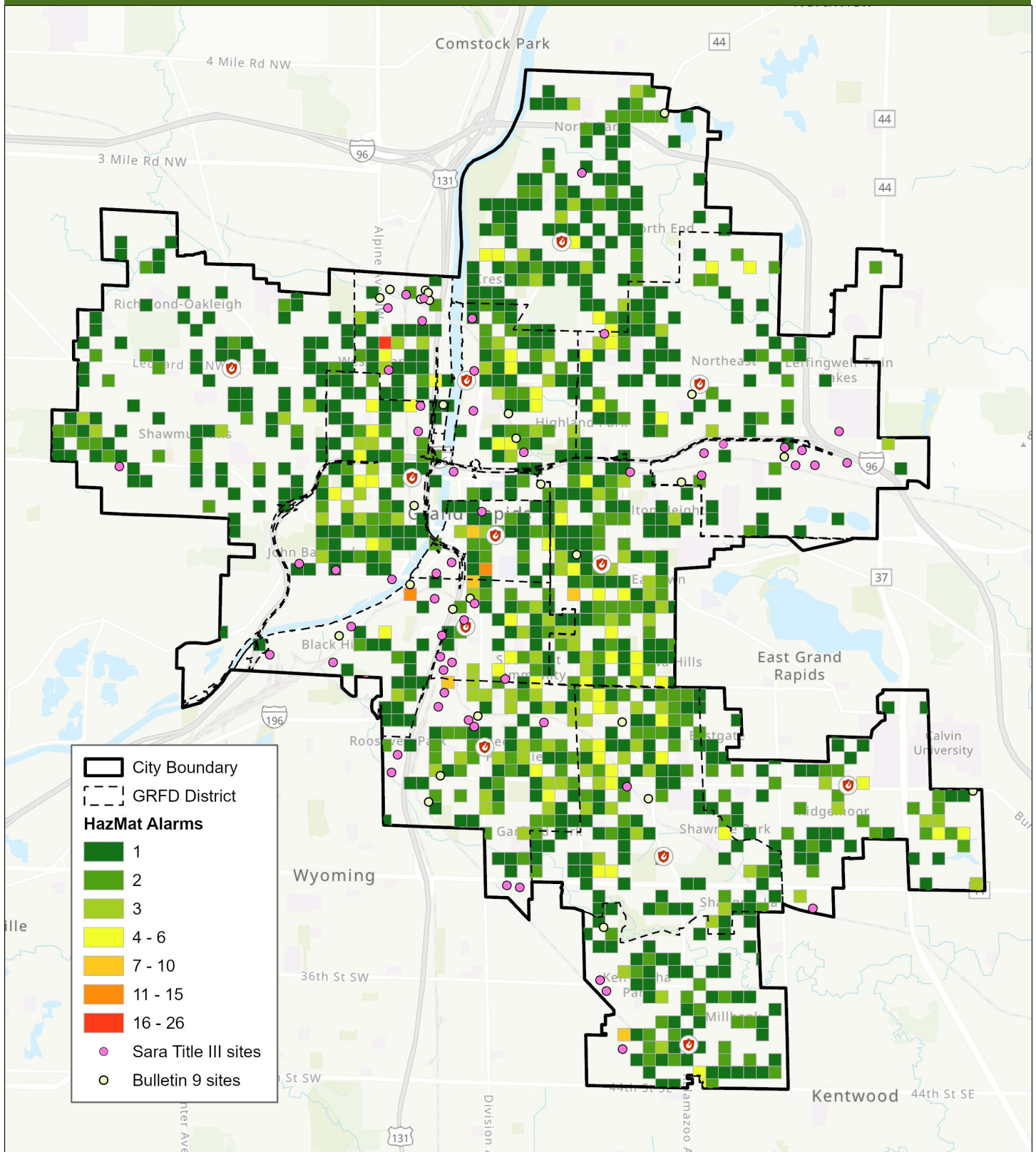
*For Low Risk EMS, the command, safety, and patient information collection are typically fulfilled by one individual.

For Moderate, Moderate Highway, and High Risk EMS, the command and safety tasks are typically fulfilled by one individual.

Recent Adjustments

9/2025 - Added ability to look at EMS Highway calls by utilizing CAD highway beat names.

2021-2025 Hazardous Materials Calls



Optimized Heat Map with Natural Jenks
 classes in 200 meter grids

Only calls within Grand Rapids are shown;
 Overlaid with Response Districts (GPZs)

Sara Title III tracks Extremely Hazardous Substances (EHS); Bulletin 9 sites include all hazardous substances, not just the EHS. The GRFD Prevention Division works to track both sites within the city through its Hazardous Chemical Program and ensure crews are aware of them when responding to an incident.

Hazardous Materials: *Establishing Risk & Known Risk*

3 Axis Model Results

2021-2025 Scoring Breakdown

When reviewing the specific HazMat alarm types, the overall probability of occurrence is low, even with the more likely lower probability HazMat 3 alarms, which are small fuel spills or fluid abatements. Of the 518 incidents over 5 years that indicated a hazardous materials release, most were coded as a vehicle accident alarm types (right). Other than fuel spills, a common hazmat alarm type involve carbon monoxide alarms, which can be handled by first-due companies or a single Haz Mat unit. Only the alarms coded as one of the HazMat alarm types (first table above) are included in the 2021-2025 calls in the map on the previous page.

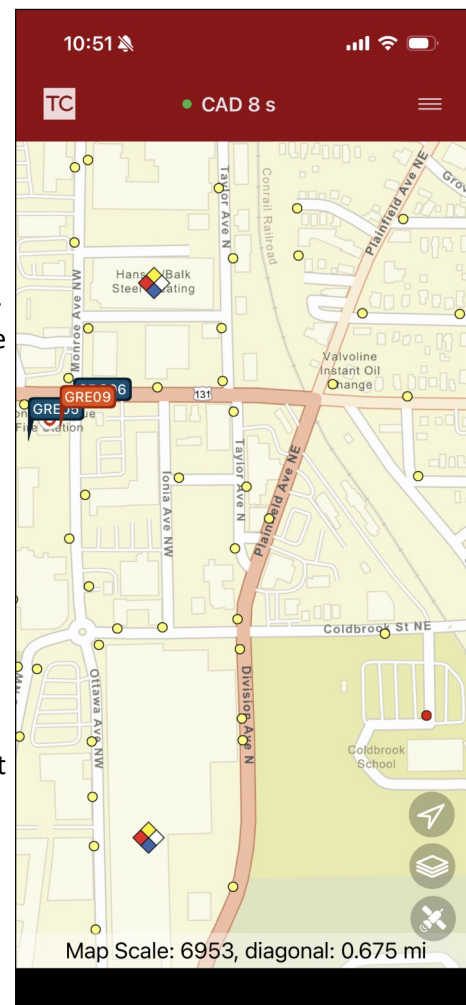
Final CAD Alarm Type	Final CAD Modifier	Urgent	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
HAZMAT	HAZMAT1	Yes	HazMat	15	3	6	5	26.92
HAZMAT	HAZMAT2	Yes	HazMat	6	2	5	4	16.79
HAZMAT	HAZMAT3	Yes	HazMat	110	6	3	2	15.87

Final CAD Alarm Type	Final CAD Modifier	Urgent	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
MED2	VEHICLEACC	Yes	EMS	4558	10	4	3	36.36
MED1	EXTRICATE	Yes	VehicleEx	130	6	6	4	34.99
MED1	VEHICLEACC	Yes	EMS	793	8	4	3	29.53
MED0	VEHICLEACC	Yes	EMS	447	8	4	3	29.53
MED2	EXTRICATE	Yes	VehicleEx	59	5	6	3	26.92
TECHRESCUE	MACHINE	Yes	MachineEx	6	2	5	6	23.92
MED2	BLOCKER	Yes	EMS	51	5	4	4	22.98
MED1	BLOCKER	Yes	EMS	13	3	4	4	16.49
MED0	BLOCKER	Yes	EMS	2	2	3	4	11.05
MED0	EXTRICATE	Yes	VehicleEx	8	2	5	2	10.39

Final CAD Alarm Type	Final CAD Modifier	Urgent	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
CARBON	MEDICAL	Yes	EMS	39	4	4	4	19.60
CARBON	NO_MEDICAL	No	HazMat	1647	9	3	2	23.33

Fixed Facility vs Transportation HazMat Hazards

Hazardous materials are present throughout the community in both fixed facilities and transportation corridors, creating a consistent potential for release. These substances—including flammables, combustibles, poisons, and radioactive materials—are common in industrial, agricultural, medical, and consumer applications, with most incidents stemming from transportation events or industrial accidents. In Grand Rapids, significant chemical activity also comes from large fixed-facility users such as the Haviland Products Company. To manage community risk, the GRFD maintains extensive hazard data through State of Michigan Bulletin 9 and SARA Title III Sections 302 and 312 reporting. Crews review this information annually, supported by the department's hazardous materials planner, who maintains oversight of dozens of regulated sites and ensures compliance with local, state, and federal requirements. Information is also available through the Tablet Command Incident Management program and CAD premise warnings during responses to known hazardous material facilities. Any release that may enter the storm drains is communicated to the Grand Rapids Environmental Services Department by the Deputy Chief of Operations, duty chief, or battalion chief.



Hazardous Materials: Critical Tasking

The GRFD has a dedicated Hazardous Materials team to respond to large HazMat incidents. Each response risk level requires certified hazmat technicians with the exception of Low Risk, which requires none.

HazMat Risk	Specifications
Low	Includes spills of less than 32 gallons, typically seen in transmission oil or gasoline cleanup from motor vehicle accidents. This response does not require specific HazMat team members. (HazMat 3)
Moderate	Includes larger spills over 32 gallons of common hydrocarbon materials such as gasoline, fuel oil, or diesel fuel. This response requires the deployment of GRH01 (a response vehicle with specialized
High	Confirmed or unconfirmed chemical spills, leaks, or releases that are not common hydrocarbon materials. GRH01 is dispatched to the scene and the hazmat planner is notified as well. Additional suppression units may be required to accomplish ancillary tasks unrelated to the mitigation of the primary hazardous materials issue. (HazMat 1)
Maximum	A max response for HazMat incidents initially require 3 personnel to perform a rapid assessment of hazardous material, quantity, and additional needed resources. Upon determination, an ERF of 13 (high response) is deployed to the scene and the hazmat planner is notified.

Note: "Team Members" are the amount of Tech Rescue Team Members that must make up part of Critical Tasking # of Firefighters.

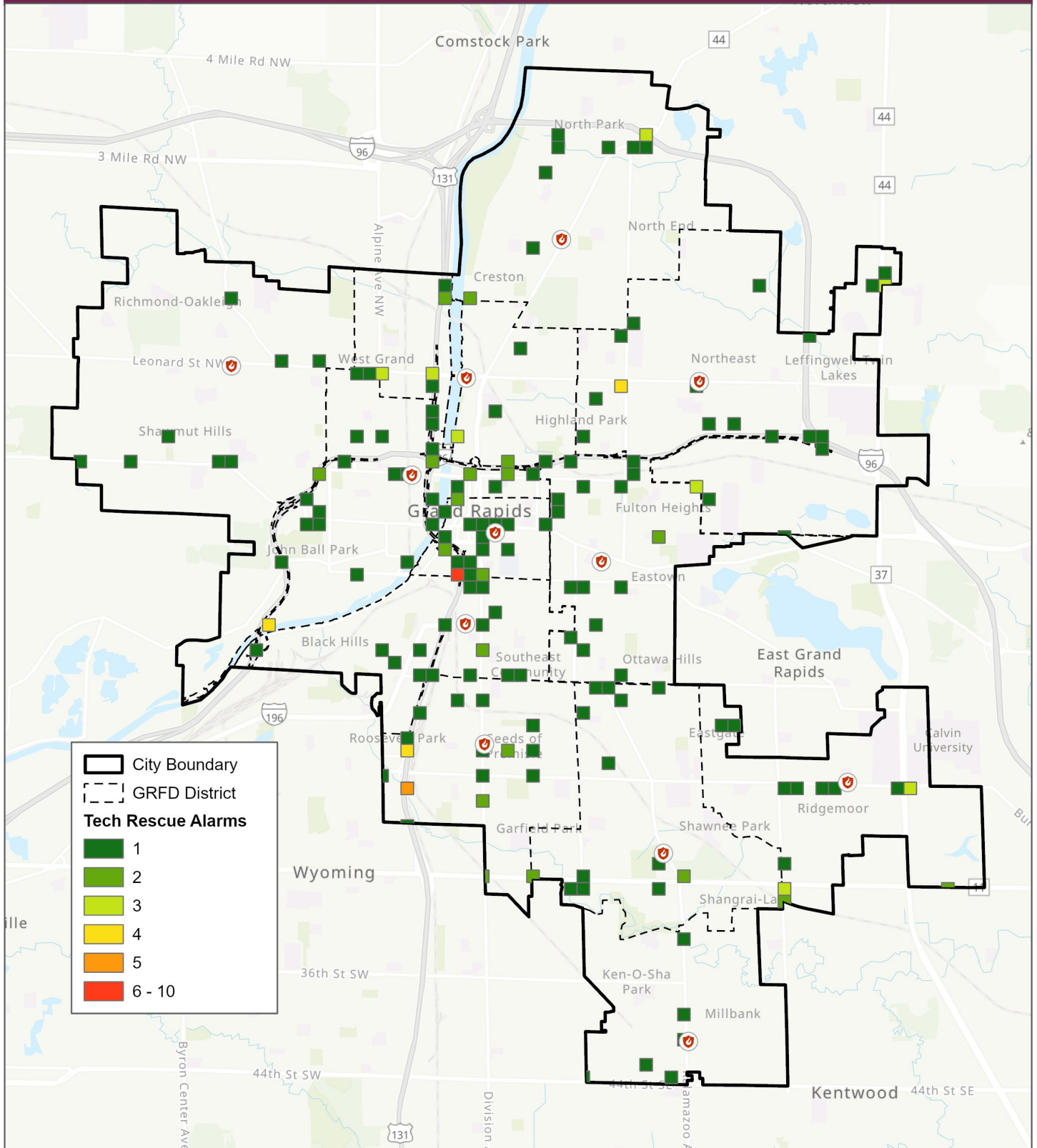
HazMat	Low Risk	Mod Risk	High Risk	Max Risk
<i>Team Members Required</i>		1	5	2
Critical Tasks	# of Firefighters			
Command	1	1	1	1
Safety	1*	1*	1*	1*
Research			1	2
Perimeter Control			3	
Hazard Mitigation	2	6	5	
Decontamination			3	
ERF Totals	3	7	13	3
Baseline Component	Benchmarks			
Alarm Handling	1:30	1:30	1:30	1:30
Turnout Time	1:30	1:30	1:30	1:30
Travel - Distribution	4:00	4:00	4:00	4:00
Travel - Concentration (ERF)	4:00	9:00	9:00	8:00
Total Response - Distribution	7:00	7:00	7:00	7:30
Total Response - Concentration (ERF)	7:00	12:00	12:00	12:00

*For all Hazmat types, the command and safety tasks are typically fulfilled by one individual.

Recent Adjustments

5/24/2024 - Updated Hazmat Moderate and High to have a separate line item for Safety officer to account for Car 97.

2021-2025 Tech Rescue Calls



This map contains all Tech Rescue alarm types: Elevator with Medical, Vehicle Extrication, Heavy Machinery Extrication, Rope Rescue, Confined Rescue, Collapse Rescue, and Trench Rescue. The following Tech Rescue pages outline specific risks and features that may affect the probability of their occurrences.

Optimized Heat Map with Natural Jenks classes in 200 meter grids.

Only calls within Grand Rapids are shown;
 Overlaid with Response Districts (GPZs)

Technical Rescue: Elevator with Medical

3 Axis Model Results

2021-2025 Scoring Breakdown

Despite the presence of over 1,500 elevators in the City of Grand Rapids and tens of

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgency	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
TECHRESCUE	ELEV MED	Yes	Elevator MED	11	2	4	4	13.86
TECHRESCUE	ELEV	No	Other	156	8	3	4	29.53

thousands of daily trips, GRFD responds to only a small number of elevator entrapments incidents a year and even fewer involving a medical situation. Both medical and non medical types have the impact on the GRFD but the overall risk for non-medical elevator rescues is double of those with medicals simply based on probability of occurrence.

Elevator Entrapments

Elevator entrapments fall into two categories: imminent emergencies requiring primary rescue techniques and non-time sensitive situations using secondary techniques.

When there is no medical emergency and no immediate threat to occupants or the building, dispatch contacts the appropriate elevator company to address the malfunction as well as dispatching GRFD units. Both medical and nonmedical elevator entrapments has exposed GRFD personnel to a wide range of elevator systems throughout the city. Personnel also enhanced their proficiency and readiness by receiving advanced elevator-rescue training delivered by Dragon Rescue Management, a company that offers proven elevator rescue procedures, tools, and equipment designed for professional response teams. The GRFD's procedures for responding to elevator emergencies are outlined in SOG 201-24.

Critical Tasking

Tech Rescue	Elevator with Medical (Moderate Risk)
Critical Tasks	# of Firefighters
Command	1
Safety	1*
Patient Care	1
Energy Control	1
Door Operations	4
ERF Totals	7

Benchmarks (Medical Only)

Baseline Component	Benchmarks
Alarm Handling	1:30
Turnout Time	1:30
Travel - Distribution	4:00
Travel - Concentration (ERF)	9:00
Total Response - Distribution	7:00
Total Response - Concentration (ERF)	12:00

*This critical tasking applies to both medical and non medical calls; additionally, the command and safety tasks are typically fulfilled by one individual.

Recent Adjustments

9/11/2023 - Before this date, the GRFD only responded to elevator entrapments with medicals. After this date, GRFD started responding to elevator entrapments without a medical and these alarms do not get a battalion chief resulting in an ERF of 6.

Technical Rescue: Vehicle Extrication, Heavy Machine Extrication

3 Axis Model Results

2021-2025 Scoring Breakdown

Similar to the “Vehicle Accident” alarm types, alarm types with the modifier “Extricate” are coded by medical priority based on the

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgen	Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
MED0	EXTRICATE	Yes	VehicleEx	8	2	5	2	10.39
MED1	EXTRICATE	Yes	VehicleEx	130	6	6	4	34.99
MED2	EXTRICATE	Yes	VehicleEx	59	5	6	3	26.92
TECHRESCUE	MACHINE	Yes	MachineEx	6	2	5	6	23.92

callers information that indicate an entrapment of an occupant in a vehicle. Sometimes alarms are initially coded as “Extricates” and then changed to “Vehicle Accidents” (or vice versa) before or after units are already deployed; this provides a challenge when trying to analyze the responses. Machine extrications are specific to mechanical or heavy equipment entrapments or entanglements and more easily differentiated. While machine-related extrications are rare, the wide range of industrial processes across the jurisdiction presents ongoing risks to both workers and first responders. For the “Extricate” types, the consequence score is due to the varying amount of patients and varying amount of time spent addressing the alarm; for the “Machine” type, its consequence score is due primarily to a longer time spent addressing the alarm.

Vehicle and Heavy Machinery Extrication

Several GRFD members have received specialized industrial extrication training, and the rescues, stationed at La Grave Avenue Station, serve as the primary response units for industrial accidents. The diverse operational environment underscores the critical importance of maintaining a highly trained, well-coordinated rescue capability for extrication operations. The GRFD serves as the primary rescue agency for these operations, utilizing technician-level responders who are members of the Technical Rescue Team. The department routinely conducts interagency training scenarios and follows GRFD SOG 201-13 for procedures on technical rescue responses.

Critical Tasking

Tech Rescue	Vehicle Extrication (Moderate Risk)	Heavy Machine Extrication (High Risk)
Team Members	0	8
Critical Tasks	# of Firefighters	
Command	1	1
Safety	1	1
Rescue Group Supervisor	1	1
Lifting/Moving		3
Stabilizing Team	3	3
Suppression Stand By	1	1
Patient Care	2	2
Vehicle Operations	3	3
ERF Totals	12	15

“Team Members” are the amount of Tech Rescue Team Members that must make up part of Critical Tasking # of Firefighters.

Benchmarks

Baseline Component	Benchmarks
Alarm Handling	1:30
Turnout Time	1:30
Travel - Distribution	4:00
Travel - Concentration (ERF)	9:00
Total Response - Distribution	7:00
Total Response - Concentration (ERF)	12:00

Recent Adjustments

5/24/2024 - Vehicle Extrication ERF went from 11 to 12; Heavy Machine Extrication ERF went from 13 to 15. Critical tasking was overhauled which resulted in new critical task definitions and required personnel.

Technical Rescue: Rope Rescue, Confined Rescue

3 Axis Model Results

2021-2025 Scoring Breakdown

All of the tech rescue types listed here have a consequence score of 5 or

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgen	Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
TECHRESCUE	CONFINED	Yes	Confined	2	2	6	9	41.13
TECHRESCUE	ROPE	Yes	Rope	4	2	5	5	20.31

higher, due primarily to high total incident time scores (dispatched to incident cleared times). Impact is very high for Confined alarms due to large initial assignment of over 20 crew members on the two incidents reported, higher than normally called for because it took more crews to add the required number of special operations team members.

Rope and Confined Rescue

Thousands of confined space entries occur each year within Grand Rapids, involving both municipal employees and private companies; companies such as Consumers Energy, which maintains numerous underground vaults providing electricity across the city. Although these alarms are infrequent, the potential risk remains significant, particularly within the city's water and sewer infrastructure and across its 264 industrial facilities.

In addition to its confined-space and industrial-rescue capabilities, the Technical Rescue Team has technician-level rope rescue personnel who have received specialized training for above-grade rope rescues. These technicians are supported by suppression personnel trained to the awareness level. As with many technical rescue disciplines, actual rescue occurrences remain minimal; however, the risk of a high-angle emergency is substantial. Window washers, construction crews, and other workers frequently operate high above ground level in a skyline that includes 427 buildings between 4 and 10 stories tall, 42 buildings between 11 and 20 stories tall, and 13 structures exceeding 20 stories, all of which are beyond the reach of aerial devices. This diverse operational environment underscores the critical importance of maintaining a highly trained, well-coordinated rescue capability across confined-space and above-grade operations. The GRFD follows SOG 201-44 for procedures on technical rescue response and serves as the primary rescue agency for these operations.

Critical Tasking

Tech Rescue	Rope Rescue (High Risk)	Confined Space (High Risk)
Team Members Required	8	8
Critical Tasks	# of Firefighters	
Command	1	1
Safety	1	1
Rescue Group Supervisor	1	1
Patient Care	2	2
Supply to Air		1
Recon/Air Monitoring		2
Rigging Team	6	4
Communications		1
RIC		2
Entry Team	2*	2*
Backup Rescuers	2	
ERF Totals	13	15



"Team Members" are the amount of Tech Rescue Team Members that must make up part of Critical Tasking # of Firefighters.

Benchmarks

Baseline Component	Benchmarks
Alarm Handling	1:30
Turnout Time	1:30
Travel - Distribution	4:00
Travel - Concentration (ERF)	9:00
Total Response - Distribution	7:00
Total Response - Concentration (ERF)	12:00

*Patient care is provided by the entry team upon patient arrival.

Recent Adjustments

5/24/2024 - Confined ERF went from 13 to 15. Critical tasking was adjusted to add two members of an Entry Team.

Technical Rescue: Collapse & Trench Critical Tasking

3 Axis Model Results

2021-2025 Scoring Breakdown

Collapse and Trench alarms have a low probability of occurrence. Trench alarms

Final CAD Alarm Type	Final CAD Modifier	Urgen	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
TECHRESCUE	COLLAPSE	Yes	Collapse	4	2	4	5	16.79
TECHRESCUE	TRENCH	Yes	Trench	2	2	6	10	45.52

have higher consequence and impact scores due to both incidents having long deployment times and initial assignments over 25 crew members, higher than normally called for because it took more crews to add the required number of special operations team members. The Collapse alarms consistently had multiple patients whereas only one of the two Trench alarms had more than one patient. Two of the Collapse alarms had initial assignments below 5, which means these incidents either began as a different alarm type or specific information was provided to warrant sending fewer than the required ERF.

Collapse & Trench Rescue

Grand Rapids continues to see extensive redevelopment in its downtown core, with thousands of new apartment units added through high-rise construction and major renovations to existing structures. This growth brings an elevated risk of structural collapse during construction as well as ongoing challenges tied to increased population density and higher call volumes. Additional collapse hazards stem from vehicles traveling at high speeds on narrow city streets, occasionally impacting buildings. The GRFD addresses both collapse and trench rescue through its Technical Rescue Team, that consists of a minimum of 36 members trained to the technician level for building and trench collapse rescue.

Although the city issues numerous permits annually (over 3,100 in 2025), trench rescue incidents remain low-frequency but high-risk events. These risks are often mitigated proactively by crews who remain vigilant within their districts, reporting un-shored or unsafe excavation practices to the appropriate city department so corrective actions can be taken jointly with contractors. Ongoing training, combined with exposure to continuous construction activity across the city, ensures that personnel maintain readiness while helping reduce the likelihood of severe incidents.

Critical Tasking

Tech Rescue	Collapse (Max Risk)	Trench (Max Risk)
Team Members Required	8	8
Critical Tasks	# of Firefighters	
Command	1	1
Safety	1	1
Rescue Group Supervisor	1	1
Shoring Team	9	5
Search & Rescue	4	
Cut Team	2	
Pannel Team		6
Entry Team		3
Patient Care	1	2
ERF Totals	19	19

“Team Members” are the amount of Tech Rescue Team Members that must make up part of Critical Tasking # of Firefighters.

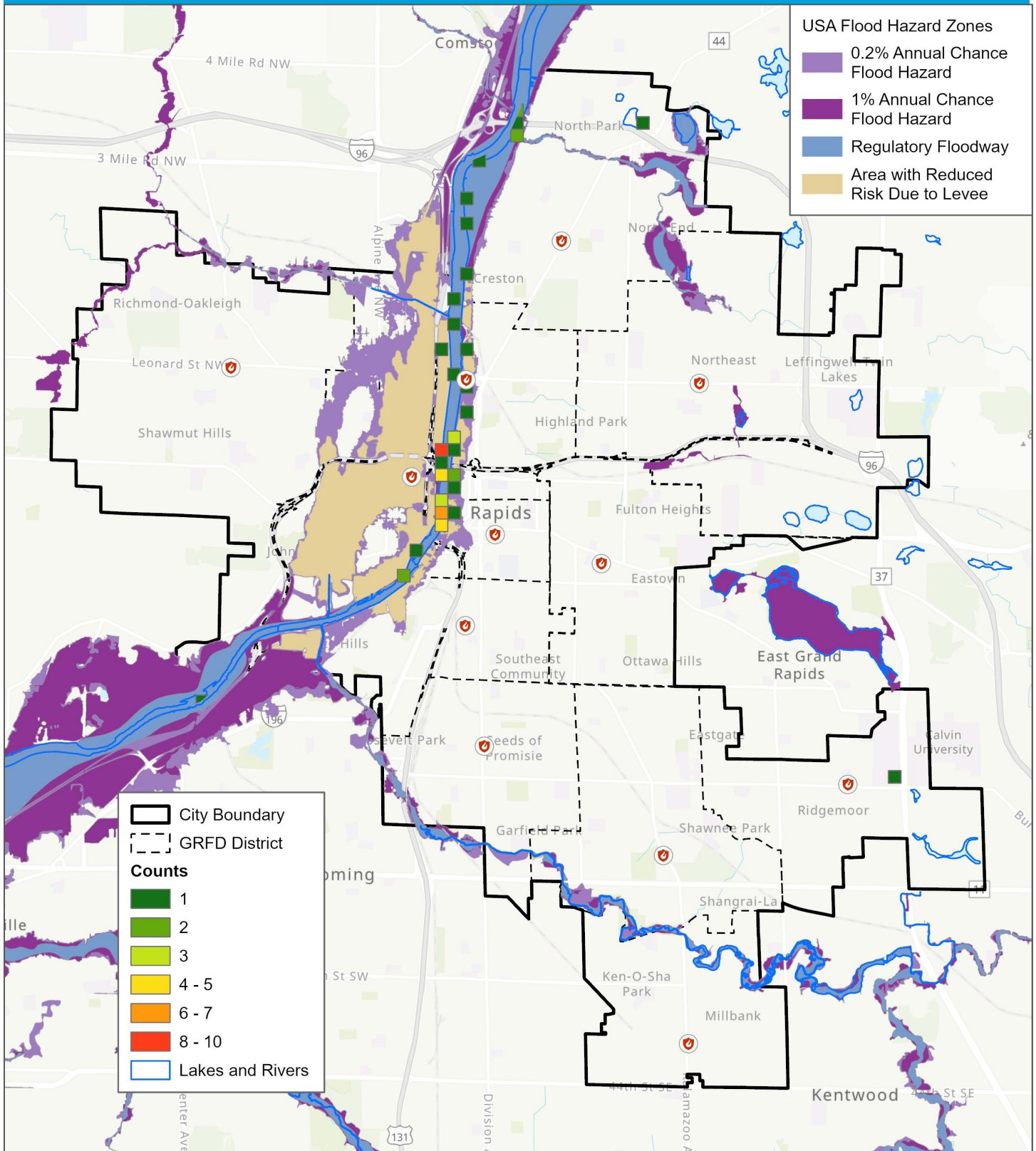
Benchmarks

Baseline Component	Benchmarks
Alarm Handling	1:30
Turnout Time	1:30
Travel - Distribution	4:00
Travel - Concentration (ERF)	9:00
Total Response - Distribution	7:00
Total Response - Concentration (ERF)	12:00

Recent Adjustments

5/24/2024 - Collapse went from 16 to 19; Trench went from 13 to 19. Critical tasking was overhauled which resulted in new critical task definitions and required personnel.

2021-2025 Water Rescue Calls



Optimized Heat Map with Natural Jenks
classes in 200 meter grids

Only calls within Grand Rapids are shown;
Overlaid with Response Districts (GPZs)

The map above shows the majority of water alarms happen along the Grand River, though exact location is at times tricky to pinpoint due to the river's movement.

Water Rescue Critical Tasking

3 Axis Model Results

2021-2025 Scoring Breakdown

Water rescue alarms include river, lake, and ice rescues and have been grouped

Final CAD Alarm Type	Final CAD Modifier	Baseline Urgen	Baseline Type	5 year Count	Probability Score	Consequence Score	Impact Score	Risk Score
Water Rescue Grp		Yes	Water	56	5	5	8	43.73

together for assessment due to their low overall occurrence, their same ERF total requirement, and that the vast majority of the responses are on the Grand River, which flows through the downtown area. The largest component of the 3-axis scoring is the large impact these responses have on the GRFD, which is similar to a structure fire. This makes it the second highest impact score of all alarm types. The probability of water rescues are relatively regular, happening on an almost monthly basis.

Water Rescue (River, Ice, Lake)

The majority of water rescue incidents are located in the Grand River, which also contains dams that produce strong currents and undertow. Most water rescue incidents occur in the Grand River, which runs through downtown and is one of the area's most popular fishing locations. The downtown dams create strong currents and undertows, posing significant risks to people using the river. Water and ice rescue operations are outlined in GRFD SOG 201-30, with SOG 201-31 addressing boat-based operations and SOG 201-32 covering bridge-based rescues. In addition to the existing water rescue program, the department has established a dedicated dive team consisting of 28 members. A minimum of two divers are on duty in the city each day to ensure rapid response capability.

Bridge Street Station serves as the primary water rescue and dive team station, with Monroe Avenue Station functioning as a secondary resource. All GRFD personnel are trained to the awareness level for swift-water rescue and members of the water rescue and dive teams operate from Bridge Street Station. Dive team personnel complete monthly off-duty training and maintain individualized equipment packages.

Critical Tasking

Water Rescue	Lake/ Ice (Max Risk)	River (Max Risk)
Team Members Required	7 (including 2 Divers)	
Critical Tasks	# of Firefighters	
Command	1	1
Safety	1	1
Rescue Group Supervisor	1	1
Bridge Operations		6
Boat/Sled Operations	4	4
Bank Operations	10	4
Patient Care	2	2
ERF Totals	19	19

← "Team Members" are the amount of Tech Rescue Team Members that must make up part of Critical Tasking # of Firefighters.

Benchmarks

Baseline Component	Benchmarks
Alarm Handling	1:30
Turnout Time	1:30
Travel - Distribution	4:00
Travel - Concentration (ERF)	9:00
Total Response - Distribution	7:00
Total Response - Concentration (ERF)	12:00

Recent Adjustments

Summer 2024 - The department went to minimum staffing of 2 divers.

9/2025 - Grouped Ice, River, Lake into "Water" group; the original ERFs used for reporting was 16, actual ERF was always 19 (reporting fixed after this date).

Additional Community Risk Factors

Grand Rapids experiences additional community conditions and operational stressors that may not be completely represented within the current available dispatch alarm types. The GRFD has identified 12 additional community risks that fall within one of the following categories: Geospatial, Natural, or Manmade. These include taking into consideration frequent severe wind and winter events, flood history, dense historical districts, and construction of buildings taller than three floors – all of which can affect emergency response. The 3-axis scoring method was used to calculate a total risk from 2 (very low) to 10 (very high) for each of the three axis elements: Probability, Consequence to the Community, and Impact to the Grand Rapids Fire Department. The differences between this “Community Risk Factor” 3-axis scoring method and the “Dispatch Alarm Type” 3-axis scoring method is the definition for “Consequence” and the sources for establishing all three axis.

Category	Risk Focus	Risks Identified
Geospatial (G)	Infrastructure, access, & development pressure	4
Natural (N)	Weather, flooding, & public health	4
Manmade (M)	Built environment & transportation systems	4

All 12 community risk factors use the scoring bins below and the scores are assigned using an educational estimation based on historical events, national and local resources, and recent trends. Probability is based on known frequency of the event, consequence is based on past operational experience, and impact is based on the minimum GRFD Effective Response Force (ERF) required to manage incidents during, or caused by, the event.

Probability Scoring Bins (How often the event occurs)	
Score	Description
2	Occurs annually or less
4	Occurs semi-annually
6	Occurs monthly
8	Occurs weekly
10	1 or more times a Day

Consequence Scoring Bins (Level of community reaction/ disruption)	
Score	Description
2	Low Effect
6	Moderate Effect
10	High Effect

Impact Scoring Bins (GRFD minimum Effective Response Force)	
Score	Description
2	ERF (Crew Required) <5
4	ERF (Crew Required) 5-9
6	ERF (Crew Required) 10-15
8	ERF (Crew Required) 16-19
10	ERF (Crew Required) 20+

The table below breaks down all of the identified risk factors, their individual axis scores, and final risk score. The total risk scores were calculated using the same 3-axis formula (the modified Heron’s formula) as the earlier “Dispatch Alarm Type” risk assessments.

Group Type	Risk Factor	Probability	Consequence	Impact	Risk Score
Geospatial	Political & Growth Boundaries	4	6	4	26.53
Geospatial	Critical Infrastructure	6	6	8	54.33
Geospatial	Response Barriers	8	6	4	44.18
Geospatial	Rural/WUI Interface	4	2	2	8.49
Natural	Earthquake	2	6	8	36.77
Natural	Flood Events	4	6	8	44.18
Natural	Wind and Severe Weather	6	6	10	65.18
Natural	Contagious Diseases	4	2	2	8.49
Manmade	Historic Districts	4	2	8	25.92
Manmade	Road Networks	10	6	4	53.74
Manmade	Passenger and Freight Lines	4	6	8	44.18
Manmade	Airports and Heliports	4	6	6	34.99

Group Type	Risk Factor	Probability	Consequence	Impact	Risk Score
Geospatial	Political & Growth Boundaries	4	6	4	26.53
Geospatial	Critical Infrastructure	6	6	8	54.33
Geospatial	Response Barriers	8	6	4	44.18
Geospatial	Rural/WUI Interface	4	2	2	8.49

Geospatial: Political & Growth Boundaries

Grand Rapids has experienced significant changes in population, demographics, and employment, and development patterns. Major projects such as the new riverfront amphitheater, the new soccer stadium, and a projected need for over 3,000 new housing units due to increased population will lead to increased call volume. Varied construction styles add complexity to incident response. Annexation or municipal mergers remain a low probability and would impact city services if ever pursued.

Geospatial: Critical Infrastructure

Grand Rapids’ critical systems—water, wastewater, power, transportation, communication, and healthcare—are vulnerable to a range of hazard risks such as severe weather, cyberattacks, equipment failure, and hazardous materials incidents. Because these systems are interconnected, disruption in one can cascade through others. Two major water main breaks in 2024 showed such events can create long term service outages, economic disruptions from business closures, impacts on vulnerable populations, or significant traffic issues.

Geospatial: Response Barriers

Common concerns in Grand Rapids include road congestion, adverse weather, infrastructure failures, and construction related closures. Recent examples include the closure of the Martin Luther King Jr. Street at US-131 and Leonard over the Grand River, which significantly affected traffic flow and emergency response. Grand Rapids continues to experience growth and construction, which when coupled with weather can worsen traffic and/or congestion.

Geospatial: Rural /WUI (Wildland–Urban Interface)

Areas within Grand Rapids contain large, wooded tracts that allow for expanding residential development, and the city’s wooded parkland make WUI considerations necessary. Dry summer conditions, paired with strong wind events, dense vegetation and housing increase fire risk.

Group Type	Risk Factor	Probability	Consequence	Impact	Risk Score
Natural	Earthquake	2	6	8	36.77
Natural	Flood Events	4	6	8	44.18
Natural	Wind and Severe Weather	6	6	10	65.18
Natural	Contagious Diseases	4	2	2	8.49

Natural: Earthquake

According to the US Geological Survey, Grand Rapids is not located in a high seismic zone, but it remains subject to low probability, high consequence earthquake risk due to the broader New Madrid and Eastern U.S. seismic systems. Local buildings, utilities, and infrastructure may not have been designed or built with significant seismic activity in mind, therefore even a moderate earthquake could cause notable damage.

Natural: Flood Events

Grand Rapids regularly experiences spring flooding along the Grand River, including historic crests. Increase development along the river has driven improved flood mitigation systems addressing some risks and improving the city's resiliency.

Natural: Wind and Severe Weather

Grand Rapids experiences frequent severe weather, including high wind events, thunderstorms, heavy rainfall, snowstorms, and occasional straight line wind damage. The region's mature tree canopy, aging utility infrastructure, and dense urban corridors allow wind and storm events to escalate quickly.

Natural: Contagious Diseases

Contagious diseases—such as influenza, RSV, norovirus, and COVID-19—are recurring, high probability seasonal risks in Grand Rapids. Population density, schools, workplaces, universities, and shelters coupled with changing seasons contribute to rapid spread and outbreaks most common from fall through spring.

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Group Type	Risk Factor	Probability	Consequence	Impact	Risk Score
Manmade	Historic Districts	4	2	8	25.92
Manmade	Road Networks	10	6	4	53.74
Manmade	Passenger and Freight Lines	4	6	8	44.18
Manmade	Airports and Heliports	4	6	6	34.99

Manmade: Historic Districts

Grand Rapids' historic districts, such as Heritage Hill and early commercial corridors, contain buildings over 50 years old and protected by strict design guidelines under the State Historic Districts Act and local ordinances. Older construction with balloon framing, legacy stairways, and converting from single family to multifamily homes requires consideration for additional response consideration.

Manmade: Road Networks

Grand Rapids has an aging road network that includes major highways (US-131, I-196, I-96), river crossings, downtown one way roads, and high traffic commuter corridors. Road networks face medium to high probability of disruption due to construction, seasonal weather, heavy congestion, collisions, and infrastructure repair work. Frequent freeze thaw cycles and ongoing road improvement projects increase the likelihood that transportation routes will be partially or completely restricted throughout the year.

Manmade: Passenger and Freight Lines

Passenger and freight rail lines exist in Grand Rapids and are vulnerable to incidents such as derailments, collisions, hazardous materials releases, or cybersecurity failures. Incidents remain relatively uncommon but possible, especially with potential for derailment or incidents involving hazardous materials or impacting the community.

Manmade: Airport and Heliports

The proximity to Gerald R. Ford International Airport (GRR) and the heliports used by hospitals and private entities helipad downtown and their respected flight paths utilized for important transportation and medical-access points for the region create unique risk.

Physical Assets Protected

The GRFD continues to analyze data from multiple sources to identify and assess the physical assets protected within the city, including their type, quantity, and associated risk levels. Despite ongoing new construction, the overall average age of structures in the city has increased; six fire districts now contain structures that, on average, are more than 100 years old, and buildings in three additional districts are rapidly approaching that age benchmark as well.

It remains notable that Martin Luther King Jr District (2) and La Grave District (7) contain the largest number of tax exempt properties. These exemptions are typically associated with nonprofit, religious, educational, or charitable organizations, or with developments that have qualified for economic incentive programs.

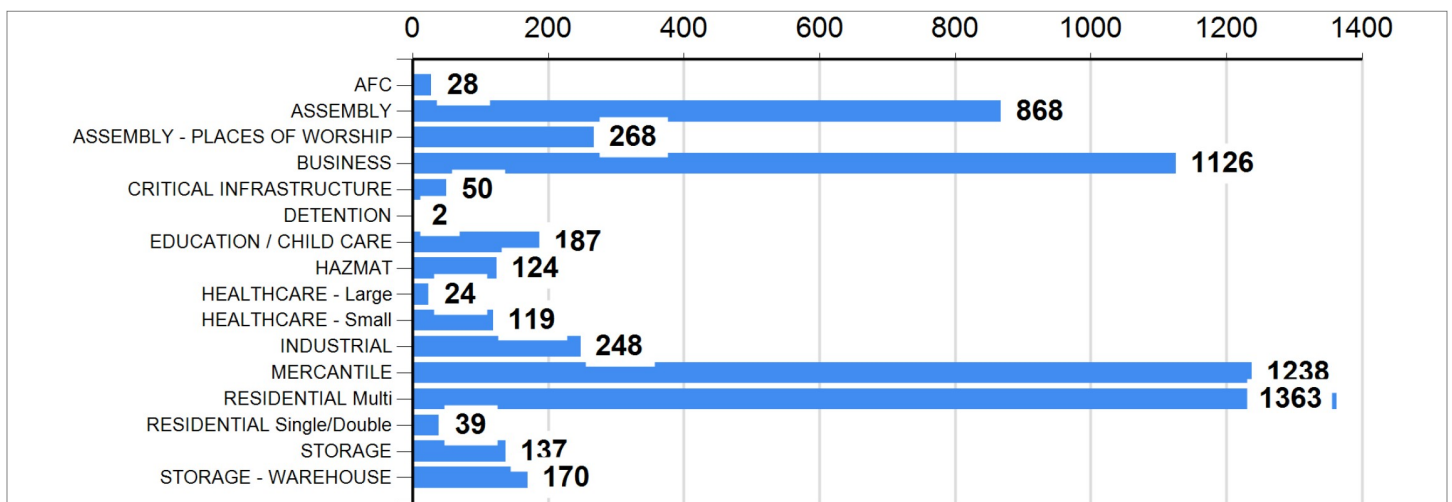
The total square footage of property within the city has continued to grow, surpassing 167 million square feet in 2025, with an estimated taxable value of more than \$6.9 billion. From a risk perspective, GRFD provides protection for over 60,000 physical buildings within the city limits. Of these structures, only 1,187 are equipped with automatic sprinkler systems, representing a small fraction of the total built environment and highlighting an ongoing area of vulnerability.

Grand Rapids Occupancies Breakdown

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
1	5,031	204	26	57	14,539,107	\$ 769,070,431	\$ 2,006,655,330	65.4	140
2	2,924	234	42	231	13,151,525	\$ 270,746,783	\$ 930,419,656	108.4	92
3	4,982	429	27	94	20,815,715	\$ 688,986,476	\$ 2,102,357,648	118.3	124
4	6,143	288	24	21	13,500,445	\$ 580,700,363	\$ 1,530,066,468	82.5	52
5	4,893	460	61	70	16,798,770	\$ 534,797,474	\$ 1,473,762,814	116.1	96
6	2,816	202	2	19	10,429,083	\$ 625,329,053	\$ 1,478,382,020	62.1	143
7	961	434	8	176	14,795,123	\$ 669,275,336	\$ 1,687,326,931	119.3	231
8	6,863	94	0	17	11,266,774	\$ 692,339,032	\$ 1,799,340,908	71.1	52
9	6,298	125	1	7	9,248,177	\$ 598,051,022	\$ 1,564,436,559	83.3	41
10	5,069	314	44	94	14,527,810	\$ 379,441,643	\$ 1,215,913,486	103.8	79
11	7,098	441	6	55	16,725,366	\$ 747,903,473	\$ 2,231,721,517	113.2	95
12	2,897	150	23	16	11,599,915	\$ 411,617,190	\$ 1,047,581,329	56.1	42
Total	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	92	1,187

Data provided from the Grand Rapids Assessors and Code Compliance offices, based on parcel occupancies.

Quarterly Suppression Risk Assessment - Property Use & Counts



Data pulled from internal GRFD ImageTrend Locations where Quarterly Suppression Risk Assessments are documented.

At Risk Populations

As outlined in the “Area Characteristics” section of this document, the 2024 population of Grand Rapids, Michigan, was 200,177, though this number was only accepted after city officials successfully challenged the original census total of 198,270.

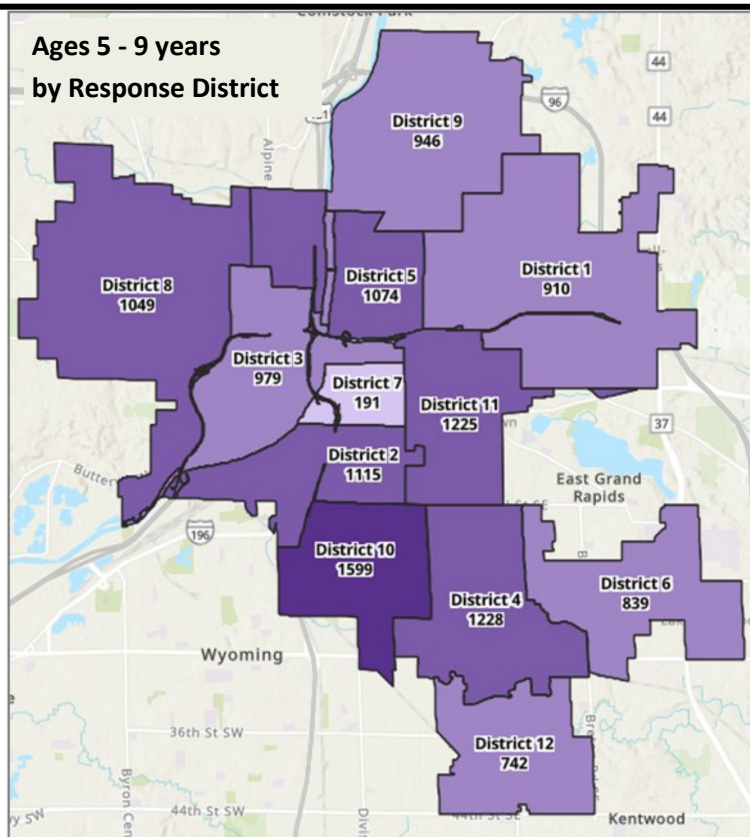
Fire departments usually start population analysis with the two age groups that consistently identify as high risk: children ages 5-9 (map right) and adults over the age of 65. Children between 5-9 years old are at additional risk due to their development and behavioral stage and limited capability to recognize fire hazards or safely evacuate during a fire emergency. Based on this information, the GRFD’s Prevention Division focuses some of its fire safety education efforts on second grade class presentations.

Nationally, adults over 65 have the highest fire fatality rates due to reduced mobility, hearing, or vision, and age related health conditions that can slow the ability to respond quickly and efficiently to an emergency situation. This age group’s tendency to live alone can also increase the chance of a small fire going unnoticed and becoming fatal. This is one way the GRFD’s Residential Safety Program can help identify areas of concern for adult residents through the program’s home safety assessment and free smoke and fire detector installations.

Another population at risk are unhoused individuals, which tend to be more difficult to track outside of general encounters. These individuals tend to use improvised heating sources and live in temporary encampments that may be difficult for responders to access. The unhoused also have higher rates of medical conditions and exposure-related illnesses that result in higher EMS call volumes. There were over 1,000 EMS responses in 2025 where the alternate residence indicated “Homeless”, though this does not reflect how many encounters the GRFD had in 2025 with those this population. The GRFD’s Homeless Outreach Team (HOT) and the pilot program Medical Priority and Wellbeing Response (MPWR) were both created out of the desire to try to address the increased risk this population experiences in the city.

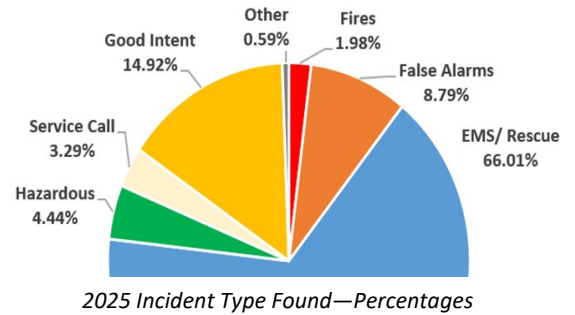
The information about at-risk populations was pulled from commonly accepted national fire service research, including the following:

National Fire Protection Association (NFPA) research on fire injuries, fatalities, and demographic risk factors; U.S. Fire Administration (USFA) and FEMA Community Risk Reduction (CRR) guidance; CDC/ NCHS data on older adult injury, mobility limitations, and chronic conditions; Widely documented EMS utilization patterns across U.S. fire departments; National reports on risks associated with homelessness and encampment fires

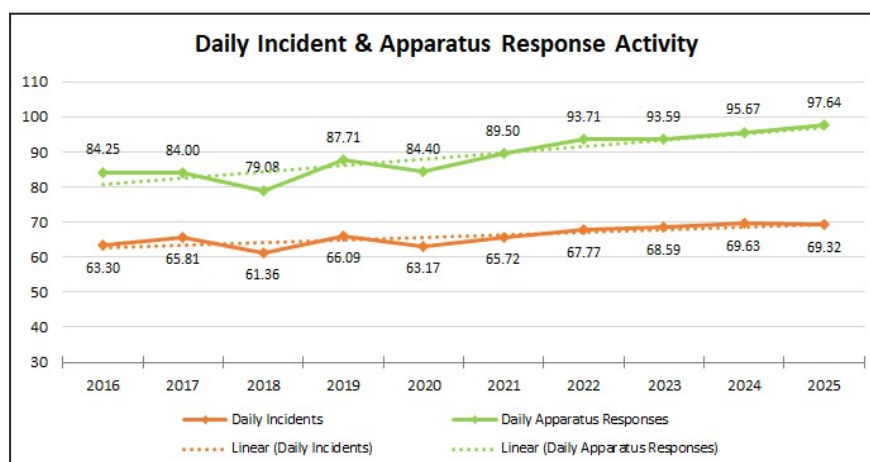
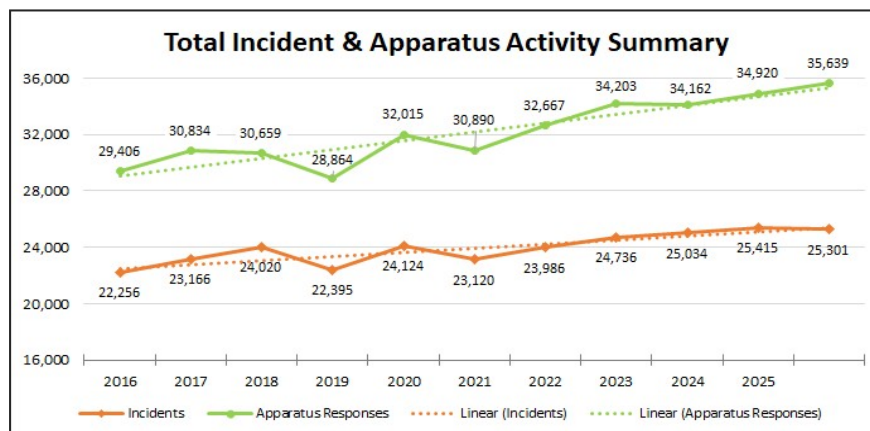


Historical Service Demand and Probability Analysis

The GRFD analyzes incident types each year using data from the National Fire Incident Reporting System (NFIRS) and, beginning in late 2025, the National Emergency Response Information System (NERIS). To evaluate year to year changes, GRFD continues to use a colored temperature themed scale, with hotter (red) colors indicating higher incident frequency for specific call types. This approach allows the department to quickly identify trends where incident types increase, decrease, or remain consistent over a given timeframe. In addition to temporal analysis, GRFD's annual reports uses a series of charts and tracking tools to monitor trends in daily incident volume, total annual incidents, apparatus responses, and apparatus activity throughout the year. These visual tools support more informed decision making, resource allocation, and long term planning.



10 Year Incident Type Counts										
Incident Type (What was Found)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Fires	661	615	608	555	666	556	573	558	541	500
False Alarms	1,774	1,537	1,487	1,849	1,488	1,783	1,909	1,890	2,130	2,223
EMS/ Rescue	14,687	15,345	14,509	15,465	15,539	16,483	17,028	16,982	16,631	16,700
Hazardous	1,166	1,155	1,006	1,574	1,006	1,064	1,147	981	1,439	1,123
Service Call	1,492	1,704	1,542	1,252	1,053	876	953	925	975	832
Good Intent	3,315	3,462	3,033	3,258	3,252	3,070	2,995	3,559	3,596	3,774
Other	202	210	171	116	154	131	139	103	103	149
Total	23,166	24,020	22,395	24,124	23,120	23,986	24,736	25,034	25,415	25,301

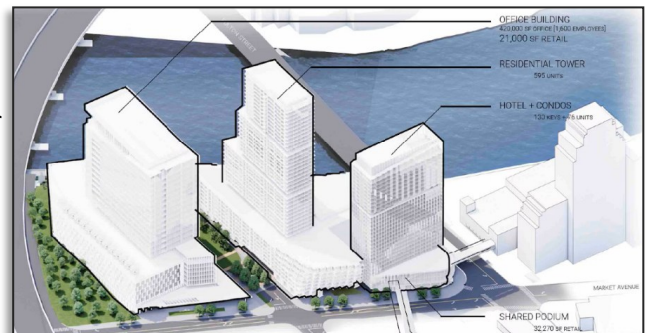


City Development Projects

The Acrisure Amphitheater is a new 12,000-seat outdoor concert venue being built along the Grand River at 201 Market Ave. SW in downtown Grand Rapids, with construction beginning in 2024 and opening planned for 2026. It is designed to host major national artists and community events while anchoring a larger riverfront redevelopment that includes parks, trails, and mixed-use development.



The “Three Towers” project is a proposed \$796–\$800 million riverfront development in downtown Grand Rapids that would build three high-rise towers on the former Charley’s Crab site near Fulton Street and Market Avenue. The project is planned to include hundreds of housing units, office space, a hotel, and retail, and is expected to significantly reshape the downtown skyline while redeveloping vacant riverfront property.



The Amway Soccer Stadium is a planned \$175 million, 8,500-seat stadium under construction in downtown Grand Rapids that will serve as the home for AC Grand Rapids, a professional team set to join MLS Next Pro in 2027. Construction began in 2025, with the venue expected to open in spring 2027 and host professional soccer matches along with community events and other entertainment.



Beyond downtown, large mixed-use and neighborhood projects are also expanding housing supply. For example, the Factory Yards development on the southwest side represents about \$146 million in investment and roughly 467 housing units, including affordable units, while other state-supported projects and smaller developments could add hundreds more apartments and infill homes across neighborhoods on the southeast, southwest, and west sides of the city.



Current Deployment & Performance



Human Resources

Frontline Apparatus & Resources

Deployment Map & Geographic Planning Zones (GPZ)

Dispatching & Alarm Handling

Incidents Found by District & Statistics by Ward

Temporal Analysis & Critical Performance Metrics

Distribution Analysis

Concentration Analysis

Reliability Analysis

Simultaneous Analysis

Apparatus Responses & Hours

District (GPZ) Level Analysis

Overview

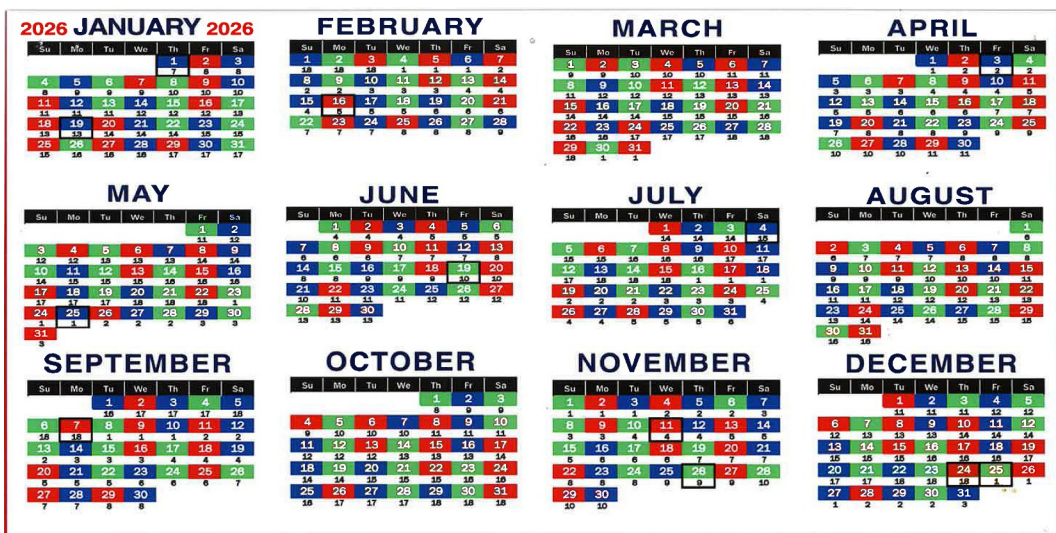
The purpose of this section is to examine the performance of the current emergency response delivery system. When looking at system performance, it is important to understand the environment in which the various stations and apparatus are operating. This section opens with a citywide view of key metrics and then a closer look at each district's performance, concluding with a comparability study of other agencies.

Human Resources

The GRFD continues to maintain its staffing levels over the last five years. The deployment model has been adapted to improve performance and facilitate training needs. The GRFD continues to follow the hiring model developed in 2015, allowing the GRFD to maintain staffing levels that equate to a total authorized strength of 232 full time city employees.

198 sworn suppression personnel, 22 sworn administrative personnel, 12 civilian personnel

Suppression personnel work 24 hour shifts. The department uses a three-shift schedule, with each shift working 24-hour periods. The shift rotation is one day on, one day off, one day on, one day off, one day on, four days off which makes up a ten-day cycle (suppression personnel are assigned one leave day on every 18th scheduled shift). For more details on this, reference the July 2025 IAFF Contract, page 55 "Work Day".



2026 Work Cycle Calendar

Three different colors represent the three shifts and the small subscript numbers indicate the leave day.

A Shift

B Shift

C Shift

The current key operational metric for both emergency and non-emergency outcomes is to have 16 suppression units (requiring three crew) and two battalion chief cars (with one battalion chief each), and a 24 hour Inspector\Investigator car in service every day, staffed with a minimum of 51 personnel.

The daily staffing model is dynamic and requires an active level of management. It allows for additional units to be placed in service when additional staff is available, or for additional crew on key apparatus to support core fire department services. Placing additional units in service would be due to high call volume or staffing up an apparatus to provide flexibility to cross staff non-frontline units. Utility 2, stationed at the Martin Luther King Jr Street Station along with a truck and an engine, requires one firefighter to drive it and acts as a safety blocker for freeway emergency responses. A recent grant expiring March 1, 2026, allowed the staffing of a fourth firefighter on Truck 2, meaning Utility 2 was guaranteed a driver without taking the truck out of service. Otherwise, Utility 2 is regularly staffed with a light duty crew member who cleared to drive apparatus but unable to function in a suppression role.

24/7 Frontline Apparatus & Resources



Battalion Chief Car Two cars staffed with a battalion chief are on duty each shift. One is responsible for the north half of the city and operates out of the Monroe Avenue Station and one is charged with supervising the southern side of the city and runs out of the Division Avenue Station. In addition to emergency responses and personnel management, they also supervise many non emergency programs.



Engine A piece of fire apparatus staffed with an officer, equipment operator and firefighter that carries water, medical equipment and tools to the scene of an emergency. The primary function of this crew at fires is to establish a water supply, search for people in the interior of a structure and apply water with hose lines to extinguish the fire. Engines are in service at ten of the twelve stations in the city.



Rescue A special type of engine that is staffed with a fire officer, equipment operator and one firefighter. In addition to regular engine duties, the two rescue engines located at La Grave Avenue Station are the lead apparatus for all technical rescue incidents.



Truck This fire apparatus is staffed with an officer, equipment operator and firefighter. It operates as an engine or aerial device based upon the needs of the emergency. These units are either a straight stick (ladder) or platform (ladder with a bucket) placed throughout the city based on area covered. These aerial devices extend 75 to 109 feet in the air and are capable of providing an elevated stream of water via their own pump or being supplied by an engine. The city has a truck in service at Leonard, Martin Luther King Jr, Bridge, and Kalamazoo stations.

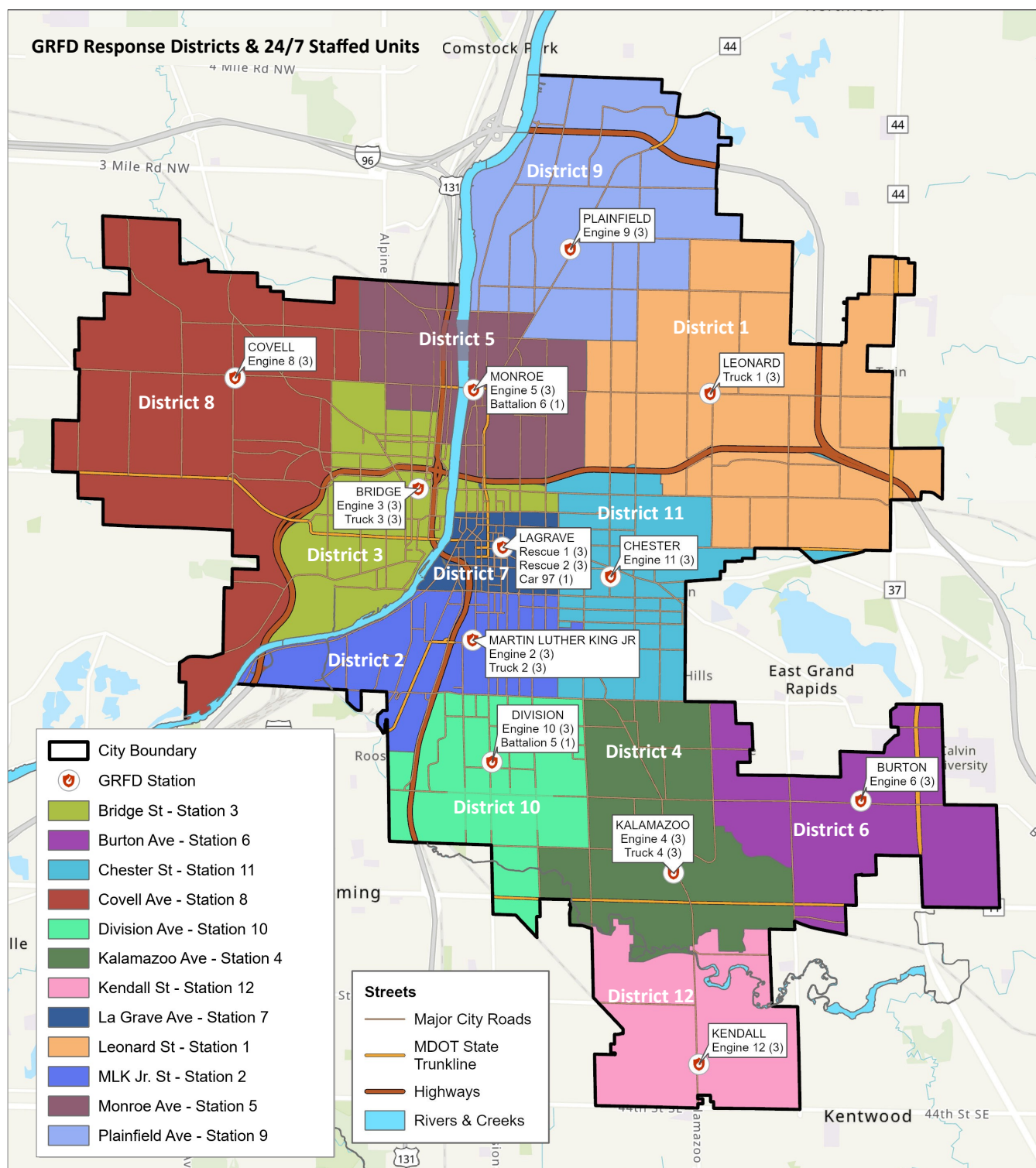


Car 97 (24/7 Fire Safety Officer & Inspector)

Car 97 began as a pilot program in 2023 to provide a 24/7 inspector and investigator position responding to alarms that required an Incident Safety Officer. Other duties include acting as an initial investigator at fires, assisting on fire alarm resets where there was no fire, and to follow up on CBR (Commercial Building Referrals). This unit responds from La Grave Avenue Station and is staffed with a captain and two lieutenants, one assigned to each shift.

Deployment Map & Geographic Planning Zones (GPZ)

For 37 years, the GRFD operated with 11 first due districts. The opening of the Kendall Station in late September 2025 brought the total number of districts to 12 and increased the number of frontline apparatus from 15 to 16. This addresses one of the primary issues identified in previous accreditation cycles where the most concentration failures were identified in the southernmost part of the city. The new Kendall District now covers the southern part of the old Kalamazoo district and provides much needed relief for Kalamazoo crews and support for the community in that area. As mentioned in the previous “All Hazards Risk Assessment” section, these first due response districts also act as our primary geographic planning zones. The name and number of each district are interchangeable.



Response Districts Quick Look

The 12 stations in Grand Rapids collectively cover 808.57 roadway miles. Population by district varies significantly, ranging from 7,528 residents in District 7 (La Grave) to 20,038 in District 1 (Leonard). While District 1 accounts for 10.10% of the city's population, its larger geographic area (6.92 square miles) results in a lower population density. In contrast, District 7 encompasses 0.93 square miles but has a much higher density of 8,134 residents per square mile.

A notable development is the addition of District 12 (Kendall). Previously, District 4 (Kalamazoo) covered both its current area and that of District 12, serving more than 30,000 residents—approximately 15% of the city's population. Since the establishment of District 12, call volume has become more manageable, and response times have improved for both Engine 4 and Truck 4 in District 4. District 12 is also the city's first new station in nearly 40 years.

District	Area	Road Miles	Hydrants	Total Population	Population per sq mi	% of City Population	Fire Station Year Built	24/7 Staffed Units
1	6.92 sq mi	93.08	956	20,038	2,893	10.10%	1981	Truck 1
2	2.61 sq mi	59.84	545	14,038	5,385	7.10%	1979	Engine 2, Truck 2
3	3.26 sq mi	80.04	591	18,196	5,588	9.20%	1966	Engine 3, Truck 3
4	3.84 sq mi	69.40	601	17,164	4,487	8.60%	1987	Engine 4, Truck 4
5	2.89 sq mi	71.47	637	16,269	5,625	8.20%	1982	Engine 5, Battalion 6
6	3.48 sq mi	56.13	646	16,528	4,749	8.30%	1981	Engine 6
7	0.93 sq mi	25.03	286	7,528	8,134	3.80%	1910	Rescue 1, Rescue 2, Car 97
8	7.29 sq mi	99.96	922	18,519	2,540	9.30%	1987	Engine 8
9	5.17 sq mi	78.49	718	16,090	3,113	8.10%	1951	Engine 9
10	2.94 sq mi	67.69	559	19,242	6,539	9.70%	1926	Engine 10, Battalion 5
11	3.03 sq mi	83.57	674	23,433	7,730	11.80%	1902	Engine 11
12	2.92 sq mi	44.78	555	11,607	3,947	5.80%	2025	Engine 12

Property loss from 2021 through 2025 has shown a steady increase, ranging from \$6,754,014 to \$7,592,329. Several significant incidents contributed to these totals. In 2022, a second-alarm commercial fire in District 11 (Chester) resulted in \$1,686,068 in property loss. In 2024, a lightning strike ignited a fire at the Padnos Recycling Center in District 3 (Bridge), causing more than \$2 million in damages. Most recently, in 2025, District 4 experienced a major loss of \$2,196,150 due to a second-alarm fire at a multi-family condominium building.

2021-2025 Property Loss					
District	2021	2022	2023	2024	2025
1	\$ 162,100	\$ 534,710	\$ 208,016	\$ 164,176	\$ 444,951
2	\$ 227,791	\$ 717,072	\$ 357,155	\$ 692,464	\$ 729,528
3	\$ 1,166,298	\$ 610,430	\$ 518,169	\$ 2,896,878	\$ 554,918
4	\$ 739,251	\$ 329,025	\$ 718,621	\$ 948,917	\$ 2,196,150
5	\$ 887,345	\$ 560,869	\$ 1,715,048	\$ 737,226	\$ 947,038
6	\$ 776,219	\$ 46,527	\$ 592,123	\$ 17,055	\$ 49,120
7	\$ 372,393	\$ 52,481	\$ 468,065	\$ 474,825	\$ 215,401
8	\$ 696,801	\$ 250,121	\$ 360,292	\$ 294,417	\$ 385,659
9	\$ 26,793	\$ 530,841	\$ 46,500	\$ 130,735	\$ 127,729
10	\$ 1,114,022	\$ 661,608	\$ 771,357	\$ 279,736	\$ 890,637
11	\$ 585,001	\$ 1,686,384	\$ 725,166	\$ 842,335	\$ 1,047,898
12					\$ 3,300
Total	\$ 6,754,014	\$ 5,980,068	\$ 6,480,512	\$ 7,478,764	\$ 7,592,329

Performance Measurements

Performance is measured against adopted benchmark objectives for concentration, distribution, and for other metrics such as reliability, simultaneous call volume, and unit hour utilization. Benchmark objectives are outlined in the All Hazard Risk Assessment section and the Benchmarks and Baselines section. Initial geographical performance is reviewed at the city wide level, then by first due response district (which double as our primary geographic planning zones). For certain metrics, incident data is further broken down by responding unit, shift, and time of day/ day of the week. Any more detailed analysis is used on an as needed basis, as requested by chiefs or program managers, for program evaluation or call reduction efforts.

Dispatching & Alarm Handling

The process for emergency response starts with **alarm handling**, which includes call answering, alarm processing, and initial dispatching of emergency resources. Since call answering is currently not linked to Motorola CAD incident records, GRFD incident response performance metrics use the adjusted definition (right) to reflect the reportable alarm handling elements. Call answering performance for the last five years is provided by the Grand Rapids Emergency Communications Center (GRECC) in the chart below and reflects the contractual standard for call taking within the Kent County Dispatch Authority.

Complete Alarm Handling

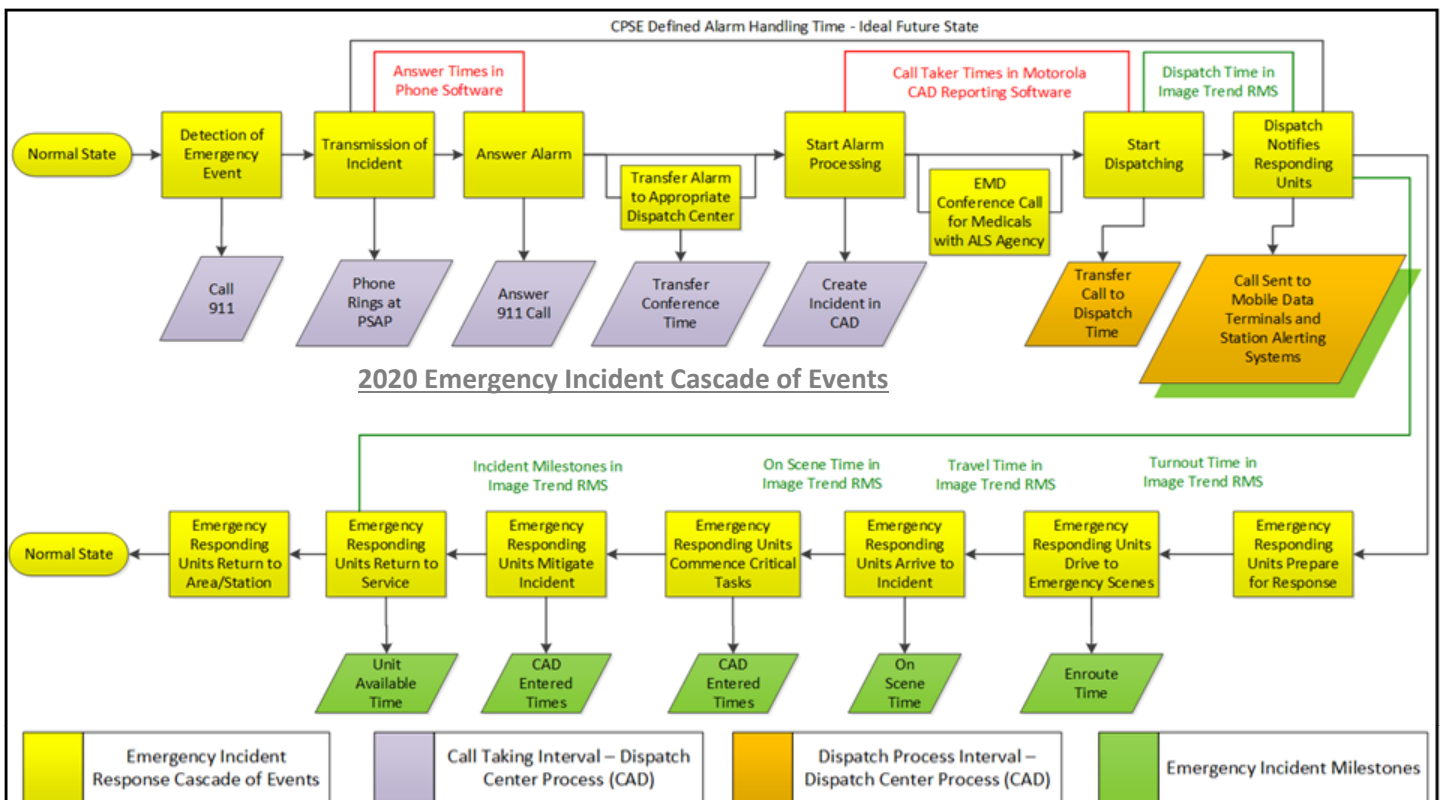
The time interval from when the phone rings to when the initial alarm is sent to available emergency response units.

Reportable Alarm Handling (for GRFD)

The time interval from when an emergency incident is created to when the initial alarm is sent to available emergency response units.

2021-2025 Alarm Answering (Ring to Pickup)					
Goal	2021	2022	2023	2024	2025
95% within 15 seconds	95.14%	95.74%	96.20%	96.40%	96.54%
99% within 40 seconds	99.59%	99.63%	99.68%	99.75%	99.79%

The following diagram shows the full emergency dispatching and response process and provides insights into the current software recording and reporting constraints.



Current protocols in the communications center dictate that incidents are not to be created until a call has been answered. The communications center utilizes its own quality assurance system to track performance compliance and the GRFD's Planning Division notifies them when incidents are identified with unexplainably long alarm handling times. The GRFD and Grand Rapids Emergency Communications Center (GRECC) meet weekly to discuss performance, identify operational gaps, and problem solve.

Once an incident is created in CAD, the remaining times can be tracked in the Motorola CAD database. After the call taker does the initial coding of the incident, it is transferred to the fire dispatcher who then triggers the actual dispatch of fire resources. If the emergency is a medical, GRECC call takers must conference in an emergency medical dispatcher (EMD) who determines the appropriate medical response code, communicates that to the call taker who can then send the incident to fire dispatch. The exception to this is for Med "0" calls, where basic information is quickly sent to the fire dispatcher to speed up the response for critical EMS calls, like reports of chest pain, difficulty breathing, or cardiac arrest, that will certainly end up as a full department response. Med 0's accounted for 4,799 runs in 2025, which is 18.97% of the total 25,301 calls that year.

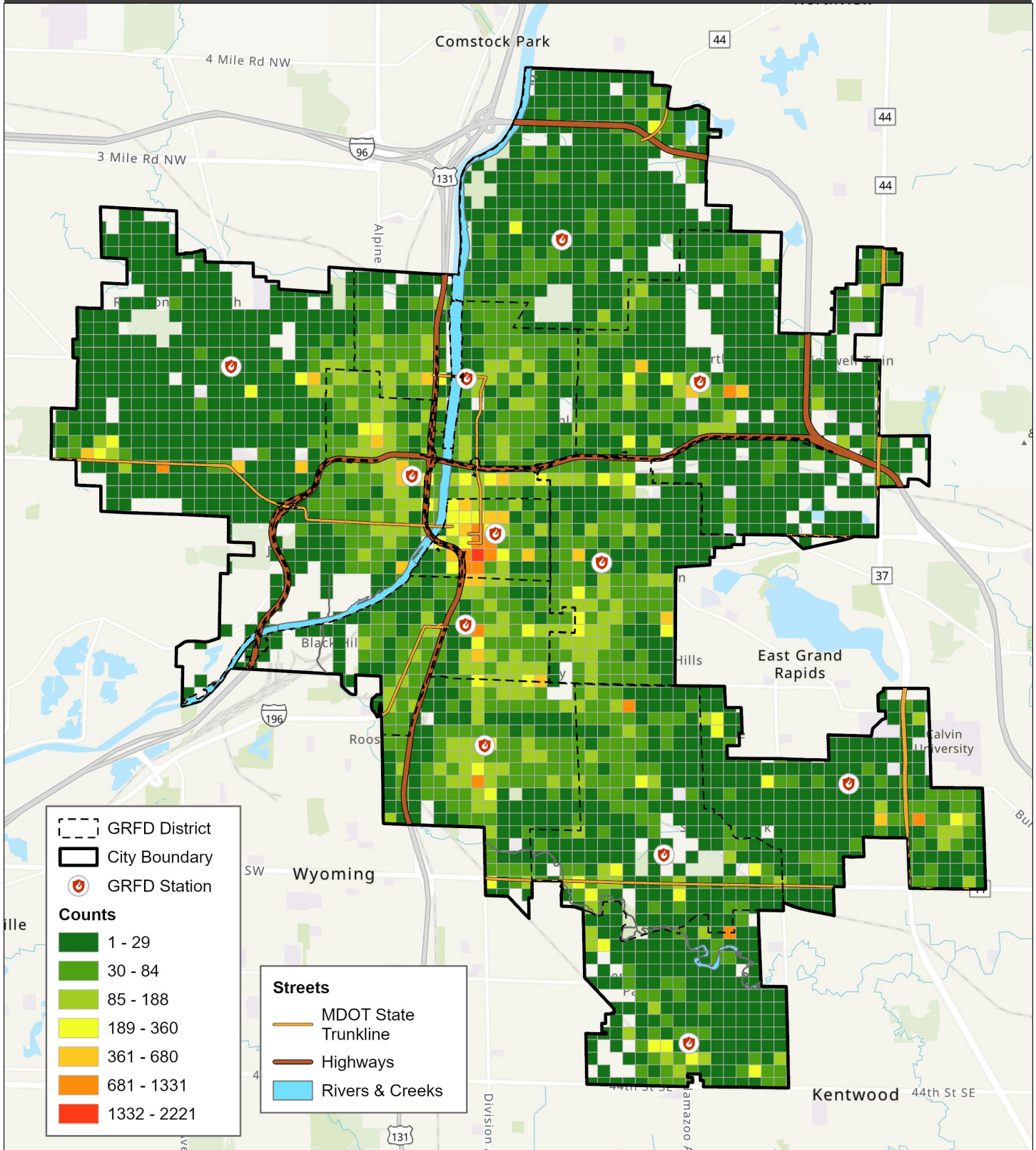
NFPA 1221 section Figure A.7.4.1 addresses alarm transfers, with a goal of not exceeding 30 seconds. The department actively works with GRECC personnel and ALS agencies to find ways to decrease alarm handling times for EMS incidents.

Overview of current alarm handling milestones for response performance reporting:

- **911 Call Receipt Time & Call Answering Time [Phone ring and call pickup]**- Since 2015, the GRFD has been trying to capture phone ring and answering times to incorporate them into the initial call taking time; the current call taking program still does not permit integration of those times with the incidents.
- **CAD Incident Activated Time**- This is the time a call taker places their cursor in a new incident form and is the earliest reliable time available in Motorola CAD for reporting purposes. Incident reviews have discovered that some call takers trigger the timestamp prematurely by interacting with a blank emergency form before a call comes in, leading to some increased Alarm Handling times. An alternate option is to use the CAD Incident Submitted time, which is when the dispatcher submits the call containing the location and call type into the system for processing.
- **Emergency Medical Dispatcher (EMD) Conference Call Time [medical calls only]**- Not available for reporting.
- **Time Sent to Fire Dispatch**- This time is available within Motorola CAD and also part of the file sent to the GRFD's RMS incident documentation system, ImageTrend.
- **Initial Alarm Time / Initial Unit Notification**- This time is available within Motorola CAD and also part of the file sent to the GRFD's RMS incident documentation system, ImageTrend. The only way we can determine what units and personnel are a part of the initial assignment is to match the unit's notification time with the incident's initial alarm time.

In October of 2021, the antiquated Z-tron station alerting system started to fail, resulting in its full deactivation. Between December 2021 and July 2024, station alerting was done through a manual pager and unit dispatch system that caused alarm handling to suffer longer times. It wasn't until July 16, 2024 that the new station alerting system PhoenixG2 was implemented, which allows for zoned alerting and visual notifications. Unfortunately another syncing delay was discovered that first year of implementation that still caused a delay in dispatching times; this was resolved in June 2025 with an internal coding fix. The fluctuation in GRFD's reportable alarm handling is evident in the baseline performance section of this document.

2021-2025 All Call Types



Optimized Heat Map of Emergency alarms with
Natural Jenks classes in 200 meter grids, using
NAD1983 Projection

Only calls within Grand Rapids are shown; Overlaid
with Response Districts (GPZs) and City Boundary line.

Incidents Found by District

Districts 3, 4, and 7 (Bridge, Kalamazoo and La Grave) each account for more than 10% of incidents in the city (38.19%) so having multiple units at those stations is crucial to manage that service demand. Since the last accreditation cycle, the largest overall jump is in District 1 (Leonard), from 8.54% to 9.09% of total city incidents.

All	District	2021	2022	2023	2024	2025	Total	% of Incidents
	1	1,919	2,147	2,307	2,449	2,496	11,318	9.09%
	2	2,146	2,098	1,899	2,092	2,031	10,266	8.25%
	3	2,866	2,921	2,866	2,870	2,883	14,406	11.57%
	4	3,094	3,267	3,281	3,333	2,951	15,926	12.79%
	5	2,077	1,986	2,068	2,078	1,901	10,110	8.12%
	6	1,419	1,400	1,437	1,514	1,592	7,362	5.91%
	7	2,948	3,336	3,863	3,507	3,545	17,199	13.82%
	8	1,586	1,678	1,764	1,790	1,949	8,767	7.04%
	9	1,105	1,159	1,145	1,079	1,158	5,646	4.54%
	10	2,611	2,572	2,217	2,413	2,125	11,938	9.59%
	11	2,085	2,073	2,079	2,203	2,258	10,698	8.59%
	12	0	0	0	0	324	324	0.26%
	Other	130	99	109	87	88	513	0.41%
	Total	23,986	24,736	25,035	25,415	25,301	124,473	

The highest volume of fire incidents found are in Districts 2, 3, and 10 (Martin Luther King Jr, Bridge, and Division) with a combined 34.55% of city totals. Districts 4, 5, and 11 (Kalamazoo, Monroe, and Chester) have another 31.33% of fire incidents; Multiple districts' fire percentages fell from the last accreditation cycle; District 1 (Leonard) had the largest increase from 5.96% to 7.44%.

Fire	District	2021	2022	2023	2024	2025	Total	% of Fire Incidents Found
	1	30	46	52	45	30	203	7.44%
	2	64	65	68	67	47	311	11.40%
	3	59	68	68	67	53	315	11.55%
	4	71	58	51	46	62	288	10.56%
	5	57	63	71	50	51	292	10.70%
	6	27	25	15	15	21	103	3.78%
	7	39	42	43	53	36	213	7.81%
	8	32	27	37	25	35	156	5.72%
	9	22	34	24	23	29	132	4.84%
	10	67	66	51	74	59	317	11.62%
	11	58	61	50	54	51	274	10.04%
	12	0	0	0	0	4	4	0.15%
	Other	30	18	28	22	22	120	4.40%
	Total	556	573	558	541	500	2,728	

EMS incidents account for 67.20% of city incidents, largely driven by district socio-economic characteristics. Districts 3 and 7 (Bridge and La Grave) have large populations of underinsured individuals; District 4 (Kalamazoo) had the highest population count of the city until District 12 (Kendall) went into service.

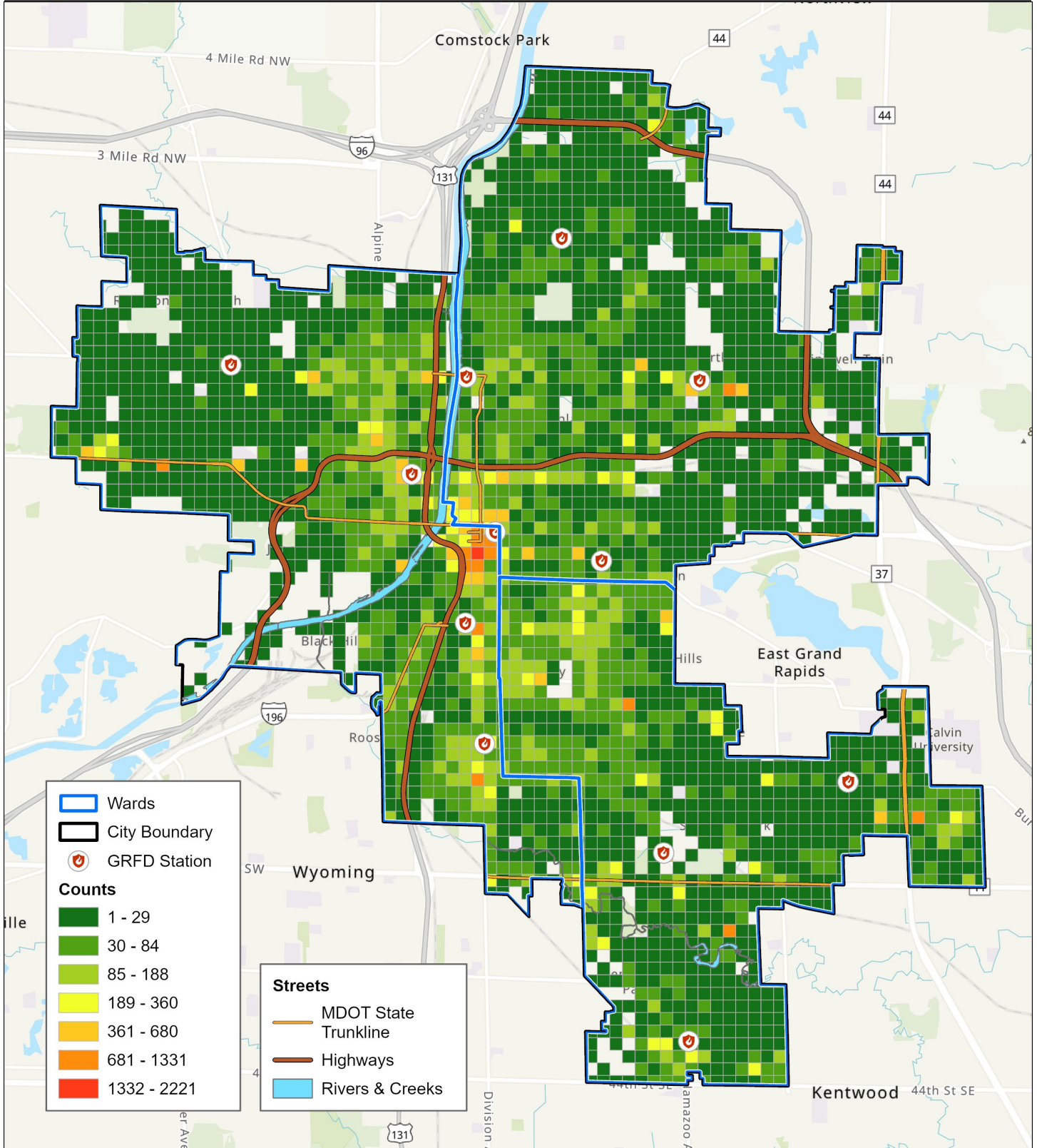
EMS	District	2021	2022	2023	2024	2025	Total	% of EMS Incidents Found
	1	1,399	1,565	1,627	1,645	1,650	7,886	9.41%
	2	1,533	1,402	1,309	1,469	1,389	7,102	8.47%
	3	1,864	1,867	1,878	1,772	1,792	9,173	10.94%
	4	2,147	2,278	2,167	2,122	1,804	10,518	12.55%
	5	1,420	1,321	1,349	1,272	1,234	6,596	7.87%
	6	1,057	1,062	999	1,036	1,199	5,353	6.39%
	7	1,992	2,307	2,723	2,431	2,507	11,960	14.27%
	8	1,095	1,171	1,270	1,207	1,292	6,035	7.20%
	9	760	809	727	647	728	3,671	4.38%
	10	1,859	1,853	1,536	1,704	1,512	8,464	10.10%
	11	1,322	1,365	1,375	1,314	1,366	6,742	8.04%
	12	0	0	0	0	218	218	0.26%
	Other	35	28	23	12	9	107	0.13%
	Total	16,483	17,028	16,983	16,631	16,700	83,825	

These incidents consist of hazardous materials, technical and water rescues and many other incident types such as good intents, false alarms, and severe weather or natural disaster events.

NOTE: The charts on this page reflect what the GRFD found when they responded to the emergency, not what they were dispatched to. The Dispatch "call type" and "incident found type" are both important elements to consider when reviewing emergency response data.

Other	District	2021	2022	2023	2024	2025	Total	% of Other Incidents Found
	1	490	536	628	759	816	3,229	8.52%
	2	549	631	522	556	595	2,853	7.52%
	3	943	986	920	1,031	1,038	4,918	12.97%
	4	876	931	1,063	1,165	1,085	5,120	13.50%
	5	600	602	648	756	616	3,222	8.50%
	6	335	313	423	463	372	1,906	5.03%
	7	917	987	1,097	1,023	1,002	5,026	13.25%
	8	459	480	457	558	622	2,576	6.79%
	9	323	316	394	409	401	1,843	4.86%
	10	685	653	630	635	554	3,157	8.33%
	11	705	647	654	835	841	3,682	9.71%
	12	0	0	0	0	102	102	0.27%
	Other	65	53	58	53	57	286	0.75%
	Total	6,947	7,135	7,494	8,243	8,101	37,920	

2021-2025 All Call Types by City Ward



Optimized Heat Map of Emergency alarms with
Natural Jenks classes in 200 meter grids, using
NAD1983 Projection

Only calls within Grand Rapids are shown; Overlaid
with Response Districts (GPZs) and City Boundary line.

Statistics by Ward

Though much of the emergency response analysis is viewed by GRFD response district, there have been a growing number of inquiries for a breakdown by Grand Rapids city ward. Some of these requests are from city commissioners, as each ward is represented by two elected officials, and also from the GRFD Prevention Division who, within the last 5 years, transitioned from five custom inspection zones to assigning inspections based on ward.

Ward 1

Area: 16.5 square miles
Number of Fire stations: 5

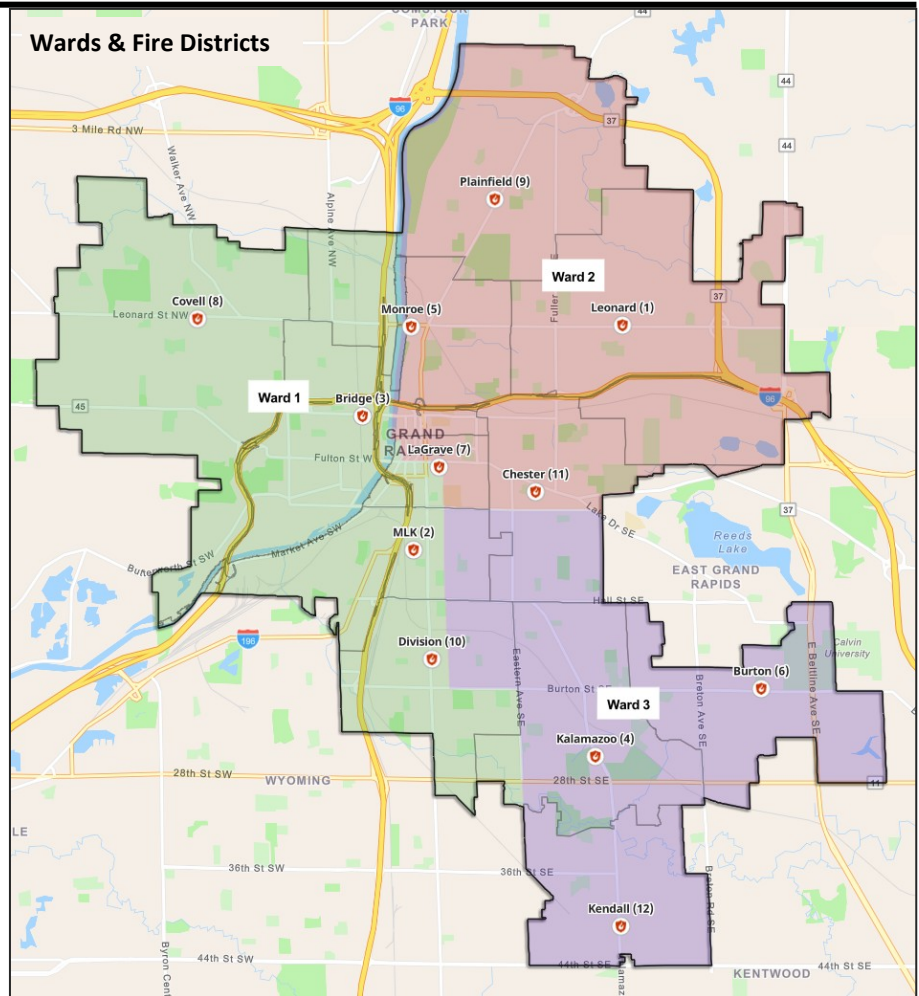
Ward 2

Area: 16.44 square miles
Number of Fire stations: 4

Ward 3

Area: 12.39 square miles
Number of Fire stations: 3

The GRFD also continues to attend “Commission Night Out” events resumed in 2022 after the COVID pandemic pause. These community engagement sessions rotate through each ward in order to bring citizens and city departments together for information sharing, family friendly activities, and a free dinner provided by a local business. The department usually partners with the Office of Emergency Management in making themselves available for questions about their services and GRFD recruitment opportunities.



Fire Call Types by Ward

Ward	2021	2022	2023	2024	2025	Total	% of Incidents
1	388	380	387	435	350	1,940	44.2%
2	208	253	274	243	240	1,218	27.8%
3	250	228	248	253	249	1,228	28.0%
Total	846	861	909	931	839	4,386	

EMS Call Types by Ward

Ward	2021	2022	2023	2024	2025	Total	% of Incidents
1	8,653	8,883	8,772	8,653	8,507	43,468	45.0%
2	4,879	5,142	5,487	5,204	5,585	26,297	27.2%
3	5,292	5,222	5,340	5,502	5,475	26,831	27.8%
Total	18,824	19,247	19,599	19,359	19,567	96,596	

Other Call Types by Ward

Ward	2021	2022	2023	2024	2025	Total	% of Incidents
1	1,635	1,710	1,556	1,821	1,842	8,564	37.8%
2	1,357	1,421	1,505	1,739	1,655	7,677	33.9%
3	1,140	1,331	1,270	1,430	1,257	6,428	28.4%
Total	4,132	4,462	4,331	4,990	4,754	22,669	

Temporal Analysis

The tables evaluate total alarms and further break them down by separating fire and EMS alarms, using a temporal analysis of service demand by time of day and day of the week. Hotter colors (red) indicate periods with higher call volume and increased workload.

Trends in total alarms show the highest service demand during daytime and early evening hours, when community activity is at its peak. Fire related alarms, however, trend higher during the evening and early morning hours, when occupants are less active or sleeping. EMS demand shows a broader pattern, with increased activity spanning from mid morning through late evening.

This information supports the ongoing emphasis on the department's residential fire safety program and reinforces the continued development of GRFD's pilot initiatives focused on medical priority and wellness based response.

Temporal Analysis - All Alarms								
Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
00:00-00:59	151	103	95	105	116	105	152	827
01:00-01:59	139	70	88	100	77	98	97	669
02:00-02:59	112	78	71	100	75	84	117	637
03:00-03:59	96	66	62	75	58	72	91	520
04:00-04:59	58	57	64	87	72	59	86	483
05:00-05:59	83	71	71	80	66	66	90	527
06:00-06:59	114	99	94	108	105	95	89	704
07:00-07:59	110	121	131	131	115	106	118	832
08:00-08:59	117	174	174	165	151	167	120	1,068
09:00-09:59	148	176	204	172	170	150	159	1,179
10:00-10:59	140	164	215	200	188	176	162	1,245
11:00-11:59	153	187	195	172	199	197	171	1,274
12:00-12:59	167	184	192	198	178	189	181	1,289
13:00-13:59	182	223	222	233	185	200	202	1,447
14:00-14:59	166	233	219	194	188	212	198	1,410
15:00-15:59	148	224	215	212	219	222	201	1,441
16:00-16:59	181	190	247	230	204	207	194	1,453
17:00-17:59	182	233	187	214	226	203	202	1,447
18:00-18:59	195	161	207	195	194	158	197	1,307
19:00-19:59	191	183	169	172	174	157	176	1,222
20:00-20:59	183	171	193	198	179	170	194	1,288
21:00-21:59	157	131	167	150	172	176	170	1,123
22:00-22:59	131	136	131	125	141	163	172	999
23:00-23:59	118	119	110	114	135	167	147	910
Total	3,422	3,554	3,723	3,730	3,587	3,599	3,686	25,301

Temporal Analysis - Fires								
Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
00:00-00:59	6	1	3	2	4	2	4	22
01:00-01:59	2	2	1	3	3	2	1	14
02:00-02:59	4	2	0	1	0	2	3	12
03:00-03:59	3	2	3	3	1	0	0	12
04:00-04:59	0	0	3	0	0	0	3	6
05:00-05:59	0	3	1	1	1	2	2	10
06:00-06:59	3	1	0	1	2	1	4	12
07:00-07:59	2	1	3	1	2	2	1	12
08:00-08:59	2	2	5	3	2	2	2	18
09:00-09:59	1	2	1	4	3	2	1	14
10:00-10:59	3	2	5	2	3	3	3	21
11:00-11:59	0	3	7	3	3	1	4	21
12:00-12:59	2	3	1	2	6	0	5	19
13:00-13:59	2	5	6	1	2	3	3	22
14:00-14:59	4	5	4	3	4	4	4	28
15:00-15:59	3	5	5	2	6	3	5	29
16:00-16:59	4	3	1	3	2	4	5	22
17:00-17:59	6	7	6	5	7	4	2	37
18:00-18:59	7	6	5	4	6	7	6	41
19:00-19:59	7	3	4	3	4	2	4	27
20:00-20:59	10	5	3	3	0	2	4	27
21:00-21:59	4	2	5	4	5	2	2	24
22:00-22:59	3	2	2	3	1	7	6	24
23:00-23:59	3	0	2	2	3	10	6	26
Total	81	67	76	59	70	67	80	500

Temporal Analysis - EMS/ Rescues								
Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
00:00-00:59	94	68	65	82	77	69	101	556
01:00-01:59	97	33	62	59	49	70	68	438
02:00-02:59	72	48	51	65	49	54	66	405
03:00-03:59	65	42	36	44	40	46	66	339
04:00-04:59	42	41	44	64	47	44	55	337
05:00-05:59	65	47	48	47	44	40	50	341
06:00-06:59	81	60	55	71	75	62	59	463
07:00-07:59	68	83	89	99	67	68	86	560
08:00-08:59	71	116	121	109	104	113	79	713
09:00-09:59	107	128	121	110	113	97	103	779
10:00-10:59	87	122	146	133	130	118	109	845
11:00-11:59	95	127	128	107	125	136	115	833
12:00-12:59	113	123	139	124	116	118	120	853
13:00-13:59	122	155	126	158	120	137	127	945
14:00-14:59	102	147	137	130	118	147	125	906
15:00-15:59	93	145	150	143	142	151	135	959
16:00-16:59	115	134	164	171	137	137	125	983
17:00-17:59	126	154	124	148	149	132	146	979
18:00-18:59	130	100	129	121	129	101	133	843
19:00-19:59	134	137	110	105	126	98	120	830
20:00-20:59	115	115	119	140	118	118	111	836
21:00-21:59	107	87	110	92	108	120	105	729
22:00-22:59	92	89	80	85	78	108	114	646
23:00-23:59	72	75	80	71	86	95	103	582
Total	2,265	2,376	2,434	2,478	2,347	2,379	2,421	16,700

Critical Performance Metrics

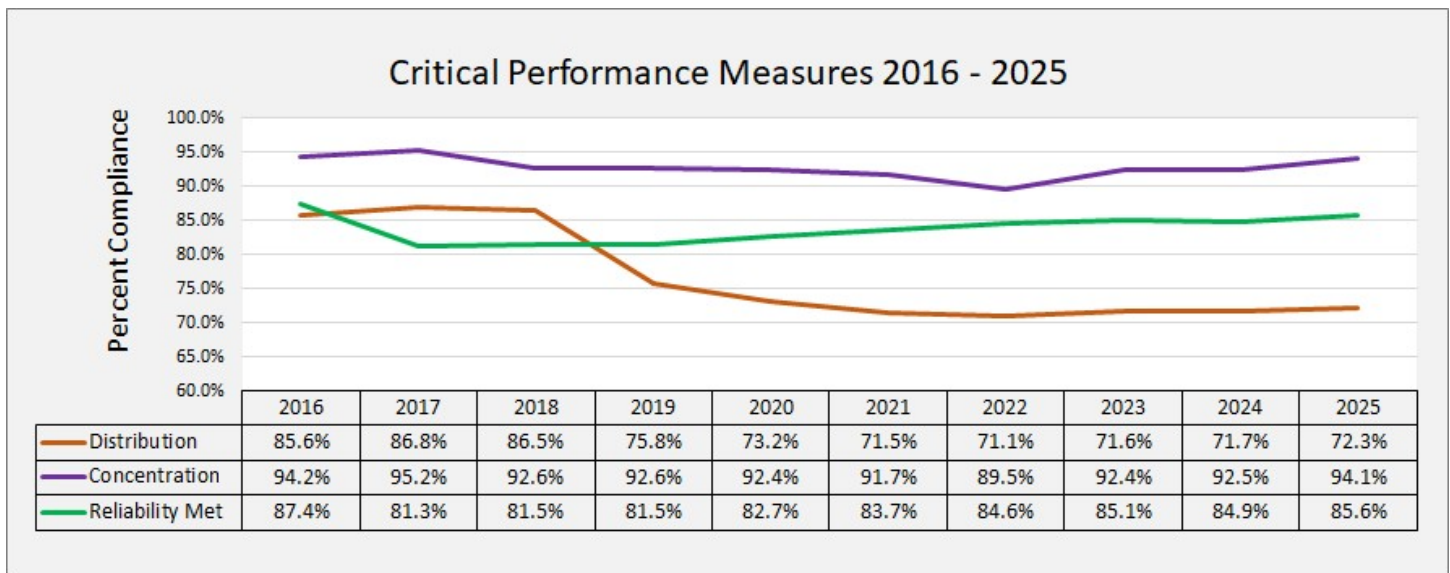
Distribution: The percentage of incidents where a unit gets on scene within its Benchmark time.

Concentration: The percentage of incidents where the ERF is met within its Benchmark time OR initial units cancel the remaining response force within its Benchmark time.

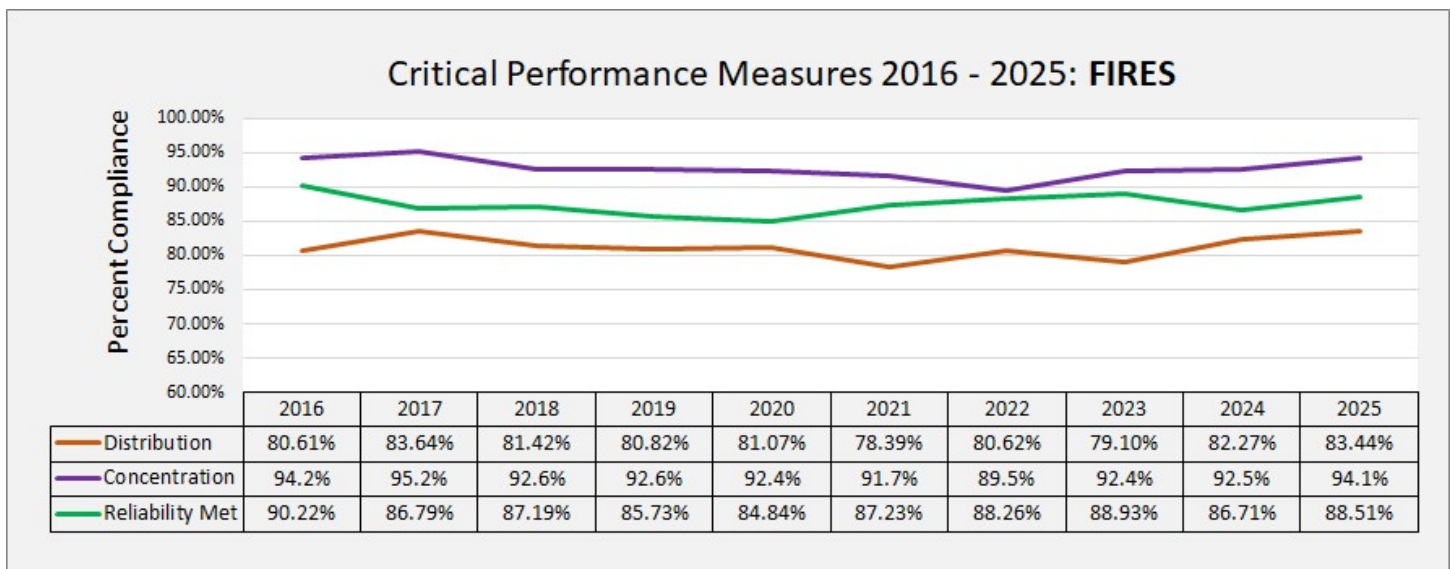
Reliability: The percentage of incidents where a unit responds within its own district.

In addition to running a 90th percentile analysis, the GRFD generates the following chart for City management to show the pass rate of our critical metrics when compared against a 90% compliance goal. This helps to demonstrate, in simplest terms, the trends over time and is useful as a starting point when discussing fire response time metrics.

While distribution and reliability reflect all applicable incidents for that year, concentration is limited to Multi-Unit Fire responses only. This decision was determined over 10 years ago, in order to focus on Fire type alarms. In 2019, the GRFD started using the “CAD Incident Create” as the start time for calculating these metrics; the previous (and later) start time was when the call taker sent the call to the fire dispatcher.



For purposes of comparison, the chart below shows all three metrics reflecting Fire type alarms only. As shown, both



Citywide Distribution Analysis

Distribution by Response Districts									
District	Total Area (sq mi)	Area Covered (sq mi)	% of Total Square Miles	Total Road Miles	Road Miles Covered	% of Total Road Miles	Total Residential Occupancies	Residential Occupancies Covered	% of Total Residentials Covered
1	6.92	5.40	77.99%	93.08	83.73	89.95%	5,031	4,947	98.33%
2	2.61	2.33	89.37%	59.84	58.34	97.50%	2,924	2,953	100.99%
3	3.26	2.65	81.54%	80.04	79.57	99.41%	4,982	5,066	101.69%
4	3.84	3.78	98.28%	69.40	69.03	99.46%	6,143	6,148	100.08%
5	2.89	2.88	99.65%	71.47	71.40	99.90%	4,893	4,946	101.08%
6	3.48	3.42	98.19%	56.13	55.97	99.71%	2,816	2,812	99.86%
7	0.93	0.93	100.00%	25.03	25.03	100.00%	961	973	101.25%
8	7.29	5.57	76.44%	99.96	94.17	94.21%	6,863	6,712	97.80%
9	5.17	4.53	87.57%	78.49	77.05	98.16%	6,298	6,300	100.03%
10	2.94	2.93	99.47%	67.69	67.46	99.65%	5,069	5,080	100.22%
11	3.03	3.01	99.17%	83.57	83.18	99.54%	7,098	7,189	101.28%
12	2.92	2.58	88.22%	44.78	43.64	97.45%	2,897	2,777	95.86%
Total	45.28	39.99	88.32%	829.50	808.57	97.48%	55,975	55,903	99.87%

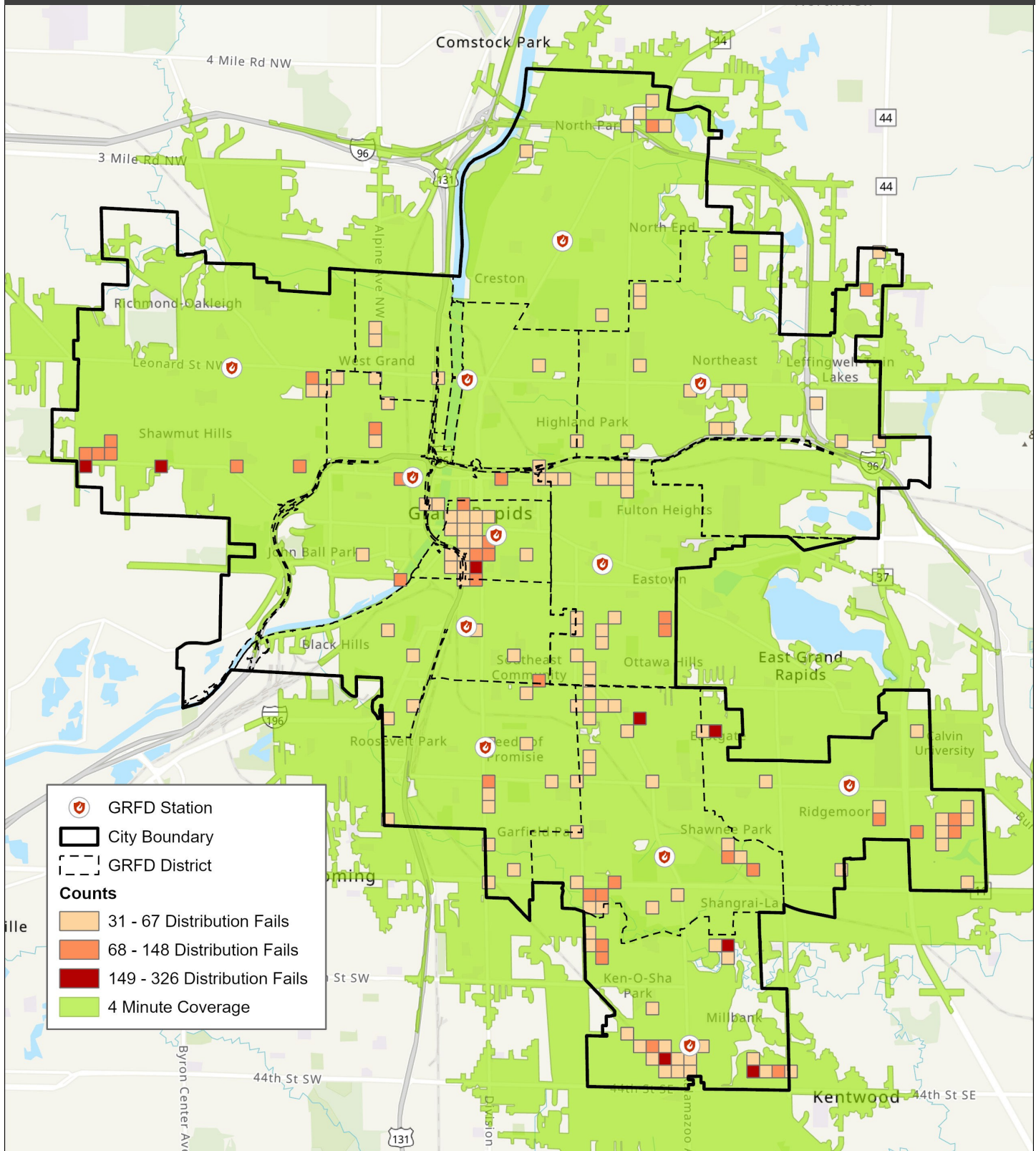
In September 2025, Grand Rapids opened its 12th fire station in the newly created District 12 (Kendall). This is due in large part to ongoing distribution failures in the District 4's (Kalamazoo) first-due area, where performance ranged from 48.70% to 59.78% in 2025. The core city districts generally achieve acceptable distribution times because they are more compact, while outlying districts tend to cover larger geographic areas and experience longer travel times.

Each district has unique characteristics related to population, density, road miles, building construction, and socio-economic conditions. Street design also affects response times. Some areas have wide travel lanes, while others include on-street parking and traffic-calming features such as speed humps, traffic circles, medians, and bump-outs, all of which can delay units from arriving on scene.

The size of districts varies significantly, ranging from less than 1 square mile for the downtown crews at La Grave to more than 7 square miles on the northwest side. Residential occupancies also vary widely. For example, the small downtown District 7 (La Grave) contains 973 residential occupancies, while District 11 (Chester), covering just over 3 square miles, contains 7,189 residential occupancies.

5 Year Detailed Distribution by District															
District	2021			2022			2023			2024			2025		
	Applicable Incidents	1st On Scene Passes	Distribution Rate %	Applicable Incidents	1st On Scene Passes	Distribution Rate %	Applicable Incidents	1st On Scene Passes	Distribution Rate %	Applicable Incidents	1st On Scene Passes	Distribution Rate %	Applicable Incidents	1st On Scene Passes	Distribution Rate %
1	1,502	963	64.11%	1,692	1,074	63.48%	1,775	1,163	65.52%	1,879	1,252	66.63%	1,779	1,188	66.78%
2	1,758	1,456	82.82%	1,663	1,368	82.26%	1,552	1,252	80.67%	1,644	1,323	80.47%	1,455	1,183	81.31%
3	2,176	1,711	78.63%	2,195	1,733	78.95%	2,216	1,778	80.23%	2,087	1,624	77.82%	1,935	1,514	78.24%
4	2,457	1,289	52.46%	2,581	1,257	48.70%	2,536	1,352	53.31%	2,550	1,415	55.49%	2,029	1,213	59.78%
5	1,630	1,237	75.89%	1,516	1,160	76.52%	1,600	1,204	75.25%	1,523	1,161	76.23%	1,357	1,034	76.20%
6	1,187	721	60.74%	1,121	654	58.34%	1,155	691	59.83%	1,205	741	61.49%	1,221	754	61.75%
7	2,351	2,081	88.52%	2,752	2,481	90.15%	3,153	2,791	88.52%	2,880	2,529	87.81%	2,674	2,322	86.84%
8	1,203	777	64.59%	1,280	794	62.03%	1,376	826	60.03%	1,291	799	61.89%	1,300	776	59.69%
9	827	496	59.98%	899	561	62.40%	813	499	61.38%	755	457	60.53%	774	482	62.27%
10	2,110	1,564	74.12%	2,097	1,514	72.20%	1,746	1,261	72.22%	1,929	1,389	72.01%	1,646	1,234	74.97%
11	1,509	1,082	71.70%	1,535	1,144	74.53%	1,581	1,151	72.80%	1,509	1,115	73.89%	1,494	1,087	72.76%
12	0			0			0			0			188	116	61.70%
Total:	18,710	13,377	71.50%	19,331	13,740	71.08%	19,503	13,968	71.62%	19,252	13,805	71.71%	17,852	12,903	72.28%

2021-2026 Distribution Fail Clusters



After September 26, 2025, the addition of the 12th station (Kendall) has added coverage to the southernmost east and west parts of the city, where no GRFD unit deployed from their station could get to within 4 minutes. For details on what distribution looked like prior to this change, see the "Kendall Ave - District 12" pages for concentration and distribution.

Citywide Concentration Analysis

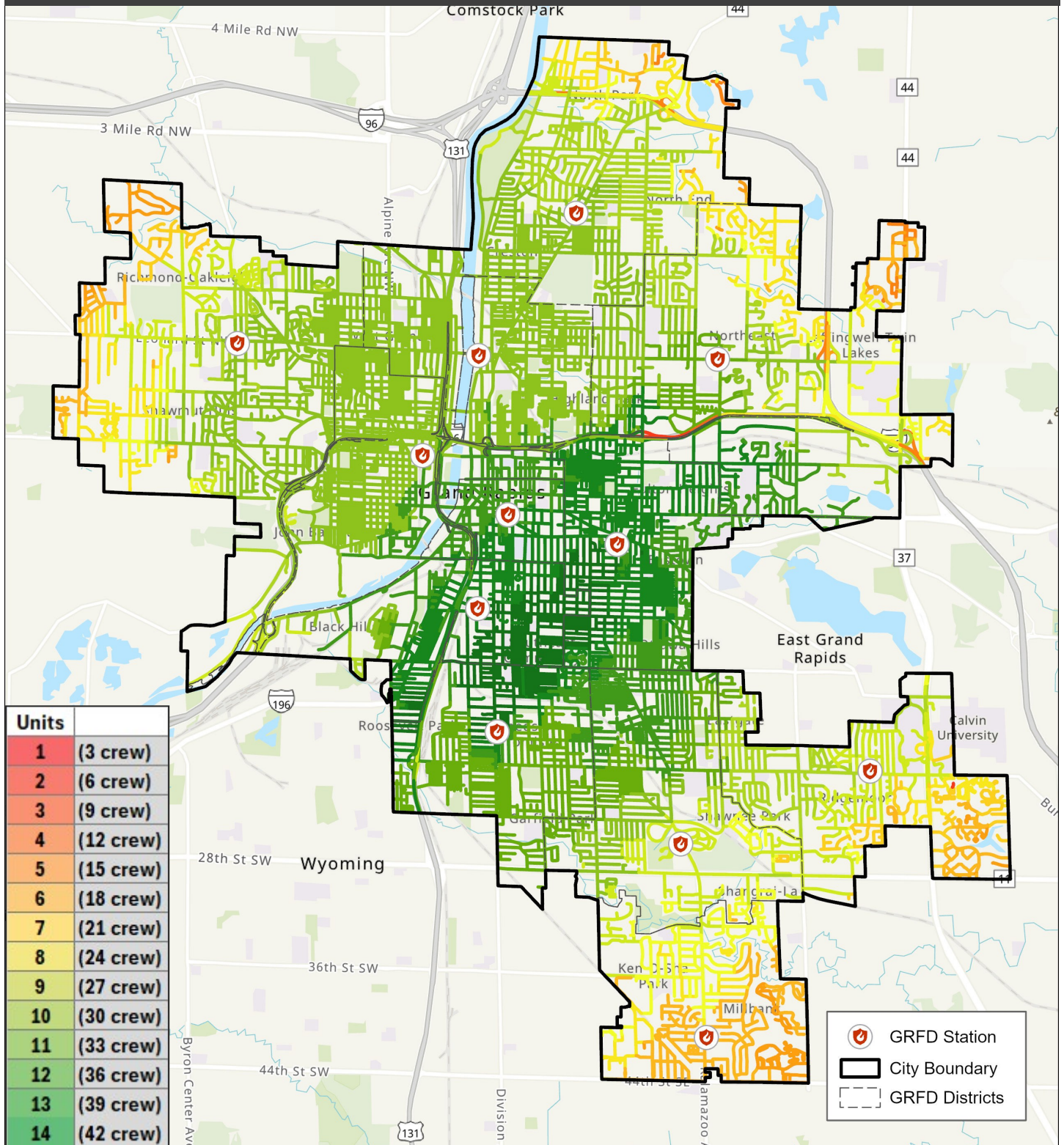
Another factor in evaluating emergency response is not only the arrival of the first unit (distribution), but also the effective response force, or concentration of resources. This map illustrates the number of units that can be assembled in different parts of the city within the multi-unit benchmark travel time of 8 minutes. As expected, the city's core can assemble a greater number of units within this timeframe, shown in green. Moving toward the outer areas of the city, fewer units are able to meet the 8-minute benchmark, which is reflected by the yellow, orange, and red areas. A more detailed view of this map at the district level is provided in the Geographic Planning Zone "District" pages.

Multi-Unit Concentration Failure Analysis

As multi-unit responses reflect more urgent call types, like structure fires and tech rescue responses, concentration failures that involved multiple units are reviewed to determine the reason for the failure and if those reasons can be addressed by the GRFD or not. Though the method used to review these call types has remained largely unchanged over time, the manner in which this information is presented has continued to evolve towards the same goal - express the information in the most straightforward manner possible. The chart below represents the most recent examples of how strategic planners present the information for the chiefs on a monthly or bi-monthly basis. Conversations related to performance metrics are had after general weekly and monthly data reviews of long turnout and travel times and of baseline reviews of incidents that greatly exceed benchmarks.

2024	Concentration Failure Reasons (All Types, Multi-Unit)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ACTIONABLE													
Cancelled/ Re-Dispatched	0	0	0	0	0	0	1	0	0	0	0	0	1
Reliability	3	0	2	3	0	2	0	2	0	3	0	2	17
Known Fail Area	8	1	4	4	4	2	0	3	1	3	6	3	39
General Failure	1	2	5	1	3	2	1	1	2	4	2	4	28
Incident Upgraded Late	0	0	1	1	0	1	1	0	2	0	0	1	7
Total Actionable Failures:	12	3	12	9	7	7	3	6	5	10	8	10	92
Actionable Failure Rate:	12.9%	3.5%	12.1%	8.4%	7.0%	6.9%	3.3%	5.7%	5.0%	8.9%	6.7%	9.2%	7.5%
NON-ACTIONABLE													
Dispatch Error	1	0	0	0	0	0	0	0	0	0	1	0	2
Extended Dispatch Time	0	2	1	2	2	2	0	0	0	2	0	0	11
Highway Access/ Traffic	6	4	5	5	4	4	4	3	8	6	5	5	59
Wrong Location Provided	0	0	0	3	2	0	1	2	3	0	0	1	12
Weather/ Road Conditions	2	0	0	0	0	0	0	0	0	0	1	2	5
Unable to Locate	1	0	0	2	0	0	3	6	4	1	0	0	17
Total Non-Actionable Failures:	10	6	6	12	8	6	8	11	15	9	7	8	106
Non-Actionable Failure Rate:	10.8%	7.0%	6.1%	11.2%	8.0%	5.9%	8.9%	10.5%	15.0%	8.0%	5.9%	7.3%	8.7%
Total Reviewed:	93	86	99	107	100	101	90	105	100	112	119	109	1221
Total Failures:	22	9	18	21	15	13	11	17	20	19	15	18	198
Total Passes:	71	77	81	86	85	88	79	88	80	93	104	91	1023
Total Overall Pass Rate:	74.7%	89.5%	81.0%	79.6%	82.5%	83.0%	82.3%	83.8%	76.9%	83.0%	87.4%	77.8%	83.78%

Concentration (Effective Response Force) Assembly Within 8 Minute Travel Time



After September 26, 2025, the addition of the 12th station (Kendall) has added another crew of 3, resulting in additional coverage to the outlying areas in the south and southeastern part of the city. For details on what the concentration coverage looked like prior to this change, see the "Kendall Ave - District 12" pages for concentration and distribution.

Citywide Reliability Analysis

Reliability metrics provide additional perspective on how often a district remains self-sufficient in answering alarms within its first due area. The use of Automatic Vehicle Location (AVL) has helped ensure that the closest available units respond, though those units do not always correspond with the defined first-due district for a variety of reasons. These include adjusted travel times due to road closures, incidents occurring near district boundaries where another unit may be only a second or two closer, or crews traveling through another district or visiting training facilities or headquarters when they are dispatched to an alarm.

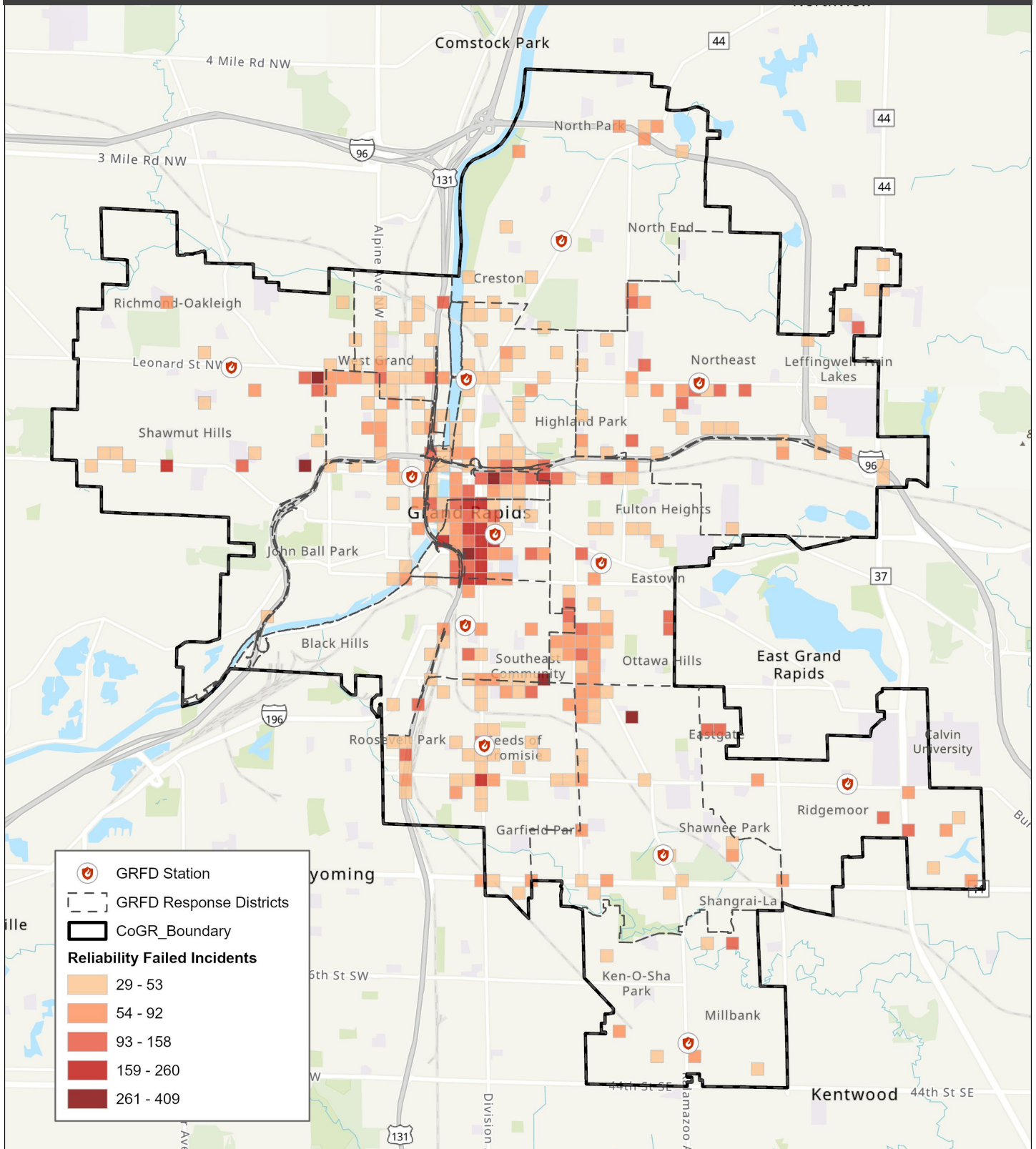
While AVL has made reliability metrics more difficult to verify with precision, the data still provides a useful snapshot by district of where coverage challenges tend to occur. Reliability has improved over the last decade in many districts, while other districts have declined due to the variety of risk, deployment, and technological factors discussed above.

District reliability also varies considerably across the city. The lowest reliability is in District 11 (Chester) at 75.21%, while the highest reliability is in the District 4 (Kalamazoo) at 92.18%

10 Year Reliability by District										
Station	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Bridge	89.88%	79.83%	78.04%	80.14%	81.57%	83.65%	84.93%	82.78%	85.06%	83.76%
Burton	86.87%	83.30%	84.24%	83.41%	84.45%	86.72%	86.43%	86.99%	87.26%	88.53%
Chester	81.17%	73.76%	72.64%	71.56%	65.89%	69.47%	73.99%	77.39%	74.02%	75.21%
Covell	85.19%	77.53%	78.43%	76.87%	79.81%	82.72%	82.65%	84.60%	83.68%	84.34%
Division	82.19%	78.91%	79.86%	76.04%	80.96%	81.53%	81.97%	81.95%	81.46%	83.89%
Kalamazoo	94.13%	86.92%	87.90%	90.93%	91.72%	91.52%	90.97%	92.35%	92.08%	92.18%
La Grave	94.13%	88.29%	85.30%	85.50%	89.10%	88.55%	89.37%	89.82%	89.95%	87.90%
Leonard	85.13%	76.36%	81.29%	78.69%	83.45%	80.50%	82.56%	83.77%	81.99%	85.97%
MLK Jr.	93.07%	81.62%	87.25%	89.02%	88.82%	89.22%	88.41%	88.99%	87.71%	89.44%
Monroe	77.77%	76.35%	74.56%	72.68%	76.42%	77.21%	79.28%	76.23%	78.36%	81.88%
Plainfield	85.38%	84.50%	82.81%	81.37%	85.16%	85.48%	84.30%	84.00%	86.73%	86.98%
CITYWIDE	87.37%	81.29%	81.48%	81.00%	82.66%	83.67%	84.64%	85.06%	84.84%	85.62%

5 Year Detailed Reliability by District															
District	2021			2022			2023			2024			2025		
	Applicable Incidents	1st Due Unit Available	% Reliable	Applicable Incidents	1st Due Unit Available	% Reliable	Applicable Incidents	1st Due Unit Available	% Reliable	Applicable Incidents	1st Due Unit Available	% Reliable	Applicable Incidents	1st Due Unit Available	% Reliable
1	1,917	1,544	80.54%	2,145	1,771	82.56%	2,303	1,929	83.76%	2,449	2,008	81.99%	2,330	2,003	85.97%
2	2,143	1,912	89.22%	2,096	1,853	88.41%	1,891	1,683	89.00%	2,083	1,828	87.76%	1,894	1,694	89.44%
3	2,863	2,395	83.65%	2,913	2,475	84.96%	2,849	2,360	82.84%	2,847	2,422	85.07%	2,697	2,259	83.76%
4	3,089	2,828	91.55%	3,266	2,971	90.97%	3,279	3,029	92.38%	3,332	3,068	92.08%	2,710	2,498	92.18%
5	2,070	1,598	77.20%	1,979	1,569	79.28%	2,048	1,562	76.27%	2,069	1,626	78.59%	1,777	1,455	81.88%
6	1,417	1,222	86.24%	1,399	1,210	86.49%	1,434	1,250	87.17%	1,514	1,322	87.32%	1,474	1,305	88.53%
7	2,941	2,604	88.54%	3,328	2,974	89.36%	3,815	3,424	89.75%	3,470	3,119	89.88%	3,288	2,890	87.90%
8	1,586	1,312	82.72%	1,677	1,386	82.65%	1,756	1,488	84.74%	1,784	1,497	83.91%	1,813	1,529	84.34%
9	1,102	942	85.48%	1,160	978	84.31%	1,119	940	84.00%	1,076	935	86.90%	1,075	935	86.98%
10	2,606	2,125	81.54%	2,569	2,105	81.94%	2,213	1,816	82.06%	2,411	1,964	81.46%	2,017	1,692	83.89%
11	2,082	1,447	69.50%	2,071	1,533	74.02%	2,075	1,608	77.49%	2,199	1,630	74.12%	2,094	1,575	75.21%
12	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	0		#DIV/0!	249	216	86.75%
Total	23,816	19,929	83.68%	24,603	20,825	84.64%	24,782	21,089	85.10%	25,234	21,419	84.88%	23,418	20,051	85.62%

2021-2026 Reliability Fails



Reliability fails show up when an incident is responded to by a unit outside of its district; the presence of large reliability fail clusters in the map above may indicate that an apparatus responded due to being in the area and closer than the district's assigned apparatus or it may mean the district's apparatus was simply unavailable to respond. Only by reviewing the incident notes can the cause be determined.

Simultaneous Calls

The occurrence of multiple calls at the same time serve as a decision point for both the distribution and concentration of resources. When multiple alarms occur in a single district, either a second unit in that district or resources from adjoining districts (or outside agencies) must be utilized for an effective response. Simultaneous calls can also be aggravated by major storms when multiple calls are generated within a short time frame.

When viewing this metric at a citywide level (see chart left), the most recent information indicates a 60.84% chance an alarm would occur while another alarm was in progress.

City Wide Simultaneous	
2016	60.04%
2017	59.60%
2018	63.15%
2019	61.05%
2020	57.88%
2021	61.98%
2022	62.48%
2023	62.72%
2024	60.97%
2025	60.84%

In the last 5 years, District 1 (Leonard) and District 7 (La Grave) have had the largest increase in simultaneous calls while District 4 (Kalamazoo) had the largest decrease (-2.39%). This decrease is mainly due to the new coverage by District 12 (Kendall) which took over 300 calls that would have been responded to by District 4 units. Even after the restructuring of District 4, it still has the highest amount of simultaneous calls in the city (11.15%) in 2025 (chart below). The new Kendall district saw a simultaneous percentage of 4.63% since its opening in late September 2025.

Simultaneous Call Percentage by Station District										
Station	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Bridge	10.01%	11.49%	9.62%	10.62%	10.18%	10.96%	10.48%	11.93%	11.46%	9.95%
Burton	4.80%	5.50%	6.07%	6.90%	5.97%	7.33%	7.43%	6.54%	6.47%	6.41%
Chester	9.00%	11.59%	8.61%	11.80%	8.10%	8.59%	8.63%	7.17%	8.53%	8.28%
Covell	7.31%	9.39%	7.84%	13.15%	7.45%	8.07%	8.10%	8.16%	8.26%	8.62%
Division	9.53%	9.31%	8.00%	9.38%	9.91%	9.07%	10.58%	9.43%	8.91%	7.58%
Kalamazoo	12.73%	13.70%	22.65%	13.07%	10.26%	13.54%	14.05%	10.91%	11.78%	11.15%
La Grave	9.81%	10.49%	11.71%	11.22%	7.88%	9.09%	11.03%	10.61%	10.09%	10.97%
Leonard	9.23%	7.70%	7.57%	12.89%	8.79%	9.28%	10.76%	11.31%	12.41%	10.66%
MLK Jr.	6.61%	7.05%	7.35%	7.85%	7.10%	10.16%	8.06%	9.06%	7.12%	9.01%
Monroe	8.25%	6.75%	7.45%	11.69%	8.41%	9.15%	8.46%	9.00%	9.56%	7.84%
Plainfield	3.96%	5.27%	4.59%	10.40%	5.51%	6.33%	6.56%	9.69%	6.21%	4.75%

Simultaneous Call Volume by Station District										
Station	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Bridge	273	322	235	284	278	314	306	342	329	287
Burton	63	78	82	100	84	104	104	94	98	102
Chester	199	263	174	274	182	179	179	149	188	187
Covell	115	158	128	254	115	128	136	144	148	168
Division	181	188	149	208	253	237	272	209	215	161
Kalamazoo	380	421	676	398	292	419	459	358	393	329
La Grave	358	399	387	354	211	268	368	410	354	389
Leonard	186	148	149	283	167	178	231	261	304	266
MLK Jr.	124	135	134	154	142	218	169	172	149	183
Monroe	149	128	142	224	171	190	168	186	199	149
Plainfield	38	56	46	122	61	70	76	111	67	55

Apparatus Responses

Apparatus response counts assist with evaluating machine workloads, especially for machines who may constantly respond outside their first due district. According to the five year apparatus responses (right), the units assigned to District 2, District 3, and District 7 (Martin Luther King Jr, Bridge, and La Grave) consistently ran over 4,000 responses each year, with District 7 running over 5,000 incidents since 2022. District 4 (Kalamazoo) also had over 4,000 responses each year until 2025, when District 12 (Kendall) went into service and Engine 12 took 324 responses that would have otherwise fallen to the Kalamazoo units.

2021-2025 Apparatus Responses						
District	2021	2022	2023	2024	2025	Responses
1 - Leonard	1942	2270	2367	2490	2616	11,685
2 - MLK	4958	4914	4541	4612	4654	23,679
3 - Bridge	4240	4419	4302	4278	4434	21,673
4 - Kalamazoo*	4041	4226	4158	4329	3975	20,729
5 - Monroe	3552	3556	3389	3588	3594	17,679
6 - Burton	1536	1559	1580	1632	1671	7,978
7 - La Grave	4574	5319	5406	5184	5734	26,217
8 - Covell	1556	1667	1729	1749	1870	8,571
9 - Plainfield	1417	1426	1423	1429	1460	7,155
10 - Division	3804	3725	3162	3429	3159	17,279
11 - Chester	1916	2053	2105	2200	2148	10,422
12 - Kendall					324	324
Total Responses	33,536	35,134	34,162	34,920	35,639	173,391

*Kalamazoo includes Engine 12 responses until 9/26/2025, when Kendall Station went into service.

The data provided in the table below demonstrates the units individual apparatus responses *excluding apparatuses with 1% or less of total annual responses*. Those excluded apparatus responses can be found in the “GRFD Response Districts (Geographic Planning Zones)” pages.

The suppression unit with the largest 5 year increase (+1.41%) is Truck 1, stationed at the Leonard Street Station in District 1. The suppression unit with the largest 5 year decrease (-1.57) is Engine 10, stationed at the Division Avenue Station in District 10.



2021-2025 Apparatus Total Responses & Annual Percentage													
District	Unit	2021		2022		2023		2024		2025		Total	5 yr change
1	Engine 1	3	0.01%	0	0.00%	0	0.00%	164	0.47%	56	0.16%	223	0.15%
2	Engine 2	2944	8.78%	2946	8.39%	2631	7.70%	2754	7.89%	2706	7.59%	13,981	-1.19%
3	Engine 3	2878	8.58%	3031	8.63%	2868	8.40%	2884	8.26%	2965	8.32%	14,626	-0.26%
4	Engine 4	2803	8.36%	2914	8.29%	2959	8.66%	3082	8.83%	2824	7.92%	14,582	-0.43%
5	Engine 5	2367	7.06%	2466	7.02%	2399	7.02%	2552	7.31%	2491	6.99%	12,275	-0.07%
6	Engine 6	1531	4.57%	1558	4.43%	1549	4.53%	1627	4.66%	1667	4.68%	7,932	0.11%
7	Rescue 1	2278	6.79%	2694	7.67%	2690	7.87%	2640	7.56%	2647	7.43%	12,949	0.63%
7	Rescue 2	2252	6.72%	2600	7.40%	2705	7.92%	2532	7.25%	2567	7.20%	12,656	0.49%
8	Engine 8	1556	4.64%	1632	4.65%	1721	5.04%	1744	4.99%	1866	5.24%	8,519	0.60%
9	Engine 9	1417	4.23%	1426	4.06%	1423	4.17%	1429	4.09%	1460	4.10%	7,155	-0.13%
10	Engine 10	2633	7.85%	2651	7.55%	2246	6.57%	2427	6.95%	2238	6.28%	12,195	-1.57%
11	Engine 11	1916	5.71%	2053	5.84%	2105	6.16%	2200	6.30%	2148	6.03%	10,422	0.31%
12*	Engine 12	3	0.01%	24	0.07%	0	0.00%	5	0.01%	406	1.14%	438	1.13%
1	Truck 1	1925	5.74%	2232	6.35%	2341	6.85%	2300	6.59%	2548	7.15%	11,346	1.41%
2	Truck 2	1457	4.34%	1414	4.02%	1274	3.73%	1316	3.77%	1247	3.50%	6,708	-0.85%
3	Truck 3	1320	3.94%	1341	3.82%	1372	4.02%	1349	3.86%	1439	4.04%	6,821	0.10%
4	Truck 4	1224	3.65%	1272	3.62%	1172	3.43%	1228	3.52%	1064	2.99%	5,960	-0.66%
6	Battalion Car 5	1171	3.49%	1074	3.06%	916	2.68%	1002	2.87%	921	2.58%	5,084	-0.91%
10	Battalion Car 6	1174	3.50%	1076	3.06%	969	2.84%	1029	2.95%	1091	3.06%	5,339	-0.44%
2	Utility 2	535	1.60%	531	1.51%	587	1.72%	511	1.46%	667	1.87%	2,831	0.28%
7	Car 97	0	0.00%	0	0.00%	0	0.00%	0	0.00%	512	1.44%	512	1.44%

*Engine 12 was part of District 12 as of 9/26/2025

Apparatus Deployed Hours

The deployed time for a unit is the time it takes to respond to and manage an incident; in technical terms, it is the unit notified time to the unit cleared time. This metric helps an agency understand how long a unit is actively responding to calls and can be used to calculate unit hour utilization, or the percentage of time a unit is committed to an emergency response out of its 24 hour shift. According to the five year apparatus deployed hours (right), the units assigned to District 2 (Martin Luther King Jr) consistently has over

1,500 deployed hours each year; this is mainly due to the Utility 2 hours in addition to its two assigned suppression units. District 7 (La Grave) time has risen to average of 1420 deployed hours a year, making it the second highest, also reflecting the combination of its two assigned suppression units. District 2 (Kalamazoo) started out with the highest number of deployed hours in 2021 (1,322.5) and ended the 2025 year roughly 300 deployed hours less, most likely due to Engine 12 going into full time service.

The data provided in the table below demonstrates the units individual apparatus deployed hours, *excluding apparatuses with 1% or less of total annual responses*. Those excluded can be found in the “GRFD Response Districts (Geographic Planning Zones)” pages.

The suppression unit with the largest 5 year deployment hour increase (+1.76%) is Truck 1, stationed at Leonard Street Station in District 1. The suppression unit with the largest 5 year deployment hour decrease (-1.73) is Engine 10, stationed at the Division Avenue Station in District 10.

2021-2025 Apparatus Deployed Hours						
District	2021	2022	2023	2024	2025	Deployed Hours
1 - Leonard	689.3	842.6	814.6	820.3	894.8	4,062
2 - MLK	1690.3	1541.1	1578.3	1523.6	1615.9	7,949
3 - Bridge	1272.8	1286.9	1229.4	1274.8	1232.1	6,296
4 - Kalamazoo*	1322.5	1370.6	1227.6	1197.3	1090.3	6,208
5 - Monroe	1130.9	1142.6	1069.7	1055.8	1058.5	5,458
6 - Burton	522.4	558.3	483.1	481.9	516.3	2,562
7 - La Grave	1265.5	1408.0	1383.6	1380.6	1662.8	7,101
8 - Covell	549.5	576.8	592.2	583.3	619.7	2,921
9 - Plainfield	459.3	472.8	453.1	454.2	466.8	2,306
10 - Division	1155.9	1099.1	942.7	964.4	882.1	5,044
11 - Chester	579.0	651.4	612.8	632.1	648.3	3,124
12 - Kendall					96.2	96
Total Hours	689.3	842.6	814.6	10,368.3	10,783.9	53,127

*Kalamazoo includes Engine 12 deployed hours until 9/26/2025, when Kendall Station went into service.

2021-2025 Apparatus Deployed Hours & Annual Percentage													
District	Unit	2021		2022		2023		2024		2025		Total	5 yr change
2	Engine 2	875.3	8.23%	782.1	7.14%	783.6	7.54%	788.1	7.60%	783.1	7.27%	4,012	-0.96%
3	Engine 3	810.9	7.62%	843.5	7.70%	778.5	7.50%	819.3	7.90%	792.7	7.35%	4,045	-0.27%
4	Engine 4	869.8	8.18%	921.4	8.41%	831.3	8.00%	811.8	7.83%	719.8	6.68%	4,154	-1.50%
5	Engine 5	750.9	7.06%	788.8	7.20%	743.5	7.16%	740.7	7.14%	747.7	6.94%	3,772	-0.12%
6	Engine 6	512.6	4.82%	558.3	5.10%	474.4	4.57%	480.4	4.63%	510.7	4.74%	2,536	-0.08%
7	Rescue 1	597.3	5.62%	695.2	6.35%	680.4	6.55%	694.1	6.69%	722.6	6.70%	3,390	1.09%
7	Rescue 2	618.3	5.81%	684.3	6.25%	690.5	6.65%	649.2	6.26%	654.1	6.07%	3,296	0.26%
8	Engine 8	549.5	5.17%	568.9	5.20%	587.7	5.66%	582.5	5.62%	618.1	5.74%	2,907	0.57%
9	Engine 9	459.3	4.32%	472.8	4.32%	453.1	4.36%	454.2	4.38%	466.8	4.33%	2,306	0.01%
10	Engine 10	780.3	7.34%	782.0	7.14%	663.5	6.39%	671.1	6.47%	604.3	5.61%	3,501	-1.73%
11	Engine 11	579.0	5.44%	651.4	5.95%	612.8	5.90%	632.1	6.10%	648.3	6.01%	3,124	0.57%
12*	Engine 12	2.3	0.02%	8.2	0.07%	0.0	0.00%	2.6	0.03%	123.2	1.14%	136	1.12%
1	Truck 1	657.0	6.18%	806.1	7.36%	789.0	7.60%	759.3	7.32%	855.2	7.93%	3,867	1.76%
2	Truck 2	470.7	4.43%	420.6	3.84%	399.9	3.85%	408.1	3.94%	420.1	3.90%	2,119	-0.53%
3	Truck 3	423.5	3.98%	400.9	3.66%	404.5	3.89%	393.5	3.80%	416.9	3.87%	2,039	-0.11%
4	Truck 4	411.9	3.87%	419.4	3.83%	387.3	3.73%	359.9	3.47%	332.8	3.09%	1,911	-0.78%
6	Battalion Car 5	375.6	3.53%	317.1	2.90%	279.2	2.69%	293.3	2.83%	277.8	2.58%	1,543	-0.95%
10	Battalion Car 6	363.9	3.42%	345.8	3.16%	309.0	2.97%	299.3	2.89%	297.5	2.76%	1,615	-0.66%
2	Utility 2	313.1	2.94%	301.5	2.75%	360.4	3.47%	299.5	2.89%	374.1	3.47%	1,649	0.53%
7	Car 97	0.0	0.00%	0.0	0.00%	0.0	0.00%	0.0	0.00%	269.3	2.50%	269	2.50%

*Engine 12 was part of District 12 as of 9/26/2025

Apparatus Unit Hour Utilization

Unit Hour Utilization (UHU) is an important indicator of company workload because it measures the share of a 24-hour shift committed to both emergency and non-emergency activities. Unlike incident volume alone, UHU reflects the full operational demand placed on a unit by incorporating emergency response time as well as routine but essential activities such as training, inspections, maintenance, wellness, meals, breaks, and sleep. A typical GRFD 24-hour shift requires that approximately two-thirds of available time be allocated to non-emergency functions necessary to maintain readiness and service quality. This leaves roughly one-third of the shift available for emergency operations. As emergency workload increases, these non-emergency activities are increasingly delayed, reduced, or suspended to preserve response capability.

UHU Triggers

0.15 UHU (approximately 2,500 annual incidents): Actions must be considered to assist unit with meeting emergency and non-emergency workloads, including the health and wellness of the crews.

0.18 UHU (approximately 3,000 annual incidents): Action must be immediately taken to avoid adverse affects on things including (but not limited to) training, maintenance, and sleep. At this level, routine daily functions are frequently disrupted, indicating that the unit is operating under sustained workload pressure.

In both the 2015 and 2020 Standards of Coverage, Engine 4 was identified as having a workload concern, contributing to the addition of a new fire station and engine company placed in service in 2025. Currently, units remain within an acceptable utilization range. Truck 1, the downtown rescue units (Rescue 1 and 2), and near-downtown companies such as Engine 2 and Engine 3, continue to require close evaluation.

Implications

UHU should be viewed as a measure of operational sustainability, not simply activity level. Sustained emergency UHU near 0.15 signals increasing workload pressure, while utilization approaching or exceeding 0.18 indicates that readiness, maintenance, training, prevention activity, and member wellness are being routinely compromised. The GRFD should continue to evaluate UHU alongside incident volume, deployed hours, response performance, and geographic coverage to identify units approaching functional limits and to guide future deployment and resource decisions.

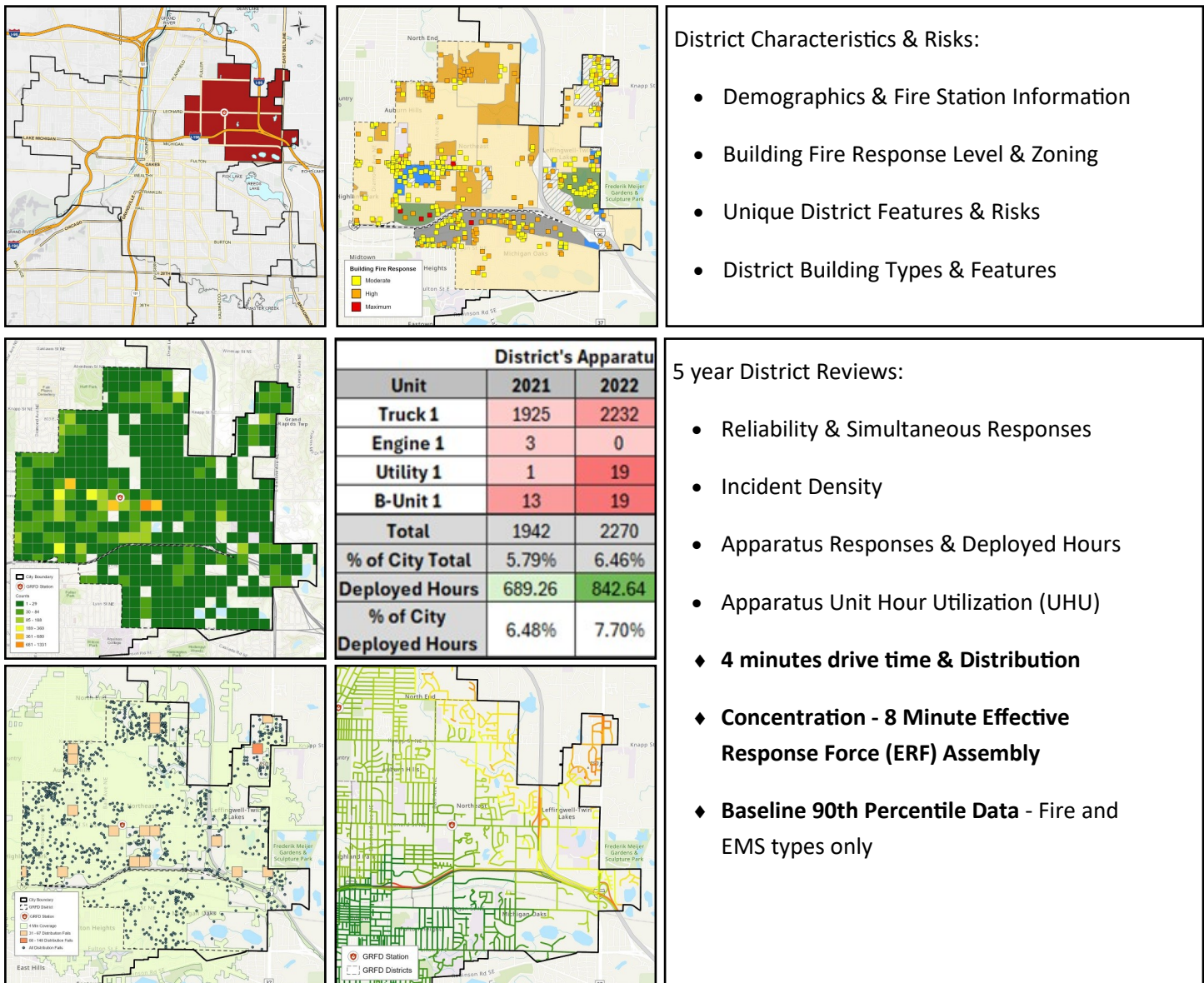
Apparatus Unit Hour Utilization (UHU)						
District	Unit	2021	2022	2023	2024	2025
2	Engine 2	0.15	0.14	0.13	0.14	0.14
3	Engine 3	0.14	0.15	0.14	0.14	0.14
4	Engine 4	0.15	0.16	0.15	0.15	0.13
5	Engine 5	0.13	0.13	0.13	0.13	0.13
6	Engine 6	0.08	0.09	0.08	0.08	0.09
7	Rescue 1	0.11	0.13	0.12	0.12	0.13
7	Rescue 2	0.11	0.12	0.13	0.12	0.12
8	Engine 8	0.09	0.09	0.10	0.10	0.10
9	Engine 9	0.08	0.08	0.08	0.08	0.08
10	Engine 10	0.13	0.13	0.11	0.12	0.11
11	Engine 11	0.10	0.11	0.11	0.11	0.11
1	Truck 1	0.11	0.13	0.13	0.13	0.14
2	Truck 2	0.08	0.07	0.07	0.07	0.07
3	Truck 3	0.07	0.07	0.07	0.07	0.07
4	Truck 4	0.07	0.07	0.06	0.06	0.06
6	Battalion Car 5	0.06	0.05	0.05	0.05	0.05
10	Battalion Car 6	0.06	0.06	0.05	0.05	0.05
7	Car 97	0.00	0.00	0.00	0.00	0.04
12*	Engine 12	0.00	0.00	0.00	0.00	0.02
1	Engine 1	0.00	0.00	0.00	0.01	0.00
2	Utility 2	0.04	0.04	0.05	0.04	0.05

UHU Calculation: Total annual deployment hours plus 15 minutes per incident divided by total annual hours. The addition of 15 minutes per incident accounts for the return to the station, restocking, and completion of required paperwork.



GRFD Response Districts (Geographic Planning Zones)

The following section provides a comprehensive analysis of each district, which are also the department's geographic planning zones. Each district is examined through multiple components to provide a clear understanding of its current community characteristics, risk factors, operational demand, and emergency response capabilities.



- ♦ **4 Minute Drive Time & Distribution:** The district maps show the anticipated coverage area provided by the assigned station based on a four-minute travel time. Drive time calculations are derived from Computer Aided Dispatch (CAD) street speed data.
- ♦ **Concentration—8 Minute ERF Assembly:** The district maps show the ability to assemble an effective response force (ERF) within an 8 minute travel time from the stations throughout the district. Drive time calculations are derived from Computer Aided Dispatch (CAD) street speed data.
- ♦ **Baseline 90th Percentile Data:** District level data is shown for Fire and EMS Low and Moderate alarm types only. Refer to the "Baselines and Benchmarks" section for their full baseline performance review at a citywide level.

Leonard Street - District 1

Station Information

Address: 1755 Leonard St. NE

Built: 1981 (44yrs)

Frontline Apparatus: Truck 1 (Ladder)

Cross Staffed/Reserves: Engine 1, Brush Unit 1



District Quick Look

- Population of 20,038 (10.1% of city total)
- 6.92 sq mi (2,893 population per sq mi)
- 93.08 Road Miles
- 2025 Incidents: 2,496

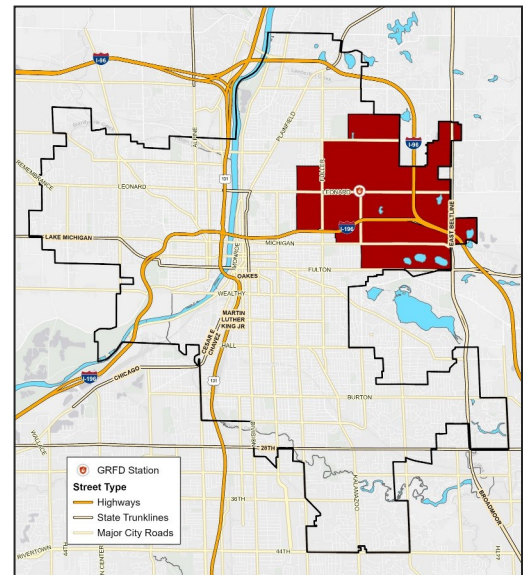


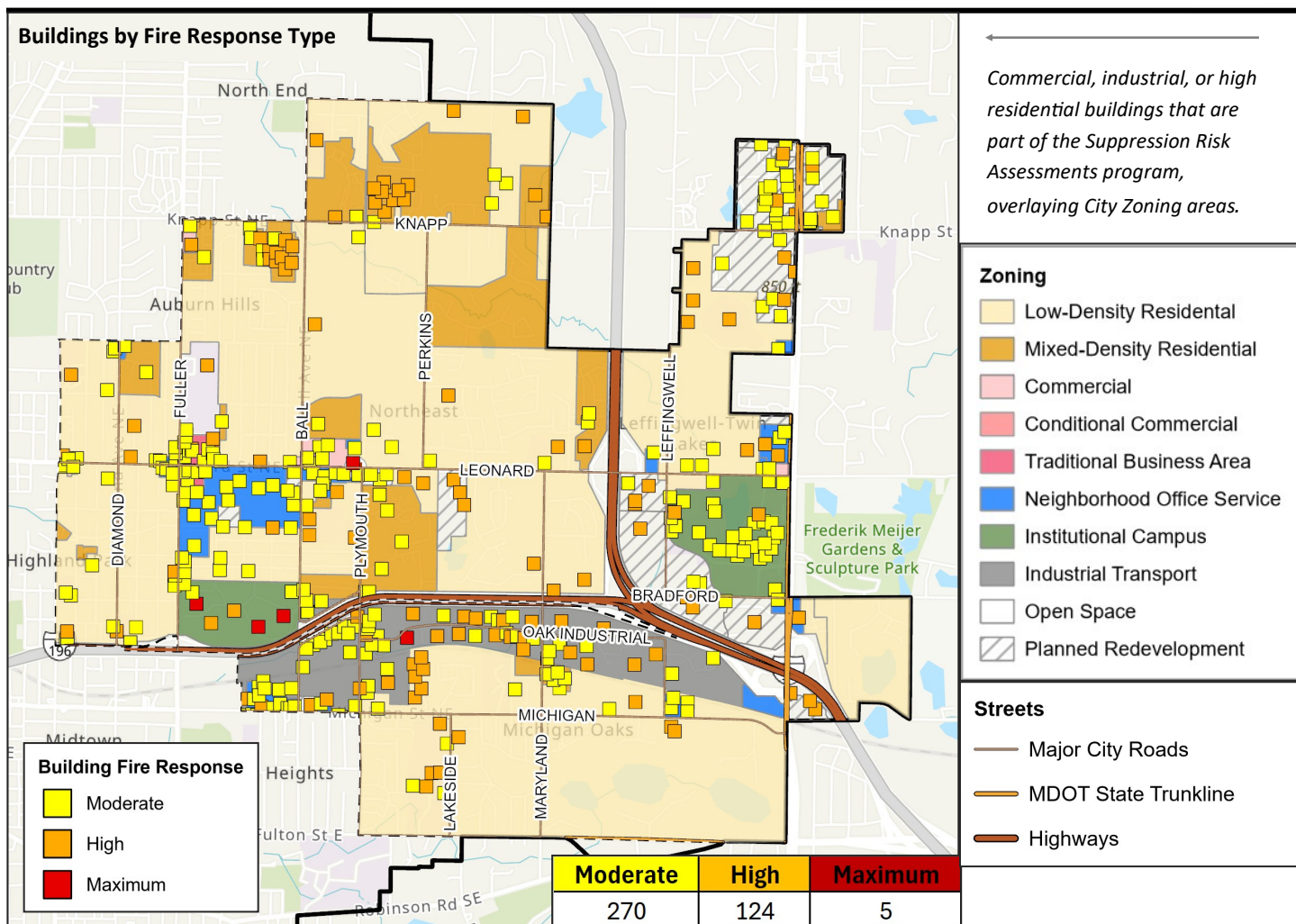
District	Age <5	Age >65	Median Age	Median Income	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
1	1,005	4,244	37.2	\$ 72,065	57	13,445	3,936	538	758	1,408

District Characteristics

District 1 (Leonard) is the second largest district in Grand Rapids in terms of both population and area. It is also one of the top two districts with population growth from 2020 to 2025 (0.43%). The district is situated in the northeast edge of the city and is the easternmost of three stations situated along the Leonard Street corridor.

The district is a heavily residential area encompassing the Auburn Hills, Northeast Citizens Action, and Michigan Oaks neighborhoods and includes pockets of commercial zones along the East Beltline state trunkline and multiple major east-west roadways. One of these zones, Knapp's Corner has experienced increased revitalization and development over the last 5 years. This district also has a small industrial area along the expressway (I-196) running through the southern portion of the district. Cornerstone University, a private Christian university, has a campus in the southeast corner of the district with an annual enrollment of 1,700 to 1,800 students.





District Risk Assessment:

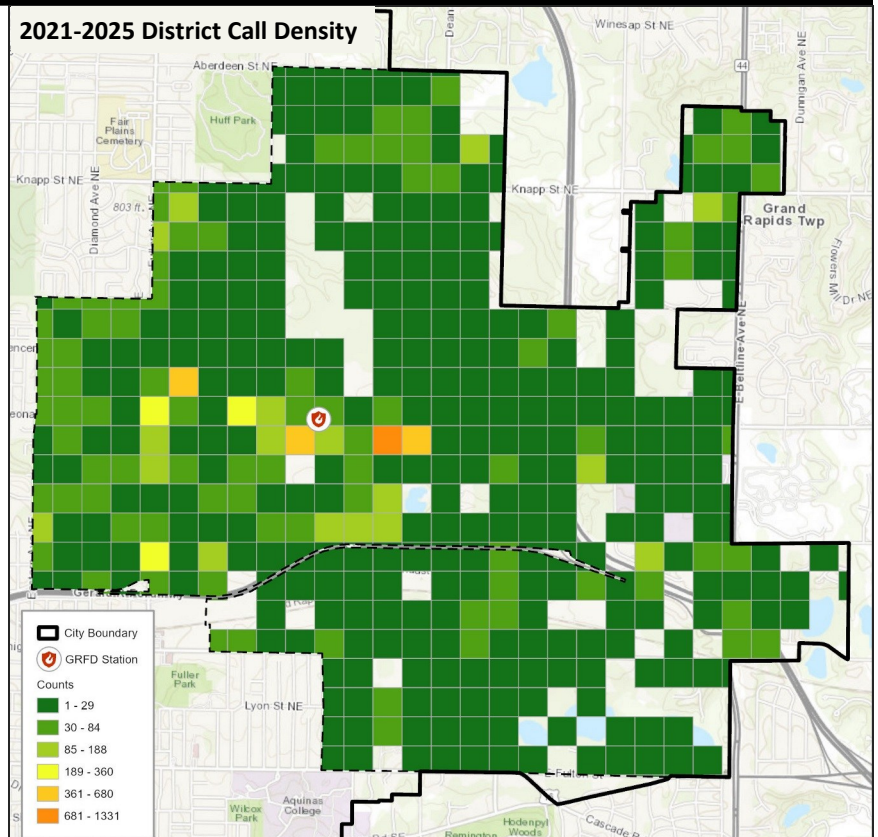
District 1 encompasses 6.92 square miles primarily with residential and commercial occupancies, though there are 26 industrial locations within its one industrial zoning area. Multiple senior living complexes contribute to high EMS incident responses and the Knapp's Corner commercial corridor growth includes residential development in the form of large apartment complexes. The district also contains large manufacturing buildings and an aging commercial area along Leonard Street.

The Leonard Street Station once housed an engine and a truck until the 2009 economic downturn resulted in removing the engine from frontline deployment in 2010. The current development of the district and growth in population demonstrates a need to add an additional company back to this station to help within the increased response and workload. The maximum fire response buildings in this district are limited to a few city or county facilities.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
1	5,031	204	26	57	14,539,107	\$ 769,070,431	\$ 2,006,655,330	65.4	140
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	8.99%	6.04%	9.85%	6.65%	8.69%	11.04%	10.52%	71.28%	11.78%

Response Data

District 1 had the largest overall jump in responses since the last accreditation cycle, from 8.54% to 9.09% of total city incidents. From 2021 to 2025, total incidents have increased by 578, district reliability has remained consistently between 80-86 percent, and simultaneous incidents occur in roughly 9-12% of calls. Retirement living facilities have the highest incident volume in this district (left), with the Medilodge of Grand Rapids retirement facility located in the area of highest incident volume just east of the fire station. Additionally, the district borders Grand Rapids Township, which is experiencing substantial development along the East Beltline with a notable rise in traffic volume and the number of visitors to the area.



Leonard Reliability & Simultaneous Performance					
	2021	2022	2023	2024	2025
Reliability %	80.54%	82.56%	83.76%	81.99%	85.97%
Citywide Reliability %	6.48%	7.20%	7.78%	7.96%	8.55%
Simultaneous Incident Count	268	368	410	354	389
Simultaneous Incident %	9.28%	10.76%	11.31%	12.41%	10.66%

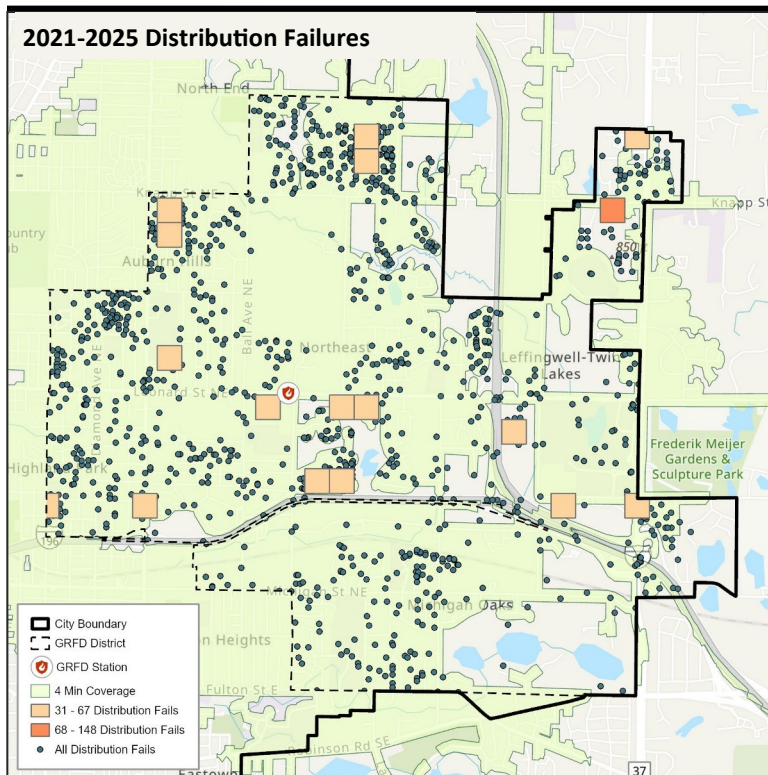
Leonard District Incidents and % of Citywide					
Alarm Type	2021	2022	2023	2024	2025
Fire	60	64	74	69	57
	6.59%	7.08%	7.57%	6.92%	6.28%
EMS	1516	1677	1771	1887	1940
	8.02%	8.68%	9.00%	9.72%	9.88%
Other	342	406	461	493	499
	8.24%	9.05%	10.58%	9.85%	10.47%
Total	1918	2147	2306	2449	2496
	8.00%	8.69%	9.22%	9.64%	9.87%

District Apparatus Responses

Truck 1 recorded 11,346 total responses from 2021 to 2025, making it one of the busier suppression units in the city and increasing its share of citywide apparatus activity from 5.79% to 7.34% over that period. Deployed hours have also risen steadily, increasing from 689.26 hours in 2021 to 894.83 hours in 2025. Engine 1, a reserve apparatus, is occasionally placed in service when department staffing levels exceed 53 personnel, which explains the number of responses recorded for that unit in recent years.

District's Apparatus Responses					
Unit	2021	2022	2023	2024	2025
Truck 1	1925	2232	2341	2300	2548
Engine 1	3	0	0	164	56
Utility 1	1	19	21	5	6
B-Unit 1	13	19	5	21	6
Total	1942	2270	2367	2490	2616
% of City Total	5.79%	6.46%	6.93%	7.13%	7.34%
Deployed Hours	689.26	842.64	814.56	820.26	894.83
% of City Deployed Hours	6.48%	7.70%	7.84%	7.91%	8.30%

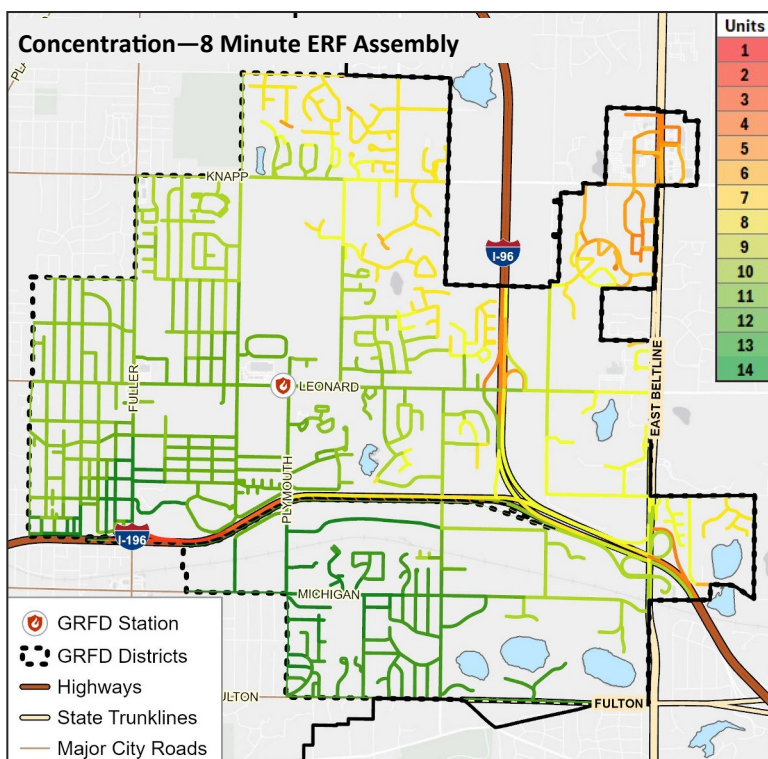
District's Apparatus Unit Hour Utilization (UHU)					
Unit	2021	2022	2023	2024	2025
Truck 1	0.11	0.13	0.13	0.13	0.14
Engine 1	0.00	0.00	0.00	0.01	0.00



Distribution & 4 minute drive time

The 4 minute drive-time coverage and five year distribution failure clusters (left), highlights the distribution challenges associated with covering a district of this size. The largest cluster of distribution fails occurred in the northeastern part of the district (Knapp's Corner) and in other developed residential areas. The presence of high distribution fail clusters near the fire station is most likely due to Truck 1 being unable to respond while on another call. 5-year distribution compliance averages to about 65.3%.

Distribution Incident Passes Over Time					
District 1	2021	2022	2023	2024	2025
Total	1,502	1,692	1,775	1,879	1,779
Passes	963	1,074	1,163	1,252	1,188
% Passes	64.11%	63.48%	65.52%	66.63%	66.78%



Concentration - Effective Response Force

District 1 shows wide variations in effective response force coverage—especially along the eastern border where travel times to outlying areas are longer. Leonard shares borders with three neighboring districts, each staffed with a single frontline apparatus, which further influences response coverage and resource assembly times. There is also a small section of the westbound I-196 highway (southwest part of the district) that can only be reached by one unit within 8 minutes due to access limitations.

Baseline Performance

LEONARD Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:37	0:02:09	0:03:25	0:02:49
Turnout	0:02:08	0:02:04	0:01:53	0:01:59
Travel Distribution	0:06:25	0:04:38	0:05:49	0:06:48
Travel Concentration	0:06:25	0:08:58	0:05:49	0:09:10
Total Response Time Distribution	0:09:53	0:07:51	0:09:38	0:10:35
Total Response Time Concentration	0:09:53	0:12:06	0:09:38	0:12:41
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Total response concentration all fire and EMS low and moderate alarms are over their benchmarks and except for fire moderates, all are more than 2 minutes over. This appears to be caused by long travel times due to the size of the district and availability of Truck 1.

Martin Luther King Jr Street - District 2

Station Information

Address: 115 Martin Luther King St. SW

Built: 1979 (46 yrs)

Frontline Apparatus: Engine 2, Truck 2 (Platform)

Cross Staffed/Reserves: Utility 2, Engine 13, HazMat 1, HazMat 2



District Quick Look

- 2.61 sq mi (5,389 population per sq mi)
- Population of 14,038 (7.1% of city total)
- 59.84 Road Miles
- 2025 Incidents: 2,031



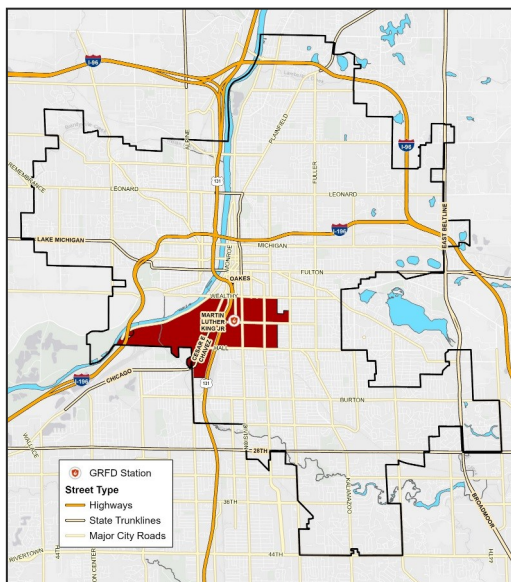
Utility 2 Blocker

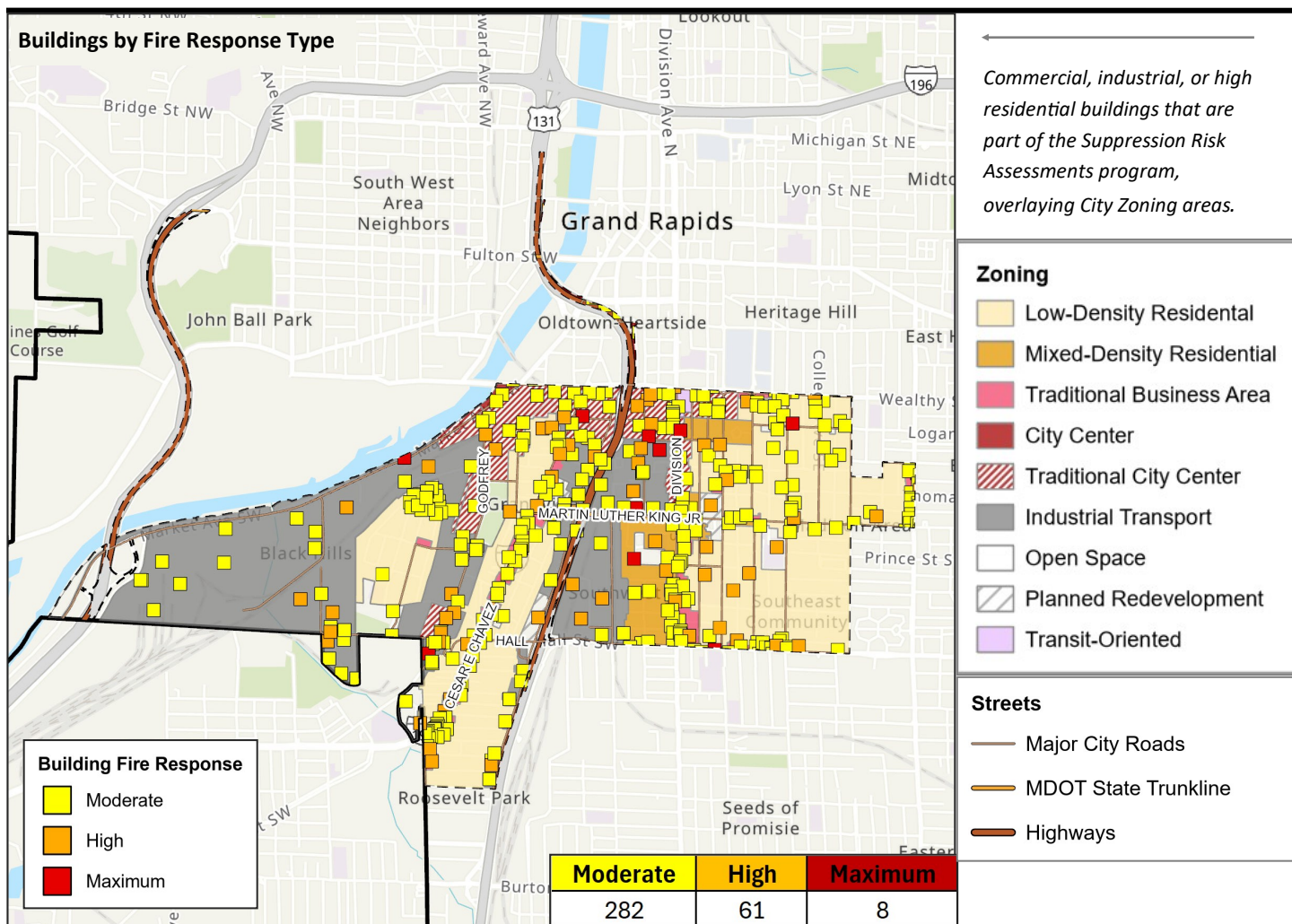


District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
2	1,166	1,130	28.6	\$ 57,130	87	3,858	4,288	123	4,115	6,199

District Characteristics:

District 2 (Martin Luther King Jr - "MLK") is located directly south of downtown in an area with heavy industrial use. The district also straddles US-131, the primary north-south expressway and covers the Black Hills, South Hills, and residential areas not represented by formally organized neighborhood associations. The station has convenient access to US-131 and Division Avenue, a main north-south city roadway. The station is also home to the hazardous materials response team and Utility 2, the converted truck and custom made trailer designed for protecting frontline apparatus on highway incidents.





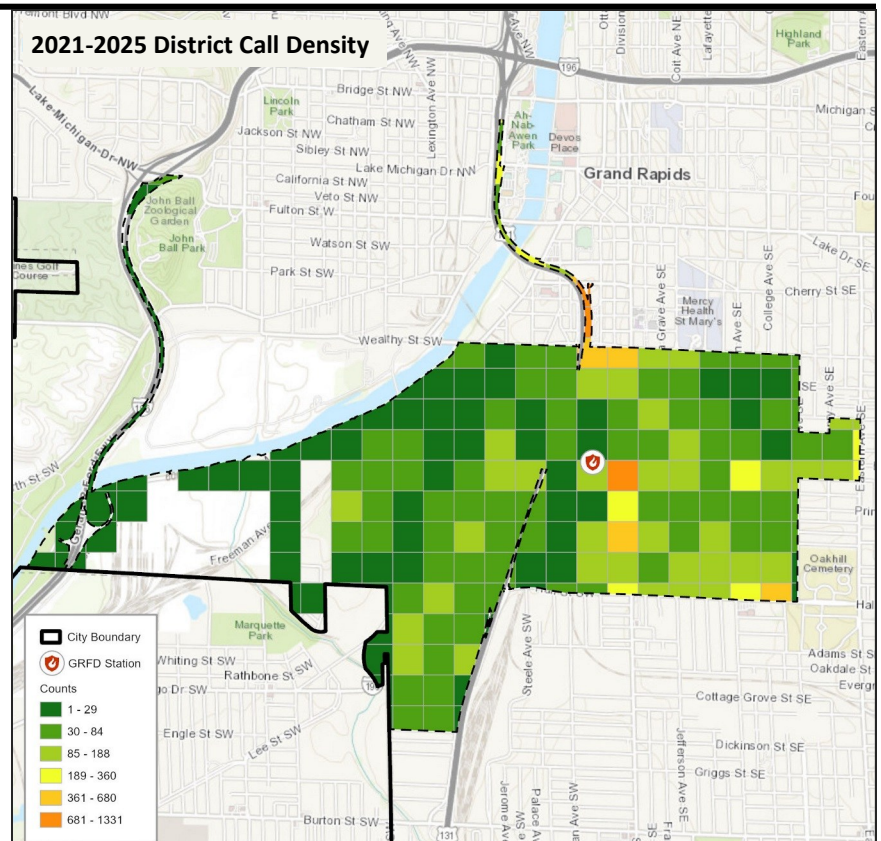
District Risk Assessment:

District 2 covers 2.61 square miles with a population of 14,038. Due to its central location and proximity to major highways, units frequently respond outside the district, especially downtown. The district's fire station houses the GRFD's HazMat team and has seen increased responses to lithium battery incidents citywide. South Division Avenue serves as a major corridor for the city's unhoused population, contributing to call volume along bus stop locations. The district includes revitalized industrial buildings converted to residential use, as well as mixed industrial occupancies near the station. The Kent County Waste-to-Energy plant, operated by Vicinity Energy, supplies electricity to approximately 11,000 homes in this district while reducing landfill space. The maximum fire response buildings in this district are mainly utilities generation, educational establishments, and places of assembly like museums and churches.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
2	2,924	234	42	231	13,151,525	\$ 270,746,783	\$ 930,419,656	108.4	92
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	5.22%	6.93%	15.91%	26.95%	7.86%	3.89%	4.88%	118.12%	7.74%

Response Data

District 2 has remained relatively consistent in its total annual incidents and share of citywide calls over the past five years. Total incidents have ranged from 1,898 to 2,140 annually, accounting for about 7–9% of the city's total call volume. The density map shows the highest concentration of alarms near the intersection of Martin Luther King Jr. Street and South Division Avenue. Division Avenue is a main route for the city's unhoused population that results in many calls for service, especially at the various bus stops. District reliability has remained strong at roughly 87–90%, while simultaneous incidents occur in about 7–10% of calls.



MLK Reliability & Simultaneous Performance					
	2021	2022	2023	2024	2025
Reliability %	89.22%	88.41%	89.00%	87.76%	89.44%
Citywide Reliability %	8.03%	7.53%	6.79%	7.24%	7.23%
Simultaneous Incident Count	178	231	261	304	266
Simultaneous Incident %	10.16%	8.06%	9.06%	7.12%	9.01%

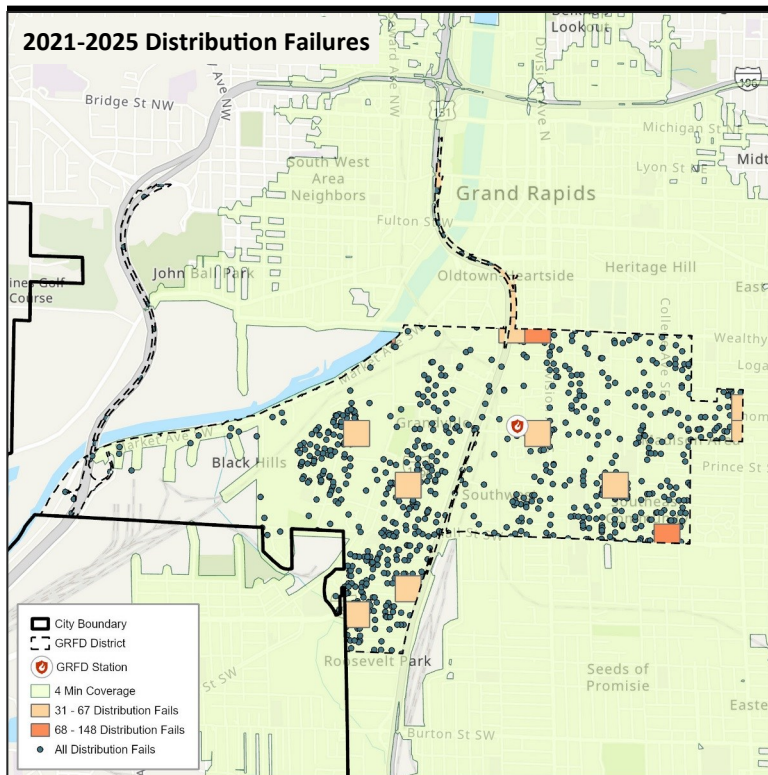
MLK District Incidents and % of Citywide					
Alarm Type	2021	2022	2023	2024	2025
Fire	74	76	104	90	83
	8.13%	8.41%	10.63%	9.03%	9.15%
EMS	1764	1653	1508	1631	1579
	9.33%	8.55%	7.66%	8.40%	8.05%
Other	302	366	286	371	369
	7.28%	8.16%	6.57%	7.42%	7.74%
Total	2140	2095	1898	2092	2031
	8.93%	8.48%	7.59%	8.23%	8.03%

District Apparatus Responses

The two frontline apparatus stationed at MLK Jr Street Station recorded 23,652 total responses from 2021–2025. Engine 2 consistently accounts for the largest share of activity, averaging about 2,700 responses per year and serving as the primary response unit in the district. Truck 2 also handles a significant number of calls, although its responses have gradually declined from 1,457 in 2021 to 1,247 in 2025. Utility 2 responses have increased to 667 in 2025, while HazMat units respond infrequently and are typically incident-driven. Overall, these apparatus responses account for roughly 13–15% of the city's total apparatus activity each year.

District's Apparatus Responses					
Unit	2021	2022	2023	2024	2025
Engine 2	2944	2946	2631	2754	2706
Truck 2	1457	1414	1274	1316	1247
Utility 2	535	531	587	511	667
HazMat 1	10	8	30	13	11
HazMat 2	12	15	19	12	22
Engine 13	0	0	0	6	1
Total	4958	4914	4541	4612	4654
% of City Total	14.78%	13.99%	13.29%	13.21%	13.06%
Deployed Hours	1690.27	1541.10	1578.27	1523.63	1615.91
% of City Deployed Hours	15.89%	14.07%	15.19%	14.70%	14.98%

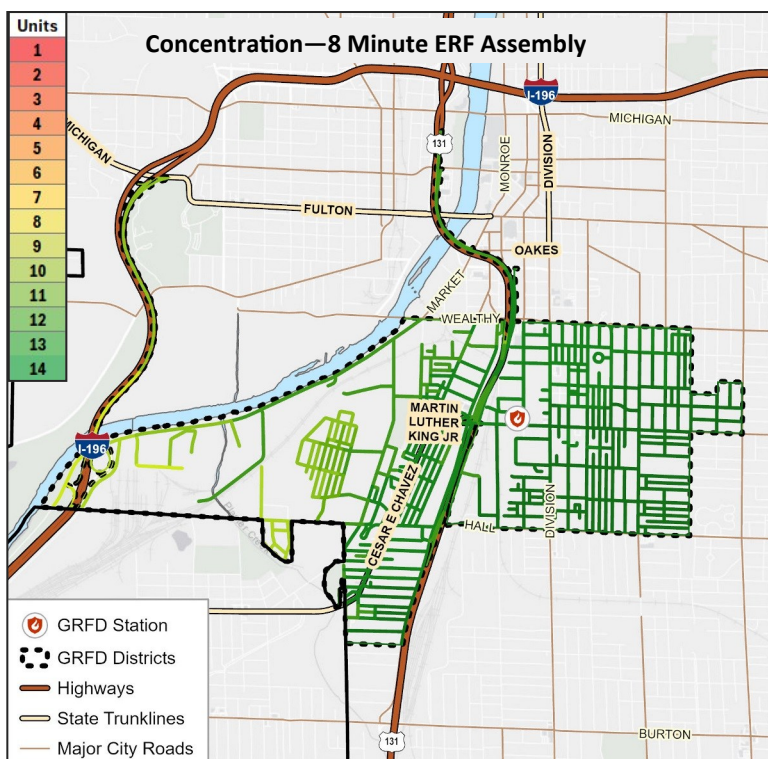
District's Apparatus Unit Hour Utilization (UHU)					
Unit	2021	2022	2023	2024	2025
Engine 2	0.15	0.14	0.13	0.14	0.14
Truck 2	0.08	0.07	0.07	0.07	0.07
Utility 2	0.04	0.04	0.05	0.04	0.05



Distribution - 4 Minute Drive Time

Drive time analysis for District 2 shows fair coverage, with an average of 81% of incidents falling within compliance measures. One spot with high failures for this district is the Black Hills area, an “island” of homes located in an industrial zone with limited access. The route from the station to the Black Hills is through winding neighborhood roads before reaching an industrial area.

Distribution Incident Passes Over Time					
District 2	2021	2022	2023	2024	2025
Total	1,758	1,663	1,552	1,644	1,455
Passes	1,456	1,368	1,252	1,323	1,183
% Passes	82.82%	82.26%	80.67%	80.47%	81.31%



Concentration - Effective Response Force

This map illustrates the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. Concentration data for the MLK district emphasizes its central location within the city, which supports strong response capabilities. With four adjacent districts, a large portion of the area benefits from excellent effective response force coverage. The area with the least amount of coverage is a sparsely populated area along the river in the southwest part of the district.

MLK Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:36	0:01:57	0:03:38	0:03:08
Turnout	0:01:58	0:01:58	0:01:55	0:01:59
Travel Distribution	0:04:46	0:03:24	0:04:10	0:03:54
Travel Concentration	0:04:44	0:07:11	0:04:11	0:04:31
Total Response Time Distribution	0:08:41	0:06:00	0:08:26	0:07:23
Total Response Time Concentration	0:08:46	0:10:10	0:08:26	0:08:12
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total response concentration in this district show fire and EMS low alarms are 1 minute 46 seconds and 56 seconds, respectively, over benchmark. Fire and EMS moderates are within their benchmark times.

Bridge Street - District 3

Station Information

Address: 500 Bridge St. NW

Built: 1966 (59 yrs)

Frontline Apparatus: Engine 3, Truck 3 (Platform)

Cross Staffed /Reserves: Water 3, Dive 3, Boat 1, Boat 2, Boat 3, Brush Unit 3



District Quick Look

- 3.26 sq mi (5,588 population per sq mi)
- Population of 18,196 (9.2% of city total)
- 80.04 Road Miles
- 2025 Incidents: 2,883



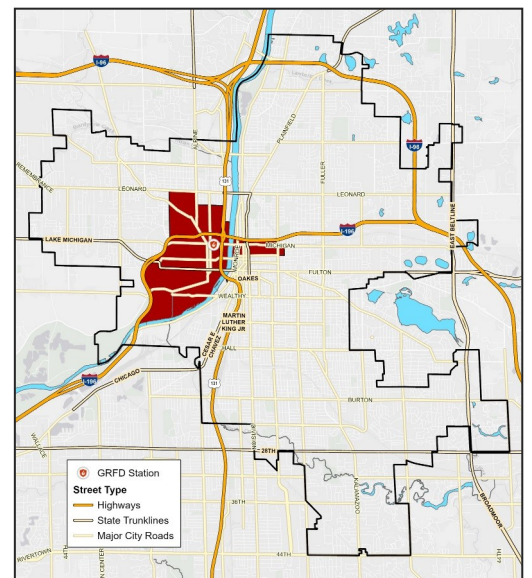
District Characteristics:

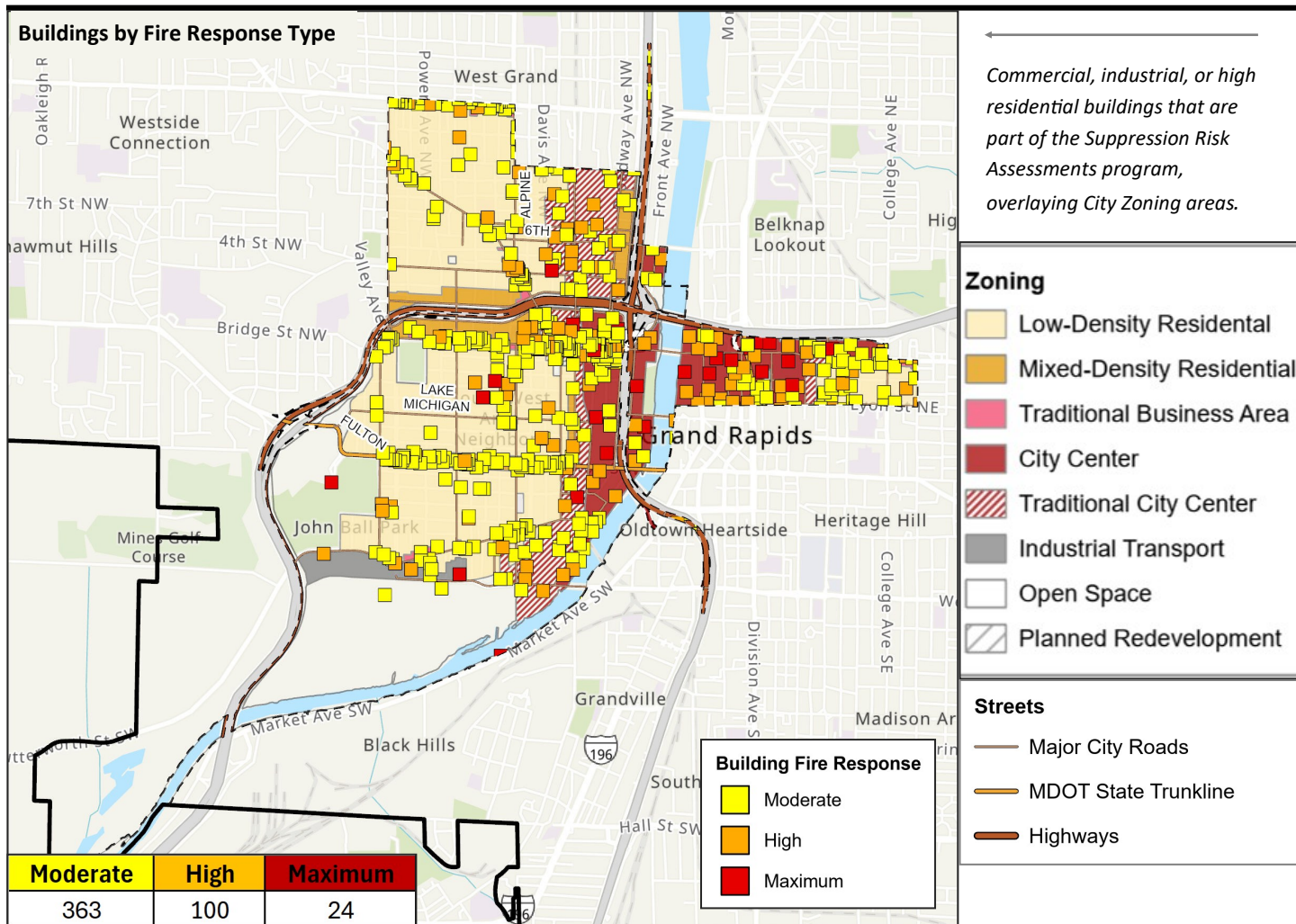
District 3 (Bridge) is located west of downtown and is one of the two districts that straddles the Grand River. West of the river, the district covers the heart of a bustling commercial zone along Bridge Street and east of the river, the district covers the city's "Medical Mile". The commercial zone is a portion of the larger Stockbridge business district.



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
3	1,086	1,271	28.9	\$ 70,152	73.1	11,097	2,207	237	2,681	4,220

The district also straddles US-131, the primary north-south expressway and covers the West Fulton business district along West Fulton, a major east-west street, as well as a southern portion of West Grand neighborhoods. The Bridge Street Station is home to the department's water rescue team that include a dive and all weather water rescue response. The river is split into a north and south portion due to the Sixth Street dam, which requires the station to maintain operational readiness to handle each area. District 3 is also home to the Grand Valley State University downtown Pew campus, just south of the station, and the John Ball Zoo to the west.





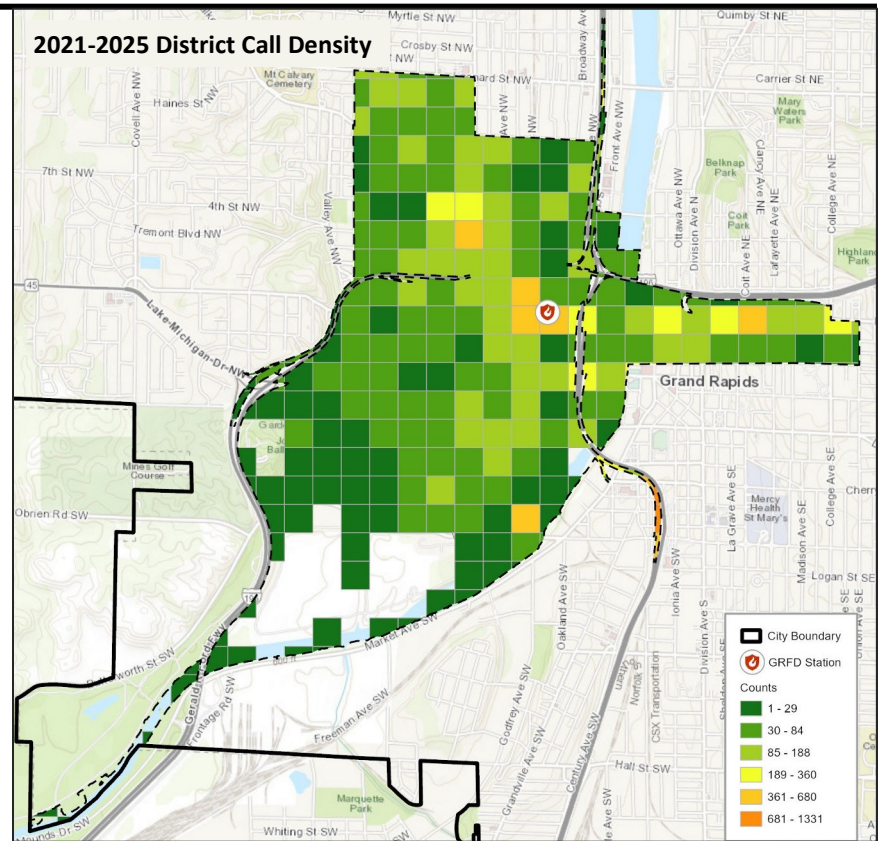
District Risk Assessment:

District 3 covers 3.26 square miles with a population of 18,196. The district includes vibrant commercial areas, moderate density residential neighborhoods, industrial zones, a major university campus, and a medical corridor with hospitals and commercial offices. New construction includes podium style residential buildings, a new soccer stadium, and a proposed 18-story, \$115M mixed-use building near the soccer stadium. The proposed building would feature 260 apartments, office space, and a 350-space parking structure. Ongoing construction and traffic congestion along Fulton and Bridge streets requires on-duty crews to adjust response routes. The district experiences heavy pedestrian and vehicle traffic, with a unhoused population concentrated along the Bridge Street and Stocking Avenue corridors. The maximum fire response buildings in this district have a wide range of uses including hospitals, educational establishments, museums, places of assembly like churches.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
3	4,982	429	27	94	20,815,715	\$ 688,986,476	\$ 2,102,357,648	118.3	124
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	8.90%	12.71%	10.23%	10.97%	12.43%	9.89%	11.03%	128.85%	10.44%

Response Data

District 3 has remained relatively consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents account for about 11–12% of the city's total call volume. The density map shows higher concentrations of calls along the Bridge Street corridor and near the central portion of the district around the station. These areas include several commercial corridors and dense residential areas that contribute to higher call demand. District reliability has generally remained between about 82–85%, while simultaneous incidents occur in roughly 10–12% of calls. A response hotspot exists at Stocking and Alpine.



Bridge Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	83.65%	84.96%	82.84%	85.07%	83.76%
Citywide Reliability %	10.06%	10.06%	9.52%	9.60%	9.65%
Simultaneous Incident Count	314	306	342	329	287
Simultaneous Incident %	10.96%	10.48%	11.93%	11.46%	9.95%

Bridge District Incidents and % of Citywide

Alarm Type	2021	2022	2023	2024	2025
Fire	98	117	101	125	99
	10.77%	12.94%	10.33%	12.54%	10.92%
EMS	2214	2189	2260	2132	2186
	11.71%	11.33%	11.48%	10.98%	11.14%
Other	549	610	503	613	598
	13.23%	13.59%	11.55%	12.25%	12.54%
Total	2861	2916	2864	2870	2883
	11.94%	11.80%	11.45%	11.29%	11.39%

District Apparatus Responses

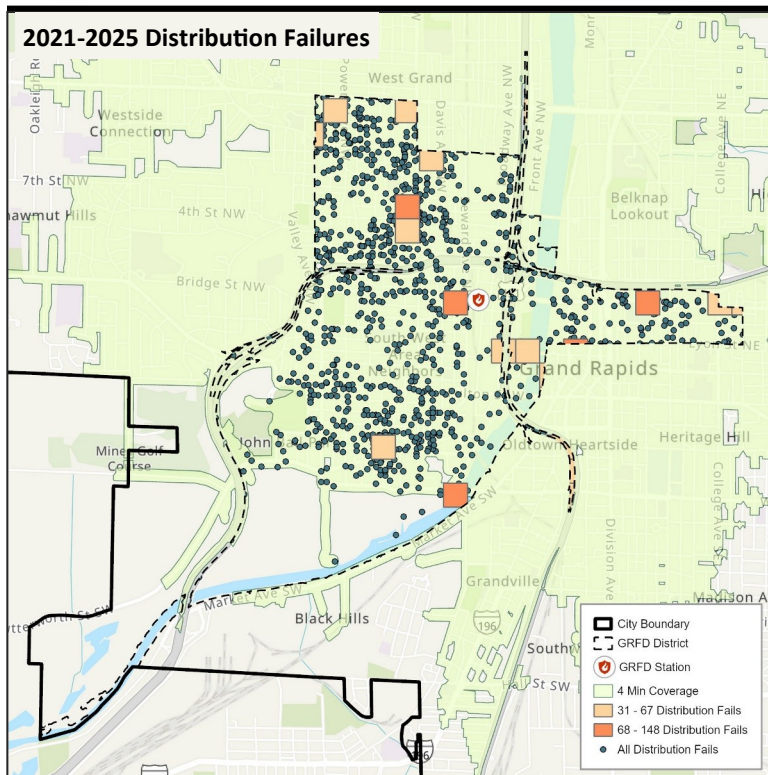
From 2021–2025, the apparatus and specialty units stationed at Bridge Street Station responded to 21,388 incidents. Engine 3 averages nearly 2,900 responses per year; Truck 3 handles 1,300–1,370 annually. Specialty units such as Water 3 and Dive 3 respond far less often and are generally dispatched for specialized incidents. Bridge Street Station apparatus and units account for about 12–13% of total apparatus activity in the city.

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 3	2878	3031	2868	2884	2965
Truck 3	1320	1341	1372	1349	1439
Water 3	14	17	22	9	14
Dive 3	13	18	21	7	11
B-Unit 3	15	12	19	29	5
Total	4240	4419	4302	4278	4434
% of City Total	12.64%	12.58%	12.59%	12.25%	12.44%
Deployed Hours	1272.77	1286.95	1229.43	1274.81	1232.11
% of City Deployed Hours	11.97%	11.75%	11.84%	12.30%	11.43%

District's Apparatus Unit Hour Utilization (UHU)

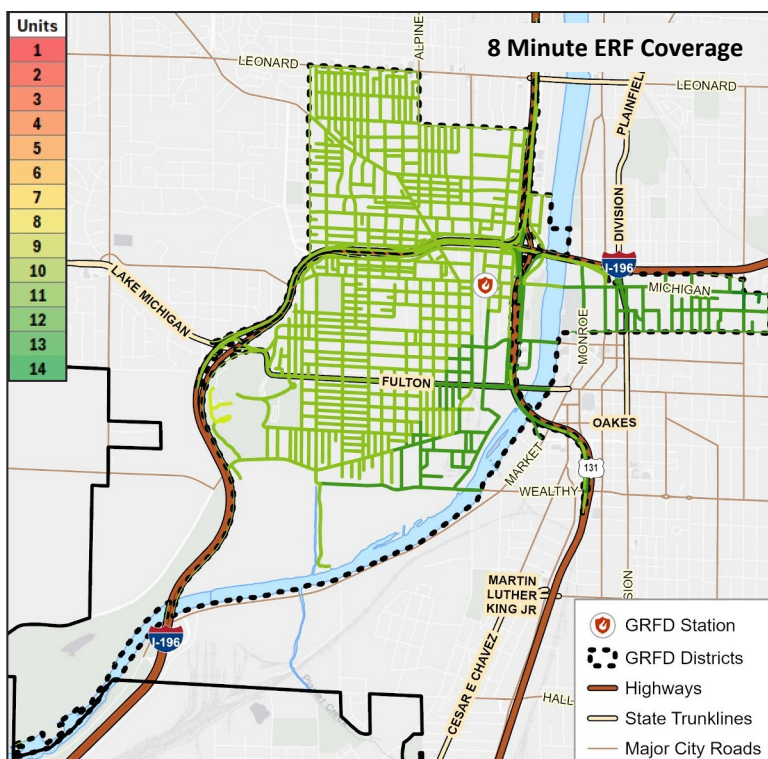
Unit	2021	2022	2023	2024	2025
Engine 3	0.14	0.15	0.14	0.14	0.14
Truck 3	0.07	0.07	0.07	0.07	0.07



Distribution - 4 Minute Drive Time

Distribution metrics for District 3 have remained steady, with an average of 78% of incidents meeting compliance standards within the catchment area, based on drive-time analysis. While two expressways cross through the district, the road network presents some challenges due to numerous dead-end streets. Drive-time analysis for this area is based on the street speed layer utilized by the CAD (computer-aided dispatch) system.

Distribution Incident Passes Over Time					
District 3	2021	2022	2023	2024	2025
Total	2,176	2,195	2,216	2,087	1,935
Passes	1,711	1,733	1,778	1,624	1,514
% Passes	78.63%	78.95%	80.23%	77.82%	78.24%



Concentration - Effective Response Force

This map illustrates the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. Effective response force data for the District 3 highlights its central location within the city. With five neighboring districts, a large portion of the area benefits from excellent response coverage

BRIDGE Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:37	0:02:07	0:03:32	0:03:11
Turnout	0:01:57	0:02:01	0:02:07	0:02:09
Travel Distribution	0:04:47	0:03:25	0:04:13	0:04:30
Travel Concentration	0:04:47	0:07:22	0:04:13	0:05:59
Total Response Time Distribution	0:07:36	0:05:57	0:08:28	0:07:48
Total Response Time Concentration	0:07:57	0:09:38	0:08:28	0:08:59
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total response concentration for both moderate alarm types shown are within the benchmark times while low alarm types are almost 1 minute over their benchmarks.

Kalamazoo Avenue - District 4

Station Information

Address: 2541 Kalamazoo Ave. SE

Built: 1987 (38 yrs)

Frontline Apparatus: Engine 4, Truck 4 (Platform)

Cross Staffed /Reserves: Truck 8, Engine 16, Brush Unit 4



District Quick Look

- 3.84 sq mi (4,487 population per sq mi)
- Population of 17,164 (8.6% of city total)
- 69.4 Road Miles
- 2025 Incidents: 2,951



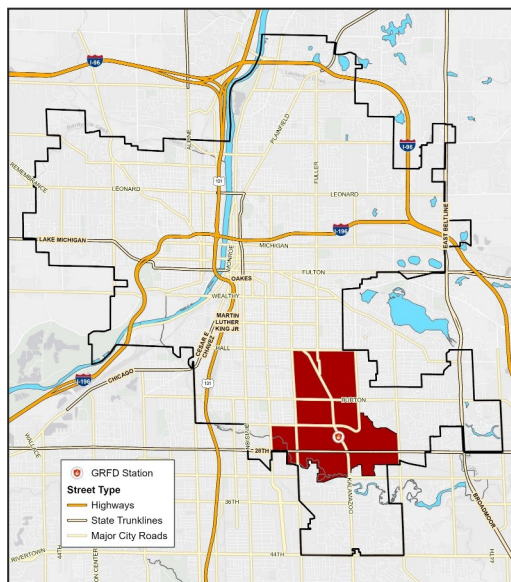
District Characteristics:

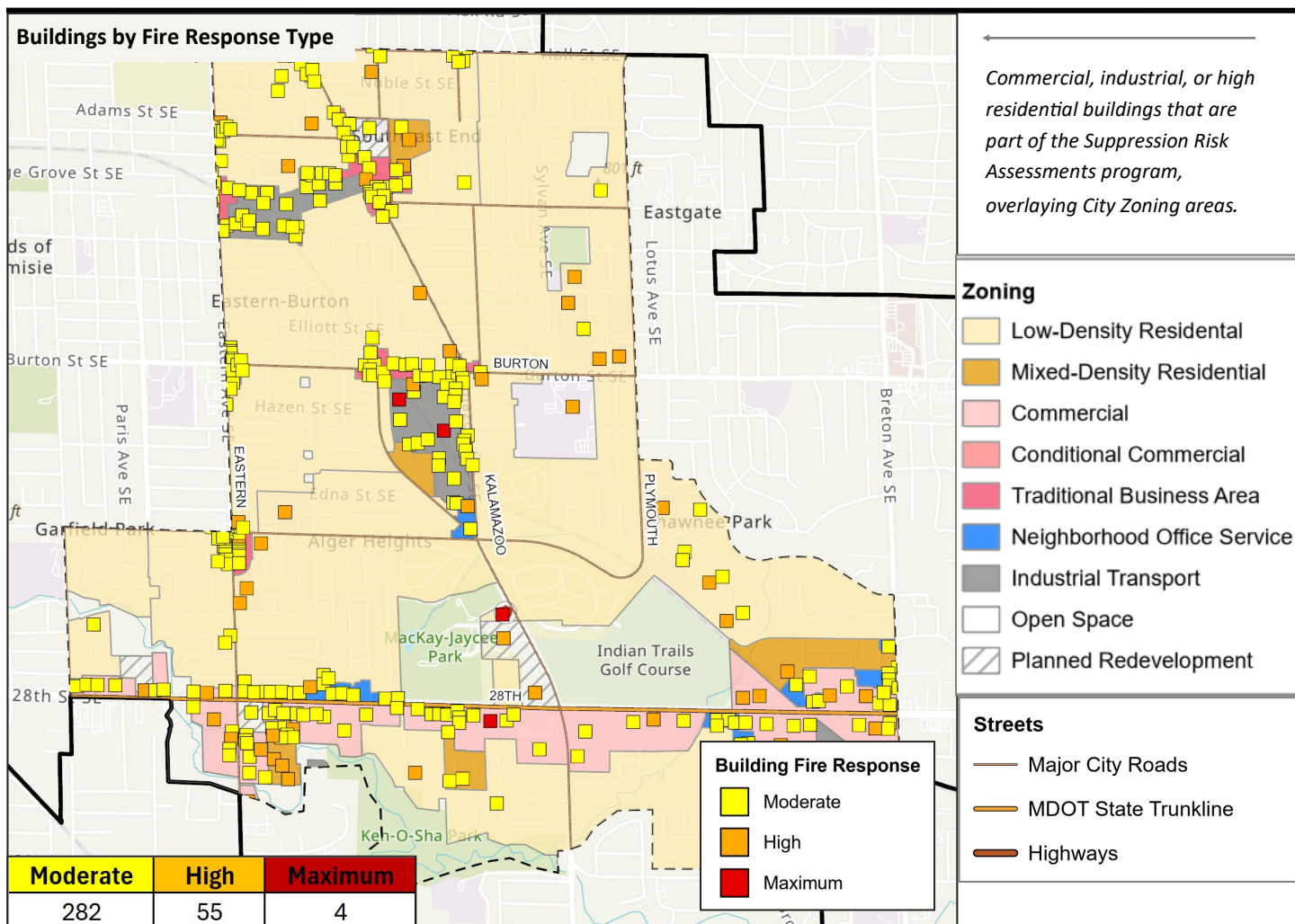
District 4 (Kalamazoo) underwent changes in September 2025 when the newly active District 12 (Kendall) absorbed the southernmost portion of what was District 4 a month prior. Kalamazoo is now one of two districts covering the southern part of the city and went from having the highest residential population to the 6th highest of all districts.



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
4	1,186	2,604	36.1	\$ 74,758	67.9	9,235	5,246	366	800	1,737

The district still contains a large amount of residential areas including those located in the Alger Heights and Oakdale neighborhoods. A high percentage of commercial areas in this district are located along 28th Street, a major east-west state trunkline. Additional commercial areas located in Boston Square, Alger Heights, and Seymour Square business districts are within the station's response area. Light and heavy industrial occupancies are located in the northern portion of the district.





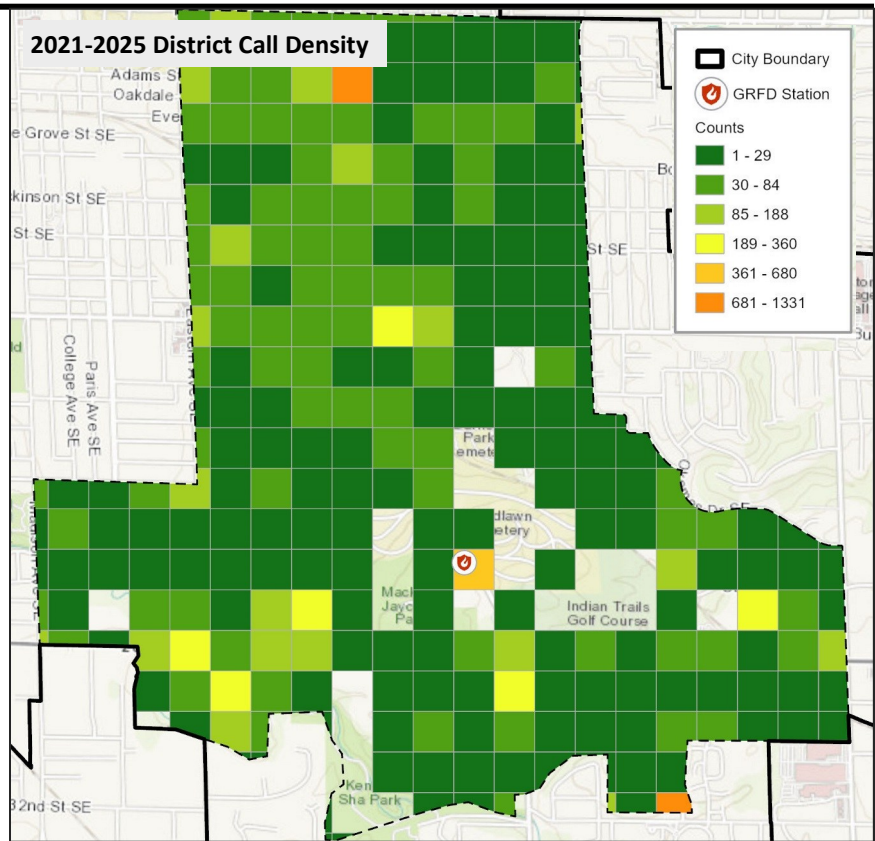
District Risk Assessment:

District 4 formerly covered 6.76 square miles with 28,771 residents before the addition of District 12 in September 2025. The district now covers 3.84 square miles with a population of 17,164. Growth is occurring in the Boston Square neighborhood, including podium style residential and commercial construction. The district includes older apartment complexes and retirement facilities that generate significant call volume. The 28th Street corridor presents challenges due to aging commercial properties and high-speed traffic. Eastern Avenue and 28th Street is a major accident hotspot. The district also contains older industrial buildings north of the station. The few maximum fire response buildings in this district are mainly used for manufacturing or processing.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
4	6,143	288	24	21	13,500,445	\$ 580,700,363	\$ 1,530,066,468	82.5	52
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	10.97%	8.53%	9.09%	2.45%	8.06%	8.33%	8.02%	89.91%	4.38%

Response Data

District 4 has maintained a relatively consistent level of incident activity over the past five years, with total calls representing about 11–13% of the city's total call volume. The density map shows calls spread throughout the district, with several moderate clusters near the center of the coverage area and along the southern portion of the district. Adams Park Apartments is the top response location and appears on the map as one of the highest call volume areas. District reliability has remained high at roughly 91–93%, while simultaneous incidents occur in about 11–14% of calls.



Kalamazoo Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	91.55%	90.97%	92.38%	92.08%	92.18%
Citywide Reliability %	11.87%	12.08%	12.22%	12.16%	10.67%
Simultaneous Incident Count	218	169	172	149	183
Simultaneous Incident %	13.54%	14.05%	10.91%	11.78%	11.15%

Kalamazoo District Incidents and % of Citywide

Alarm Type	2021	2022	2023	2024	2025
Fire	115	103	110	120	115
	12.64%	11.39%	11.25%	12.04%	12.68%
EMS	2477	2570	2582	2596	2280
	13.10%	13.30%	13.12%	13.37%	11.62%
Other	501	592	588	618	556
	12.07%	13.19%	13.50%	12.35%	11.66%
Total	3093	3265	3280	3334	2951
	12.91%	13.21%	13.11%	13.12%	11.66%

District Apparatus Responses

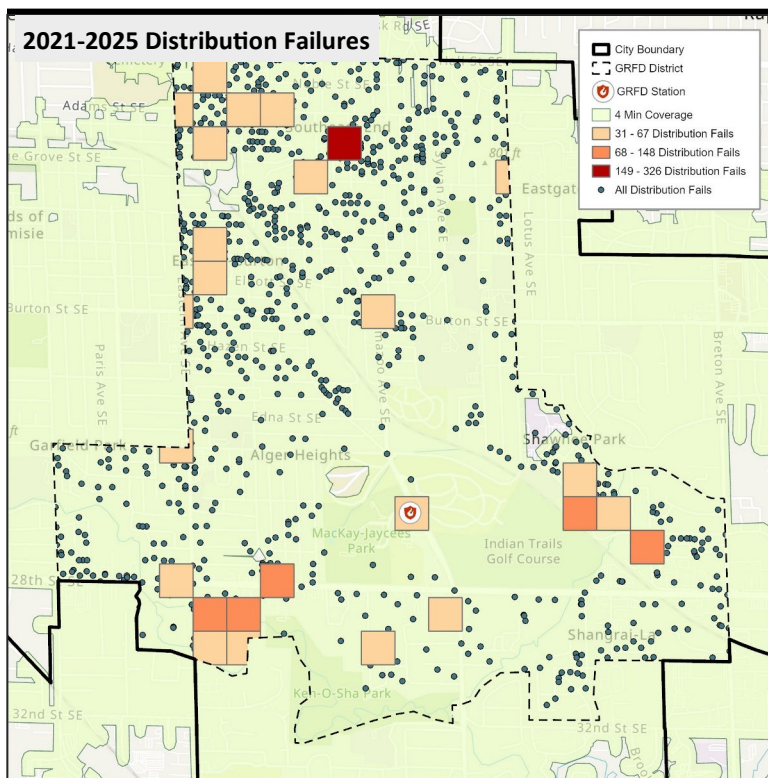
Engine 4 and Truck 4 account for roughly 11–13% of the city's total apparatus activity each year. Engine 4 serves as the primary response unit, averaging just under 2,900 calls annually. Truck 4 averages about 1,200 calls per year. Deployed hours have ranged from 1,063 to 1,363 annually, reflecting consistent operational demand in the district.

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 4	2803	2914	2959	3082	2824
Truck 4	1224	1272	1172	1228	1064
Engine 16	3	1	21	0	0
B-Unit 4	5	12	6	14	5
Squad 1	3	3	0	0	0
Truck 8	0	0	0	0	0
Total	4038	4202	4158	4324	3893
% of City Total	12.04%	11.96%	12.17%	12.38%	10.92%
Deployed Hours	1320.20	1362.39	1227.58	1194.67	1063.34
% of City Deployed Hours	12.41%	12.44%	11.82%	11.52%	9.86%

District's Apparatus Unit Hour Utilization (UHU)

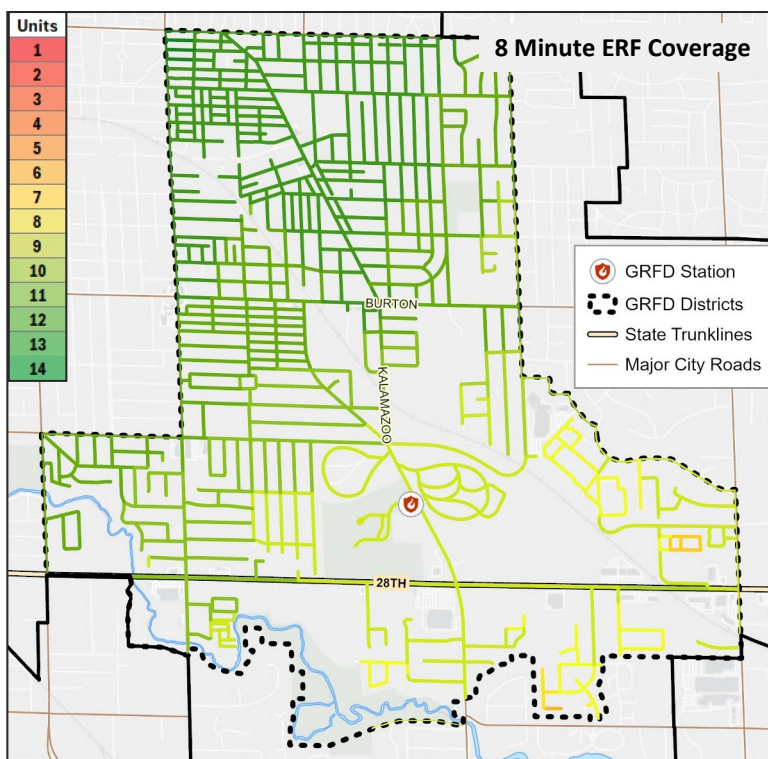
Unit	2021	2022	2023	2024	2025
Engine 4	0.15	0.16	0.15	0.15	0.13
Truck 4	0.07	0.07	0.06	0.06	0.06



Distribution - 4 Minute Drive Time

Distribution for District 4 has been an area of focus for the last several years. The station location and size of the district proved that an additional station was needed to the south. The placement of incidents demonstrated this need. Analysis drive times in this section are based on the street speed layer used by CAD (computer-aided dispatch).

Distribution Incident Passes Over Time					
District 4	2021	2022	2023	2024	2025
Total	2,457	2,581	2,536	2,550	2,029
Passes	1,289	1,257	1,352	1,415	1,213
% Passes	52.46%	48.70%	53.31%	55.49%	59.78%



Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8 minute multiple-unit benchmark travel time. Prior to the construction of Kendall Station, Kalamazoo's district experienced significant variation in effective response force coverage. While some variation remains along the eastern and southern edges, coverage has improved with the opening of Kendall Station to the south.

Baseline Performance

Total response concentration is impacted by the district size and station placement, mainly reflecting time prior to Kendall Station going into service. With the exception of EMS moderates, all the other types are at least 1 minute 30 seconds over their benchmarks; EMS low has the highest gap of 2 minutes 59 seconds over.

KALAMAZOO Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:04	0:01:56	0:03:48	0:02:46
Turnout	0:02:00	0:02:06	0:02:02	0:02:06
Travel Distribution	0:05:43	0:04:51	0:06:00	0:04:53
Travel Concentration	0:05:39	0:09:16	0:06:00	0:05:18
Total Response Time Distribution	0:08:56	0:07:43	0:10:21	0:08:08
Total Response Time Concentration	0:08:56	0:12:33	0:10:21	0:08:52
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Address: 1181 Monroe Ave. NW

Built: 1982 (43 yrs)

Frontline Apparatus: Engine 5, Battalion 6

Cross Staffed /Reserves: Water 5, Airboat 5



- 2.89 sq mi (5,625 population per sq mi)
- Population of 16,269 (8.2% of city total)
- 71.47 Road Miles
- 2025 Incidents: 1,901

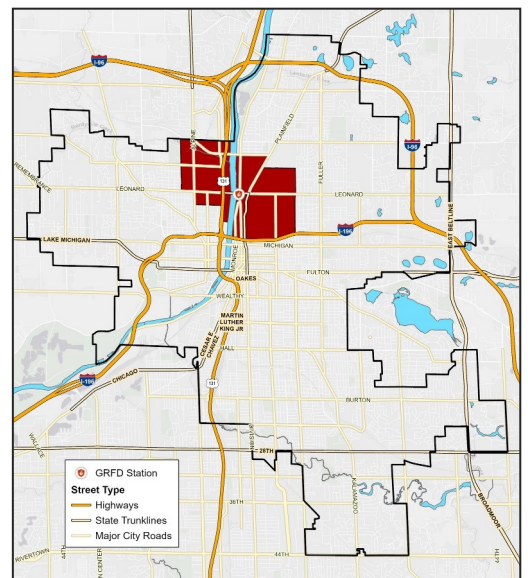


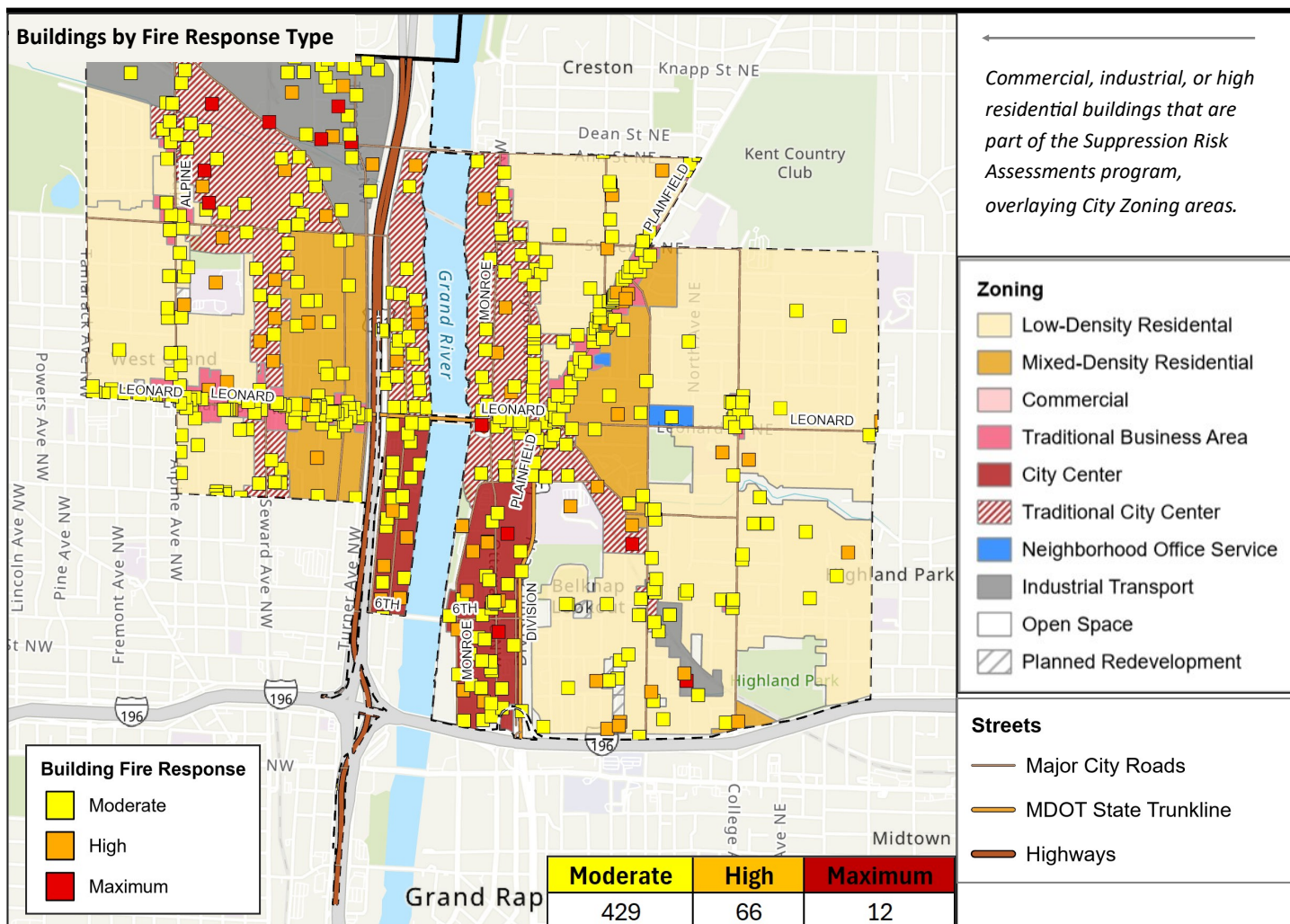
District 5 (Monroe) is located just north of downtown and is bisected by the Grand River into east and west sections. The district covers the residential areas of West Grand, Belknap Lookout, and a southern portion of the Creston Neighborhoods, as well as areas not represented by a neighborhood organization.



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
5	1,029	1,286	31.2	\$ 61,821	70.3	9,786	3,015	222	1,520	2,772

The area south of the station includes a mix of industry and old furniture factories turned into residential and office space; this includes Corewell Health's headquarters with office and residential areas and commercial occupancies in surrounding buildings. The Creston, West Leonard, Stockbridge, and Monroe North business districts are located along Leonard Street (east-west roadway), Monroe Avenue (north-south), and Plainfield Avenue (north-south) corridors. The station houses units included in water rescue response and one of the city's three extrication units that respond across the city.





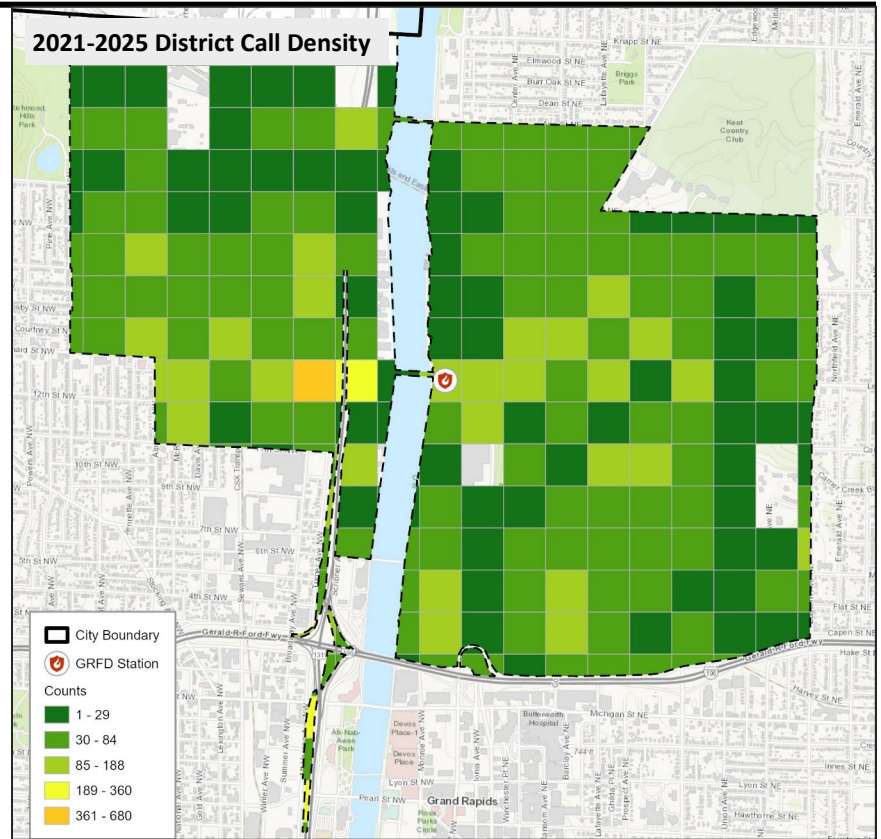
District Risk Assessment:

The District 5 spans 2.89 square miles with a population of 16,269. The area south of the station has undergone major redevelopment, converting former industrial buildings into residential use. Growth continues through new mid-rise residential buildings and Corewell Health's planned campus, which includes podium-style residential and commercial development. Additional mixed-use construction has occurred along Plainfield Avenue (Creston neighborhood) and the Leonard St. corridor. Heavy traffic along Leonard Street creates response routing challenges. The corridor near Leonard and US-131 experiences elevated call activity, influenced by unhoused population movement. The maximum fire response buildings in this district are mainly dedicated to manufacturing or processing.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
5	4,893	460	61	70	16,798,770	\$ 534,797,474	\$ 1,473,762,814	116.1	96
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	8.74%	13.63%	23.11%	8.17%	10.04%	7.67%	7.73%	126.55%	8.08%

Response Data

District 5 has remained relatively consistent in its yearly number of incidents accounting for roughly 7–9% of the city's total call volume. The density map shows call activity near the central portion of the district and along the primary road corridors on both sides of the river, corresponding with busier traffic routes and commercial areas. Reliability for the district has generally remained between 76–82%, while simultaneous incidents occur in roughly 8–10% of calls, indicating occasional overlapping demand within the district.



Monroe Reliability & Simultaneous Performance					
	2021	2022	2023	2024	2025
Reliability %	77.20%	79.28%	76.27%	78.59%	81.88%
Citywide Reliability %	6.71%	6.38%	6.30%	6.44%	6.21%
Simultaneous Incident Count	190	168	186	199	149
Simultaneous Incident %	9.15%	8.46%	9.00%	9.56%	7.84%

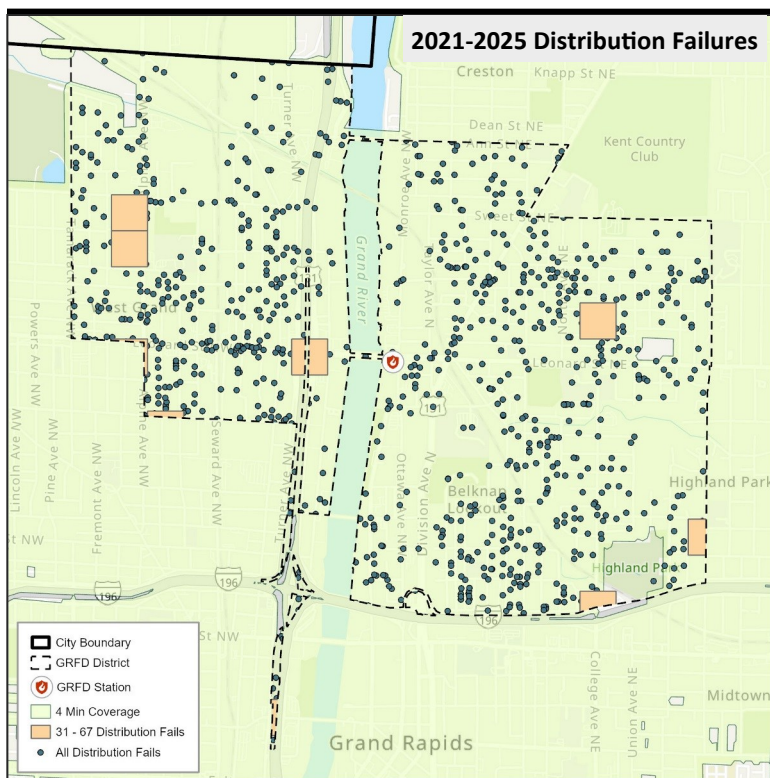
Monroe District Incidents and % of Citywide					
Alarm Type	2021	2022	2023	2024	2025
Fire	106	112	126	96	83
	11.65%	12.39%	12.88%	9.63%	9.15%
EMS	1617	1481	1563	1519	1437
	8.55%	7.66%	7.94%	7.82%	7.32%
Other	352	388	362	463	381
	8.48%	8.65%	8.31%	9.25%	7.99%
Total	2075	1981	2051	2078	1901
	8.66%	8.01%	8.20%	8.18%	7.51%

District Apparatus Responses

District 5's apparatus activity has remained relatively consistent over the past five years. Engine 5 handles most calls in the district, averaging about 2,460 responses per year. Battalion 6 (North Battalion Chief) also responds frequently, typically handling just over 1,000 incidents annually, while Water 5 (Airboat) responds infrequently and is generally dispatched for specific incident types. Overall, deployed hours and utilization for the district have remained stable, reflecting consistent operational demand within District 5.

District's Apparatus Responses					
Unit	2021	2022	2023	2024	2025
Engine 5	2367	2466	2399	2552	2491
Battalion Car 6	1174	1076	969	1029	1091
Water 5	7	14	19	6	9
Truck 5	4	0	2	1	2
Total	3552	3556	3389	3588	3593
% of City Total	10.59%	10.12%	9.92%	10.27%	10.08%
Deployed Hours	1130.93	1142.61	1069.70	1055.79	1058.50
% of City Deployed Hours	10.63%	10.43%	10.30%	10.18%	9.82%

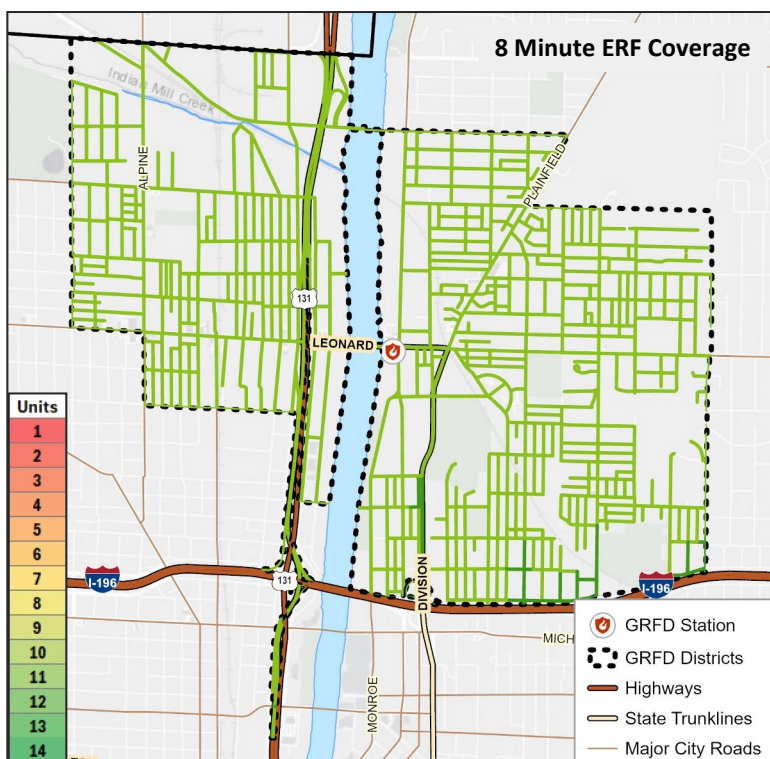
District's Apparatus Unit Hour Utilization (UHU)					
Unit	2021	2022	2023	2024	2025
Engine 5	0.13	0.13	0.13	0.13	0.13
Battalion Car 6	0.06	0.06	0.05	0.05	0.05



Distribution - 4 Minute Drive Time

Station location and the size of the district lead to optimal distribution metrics. The district is split by the river which leads to some delays in actual performance, resulting in a 76% average of incidents falling within compliance measures. Analysis drive times in this section are based on the street speed layer used by CAD (computer-aided dispatch).

Distribution Incident Passes Over Time					
District 5	2021	2022	2023	2024	2025
Total	1,630	1,516	1,600	1,523	1,357
Passes	1,237	1,160	1,204	1,161	1,034
% Passes	75.89%	76.52%	75.25%	76.23%	76.20%



Concentration - Effective Response Force

This map illustrates the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. Because the Monroe district is surrounded on all sides by other city districts, its effective response force coverage is strong. Concentration is bolstered by the multiple neighboring districts, two of which are staffed with two frontline units each.

MONROE Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:39	0:02:00	0:03:33	0:03:09
Turnout	0:02:05	0:02:04	0:01:55	0:01:58
Travel Distribution	0:04:45	0:03:36	0:04:30	0:04:40
Travel Concentration	0:04:45	0:06:24	0:04:30	0:06:49
Total Response Time Distribution	0:08:16	0:06:07	0:08:38	0:08:37
Total Response Time Concentration	0:08:16	0:09:54	0:08:38	0:11:04
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total concentration response is within benchmark for EMS moderate types; all others in this chart are between 1 minute 8 seconds and 1 minute 34 seconds over benchmark.

Burton Street - District 6

Station Information

Address: 2941 Burton St. SE

Built: 1981 (44 yrs)

Frontline Apparatus: Engine 6

Cross Staffed /Reserves: Engine 15



District Quick Look

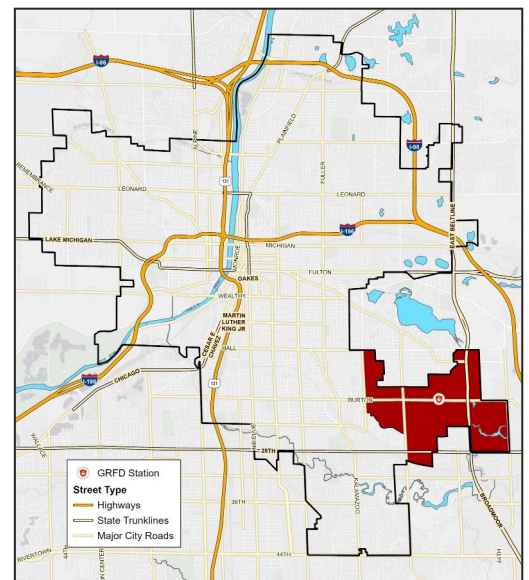
- 3.48 sq mi (4,749 population per sq mi)
- Population of 16,528 (8.3% of city total)
- 56.13 Road Miles
- 2025 Incidents: 1,592

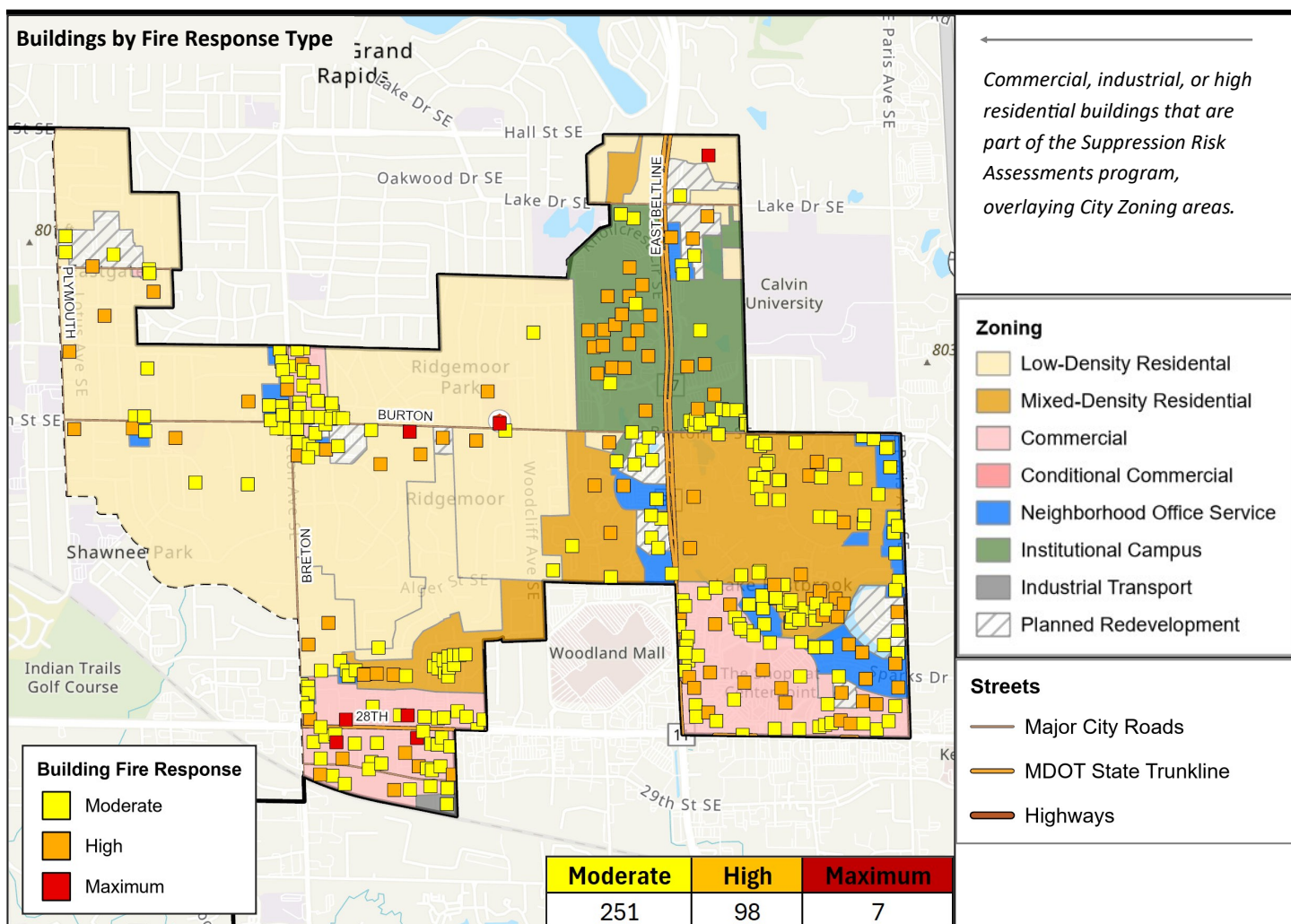


District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
6	872	3,083	31.5	\$ 75,351	57.1	11,137	2,812	938	522	1,126

District Characteristics:

District 6 (Burton) is located in the south east part of the city, covering a densely residential area that encompasses the Ridgemoor and Eastgate neighborhood; as well as areas not represented by a neighborhood organization. The district also covers large commercial areas along the north-south trunkline East Beltline Avenue, the east-west trunkline 28th Street, and the north-south Breton Road to the west of the station. Calvin University, a private Christian university located east of the station, has 3,000 to 3,300 students annually; the campus also houses the Calvin Theological Seminary. The district is also home to several large retirement communities and apartment complexes.





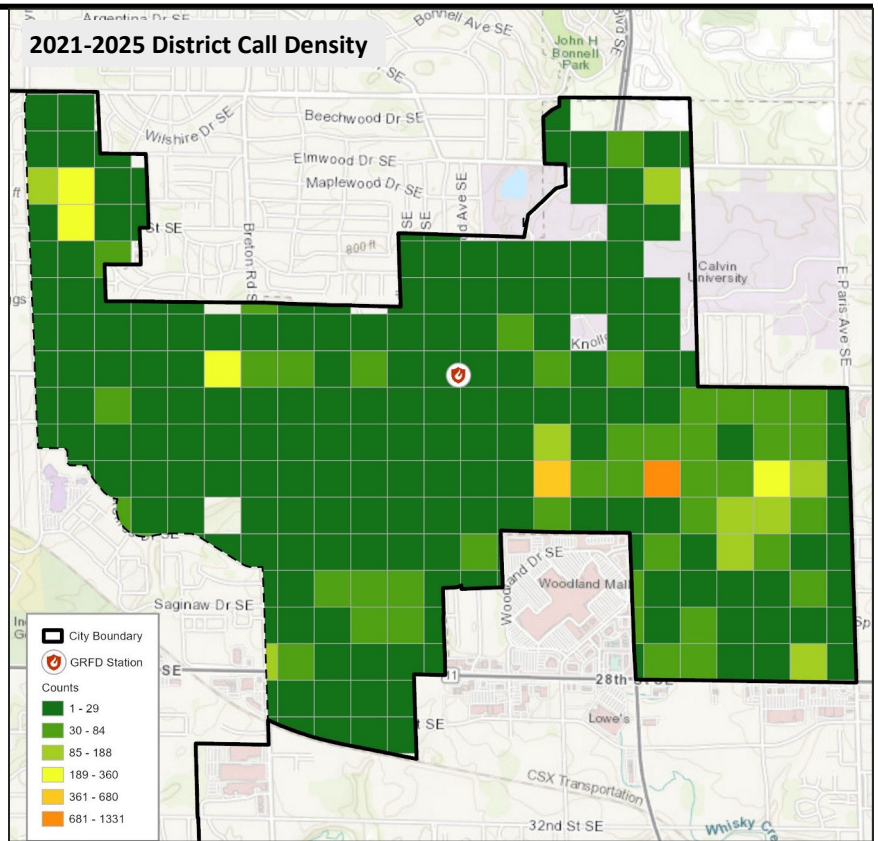
District Risk Assessment:

District 6 covers 3.48 square miles with a population of 16,528. Heavy traffic along Burton Street and East Beltline Avenue contributes to call demand. The district includes a university, several apartment complexes, and an elderly rehabilitation facility. A retirement community near Boston Street and Plymouth Avenue is undergoing major expansion, adding new low rise housing and townhomes. The maximum fire response buildings in this district are mainly motor vehicle repair facilities, large retail structures, places of assembly like churches, and a mental rehabilitation center.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
6	2,816	202	2	19	10,429,083	\$ 625,329,053	\$ 1,478,382,020	62.1	143
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	5.03%	5.99%	0.76%	2.22%	6.23%	8.97%	7.75%	67.71%	12.04%

Response Data

District 6 has remained relatively consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents have accounted for roughly 5–6% of the city's total call volume. EMS incidents make up most responses, averaging about 1,200 calls per year. The density map shows several moderate clusters near the center of the district and toward the eastern portion of the coverage area. These higher activity areas align with major road corridors and a frequent location being a long-term rehab facility. District reliability has remained strong, generally ranging between 86–89%, while simultaneous incidents occur in about 6–7% of calls, indicating occasional overlapping demand within the district.



Burton Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	86.24%	86.49%	87.17%	87.32%	88.53%
Citywide Reliability %	5.13%	4.92%	5.04%	5.24%	5.57%
Simultaneous Incident Count	104	104	94	98	102
Simultaneous Incident %	7.33%	7.43%	6.54%	6.47%	6.41%

District Apparatus Responses

District 6 activity has remained relatively steady over the past five years. Total apparatus responses have ranged from 1,536 to 1,671 annually. Engine 6 handles nearly all responses in the district, averaging about 1,586 calls per year. Deployed hours and unit utilization have remained stable.

Burton District Incidents and % of Citywide

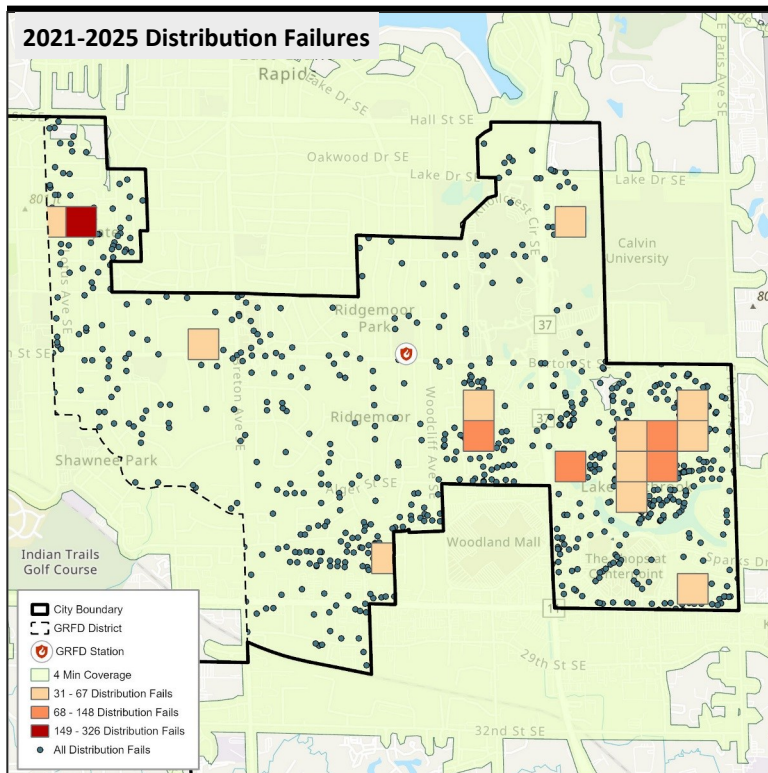
Alarm Type	2021	2022	2023	2024	2025
Fire	40	41	33	29	37
	4.40%	4.54%	3.37%	2.91%	4.08%
EMS	1189	1111	1158	1215	1343
	6.29%	5.75%	5.88%	6.26%	6.84%
Other	188	247	245	270	212
	4.53%	5.50%	5.62%	5.40%	4.45%
Total	1417	1399	1436	1514	1592
	5.91%	5.66%	5.74%	5.96%	6.29%

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 6	1531	1558	1549	1627	1667
Engine 15	1	0	17	0	0
Truck 6	4	1	14	5	4
Total	1536	1559	1580	1632	1671
% of City Total	4.58%	4.44%	4.63%	4.67%	4.69%
Deployed Hours	522.43	558.34	483.09	481.94	516.28
% of City Deployed Hours	4.91%	5.10%	4.65%	4.65%	4.79%

District's Apparatus Unit Hour Utilization (UHU)

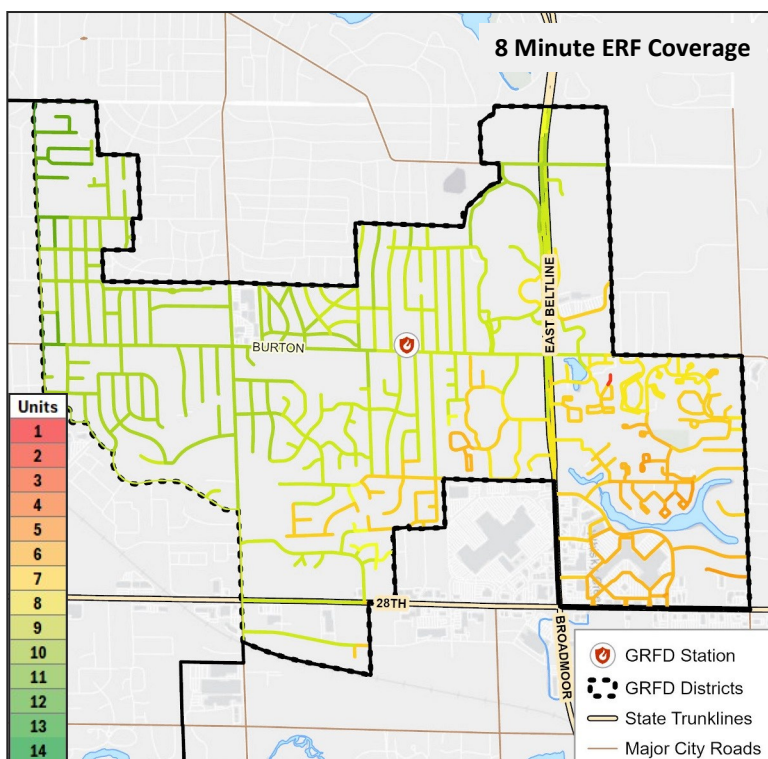
Unit	2021	2022	2023	2024	2025
Engine 6	0.08	0.09	0.08	0.08	0.09



Distribution - 4 Minute Drive Time

Overall metrics for distribution, as shown by drive time analysis, put District 6 at an average of 60% compliance. A sustained increase in the volume of incidents in the south-eastern corner of the district indicates a need for ongoing evaluation. Analysis drive times in this section are based on the street speed layer used by CAD (computer-aided dispatch).

Distribution Incident Passes Over Time					
District 6	2021	2022	2023	2024	2025
Total	1,187	1,121	1,155	1,205	1,221
Passes	721	654	691	741	754
% Passes	60.74%	58.34%	59.83%	61.49%	61.75%



Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. Similar to other outlying districts, Burton's concentration metrics decrease toward the outer edges of the city. The eastern portion of the district is particularly isolated from neighboring districts, though automatic mutual aid support is provided by the City of Kentwood.

Baseline Performance

Total response concentration for fire and EMS low and moderates are all at least 1 minute over benchmark. Fire moderate alarms are 3 minutes 11 seconds over benchmark; this is due primarily to a very extended travel concentration time, which looks at the travel time of the unit who completes the required ERF.

BURTON Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:10	0:02:13	0:03:48	0:03:33
Turnout	0:01:56	0:02:09	0:01:51	0:01:56
Travel Distribution	0:05:45	0:05:03	0:05:41	0:05:02
Travel Concentration	0:05:45	0:10:49	0:05:41	0:07:38
Total Response Time Distribution	0:08:31	0:09:09	0:09:55	0:08:55
Total Response Time Concentration	0:08:31	0:14:11	0:09:55	0:10:48
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

La Grave Avenue - District 7

Station Information

Address: 38 LaGrave Ave. SE

Built: 1910 (115 yrs)

Frontline Apparatus: Rescue 1, Rescue 2

Cross Staffed /Reserves: Rescue 3, Tech 1, Tech 2



District Quick Look

- .93 sq mi (8,134 population per sq mi)
- Population of 7,528 (3.8% of city total)
- 25.03 Road Miles
- 2025 Incidents: 3,545



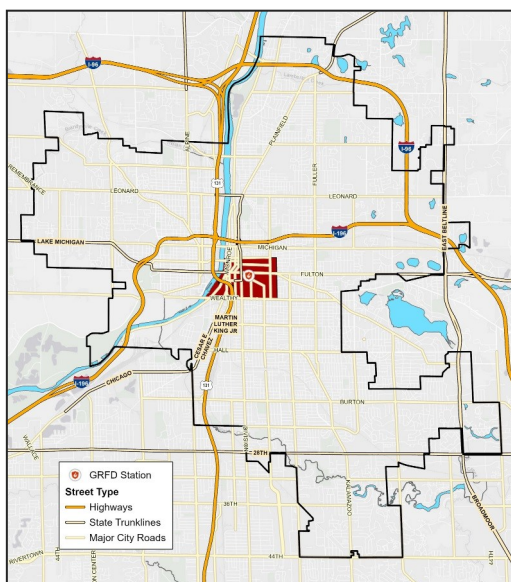
District Characteristics:

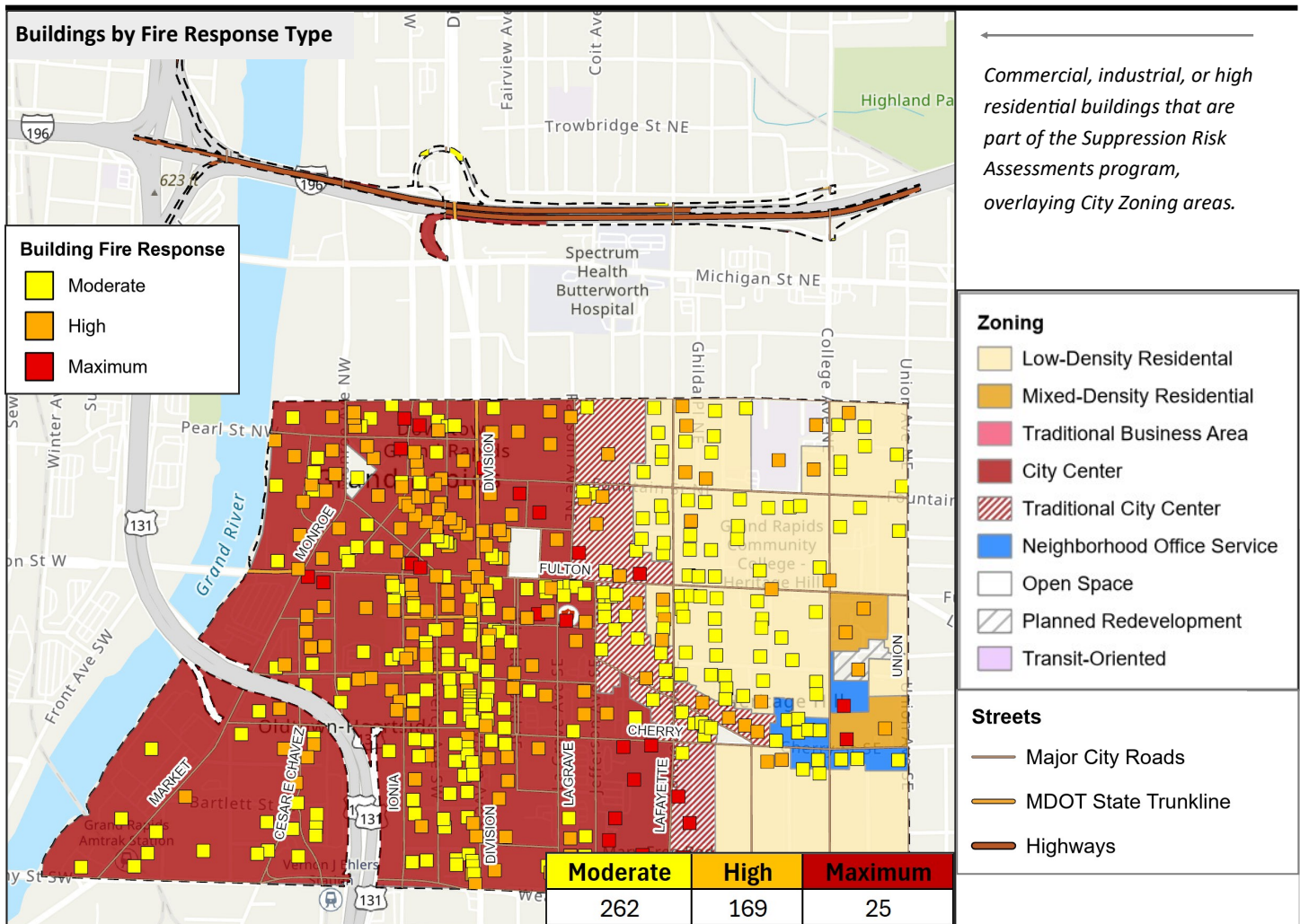
District 7 (La Grave) is the most centrally located district and sits in the heart of downtown. Although a small district in comparison to others, District 7 experiences the city's highest call volume and is one of the top 2 districts with population growth from 2020 to 2025 (+1.16%).



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
7	260	699	31.9	\$ 59,246	61.4	5,070	1,161	202	426	896

The district encompasses the Heartside and Heritage Hill neighborhoods and includes the Division South and Downtown Development Authority business districts. The district encompasses three major hospitals, three downtown college campuses, as well as numerous high-rise commercial and residential occupancies. La Grave Avenue Station houses administrative and prevention personnel on the second floor and Car 97, the 24 hour Safety Officer and Inspector. La Grave is the designated Technical Rescue station where Rescue 1 serves as the downtown extrication unit, one of three extrication units in the city. Currently, the attached annex in the rear of the station houses the fleet maintenance division.





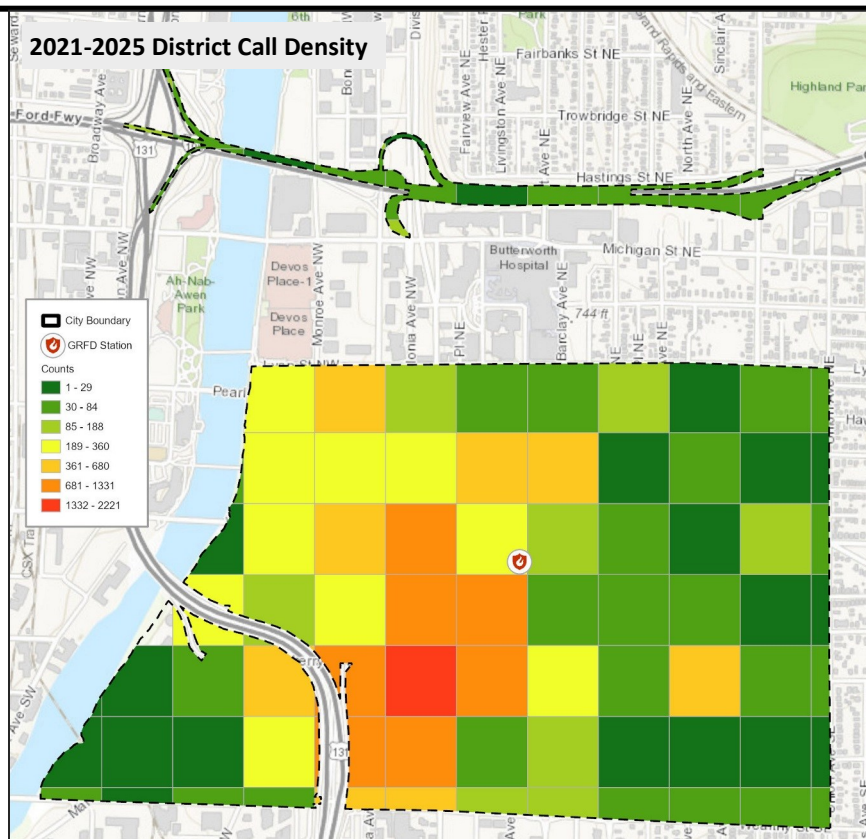
District Risk Assessment:

The District 7 covers 0.93 square miles with a resident population of 7,528. Despite being the smallest district, it is the busiest. La Grave Avenue Station houses the Technical Rescue Team, which responds to specialized rescue incidents citywide and in surrounding communities. The district includes high rise buildings, a historic neighborhood with large balloon frame homes, and major medical complexes to the north and south. The district also contains the city's largest unhoused population, particularly in the Heartside and Veterans Park areas, which account for much of the district's call volume. Vicinity Energy fuels 120 downtown buildings with gas fired boilers with plans to install a 9 megawatt electric boiler at its Grand Rapids plant located within this district. The new eSteam machinery will create carbon-free thermal energy to heat and cool starting summer of 2026. The maximum fire response buildings in this district are mainly hospitals, clinics, utilities, and places of assembly like hotels.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
7	961	434	8	176	14,795,123	\$ 669,275,336	\$ 1,687,326,931	119.3	231
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	1.72%	12.86%	3.03%	20.54%	8.84%	9.60%	8.85%	129.94%	19.44%

Response Data

District 7 has remained consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents have accounted for about 13–15% of the city's total call volume. The density map shows the highest concentration of calls in the central and southwestern portions of the district, particularly near major roadway corridors and dense residential areas. District reliability has remained strong at roughly 87–90%, while simultaneous incidents occur in about 9–11% of calls, indicating regular overlapping demand within the district.



La Grave Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	88.54%	89.36%	89.75%	89.88%	87.90%
Citywide Reliability %	10.93%	12.09%	13.82%	12.36%	12.34%
Simultaneous Incident Count	419	459	358	393	329
Simultaneous Incident %	9.09%	11.03%	10.61%	10.09%	10.97%

District Apparatus Responses

District 7 apparatus activity has remained relatively steady over the past five years. Total apparatus responses have ranged from 4,534 to 5,406 annually, accounting for roughly 13–15% of the city's total apparatus activity each year. Rescue 1 and Rescue 2 handle most calls in the district, each averaging around 2,600 responses per year and serving as the primary response units. Other units such as Tech 1 and Tech 2 respond infrequently and are typically dispatched for specialized tech rescue incidents. Deployed hours and unit utilization have gradually increased, reflecting consistent operational demand within the district.

LaGrave District Incidents and % of Citywide

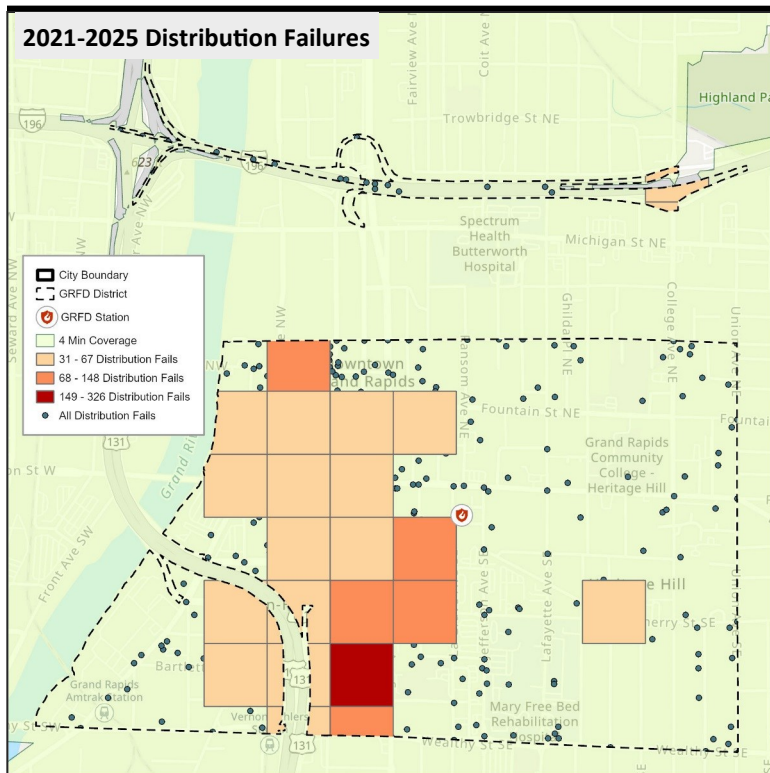
Alarm Type	2021	2022	2023	2024	2025
Fire	52	41	53	78	43
	5.71%	4.54%	5.42%	7.82%	4.74%
EMS	2413	2844	3332	2963	3011
	12.77%	14.72%	16.93%	15.26%	15.34%
Other	479	450	478	466	491
	11.54%	10.03%	10.97%	9.31%	10.30%
Total	2944	3335	3863	3507	3545
	12.29%	13.49%	15.44%	13.80%	14.01%

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Rescue 1	2278	2694	2690	2640	2647
Rescue 2	2252	2600	2705	2532	2567
Tech 1	0	8	8	9	7
Tech 2	0	3	3	1	0
Engine 17	4	0	0	0	0
Truck 7	0	4	0	0	0
Total	4534	5309	5406	5182	5221
% of City Total	13.52%	15.11%	15.82%	14.84%	14.65%
Deployed Hours	1265.47	1408.03	1383.65	1380.57	1662.85
% of City Deployed Hours	11.90%	12.86%	13.32%	13.32%	15.42%

District's Apparatus Unit Hour Utilization (UHU)

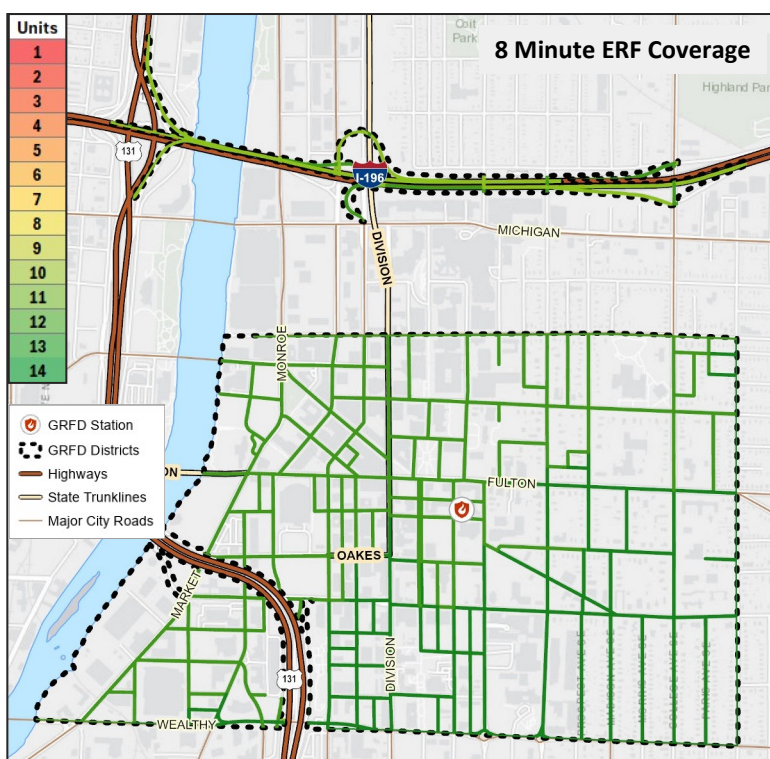
Unit	2021	2022	2023	2024	2025
Rescue 1	0.11	0.13	0.12	0.12	0.13
Rescue 2	0.11	0.12	0.13	0.12	0.12



Distribution - 4 Minute Drive Time

Drive time for District 7 shows exemplary coverage, with an 88% rate of incidents exhibiting compliance for drive times. Challenges for drive time in this district include the downtown traffic volume, boulevard street design, and a high percentage of one-way streets.

Distribution Incident Passes Over Time					
District 7	2021	2022	2023	2024	2025
Total	2,351	2,752	3,153	2,880	2,674
Passes	2,081	2,481	2,791	2,529	2,322
% Passes	88.52%	90.15%	88.52%	87.81%	86.84%



Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8 minute multiple-unit benchmark travel time. Effective response force coverage for this district is also very good, with multiple units stationed close to the downtown area. La Grave and two neighboring districts each have two frontline units. Another consideration in this district is the vertical travel time once on scene.

LA GRAVE Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:25	0:02:05	0:03:30	0:03:15
Turnout	0:02:03	0:02:11	0:01:57	0:01:58
Travel Distribution	0:03:16	0:02:14	0:03:20	0:04:43
Travel Concentration	0:03:16	0:05:36	0:03:20	0:06:07
Total Response Time Distribution	0:06:37	0:05:44	0:07:36	0:07:43
Total Response Time Concentration	0:06:37	0:10:44	0:07:36	0:10:01
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total response concentration shows that all metrics very near or under benchmark times. EMS moderates have the largest gap at 31 seconds over benchmark.

Covell Avenue - District 8

Station Information

Address: 1154 Covell Ave. NW

Built: 1987 (38 yrs)

Frontline Apparatus: Engine 8

Cross Staffed /Reserves: Engine 14



District Quick Look

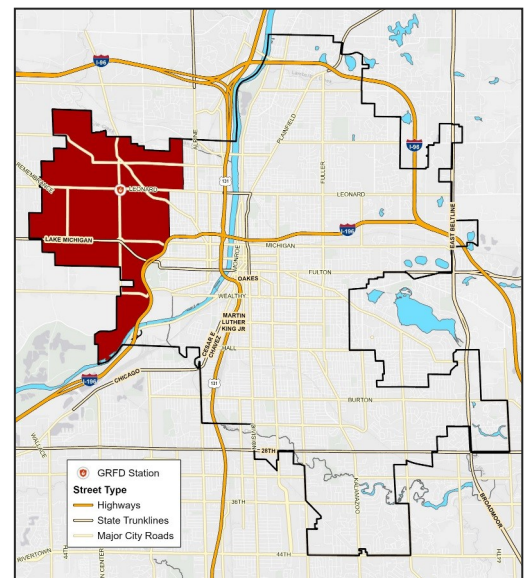
- 7.29 sq mi (2,540 population per sq mi)
- Population of 18,519 (9.3% of city total)
- 99.96 Road Miles
- 2025 Incidents: 1,949

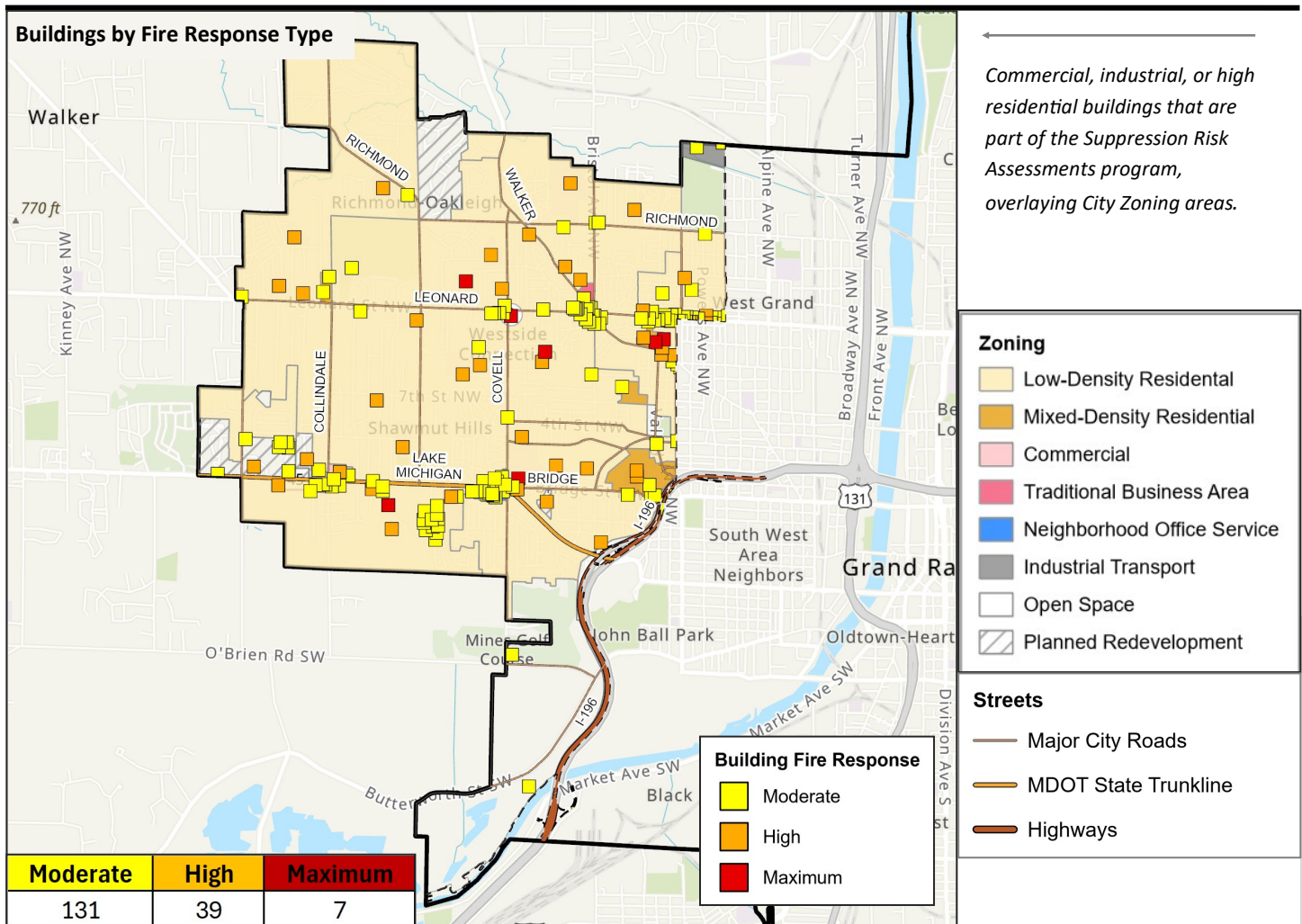


District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
8	1,016	4,703	41.6	\$ 82,690	38.5	15,649	515	253	776	1,484

District Characteristics:

District 8 (Covell) is the western most, and largest district in Grand Rapids covering 7.29 square miles. In terms of population, it is the third largest district in the city. The area is predominantly residential though there are commercial areas along the east-west Leonard Street roadway and the east west Lake Michigan Drive, which is part of the state highway, M-45. Lake Michigan Drive also connects to interstate 196 which runs along the on the southeastern border of the district. This district has several large retirement communities that account for the majority of the district's call volume.





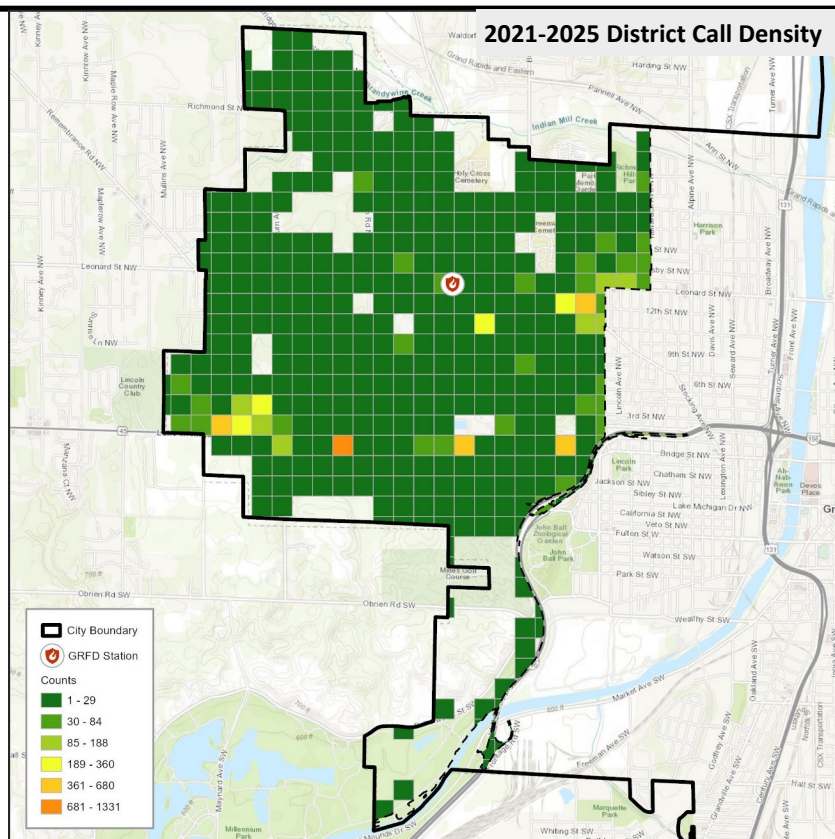
District Risk Assessment:

The District 8 is now the city's largest at 7.29 square miles, serving 18,519 residents. Calls for service have steadily increased over the past five years. The district contains seven retirement communities, including one high rise south of the station, which accounts for a significant share of incidents. The west side has experienced growth in lightweight, low-rise apartment developments, with more planned. The maximum fire response buildings in this district are mainly 24-hour nursing homes and large multi-family apartments.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
8	6,863	94	0	17	11,266,774	\$ 692,339,032	\$ 1,799,340,908	71.1	52
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	12.26%	2.79%	0.00%	1.98%	6.73%	9.94%	9.44%	77.47%	4.38%

Response Data

District 8 has remained relatively consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents account for 6–8% of the city's total call volume. The density map shows call activity spread throughout the district, with a few moderate clusters near the center and eastern portions of the coverage area where retirement homes are located. District reliability ranges between 82–84%, while simultaneous incidents occur in roughly 8–9% of calls, indicating occasional overlapping demand within the district.



Covell Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	82.72%	82.65%	84.74%	83.91%	84.34%
Citywide Reliability %	5.51%	5.63%	6.00%	5.93%	6.53%
Simultaneous Incident Count	128	136	144	148	168
Simultaneous Incident %	8.07%	8.10%	8.16%	8.26%	8.62%

District Apparatus Responses

Apparatus activity has remained relatively steady over the past five years. Engine 8 handles nearly all responses in the district and has seen a roughly 300 response increase over the past 5 years. Deployed hours and unit utilization have slowly increased over that same timeframe.

Covell District Incidents and % of Citywide

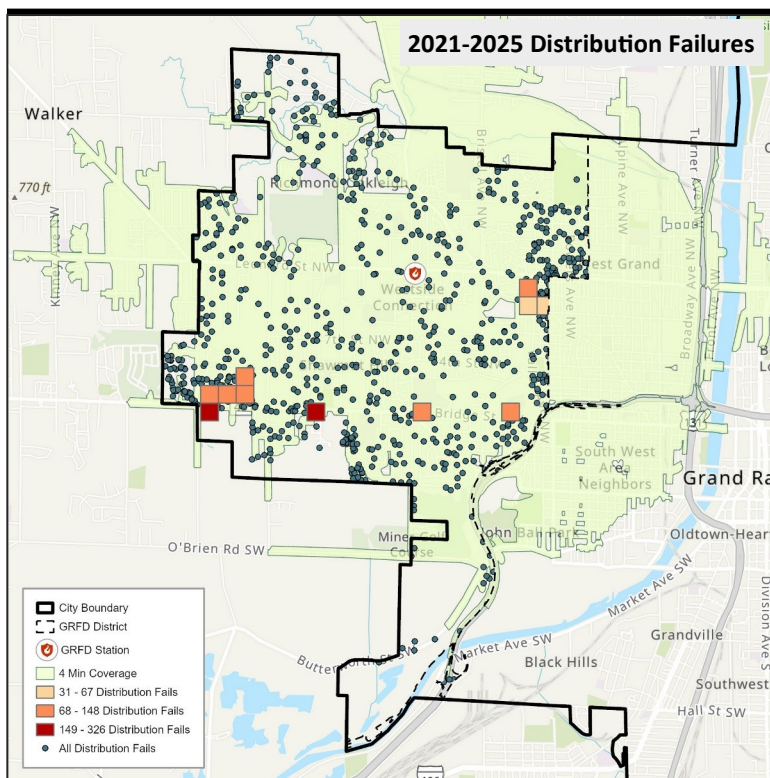
Alarm Type	2021	2022	2023	2024	2025
Fire	55	51	60	59	56
	6.04%	5.64%	6.13%	5.92%	6.17%
EMS	1178	1273	1360	1288	1400
	6.23%	6.59%	6.91%	6.63%	7.13%
Other	351	353	344	444	493
	8.46%	7.87%	7.90%	8.87%	10.34%
Total	1584	1677	1764	1791	1949
	6.61%	6.78%	7.05%	7.05%	7.70%

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 8	1556	1632	1721	1744	1866
Engine 14	0	35	8	5	4
Total	1556	1667	1729	1749	1870
% of City Total	4.64%	4.74%	5.06%	5.01%	5.25%
Deployed Hours	549.49	576.83	592.17	583.29	619.67
% of City Deployed Hours	5.17%	5.27%	5.70%	5.63%	5.75%

District's Apparatus Unit Hour Utilization (UHU)

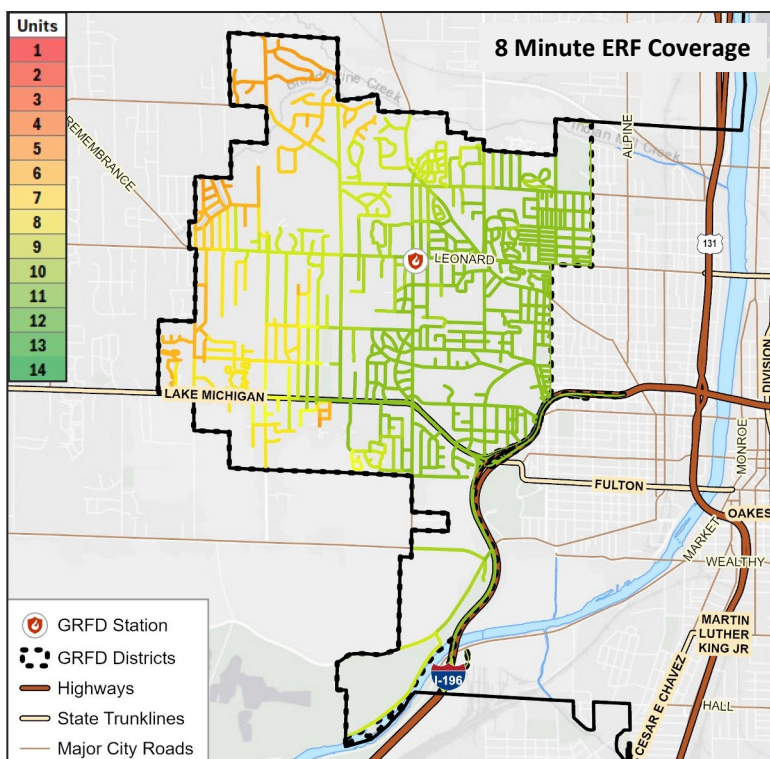
Unit	2021	2022	2023	2024	2025
Engine 8	0.09	0.09	0.10	0.10	0.10



Distribution - 4 Minute Drive Time

Evaluation of the catchment areas for District 8 demonstrated drive time compliance rates around 62% over the last five years. While development is taking place on the western edge of the district, the majority of calls are still occurring relatively close to the station.

Distribution Incident Passes Over Time					
District 8	2021	2022	2023	2024	2025
Total	1,203	1,280	1,376	1,291	1,300
Passes	777	794	826	799	776
% Passes	64.59%	62.03%	60.03%	61.89%	59.69%



Concentration - Effective Response Force

This map depicts the number of units that can be assembled in the district within the multiple unit benchmark travel time of 8 minutes. As with other outlying districts, Covell's concentration metrics begin to fall below compliance levels near the city limits, particularly along the western edge of the district. Automatic mutual aid support for this area is provided by the City of Walker.

Baseline Performance

Total response concentration for these alarms are all at least 1 minute over benchmark. Fire low alarms are 3 minutes and 4 seconds over benchmark and EMS low alarms are 2 minutes 17 seconds over benchmark. These times reflect the district's size and location on the edge of the city.

COVELL Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:57	0:01:59	0:03:23	0:03:22
Turnout	0:01:52	0:01:58	0:01:56	0:01:59
Travel Distribution	0:06:34	0:05:20	0:05:33	0:05:28
Travel Concentration	0:06:30	0:09:44	0:05:33	0:07:19
Total Response Time Distribution	0:10:09	0:08:05	0:09:32	0:09:00
Total Response Time Concentration	0:10:04	0:13:17	0:09:33	0:10:45
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Plainfield Avenue - District 9

Station Information

Address: 2251 Plainfield Ave. NE

Built: 1951 (74 yrs)

Frontline Apparatus: Engine 9

Cross Staffed /Reserves: None



District Quick Look

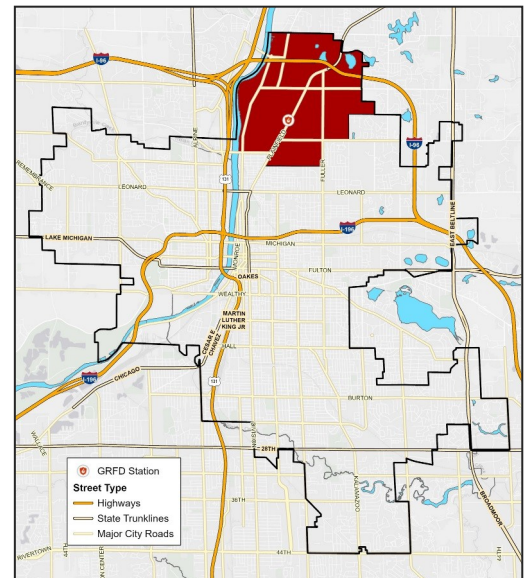
- 5.17 sq mi (3,113 population per sq mi)
- Population of 16,090 (8.1% of city total)
- 78.49 Road Miles
- 2025 Incidents: 1,158

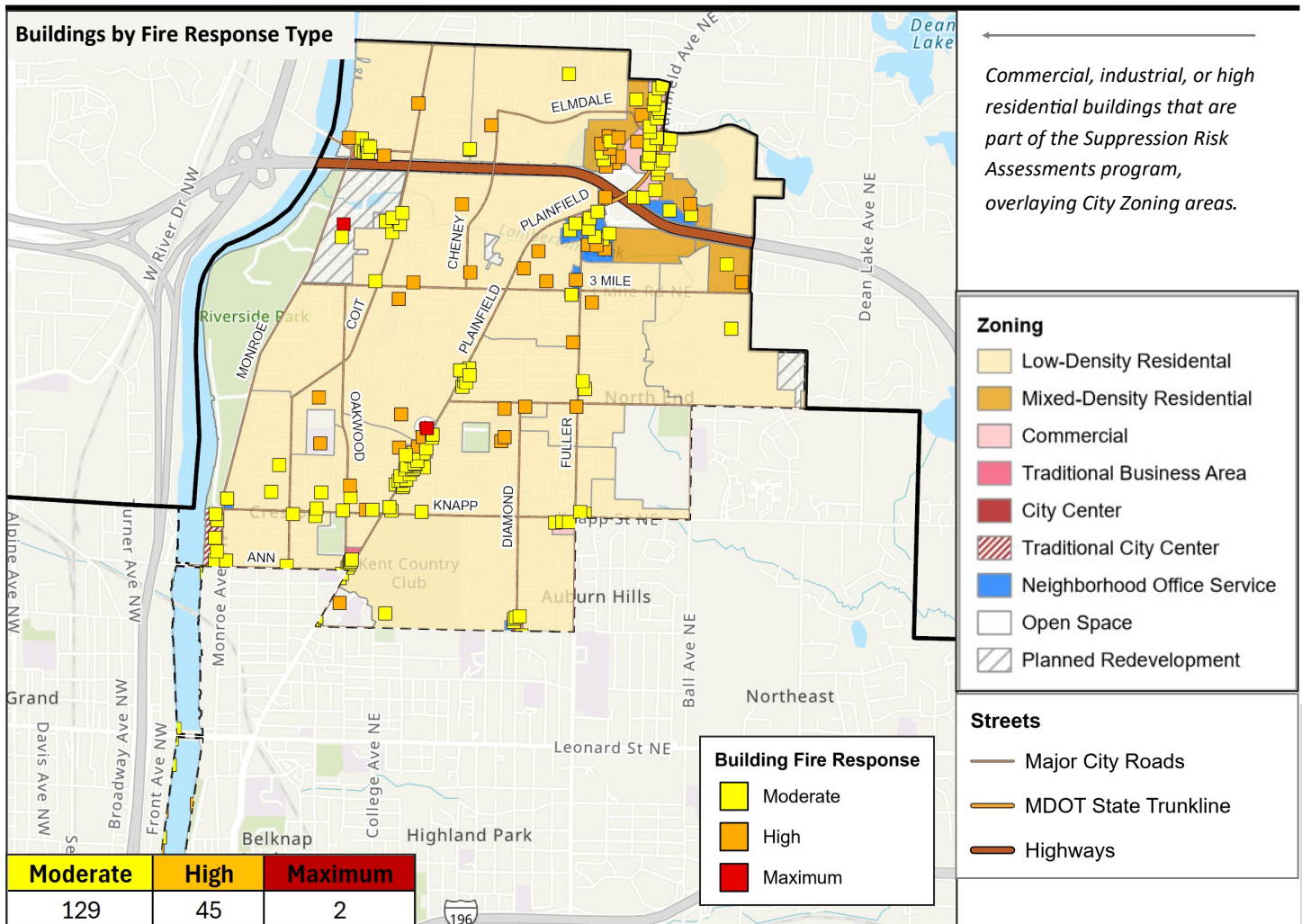


District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
9	889	2,861	38.6	\$ 79,079	39.2	13,347	779	376	415	1,103

District Characteristics:

District 9 (Plainfield) covers the northernmost section of the city. The district is mostly residential in the Creston neighborhood and also contains commercial occupancies along Plainfield Avenue, Knapp Street, and areas of the Aberdeen and Creston business districts. The district has three boat launches at Riverside Park just west of the station and when appropriate, Engine 9 is added to water rescue alarms that occur north of 6th Street Dam to assist the Water Rescue team.





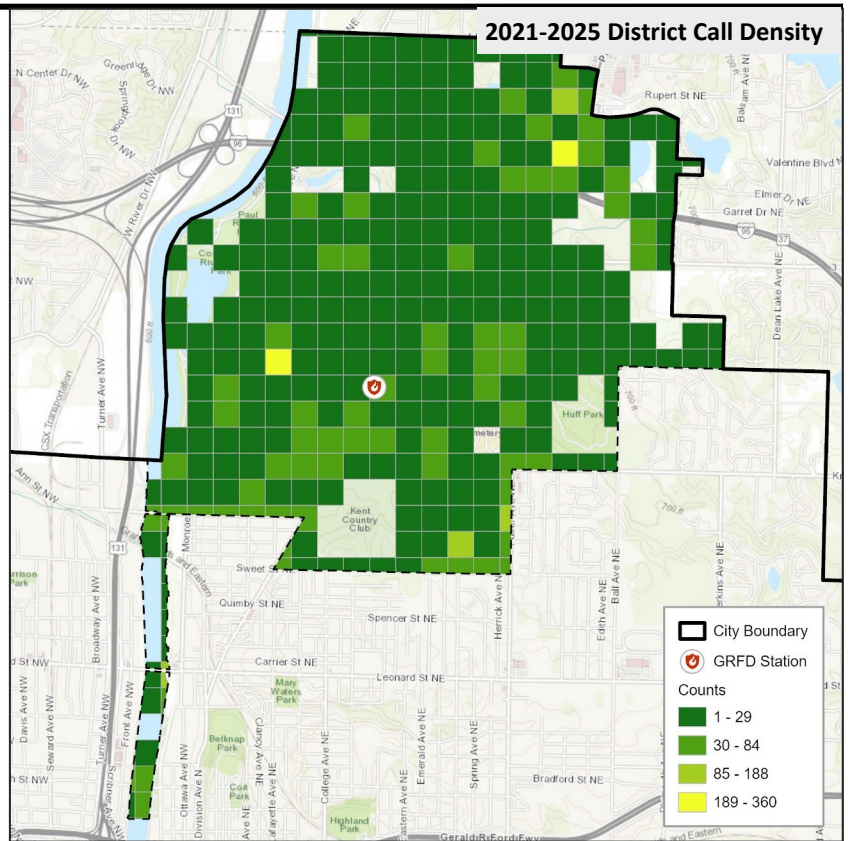
District Risk Assessment:

The Plainfield Ave. District spans 5.17 square miles and serves a population of 16,090. Predominantly residential, the district has seen new podium-style developments along Plainfield Ave. near the Monroe district border. A major hotspot exists at the Motel 6 near the I-96 interchange; though it is listed as a motel, it is currently utilized as short and long term residential housing. This location has a history of code violations that have been addressed by the city. Compared to the rest of the district, this area generates a disproportionately high call volume. The main maximum fire response buildings in this district is a long term care facility for veterans near the northside of the Riverside park and the district's fire station.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
9	6,298	125	1	7	9,248,177	\$ 598,051,022	\$ 1,564,436,559	83.3	41
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	11.25%	3.70%	0.38%	0.82%	5.52%	8.58%	8.20%	90.72%	3.45%

Response Data

District 9 has remained relatively consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents account for about 4–5% of the city's total call volume. The density map shows call activity spread across the district with a few moderate clusters in the central and northeastern portions of the coverage area. District reliability has generally remained between 84–87%, while simultaneous incidents occur in roughly 5–10% of calls, indicating occasional overlapping demand within the district.



Plainfield Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	85.48%	84.31%	84.00%	86.90%	86.98%
Citywide Reliability %	3.96%	3.98%	3.79%	3.71%	3.99%
Simultaneous Incident Count	70	76	111	67	55
Simultaneous Incident %	6.33%	6.56%	9.69%	6.21%	4.75%

District Apparatus Responses

Engine 9's activity has remained relatively steady over the past five years. Total apparatus responses have ranged from 1,417 to 1,460 annually, accounting for roughly 4% of the city's total apparatus activity each year. Deployed hours and unit utilization have remained consistent, reflecting stable

Plainfield District Incidents and % of Citywide

Alarm Type	2021	2022	2023	2024	2025
Fire	52	68	52	49	65
	5.71%	7.52%	5.32%	4.91%	7.17%
EMS	813	872	807	750	830
	4.30%	4.51%	4.10%	3.86%	4.23%
Other	239	219	287	280	263
	5.76%	4.88%	6.59%	5.60%	5.52%
Total	1104	1159	1146	1079	1158
	4.61%	4.69%	4.58%	4.25%	4.58%

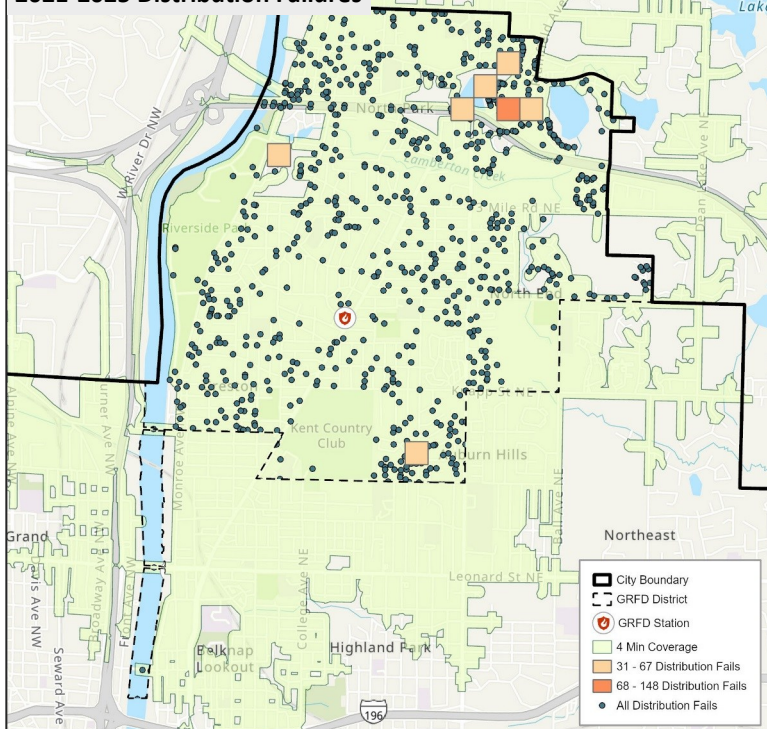
District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 9	1417	1426	1423	1429	1460
Total	1417	1426	1423	1429	1460
% of City Total	4.23%	4.06%	4.17%	4.09%	4.10%
Deployed Hours	459.32	472.77	453.09	454.22	466.82
% of City Deployed Hours	4.32%	4.32%	4.36%	4.38%	4.33%

District's Apparatus Unit Hour Utilization (UHU)

Unit	2021	2022	2023	2024	2025
Engine 9	0.08	0.08	0.08	0.08	0.08

2021-2025 Distribution Failures

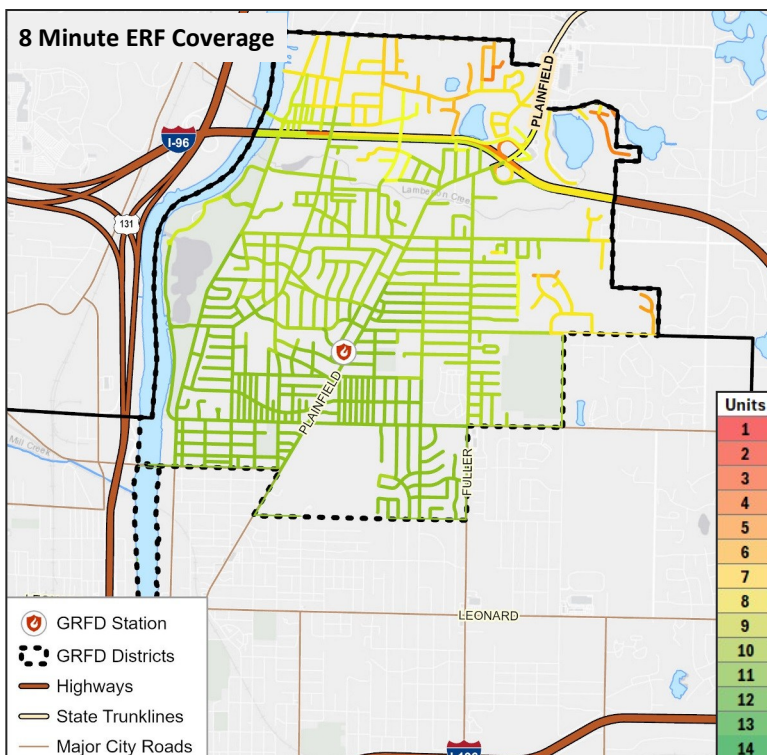


Distribution - 4 Minute Drive Time

District 9's drive time analysis revealed compliance rates around 63% over the last five years. Access to the northern section of the district, impeded by I-96, an expressway running east-west through the district, has a notable impact on actual performance. Analysis of drive times in this section are based on the street speed layer used by CAD (computer-aided dispatch).

Distribution Incident Passes Over Time					
District 9	2021	2022	2023	2024	2025
Total	827	899	813	755	774
Passes	496	561	499	457	482
% Passes	59.98%	62.40%	61.38%	60.53%	62.27%

8 Minute ERF Coverage



This map shows the number of units that can be assembled within the district during the 8 minute multiple-unit benchmark travel time. Like other outlying districts, Plainfield's concentration metrics show lower compliance rates near the city boundaries, most noticeably along the northern edge of the district. Automatic mutual aid support for this area is provided by Plainfield Township to the north.

Baseline Performance

PLAINFIELD Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:48	0:01:58	0:03:38	0:03:11
Turnout	0:02:00	0:02:05	0:02:04	0:02:04
Travel Distribution	0:05:58	0:04:28	0:05:24	0:06:08
Travel Concentration	0:05:58	0:08:54	0:05:23	0:08:10
Total Response Time Distribution	0:08:53	0:07:36	0:09:40	0:09:47
Total Response Time Concentration	0:08:53	0:13:09	0:09:39	0:11:01
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Total response concentration shows all indicated alarm types are at least 1 minute over benchmark; fire moderate and EMS low alarms are 2 minutes over their benchmarks. The difficulty in reaching the northeast corner of the district is impacting those metrics.

Division Avenue - District 10

Station Information

Address: 1734 S. Division Ave.

Built: 1926 (99 yrs)

Frontline Apparatus: Engine 10, Battalion 5

Cross Staffed /Reserves: None



District Quick Look

- 2.94 sq mi (6,539 population per sq mi)
- Population of 19,242 (9.7% of city total)
- 67.69 Road Miles
- 2025 Incidents: 2,125



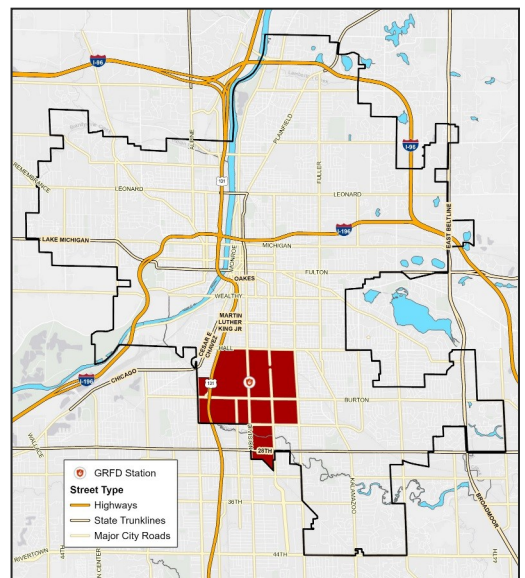
District Characteristics:

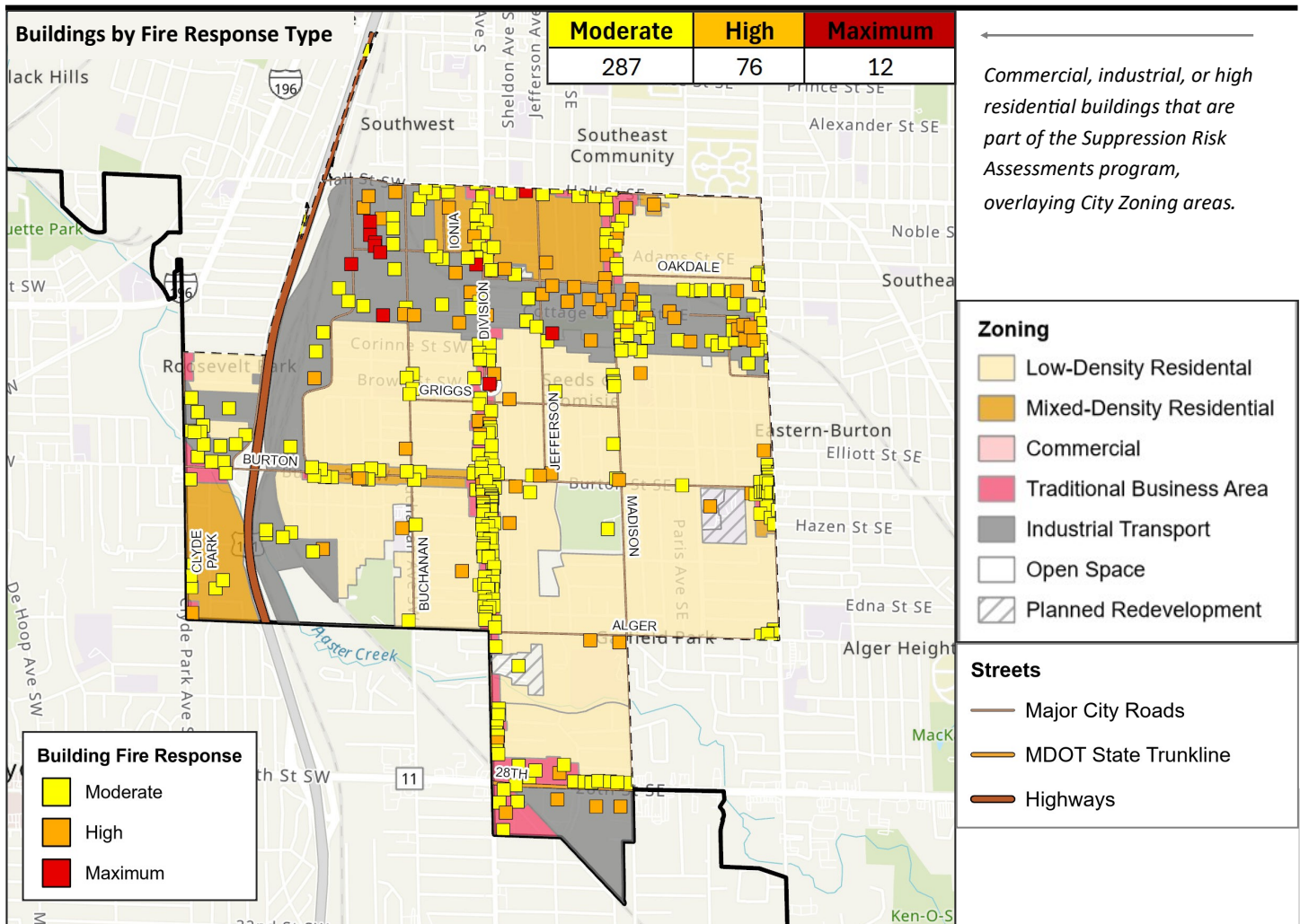
District 10 (Division) is located in the southwest corner of the city with US-131 running through the west part of the area. It contains residential housing within the Garfield Park and South Hills neighborhoods and areas not represented by neighborhood organizations.



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
10	1,642	1,718	29.9	\$ 60,136	87.3	5,028	4,798	150	6,629	9,712

There are many light and heavy industrial occupancies; as well as commercial areas located in Madison Square and Burton Heights business districts. The district has seen the construction of low rise podium style residential buildings along Burton Street as well as the revitalization of commercial taxpayer buildings along Division Avenue in the Burton Heights business district. Engine 10 is one of the city's three extrication units. The Division Avenue Station is currently the third oldest continuously staffed station in Michigan. A new Division station is under construction just south of the existing station and is slated to open Fall 2026.





District Risk Assessment:

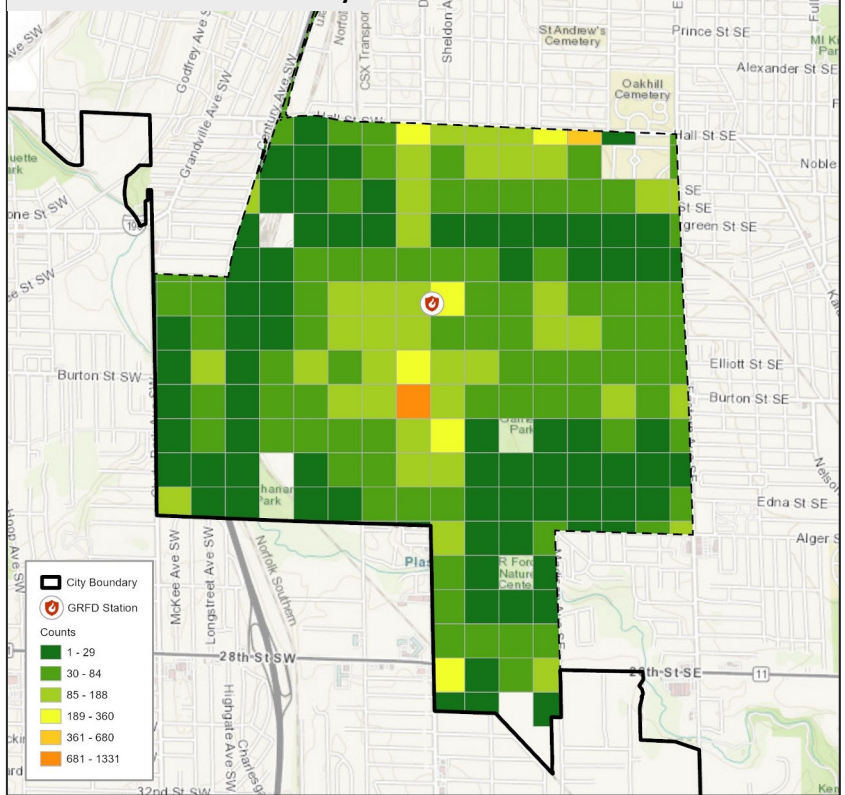
The District 10 covers 2.95 square miles with 19,242 residents. Revitalization along the Division corridor in Burton Heights includes upgrades to ordinary construction buildings with added residential components. New low rise podium construction continues along Burton Street. The district now includes the compact Hope Village subdivision, consisting of 400–500 sq ft lightweight constructed homes built close together, as well as a new zero lot line subdivision built with lightweight construction throughout. South Division Avenue serves as a major route for the unhoused population, contributing to frequent calls along bus routes and bus stop locations. The district also contains an industrial area with a large manufacturing facility north of the station. The maximum fire response buildings in this district are mainly dedicated to manufacturing or processing.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
10	5,069	314	44	94	14,527,810	\$ 379,441,643	\$ 1,215,913,486	103.8	79
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	9.06%	9.30%	16.67%	10.97%	8.68%	5.45%	6.38%	113.12%	6.65%

Response Data

District 10 has remained consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents have accounted for 8–11% of the city's total call volume. The density map shows higher concentrations of calls near the central portion of the district around the station and along several main roadway corridors. District reliability has generally ranged from about 81–84%, while simultaneous incidents occur in roughly 8–11% of calls, indicating periodic overlapping demand within the district.

2021-2025 District Call Density



Division Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	81.54%	81.94%	82.06%	81.46%	83.89%
Citywide Reliability %	8.92%	8.56%	7.33%	7.78%	7.23%
Simultaneous Incident Count	237	272	209	215	161
Simultaneous Incident %	9.07%	10.58%	9.43%	8.91%	7.58%

Division District Incidents and % of Citywide

Alarm Type	2021	2022	2023	2024	2025
Fire	116	103	111	117	91
	12.75%	11.39%	11.35%	11.74%	10.03%
EMS	2137	2080	1721	1911	1725
	11.31%	10.76%	8.75%	9.84%	8.79%
Other	359	389	385	385	309
	8.65%	8.67%	8.84%	7.70%	6.48%
Total	2612	2572	2217	2413	2125
	10.90%	10.41%	8.86%	9.49%	8.40%

District Apparatus Responses

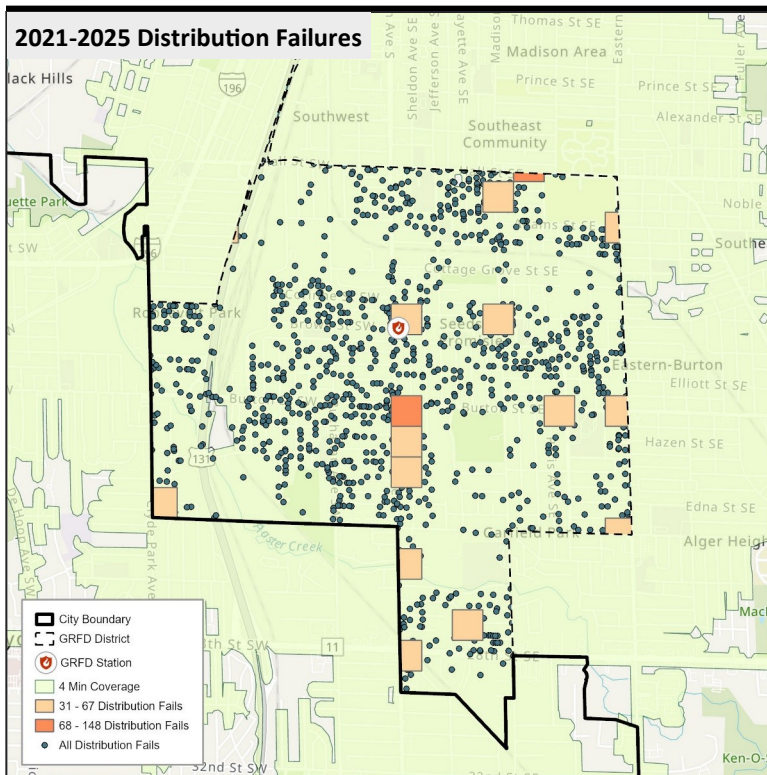
District 10's incident activity has remained relatively steady over the past five years. Engine 10 averages about 2,450 calls per year and Battalion 5 (South battalion) averaging around 1,000 calls per year. The suppression unit with the largest 5 year decrease (-1.57%) is Engine 10. There are many factors that may have contributed to this decrease. The elimination of benches at bus stops along Division Avenue removed locations that previously generated multiple daily alarms. Additionally, the regular staffing of Utility 2 has allowed Engine 2 to remain in service more consistently, reducing the need for Engine 10 to respond into Engine 2's district. Adjusted travel speeds within CAD have further contributed to the reduction in Engine 10's call volume.

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 10	2633	2651	2246	2427	2238
Battalion Car 5	1171	1074	916	1002	921
Total	3804	3725	3162	3429	3159
% of City Total	11.34%	10.60%	9.26%	9.82%	8.86%
Deployed Hours	1155.87	1099.11	942.68	964.44	882.12
% of City	10.87%	10.04%	9.08%	9.30%	8.18%

District's Apparatus Unit Hour Utilization (UHU)

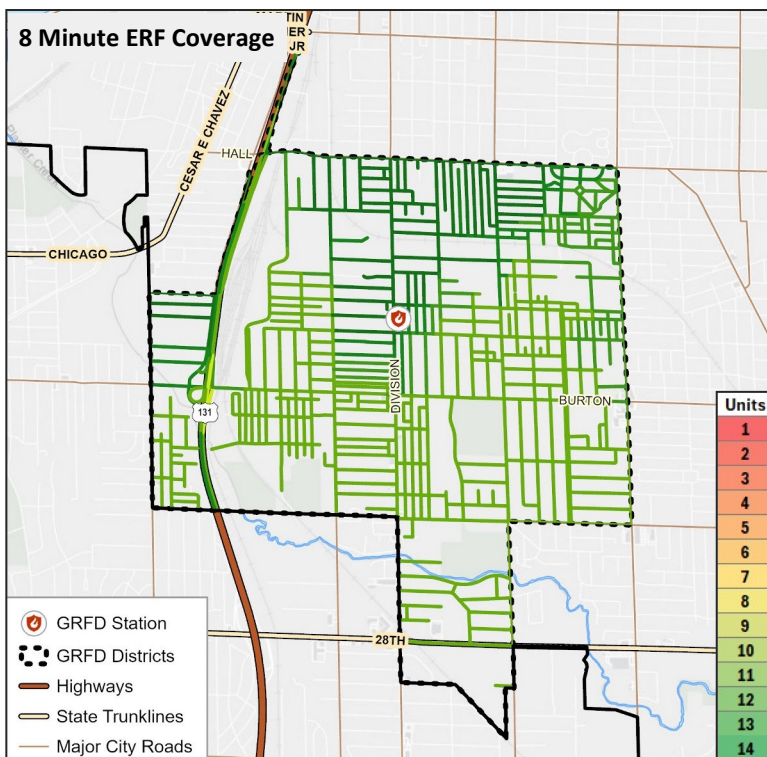
Unit	2021	2022	2023	2024	2025
Engine 10	0.13	0.13	0.11	0.12	0.11
Battalion Car 5	0.06	0.05	0.05	0.05	0.05



Distribution - 4 Minute Drive Time

A study of drive times indicated that 73% of incidents fall within catchment area compliance standards. Performance is impacted by restricted access to and across the expressway, which runs through the western edge of the district.

Distribution Incident Passes Over Time					
District 10	2021	2022	2023	2024	2025
Total	2,110	2,097	1,746	1,929	1,646
Passes	1,564	1,514	1,261	1,389	1,234
% Passes	74.12%	72.20%	72.22%	72.01%	74.97%



Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. The Division district demonstrates strong capability to assemble an effective response force, with only minor variation from the northern boundary to the southern edge of the district. Division is also bordered by two districts that each staff two frontline apparatus.

DIVISION Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:29	0:01:57	0:03:53	0:03:15
Turnout	0:02:07	0:02:00	0:02:03	0:02:02
Travel Distribution	0:04:54	0:03:26	0:04:36	0:04:52
Travel Concentration	0:04:54	0:06:52	0:04:36	0:06:05
Total Response Time Distribution	0:08:30	0:06:02	0:08:57	0:08:47
Total Response Time Concentration	0:08:31	0:10:23	0:08:57	0:09:48
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total concentration response shows fire moderate alarms fall within its benchmark and EMS moderate falls very close to its benchmark. Fire and EMS low are both at least 1 minute and 30 seconds over benchmark.

Chester Street - District 11

Station Information

Address: 1002 Chester St. SE

Built: 1902 (123 yrs)

Frontline Apparatus: Engine 11

Cross Staffed /Reserves: None



District Quick Look

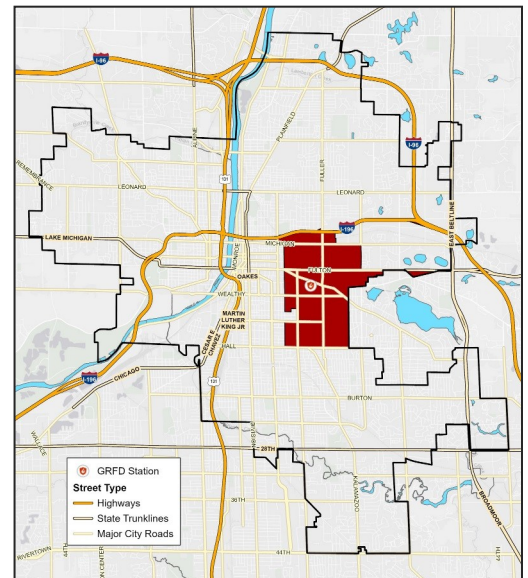
- 3.03 sq mi (7,730 population per sq mi)
- Population of 23,433 (11.8% of city total)
- 83.57 Road Miles
- 2025 Incidents: 2,258

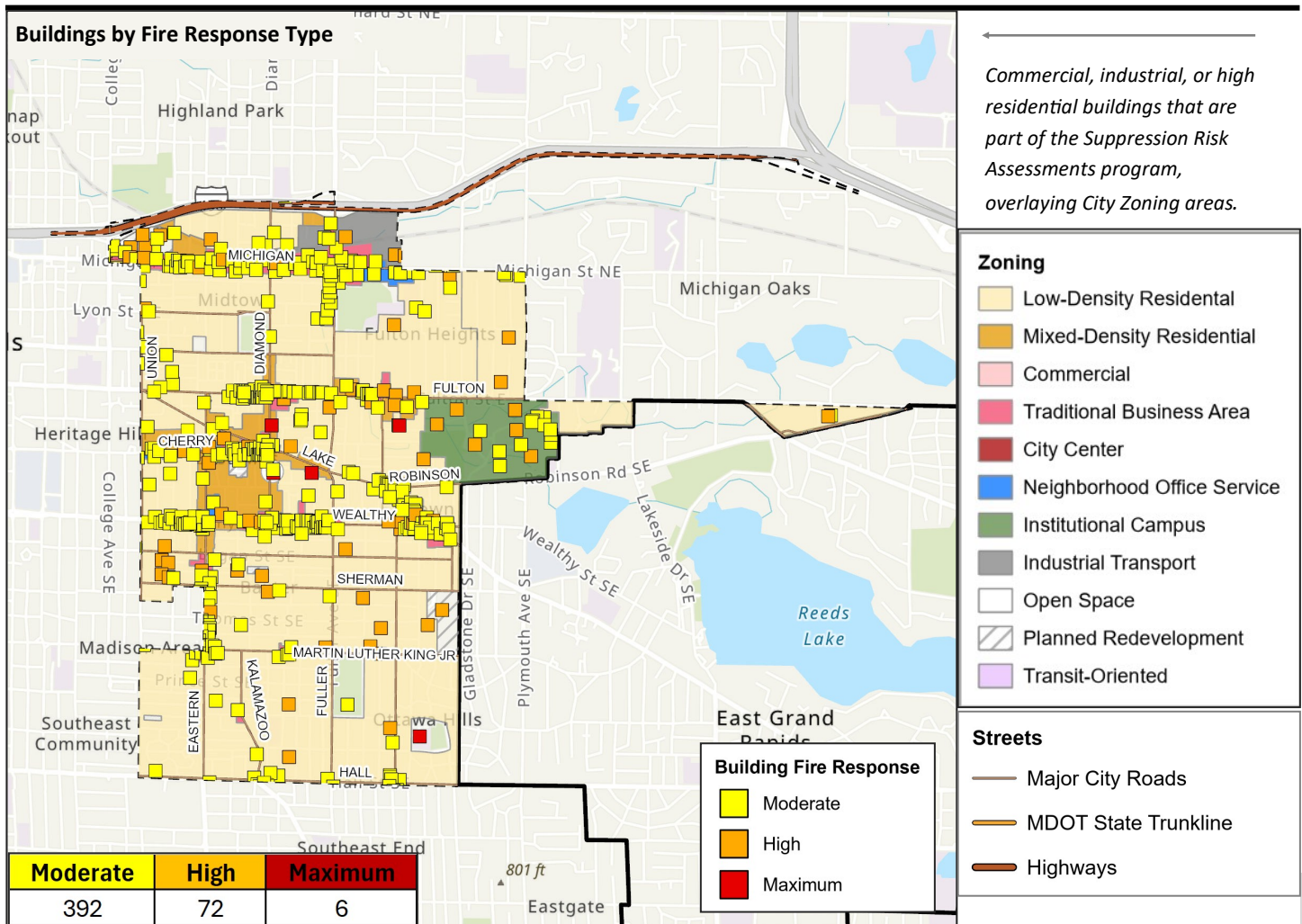


District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
11	1,421	2,239	30.2	\$ 76,564	64.1	14,089	5,976	305	1,183	2,277

District Characteristics:

District 11 (Chester) is located in the historic East Hills and covers the East Hills, South Hills, Baxter, Eastown, Southeast End, and Ottawa Hills neighborhoods. It contains many commercial areas near Martin Luther King Jr Avenue and Eastern Avenue, Cherry and Lake Drive, Diamond Avenue, and Eastown business districts. The Eastown business district has seen considerable redevelopment and is a vibrant business district that borders the City of East Grand Rapids. This area has also seen an increase in construction of low rise podium style commercial and residential buildings in the last few years. Aquinas College, a private Catholic liberal arts college, is located on the eastern edge of the district and has an annual enrollment of 1,200 to 1,300 students. The Chester Street Station was built in 1902, which makes it the oldest station in the city and the second oldest continuously staffed station in the state behind the Manistee Fire Station in the city of Manistee.





District Risk Assessment:

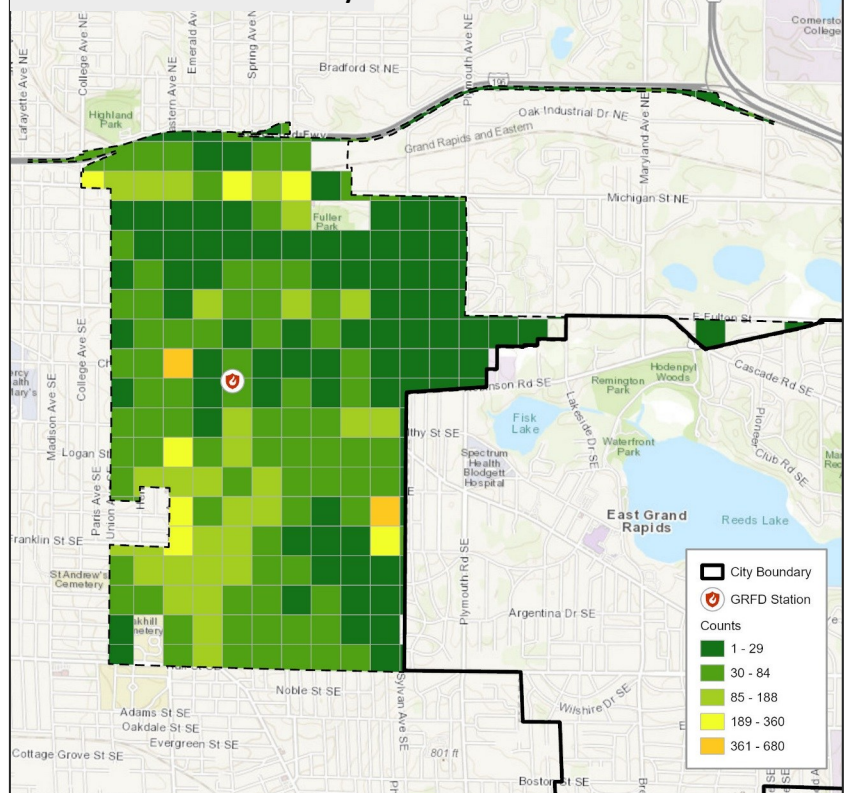
District 11 covers 3.03 square miles with a population of 23,433. It includes two historic residential areas with large balloon-frame homes, some converted into multi-unit apartments. The district has seen growth in low-rise podium-style developments, particularly in Easttown and along the Eastern Avenue corridor north of Martin Luther King Jr Street. Revitalized ordinary-construction buildings in Easttown now include mixed commercial and residential uses, with similar developments along Michigan Avenue near the east end of the “Medical Mile”. On the eastern border, near the City of East Grand Rapids, there is a large retirement community with an assisted-living complex and independent-living duplexes, which generates a significant share of district’s alarms. The maximum fire response buildings in this district are mainly primary schools.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
11	7,098	441	6	55	16,725,366	\$ 747,903,473	\$ 2,231,721,517	113.2	95
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	12.68%	13.07%	2.27%	6.42%	9.99%	10.73%	11.70%	123.29%	8.00%

Response Data

District 11 has remained relatively consistent in its yearly number of incidents and share of citywide calls over the past five years. Total incidents accounted for 8–9% of the city's total call volume. The density map shows call activity spread throughout the district with a high number of alarms just west of the station belonging to Clark Retirement Home, a frequented location. District reliability has generally ranged between 69–75%, while simultaneous incidents occur in roughly 7–9% of calls, indicating periodic overlapping demand within the district.

2021-2025 District Call Density



Chester Reliability & Simultaneous Performance

	2021	2022	2023	2024	2025
Reliability %	69.50%	74.02%	77.49%	74.12%	75.21%
Citywide Reliability %	6.08%	6.23%	6.49%	6.46%	6.73%
Simultaneous Incident Count	179	179	149	188	187
Simultaneous Incident %	8.59%	8.63%	7.17%	8.53%	8.28%

Chester District Incidents and % of Citywide

Alarm Type	2021	2022	2023	2024	2025
Fire	78	85	89	101	104
	8.57%	9.40%	9.10%	10.13%	11.47%
EMS	1535	1537	1592	1509	1623
	8.12%	7.95%	8.09%	7.77%	8.27%
Other	472	451	398	593	531
	11.37%	10.05%	9.14%	11.85%	11.14%
Total	2085	2073	2079	2203	2258
	8.70%	8.39%	8.31%	8.67%	8.92%

District Apparatus Responses

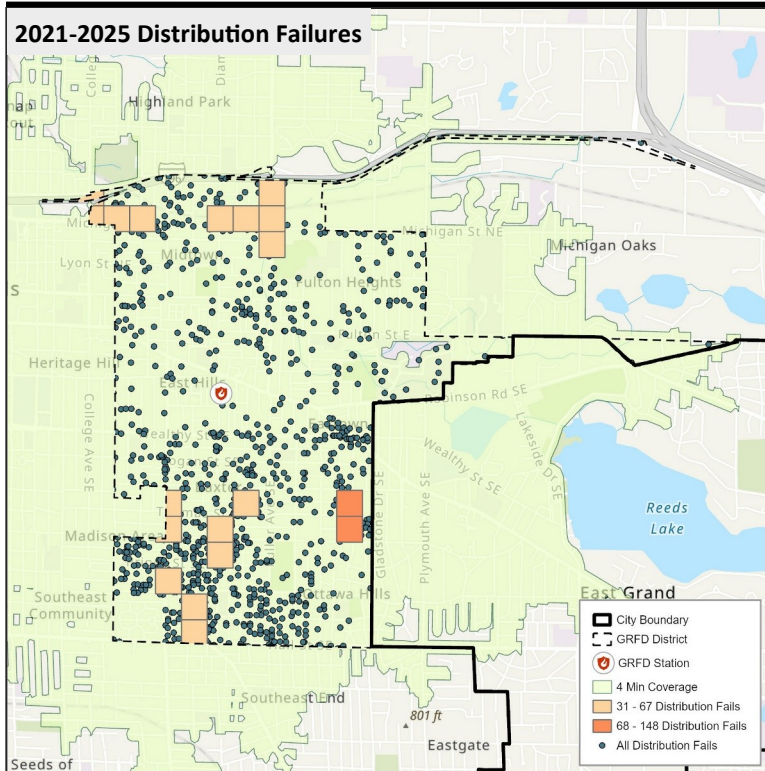
Engine 11's activity has remained relatively steady over the past five years. Total apparatus responses have ranged from 1,916 to 2,200 annually. Engine 11 handles all responses in the district and serves as the primary response unit. Deployed hours and unit utilization have remained consistent, reflecting stable operational demand within the district.

District's Apparatus Responses

Unit	2021	2022	2023	2024	2025
Engine 11	1916	2053	2105	2200	2148
Total	1916	2053	2105	2200	2148
% of City Total	5.71%	5.84%	6.16%	6.30%	6.03%
Deployed Hours	579.01	651.42	612.79	632.07	648.25
% of City Deployed Hours	5.44%	5.95%	5.90%	6.10%	6.01%

District's Apparatus Unit Hour Utilization (UHU)

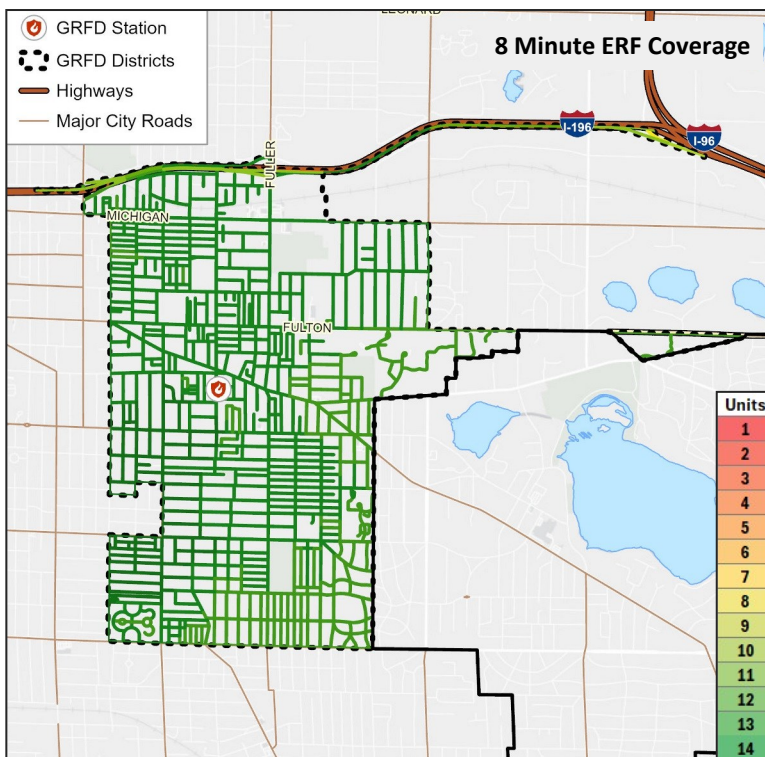
Unit	2021	2022	2023	2024	2025
Engine 11	0.10	0.11	0.11	0.11	0.11



Distribution - 4 Minute Drive Time

Assessment of drive times for the District 11 catchment area demonstrated compliance rates at 73% for the incident data from the last five years. Drive times in this district are impacted by narrow streets, and the station's location, which is not on a major thoroughfare. Analysis of drive times in this section are based on the street speed layer used by CAD (computer-aided dispatch).

Distribution Incident Passes Over Time					
District 11	2021	2022	2023	2024	2025
Total	1,509	1,535	1,581	1,509	1,494
Passes	1,082	1,144	1,151	1,115	1,087
% Passes	71.70%	74.53%	72.80%	73.89%	72.76%



Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8-minute multiple-unit benchmark travel time. Bordering seven other districts, District 11 demonstrates very high compliance rates for effective response force requirements. Additionally, four of the neighboring districts are staffed with two frontline apparatus, further strengthening response coverage.

CHESTER Response District - 90th Percentile Baseline Performance - 2021-2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:02:07	0:02:00	0:03:26	0:02:48
Turnout	0:02:09	0:01:54	0:02:04	0:02:00
Travel Distribution	0:04:20	0:03:37	0:04:43	0:05:04
Travel Concentration	0:04:20	0:06:36	0:04:43	0:05:33
Total Response Time Distribution	0:07:34	0:06:02	0:08:47	0:08:07
Total Response Time Concentration	0:07:34	0:09:55	0:08:47	0:09:23
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30

Baseline Performance

Total response concentration shows fire and EMS moderate alarms fall within its benchmark time. EMS low alarms are 1 minute and 17 seconds over the benchmark time.

Kendall Avenue - District 12

Station Information

Address: 4044 Kalamazoo Ave. SE
Built: 2025
Frontline Apparatus: Engine 12
Cross Staffed /Reserve Apparatus: None



Quick Look

- 2.92 sq mi (3,947 population per sq mi)
- Population of 11,607 (5.8% of city total)
- 44.78 Road Miles
- 2025 Incidents (Sept. 26 - Dec. 31): 324



District	Age <5	Age >65	Median Age	Median	Diversity Index*	Race: White	Race: Black	Race: Asian	Race: Other	Hispanic Ethnicity
12	706	2,335	37.7	\$ 60,923	73.8	5,203	3,698	1,181	665	1,188

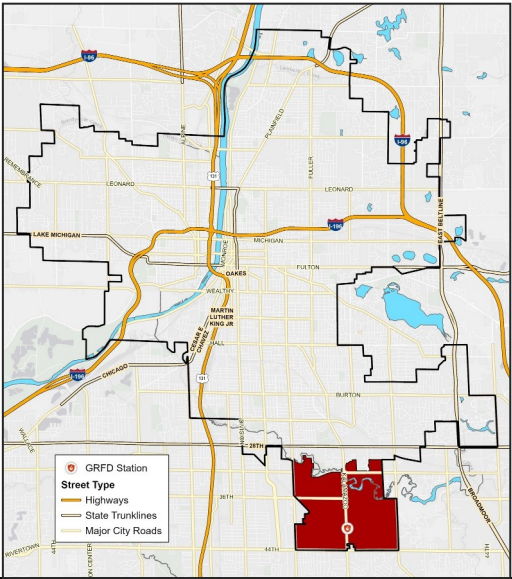
District Characteristics:

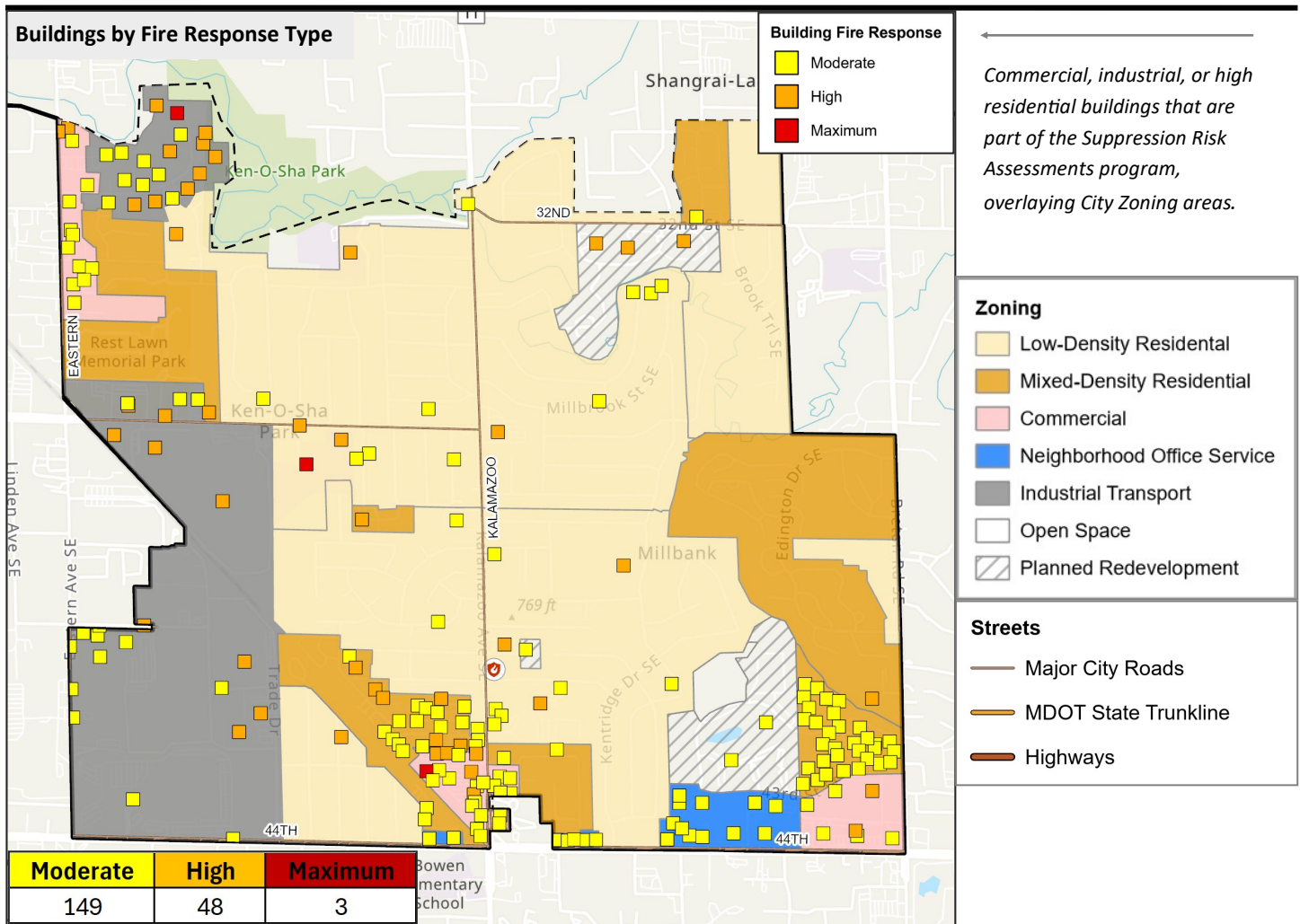
District 12 (Kendall) is the newest and southernmost located district within the city. The district area used to be included within District 4 (Kalamazoo) but the observation of lower effective response coverage determined that placement of a new station in the area with an additional engine would better serve the needs of the residents.

The district is home to the multiple residential areas, including the Millbrook neighborhood, and includes small pockets of commercial and industrial areas on the western border. The station was completed in fall of 2025 and has already proven to be of benefit to the community in addition to alleviating some of the incident volume previously placed on District 4’s apparatuses.

The new station is 12,600 sq ft, built on an acquired 1.5 acre property at the northeast corner of Kalamazoo Avenue and Kendall Street. It was designed by Integrated Architecture and constructed by EV Construction. The project cost \$7.8 million and was funded by city funds and a state grant. It officially opened September 26, 2025.

The placement of this station resulted in an expanded auto aid response area with the City of Kentwood.





District Risk Assessment:

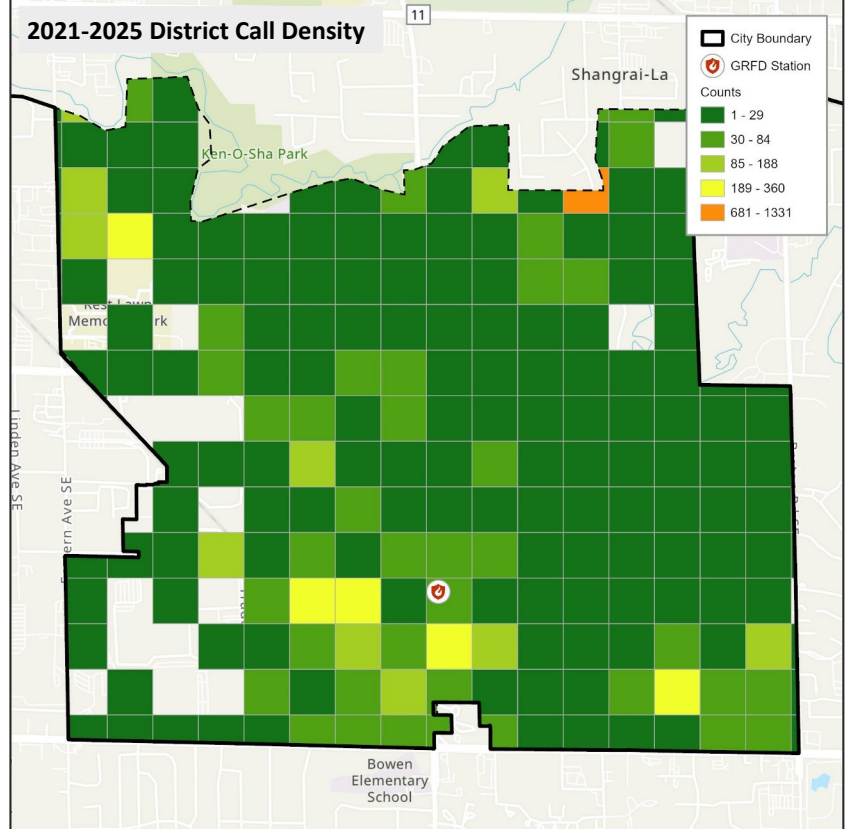
District 12 covers 2.92 square miles with a population of 11,607. Formerly part of the District 4 (Kalamazoo), it became an independent district when Kendall Station opened in September 2025. The area includes older commercial buildings, large apartment complexes, and residential neighborhoods. The district also contains a major retirement facility with three complexes and adjoining independent living duplexes. One building in the complex appears two stories from the front but rises to four stories at the rear. Additional apartment development is underway in the southeast area. The maximum fire response buildings in this district includes a manufacturing or processing business, an educational establishment, and the district’s fire station.

District	Residential Occupancies	Commercial Occupancies	Industrial Occupancies	Tax Exempt	Total Square Ft	Taxable Value	True Cash Value	Average Building Age (years)	Sprinklered Occupancies
12	2,897	150	23	16	11,599,915	\$ 411,617,190	\$ 1,047,581,329	56.1	42
Citywide	55,975	3,375	264	857	167,397,810	\$ 6,968,258,276	\$ 19,067,964,666	91.8	1,188
% of City	5.18%	4.44%	8.71%	1.87%	6.93%	5.91%	5.49%	61.15%	3.54%

Response Data

District 12 was established recently, with the station constructed last year and placed in service in late September of 2025. Due to limited time in service, the available data reflects only a partial year of operations. In that time, the district recorded 324 total incidents, accounting for about 1.28% of the city's call volume. District reliability during this initial period was 86.75%, with simultaneous incidents occurring in about 4.63% of calls. The density map shows call activity spread across the district with a few moderate clusters near the central and southern portions of the coverage area, reflecting the early operational demand within the newly established district.

Alarm Type	2025
Fire	8
	0.88%
EMS	260
	1.32%
Other	56
	1.17%
Total	324
	1.28%



2025			
Unit	Responses	Deployed Hours	UHU
Engine 12	406	123.18	0.02
% of City Total	1.14%	1.14%	

Kendall Reliability & Simultaneous	
	2025
Reliability %	86.75%
Citywide Reliability %	0.92%
Simultaneous Incident Count	15
Simultaneous Incident %	4.63%

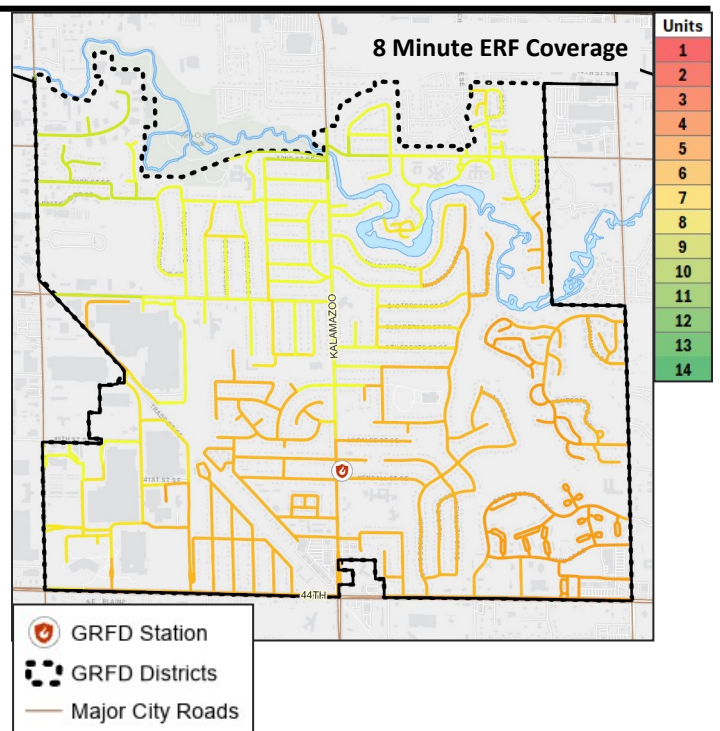
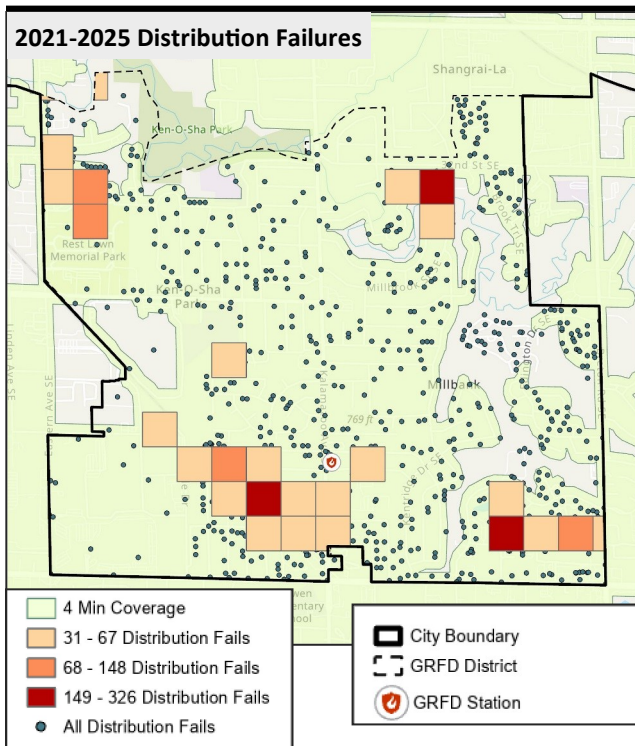
District Apparatus Responses

Since Engine went into service, the apparatus responded to 406 incidents, accounting for about 1.14% of the city's total apparatus responses. The unit recorded 123.18 deployed hours with a unit hour utilization of 0.02, reflecting the limited operational period for the new station. As the station operates through a full year, these figures are expected to increase and better represent the district's service demand. It is expected to be similar to that of District 9 (Plainfield).

Baseline Performance

Total response concentration for EMS moderate alarms are well within its benchmark time. There were not any fire moderate alarms within this district in 2025. Fire low alarms are almost 2 minutes over its benchmark and EMS low alarms are 2 minutes 18 seconds over its benchmark.

KENDALL Response District - 90th Percentile Baseline Performance - 2025				
	Fire Low	Fire Moderate	EMS Low	EMS Moderate
Alarm Handling	0:01:33	0:01:37	0:03:38	0:03:23
Turnout	0:00:31	0:01:19	0:02:22	0:02:54
Travel Distribution	0:02:41	0:02:45	0:05:17	0:03:55
Travel Concentration	0:02:41	NA	0:05:17	0:03:29
Total Response Time Distribution	0:08:55	0:08:12	0:09:48	0:07:48
Total Response Time Concentration	0:08:55	NA	0:09:48	0:07:41
Total Response Time Concentration Benchmarks	0:07:00	0:11:00	0:07:30	0:09:30



Distribution - 4 Minute Drive Time

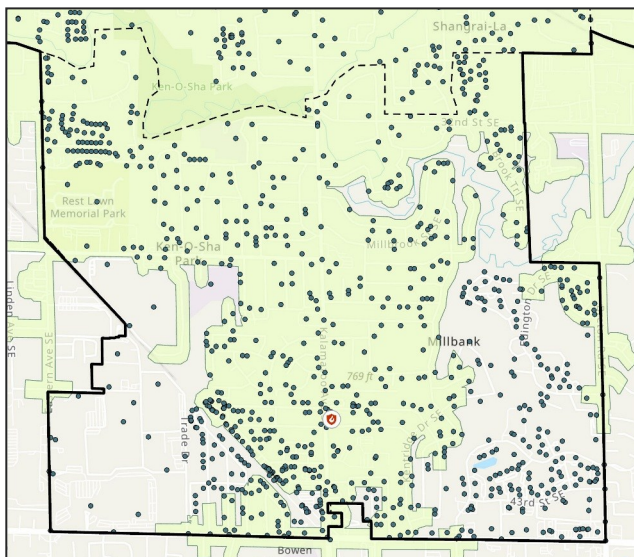
Distribution Incident Passes Over Time	
District 12	2025
Total	188
Passes	116
% Passes	61.70%

Assessment of drive times for the District 12 catchment area demonstrated compliance rates at 62% for the incident data from September-December of 2025.

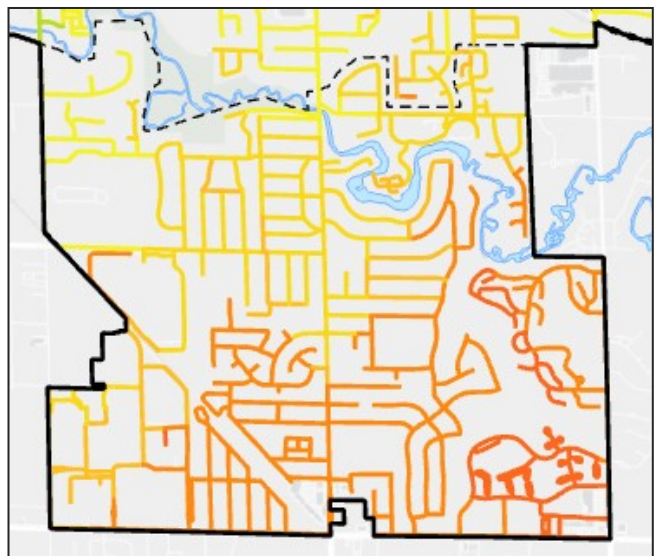
Concentration - Effective Response Force

This map shows the number of units that can be assembled within the district during the 8 minute multiple-unit benchmark travel time. Since District 12 is the farthest south in the city, it has a low compliance near the city boundaries. The southern portion of the district is particularly isolated from neighboring districts, though automatic mutual aid support is provided by the City of Kentwood.

4 minute Coverage without Kendall Station



8 minute ERF Coverage without Kendall Station

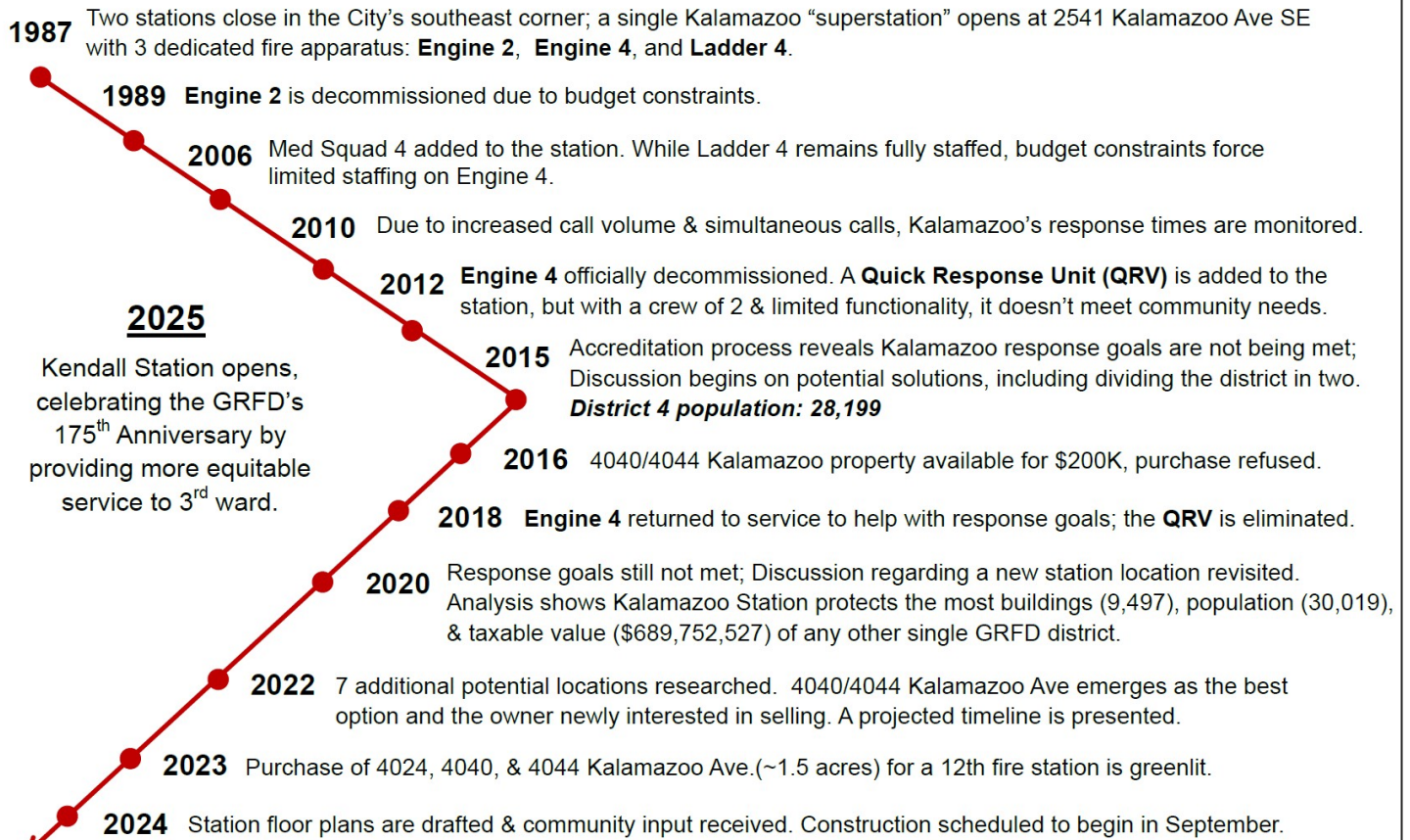




Informational display provided during Kendall's station groundbreaking



Evolution of a Fire Station - Kalamazoo to Kendall



Benchmarks & Baselines



Past Performance Overview & Status

Fire

Emergency Medical Services

Hazardous Materials

Tech Rescue - Elevator MED

Tech Rescue - Extrication, Rope, Confined

Tech Rescue - Collapse, Trench

Water Rescue

Current Performance Overview

Past Benchmark/ Baseline Performance Overview

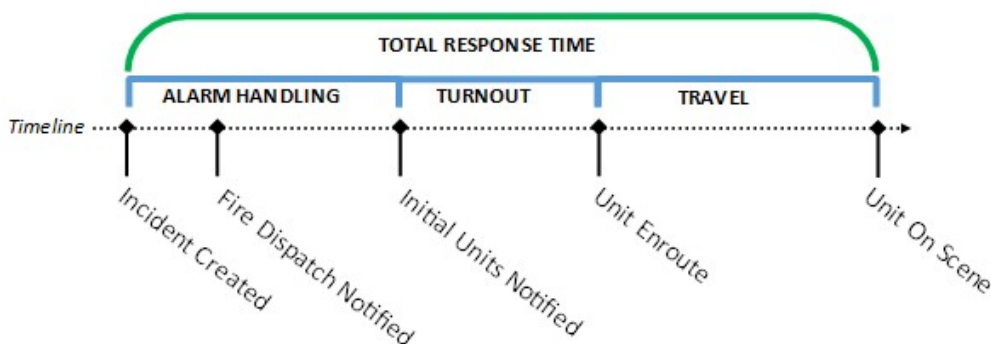
The 2016 -2020 Reaccreditation cycle identified three main opportunities for improving total response time, which are outlined below along with the status of those initiatives.

- **More accurately represent total response time performance by capturing initial ring time to incident creation.** Unfortunately, ring time is still not available within the CAD Motorola records management system. While we are able to capture the time when a call taker places their cursor within a new incident form, the 2021-2025 accreditation cycle has identified that call takers sometimes interact with a blank incident form before a call comes in. This translates to an excessive and incorrect alarm handling time and sometimes result in an incorrect Distribution or Concentration failure. Even with this information, using the “CAD Incident Create” time is still the most accurate start time available for measuring total response time. The Emergency Communications Department is aware of the issue with using “CAD Incident Create” time and the desire to utilize “ring” time when it becomes available.
- **Ensure an ability to better match risk levels with initial assignments based on CAD alarm types in relation to identified risks.** The Emergency Communications Center assigns an alarm type to an incident based on modifying circumstance and a Maximum-High list of structures identified through quarterly risk assessments, risk assessment critical tasking (RA/CT) meetings, and recommendations by crews based on actual incident responses. Every alarm type has a response card with details outlining the exact resources required for the type of emergency being reported; these response cards are reviewed during the RA/CT meetings and updated as necessary. Starting in 2024, a Maximum-High location audit began in order to ensure the Maximum-High list used for CAD dispatching matches the information logged in the GRFD’s internal RMS system that contains greater detail as to *why* these specific locations warrant a higher response. A standard work was also created for crews to follow if they want to recommend upgrading a single unit fire alarm to a High or Max level response.
- **Address the need for additional resources in the Kalamazoo response district.** The coverage deficiency discovered in this district was addressed with the construction of the new Kendall Station and the new Kendall District, all of which became fully active in late September 2025. This new district covers the southern part of the old Kalamazoo district with an Engine company of 3 crew members. The department began initial analysis of performance using 2025 quarter 4 data and will continue to monitor overall performance in the area.

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The historic data presented in the baseline charts represented actual data from 2021 to 2025.

Emergency Response Timeline



For additional details regarding these timestamps, please reference page 41 within the “All Hazards Community Risk Assessment” section (*Emergency Response Definitions*)

Fire: Benchmark Statements

Benchmark Statements: The desired level of GRFD response performance objectives for the indicated risk category.

Baseline Performance: Current level of GRFD's response performance.

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For all fire risk levels, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, shall be 7 minutes. The first due unit shall be capable of establishing command, sizing up the incident, utilizing appropriate tactics in accordance with departmental standard operating guidelines, developing an initial action plan, extending an appropriate hose line and beginning initial fire attack or rescue.

For moderate risk fires, the 90th percentile of total response time for the arrival of the effective response force, consisting of 19 personnel, shall be 11 minutes. The effective response force shall have the capability to establish command, provide an uninterrupted water supply, advance an attack line and backup line for fire control, establish a rapid intervention crew, complete forcible entry and ventilation, conduct primary and secondary searches, control utilities and perform salvage and overhaul operations. These critical tasks shall be done in a safe manner in accordance with department standard operating guidelines.

For high risk fires, the 90th percentile of total response time for the arrival of the effective response force, consisting of 26 personnel, shall be 13 minutes. The effective response force shall have the capability to establish command, provide an uninterrupted water supply, advance an attack line and backup line for fire control, place elevated streams into service, establish a rapid intervention crew, complete forcible entry and ventilation, conduct primary and secondary searches, control utilities and perform salvage and overhaul operations. These critical tasks shall be done in a safe manner in accordance with department standard operating guidelines.

For maximum risk fires, the 90th percentile of total response time for the arrival of the effective response force, consisting of 35 personnel, shall be 15 minutes. The effective response force shall have the capability to establish command, provide an uninterrupted water supply, advance multiple attack lines and backup lines for fire control, place elevated streams into service, establish a rapid intervention crew, complete multiple forcible entry and ventilation procedures, conduct primary and secondary searches, control utilities, perform occupant evacuation and perform salvage and overhaul operations. These critical tasks shall be done in a safe manner in accordance with department standard operating guidelines.

Fire: Baseline Performance

For **low risk fires**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 8 minutes and 35 seconds. The first due unit is capable of establishing command, sizing up the incident, utilizing appropriate tactics in accordance with departmental standard operating guidelines, developing an initial action plan, extending an appropriate hose line and

Fire Suppression		Low Risk (ERF 3)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	1:00	2:30	2:37	2:14	2:38	2:24	2:30
	n=		1737	349	360	371	335	322
Turnout Time <i>of first unit enroute</i>	1:30	0:26	1:56	1:58	1:48	1:59	1:53	1:59
	n=		1730	347	360	368	334	321
Travel - Distribution	4:00	1:19	5:19	5:09	5:21	5:21	5:33	5:12
	n=		1610	324	342	340	306	298
Travel - Concentration	4:00	1:19	5:19	5:04	5:21	5:22	5:31	5:12
	n=		1610	324	342	340	306	298
Total Reponse - Distribution	7:00	1:35	8:35	8:32	8:22	8:39	8:28	8:51
	n=		1610	324	342	340	306	298
Total Response - Concentration	7:00	1:38	8:38	8:34	8:22	8:43	8:36	8:52
	n=		1610	324	342	340	306	298

beginning initial fire attack or rescue. These critical tasks are done in a safe manner in accordance with department standard operating guidelines. *Though not required, the GRFD includes concentration in low risk responses to maintain consistency across the tables, as a way to verify reporting methodologies, and to potentially identify unique deployment situations. Percentiles for distribution and concentration sometimes differ due to rare incidents where a crew is split between a frontline and support unit, and ERF is not reached until both units arrive on scene.

For **moderate risk fires**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 7 minutes and 2 seconds. The first due unit is capable of establishing command, sizing up the incident, utilizing appropriate tactics in accordance with departmental standard operating guidelines, developing an initial action plan, extending an appropriate hose line and

Fire Suppression		Moderate Risk (ERF 19)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	0:31	2:01	1:58	2:05	2:02	2:06	1:50
	n=		1346	260	255	260	295	276
Turnout Time <i>of first unit enroute</i>	1:30	-0:11	1:19	1:00	1:07	1:23	1:28	1:20
	n=		1346	260	255	260	295	276
Travel - Distribution	4:00	0:10	4:10	3:56	3:55	4:12	4:22	4:21
	n=		1339	259	254	260	293	273
Travel - Concentration	8:00	0:15	8:15	7:40	8:04	8:03	8:44	8:23
	n=		610	120	116	120	127	127
Total Reponse - Distribution	7:00	0:02	7:02	6:24	6:36	7:11	7:35	7:19
	n=		1339	259	254	260	293	273
Total Response - Concentration	11:00	0:41	11:41	10:21	11:48	10:59	11:58	12:32
	n=		610	120	116	120	127	127

beginning initial fire attack or rescue. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 16 personnel, totaling 19 personnel, was 11 minutes and 41 seconds. The effective response force has the capability of establishing command, providing an uninterrupted water supply, advancing an attack line and backup line for fire control, establishing a rapid intervention crew, completing forcible entry and ventilation, conducting primary and secondary searches, controlling utilities, and performing salvage and overhaul operations. These critical tasks are done in a safe manner in accordance with department standard operating guidelines. The five year alarm handling times for Fire Moderate alarms (structure fires) reflect the decommissioning of the antiquated Z-tron station dispatching system, two and a half years of manual station dispatching, and another year of experiencing a syncing delay between the new Phoenix G2 dispatching system and CAD; in 2025 times have started to improve after these events. For additional information of these events, please reference the “Dispatching & Alarm Handling” pages of the Current Deployment section.

Fire: Baseline Performance

For **high risk fires**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 7 minutes and 13 seconds. The first due unit shall be capable of establishing command, sizing up the incident, utilizing appropriate tactics in accordance with departmental standard operating guidelines, developing an initial action plan, extending an appropriately sized hose line, and

Fire Suppression		High Risk (ERF 25)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	0:54	2:24	2:39	2:03	2:27	2:16	1:51
	n=		216	40	63	41	45	27
Turnout Time <i>of first unit enroute</i>	1:30	-0:15	1:15	0:58	1:09	1:10	1:25	1:35
	n=		216	40	63	41	45	27
Travel - Distribution	4:00	0:17	4:17	4:02	4:19	4:01	4:17	3:45
	n=		216	40	63	41	45	27
Travel - Concentration	10:00	-0:51	9:09	5:44	8:41	11:15	7:51	9:34
	n=		65	9	18	10	13	15
Total Reponse - Distribution	7:00	0:13	7:13	6:51	7:27	7:32	7:07	6:13
	n=		216	40	63	41	45	27
Total Response - Concentration	13:00	-0:34	12:26	8:29	13:11	12:54	11:43	12:10
	n=		65	9	18	10	13	15

beginning initial fire attack or rescue. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 23 personnel, totaling 26 personnel, was 12 minutes and 26 seconds. The effective response force has the capability to establish command, provide an uninterrupted water supply, advance an attack line and backup line for fire control, place elevated streams into service, establish a rapid intervention crew, complete forcible entry and ventilation, conduct primary and secondary searches, control utilities and perform salvage and overhaul operations.

For **maximum risk fires**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 6 minutes and 20 seconds. The first due unit shall be capable of establishing command, sizing up the incident, utilizing appropriate tactics in accordance with departmental standard operating guidelines, developing an initial action plan, extending an appropriately sized hose line, and

Fire Suppression		Maximum Risk (ERF 34)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	0:09	1:39	1:22	1:23	2:46	1:39	1:30
	n=		16	5	3	2	4	2
Turnout Time <i>of first unit enroute</i>	1:30	-0:26	1:04	0:41	1:11	1:18	0:36	0:35
	n=		16	5	3	2	4	2
Travel - Distribution	4:00	-0:10	3:50	3:50	3:08	2:23	3:33	4:03
	n=		16	5	3	2	4	2
Travel - Concentration	12:00	0:04	12:04	8:14	13:01	NA	NA	9:53
	n=		4	2	1	0	0	1
Total Reponse - Distribution	7:00	-0:40	6:20	5:58	5:42	5:30	6:13	6:45
	n=		16	5	3	2	4	2
Total Response - Concentration	15:00	-0:42	14:18	9:58	15:05	NA	NA	12:29
	n=		4	2	1	0	0	1

beginning initial fire attack or rescue. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 32 personnel, totaling 35 personnel, was not statistically relevant due to only 4 incidents occurring where the an effective response force was assembled. A minimum of 10 data points are recommended for determining 90th percentile. The effective response force has the capability to establish command, provide an uninterrupted water supply, advance an attack line and backup line for fire control, place elevated streams into service, establish a rapid intervention crew, complete forcible entry and ventilation, conduct primary and secondary searches, control utilities and perform salvage and overhaul operations.

EMS: Benchmark Statements

Benchmark Statements: The desired level of GRFD response performance objectives for the indicated risk category.

Baseline Performance: Current level of GRFD's response performance.

.....

For all emergency medical services risk levels, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, shall be 7 minutes and 30 seconds. The first due unit shall be capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

For moderate risk EMS incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 6 personnel, shall be 9 minutes and 30 seconds. The units shall be capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

For moderate risk HIGHWAY EMS incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 6 personnel, shall be 11 minutes. The units shall be capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency - all while on a high traffic roadway with limited access.

For high risk EMS incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 11 personnel, shall be 11 minutes and 30 seconds. The units shall be capable of establishing command, sizing up the incident, conducting an initial patient assessments for multiple patients, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

For maximum risk EMS incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 19 personnel, shall be 11 minutes and 30 seconds. The units shall be capable of establishing command, sizing up the incident, conducting an initial patient assessments for multiple patients, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to the advanced life support agency.

EMS: Baseline Performance

For **low risk EMS calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 9 minutes and 11 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and

administering patient care until transferred to an advanced life support agency. Though not required, the GRFD includes concentration in low risk responses to maintain consistency across the tables, as a way to verify reporting methodologies, and to potentially identify unique deployment situations.

EMS		Low Risk (ERF 3)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	2:00	1:36	3:36	3:39	3:39	3:37	3:31	3:36
	n=		91332	18464	18510	18507	18111	17740
Turnout Time <i>off first unit enroute</i>	1:30	0:30	2:00	2:01	1:59	2:01	2:00	2:00
	n=		90877	18357	18432	18422	17995	17671
Travel - Distribution	4:00	1:03	5:03	4:55	5:01	5:00	5:11	5:06
	n=		84136	17041	17101	17083	16655	16256
Travel - Concentration	4:00	1:03	5:03	4:55	5:01	5:00	5:11	5:06
	n=		84136	17041	17101	17083	16655	16256
Total Reponse - Distribution	7:30	1:41	9:11	9:09	9:09	9:09	9:17	9:11
	n=		84136	17041	17101	17083	16655	16256
Total Response - Concentration	7:30	1:41	9:11	9:09	9:09	9:09	9:17	9:11
	n=		84136	17041	17101	17083	16655	16256

For **moderate risk EMS calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 1 minute and 13 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and

administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 3 personnel, totaling 6 personnel, was 10 minutes and 13 seconds. The effective response force is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

EMS		Moderate Risk (ERF 6)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	2:00	1:09	3:09	3:20	3:10	2:55	3:07	3:07
	n=		2439	498	454	455	532	500
Turnout Time <i>off first unit enroute</i>	1:30	0:14	1:44	1:39	1:35	1:45	1:47	1:50
	n=		2436	498	454	452	532	500
Travel - Distribution	4:00	1:14	5:14	5:07	5:14	5:09	5:15	5:16
	n=		2340	476	442	439	512	471
Travel - Concentration	6:00	0:44	6:44	6:33	6:27	6:47	6:42	6:53
	n=		1528	300	299	291	325	313
Total Reponse - Distribution	7:30	1:13	8:43	8:28	8:30	8:41	8:47	8:54
	n=		2340	476	442	439	512	471
Total Response - Concentration	9:30	0:43	10:13	10:15	9:51	10:13	10:26	10:20
	n=		1528	300	299	291	325	313

EMS: Baseline Performance

For **high risk EMS calls**, the 90th percentile of total response time for total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 12 minutes 19 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental

EMS		High Risk (ERF 10)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	2:00	0:05	2:05	2:05	1:58	1:43	1:05	2:04
	n=		24	8	4	3	3	6
Turnout Time <i>off first unit enroute</i>	1:30	0:01	1:31	1:07	1:23	1:38	2:02	1:18
	n=		24	8	4	3	3	6
Travel - Distribution	4:00	4:58	8:58	10:07	3:23	2:47	6:46	8:50
	n=		24	8	4	3	3	6
Travel - Concentration	8:00	-1:43	6:17	3:09	3:05	2:23	8:23	2:42
	n=		5	1	1	1	1	1
Total Reponse - Distribution	7:30	4:49	12:19	13:28	6:08	6:08	9:54	11:34
	n=		24	8	4	3	3	6
Total Response - Concentration	11:30	-1:58	9:32	6:05	7:41	6:01	10:46	3:46
	n=		5	1	1	1	1	1

standard operating guidelines and administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 8 personnel, totaling 11 personnel was not statistically relevant due to only 5 incidents occurring where the effective response force was assembled. A minimum of 10 data points are recommended for determining 90th percentile.

For **maximum risk EMS calls**, the 90th percentile of total response time for total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel was not statistically relevant due to only 2 incidents occurring where a unit arrived on scene. A minimum of 10 data points are recommended for determining 90th percentile. The first due unit is capable of establishing command, sizing up the incident, conducting an initial

EMS		Maximum Risk (ERF 19)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	2:00	0:11	2:11	NA	0:41	2:22	NA	NA
	n=		2	0	1	1	0	0
Turnout Time <i>off first unit enroute</i>	1:30	-0:29	1:01	NA	1:06	0:17	NA	NA
	n=		2	0	1	1	0	0
Travel - Distribution	4:00	-0:42	3:18	NA	3:20	3:03	NA	NA
	n=		2	0	1	1	0	0
Travel - Concentration	8:00	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Total Reponse - Distribution	7:30	-0:51	6:39	NA	6:19	6:42	NA	NA
	n=		2	0	1	1	0	0
Total Response - Concentration	11:30	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0

patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 16, totaling 19, was not statistically relevant due to only 2 incidents occurring where the effective response force was assembled. A minimum of 10 data points are recommended for determining 90th percentile. The effective response force is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

EMS: Baseline Performance

For **moderate risk EMS Highway calls**, the 90th percentile of total response time for total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 10 minutes and 31 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental

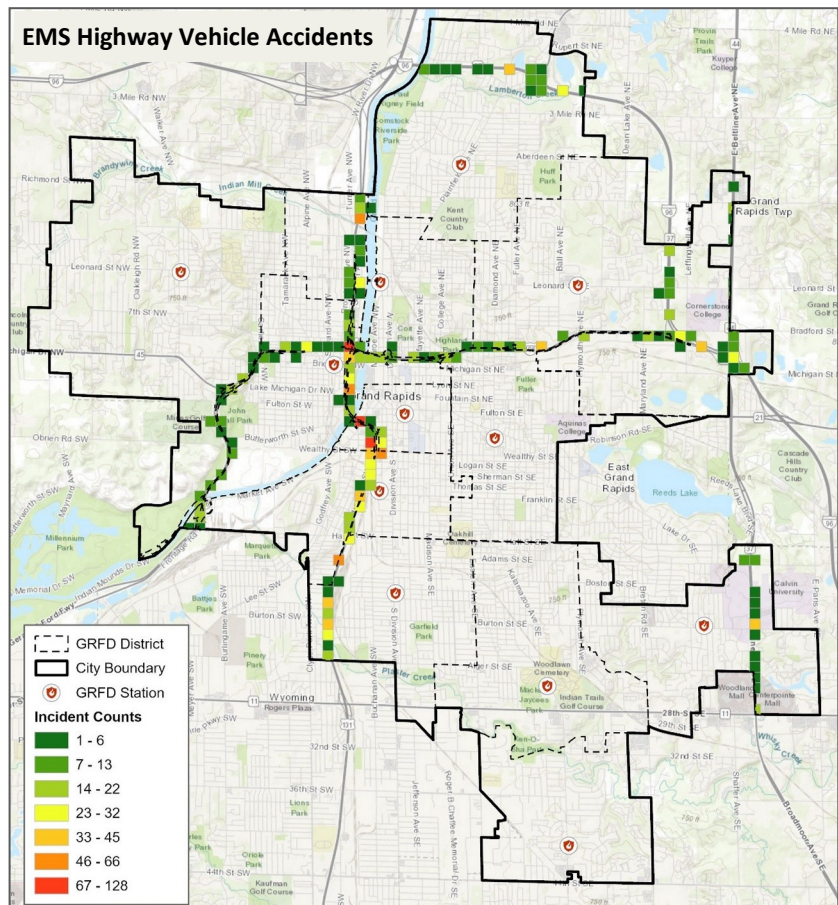
EMS Highway		Moderate (ERF 6)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	2:30	0:32	3:02	2:59	2:53	3:07	3:04	3:09
	n=		2305	551	426	494	425	409
Turnout Time <i>of first unit enroute</i>	1:30	0:14	1:44	1:43	1:41	1:47	1:46	1:46
	n=		2297	550	426	490	422	409
Travel - Distribution	4:00	2:56	6:56	6:52	7:00	6:20	7:46	6:57
	n=		2112	495	382	460	392	383
Travel - Concentration	7:00	1:56	8:56	8:29	8:36	8:30	10:30	9:59
	n=		1574	377	300	359	273	265
Total Reponse - Distribution	8:00	2:31	10:31	10:07	10:31	10:13	11:39	10:38
	n=		2112	495	382	460	392	383
Total Response - Concentration	11:00	1:39	12:39	11:46	12:23	12:14	14:45	13:23
	n=		1574	377	300	359	273	265

standard operating guidelines and administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 3 personnel, totaling 6 personnel, was 12 minutes and 39 seconds. The effective response force is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency - all while on high traffic roadways with limited access.

EMS Highway Benchmark Development

After reviewing the causes for EMS failures within the Moderate risk group, a pattern emerged where many failures were due to highway accidents. Alarm handling time is usually extended mostly due to difficulties determining a correct location from callers who may be driving away or on the other side of the highway. Travel time is also extended mostly due to limited highway access and the need to get two apparatus and the Utility 2 (blocker) to the scene; normally a Med 2 Vehicle Accident requires only one apparatus. The increased speeds on the highway requires the additional blocking unit and crew to maintain a safe working environment.

In late 2024, the decision was made to create a new benchmark for EMS vehicle accident calls that take place on the highway by linking incidents to Kent County geographic beats that clearly outline the high speed roadways. In addition to



aligning with a new set of more realistic benchmarks, it helps focus the performance metrics on calls affected (EMS Highway Moderate) or not affected (EMS Moderate) by unique highway risks and features.

Hazardous Materials: Benchmark Statements

Benchmark Statements: The desired level of GRFD response performance objectives for the indicated risk category.

Baseline Performance: Current level of GRFD's response performance.

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For low, moderate, and high hazardous material calls, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, shall be 7 minutes; The first due unit shall be capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, and calling for appropriate assistance from both the GRFD and outside agencies if needed. For maximum hazardous material calls, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of three firefighters, shall be 7 minutes and 30 seconds.

For moderate risk hazardous materials calls, the 90th percentile of total response time for the arrival of the effective response force, consisting of 7 personnel, including a minimum of 1 hazardous materials technician, shall be 12 minutes. The units will be capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, initiating mitigation efforts - including containment and/or offloading of common hydrocarbon materials, and calling for appropriate assistance from both the GRFD and outside agencies if needed.

For high risk hazardous materials calls, the 90th percentile of total response time for the arrival of the effective response force, consisting of 13 personnel, including a minimum of 5 hazardous materials technicians, shall be 12 minutes. The units will be capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, researching the hazard, isolating the hazard, initiating mitigation efforts, establishing decontamination actions, and acting as a liaison with other agencies and private sector businesses or residents involved.

For maximum risk hazardous materials calls, the 90th percentile of total response time for the arrival of the effective response force, consisting of 13 personnel, comprised of 2 hazardous materials technicians and a battalion chief, shall be 12 minutes. The units will be capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, researching the hazard -including initial monitoring, and calling for appropriate assistance from both the GRFD and outside agencies if needed. This type of response is generally for initial information gathering, with any working event likely triggering a high risk hazardous materials incident effective response force and a moderate or high structural fire response.

A maximum response for hazardous materials incidents initially require 3 personnel to perform a rapid assessment of hazardous material, quantity, and additional needed resources. Only upon that determination would the remaining effective response force of 10 personnel be dispatched for a total effective response of 13 personnel.

Hazardous Materials: Baselines Performance

For **low hazardous materials calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 11 minutes and 41 seconds. The first due unit is capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, and calling for appropriate assistance from both the GRFD and outside agencies if needed. Though not required, the GRFD includes concentration in low risk responses to maintain consistency across the tables, as a way to verify reporting methodologies, and to potentially identify unique deployment situations.

HazMat		Low Risk (ERF 3)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	3:27	4:57	3:51	8:26	5:52	3:42	5:23
	n=		111	21	21	23	20	26
Turnout Time <i>off first unit enroute</i>	1:30	0:51	2:21	2:13	2:13	2:52	2:01	2:32
	n=		107	20	21	22	18	26
Travel - Distribution	4:00	1:31	5:31	4:15	4:56	5:33	6:31	4:09
	n=		49	11	12	10	7	9
Travel - Concentration	4:00	1:31	5:31	4:15	4:56	5:33	6:31	4:09
	n=		49	11	12	10	7	9
Total Reponse - Distribution	7:00	4:41	11:41	9:05	12:50	14:31	11:51	9:42
	n=		49	11	12	10	7	9
Total Response - Concentration	7:00	4:41	11:41	9:05	12:50	14:52	11:51	9:42
	n=		49	11	12	10	7	9

For **moderate risk hazardous materials calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 11 minutes 56 seconds. The first due unit is capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, and calling for appropriate

HazMat		Moderate Risk (ERF 7)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	2:32	4:02	2:03	3:56	2:31	1:56	4:32
	n=		12	1	5	1	2	3
Turnout Time <i>off first unit enroute</i>	1:30	1:35	3:05	1:10	1:57	3:24	2:54	1:45
	n=		12	1	5	1	2	3
Travel - Distribution	4:00	2:44	6:44	3:01	6:28	2:43	6:33	4:43
	n=		12	1	5	1	2	3
Travel - Concentration	9:00	0:43	9:43	5:22	9:03	NA	8:24	9:40
	n=		10	1	5	0	2	2
Total Reponse - Distribution	7:00	4:56	11:56	6:14	12:18	8:38	11:38	8:25
	n=		12	1	5	1	2	3
Total Response - Concentration	12:00	2:01	14:01	8:45	14:37	NA	13:25	12:36
	n=		10	1	5	0	2	2

assistance from both the GRFD and outside agencies if needed. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 4 personnel, totaling 7 personnel and including at least 1 hazardous materials technician, was 14 minutes and 1 second. There were only 10 incidents where the effective response force was reached. The effective response force is capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, initiating mitigation efforts - including containment and/or offloading of common hydrocarbon materials, and calling for appropriate assistance from both the GRFD and outside agencies if needed.

Hazardous Materials: Baselines Performance

For **high risk hazardous materials calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 11 minutes and 48 seconds. The first due unit is capable of establishing command, sizing up the incident, developing an incident action plan in accordance with departmental standard operating guidelines, isolating the hazard, and calling for appropriate assistance from both

the GRFD and outside agencies if needed. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 10 personnel, totaling 13 personnel and including at least 5 hazardous materials technicians, was not statistically relevant due to only 8 incidents occurring where the effective response force was assembled. A minimum of 10 data points are recommended for determining 90th percentile.

HazMat		High Risk (ERF 13)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	2:41	4:11	1:56	NA	5:07	1:26	1:54
	n=		11	2	0	7	1	1
Turnout Time <i>off first unit enroute</i>	1:30	0:21	1:51	0:51	NA	2:01	0:32	1:34
	n=		11	2	0	7	1	1
Travel - Distribution	4:00	1:38	5:38	4:07	NA	5:45	2:03	2:18
	n=		11	2	0	7	1	1
Travel - Concentration	9:00	-1:35	7:25	5:35	NA	7:53	3:22	6:32
	n=		8	2	0	4	1	1
Total Response - Distribution	7:00	4:48	11:48	6:33	NA	12:35	4:52	7:21
	n=		11	2	0	7	1	1
Total Response - Concentration	12:00	1:01	13:01	9:35	NA	13:17	7:20	10:56
	n=		8	2	0	4	1	1

For **maximum risk hazardous materials calls**, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel was not statistically relevant as no incidents occurred where a unit arrived on scene. A minimum of 10 data points are recommended for determining 90th percentile.

In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response force of 10, totaling 13 personnel and including at least 2 hazardous materials technicians and a battalion chief, was not statistically relevant as no incidents occurred where the effective response force was assembled.

HazMat		Maximum Risk (ERF 5)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Turnout Time <i>off first unit enroute</i>	1:30	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Travel - Distribution	4:00	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Travel - Concentration	8:00	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Total Response - Distribution	7:30	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0
Total Response - Concentration	12:00	NA	NA	NA	NA	NA	NA	NA
	n=		0	0	0	0	0	0

Technical Rescue: Benchmark Statements

Benchmark Statements: The desired level of GRFD response performance objectives for the indicated risk category.

Baseline Performance: Current level of GRFD's response performance.

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For all technical rescue risk levels, the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, shall be 7 minutes. The first due unit shall be capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and administering patient care until transferred to an advanced life support agency.

There are no low risk, single unit, technical rescue incidents, so there is no 90th percentile benchmark for a low risk effective response force.

For moderate risk technical rescue incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 7 personnel (Elevator Rescue) and 12 personnel (Vehicle Extrication), shall be 12 minutes. The effective response force shall be capable of establishing command, conducting a scene size-up and hazard assessment, securing and controlling the incident scene, initiating hazard mitigation measures, establishing victim access, and beginning patient assessment, treatment, disentanglement, extrication, or removal operations as appropriate to the incident.

For high risk technical rescue incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 13 personnel (Rope Rescue) and 15 personnel (Machine Extrication and Confined Space Rescue), shall be 12 minutes. The effective response force shall be capable of establishing command, conducting a comprehensive scene size-up and hazard assessment, implementing site control and hazard isolation measures, initiating technical rescue operations, establishing victim access and protection systems, and beginning patient assessment, treatment, disentanglement, extrication, packaging, and removal operations as appropriate to the incident.

For maximum-risk technical rescue incidents, the 90th percentile of total response time for the arrival of the effective response force, consisting of 19 personnel, shall be 12 minutes. The effective response force shall be capable of establishing command, conducting a comprehensive scene size-up and hazard assessment, implementing operational zones and scene control measures, initiating stabilization and hazard mitigation activities, deploying specialized rescue resources, establishing victim access, and beginning rescue, patient care, packaging, and removal operations as appropriate to the incident. Collapse rescue, trench rescues, and water rescue alarms are considered maximum risk technical rescues.

Technical Rescue: Baseline Performance

For moderate risk technical

rescues the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 8 minutes and 26 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard operating guidelines and

administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response totaling 7 personnel (elevator rescue with medical) or 12 personnel (vehicle extrication), was 15 minutes and 27 seconds. The effective response force is capable of establishing command, conducting a scene size-up and hazard assessment, securing and controlling the incident scene, initiating hazard mitigation measures, establishing victim access, and beginning patient assessment, treatment, disentanglement, extrication, or removal operations as appropriate to the incident.

Tech Rescue		Moderate Risk (ERF 7- Elevator with MED/ ERF 12 - Vehicle Extrication)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	0:38	2:08	2:56	1:19	3:06	2:10	1:35
	n=		210	37	37	45	39	52
Turnout Time <i>of first unit enroute</i>	1:30	0:21	1:51	1:31	1:32	1:33	1:43	1:51
	n=		210	37	37	45	39	52
Travel - Distribution	4:00	1:14	5:14	5:57	5:17	4:57	5:27	4:53
	n=		206	36	37	45	38	50
Travel - Concentration	9:00	-0:35	8:25	8:53	6:37	6:09	10:04	8:12
	n=		111	18	20	27	20	26
Total Reponse - Distribution	7:00	1:26	8:26	9:34	7:10	7:58	9:23	7:41
	n=		206	36	37	45	38	50
Total Response - Concentration	12:00	3:27	15:27	14:18	13:24	13:10	20:11	16:03
	n=		111	18	20	27	20	26

For high risk technical rescues the

90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 11 minutes and 04 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard

operating guidelines and administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response totaling 13 personnel (rope rescue) or 15 personnel (machine extrication or confined space rescue), was 16 minutes and 25 seconds. The effective response force is capable of establishing command, conducting a comprehensive scene size-up and hazard assessment, implementing site control and hazard isolation measures, initiating technical rescue operations, establishing victim access and protection systems, and beginning patient assessment, treatment, disentanglement, extrication, packaging, and removal operations as appropriate to the incident.

Tech Rescue		High Risk (ERF 13 - Rope / ERF 15 - Machine or Confined Space)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	3:47	5:17	5:09	4:20	3:58	1:57	4:16
	n=		12	3	1	5	1	2
Turnout Time <i>of first unit enroute</i>	1:30	0:07	1:37	1:33	0:05	0:58	0:18	1:37
	n=		12	3	1	5	1	2
Travel - Distribution	4:00	1:40	5:40	5:00	5:40	3:57	6:19	2:39
	n=		11	3	1	5	1	1
Travel - Concentration	9:00	-5:54	3:06	NA	NA	NA	8:32	3:06
	n=		2	0	0	0	1	1
Total Reponse - Distribution	7:00	4:04	11:04	11:32	10:05	10:00	9:28	5:50
	n=		11	3	1	5	1	1
Total Response - Concentration	12:00	4:25	16:25	NA	NA	NA	12:14	16:25
	n=		2	0	0	0	1	1

Technical Rescue: Baseline Performance

For **maximum risk technical rescues** the 90th percentile of total response time for the arrival of the first due unit, staffed with a minimum of 3 personnel, was 8 minutes and 54 seconds. The first due unit is capable of establishing command, sizing up the incident, conducting an initial patient assessment, obtaining vitals and patient medical history, initiating mitigation efforts in accordance with departmental standard

Tech Rescue		Maximum Risk (ERF 19)						
	Benchmark	Gap	2021-2025	2025	2024	2023	2022	2021
Alarm Handling	1:30	2:53	4:23	3:00	4:21	3:52	4:20	4:21
	n=		67	12	8	21	15	11
Turnout Time <i>off first unit enroute</i>	1:30	-0:38	0:52	0:56	1:40	1:15	1:07	0:52
	n=		64	11	7	21	14	11
Travel - Distribution	4:00	1:53	5:53	5:13	3:44	5:15	3:11	6:24
	n=		58	10	7	20	12	9
Travel - Concentration	9:00	-0:09	8:51	8:18	8:58	8:54	4:34	5:30
	n=		20	3	4	9	3	1
Total Reponse - Distribution	7:00	1:54	8:54	11:43	6:11	9:06	8:00	11:54
	n=		58	10	7	20	12	9
Total Response - Concentration	12:00	2:47	14:47	11:26	10:51	16:19	10:24	14:47
	n=		20	3	4	9	3	1

operating guidelines and administering patient care until transferred to an advanced life support agency. In addition to the first due unit with 3 personnel, the 90th percentile for the arrival of the remaining effective response totaling 19 personnel, was 14 minutes and 47 seconds. The effective response force is capable of establishing command, conducting a comprehensive scene size-up and hazard assessment, implementing site control and hazard isolation measures, initiating technical rescue operations, establishing victim access and protection systems, and beginning patient assessment, treatment, disentanglement, extrication, packaging, and removal operations as appropriate to the incident. Collapse rescue, trench rescues, and water rescue alarms are considered maximum risk technical rescues and those alarm types are reflected in the maximum risk baseline performance chart above.

Current Benchmark/ Baseline Performance Overview

The Grand Rapids Fire Department demonstrates strong operational capability across many emergency response categories, though several areas show opportunities for improvement in meeting benchmark response times. Overall, the department performs particularly well on high-risk fire alarms and maintains structured benchmarks for multiple call types, but response times for lower-risk and specialized alarms often exceed performance targets.

Strongest Performance Areas

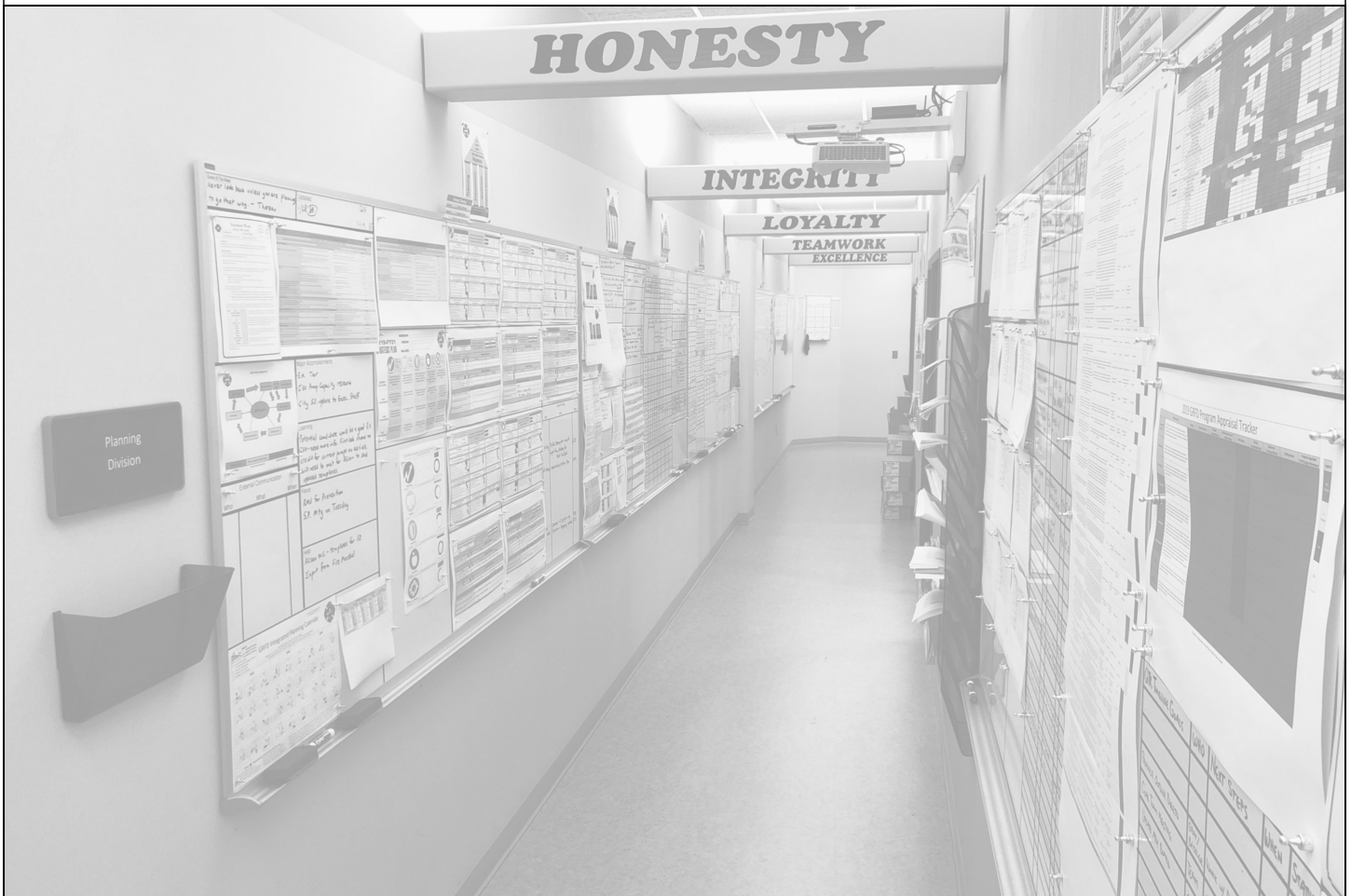
- **High-risk fire responses** achieved a 90th percentile effective response force of 12 minutes 32 seconds, 34 seconds under the 13 minute benchmark. This indicates strong coordination and deployment of resources when major structural fire risks occur.
- **The GRFD has taken proactive steps to improve system performance**, such as refining CAD alarm type assignments through risk-assessment meetings and implementing a new fire station in the District 12 (Kendall) to address coverage gaps in the former southern section of District 4 (Kalamazoo).

Areas for Improvement

- **Performance for low and moderate fire risks falls short of benchmarks.** Low-risk fires show a total response time of 8 minutes 36 seconds, which is 1 minute 36 seconds slower than the 7 minute benchmark. Moderate risk fire alarms also exceed targets by 42 seconds. These delays may reflect travel time or distribution challenges that affect initial unit arrival in lower-priority alarms.
- **Emergency Medical Services (EMS) responses, which typically represent the highest call volume, exceeds benchmarks in several categories.** Low risk EMS alarms average 9 minutes 11 seconds, 1 minute 41 seconds over the 7 minute 30 second benchmark) while moderate risk EMS calls exceed the benchmark by 40 seconds. Highway related EMS calls show the largest gap, averaging 12 minutes 39 seconds, which is 1 minute 39 seconds over the benchmark. These delays are partially attributed to challenges identifying precise caller locations and limited highway access points, which increase both alarm handling and travel times.
- **Specialized responses show mixed results.** Hazardous materials low-risk alarms exceed benchmarks significantly, with a response time of 11 minutes 41 seconds, which is 4 minutes 41 seconds slower than the target. Many moderate and high-risk hazardous materials alarms did not have enough occurrences to produce statistically meaningful performance data. Similarly, several technical rescue alarms exceed benchmarks, particularly those requiring large or specialized response forces. Vehicle extrication responses average 15 minutes 27 seconds, exceeding the benchmark by 3 minutes 27 seconds, while heavy machine extrication averages 16 minutes 25 seconds, 4 minutes 25 seconds over the target. Water rescue responses also exceed expectations, with a 14 minute 47 second response time, 2 minutes 47 seconds over the benchmark. These gaps may reflect the complexity of assembling specialized personnel and equipment for low-frequency but resource-intensive alarms.
- **Phone ring time is unavailable for true alarm handling measurements.** The GRFD currently measures response time beginning with the timestamp “CAD Incident Create” because the system cannot capture the initial phone ring time. Nuances with how this time is generated can inflate alarm handling and distort some performance measurements. Until phone ring time is available to report on, it remains the most reliable earliest metric to use.

In summary, GRFD performs well when responding to high-risk alarms requiring large coordinated responses and demonstrates a commitment to continuous improvement through risk-assessment processes, station placement adjustments, and benchmark development. Opportunities for improvement primarily involve reducing response times for lower-risk alarms, EMS responses, and specialized rescue calls, as well as improving dispatch data accuracy and addressing travel-time challenges in certain districts and highway environments.

Compliance Methodology & Conclusion



Continuous Improvement

Plan Do Check Adjust

Conclusion

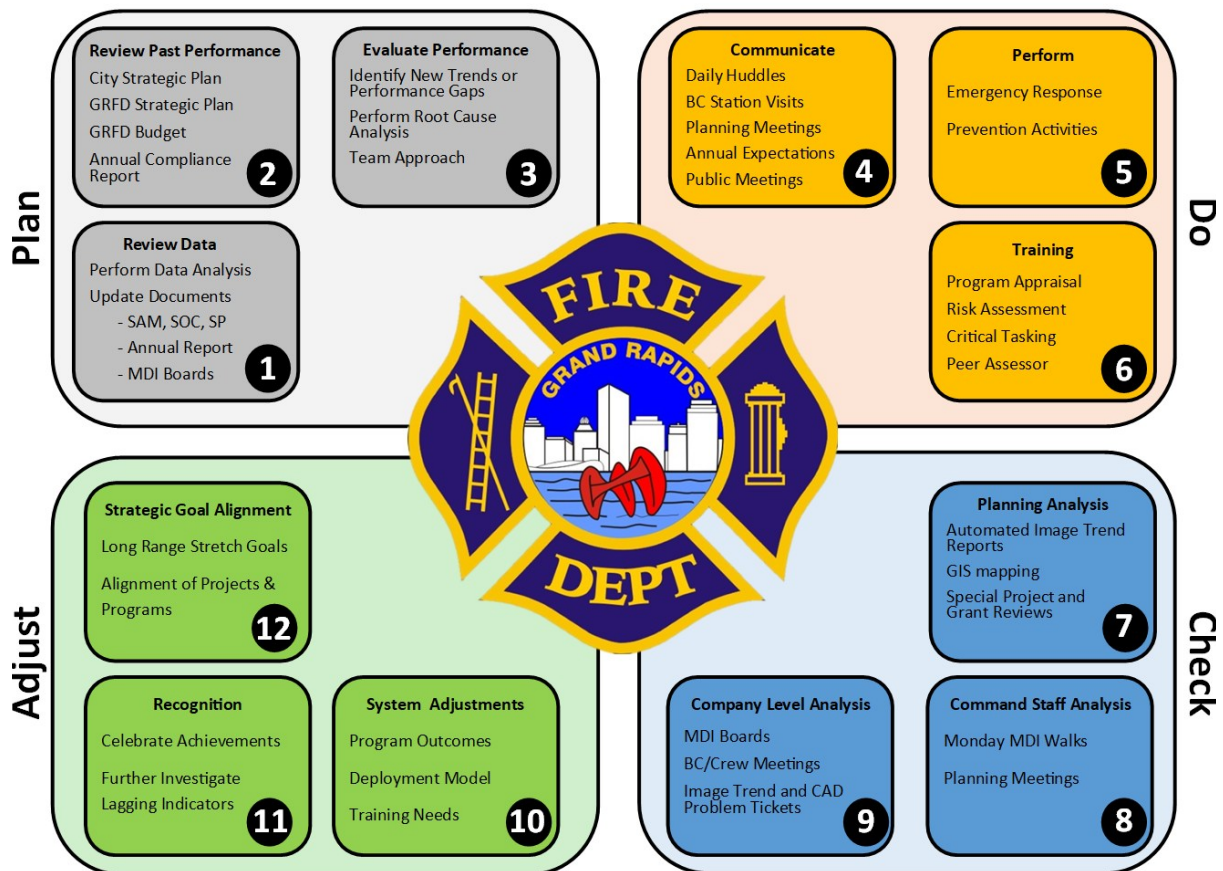
Recommendations

Continuous Improvement: Plan, Do, Check, Adjust

The Grand Rapids Fire Department (GRFD) emphasizes a mindset of continuous improvement by regularly evaluating and adjusting its practices to achieve the best outcomes for both internal and external customers. The GRFD encourages a culture of communication, accountability, and data monitoring to enable effective problem-solving and adaptability, resulting in consistently improved outcomes for emergency and non-emergency situations.

The department follows the PDCA (Plan-Do-Check-Adjust) cycle, which systematically improves performance by setting clear objectives, executing plans, analyzing results, and fostering further improvements. Public meetings, such as public safety sessions and budget meetings, enhance transparency and community engagement. Additional details on the PDCA process can be found in the references.

GRFD Compliance Methodology



Plan

- 1. Review Data Collection & Reporting:** Existing methods for data entry, transformation, and analysis are reviewed against continued and emerging reporting needs for efficiency, longevity, and quality of results.
- 2. Review Past Performance:** Annual and CFAI compliance reports provide insights into past performance and establishing (or redefining) baselines for further evaluation. Previous City and GRFD specific plans are also revisited.
- 3. Evaluate Performance:** When consistent or alarming deviations arise within reporting, they are flagged for a chief level review, involving identifying issues through root cause analysis. Issues may be discussed at monthly operational meetings or one on one. Performance evaluations are also conducted as needed, with key metrics pre-established.

Do

- 4. Communicate to Stakeholders:** Daily morning meetings and regular check ins take place to discuss topics from general concerns to policies and training. Monthly meetings cover strategic, operational, budgetary, and accreditation project discussions. Annual expectations are shared with operational and administrative staff and the Standards of Coverage document is presented at city council and community meetings.
- 5. Perform Operational Activities:** All department divisions focus on performing their duties in a safe and effective manner. The GRFD standard for emergency scene management directs members to take reasonable risks to save lives and salvage property but avoid risks where lives or property are already lost. Established benchmarks direct service performance while considering SOG 201-05 Emergency Scene Risk Management. Post incident reviews are held on all major incidents to ensure learning.
- 6. Training:** Compliance occurs through annual program appraisals that review strategic goals, training needs, and risk assessments. On top of fire and emergency services training, suppression staff are educated on new documentation procedures, technology, and how it ties into continuous improvement. Planning Division members complete annual training as peer assessors and credentialing through the Center for Public Safety Excellence.

Check

- 7. Planning Analysis:** Incident reports' data quality and outliers are reviewed weekly and monthly to identify potential data entry errors and work with report writers to correct. Trends are documented and communicated to decision makers. Simulations for proposed deployment model changes are created using ESRIs ArcGIS mapping platform while special projects and grants require ongoing data analysis and feedback.
- 8. Command Staff Analysis:** Monday's Managing for Daily Improvement (MDI) walks involve discussing key information regarding accreditation, strategic planning, fiscal resources, and more. This platform allows owners to address achievements, areas of focus, and potential problems, which are explored in detail during formal planning sessions. Program metrics and budget expenditures are monitored to ensure alignment with both City and the department's strategic plans and current practices.
- 9. Company Level Analysis:** Station MDI boards are regularly updated by officers to facilitate visibility of response, training, and wellness goals and serve as discussion points during shift changes. These boards track station projects and communicate inventory needs. Company officers are also expected to do informal debriefs after every emergency incident.

Adjust

- 10. System Adjustments:** Adjustments are made in areas where goals are not being met or deficiencies are identified; this could involve changes from the method of data collection to new training requirements. These changes are monitored closely to evaluate their effectiveness.
- 11. Recognition:** Exceptional performance is formally recognized at award ceremonies, city commission meetings, and during daily morning meetings.
- 12. Strategic Goal Alignment:** Strategic goals are reviewed regularly to ensure continued alignment and compliance. Goals within the department's three-year planning cycle are modified to accommodate new initiatives, or needs, as necessary.

Conclusion

The Grand Rapids Fire Department provides a full spectrum of emergency responses via four main areas: fire suppression, emergency medical services (EMS), hazardous materials, and technical rescue mitigation. The department also administers many critical non-emergency risk based programs such as the Residential Safety Program, Homeless Outreach Team (HOT), Medical Priority and Wellness Response (MPWR), and commercial fire inspections.

The department operates under a “total authorized strength” model with 232 full time City employees. In addition to a multitude of non-emergency functions, the organization has seen steady increases in emergency incident demand.

Although great progress has been made with regards to reducing fire risk through the Residential Safety Program and equalizing distribution times for the southern part of the Third Ward with the opening of station 12, the GRFD faces many challenges on the horizon. These challenges include changing population density with multiple new high rises and dozens of small to medium style apartment buildings, the activation of new entertainment venues and the Grand River rapids downtown, and increased demand placed on the truck company stationed at Leonard Street Station in District 1. Addressing the situation in District 1 would be the last real step in recovery from the “great recession” that removed Leonard Street Station’s engine from frontline deployment.

Strengths

- **Strategic Planning**
- **Fire Suppression Effectiveness**
- **Community Outreach**
- **Fleet and Facility Revitalization**
- **Focus on Customer Service**
- **Expanded Medical Services**
- **Continuous Improvement Culture**

Weaknesses

- **General Operating Fund Capacity**
- **Rapid Pace of City Growth**
- **Increasing Demands on Staff**
- **Employee Turnover/Burnout**
- **Better Integration with Private ALS**
- **Capital Facilities**
- **Sole Reliance on External Fleet Services**

Opportunities

- **Shifting to a Younger Culture**
- **Asset Management Plan**
- **Majority of Fleet Services In-House**
- **Regional Training Center**
- **Diversification of Funding**
- **Expansion of HOT/MPWR Models**

Threats

- **Lack of Funding and Increased Workload**
- **Inability to Staff all Machines due to Daily Staffing Levels**
- **Employee Burnout**
- **Community Unwilling to Financially Support Growth to Maintain Current Service Levels**

Recommendations



The GRFD has completed their third Standards of Coverage documenting area characteristics, providing a description of program and services, conducting an all hazard community risk assessment, evaluating current deployment performance, outlining baseline and benchmark times, detailing a plan for continuous improvement, and finally, providing a summary conclusion of the work. Formal recommendations, based on the results of the Community Risk Assessment and Standards of Coverage (CRA/SOC) process, are outlined below; these align with city and fire department strategic plans, are rooted in data driven decision making, and follow established best practices.

1. Restore Engine 1 @ Leonard St. Fire Station

Engine 1 went out of service in 2010 following the sharp economic downturn in 2009 and the district was left with a single truck company. Over the past 16 years the district has seen an influx of population and growth on the far east side, infill on the west side, and relies more heavily on surrounding districts (Plainfield, Monroe, Chester) to cover their district alarms. In 2026 they were the most deployed machine by hours in the city.

2. Monitor, adjust, and stabilize downtown staffing

Rescue 1 and 2 out of La Grave average 17 runs during a 24 hour shift with most in their less than 1 sq. mile district. Call volume on nights and weekends can increase significantly when large events are occurring downtown, and response times to those are also longer to navigate the congestion. The river is being redeveloped and thousands of visitors are expected to enter the waterway once complete. The expectation is that Engine 3 and Truck 3 will also see an increase in calls, not only based upon the river, but the soccer stadium being built two blocks away from the fire station. Using data, the department will slowly implement Engine 7 out of La Grave station and a fourth firefighter on Truck 3 to increase staffing as needed during times of peak congestion in the downtown corridor. Data will be evaluated to see the impact these changes have.

3. Monitor, adjust, and stabilize river response

The dynamics of the river are changing. After 10 years of planning, the three dams below sixth street bridge are coming out during 2027-2029 with future potential work upstream to follow. Tens of millions of dollars are being invested to "bring back the rapids". It is imperative that the GRFD follow suit with its water and dive teams to staff, train, and deploy effectively.

4. Continue alternative response methods

The Homeless Outreach Team (HOT), Medical Priority and Wellness Response (MPWR), and the Residential Safety Program (RSP) are producing tangible and intangible results in our community. Based upon the ever present increase in call volume, it is recommended to keep supporting alternative and preventative programs.

5. Conduct a staffing study to ensure proper levels of personnel

The response trends have been positive over the last five years. Times have stabilized and regularly scheduled workloads are reasonable in most cases, however, overtime is used frequently to staff both emergency and non-emergency functions resulting in employee burnout and on some occasions machine brownouts. It is imperative that we truly understand how many people it takes to operate in our current model before we keep expanding to meet the growth of our community.

Appendix



Staffing Types

Support Apparatus

Staffing Types

The GRFD total authorized strength is 232 full-time employees; however this number can be a dynamic due to fluctuating positions that may have different budgeting sources, duties, or are seasonally based. The lists below expand on the different GRFD employment types. Unless otherwise indicated, the position is filled with fire sworn members.

Administrative

Executive Chiefs and Division Chiefs

Financial Coordination Staff (*civilians*)

Information Systems and Technology (*civilians*)

Community Risk Reduction

 Fire Inspectors & Investigators

 Building Inspector** (*civilian*)

 Residential Safety Program & Public Education

Contract civilian employes on a 32 hour work week.

 Office Staff (*civilian*)

Fleet Maintenance

Building Maintenance

Training Division

Planning Division

Homeless Outreach Team

Medical Priority and Wellness Response

Suppression

Battalion Chiefs

Fire Captains

Fire Lieutenants

Fire Equipment Operators

Firefighters

Recruits

Individuals going through the basic fire academy and EMS training with the intent of becoming GRFD sworn suppression members.

These positions are placed in suppression to finish out their one year probation and end up filling recently retired or vacant positions.

Part Suppression/ Part Administrative

Car 97

Miscellaneous

Office of Emergency Management* (*civilians*): Manager and specialist paid for by three sources: GRFD budget, Grand Rapids Police budget, and Emergency Communications budget.

Administrative Aid (*civilians*): Part time contract employees who manage the front desk and assist administrative staff.

Fire Cadets (*civilians*): 16 week paid internship with the GRFD for young adults 18 or older.

Grow 1000 (*civilians*): Youth Employment Program giving individuals ages 15-24 the opportunity to explore careers with the city. Not a paid position.

700 Club (*civilian/ sworn mixed*)—Retired GRFD staff who choose to remain as part time workers for no more than 700 hours a year. These individuals may be placed within any of the other groups listed above.

*Indicates position is partially funded by GRFD. ** Indicates position is not funded by the GRFD.

Support Units



Utility 2 is a repurposed commercial truck towing a traffic attenuator. Attenuators, also known as crash cushions, are designed to absorb the kinetic energy of an errant vehicle, thus reducing the damage caused during collisions and providing protection for fire department staff and the public on the high speed roadways. *Location: Martin Luther King Jr Street Station*



HazMat 1/ RRT 61 is a 2005 Spencer special response unit that responds to all large scale hazardous material incidents in the city and weapons of mass destruction in the Michigan Region 6 area. *Location: Martin Luther King Jr Street Station*



HazMat 2 is a converted squad unit used to transport additional hazardous material equipment. *Location: Martin Luther King Jr Street Station*



Tech 1/ Medium to Heavy Rescue is a 2006 Freightliner deployed on vehicle extrications that involve commercial vehicles, collapse, and trench incidents. This vehicle also carries a supply of spare SCBA bottles and is dispatched on large structure fires. *Location: La Grave Avenue Station*



Tech 2/ Heavy Rescue is a repurposed 1987 IHC truck / trailer that contains a large amount of cutting, stabilizing, and shoring equipment and is deployed on all major collapse or trench rescue incidents. *Location: La Grave Avenue Station*



B-Units (1,3,4) are staffed via overtime for storm related calls, used for the grass fires, and always respond with another company. In the winter, these units are equipped with plows for snow removal and assist other units with access issues to certain streets during heavy snowfalls. B-Unit 3, is used to tow Boat 1 to water rescues alarms. *Location: Bridge Street Station*



Residential Safety Program (RSP) Trailer is a "Safety Trailer" with a mocked up home inside, used to educate the public about fire safety. The trailer makes appearances at community events throughout the year. *Location: La Grave Avenue Station*

Support Units (continued)



Water 3 is a Ford F-350 pickup truck used to tow one of the two GRFD boats used for water rescues.

Location: Bridge Street Station



Boat 1 is a 1999 Wooldridge 21 ft aluminum boat with a recently upgraded 200hp Yamaha jet drive motor used when water levels in the river are high. Also used as the dive boat.

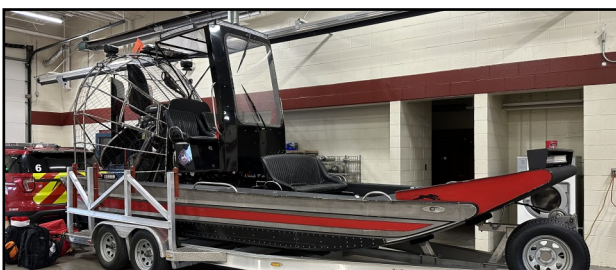
Location: Bridge Street Station



Boat 2 is a 2014 Sea Ark rigid hull boat with a 60 hp Evinrude jet drive motor that is deployed as the primary water rescue boat for mid level water conditions. This boat is also deployed when sonar is used. *Location: Bridge Street Station*



Boat 3 is a 2013 Zodiac inflatable watercraft with a 40hp Evinrude jet driver motor that is used as the main boat based on rescue conditions.



Airboat 5 is a 20 ft Panther airboat used for water rescue responses when portions of the river are frozen, allowing navigation of the river where traditional boats would not be able to access. *Location: Monroe Avenue Station*



Water 5 is a repurposed squad unit used to tow the airboat.

Location: Monroe Avenue Station



Dive 3 is a 2000 Freightliner that carries dive and water equipment. *Location: Bridge Street Station*



Mission

The Grand Rapids Fire Department values all people by saving lives, protecting property, and responding to the needs of our entire community.

Vision

Become the safest mid-sized city in the country by developing our members to provide industry leading fire and rescue services

Values

Honesty - Integrity - Loyalty - Teamwork - Excellence

For more information on the Grand Rapids Fire Department
please visit us at: www.grandrapidsmi.gov/departments/fire-department/