



PEORIA FIRE DEPARTMENT

2024

COMMUNITY RISK ASSESSMENT/ STANDARDS OF COVER



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Executive Summary

The men and women of the Peoria Fire Department are honored to present to the City Council and the citizens of Peoria this report describing our great city and all the services the department provides. The process of putting together this Community Risk Assessment/Standard of Cover was long and arduous, but we felt it necessary as we look to better the Peoria Fire Department. Self-analyzation to find one's deficits is not easy but essential for growth. Throughout this process, we have learned a great deal about what we are doing well and what areas we need to improve on. We have learned it is vitally important for internal scrutinizing to ensure we are providing the best possible service to those we are sworn to protect. No problem has ever been solved before identifying that it is a problem.

Just as the Peoria Fire Department Strategic Plan gives us the destination to move towards as a department, this Community Risk Assessment/Standard of Cover provided the maps of the roads to take to arrive at that destination. It shows the pitfalls and roadblocks we need to avoid getting to our destination. As the former Seattle Seahawks wide receiver Doug Baldwin said, "Change is inevitable, change will always happen, but you have to apply direction to change, and that's when there's progress." This has been a lengthy and, at times, frustrating process. One thing we all have agreed on is how incredibly valuable it has been. We are thankful to have this opportunity and look forward to discussing this report with city leaders.

A. Description of Community Served

Introduction

The Peoria Fire Department (PFD) is a fire service organization protecting the citizens of the City of Peoria, Illinois. The fire department provides a multitude of services, including fire suppression, emergency medical services (EMS), rescue, fire prevention, fire investigation, and many others. These services are provided through a collective bargaining agreement with the International Association of Fire Fighters (IAFF) Local 50. The PFD is a full-time paid department and strives for excellence at all times. The department's mission statement is: "The Peoria Fire Department will uphold our commitment to serve the community through professional services with integrity and compassion."

The PFD responds to more than 20,000 calls for service per year. While many of these calls are EMS calls, the fire department extinguished over 711 fires in 2022. The department also inspects over 1358 commercial occupancies per year. Further, the PFD provides specialized services with specially trained teams that respond to hazardous materials spills, technical rescue incidents, and water rescues.

The PFD is committed to the accreditation process for several reasons. First, the process will allow for the identification of weaknesses that may not be apparent from an internal perspective. Second, the process will familiarize the department with fire service management best practices. Third, the accreditation process will allow for formalized and systematic goal development. The goals will be focused on the department's core mission and help drive operational decisions. Most important, goals will be reviewed and adjusted annually to keep the department on course to its desired destination.

Community and Department Legal Basis

The City of Peoria was incorporated by the Illinois General Assembly on the "First Monday in December 1844" (December 2, 1844). Illinois had been granted statehood in 1818. The citizens of Peoria adopted the incorporation agreement at an election held on April 21, 1845. The incorporation document outlines the election of a mayor and aldermen, as well as outlining some basic rights, responsibilities, and restrictions. (See [Appendix A: City of Peoria Charter, 1844](#)) The first ordinance establishing the Peoria Fire Department occurred in 1875 (See [Appendix B: Minutes of the Peoria City Meeting March 12, 1875](#)). A comprehensive revision of the Peoria Municipal Code appears to have occurred in 1957. Within this major rewrite is Chapter 11 concerning fire prevention and protection. This chapter outlines the duties of the fire chief and other chief officers. It provides for protection to firefighters while in the commission of their duties and codifies the hazardous materials program and of the PFD as well as the associated billing schedule. Much of the original 1957 ordinance remains in effect, but portions have been updated as recently as 2017. (See [Appendix C: Peoria Municipal Code Chapter 11, 2017](#))

History of the Community

The City of Peoria, Illinois is a verdant river valley community centrally located in Illinois, approximately halfway between Chicago, Illinois, and St. Louis, Missouri. According to the 2023 U.S. Census, Peoria consists of 50.55 square miles and a population of 109,447. (2280 people per square mile) Peoria is located at 40°43'15" N/89°36'34" W. Peoria is bounded on the east by the Illinois River, on the south by the village of Bartonville, and the west by the City of West Peoria. Local municipal plans indicate the city intends to continue its expansion to the northwest.

What has become Peoria bears many remnants of Native Americans. Artifact and Native American burial mounds indicate that people lived in this area as far back as 10,000 BC. In 1673, Father Marquette and Louis Joliet explored the region, finding the Illini Indians, who were part of the Illinois Confederacy, which included the Peoria Indian tribe.

The history of Peoria, Illinois began when the lands that eventually became Peoria were first settled in the year 1680 when French explorers Rene-Robert Cavalier, Sieur de la Salle, and Henri de Tonti constructed Fort Creve Coeur on the east bank of the Illinois River. In 1691, another fort (Fort St. Louis II, also known as Fort Pimiteoui) was built on the west side of the river, near the present-day area of Mary and Adams Street. The fort and the town, which was established around it, was the first European settlement in Illinois.

Here are some specifics regarding the history and founding of Peoria:

- 1778 – The village had become part of the territory of the new United States.
- 1835 – Peoria was incorporated as a village, then having a population of 1,600.
- 1842 – Peoria began to industrialize. Sawmills, mercantile, and other businesses were established in the city. Many new families settled in Peoria as the standard of living improved.
- 1844 – The first distillery was constructed on the banks of the Illinois River.
- 1845 – Peoria was incorporated as a city. (population between 2500-2800 residents) Peoria was fast becoming an important river port and a source of pure artesian water for distilling and brewing.
- 1846 – An ordinance was passed to form a volunteer fire department.
- 1875 – The Peoria Fire Department became a fully paid organization.
- 1875-1920s – Many brewing and distilling companies constructed facilities in Peoria. During this period, more beer and whiskey were manufactured in Peoria than anywhere else in the world. Peoria had 22 distilleries and multiple breweries. Together, they produced the highest amount of internal revenue tax on alcohol of any single revenue district in the entire U.S. This created many severe fire hazards, hence many spectacular fires, as most of the distilleries had at least one serious fire during their existence.
- 1920-1933 – Prohibition – Peoria was one of the major bootlegging areas during prohibition and home to famed mobsters, the Shelton Brothers.
- 1925 – The Caterpillar Tractor Co. was formed and moved to Peoria. Its world headquarters was located in the downtown area from 1930 to 2017, when it moved to Deerfield, Illinois.

- 1928 – Averyville annexation.
- 1935 – The predecessor of Komatsu Mining Equipment moved into Peoria. Komatsu is a manufacturing plant that is presently located on Northeast Adams Street.
- 1964 – In April, a \$300,000 equipment bond issue referendum was approved by voters, which allowed the City to buy new fire apparatus. Voters approved a second bond issue on February 9th.
- 1964 – The City of Peoria annexed Richwoods Township. This land acquisition more than doubled the geographical area of Peoria and increased the population by 20,000. The fire department experienced overnight growth.
- 1965 – Longwood subdivision (60 acres)
- 1965 – Detweiller Drive annexation (60 acres)
- 1965 – Northmoor Knolls annexation (07 acres)
- 1965 – Yalehurst subdivision (27 acres)
- 1965 – Timberlane Annexation (16 acres)
- 1965 – West of Route 88 (121 acres)
- 1965 – A second bond issue was approved by the voters and raised \$1,080,000, the amount needed to build seven new fire stations in Peoria.
- 1965 – Richwoods Township Volunteer Fire Department, which had existed for 20 years, was disbanded, at which time the Peoria Fire and Police Departments provided full-time service to the area. When this transition occurred, the assets of the Richwoods Fire Department were transferred to the PFD. The department gained three fire stations and the apparatus assigned to those stations.
- 1985 – N. University/Pioneer Park Industrial Park annexation (87 acres).
- 1986 – Pioneer Park, Expo Gardens, Pioneer Commercial District, etc., annexation (373 acres).
- 1989 – Northgate Park subdivision annexation.
- 1989 – June – Weaver Farms (Rt. 150 and Orange Prairie Rd.) annexation (402 acres).
- 1991 – Willow Knolls subdivision annexation (36 acres).
- 1992 – Hall Family (Saddlebrook) subdivision annexation (36 acres).
- 1995 – Shoppes at Grand Prairie (5421 W. Rt. 150) annexation.
- 1995 – Dover Point (10301 N. Knoxville) annexation.
- 1996 – Trails Edge (10501 N. Allen Rd) subdivision annexation (127 acres).
- 2005 – Two Growth Cell annexations, Medina and Radnor Townships (720 acres).

Over the past 50 years, the City of Peoria has developed into a diverse metropolitan area. The downtown area includes corporate, governmental, convention, educational, and medical facilities. It is home to the Peoria Civic Center and

Dozer Park, the local minor league baseball team. The city is also home to a United States Federal Courthouse. Health care and medicine have become a significant part of Peoria's economy. In addition to three major hospitals, the USDA's National Center for Agriculture Utilization Research Laboratory is located in Peoria.

Since its inception in 1845, the PFD has striven to maintain the fire and rescue service levels as the City of Peoria has expanded over the years. The rescue services that the department provides have expanded from just fire suppression to many disciplines, i.e., surface and underwater rescue, technical rescue (trench, collapse, confined space, and rope rescue), hazardous materials incident mitigation, and more.

Community Financial Basis

City Economic Portfolio

Built on a base of heavy manufacturing and best known as the origin of Caterpillar Inc., Peoria's primary economic activity has long been associated with the manufacturing of earthmoving equipment, such as Caterpillar and Komatsu-America International Co. Other prominent manufacturing firms in other industrial classifications include Liberty Steel & Wire Company and O'Brien Steel. In January 2017, Caterpillar Inc. announced that they were moving 300 executive positions to Chicago but stated that 12,000 jobs would remain in the greater Peoria region and that Caterpillar would remain a significant presence as an employer and as a civic philanthropic leader.

While manufacturing continues to play an integral part in the City of Peoria's economy, manufacturing has given way to the services and trade sectors, such as health services, insurance, retail, and telemarketing, providing more than two of every three jobs. The healthcare industry is the largest employment sector in Greater Peoria. There are over 700 healthcare-related businesses that employ over 32,000 people, approximately 18% of jobs in the greater Peoria area.

OSF HealthCare, an integrated health system owned and operated by The Sisters of the Third Order of St. Francis, Peoria, Illinois, includes OSF Healthcare System, consisting of 13 acute care facilities and two colleges of nursing. The 13 healthcare facilities operated by OSF HealthCare have more than 1,600 licensed acute care beds. The largest hospital, OSF Saint Francis Medical Center in Peoria, is a tertiary care teaching center providing numerous specialty services and extensive residency programs for physicians. OSF also has a physician organization, home health practices, outpatient facilities, and hospice programs. OSF completed the renovation of a downtown building into OSF On Call, a virtual care center, employing more than 400 people in 2020. OSF recently completed the construction of a new Mission Headquarters in downtown Peoria, an administrative building in downtown Peoria, and the development of a Comprehensive Cancer Center is being constructed on their hospital campus.

On October 1, 2011, Methodist Hospital became the eighth senior affiliate of UnityPoint Health, the nation's 5th largest nondenominational health system. In 2013, Proctor Hospital affiliated with Methodist, and the two organizations formed a unified health system: UnityPoint Health - Methodist Proctor, a leader in health care in Central Illinois. As of 2023, Urbana-based nonprofit Carle Health acquired UnityPoint's three Illinois hospitals and other locations. Carle Health now has an eight-hospital system with more than 1,000 doctors and practitioners and more than 16,800 employees.

The University of Illinois College of Medicine at Peoria (UICOMP) is one of four campuses that make up the nation's

largest public medical school. The Peoria campus is known among students for its small class sizes, rigorous curriculum, and hands-on clerkships; to residents and fellows for the strong academic setting, large referral base, and exceptional facilities; and by physicians seeking the ideal combination of teaching and practicing medicine in a research-based university setting. UICOMP educates about 240 medical students annually, has more than 270 MDs and DOs in 18 residency and fellowship programs, employs about 170 full-time faculty and 1,300 part-time non-salaried faculty, and is active in basic science and clinical research, including outcomes research and economic evaluation.

In 2013, the Jump Trading Simulation & Education Center (Jump) opened. The facility is a collaboration between OSF Healthcare and the University of Illinois College of Medicine at Peoria. The Jump is an incubator where collaboration and innovation lead the transformation of health care worldwide.

Peoria also has multiple offerings in the areas of education, business, and recreation. For over a century, Peoria has been home to Bradley University, a top-ranked private university that offers 5,400 undergraduate and graduate students the opportunities and resources of a larger university and the personal attention and exceptional learning experience of a smaller university. Bradley offers more than 185 undergraduate and graduate academic programs in business, communications, education, engineering, fine arts, health sciences, liberal arts and sciences, and technology. Specialty insurer RLI has its corporate headquarters in Peoria. RLI is a leader in the property, casualty, and surety industries, offering coverage such as excess liability, commercial earthquake, transportation, marine, directors' and officers' liability, miscellaneous professional liability, and personal umbrella. The company has a reputation for niche expertise, service, and an entrepreneurial spirit. Peoria is also home to Maui Jim, Pringle Technologies, and Natural Fiber Welding. Entrepreneurs and start-ups can find resources at Distillery Labs, the Small Business Development Center, and the Minority Business Development Center.

In addition to the growth in the health service industry, the city has focused on drawing visitors to the Peoria area. The renovated Peoria Civic Center is the largest downstate Illinois venue for conventions, arenas, and theater operations. The Peoria Riverfront Museum and Caterpillar Visitor Center anchor a block in the heart of downtown that serves as the focal point of the Peoria Riverfront. Sports tourism continues to be an integral part of the economy. Numerous state high school and elementary school sports and academic championships are hosted in Peoria due to excellent facilities and central geographic location. The Louisville Slugger Sports Complex opened in 2014 and contains ten little league/softball artificial turf fields, concession stands, and an 85-foot tall, 124,800 sq. ft. dome designed for year-round sports activities.

The city continues to be a destination for regional shopping. According to the sales tax collections reported by the Illinois Department of Revenue for the tri-county region, the City of Peoria continues to generate over half of the regional sales taxes while having 32% of the regional population.

Despite facing challenges like economic downturns and natural disasters, Peoria has remained a resilient and vibrant city with a strong sense of community. The city has made significant investments in infrastructure and public amenities, including parks, museums, and cultural centers, that have helped to attract new residents and businesses to the area. Today, Peoria is a thriving city with a diverse and growing economy, a rich cultural scene, and a strong sense of community. The city's successes to date are a testament to its resilience, adaptability, and commitment to growth and development.

2024 Budget and Beyond

The PFD is primarily funded through sales and property tax. Many factors affect these taxes and, consequently the funding for the department. Revenue is also generated through permits and service fees.

Table 1: Revenue and Expense Projections (2024, 2025)

	2023 Projected Actuals	2024 Budget	% Change	\$ Change	2025 Budget	% Change	\$ Change
Local Sources							
Property Tax Levy	\$33,347,349	\$34,769,282	4.26%	\$1,421,933	\$35,464,668	2.00%	\$695,386
TIF Property Taxes	\$3,824,904	\$4,114,375	7.57%	\$289,471	\$4,196,662	2.00%	\$82,288
Home Rule Sales Tax	\$29,790,160	\$28,896,450	-3.00%	(\$893,710)	\$29,474,379	2.00%	\$577,929
Sewer/Stormwater Fees	\$24,980,000	\$25,182,139	0.81%	\$202,139	\$25,685,782	2.00%	\$503,643
Insurance Charges	\$14,325,000	\$15,728,000	9.79%	\$1,403,000	\$16,028,760	1.91%	\$300,760
Utility Taxes	\$10,947,930	\$10,694,750	-2.31%	(\$253,180)	\$10,908,645	2.00%	\$213,895
Refuse Collection Fee	\$10,888,509	\$10,919,948	0.29%	\$31,439	\$11,138,347	2.00%	\$218,399
HRA Tax	\$11,807,600	\$11,491,870	-2.67%	(\$315,730)	\$11,721,707	2.00%	\$229,837
Franchise Fees	\$3,393,300	\$3,268,090	-3.69%	(\$125,210)	\$3,333,452	2.00%	\$65,362
Licenses and Permits	\$3,479,600	\$3,410,010	-2.00%	(\$69,590)	\$3,478,210	2.00%	\$68,200
Gambling Revenues	\$3,098,300	\$3,085,000	-0.43%	(\$13,300)	\$3,146,700	2.00%	\$61,700
Local Motor Fuel Taxes	\$1,800,000	\$1,800,000	0.00%	\$0	\$1,836,000	2.00%	\$36,000
Parking Fees	\$1,355,430	\$1,402,000	3.44%	\$46,570	\$1,430,040	2.00%	\$28,040
Real Estate Transfer Tax	\$1,356,000	\$1,084,800	-20.00%	(\$271,200)	\$1,106,496	2.00%	\$21,696
Fines and Forfeitures	\$605,510	\$738,750	22.00%	\$133,240	\$753,525	2.00%	\$14,775
Package Liquor Tax	\$967,250	\$900,000	-6.95%	(\$67,250)	\$918,000	2.00%	\$18,000
Total Local Sources	\$155,966,842	\$157,485,464	0.97%	\$1,518,622	\$160,621,373	1.99%	\$3,135,909
State Sources							
State Sales Tax	\$30,544,350	\$29,744,690	-2.62%	(\$799,660)	\$30,339,584	2.00%	\$594,894
Income Tax	\$19,683,000	\$19,000,000	-3.47%	(\$683,000)	\$19,380,000	2.00%	\$380,000
PRRT	\$20,078,770	\$14,947,307	-25.56%	(\$5,131,463)	\$10,463,115	-30.00%	(\$4,484,192)
State Motor Fuel Taxes	\$4,862,214	\$5,398,350	11.03%	\$536,136	\$5,476,317	1.44%	\$77,967
State Grants	\$9,610,800	\$20,243,100	110.63%	\$10,632,300	\$4,027,200	-80.11%	(\$16,215,900)
Total State Sources	\$84,779,134	\$89,333,447	5.37%	\$4,554,313	\$69,686,216	-21.99%	(\$19,647,231)
Federal Sources							
Total Federal Sources	\$25,515,426	\$22,550,100	-11.62%	(\$2,965,326)	\$12,185,857	-45.96%	(\$10,364,243)
Bonds and Other Sources	\$44,745,406	\$22,305,879	-50.15%	(\$22,439,528)	\$23,638,095	5.97%	\$1,332,216
Total Revenues	\$311,006,808	\$291,674,890	-6.22%	(\$19,331,918)	\$266,131,541	-8.76%	(\$25,543,348)

	2023 Projected	2024 Budget	% Change	\$ Change	2025 Budget	% Change	\$ Change
Operational Expenditures							
Personnel Services	\$73,244,199	\$76,588,568	4.57%	\$3,344,369	\$77,665,973	1.41%	\$1,077,405
Employee Benefits	\$38,071,692	\$39,082,637	2.66%	\$1,010,944	\$39,798,100	1.83%	\$715,463
Contractual Services	\$90,142,046	\$75,562,278	-16.17%	(\$14,579,767)	\$67,349,824	10.87%	(8,212,455)
Supplies and Materials	\$6,163,756	\$8,834,302	43.33%	\$2,670,546	\$7,350,392	-16.80%	(\$1,483,909)
Total Operating Expenditures	\$207,621,693	\$200,067,785	-3.64%	(\$7,553,909)	\$192,164,288	-3.95%	(\$7,903,496)
Capital	\$75,326,678	\$102,747,817	36.40%	\$27,421,139	\$71,323,219	-30.58%	(\$31,424,598)
Debt Service	\$22,431,977	\$21,571,559	-3.84%	(\$860,418)	\$23,518,728	9.03%	\$1,947,170
TOTAL EXPENDITURES	\$305,380,349	\$324,387,161	6.22%	\$19,006,812	\$287,006,236	-11.52%	(\$37,380,925)

The State of Illinois plays a significant role in affecting Peoria’s local economy. Because of the fiscal climate in Illinois, attracting new businesses is extremely challenging. Illinois’ economic policies are perceived to be detrimental to manufacturers and the economy. No new business equates to no new tax revenue.

The City of Peoria receives about \$89 million out of a roughly \$290 million budget from the State of Illinois. One of two major factors affecting the city’s current budget process is the state’s overpayment of personal property replacement tax, equating to a net loss of around \$8 million in the general fund where fire services are funded. The second major factor is the growing cost of funding the city’s pension funds, which is increasing to around \$3 million per year through 2040.

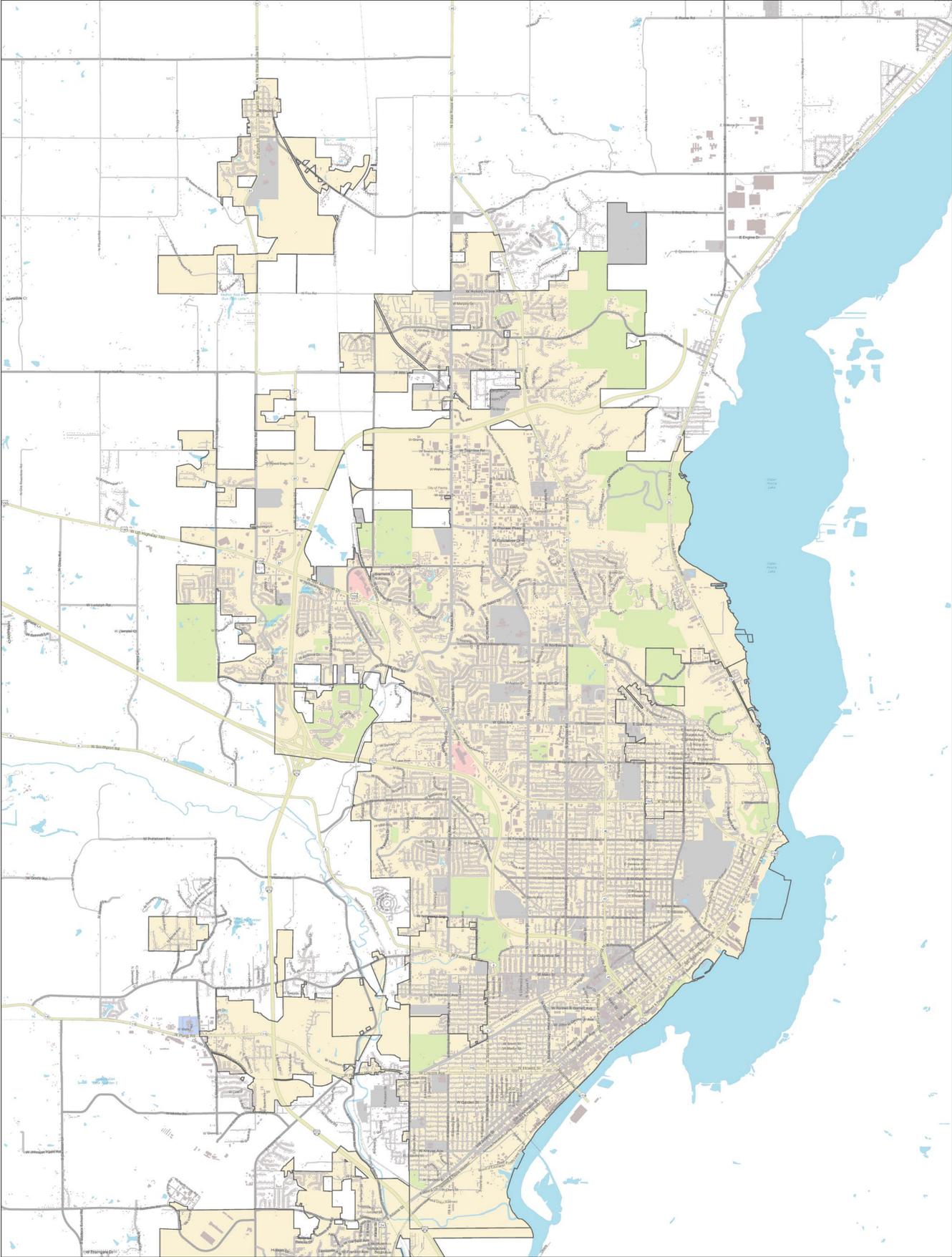
Current City budget discussions are projecting multimillion-dollar deficits for the city beginning in 2025 and running through 2030. General Fund revenues have been up over budget the previous two years which has helped to build a fund balance in the general fund of \$56 million. Additional downside pressure is included in the state’s 2025 budget proposal, which would eliminate the local grocery tax and would eliminate \$4 million in revenue annually that is used for fire services.

All these factors play a role in funding the city and the fire department. The city is continually challenged to make the best use of limited resources and to effectively respond to the ever-changing financial circumstances.

Community Boundaries

Peoria is roughly 50.55 square miles. Currently, the City of Peoria’s most northern boundary is part of E. Boy Scout Road. The northeastern boundary starting at Lake Street going north would be State Highway 29, known as Galena Road. South of Lake Street would be Adams Street, heading southwest all the way until you get to Bartonville, Illinois, still State Highway 29. The southwestern boundary is Laramie Street. The most western street boundary is North Water Oak Drive. Peoria’s boundaries are unique in that there is a village and a city that each has its own Volunteer Fire Department inside the City of Peoria. The Village of Peoria Heights is 2.88 square miles and has a population of 5785. The City of West Peoria is 1.93 square miles with a population of 4111. Peoria Fire Department provides mutual aid to both when called.

Map 1: City of Peoria Boundary Map



Community Planning Areas

The City of Peoria has a history of various planning zones over several years. However, the most recent planning zones within the city target certain areas for neighborhood revitalization and economic development. Some of the major revitalization plans include the East Bluff Community Revitalization Plan and the Near Southside Community Revitalization Plan. These two areas of the city have seen some deterioration over recent years, and the city is hoping to create more stable neighborhoods in these areas. Additionally, on the south side of the city is the MacArthur Corridor Plan, which is hoping to create more economic opportunities for the citizens of the south side.

The Southern Gateway plan is the economic development of an additional part of the city as one enters the city from the far southwest side. This push for economic development along this corridor would provide a great transition to the more popular Warehouse District in the older part of the city. The Warehouse District is pushing for the development of older warehouse-style buildings on the edge of the Downtown Business District for residential and commercial development. The Downtown Business District is by far the largest area of economic development for the city. Home to many commercial businesses and office space throughout, the Downtown Business District is the heart of the city.

Moving north from the Downtown Business District is the Wisconsin Avenue Corridor which is incorporated into the East Bluff Community Revitalization Plan. This main thoroughfare of the East Bluff has the potential to flourish with commercial opportunities, and infrastructure is a goal of the city for the Wisconsin Corridor. Farther north as the city transitions to much more residential neighborhoods with pockets of commercial development, plans for growth of the city continue. Three separate growth cells for the city have been identified, and development is continuing in these growth cells.

Community Transportation Systems

The City of Peoria is a hub of transportation in multiple forms. From road to rail and including river traffic along the Illinois River, there is a varying amount of product that passes through the city daily. In addition to product transportation, commuter traffic is abundant throughout the city every day, not only for employment purposes but for significant residential travel as well. Multiple major road thoroughfares contribute to this commuting and are in constant use. To have an understanding of such transportation systems requires a breakdown of this complex network.

The Greater Peoria Mass Transit District (GPMTD), operating as CityLink and created in 1970, has risen from a start of 33 buses with just over 600,000 riders per year to 53 buses and 1.7 million riders in the 2023 fiscal year. CityLink has also established an eighteen-bay transit center since 2003 that has increased ridership and expanded the operation of the transit conglomerate. This transit hub also serves as a depot for charter services from different locales. In addition, GPMTD has provided a door-to-door paratransit service called CityLift that has served disabled residents within the Transit District since 1990.

CityLink Routes

- ▶ #1 University
- ▶ #2 North Adams
- ▶ #3 Northwest Peoria
- ▶ #4 Sheridan
- ▶ #5 West Peoria
- ▶ #7 John Gwynn
- ▶ #8 East Peoria / Sunnyland
- ▶ #10 Forrest Hill
- ▶ #11 Western
- ▶ #12 Heights
- ▶ #13 South Adams
- ▶ #14 Wisconsin
- ▶ #15 Lincoln
- ▶ #17 Pekin North
- ▶ #18 Pekin South
- ▶ #20 ICC Express
- ▶ #23 Pekin Connector

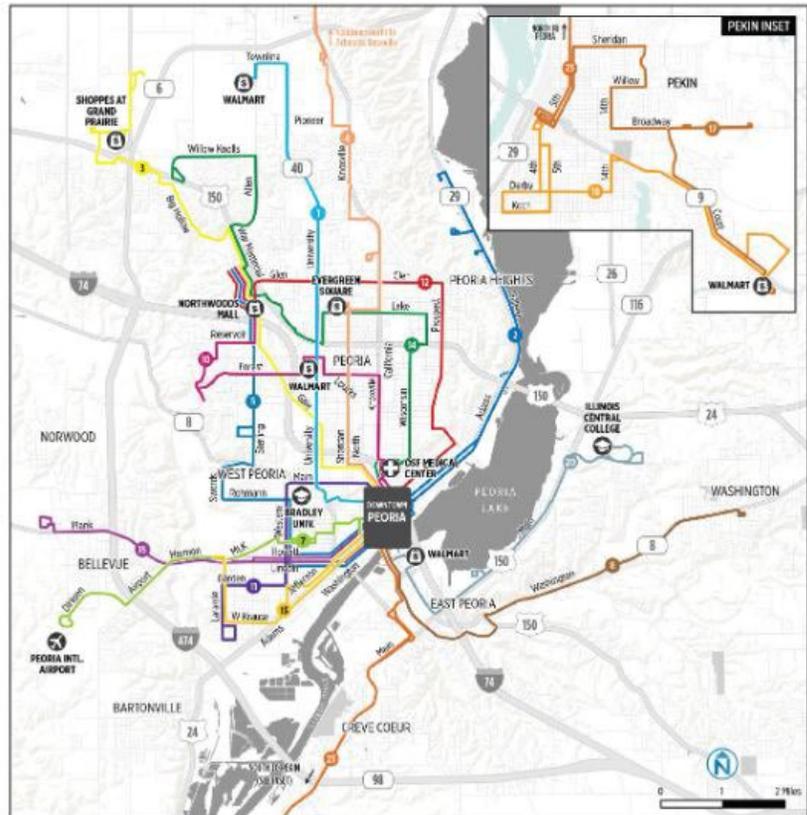


Figure 1: CityLink Routes

Another major transportation system within the City of Peoria is the Illinois River, which not only consists of recreational watercraft, but multiple daily shipments made by barge. According to the latest figures from the Army Corps of Engineers, the tonnage of product for 2023 was monitored at over 2.52 million tons. Much of this product has been of farm grain at 879,250 tons. Also included are 552,720 tons of petroleum products, 413,930 tons of primary manufactured goods, 345,420 tons of various chemicals, and 22,800 tons of coal products (See [Appendix D: Illinois Waterway 2013 Navigation Charts](#)).

Also included in the transportation systems within the city is a substantial railroad system. The largest occupant of this system is the Burlington Northern/Santa Fe (BNSF) railway. Most products transported by BNSF are coal for power plants and grain to various locations. A limited number of chemical products are also transported within pressurized and non-pressurized cars.

Finally, the road system within the city is extensive and includes several major thoroughfares. The most notable is that of Interstate 74 which provides for a major east-west travel path across the state. Several tractor-trailer combos, shipping various freight, pass along this route daily. Another major passage through the city is that of U.S. Route 150, commonly known within the city as War Memorial Drive, which is, once again, a major route of travel for not only

tractor-trailer freight but also everyday commuters. It is justifiable to state this is the busiest and most traveled roadway within the city. An additional state route within the city is U.S. Route 40, commonly known as Knoxville Avenue. Once again, many commuters use this roadway daily as well as several tractor-trailer combos.

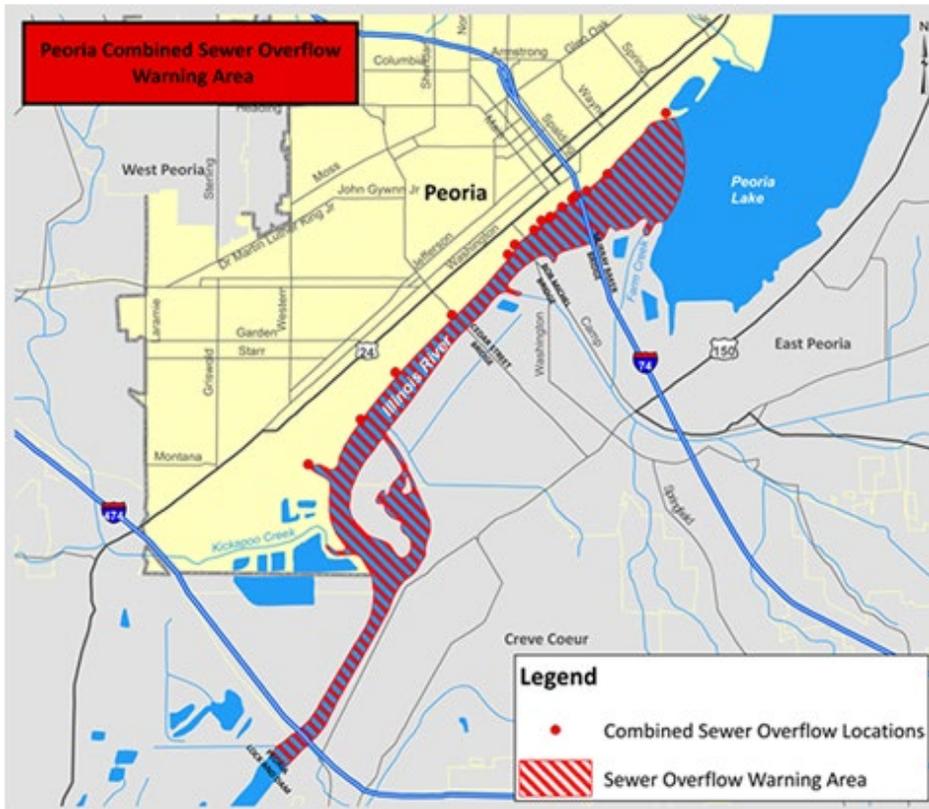
In addition to these major roadways, there are several major routes of travel within the city. Including the state routes mentioned, there are over 986 miles of two-lane and center-lane roads maintained by the city's Public Works Department. These roadways carry a generous number of occupational commuters and residential traffic. At various intersections, there are 275 traffic signals with 48 Opticom systems that work with the fire apparatus to assist in response to alarms. Additionally, of concern are 238 dead end streets and 355 cul-de-sacs that can be problematic for fire department response.

Community Critical Infrastructure

The City of Peoria's critical infrastructure can be broken down between those owned by the city and those owned by private companies, as well as those that affect the entire city and those issues that are planning zone specific.

The city's first critical infrastructure is its sewer system. Peoria's sewer system is made up of three sections. Sanitary-only sewers, owned mainly by the Greater Peoria Sanitary District, are primarily in the parts of the city built after 1930. The sanitary-only sewers that are owned by the city are maintained by GPSD through an intergovernmental agreement. The city is responsible for its storm runoff sewers, with funding coming from the general fund or the sewer fund. This aging infrastructure causes police, fire, city streets, and all other general city expenses to compete for funding with a 70-80-year-old sewer system.

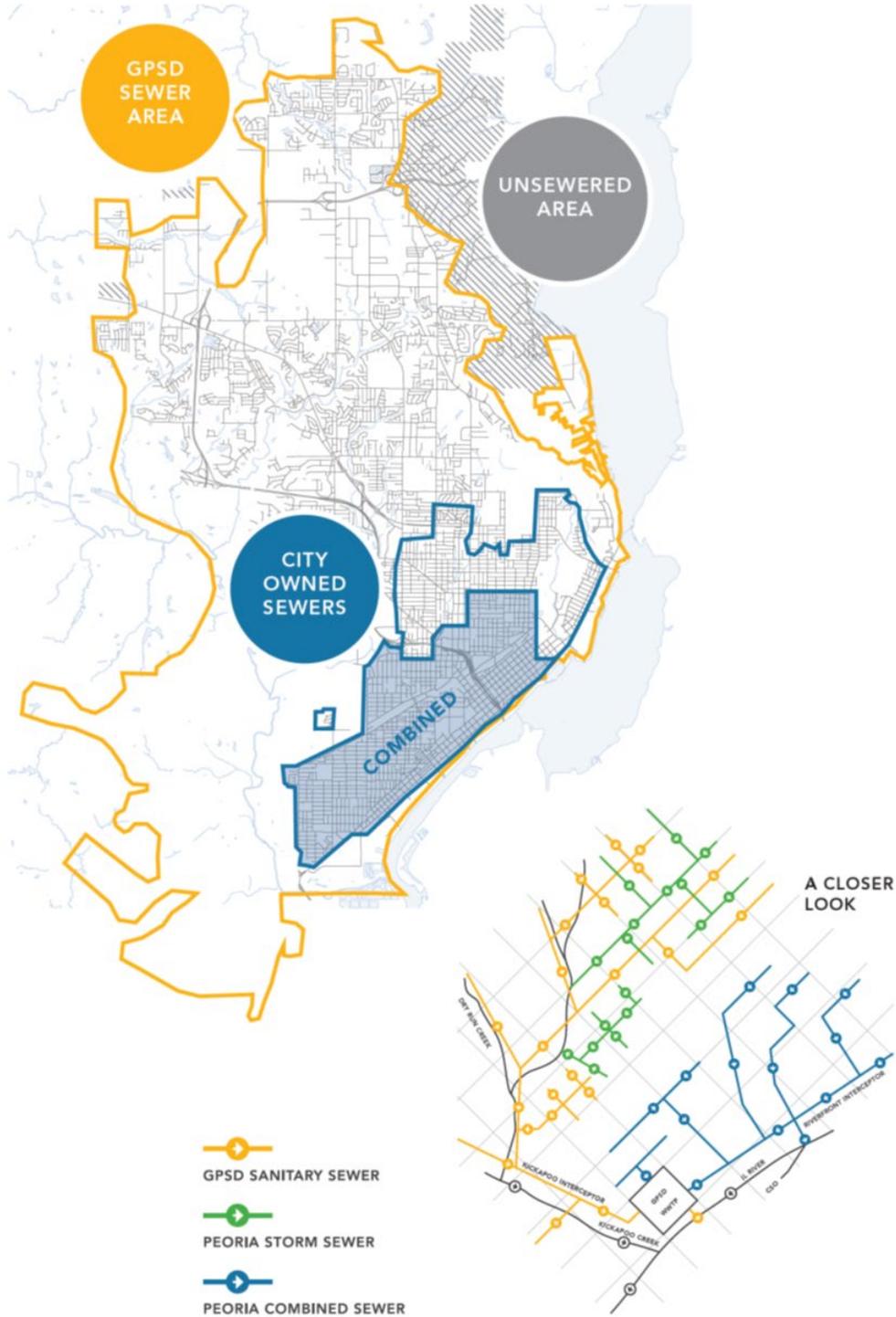
Map 2: Sewer Overflow Warning Area



The final sewer type in the city is combined sewers. Located in the oldest parts of the city, this system collects sewage and storm water runoff in the same system. When rainwater overwhelms the system, the combined sewers can overflow, causing raw, untreated sewage to enter the Illinois River (see figure for sewer release locations). The city owns these sewers, but GPSD maintains them. The EPA, both Federal and State, has placed an unfunded mandate on the City of Peoria to develop a plan to correct this issue and to limit the overflow events. The city experiences between 20-30 combined sewer overflow

(CSO) incidents per year on average. The infrastructure costs to fix this problem will not be able to be handled by the city's funds alone.

Map 3: Combined Sewer Overflow Boundaries
MEET YOUR INFRASTRUCTURE



Following this is the city's privately-owned utility infrastructure. The city's water distribution is handled by the Illinois American Water Company (ILAWC). Due to homeland security protections, the water line maps and pump house locations are not available for a public document. The PFD does have access to an extensive document for review

when needed. ILAWC handles all hydrant testing. There are no known or identified deficiencies in the hydrant system at this time that would overwhelm the PFD operations. If water supply became an issue, the PFD would have to call in water tenders, as the department does not have any due to the past reliability of the water system.

The electric and gas utilities are handled by Ameren Illinois. Ameren handles the delivery of power to local customers, though some customers purchase their power from other vendors. Ameren works in close partnership with the city to train the PFD on various parts of their operations. Some fire stations do have back-up generators in case of power outages.

There are also gas pipelines running through the city boundaries. Due to the security risk, these issues factor into the risk assessment but cannot be contained in this public report at this time.

Critical communication infrastructure begins with the emergency communications center (ECC), which is handled by a county-wide dispatch center utilizing the 911 telephone system. In the event of an outage at the Peoria ECC location, dispatchers and operations are moved to Bartonville, Illinois, and operate out of their ECC. This transition is trained on throughout the year to ensure a smooth transfer and no significant incidents have occurred. In the event of a medical call requiring transport, the dispatch center contacts Advanced Medical Transport through a monitored dispatch channel (C-MED). For PFD response, each in-service apparatus and all reserve apparatus have an 800 MHz mobile radio, a VHF mobile radio, and three 800 MHz portable radios for communications. Each of the two battalion chief vehicles and the division chief of operations vehicles have repeaters to be used for local communications in large structures that could be impacted otherwise. The PFD operates on the 800 MHz system for daily operations. Currently, all fire stations can monitor the main dispatch channel 24 hours a day. In addition, an in-house alerting system, with the ability to silence monitored dispatch, has been installed in all firehouses for sleep deprivation purposes.

AT&T Communications also operates in the city. They have at least two significant buildings in the city that carry communication equipment and transferring capabilities.

The final critical infrastructure section handles roads, bridges, and waterway issues impacting the PFD and its delivery of services. The first concern is the ability of fire apparatus to travel throughout the city. With the exception of the planning zone concerns that will be noted following this, the city does not have any major traffic congestion or issues that would impact the PFD's overall response on a daily basis. There is a major interstate through the city, as discussed in the transportation section. The hazards that the department could see through this route are generally unknown, as well as rail line hazards.

Exiting the city to assist other agencies across the river is impacted by the river. There are four bridges to assist in managing this issue.

The river also poses infrastructure concerns. The PFD has a marine house, fire boat, and dive team to address these concerns. The department has the only on-duty staff to respond to river emergencies with a true fire boat and pump between Joliet, to the north, and Alton, to the south. One volunteer department to the north, Chillicothe, has a fire boat with a pump dry docked. Two other local departments to the south have Jon Boats, one with a pump and one without.

Community Land Use and Zoning

The City of Peoria has an elaborate in-place tiered infrastructure concerning zoning and land use policy. The policy involves an established city ordinance (Unified Development Code), a Community Development Department Planning and Zoning Division consisting of four urban planners, with each planner assigned a specific geographical boundary (Urban Planners also service in the capacity of Zoning Administrators), Development Review Board, a civilian-based Planning and Zoning Commission and Zoning Board of Appeals with rotating staff liaisons, and the Peoria City Council.

The Unified Development Code applies to all private development as designated on the Zoning District Map. The Unified Development Code is adopted pursuant to the Home Rule Powers of the City of Peoria under the 1970 Constitution of the State of Illinois. The Planning and Zoning Division is responsible for land use administration, neighborhood, and comprehensive planning efforts.

Planning and Zoning Division Activities

Current Planning: This activity includes several functions that are integral to the overall function of the City of Peoria.

- *Zoning Administration:* This function includes the administration and supervision of all planning and zoning activities. Tasks include revisions to the zoning, subdivision, or historic preservation codes; the review and approval of all administrative permits as provided in the City Code for signs, group occupancy, home occupations, fences, and zoning certificates; and the response to general citizen inquires.
- *Zoning Enforcement:* Violations of the zoning ordinance affect property values and the living environment of the residents and commercial neighborhoods. This function seeks to react to complaints regarding violations of the zoning code, zoning code compliance, and to deter repeat violations by investigating and initiating enforcement action on all zoning complaints.
- *Commission Support:* This function supports three ordinance-mandated land use related commissions and two staff review boards. The support of these commissions includes the review and development of a staff recommendation of all applications sent; public notice of the meeting; minutes of the meeting; correspondence with petitioners, public, council, and commission members, and all other functions to facilitate appropriate development.

Long-Range Planning: This activity includes all plan development functions, including the continued development of the Growth Cell Development Plan, updating of the Comprehensive Plan, and review of the planning documents created by outside consultants.

Mapping and Analysis: Half of this activity is for mapping and includes mapping support for all Commission work, periodic revisions to the zoning and ¼ section zoning maps, Census Bureau mandated map adjustments, preliminary creation of GIS layers, map maintenance, and limited support to other city departments. The other half of the activity, analysis, includes three components of data management for census and HUD reporting, financial management and processing, and administrative duties related to the management of the department.

Planning and Zoning Commission The commission conducts regularly scheduled meetings under the Open Meetings Act. The established commission maintains the ability to review plans, plats, or replats within the corporate limits of the city or in the contiguous territory outside of and not more than 1.5 miles from such limits. The Planning and Zoning Commission submits written recommendations to the city council regarding the classification of property, land use, and general development of property. The Planning and Zoning Commission consists of a seven-member panel appointed by the mayor, subject to approval by the city council.

Zoning Board of Appeals serves in the capacity of a quasi-judicial group that rules on requests for variance from any section of the City of Peoria Unified Development Code. The Zoning Board of Appeals consists of a seven-member panel appointed by the mayor, subject to approval by the city council.

Zoning Administrator – receives and processes all zoning applications, including special use, and serves as the liaison to the Development Review Board to provide technical review to the Planning and Zoning Commission for public hearing and recommendation to the city council. Additionally, the zoning administrator issues all zoning compliance and exception certificates, approves all certificates of occupancy, conducts inspections of buildings, structures, and uses of land to determine compliance with the development code., issues violations of notices requiring compliance, issues work stoppages, reviews and denies or approves all publications for permitted use under all zoning districts.

Development Review Board – reviews site plans and reports findings to the Planning and Zoning Commission. The Development Review Board shall consist of representatives with expertise in planning, zoning administration, public works, traffic engineering, architecture, building inspections, public safety, and landscape architecture, as designated by the directors of community development, public works, inspections, and chiefs of police and fire.

City Council, in accordance with the Constitution of the State of Illinois and the Revised Statutes of the State of Illinois, is hereby authorized to continue and to exercise such authority as is provided in this development code. The city council receives recommendations from the Planning and Zoning Commission and acts upon all proposed amendments, special uses, and official development plans. The council has adopted the Heart of Peoria Plan and the Comprehensive Plan regarding decisions under the development code.

The process of land use and zoning flows through the process as summarized in the table below.

Table 2: Planning and Zoning Process

	2.1.2	2.1.3	2.1.4	2.1.5	2.1.6	
Procedure	Zoning Administrator	Development Review Board	Planning and Zoning Commission	Zoning Board of Appeals	City Council	Reference
Certificate of Occupancy/Completion	D					2.3
Administrative Deviation	D	R				2.6
Uses Permitted with Administrative Approval	D					2.5
Variations	R	R		<D>		2.6
Appeals				<D>		2.7
Amendments	R	R	<R>		<D>	2.8
Special Use	R	R	<R>		<D>	2.9
Official Development Plan	R	R	<R>		<D>	2.10
Traffic Impact Analysis	R	R			R	2.11
Subdivisions	R				<D>	2.13
Survey Plat	D					2.13
Annexations	R				<D>	2.1.4

KEY: R = Review or Recommendation D = Final Decision < > = Public Hearing

Zoning Districts consist of the following: Base Districts, Form Districts, and Overlay Districts. *Base districts* are defined as a division of land into districts by allowable use; *form districts* are designed to foster a series of vibrant mixed-use districts within the historic core of the city. These districts tend to promote traditional urban form and lively mixed uses. An *overlay district* is a second set of regulations applied to any part of or all of a zoning district.

Zoning Base District:

- Residential
- Office
- Commercial
- Industrial
- Institutional
- Parking

Zoning Form Districts:

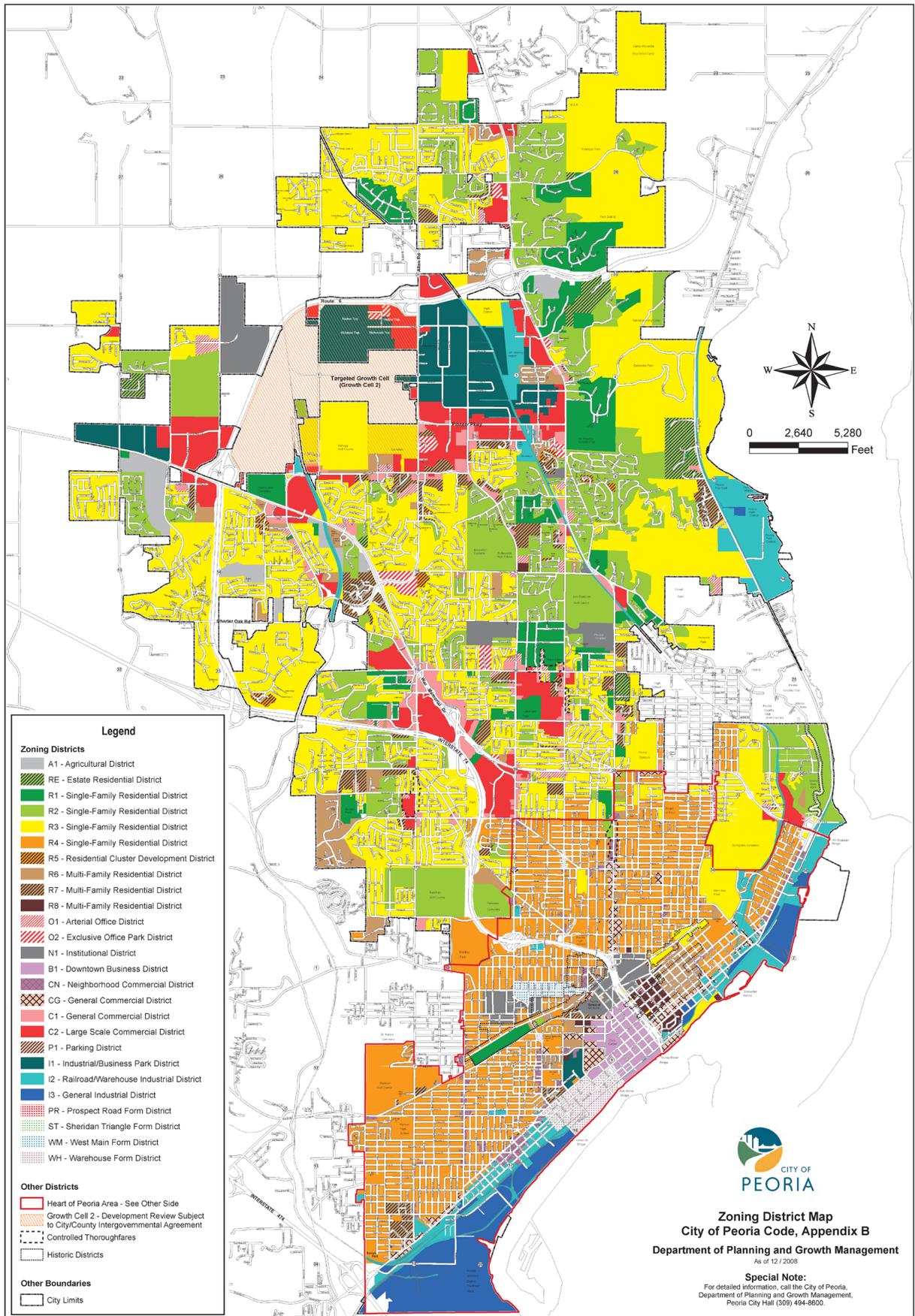
- Prospect Road
- Sheridan Triangle
- West Main
- Warehouse

Overlay Districts:

- Neighborhood Conservation
- Riverfront
- Controlled Thoroughfare Corridor

Zoning Map – The location and boundaries of the districts established by the development code are set forth on the following zoning district map and are incorporated as part of the new development code. The map, together with everything shown thereon and all amendments thereto, shall be as much a part of the development code as though fully set forth and described.

Map 4: Zoning Districts

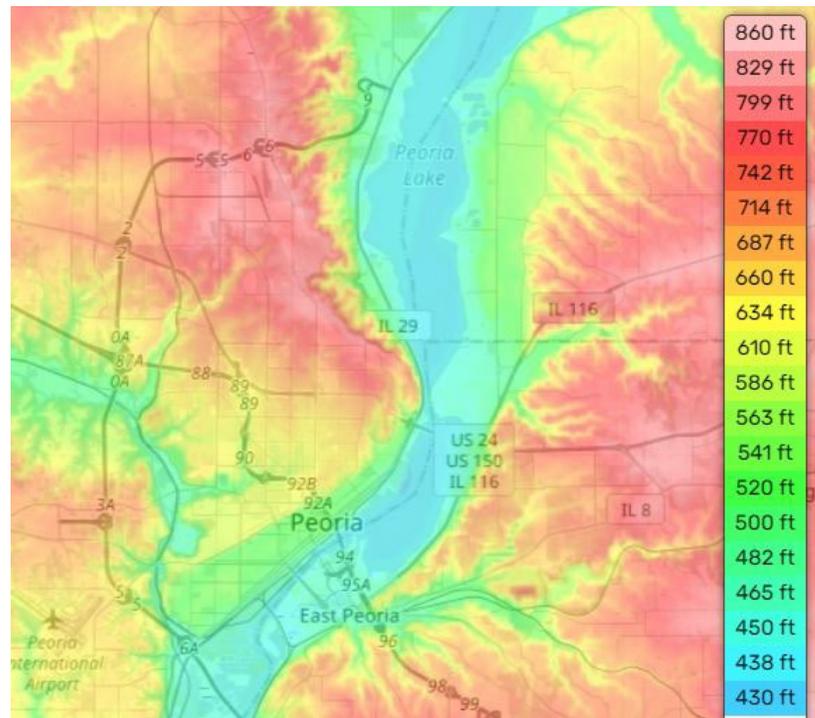


Community Topography

The City of Peoria, Illinois is centrally located within the state of Illinois and covers approximately 50.55 square miles. Peoria is the eighth largest city in the state of Illinois by population and the fifth largest by square mileage. Peoria is also the largest city located on the Illinois River and has an elevation of 652 feet above sea level.

The City of Peoria is primarily flat. There is, however, a distinct elevation change that runs through the city from the northeast to the southwest. A large berm, or elevation shift, extends from the northeastern most point of the city to the southwestern most point of the city. This creates a natural boundary that divides Peoria into two distinct areas. One portion of the city is located near the Illinois River, while the other portion of the city is on top of the berm/hill and is mostly flat.

Map 5: Topography



Community Geography

In terms of natural boundaries, the Illinois River runs from northeast to southwest, which makes up the city boundary to the east. The northeast to southwest edge of the city is considered a “river basin,” as it is at a lower elevation than the northwest and westernmost boundaries of the city. This portion of the city, due to river access, railroad access, and highway access, is a primary point of industry in the Peoria area. The river itself eventually empties into the Mississippi River and is a major thoroughfare for barge and boat traffic. This can also lead to flooding in the northeast to southwest sections of the city when major rains occur.

The Illinois River, which essentially makes up the western border of the city, has a depth of 0.1 to 25 feet. The depth and width of the river can vary depending on the weather conditions, floor conditions, and changes in the lock and dam systems throughout the Illinois River. The northern end of the river is made up of Peoria Lake. This lake is the largest bottomland lake on the Illinois River and is frequented by a large amount of barge and boat traffic. There are four total boat launches in the city.

The following launches are in order from north to south along the river:

- Detweiller Park (public access)
- Ivy Club (private access)
- National Boat (private access)
- Detweiller Marina (public access)

There are a total of four traffic-accessible bridges that cross the Illinois River within the City of Peoria. A fifth bridge, and the most southern bridge in the city is railroad accessible only. The following list of bridges is in order from north to south along the river:

- McCluggage Bridge (with access to Illinois Route 29)
- Murray Baker Bridge (with access to Interstate 74)
- Bob Michel Bridge (with access to Illinois Route 24)
- Cedar Street Bridge (with access to Illinois Route 24)
- Tazewell and Peoria Railroad Bridge (train access only)

Along the northeastern border of the city, along the river's edge, runs Illinois Route 29. Also known as Galena Road, Route 29 runs south into the city. It intersects with Route 150, allowing access east and west, and intersects with Interstate 74, allowing access to the middle of the city. At Interstate 74, Route 24 continues south along the river to the city's most southern point.

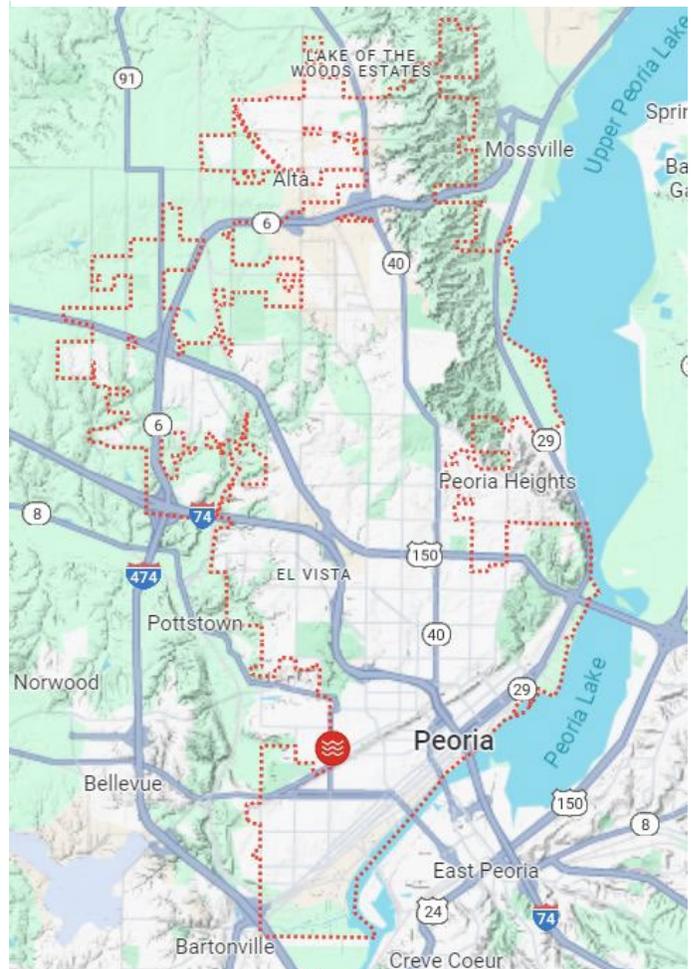
The northwest border of the city is lined by Illinois Route 6. This four-lane highway intersects with multiple roads that traverse the city. Some of these roads intersect with Route 6, while others intersect by overpass only and are not an access point. The following are roads that intersect with Route 6, beginning northernmost and proceeding south:

- Knoxville Avenue (with Route 6 access)
- Allen Road (with Route 6 access)
- Radnor Road (without Route 6 access)
- War Memorial Drive [Illinois Route 150] (with Route 6 access)
- Charter Oak Road (without Route 6 access)
- Interstate 74 (with Route 6 access)

Interstate 74 runs through the city, dividing the city essentially into north and south. This is the primary thoroughfare through the city and is a primary access point that spans the width of the city. The following list are streets that cross I-74, beginning from northwest to southeast. Some streets are access points to the Interstate, while others are not:

- Illinois Route 6 (with access to I-74)
- Sterling Avenue (with access to I-74)

Map 6: Major Route Map



- War Memorial Drive [Illinois Route 150] (with access to I-74)
- Forest Hill Avenue (without access to I-74)
- Gale Avenue (with access to I-74)
- Nebraska Avenue (without access to I-74)
- University Street (with access to I-74)
- Broadway Street (without access to I-74)
- Sheridan Road (without access to I-74)
- Ellis Street (without access to I-74)
- North Street (without access to I-74)
- Knoxville Avenue [Illinois Route 40] (with access to I-74)
- Glen Oak Avenue (with access to I-74)
- Perry Street (without access to I-74)
- Monroe Street (without access to I-74)
- Madison Street (without access to I-74)
- Jefferson Street (with access I-74)
- Adams Street (without access to I-74)
- Washington Street (with limited access to I-74)

War Memorial Drive (Illinois Route 150) is also a major thoroughfare for the city, running east and west. All intersections on Route 150 are at street level and are easily accessible to all traffic.

The city contains numerous recreational trails and open spaces throughout, many of which are in the north to northwest portions of the city. These are utilized by the community for countless recreational activities (hiking, biking, golf, etc.). The landscape itself is lush foliage with large, mature trees, especially in the northern and western parts of the city.

Peoria is bordered to the north, west, and southwest by other cities. These areas of jurisdiction work in conjunction with the city when large-scale incidents occur.

Community Geology

Peoria is in the Central Lowland physiographic region of the United States. There are two main earthquake seismic zones that impact Peoria, which are the New Madrid and Wabash Valley zones. The New Madrid zone is located 350 miles southeast of Peoria, which was the center of the largest earthquakes in the United States history, occurring in 1811 and 1812. The Wabash Valley zone is located 200 miles southeast, with the last known sizeable earthquake recorded on April 18, 2008, registering a magnitude of 5.4. Although Peoria is at risk of being impacted by both these zones, the Illinois Geological Survey has determined this to be a low occurrence.

The most common natural hazards that pose risk to citizens are:

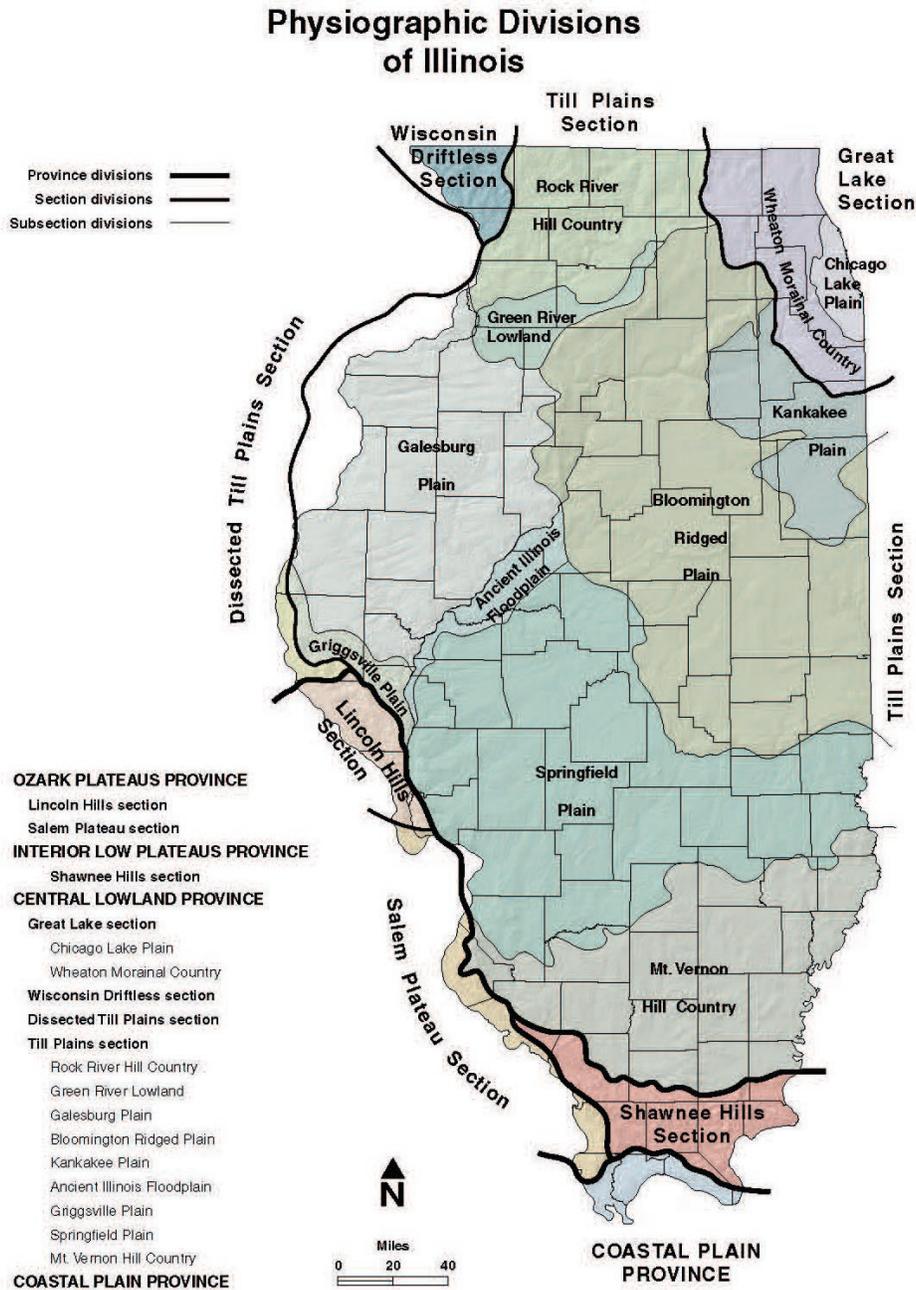
- Floods
- Severe Storms
- Tornadoes
- Land/Mine Subsidence
- Drought
- Extreme Heat
- Wildfire
- Earthquake

Although the city does not have a hazard mitigation plan per se, there are several references to the probability, frequency, and impact of events listed in the Peoria County Mitigation Plan and the Illinois Natural Hazard Mitigation Plan. A study of specific natural hazards to only the City of Peoria is not available.

Community Physiography

According to Study.com (2024), the United States is divided into eight overall physiographic divisions. Illinois is located in the Interior Plains region of these divisions. This is also classified as the Central Lowland Province. A closer look at a map produced by the University of Illinois reveals that located in a smaller section of that division called the Till Plains section. The characteristics of this section are large, relatively flat, or gently sloping areas. The soil is fertile and comes from glacial deposits from Ice Age glaciers that covered this land.

Map 7: Physiographic Divisions



Community Climate

Central Illinois has a humid continental climate with cold winters, warm summers, and frequent changes in temperature. Temperatures range from an average in January of 16 degrees to an average of 85 degrees in July. However, temperatures have been recorded as low as -25 degrees and as high as 105 degrees. Peoria gets 36 inches of rain per year and 23 inches of snow, with an average of 70 days of precipitation.

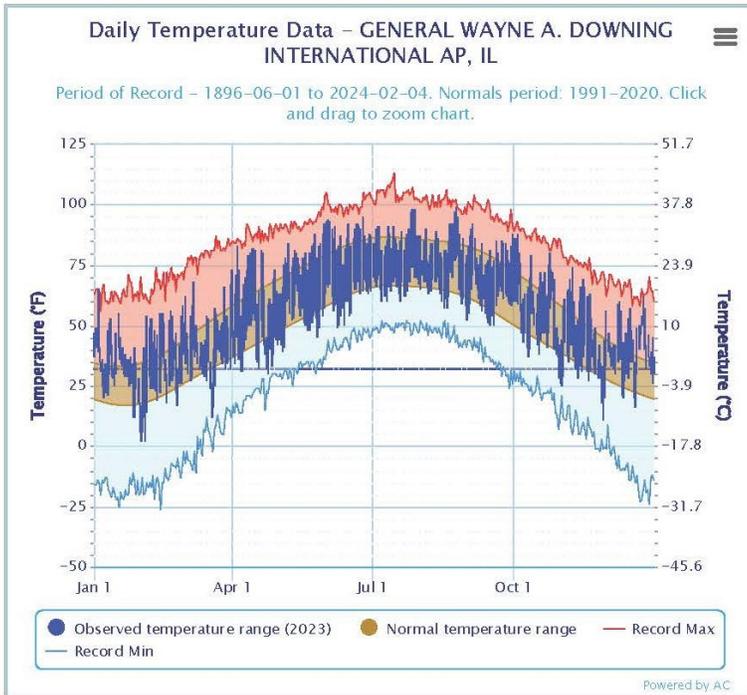


Figure 2: Daily Temperature Data (1896-2024)
 a definite effect on the Peoria Fire Department’s resources.

Severe weather affects deployment and risk. More firefighters have to be sent during extreme heat and cold because crews need to be rotated more often. Snow can affect the ability to get to work and create an overtime situation. Dangerous road conditions from snow, rain, ice, and fog can increase driving hazards and risks.

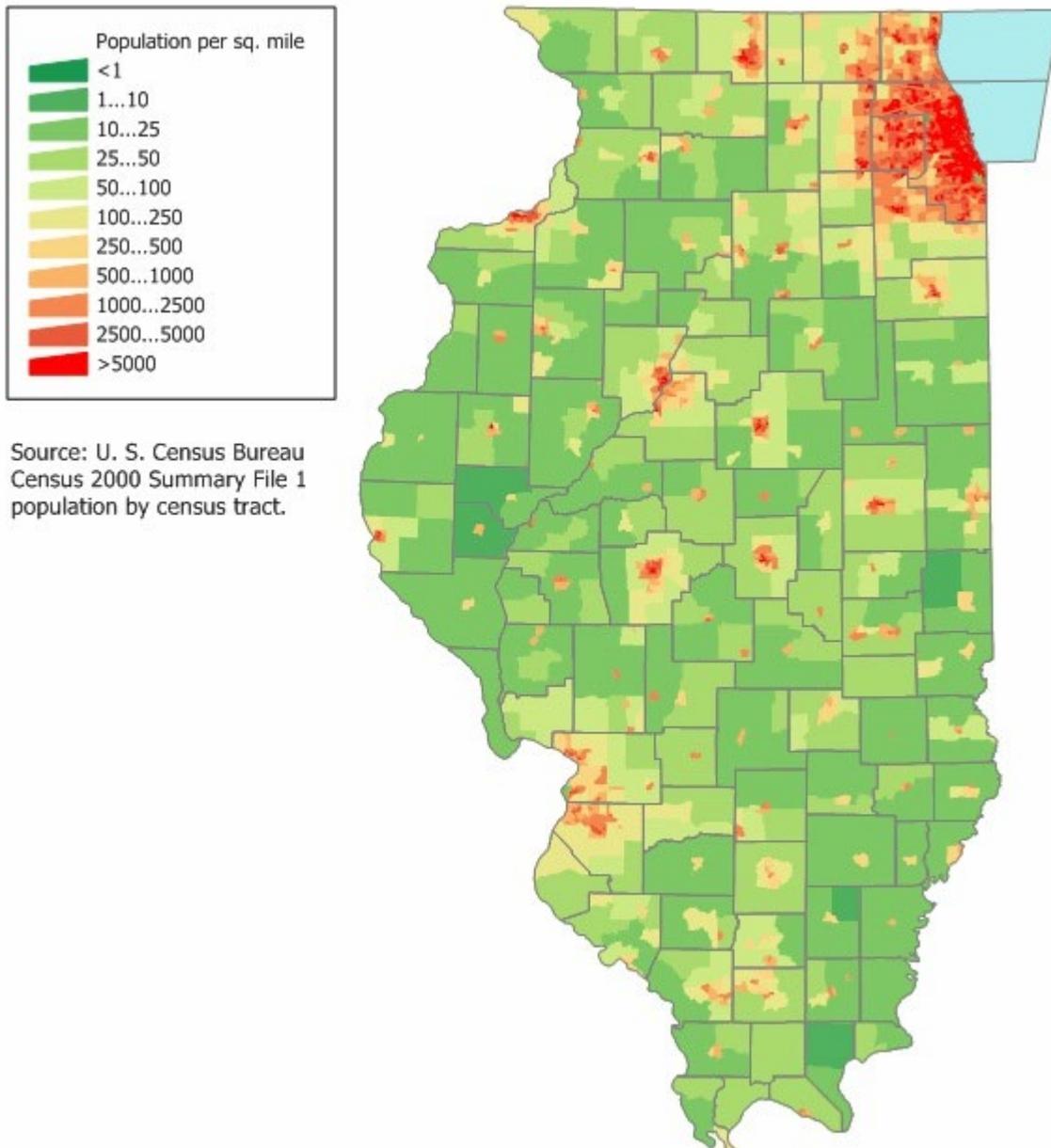
Peoria is situated alongside the Illinois River, and flooding is an ever-present risk. Five major flood events have occurred in the past 36 years, with the majority of the impact on the city in the downtown area. Other major weather-related risks include flash flooding and high winds, which can result in flooded streets, widespread power outages, and downed power lines. Tornadoes are a threat, but the probability is low. Central Illinois climate has

Community Population/Population Densities

The City of Peoria is a very diverse community with a population of 109,447 spread over 50.55 square miles of land and 2 square miles of water. The population density citywide is 2,280 people per square mile. The population increases by approximately 15,000 during the day due to commuting to the downtown and commercial areas. According to the U.S. Census Bureau, the city falls under the “urban” classification, with pockets of rural.

The median age of the community is 35.4 years old. The median age for the State of Illinois is 38.3 years old.

Map 8: Population per Square Mile

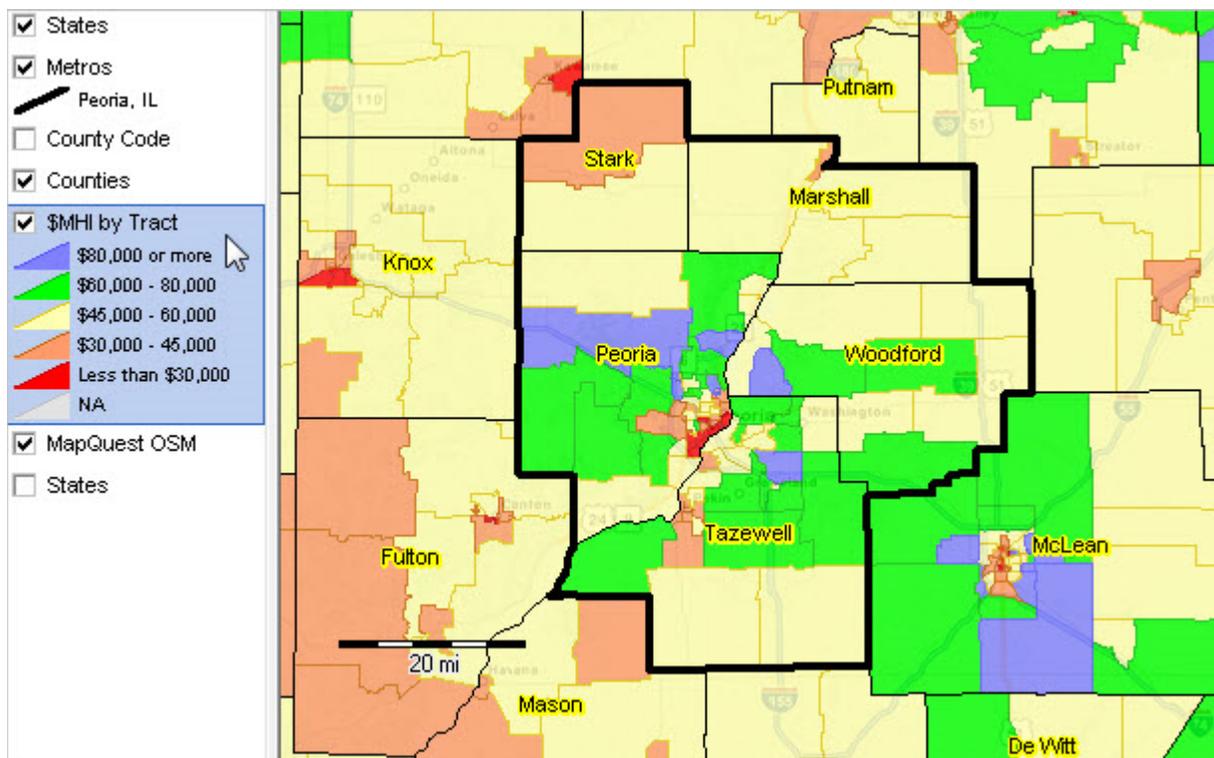


Community Demographic Features

The diversity of the City of Peoria, according to the United States Census Bureau, includes the following: 57.6% White, 26.4% Black, 7.1% Hispanic, 6.7% Asian, and 0.2% Natives. The Hispanic population can be further broken down into Mexican, Puerto Rican, Cuban, Central American, and South American, with the majority being Mexican. The Asian population can be broken down into Indian, Chinese, Filipino, Japanese, Korean, and Vietnamese, with the majority being Indian. There are 48.2% males and 51.8% females in the City of Peoria.

The median individual income for the City of Peoria is \$29,656 compared to Illinois at \$34,489 and the United States at \$31,133. The jobs available are dominated by management, business, science, and arts. There are many service, sales, and office occupations, also.

Map 9: Median Household Income



B. History of the Agency

Major Historical Milestones of the Department

Since its inception in 1845, the Peoria Fire Department (PFD) has striven to maintain the fire and rescue service levels as the City of Peoria has expanded over the years. The rescue services that the PFD provides have expanded from just fire suppression to many disciplines, which include the following: surface and underwater rescue, technical rescue (trench, collapse, confined space, and ropes rescue) and hazardous materials incident mitigation. The following are some examples:

1835 – Peoria was incorporated as a village, with a population of 1,600.

1845 – Peoria was incorporated as a city, with a population between 2,500 and 2,800 residents

1846 – Ordinance passed to form a volunteer fire department. The City of Peoria procured space for the newly organized volunteer fire department at the “City Market House,” 100 block of N. Washington Street (Peoria’s first fire station). Peoria constructed two brick lined cisterns in the Public Square to be used for fire protection. Peoria received its first fire engine and hose reel (Hunneman Fire Engine Co.)/ “Young America Hose Co. #01” was formed.



1847 – Peoria received its second fire engine and hose reel (Hunneman Fire Engine Co.). The newly formed PFD consisted of nearly 80 members.

1849 – Second fire station, the old Post Office building, Neptune Co. 02.

1852 – “Central City Hose House” at 200 block of North Adams Street became PFD’s first permanent fire station.

1854 – Germania Fire Station No. 03 was built on Liberty Street between Adams and Washington Streets.

1855 – On February 4th, Germania Fire Company No. 03 received its charter from the Legislature of the State of Illinois, recognizing the company as an official member of the fire service in the City of Peoria.

1856 – Barn rented by the city to house Phoenix Hook & Ladder No. 01

1858 – “New Peoria Volunteer Co. No. 04” was organized/barn rented for a fire station. A new Babcock City service hook and ladder truck was purchased and placed in service.

1860 – “New Peoria” Fire Station built at 1315 SW Gallatin Street.

1864 – Peoria acquired its first steam-powered fire engine (Amoskeag Fire Engine Co.)



1865 – “Young America Volunteer Fire Company” was the first volunteer to be replaced with a paid fire company.

1866 – The Peoria City Council appointed three men to a “Fire & Water Committee” to oversee the fire department. This was the forerunner of the present-day Police and Fire Commission.

1869 – City council resolved to collect a 2% tax on the gross receipts of fire insurance companies doing business within the city. The proceeds were appropriated to support the fire department. This was the forerunner of the “Foreign Fire Tax” system that is presently in place.

1870 – Installation of the new fire alarm system was completed. This system included 18 fire alarm pull boxes located around the city. A version of this system was in place and operating for over 100 years in Peoria.

1872 – “Holly Hose House,” the permanent Fire Station 02, was built.

1875 – PFD became a fully paid organization (11 firefighters plus the fire marshal).

1877-1902 – The city built ten new firehouses.

1880 – Wooden fire sliding poles were installed in all fire stations.

1883 – Steam Engine Station 01 was built with the first brass fire pole installed.

1884 – The rank of assistant engineer was created.

1888 – PFD suffered its first line of duty death, 17-year-old August Kirchoff, in a wall collapse.

1889 – A new Central Fire Station was erected on Jackson Street.

1900 – Peoria's population was 56,000, and the PFD had 54 paid members with 276 alarms. PFD suffered its second line of duty death, Captain Barney Manning, in another wall collapse. The villages of North and South Peoria are annexed into the City of Peoria.

1902 – Combination Station No. 01 was built on Starr Street. Combination Station No. 02 was built on Kansas Street.

1905 – PFD lost its third firefighter, Charles Gander, who fell while sliding down a fire pole.

1906 – PFD had its fourth firefighter line of duty death, Captain Cassius Wonder, who died in a structure collapse.

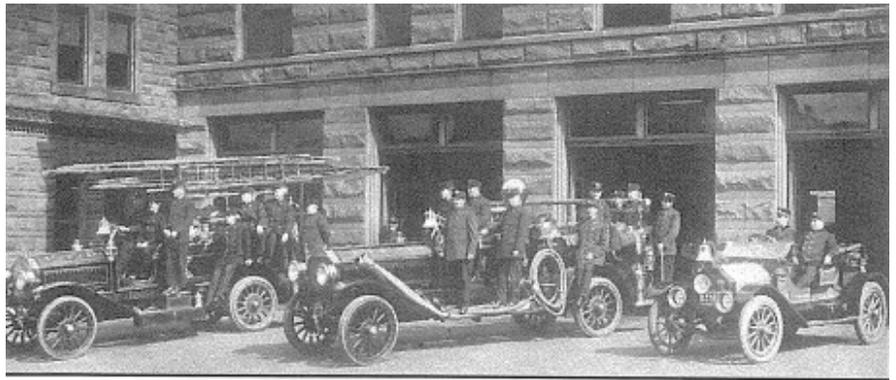
1907 – The rank of assistant chief was created.

1910 – Peoria's population was 66,950. The PFD responded to 525 alarms. Firefighter Clifford Wyles became the fifth line of duty death when he was run over by a fire truck.

1911 – PFD lost its sixth firefighter, Chester Mooberry, in a structural collapse.

1912 – PFD purchased its first motorized fire apparatus.

1917 – Peoria Firefighters Union Local 50 was chartered. The fire at Peoria Cordage Company in the 1500 block of South Washington resulted in the passage of more stringent local fire and life safety codes pertaining to fire exits and fire drills in the workplace.



Peoria's motorized fleet by 1913 consisted of two 1912 Robinson pumping engines and a 1913 Interstate chief's automobile. The police department patrol house

1919 – Intense political pressure forced the Peoria Firefighters Local 50 to disband.

1920 – Peoria had a population of 76,121. The PFD responded to 673 alarms and went to a two-platoon scheduling system.

1921 – Peoria voters approved a \$150,000 bond referendum that allowed the city to complete the motorization of the fire department. (All apparatus motorized by 1922).

1922 – A new Central Fire Station was built at 437 Liberty Street and remained in service until the current Fire Central was built in 1978 at 505 NE Monroe Street. Fire Station 11 was built on McClure Avenue and remained in service until 1968.

1923 – PFD’s fleet consisted of four engines, seven hose wagons, four ladder trucks, and two chief’s cars.

1924 – PFD acquired a part-time vehicle mechanic. PFD suffered its seventh line of duty death, Frank Fosco, in a structural collapse.

1925 – The oldest volunteer fire company, New Peoria Volunteer Fire Company No. 4 (existing since 1858), in the State of Illinois disbanded as an active company.

1928 – Peoria annexed the Village of Averyville, acquiring the lone Averyville fire station. After this annexation, Peoria consisted of 11.88 square miles.

1929 – Thomas O’Conner and Captain Richard Teufel were the PFD’s eighth and ninth line of duty deaths caused by structural collapse.

1930 – The PFD responded to 1,284 alarms.

1931 – The PFD accepted a 1931 Ahrens-Fox 1,000 gpm pumper, which remained in service until the mid-1960s. (It is presently fully restored and in full operating order at the “Wheels O’ Time Museum” in Peoria.) PFD’s emergency medical unit, the “Inhalator Squad,” answered its first call.

1932 – The PFD used its first “ventilation” fan.

1936 – The PFD lost its tenth firefighter in a line of duty death when Walter O’Connell fell while sliding down the fire pole. Raymond Ballow became the PFD’s eleventh line of duty death when he suffered a heart attack at the fire station.

1937 – The PFD had 17 pieces of fire apparatus and 11 fire stations with a staffing complement of 127. The PFD purchased its first radio for use on the fireground. Peoria firefighters voted to organize a local chapter of the International Association of Firefighters, rechartered Peoria Firefighters Local 544.

1938 – Peoria City Council formally passed a resolution denying the Village of West Peoria fire protection, which the PFD had been providing free of charge.

1939 – The PFD lost its twelfth firefighter, Eugene Hester, from a heart attack at the fire station.

1940 – Peoria’s population was 105,087, according to the 1940 U.S. Census, with a square mileage of 12.54. The PFD responded to 1,193 alarms.

1948 – The PFD suffered its thirteenth line of duty death when Albert Jenkins had a heart attack at a fire scene.

1949 – The PFD firefighter’s work week was reduced from 84 hours to 78 hours per week. Captain William Gorman became the fourteenth line of duty death when he suffered a heart attack at a fire scene.

1950 – Peoria’s population was 111,856, and the PFD responded to 1,375 alarms.

1952 – The PFD consisted of 135 firefighters staffing ten stations with a city population of 112,000. Station 4-6 was opened at a cost of \$85,000. This station was in use until 2022 as Station 4.

1955 – PFD firefighter’s work week was reduced from 78 to 72 hours per week.

1956 – PFD firefighter’s work week was reduced again to 63 hours per week. All PFD apparatus had two-way radios installed with receivers installed in the fire stations.

1957 – Ed Gaines became the first African American to be appointed to the PFD. PFD firefighter’s work week was further reduced to 56 hours per week.

1958 – The PFD consisted of 153 commissioned personnel, nine engines, one hose company, one inhalator squad, two aerial trucks, one city-service ladder truck, plus one quad and a service ladder truck.

1960- According to the 1960 census, Peoria’s population was 103,162. The PFD responded to 1,973 alarms. The PFD created the rank of engineer between the ranks of captain and firefighter. Captain Earl Biegler died from a heart attack at a fire scene, becoming the department’s fifteenth line of duty death.

1962 – Police and fire integration went into effect. Twenty firefighters were laid off, and Fire Station 8 was closed. Some police officers (cooperative patrolmen) were given fire suppression training and assigned fireground duties. Ten firefighters were assigned to “non-gun” police duties.

1963 – The PFD purchased its first actual self-contained breathing apparatus, ending the year with a total of 12 new air masks. Nine laid-off firefighters were recalled to duty.

1964 – Five laid-off firefighters were recalled to duty. Eight new SCBA masks were purchased. Voters approved a \$300,000 fire equipment bond issue referendum after two previously failed attempts. This allowed the PFD to purchase a squad and an engine. The City of Peoria annexed Richwoods Township, which more than doubled the geographical area of Peoria and increased the population by 20,000.

1965 – Thirty-eight new firefighters were hired, bringing the total complement of the PFD to 158. A second bond issue was approved by the voters and raised \$1,080,000 - the amount needed to build seven new fire stations in Peoria. The Richwoods Township Volunteer Fire Department was disbanded, at which time the assets of that department were transferred to the PFD. The PFD gained three fire stations and the apparatus assigned to those stations.

1966 – The PFD purchased a new rescue boat.

1967 – The PFD purchased a 100’ aerial ladder truck, which was placed into service as Truck 4. Four new fire stations (3, 8, 11, and 16) were constructed. The rank of battalion chief was created, which led to many promotions.

1968 – The PFD purchased three engines, two light trucks, and two hose wagons. An aerial ladder was also refurbished. New fire stations 10 and 12 were opened.

1969 – Two new engines were placed into service.

1970 – Peoria’s population was 126,963, and the PFD responded to 4,042 alarms. The PFD took delivery of its first diesel-powered fire apparatus.

1971 – Peoria City Council abolished the Police and Fire Integration program. As a result, 25 new firefighters were hired. Cooperative patrolmen were ordered to turn in their fire gear. The Fire Prevention Bureau was reorganized, with three of the five inspectors assigned to 24-hour shifts. They responded to all fires as well as inspected businesses.

1972 – Four Peoria firefighters were certified as emergency medical technicians, and 78 firefighters received first aid training on the job. Illinois Central College offered fire science courses so that firefighters could earn an associate degree in Fire Protection Technology.

1973 – Peoria Water Company color codes the fire hydrants around the city as to the main size.

1974 - Fire Station 14 was vacated, and Truck 14 was moved to Fire Station 16.

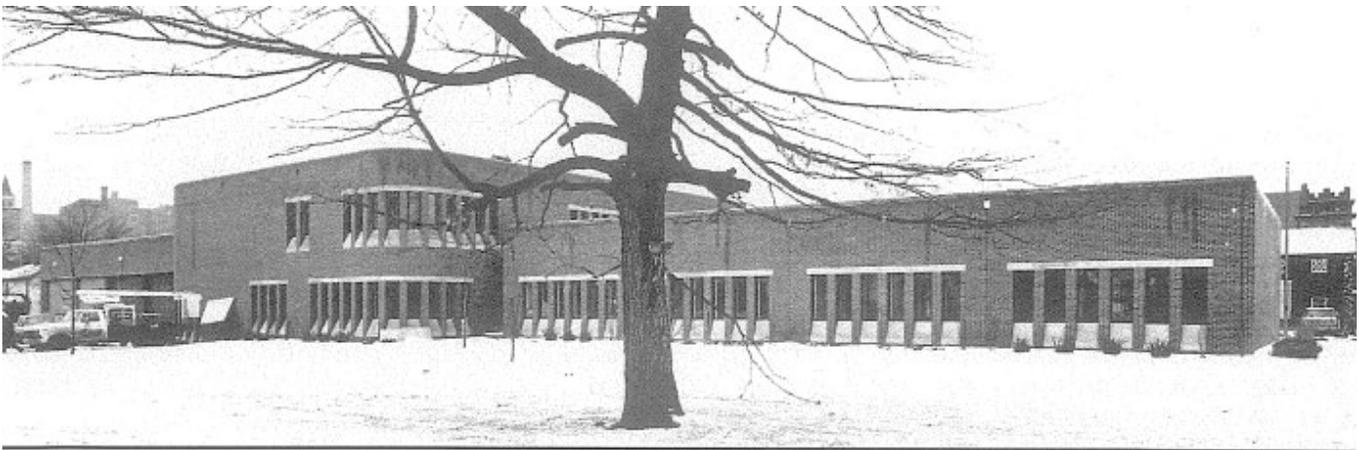
1975 – The PFD celebrated its 100th anniversary of the fully professional department.

1976 – The 911 telephone system went into effect. The PFD purchased its first fire apparatus (a Pierce 1,000 gpm) with an automatic transmission.

1977 – Noel Hart was appointed as the PFD’s first African American fire chief.

1978 – The PFD had 208 members, an all-time high. Ten basic life support units were placed in service. The command structure was reorganized, eliminating six battalion chiefs and three assistant chief positions. The Fire Education (Public Education) Division was implemented. Due to costs and budget constraints, the fire/rescue boat was taken out of service. The PFD’s new fire training academy opened at 7130 N. Galena Road, which is still in use.

1979 – The new Central House at 505 NE Monroe Street opened (present-day Fire Central). The PFD began using three-inch supply hose, purchased 27 new Scott 2.2 SCBAs, certified 165 members as EMTs, and conducted its first 200-hour recruit training course at the new Training Academy.



New Fire Central on the corner of Hancock and Monroe Streets.

1980 – Peoria’s population was 124,160, and the PFD responded to 5,820 alarms. All PFD engine companies were equipped with medical supplies, making them basic life support units. All 1.5” attack lines were replaced with 1.75” attack lines with adjustable nozzles. All front-line fire apparatus repowered with Cat diesel engines. Five new Mack 1,000 gpm pumpers were purchased.

1981 – All front-line fire apparatus were equipped with positive pressure SCBAs. A new Pierce 100’ aerial platform apparatus was purchased. The City of Peoria enacted a hiring freeze. The PFD overtime budget was reduced, which caused front-line equipment to be taken out of service instead of paying firefighters overtime.

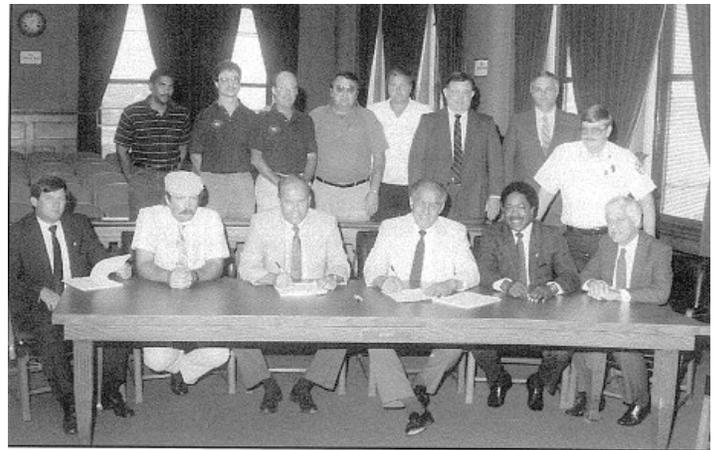
1982 – Due to budget constraints, the fire prevention/inspections division lost two positions. The city-wide hiring freeze continues into its second year. A new apparatus was purchased and used as a HazMat Command/Control Center.

1983 – Captain Vernon “Butch” Gudat became the PFD’s sixteenth line of duty death in a structural collapse. The City of Peoria ended its hiring freeze and appointed 15 firefighters. Included in this class were the first two females ever hired as firefighters for the PFD.

1985 – The Fair Labor Standards Act mandated overtime pay for firefighters exceeding a 40-hour work week.

1986 – Budget constraints created certain firefighter positions being placed out of service on an as-needed basis. New 40-hour fire investigator positions were created. A new light-duty rescue squad was placed in service at Fire Central.

1987 – The Hazardous Materials Mitigation Team was organized. Fire Station 19 was opened on the city’s northwest side. The city met with Firefighter’s Union Local 544 to negotiate the first written contract. The city decided to remove all the fire alarm pull boxes from street corners.



The historic signing of the first contract between the City of Peoria and the International Association of Firefighters Local #544.



Fire alarm boxes, like the one above, had been a familiar site on Peoria streets since 1870. However, the implementation of the Computer Assisted Dispatching (CAD) system replaced the telegraph alarm system in 1988.

1988 – A computer-aided dispatch (CAD) was implemented. The PFD implemented the incident command system. The first written formal contract between Local 544 and the City of Peoria was ratified, which designated three firefighters assigned to each apparatus and removed E-5, T-4, and T-10 from service. The PFD Honor/Color Guard was established. Peoria’s Fire and Police Memorial monument was dedicated.

1989 – Positive pressure ventilation fans were purchased and placed into service along with two new engines. The PFD experienced the deadliest house fire in its history, with seven children and two adult civilian fatalities.

1990 – Peoria’s population was 113,504. The PFD responded to 6,239 alarms, and staffing was 199 firefighters. The PFD Training Academy was designated a Regional Training Center.

1991 – The Fire Cadet program was adopted.

1992 – Fire Station 17 was permanently closed due to budget constraints. Truck 4 was placed back in service after a four-year absence.

1993 – “Enhanced 911” dispatching system went online. The “Firefighter Combat Challenge” physical agility test was adopted by the department to test applicants. The City of Peoria offered the first retirement incentive to firefighters. During Fire Prevention Week in October, the Fire Safe House was unveiled to the public.

1994 – Peoria Firefighter’s Local 544 obtained permission from the IAFF to adopt its original 1918 designation as Local 50. The Foreign Fire Tax Fund purchased a new rescue boat.

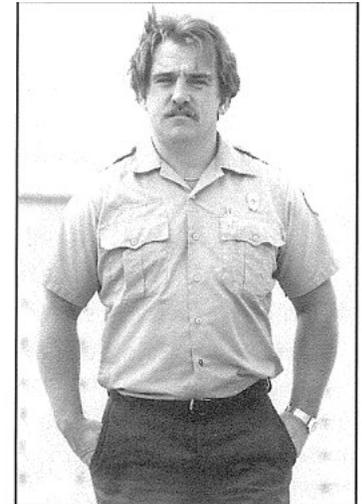
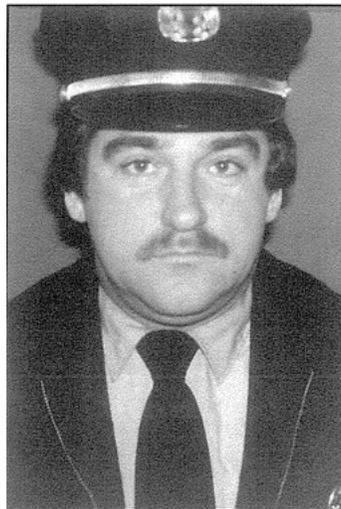


Peoria's first truly designed fire/rescue boat was developed in 1994 for purchase in 1995. This unit has a midship fire pump and twin 150 hp outboard motors.

1996 – The Foreign Fire Tax committee purchased 15 defibrillators for fire department use. Fire Station 15 was opened at 717 W. Detweiller Drive. Local 50 ratified the first five-year contract.

1999 – Fire Station 20 opened, covering the northern part of the city.

2000 – The PFD Training Academy was renamed and dedicated to Captain Vernon “Butch” Gudat, the last PFD line of duty death. Due to a construction accident on the McCluggage Bridge, the PFD dive team is activated for the first time.



VERNON A. "BUTCH" GUDAT

2001 – New Fire Station 19 opened, replacing the previous Station 19. The PFD improved the ISO rating to a 2.

2002 – Union and management opened the collective bargaining agreement to “give back” their pay raises to avoid firefighter layoffs.

2008 – Fire Station 13 opened after the old station was razed with the new build on the same site. The PFD promoted its first female to the rank of battalion chief. The PFD received a new mobile Fire Safe House, which is still in use, to be used to teach fire safety to civilians. The Technical Rescue Team was created with high angle, confined space, structural collapse, and trench rescue capabilities. Fifteen recruits graduate from the Training Academy.

2009 – The PFD’s first fire apparatus was equipped and staffed to deliver advanced life support (ALS) medical capabilities to citizens. Local 50 agrees to “give back” their negotiated raises to avoid layoffs again.

2011 – The PFD received a \$1.6 million grant to hire nine new firefighters.

2012 – A second fire apparatus was equipped and staffed to deliver ALS capabilities and placed in service. The PFD’s first female firefighter retired as a division chief after 29 years of service.

2013 – Engine 4 was equipped and staffed to deliver ALS capabilities.

2014 – Arsonist Aunterrio Barney is sentenced to life in prison for an arson that took the lives of four individuals (over four years prior).

2016 – The PFD responded to 19,552 alarms.

2018 – The PFD, with the approval of the PAEMS Medical Director, implemented an ALS First Response pilot program beginning with Rescue 1 and Engine 3. They provided ALS capabilities but did not carry all the drugs that normal ALS ambulances carry. A SWAT specialty team was implemented. Rescue 1 started brownouts.

2019 – Rescue 1 and Rescue 2 were taken out of service. Hazmat inspector and three bouncing firefighter positions were eliminated.

2020 - COVID-19 shut down all fire stations to the public. A quick response vehicle was put into service to respond to COVID-19 patients.

2021 - E2 was taken out of service and returned to service, funded by overtime in November. Former Fire Station 17 was repurposed for recruit housing.



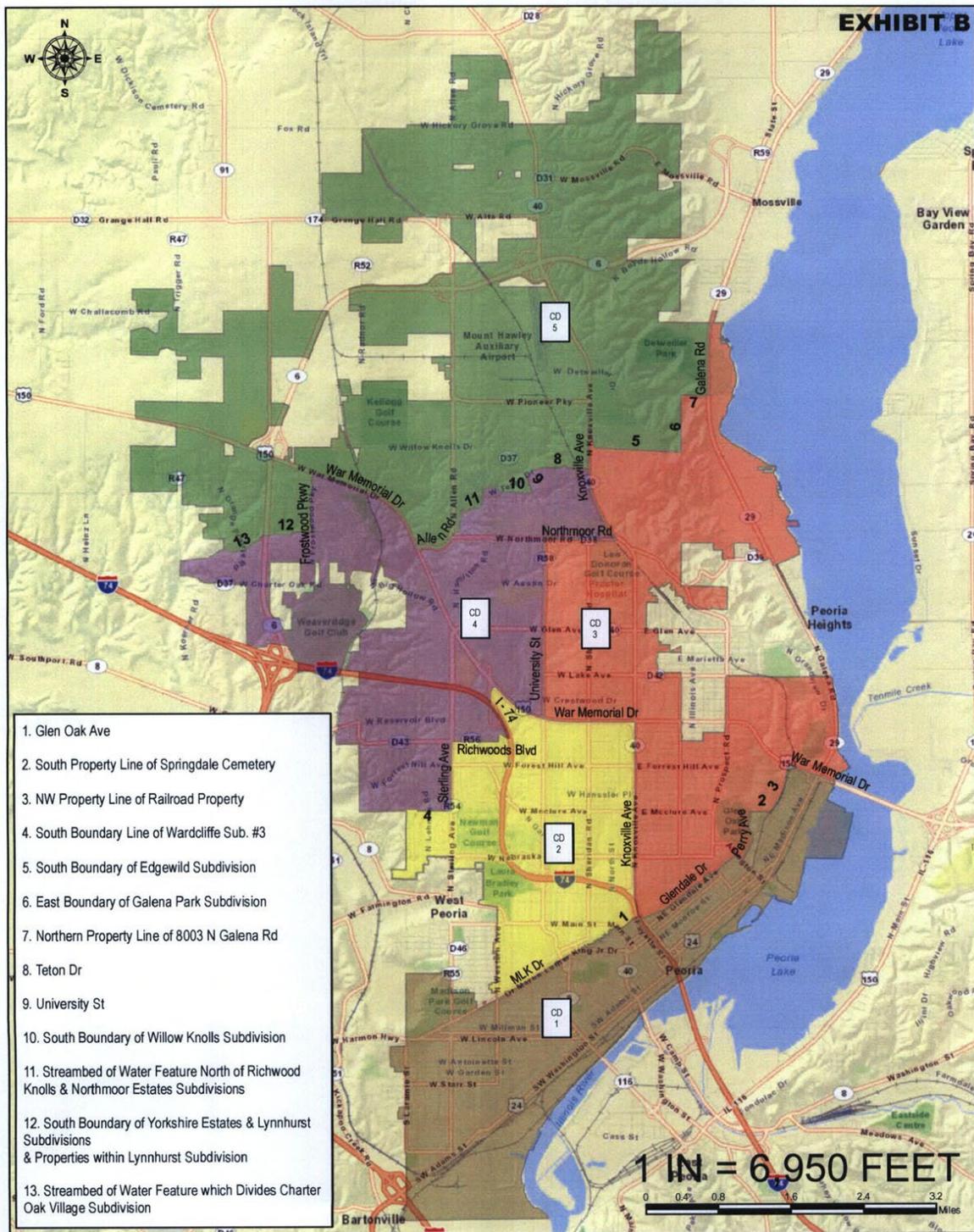
2022 – Peoria’s population was 113,000. The PFD responds to 20,312 alarms with a complement of 187 firefighters. The new Edward B. Gaines, Jr. Fire Station 4 opened in its new location at 509 S Western Avenue. The fire investigation division received two accelerant detection canines. All 12 PFD engines were licensed to provide ALS care.

2023 – E11 was put back in service, and T3 was put in reserve status. The Drone Specialty Team was implemented.

Current Legal Boundary of Service Area

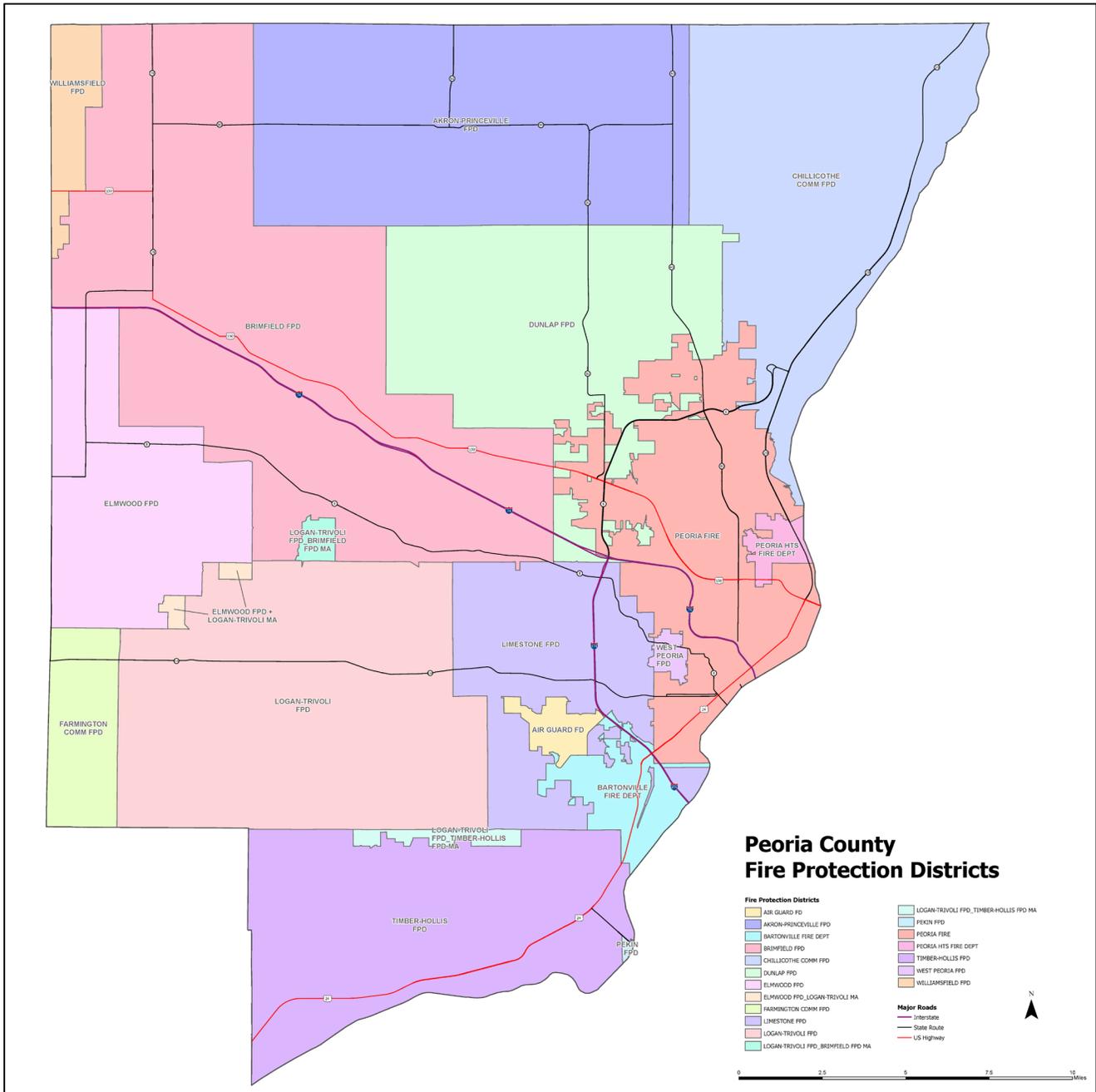
The PFD’s response area includes the city limits of Peoria. Peoria is surrounded by volunteer fire protection districts on land and by the East Peoria Fire Department, a career department whose district is across the river. The Illinois River is the eastern border of the response area. Surrounding the city and, in some cases, within the city are the fire protection districts of Brimfield, Dunlap, Limestone, Peoria Heights, and West Peoria.

Map 10: City Council Districts



The PFD is a member department of Mutual Aid Box Alarm System (MABAS), Division 36. (See [Appendix E: Peoria MABAS Cards](#)). A full card set is available on the department's One Drive) MABAS is a mutual aid agreement that is state-wide and beyond. The resources of the PFD can be summoned within the MABAS system for a variety of incidents, fire and EMS related. MABAS-level teams can also be called out for incident-specific needs, such as technical rescue, dive, or hazmat-level responses. Neighboring departments that have adopted MABAS-level responses can add the PFD to their mutual aid levels, or they can call for direct, incident-specific resources. Additionally, PFD can request outside resources either through MABAS or mutual aid agreements.

Map 11: Fire Protection Districts



Current Organization, Divisions, Programs and Services

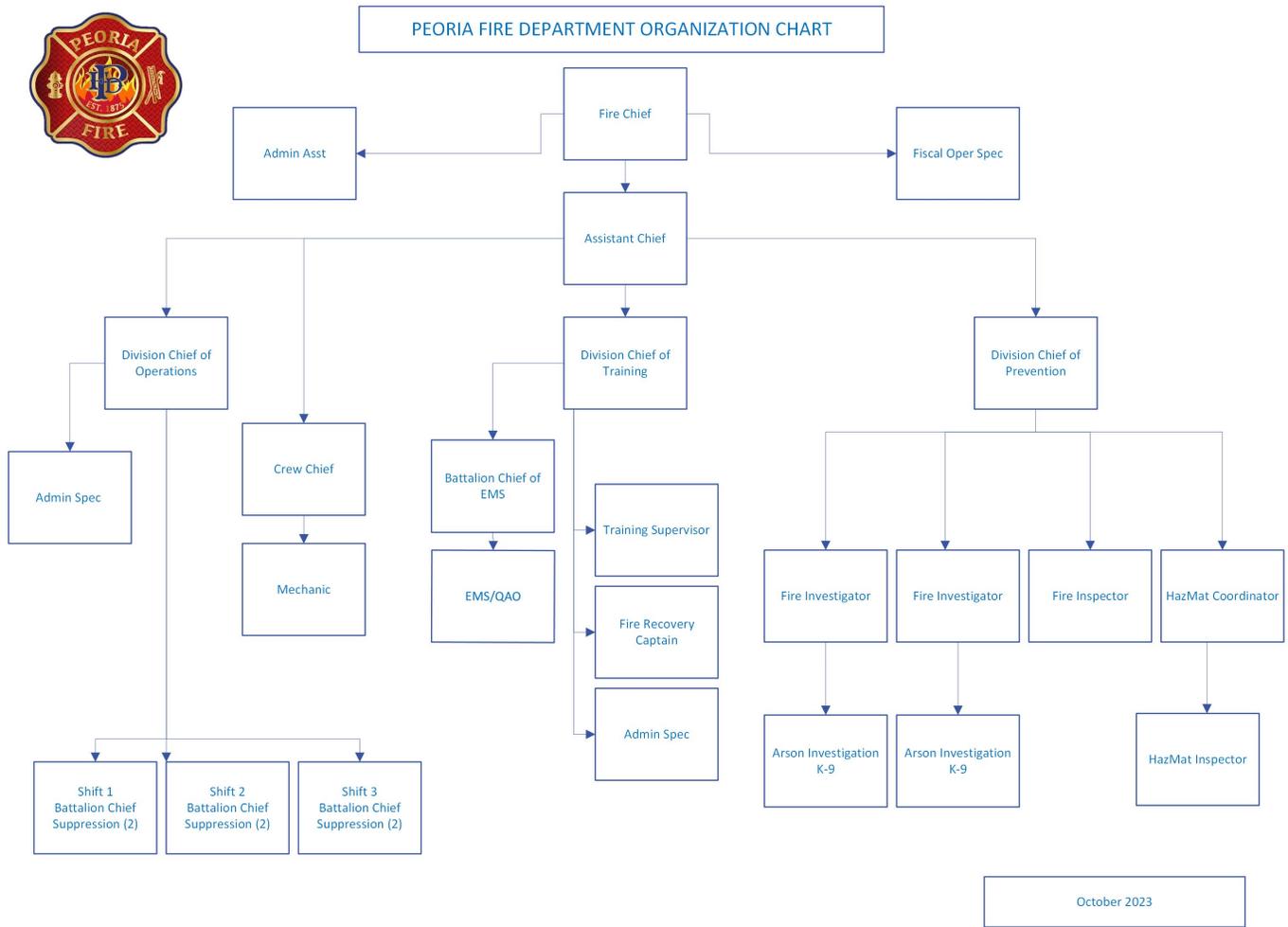
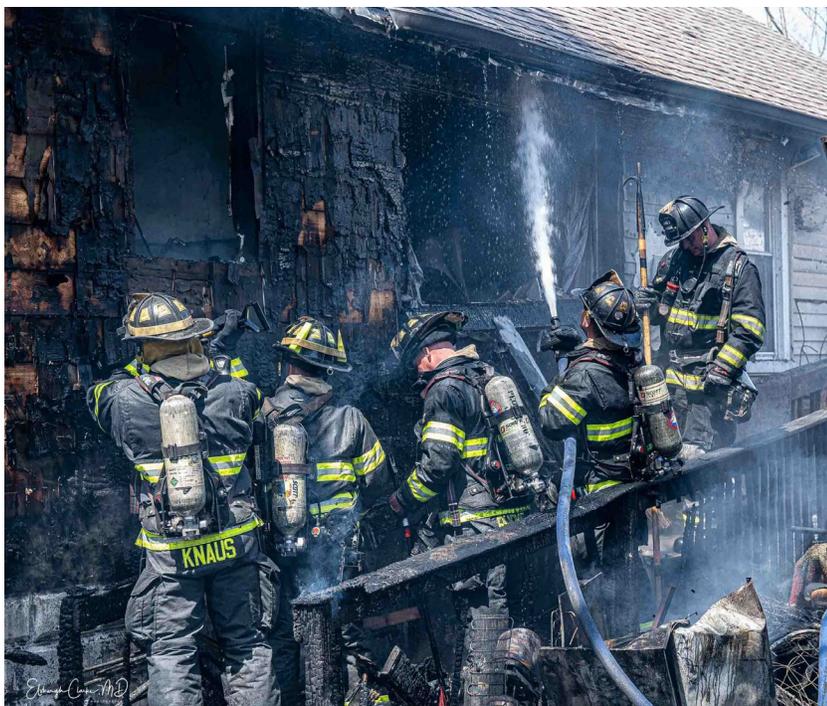


Figure 3: Organizational Chart

The PFD is led by Fire Chief Shawn Sollberger and Assistant Fire Chief Tony Cummings. The work of the fire department is separated into three divisions. Each division is headed by a chief officer with the rank of division chief. The three divisions are Operations (Division Chief Lore Baxter), Prevention (Division Chief Nate Rice), and Training (Division Chief Roland Tenley). The responsibilities of each division are functional, for the most part.

The Operations Division includes all emergency responses and support of the resources to make those responses. The PFD responds to virtually any type of emergency that is not criminal and many that are criminal in support of the Peoria Police Department. The Operations Division also maintains resources. Resources include personnel, fire stations, fire apparatus, personal protective clothing, and equipment. The Operations Division has the most personnel assigned to it. Roughly 90% of the PFD personnel are assigned to this division. In addition to emergency responses, the Operations Division helps with several special projects and programs, which will be discussed later.



The Prevention Division has six personnel permanently assigned to it. The Prevention Division includes inspections, investigations, and hazardous materials inspections. Fire inspections has one full-time inspector and is also responsible for plan review. Fire Investigations has two full-time arson investigators. These investigators have full police powers, allowing them to facilitate an arrest. These arson investigators also have fire inspection responsibilities if not engaged in fire investigations. Hazardous Materials has a full-time coordinator and hybrid inspector. They gather information on commercial occupancies who use or store hazardous

materials. This information is used for preplanning and to create hazardous materials billing. Hazardous materials fees are the result of a local ordinance and are due yearly from the businesses involved. These fees can range from \$25.00 to \$2,240.00.

The Training Division has six full-time employees consisting of a division chief, two training supervisors, two EMS personnel and an administrative professional. The Training Division resides at the Peoria Fire Training Academy, formally known as the Vernon “Butch” Gudat Fire Training Academy, eponymously named for the last firefighter line of duty death in Peoria. (All other divisions are headquartered in the administrative offices that adjoin Fire Central.) The Training Division is responsible for training in all types of responses. The Training Division is also responsible for the training and indoctrination of newly hired firefighters. All newly hired firefighters attend a 12-week class that prepares them for initial deployment to suppression. Other responsibilities that fall to the Training Division but are not strictly functions of the



training division include promotional test preparation and delivery, fit testing, and grant preparation. The EMS personnel assigned to the Training Division are a battalion chief and EMS quality assurance officer (QAO). These

individuals are responsible for training and quality improvement for EMS responses. They work closely with the EMS system (Peoria Area EMS) and with Advanced Medical Transport (the local transport agency).



The PFD also delivers many programs to benefit the community which fall outside the normal responsibilities of the fire department. These programs include:

- Smoke and CO Detector Installation Program
- Fire Safety House Program
- Sidewalk CPR Program
- Fire Apprentice Program
- Internship Program
- In-service Company Inspections Program
- In-service School Presentation Program

The smoke and CO detector installation program is a joint effort with the American Red Cross.

The Fire Safety House is housed at one of the PFD fire stations. The house, which is actually a trailer, can be filled with fake smoke to simulate fire conditions. One of the PFD vehicles tows the trailer to schools or other public locations. The house is used to teach children how to escape from a burning building and is also equipped to help teach about storm safety. The house is frequently used with the help of the American Red Cross or borrowed by neighboring fire departments.

Sidewalk CPR is a program that the PFD has developed to teach hands-only CPR to the community. PFD instructors go to public events and do brief training sessions on how to perform the skill. The goal of the program is to increase the incidence of bystander CPR in the community and increase the survival rate from sudden cardiac arrest.

The Fire Apprentice Program is an initiative to provide a career pathway for teenagers and young adults. This program is not intended to be a direct source of recruitment for future firefighters but rather provides young people an inside look into the career of fire, rescue, and emergency services. Fire apprentices supplement the pool of qualified candidates upon successful completion of the State of Illinois mandates as identified in the Firefighter Hiring Act, also known as Public Act 097-0251. Fire apprentices are members reflecting the demographical diversity of the community between the ages of 17 and 20 upon hire. The fire apprentice candidates are part-time employees of the City of Peoria. The fire apprentice performs various fire service-related duties and training. The associated duties and training consist of an integrated collaborative process utilizing both internal and external components.

The Internship Program is a college internship program in conjunction with Western Illinois University. The college provides credit for time spent with the fire department. The intern shadows fire department personnel, attends class at the fire training academy, and rides along with in-service crews. The purpose of the internship is to expose the students to multiple facets of the fire department and allow them to observe some of the administrative processes.

The PFD has an on-duty inspection program that the members conduct. This program requires on-duty crews to conduct business inspections within their first due territories. The collective bargaining agreement between the city and the members of Local 50 states that each on-duty crew is assigned 24 business inspections to be completed throughout the year.

The PFD is a member department of Mutual Aid Box Alarm System (MABAS), Division 36.

Fire Stations, Training Facilities, Apparatus, Equipment, and Staffing

The City of Peoria, consisting of 50.55 square miles (48.55 representing land and 2.00 representing water), has twelve fire stations and one boathouse. Stations are strategically placed by geographical consent in Battalion 1 and Battalion 3.

Fire Central



Fire Central, located at 505 N.E. Monroe Street, was dedicated to service in January 1979. Fire Central is a multi-company house consisting of Battalion 1, Truck 1, Engine 1, HazMat 1, Dive 1, Marine 2, Marine 3, TRT 1, executive command vehicles, and prevention staff support vehicles. The primary air cascade system is in place at this location, along with the central inventory of EMS supplies. Fire Central is recognized as the fire administration building. The administrative staff within this building includes four chief officers, three civilian administrators, the inspections division, the hazardous materials inspection division, the fire prevention/investigation division, and the EMS division. Fire Central also serves as a fueling station for City of Peoria vehicles with a 1,000-gallon capacity unleaded storage tank and a 2,500-gallon capacity underground diesel storage tank.

Station 3



Station 3 is located at 1204 W. Armstrong Avenue. Station 3 is a multi-apparatus facility housing Engine 3 and Truck 4. Truck 3 had traditionally been placed at Station 3 until 2019, when it was moved to Station 11 due to the loss of Rescue 2. In 2022, Engine 11 was placed back in service as a jump crew with Rescue 1 at Station 11, and Truck 3 returned to Station 3 as a jump crew with Engine 3. In 2024, Truck 3 was placed in reserve status and replaced by Truck 4, moving from Station 4. The uniqueness of this facility is its quick access to Interstate 74. Station 3 opened for service in October of 1967.

Station 4



In 2022, Station 4 was relocated to a new station on Western Avenue. After 70 years of serving the citizens of the south side of Peoria the previous station was at a point of either needing extensive repair or a new station built. The city council, after direction from the fire department staff and city administration, voted in 2019 to replace the station

in a new location that provided an updated station and better coverage for the south side of the city. This new station has been a tremendous benefit to the fire department as well as the citizens of the territory of Station 4. Until 2024, Station 4 housed Engine 4 and Truck 4; however, Station 4 currently houses one engine company.

Station 8



Station 8 is located at 822 W. Hurlburt Street. Station 8 is a single apparatus facility housing Engine 2. This station also serves as the Fire Garage with its dedicated area. Additionally, a reserve ladder truck and a reserve battalion chief buggy are housed at Station 8. The Fire Garage was opened in July of 1969. Station 8 also serves as a fueling station for City of Peoria vehicles with a 2,500-gallon capacity diesel underground storage tank. This station also serves as a storage and distribution site for many of the ordinary fire station supplies. Station 8 was opened in 1967.

Station 10



Station 10 is located at 3316 N. Wisconsin Avenue. This is a single apparatus station housing Engine 10. Engine 10 is one of the fire department's ALS engine companies. Additionally, the Technical Rescue Vehicle and trailer are housed at this facility. Station 10 opened for service in March of 1968.

Station 12



Station 12, located at 3006 N.E. Adams Street, is a single apparatus station that houses Engine 12. Engine 12 is one of the fire department's ALS engine companies. Additionally, during the winter months, Marine 1 and Tow 1 are stored at this station. Station 12 opened in 1968.

Station 11



Station 11 is located at 1025 W. Florence Avenue. Station 11 houses Engine 11 and Battalion 3. Engine 11 is an ALS engine company. A satellite air cascade system is housed at this facility. A satellite EMS supply inventory is also maintained at this location. Station 11 opened in 1967.

Station 13



Station 13, located at 2114 W. Richwoods Boulevard, houses two pieces of apparatus that houses Engine 13, which is an ALS engine company, and Rescue 1. The current Station 13 was built in place of the old Station 13 and opened in 2008.

Station 15



Station 15 is located at 717 W. Detweiller Drive. This station is a single apparatus station that houses Engine 15. Engine 15 is an ALS engine company. Station 15 also serves for cleaning fire gear with an in-place extractor and drying system. Station 15 opened for service in December of 1997.

Station 16



Station 16 is located at 2105 W. Northmoor Road. It is a multi-apparatus station housing Engine 16, which is an ALS engine company, and Truck 14. Station 16 also serves as an additional site for EMS supplies. This location also serves as a fueling station for City of Peoria vehicles, with a 2,500-gallon diesel underground storage tank. Station 16 opened in October of 1967.

Station 17



Station 17, located at 7015 N. Skyline Drive, opened in December of 1968. This station housed Engine 17 and served the community with fully staffed personnel for 23 years. Station 17 was closed on March 14, 1992, due to budget constraints. This station is now used as housing for out-of-town recruits going through the training academy across the street.

Station 19



Station 19, located at 5719 N. Frostwood Parkway, houses Engine 19. Engine 19 is one of the fire department's ALS engine companies. Additionally, a reserve engine, the Central Illinois Fire Safe House, and Tow 1 (during the Spring/Summer/Fall months) are housed at this station. Station 19 opened for service in January of 2001.

Station 20



Station 20 is located at 2020 W. Wilhelm Road. It is a single apparatus station housing Engine 20. Engine 20 is one of the fire department's ALS engine companies. Additionally, a reserve engine is housed at this facility. This location is also responsible for hose repair. Station 20 opened for service in December of 1999.

Boathouse



The Boathouse is located at the foot of Main Street and used to house Marine 1 during the spring, summer, and fall months. This is a non-staffed location. Personnel respond to this site on an as-needed basis by means of the prescribed SOG. This facility was opened for use in 2002 and is 1,800 square feet.

Fire Training Academy



The Vernon “Butch” Gudat Peoria Fire Training Academy opened in 1978. The fire academy, located at 7130 N. Galena Road, is a regional training site for the Illinois Fire Service Institute. This facility is known for its well-established training regiments and facility. Training has included and involved organizations representing both the public and private sectors, i.e., FBI, Peoria 182nd Air National Guard, Mexichem, Caterpillar, etc. The facility received its dedicated name of Vernon “Butch” Gudat Peoria Fire Training Academy on January 21, 2000, to honor fallen Fire Captain Vernon “Butch” Gudat, who died in the line of duty on January 23, 1983, when he sustained fatal head injuries after a building collapsed.

Apparatus and Equipment

The PFD has 23 vehicles that are classified as frontline response vehicles. This composition consists of two battalion chief command vehicles, one platform aerial ladder truck, two straight stick aerial ladder trucks, twelve engines, and one heavy rescue squad. Each of these apparatuses is staffed with a complement of three members (one captain, one engineer, and one firefighter) always, apart from the rescue squad, which is staffed with two. On occasion, where staffing allows, apparatus will be staffed with a third member on the rescue or with a fourth member on an engine or truck company. The following specialty team vehicles are staffed as a jump crew (each staffed with three or more members): Hazmat 1 (1998 Freightliner FL70), Tech Rescue 3 (2004 F750), Dive 1 (E-450 Ford cargo van), Marine 1 (26 ft. ESV Rescue Boat), Marine 2 (15-foot aluminum deck, Gen3 connector boat), and Marine 3 (14-foot inflatable mercury quicksilver).

Reserve apparatus consist of four engines, two platform aerial ladder trucks, one straight stick aerial ladder truck used for training, one rescue squad, and one reserve battalion chief command vehicle.

Additional apparatus consisting of support vehicles include five executive command vehicles, two investigator vehicles, two EMS quality assurance vehicles, two inspector vehicles, two training academy administrative support vehicles, one training academy fire engine, one training academy six-wheel Polaris utility vehicle, three fire garage support vehicles, a dive support vehicle, one administration passenger vehicle, one spare passenger vehicle, two OEM

support vehicles, four OEM trailers (including a radio trailer), and one spare investigator vehicle. A detailed listing of fire department vehicles is listed in [Appendix F](#).

Staffing

The department is staffed with commissioned and non-commissioned personnel serving in four distinct areas: fire administration, fire operations, fire training, and fire prevention. The rank structure is devised for commissioned personnel as fire chief, assistant fire chief, division chief, battalion chief, fire captain, fire engineer, and firefighter.

Fire Administration Executive Staff: fire chief, assistant fire chief, division chief of operations, division chief of training, and division chief of prevention.

Fire Operations Staff: six battalion chiefs, 51 fire captains, 51 fire engineers, and 63 firefighters.

Fire Training Staff: two training supervisors, one battalion chief of EMS, and one EMS quality assurance officer.

Fire Prevention Staff: one fire inspector/plans examiner, one hazardous materials coordinator, one hybrid building/hazmat inspector, two fire investigators, and two ignitable liquid detection canines.

Civilian Staff: three administrative specialists, one fiscal operations specialist, and two fire mechanics.

C. Current Descriptions of Levels of Service with Delivery Programs

Fire Suppression

The Peoria Fire Department (PFD) utilizes highly trained personnel to deliver fire suppression to the City of Peoria. These personnel are divided between the 12 fire stations within the city, working on a three-day rotation of 24 on/48 off. Peoria has eight stations with a single apparatus and four stations with multiple companies. Filling these stations to assist with fire suppression are 12 engines, two 100' platform trucks, one 75' straight stick, one heavy rescue squad, and two battalion chiefs. The PFD has a minimum daily staffing of 49 personnel. Each of the apparatus has a minimum staffing of three personnel



to be in service, with the exception of the rescue squad which can run with two personnel. Each apparatus will have a captain, engineer, and firefighter assigned to it. In cases of members being off or when a member has traded time, the department allows members to work one rank above their current class to fill open positions to maintain the rank structure and the minimum staffing per apparatus. The fire engines within the city carry 500 gallons of water and three pre-connected lines to start an immediate fire attack upon arrival. Almost all streets within the city have hydrants that allow the PFD an unlimited water source, which the department can hook up to with the 1000' of 5" hose carried on engines. The trucks and rescue squads do not carry any water and are assigned specific support functions at all working fires. The battalion chiefs of suppression also work a 24/48 shift schedule and are assigned a portion of the city as the shift commander. Battalion 1 is responsible for six stations and what the department considers the southern portion of the city, while Battalion 3 is responsible for six stations and the northern half of the city. Each can maneuver throughout the city where needed.

The fire department sends a complement of four engines, one truck, one rescue squad, and two battalion chiefs to all reported structure fires. Upon the confirmation of a working fire, the arriving officer will routinely ask for an additional engine and truck company. This will also trigger a call to one of the division chiefs for notification, and the on-call fire investigator will respond. Upon arrival, the first arriving battalion chief will take command, and the second arriving battalion chief will assume the role of incident safety officer. The city has set up a map system to assist the dispatcher with the calling of more apparatus to each area of the city. The system in place shows the next due apparatus and any move-ups to better cover the city when apparatus is busy. This map system follows a template

through multiple alarms and how companies can be called to a working fire. For example, if a commander asks the dispatcher for a 3-11 line, they will receive all the companies down to and including the 3-11 companies.

The PFD is also a part of the Illinois Mutual Aid Box Alarm System (MABAS). This allows the department to call in additional resources from surrounding communities if the need arises. Though this is rarely used by the PFD, it is a simple way for commanders to instruct the dispatchers to get more resources. Peoria, like all other surrounding communities, has set up a card system that allows them to “pull a MABAS box” to get needed resources coming. Each of the cards has a specified number of units on it from the different surrounding communities.

Emergency Medical Services

All sworn personnel of the PFD are trained and licensed by the Illinois Department of Public Health to a minimum of the emergency medical technician – basic level within their first year of service. There is a tiered response within the city that the PFD provides first-response medical care at the emergency medical technician (EMT) or paramedic level. Currently, all front-line engine companies are staffed with two EMTs minimum and a paramedic. The three truck companies are staffed with three EMTs, and the rescue squad is staffed with a minimum of two EMTs. Ambulance transportation is provided by Advanced Medical Transport of Central Illinois, which is typically staffed with one paramedic and one EMT.

Medical direction for the PFD is provided by the Peoria Area Emergency Medical System through OSF Saint Francis Medical Center. They provide both offline medical control in the form of education and protocols, and online medical control in which providers can speak with a physician about a patient’s condition. The PFD has a comprehensive Continuous Quality Improvement Program that includes an EMS quality assurance officer and a battalion chief to oversee the EMS programs.



Most of the medical responses within the city are handled by a single PFD company and a single ambulance. If there is a need for more personnel, the incident commander or officer in charge can request more resources. The PFD utilizes “move up” companies from areas with decreased volume to areas of increased volume when there is a large event or multiple companies at a single incident.

Currently, the PFD has 52 system-certified paramedics, with an additional nine in the ride-time portion of the class. There are six system-certified intermediates, and the remaining 134 personnel are certified at the Emergency Medical Technician – Basic level.

Technical Rescue

The PFD is fortunate to have an 18-member strong Technical Rescue Team that has been in existence since 2000. This includes members from the Pekin Fire Department in Pekin, Illinois located 11 miles from Peoria in neighboring Tazewell County. In 2023, the MABAS Divisions of 36 and 42 (covering Tazewell County) agreed upon a merger of Technical Rescue Teams. This provided an increased number of trained members and an increase in resources for both teams. This team has been trained in all facets of technical rescue, including confined space, trench rescue, high-angle and low-angle rope operations, structural collapse, and vehicle recovery operations. Many members are trained to the technician level in most, if not all these disciplines, with the supplemental members offering support from the operations to the awareness level. The team is complemented with an International crew cab box truck that is equipped with all the necessary tools and rigging, plus PPE to mitigate all types of technical rescue emergencies. In addition, a 24-foot box trailer is available to place behind this vehicle, which is furnished with additional material that may be required, such as wood for shoring at collapse incidents. This vehicle and trailer are housed at Station 10, and a jump crew will respond to an incident when required.



is a jump crew assembled at the time of need from throughout the department.

Another area of technical rescue that the PFD can perform is underwater rescue. The department has an underwater rescue team made up of 20 members. They are trained under the standards and guidelines of Emergency Rescue Diving International. The divers are trained in both advanced open water diving and ice diving. The department has three divers trained to the level of dive instructor, and they are utilized to maintain training standards. This team is complemented with a fully equipped dive van that is stationed at Fire Central. The dive team

Hazardous Materials

The PFD is staffed with a 21 personnel Hazardous Material Team that can respond to multiple types of chemical leaks and spills. All personnel included in this team are trained to the HazMat technician A & B level and are proficient in the required skills to mitigate almost all types of chemical incidents. This team began in 1988 and has been a continuous staple of the PFD since that time. In the time since its inception, the HazMat team has progressed to being currently supplied with a Freightliner heavy utility vehicle that includes a mobile command center at its rear space. This vehicle not only includes various equipment to



mitigate multiple types of chemical incidents, from high pressure leaks to various spills, but also a full decontamination set up for use at these incidents. The hazmat vehicle is housed at Central Station, where the initial response includes a jump crew that is complemented by an initial response of an engine company and its crew. This team can handle incidents in not only fixed storage facilities, but a range of transportation methods, from road to rail, of said chemicals as well.

Specialized Services

In 2022, the Peoria Fire Department responded to an incident that incorporated the use of a drone. The fire department realized the benefits of utilizing a drone from this incident and began to pursue organizing a drone team. In 2023, a team was selected, training was performed, and the PFD Drone Team was officially established. This team has continued training of members and added some additional members. Currently, there are eight members on the team from the suppression division and three members from the prevention division.

In the fall of 2022, the Peoria Fire Department had an opportunity to add two accelerant detection canines to the Investigation Division. These were made possible by generous donations from corporate partners with the PFD. Both canines were purchased at the same time and have been fully trained and third-party certified through CADA (Canine Accelerant Detection Association). The two fire investigators are the full-time handlers of both canines and continue to train and utilize them when necessary.

Community Safety and Remediation Programs

The PFD, through its Division of Fire Prevention, inserts community risk reduction concepts throughout the city. CRR is becoming a strong initiative within the PFD as multiple facets of CRR are incorporated daily. As these initiatives continue to develop, the PFD is consistently reaching out to community partners for joint efforts. Initiatives include:

- Public education in grade schools, colleges, and universities.
- Business evacuation drills and evacuation plan.
- Facility tours by suppression personnel.
- Hazardous materials inspections.
- Fire and Life Safety Inspections.
- Pre-fire planning.
- Fire, arson, and explosion investigation.
- Juvenile Fire Setter Intervention.
- Fire safety house education.
- Media releases, news articles.
- Pyrotechnic inspections.
- Mobile food truck inspections
- Special event vendor inspections.
- Site plan review.
- Building plan review.
- Commercial hood plan reviews and inspections.
- Sprinkler system plan reviews and inspections.
- Fire alarm system plan review and inspections.
- “Keep the Wreath Red” – Christmas holiday campaign.



D. Current Deployment and Coverage Areas

Points of Service Delivery

Operating out of 12 fire stations across the city, each station has unique characteristics contributing to its response. The following highlights some of the unique hazards in each of the territories of the 12 separate stations:

Central Station

Downtown high-rise structures, Madison Theater, and PMP Fermentation

Station 3

Bradley University, USDA Agricultural Laboratory, and Prairie Farms Production and Distribution Facility

Station 4

Many older commercial buildings, Southside Manor Apartments, and Airgas facility

Station 8

Older large warehouse buildings, BioUrja grain processing facility, Born Paint, and Caterpillar mechanical facility.

Station 10

Multiple businesses along Knoxville Avenue, Linn Street apartment buildings, and a large portion of residential in rental status.

Station 11

Heavy commercialized area, Northwoods Mall, the busiest intersection of two major city roads within the city limits.

Station 12

Large senior living complex with extended response time, Illinois American Water Company treatment facility, Komatsu Tractor fabrication facility.

Station 13

High-rise residential complex with various challenged occupants, a large campus of four mental institutional resident buildings, Northwoods Mall.

Station 15

RLI Campus, Mt. Hawley Airport, Industrial Park

Station 16

Commercialized corridor along Allen Road, AT&T facility with battery operations, multiple nursing home complexes

Station 19

Louisville Slugger Dome and Complex, Grand Prairie Mall, and surrounding commercialized area.

Station 20

Walmart Supercenter, Industrial Park, large residential homes.

Minimum Deployment Resources

Table 3: Resources by Station

Station Number	Unit Type	Minimum Staffing	Total Staffing
Central	Battalion Chief Vehicle (B-1)	1 Battalion Chief	7
	Engine (E-1) * ALS	1 Captain, 1 Engineer, 1 Firefighter	
	Truck (T-1)	1 Captain, 1 Engineer, 1 Firefighter	
	Dive Truck (Dive-1)	Unstaffed/Jump Crew	
	Hazmat Vehicle (HM-1)	Unstaffed /Jump Crew	
Station 3	Engine (E-3) *ALS	1 Captain, 1 Engineer, 1 Firefighter	6
	Truck (T 4)	1 Captain, 1 Engineer, 1 Firefighter	
Station 4	Engine (E-4) *ALS	1 Captain, 1 Engineer, 1 Firefighter	3
Station 8	Engine (E-2) *ALS	1 Captain, 1 Engineer, 1 Firefighter	3
	Fire Garage (40-Hour)	1 Lead Mechanic, 1 Mechanic	
Station 10	Engine (E-10) * ALS	1 Captain, 1 Engineer, 1 Firefighter	3
	Technical Rescue Vehicle (TRT-1)	Unstaffed /Jump Crew	
Station 11	Engine 11 (E-11) *ALS	1 Captain, 1 Engineer, 1 Firefighter	4
	Battalion Chief Vehicle (B-3)	1 Battalion Chief	
Station 12	Engine (E-12) *ALS	1 Captain, 1 Engineer, 1 Firefighter	3
	Marine 1 (Winter)	Unstaffed /Jump Crew	
Station 13	Engine (E-13) *ALS	1 Captain, 1 Engineer, 1 Firefighter	5
	Rescue 1 (R-1)	1 Captain, 1 Engineer	
Station 15	Engine (E-15) *ALS	1 Captain, 1 Engineer, 1 Firefighter	3
Station 16	Engine (E-16) *ALS	1 Captain, 1 Engineer, 1 Firefighter	6
	Truck (T 14)	1 Captain, 1 Engineer, 1 Firefighter	
Station 19	Engine (E-19) * ALS	1 Captain, 1 Engineer, 1 Firefighter	3
Station 20	Engine (E-20) * ALS	1 Captain, 1 Engineer, 1 Firefighter	3
Total			49

E. Summary of Community Response History

The PFD’s overall call volume has increased steadily over the years, from a call volume in 2014 of 18,621 responses to the 2023 volume of 21,267. Although calls continue to increase, the number of firefighters has decreased since 2018, when companies were beginning to experience brownouts, and proceeding into 2019, when 22 positions were lost. Again in 2021, another 11 positions were eliminated. Losing 33 positions between 2018 and 2021, the PFD had to find creative ways to fill gaps. One process was the return of 11 positions due to the award of a FEMA SAFER grant in 2022.

Total incidents decreased by less than 1% between 2021 and 2022, however, increased by 4.6% in 2023. EMS calls also had a decrease in 2022 by 1.7%, with an increase in 2023 of 4.9%. Fire incidents had a 24.5% increase in 2022 from 2021 and a 12% decrease in 2023. Looking back 25 years, total calls have increased by over 175%.

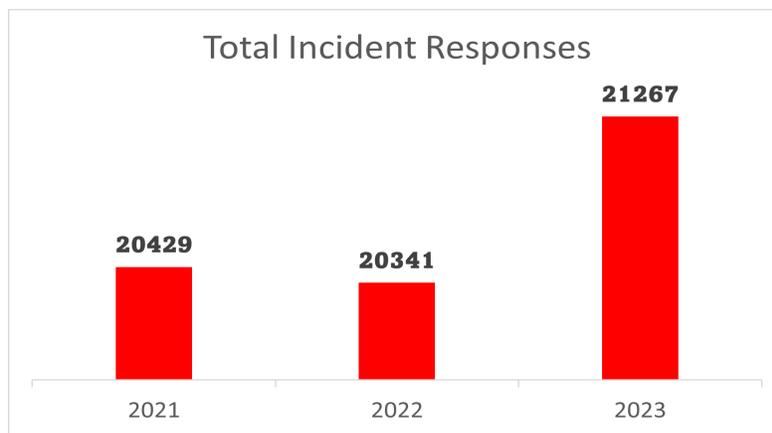


Figure 4: Total Incident Responses (2021-2023)

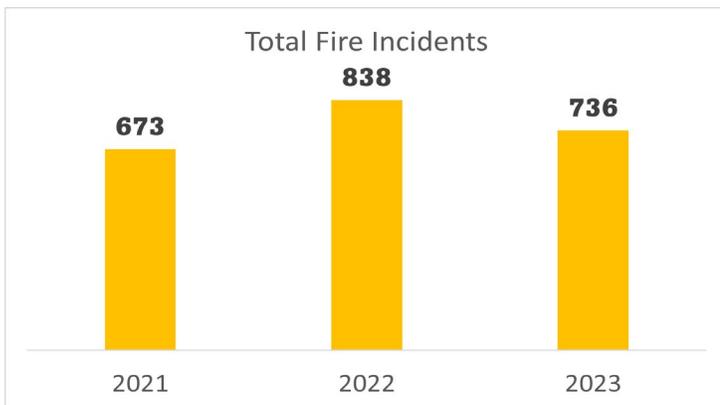


Figure 5: Total Fire Incidents (2021-2023)

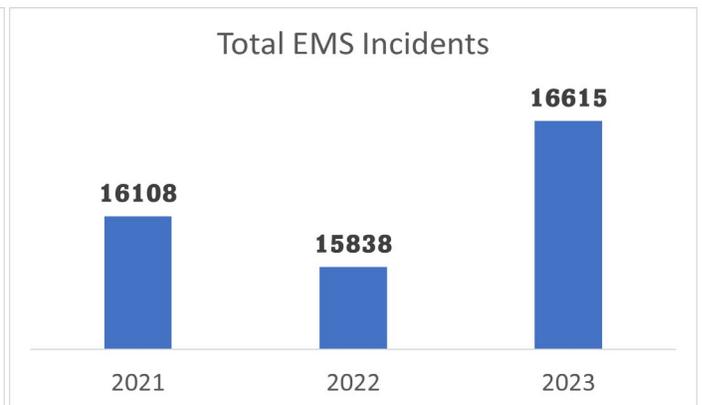


Figure 6: Total EMS Incidents (2021-2023)

F. Community Priorities, Expectations, and Performance Goals

Mission Statement

The Peoria Fire Department will uphold our commitment to serve the community through professional services with integrity and compassion.

Community Service Expectations

The following are the top ten responses from the community stakeholder's feedback. These are paraphrased and shortened for the sake of space in this document. The following are the expectations of the community in order of importance:

1. Timely and safe response times
2. Keep up with training and safety
3. Putting out fires quickly
4. Personnel are compassionate to citizens' experiences in a crisis
5. Reliable equipment – trucks, etc.
6. Providing informational presentations in schools within the city and possibly elderly citizens
7. Staffed firehouses
8. Each firefighter has a vested interest in the community in which they serve
9. Removing people from danger as quickly as possible
10. Ensure inspection and code enforcement for existing and newly constructed facilities

Historical Performance Goals

The PFD currently has no written policies when it comes to performance goals. The department has used the different NFPA standards to come up with the desired times and functions of the department. The use of these different standards has not been officially adopted by the fire department or the city.

G. Community Risk Assessment and Risk Levels

Risk Assessment Methodology

A community risk assessment uses a methodology to identify, assess, categorize, and classify the risks in a community. The nature and degree of the risk are also assessed, and the whole process uses a logical, systematic, and consistent approach. The Peoria Fire Department established a three-axis risk assessment methodology for all classifications of services provided. Documentation of area characteristics by response map is used to assess hazards and threats and is essential to determining risk. Cultural, economic, historical, and environmental factors are also considered.

Probability, consequence, and impact are three major factors in assessing risk. Probability is determined by 1) defining the hazard, 2) assessing the likelihood of occurrence, 3) defining mitigating factors, and 4) knowing the infrastructure. Consequence is the expected or potential loss that could occur. Impact is the amount of resources that will be required to mitigate the incident. Forecasting the probability, consequence, and impact of the various hazards and risks helps determine the need for protection systems. The risk assessment methodology helps determine the critical tasking, which drives the deployment model. Risk is then categorized as low, moderate, and high.

Historical response data is also considered as it relates to the risk assessment. Response times are a direct result of distribution, concentration, and reliability which will be addressed in this study. Demographics, the physical features of the land, the climate, and the impact of specific weather conditions are all considered in the risk assessment.

Critical Task Analysis

Critical tasking is the identification of task-level procedures that need to be done to meet incident objectives and strategic goals. For each category, certain basic tasks are assigned. These tasks are fundamental to the mitigation of the incident and are generally done at every incident. The critical tasking changes in relationship to the size of the incident. Generally, the tasks accomplished will remain the same; however, the number of resources necessary to complete those tasks will change. Critical tasking is assigned for a “standard” incident of a given magnitude. The resources that are called will change when the incident commander decides that this is not a “standard” incident. Critical tasking is an excellent starting point for resource allocation, but it is only a starting point. (See [Appendix G: Critical Tasking Tables](#))

Fire

Critical tasking is based on the tasks that need to be done. Critical tasking at fires was defined by the size of the incident and the number of tasks that needed to be done to support the magnitude of the incident. Critical tasking is not intended to be an upper or lower limit on the number of people that can be called to an incident; just a guideline. The incident commander has full authority to call as many companies as he needs to mitigate an incident safely. As they recognize the need for additional tasks, they should call additional companies to accomplish those tasks. Many factors will affect the number of companies called, including weather, initial reports, and occupancy.

Low Risk Fire: Car Fire, Brush Fire, Dumpster Fire (3 Personnel)

- Command/Safety - 1
- Fire Attack - 1
- Water Supply - 1

Moderate Risk Fire: Residential House Fire: (17 Personnel)

- Command - 1
- Safety Officer - 1
- Water Supply - 2
- Rescue - 3
- Fire Attack - 2
- Backup Line - 2
- RIT - 3
- Truck Operations - 3 (Utilities, Vent, Ground Ladders)

High Risk Fire: Commercial Building Fire, High Rise Fire (28 Personnel)

- Command - 1
- Safety Officer - 1
- Operations Officer - 1
- Water Supply - 4
- Rescue - 3
- Fire Attack - 6
- Backup Line - 4
- RIT - 2
- Truck Operations - 6 (Utilities, Vent, Ground Ladders, Aerial Operations)

EMS

Critical tasking for EMS is like critical tasking for fires in the sense that it is based on the tasks that need to be accomplished to improve the incident (patient condition). Many of the EMS calls run by the PFD are considered low hazard calls. The remaining calls are almost all moderate hazard calls, which are full arrests that require additional personnel in this EMS system. High hazard EMS calls are where multiple patients are involved.

Low Risk EMS: (3 Personnel)

- Command/Documentation – 1
- Patient Care - 2

Moderate Risk EMS: (6 Personnel)

- Command/Documentation – 1
- Patient Care - 5

High Risk EMS (13 Personnel):

- Command – 1
- Safety - 1
- Documentation – 1
- Patient Care – 10

Technical Rescue

Critical tasking for technical rescue encompasses several specialties, each of which needs to be evaluated separately due to the different tasks that need to be undertaken to accomplish the rescue.

Vehicle Rescue

Vehicle rescues are generally carried out in the PFD without the activation of the Technical Rescue Team (TRT). The usual tasks that need to be accomplished include command, safety, patient care, fire suppression, water supply, operations (extrication sector officer), and extrication. Other tasks which could conceivably be added include vehicle stabilization, hazardous materials, and traffic control.

Vehicle Rescue – Moderate Risk - (13 Personnel)

- Command/Safety - 1
- Operations – 1
- Water Supply – 1
- Suppression – 1
- Tool Operators – 4
- Patient Care – 5

A high risk vehicle rescue would get the TRT core team called back, and the TRT vehicle, in addition to the resources, sent to a medium hazard vehicle rescue. This level of response is extremely rare within the city. The exact nature of the tasks additional personnel would do is dependent on the accident. These tasks could include car vs. house, car down an embankment, bridge collapse, etc.

Vehicle Rescue – High Risk - (22 Personnel)

- Command – 1
- Safety - 1
- Operations – 1
- Water Supply – 1
- Suppression – 2
- Stabilization - 4
- Tool Operators – 6
- Patient Care - 6

Rope Rescue

Rope rescue, also known as high angle rescue, involves the movement of a patient from one elevation to another using rope and/or mechanical advantage systems. This type of response would be initiated by on-shift personnel, and a call back for a TRT core team member would ensue. Due to the level of training required and the need for specialized equipment, additional personnel may be required to mitigate these types of incidents.

Rope Rescue – Moderate Risk – (13 Personnel)

A moderate risk rescue would get the core members from the other shifts called back.

- Command - 1
- Operations Officer -1
- Safety – 1
- Rigging – 6
- Packaging – 4

Rope Rescue – High Risk

Moderate Risk Response plus MABAS Team.

The critical tasking of this type of response would not be predictable as it would be dependent on the situation present at the incident.

Confined Space Rescue

Confined space entries occur daily in Peoria at multiple sites. The PFD is committed to making these responses as quickly as possible but does not provide standby rescue services. The TRT is distributed throughout the city and converges on the location of the rescue. This response model makes it very difficult to predict the response times to incidents. Most confined spaces are permit-required because of an IDLH atmosphere or the potential for an IDLH atmosphere. The presence of a bad atmosphere makes confined space the most time-sensitive of the TRT disciplines.

Confined Space – Moderate Risk (13 Personnel)

A moderate risk response consists of the on-shift personnel and the core team personnel called back in.

- Command - 1
- Operations Officer – 1
- Safety – 1
- Entry – 2

- Backup – 2
- Rigging – 4
- Monitor / Attendant – 2

Confined Space – High Risk

Moderate risk response plus MABAS Team.

The critical tasking of this type of response would not be predictable as it would be dependent on the situation present at the incident.

Trench Rescue

Trench rescue is generally a long-term and very labor-intensive operation. If the victim is anything more than trapped at the surface, the incident would go to at least a moderate hazard. Multiple victims or a large area with no idea where the victim is located would probably get the high hazard response.

Trench – Moderate Risk (13 Personnel)

A moderate risk event rescue would get the core members from the other shifts called back.

- Command - 1
- Operations Officer - 1
- Safety – 1
- Cut Station – 1
- Entry – 3
- Shoring – 6

Trench – High Risk (20 Personnel)

A high risk incident would get a MABAS response in addition to the moderate risk response personnel.

- Operations Officer - 1
- Safety – 1
- Cut Station – 1
- Entry – 8
- Shoring – 6
- Rigging - 3

Collapse Rescue

Collapse rescue can be the result of many factors including tornado, dilapidated building, heavy snow load, or earthquake, among others. The number of structures, the size of the structures, and the number of victims will drive the decision as to the level of the response. Again, due to the nature of these incidents and the specialized training and equipment necessary, the response would initiate with on-duty personnel, and a call for off-duty core team members would commence.

Collapse – Moderate Risk (13 Personnel)

- Command - 1
- Operations Officer – 1
- Safety – 1

- Cut Station – 2
- Entry – 2
- Backup - 2
- Shoring -4

Collapse – High Risk (24 Personnel)

A high risk incident would get a MABAS response in addition to the moderate risk response.

- Command - 1
- Operations Officer – 1
- Safety – 1
- Cut Station – 3
- Entry – 6
- Backup - 2
- Shoring -10

Dive

The PFD staffs and equips a dive team. Due to the proximity of the river, the possibility of a boat accident or drowning is continuous. Each dive incident begins as an initial response of a water rescue. On-duty crews will begin by attempting to rescue with two companies and then determine if a full dive response is needed. Once it is determined the divers need to enter the water the risk level is immediately moved into the moderate category. While dive operations begin with on-duty personnel, core team members will be called back for most incidents.

Dive – Moderate Risk (9 Personnel)

The moderate risk dive incident is driven by the length of the dive more than any other factor. The shift resources would be quickly consumed, and additional personnel would be needed to take over. The factors that would cause the dive time to be extended could be multiple victims or a non-specific last-seen point. An ice dive scenario would become a moderate dive hazard automatically due to cold stress, limited suit time, increased danger to the rescuer, and increased stress on the diver.

- Command – 1
- Radio - 2
- Diver – 2
- Backup – 2
- Safety Diver – 2

Dive – High Risk (17 Personnel)

A high risk dive incident would require the activation of a MABAS response. The PFD’s dive equipment would be completely taxed at a moderate dive hazard. The type and number of tasks that would be required at a larger incident would necessitate more equipment. The only resources available to the PFD would be via a MABAS response. Integration with other rescue disciplines may be necessary, depending on the nature of the response.

- Command – 1
- Radio - 4

- Diver – 4
- Backup – 4
- Safety Diver – 4

Hazardous Materials

The critical tasking for hazardous materials is based on tasks to be assigned. Most hazardous material calls in Peoria are small events such as fuel spills or gas leaks. Fuel spills get a single company response from the closest company, as well as CO alarms. However, a CO alarm with illness triggers a full response, which places it in the moderate hazard risk. Hazardous material incident mitigation is dependent on the type of hazard and the quantity of product involved. Events with a high probability and a low consequence get a smaller number of resources. Some events are low probability and high consequence. These events require the specialized equipment of the hazardous materials vehicle and the specialized training of the hazardous materials core team members.

Low Risk HazMat (small fuel spill): (3 Personnel)

- Command/Safety – 1
- Mitigation – 2

Low Risk HazMat (larger fuel spill): (7 Personnel)

- Command – 1
- Safety – 1
- Mitigation – 5

Moderate risk hazardous materials events are low-probability events for almost everyone, including the PFD. These events generally necessitate a callback of core team members from the other shifts to have the most trained members available. Hazardous materials calls evolve more slowly than most calls so extra caution can be exercised.

Moderate Risk HazMat (Chemical Release): (13 Personnel)

- Command - 1
- Safety – 1
- Science – 1
- Scribe – 1
- Entry Team Leader – 1
- Entry Team – 2
- Backup Team – 2
- Decontamination. Officer – 1
- Decontamination. Team – 3

A high risk event would be a large leak, such as a tank farm or a train derailment. This event would involve the activation of a MABAS response and probably industry experts to advise during this incident.

High Risk HazMat (Large Incident): (19 Personnel)

- Command – 1
- Operations – 1

- Safety – 1
- Science – 1
- Scribe – 1
- Entry Team Leader – 1
- Entry Team – 3
- Backup Team – 3
- Decontamination Officer – 1
- Decontamination Team – 6

Risk Scoring

Fire Suppression Services

The three-axis methodology is used to assess risk for fire suppression services. The three-axis method measures three different quantities on various axes on a three-dimensional coordinate system. The model then synthesizes an overall score by calculating the area of the triangle created by the points graphed on each axis. The X-axis indicates the loss consequence, the Y-axis indicates the potential impact on the agency, and the Z-axis indicates the probability that an incident will occur. All three factors are rated on a scale of two to ten.

- 1) Probability is rated based on frequency of occurrence, which is affected by population density, location, and socio-economic factors.
- 2) Consequence is the average of three scores. The first score is based on the size of the structure. The second score is based on loss of life. The third score used to rate consequence is based on perceived value, which can be economic, emotional, cultural, or historical. It can also mean the value to the occupants or the value to the community.
- 3) Impact on the agency is based on the number of companies responding.

This method is used to rate different types of fire incidents. The three numbers from each rating are inserted into Heron's Formula, which calculates a risk score. The risk scores are used to develop the ranges for the risk categories of low, moderate, or high. The risk category determines the critical tasking, which in turn determines the number of companies to deploy.

Table 4: Ranking Probability

Score	Threat Definition
2	Occurs rarely or has very low potential, annual
4	Occurs somewhat rarely or has low potential, semi-annual
6	Occurs often or has the potential to occur monthly
8	Occurs frequently or has frequent potential, weekly
10	Occurs very often or has great potential daily

Table 5: Ranking Consequence

Score	Size	Life Loss	**Perceived Value
2	Non-structure	No life loss	No economic/emotional impact
4	< 4,999 sq. ft.	Potential of 1 life loss	Very low economic/emotional impact
6	5,000 - 9,999 sq. ft.	Loss of 1-2 lives	Moderate economic/emotional impact
8	10,000 - 49,999 sq. ft.	Potential of multiple lives lost	Significant economic/emotional impact
10	Over 50,000 sq. ft.	High probability of life loss	Very high economic/emotional impact

**Perceived Value (Emotional, Cultural, Historical, Value to Occupants, Value to Community)

Table 6: Ranking Impact

Score	Impact Definition
2	1-2 Company Response
4	3-4 Company Response
6	5-6 Company Response
8	7-8 Company Response
10	9+ Company Response

Using the model outlined previously, each of the following types of occupancies was evaluated using the model. Analysis of the numbers would indicate that a categorization of these numbers would lead to the following breakdown:

- Low: 1.0 - 20.5
- Moderate: 20.6 - 45.0
- High: >45.0

This model allows several factors to be drawn together and used to make a rational decision about the risk of the incident. Probability is undoubtedly the most objective measure of the three. Historical data allows for the estimation of how often a particular type of incident occurs. The consequence of the incident is much more subjective. Estimations of potential life loss, emotional impact, and economic impact are difficult at best.

Many factors affect precisely how many personnel eventually respond to an incident (Impact). The amount of fire (amount of involvement) is probably the key factor. Fire location is important, as well as victims or potential victims. Any unusual problems encountered at an incident will generally increase the staffing requirements. For these reasons and many more, estimates of risk involving the number of personnel needed are estimates at best. It would be reckless and a waste of resources to send the maximum number of personnel that could possibly be needed at an incident for every alarm. The number of personnel responding to a scene almost always gets adjusted depending on the situation found, and most of the time, it gets adjusted down, not up.

For these reasons, the three-axis model is helpful as a planning tool but far from predictive. Once the basic response decision is made, facilities generally fall into a response category (low, moderate, or high). That category is then used to initiate a response, which can be altered as the incident evolves.

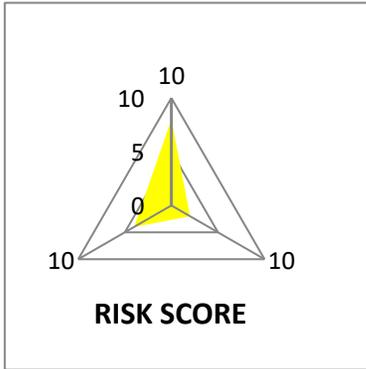
The low fire hazard would represent a single car fire, a dumpster, or a groundcover fire. Initial attack: One small line

RISK	Low - <20.5
Probability of occurrence	10
Consequence to community	2
Impact on Fire Department	2
SCORE	20.2



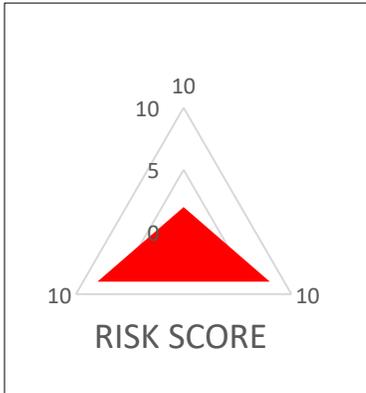
The moderate fire hazard would represent a one family residential or a small store. Initial attack: One small line and one backup line plus supporting personnel.

RISK	Moderate - 20.6 - 45.0
Probability of occurrence	8
Consequence to community	2
Impact on Fire Department	4
SCORE	25.9



The high hazard is a large store or more than one store in a strip mall. Initial attack: Two small lines with two backup lines plus supporting personnel.

RISK	High - >45.0
Probability of occurrence	2
Consequence to community	8
Impact on Fire Department	8
SCORE	48.0



Emergency Medical Services

The three-axis methodology is used to assess risk for EMS services. The Y-axis indicates the threat probability that an incident will occur, the X-axis indicates the loss consequence, and the Z-axis indicates the potential impact on the agency. All three factors are rated on a scale of two to ten.

- 1) Probability is rated based on frequency of occurrence, which is affected by population density, location, and socio-economic factors.
- 2) The consequence rating is based on the number and criticality of patients. The three-tiered approach can account for rare multiple-casualty events and large group special events with an increased risk. While the overall consequence for a single medical service call is generally low, the analysis can account for the frequency of calls, the number of patients, and the criticality of those patients.
- 3) Impact on the agency is based on company response. An EMS call is rated, and the number from each rating is inserted into Heron’s Formula, which calculates a risk score.

The risk scores are used to develop the ranges for the risk categories of low, moderate, or high. The risk category determines the critical tasking, which in turn determines the number of companies to deploy.

Table 7: EMS Probability, Consequence, and Impact Scoring

Probability	
2	Occurs rarely or has very low potential, annual
4	Occurs somewhat rarely or has low potential, semi-annual
6	Occurs often or has the potential to occur monthly
8	Occurs frequently or has frequent potential, weekly
10	Occurs very often or has great potential daily
Consequence	
2	1-4 patients, <1 critical
4	5-9 patients, < 2 critical
6	10-14 patients, < 3 critical
8	15-20 patients, < 5 critical
10	Over 20 patients, < 8 critical, or more
Impact	
2	Single company response, 3-4 personnel
4	2-3 company response, 6-10 personnel
6	4-6 company response, 12-19 personnel
8	7-10 company response, 21-31 personnel
10	More than 10 company response, > 31 personnel

A low risk EMS would represent a standard EMS call. This level of call would have no more task than three people could handle.

EMS Low Risk	<20.5
Probability of occurrence	10
Consequence to community	2
Impact to department	1
Score	15.87451



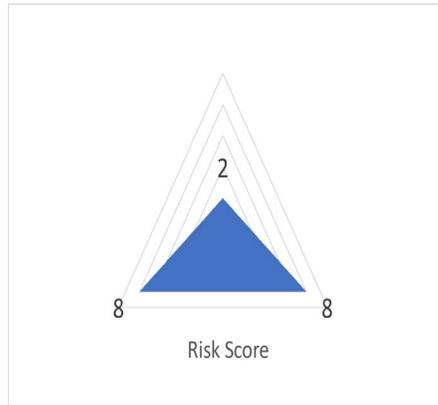
A moderate risk EMS would be represented by an EMS response that would require more than one company. This could be a high acuity patient or multiple patients.

EMS Moderate Risk	20.6-40.0
Probability of occurrence	6
Consequence to community	2
Impact to department	6
Score	28.14249



A high risk EMS would be represented by an EMS with multiple patients and multiple tasks to be completed. It could be multiple patients or multiple high acuity patients.

EMS High Risk	>40.0
Probability of occurrence	2
Consequence to community	8
Impact to department	8
Score	48



Technical Rescue Services

The risk analysis for technical rescue will be done using the three-axis model. The general term technical rescue is used to encompass rescues from virtually any circumstances except fire. Vehicle rescues, requiring more than one company response, make up the largest percent of these calls and are extremely common within the city. Vehicle rescue calls are responded to on a high probability basis. Often, the consequences are not severe, but the potential for bad outcomes still exists. These calls would fall into the moderate risk category, and industrial extrications would be included. It should be noted that single-company, low risk response to rescue calls typically ends up in the EMS category and, therefore, do not fall under the rescue category. Low risk rescue basically does not exist for the Peoria Fire Department.

Rescues, other than vehicle extrication, come under the umbrella of technical rescues. The reason the rescues are determined to be technical, is that they require specialized skills and equipment as well as being extremely dangerous. For the last reason, all “technical” rescues will be put in the high risk category.

Many industrial facilities within the first-in territory for the Peoria Fire Department make permit-required confined space entries frequently, if not daily. History in the industry has shown that the potential for multiple deaths is a real possibility. The confined space operations would fall in the high risk category.

The frequency with which tornadoes impact this area is certainly a factor in the risk analysis since the PFD (MABAS 36) Technical Rescue Team (TRT) is the only collapse rescue team in Peoria County. If occupied structures are destroyed by tornadoes, the TRT will generally be deployed to assist. These types of events generally happen annually, somewhere in the response area. These events are not high frequency, but they are high consequence and high impact, putting collapse rescue in the high risk category.

The TRT functions in the capacity of a trench rescue team also. The consequences of a trench rescue can be tragic. Trench rescues result in approximately 100 deaths annually. While the probability is low, the consequences and impact can be high. Trench rescues would be classified in the high risk category on the three-axis model.

Rope rescue is the fundamental technical rescue skill. The PFD responds to rope rescues at both high angle and low angle. This type of call has a low likelihood of occurring, but it could be fatal to the victim. Again, this type of technical rescue would fall in the high consequence and high impact but low probability placing it in the high risk quadrant.

The final type of specialized rescue performed by the PFD is dive rescue. The dive team has several opportunities to perform water search and rescue every year. The consequences of a water rescue can obviously be life-threatening. After vehicle rescues, this type of rescue is the most common. Using the three-axis model, dive rescue should be classified in the high risk area. Circumstances that pose the greatest consequences to the community and emergency responders are placed in the high risk category. These situations might require a USAR team to help mitigate.

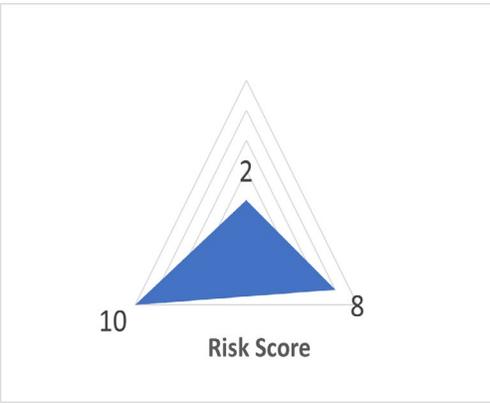
Moderate risk rescue calls would include a vehicle extrication call. The typical response would include 3 companies and a battalion chief.

Risk MVA with extrication	Moderate 22.0-45.0
Probability of occurrence	10
Consequence to community	2
Impact of fire department	4
Score	32.12475681



High risk rescue calls would include full response technical rescues such as full trench or collapse response or full dive response.

Risk Full Technical Rescue	High >45
Probability of occurrence	2
Consequence to community	8
Impact to department	10
Score	59.39696962



Hazardous Materials Services

The risk analysis for hazardous materials services will be using the three-axis model. The number of hazardous materials calls provides some difficulties when graphing the calls on the three-axis model. Certain types of low-risk hazardous materials calls make up the bulk of the hazardous materials to which the PFD responds. These calls are fuel spills, carbon monoxide alarms, and natural gas leaks. Fuel spills and carbon monoxide alarms without any reported signs of exposure get a single company response to investigate and mitigate. These items would fall into the low risk category. These types of events are generally handled by the first-in company, but the officer has the option to increase the complement of responding units. Carbon monoxide alarms with signs of exposure get a full response and a code one (lights and siren) response and would move toward the moderate risk on the three-axis model.

Natural gas leak responses vary depending on where they occur. Natural gas leaks outside of a structure get a single company response with the option to upgrade. Natural gas leaks inside of a structure get a full first alarm assignment due to the possibility of the event turning into a structure fire. Carbon monoxide and natural gas leaks are mitigated with the assistance of the local natural gas utility, Ameren. Ameren generally has someone on scene within 20 minutes, although, during off hours, longer response times can be seen.

The remainder of the calls for hazardous materials services are much less common but potentially extremely severe. The PFD has responded to calls for chlorine, ethylene oxide, and nitric oxide, to name a few, but the probability is still very low. These calls would be categorized in the high-risk area of the three-axis model. The very highest

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

consequence incidents are considered high risk and would call for special resources. These resources could be industry teams or national response teams.

HazMat Low Risk	<22.0
Probability of occurrence	9
Consequence to community	2
Impact to department	2
Score	18.22087



HazMat Moderate Risk	22.0-44.9
Probability of occurrence	3
Consequence to community	5
Impact to department	6
Score	26.91654



HazMat High Risk	>45
Probability of occurrence	2
Consequence to community	6
Impact to department	10
Score	45.51923



Risk Classification and Categorization

The classifications for Peoria, the categories into which they are divided, and examples of the types of events that would be included are shown in the following table.

Table 8: Fire Suppression Risk Scores

Occupancy Type	Probability	Consequence	Impact	Risk Score	
Dumpster	6	2	2	12.33	Low
Ground Cover	8	2	2	16.25	Low
Vehicle Fire	8	2	2	16.25	Low
Large Single Residence (>5000 sq. ft.)	4	4	6	26.53	Moderate
Commercial	4	6	6	34.99	Moderate
High Rise Office	2	6	8	36.77	Moderate
Strip Mall	2	8	6	36.77	Moderate
Single Residence	8	4	6	44.18	Moderate
High Rise Residential	2	8	8	48	High
School	2	8	8	48	High
Office	2	8	8	48	High
Medium Box 10,000-50,000 sq. ft.	2	8	8	48	High
Big Box > 50,000 sq. ft.	2	10	8	59.4	High

Table 9: EMS Risk Scores

Incident Type	Probability	Consequence	Impact	Risk Score	
Abdominal pain	8	2	1	12.73	Low
Shortness of breath	10	2	2	20.20	Low
Broken bone	8	2	1	12.73	Low
Full arrest	6	4	6	35.0	Moderate
Multiple patient MVA w/o extrication	4	6	6	35.0	Moderate
Gunshot wound/major trauma	2	6	6	28.14	Moderate
Multiple patient incident	2	8	6	36.77	Moderate
Multiple patients - high acuity	2	8	8	48	High
Multiple patients - major trauma	2	8	8	48	High
Mass casualty incident	2	10	10	73.48	High

Table 10: Technical Rescue Risk Scores

Incident Type	Probability	Consequence	Impact	Risk Score	
MVA w/o extrication	8	2	4	25.92	Moderate
Industrial extrication	2	6	6	28.14	Moderate
Bridge jumper	4	2	8	25.92	Moderate
Dive rescue incident	2	8	8	48	High
Collapse incident	2	8	8	48	High
High angle incident	2	10	10	73.48	High

Table 11: Hazardous Materials Risk Scores

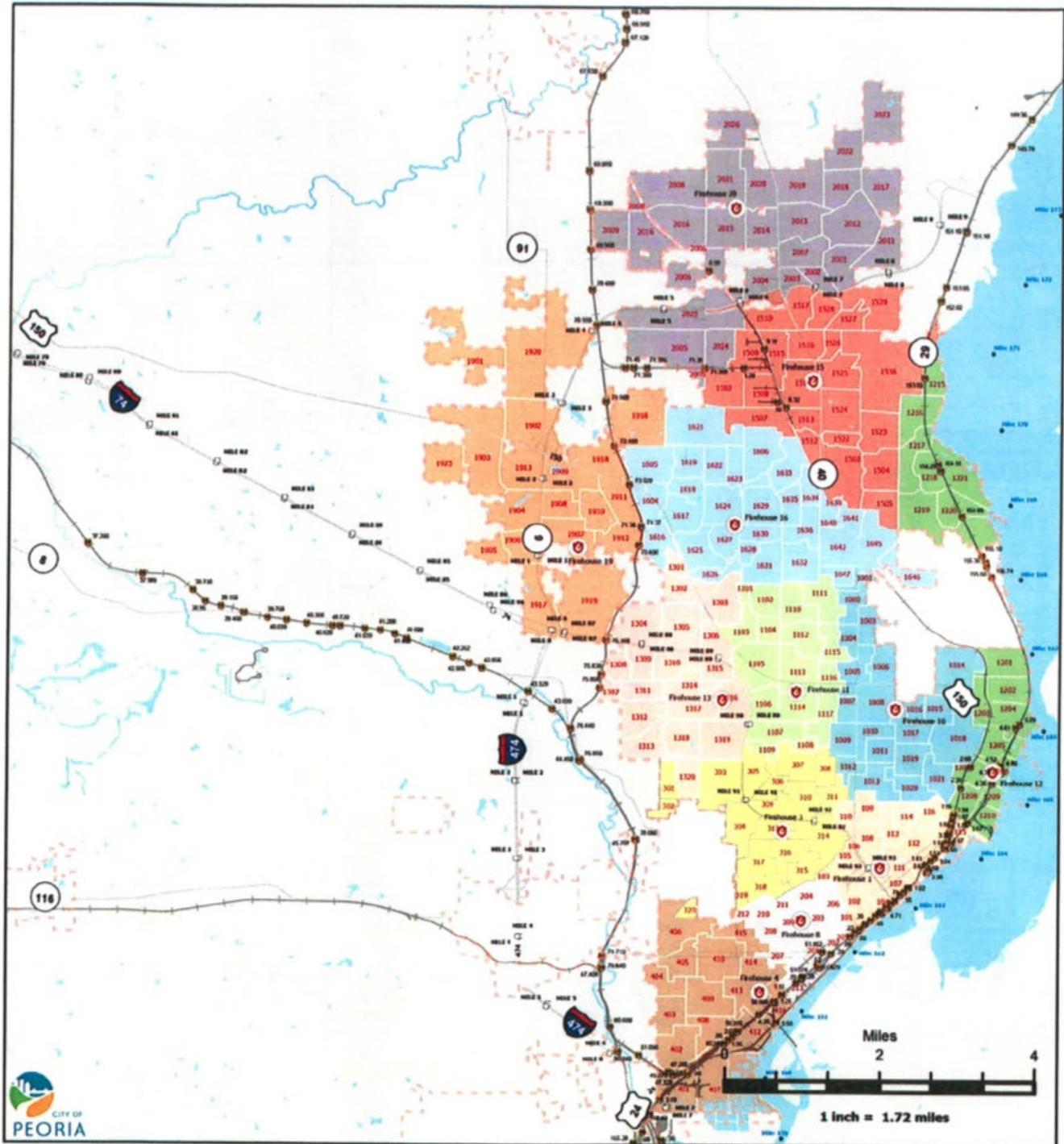
Incident Type	Probability	Consequence	Impact	Risk Score	
Carbon monoxide alarm w/o illness	8	2	1	12.73	Low
Fuel spill less than 20 gal	8	2	2	16.25	Low
Natural gas leak outside	4	4	2	13.86	Low
Carbon monoxide with illness	4	4	6	26.53	Moderate
Natural gas leak inside	4	4	6	26.53	Moderate
Fuel spill greater than 20 gal	4	6	6	34.99	Moderate
Chemical leak uncontrolled	2	8	8	48	High
Chemical leak requiring evacuation	2	10	10	73.48	High
Chemical incident requiring evacuation and patient care	2	10	10	73.48	High

Geographical Planning Areas/Zones

The Peoria Fire Department has chosen to use zip codes as planning areas/geographical planning zones. Previously, PFD used response maps as planning zones. Each first-in territory is divided into individual response maps. The city has 12 first-in territories, and each territory previously had multiple maps within each territory. The number of total response maps was over 200.

Map 12: Fire Zone Boundaries

Fire Zone Boundaries Peoria, Illinois



- | | | | | | | |
|--|----------------------|-----------------|-----------------|---------------------|----------------------|----------------------|
| | FireZoneParts | | Fire Station 12 | Fire Station 19 | Fire Station 4 | Railroad Crossing |
| | Fire Central | Fire Station 13 | Fire Station 8 | Fire Stations | Railroad | Road Centerline |
| | Fire Station 10 | Fire Station 15 | Fire Station 20 | River Mile Marker | Road Centerline | Municipal Boundaries |
| | Fire Station 11 | Fire Station 16 | Fire Station 3 | Highway Mile Marker | Municipal Boundaries | |

Fire Zone Boundaries map for Fire Chief Jones. Map Date: 07/20/2017. Authored By: Chris Kohler and Jason Bitter

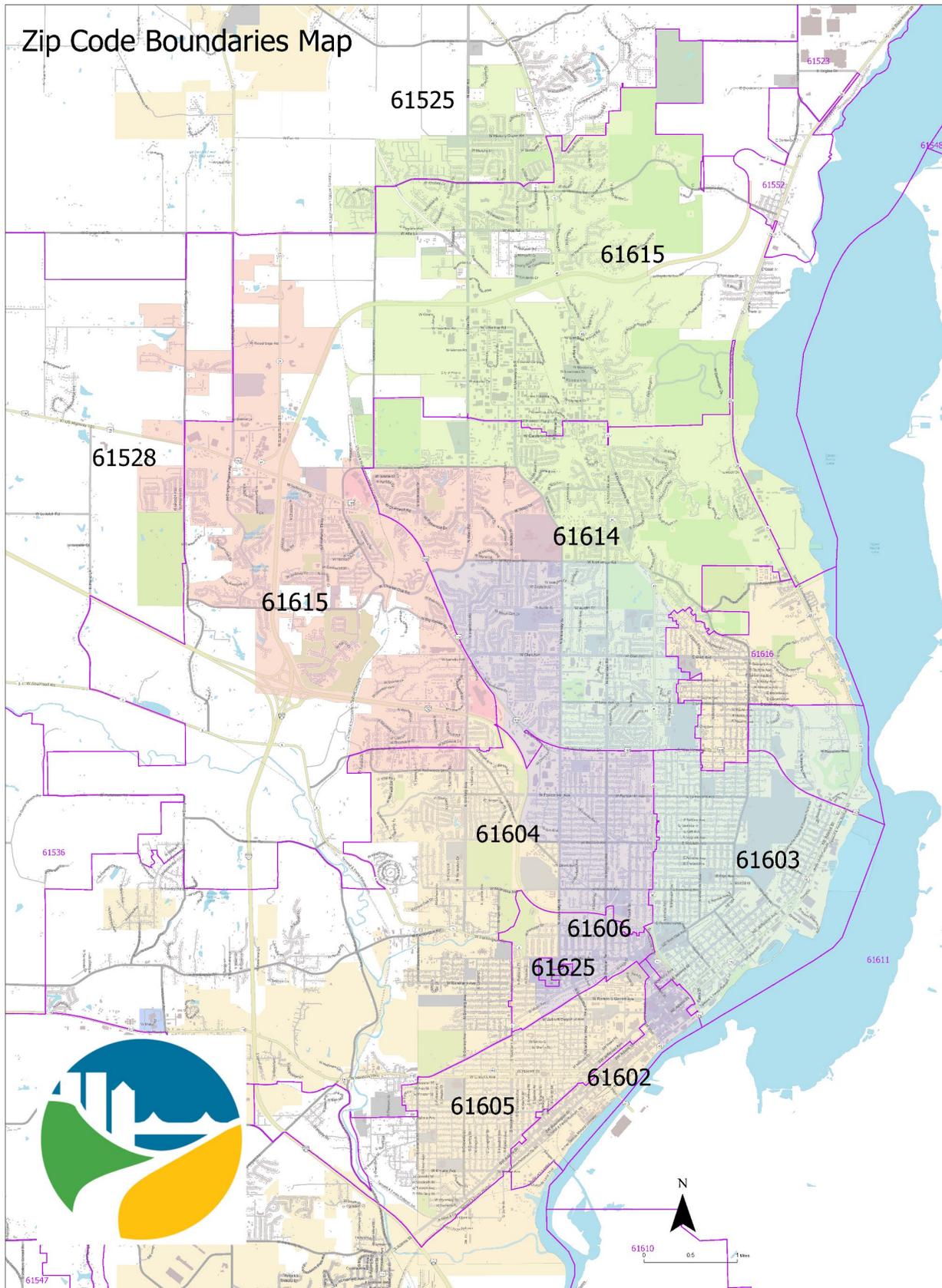
The map system was developed in the mid-1980s as pull boxes were being phased out in the city. With the retirement of the pull boxes, response maps were made for discrete areas of the city. Each map had a corresponding set of apparatus that would respond to a structure fire within that response map. If the size of the incident did not require a full box, the first available company on the map was sent. If the first company was busy, the second company on the map was sent, and so forth. The response maps themselves were grouped generally by areas that would receive the same apparatus response regarding the apparatus sent. In recent years, whole subdivisions were generally added as response maps. This was convenient for the gradual addition of maps and any given subdivision gets the same response from the fire department. The maps were convenient for accreditation since all responses are tracked by which response map number they are in.

However, over time, the response maps have changed multiple times. This has been because apparatus has been decommissioned, and responses have had to be altered. This has occurred at least four separate times starting in 2019 up until 2024. The first was due to the loss of the rescue squads in 2019 and the need for additional apparatus to replace their responsibilities. Then the loss of Engine 2 for ten months in 2021 and manipulation of maps to cover their territory. The first-in territories are built based on the assumption that the companies are responding from the fire station. The closest company, based on response time from the fire station, is given any new maps that are added. While the assumption is valid a fair percentage of the time, company officers are given the latitude to respond if they feel they would be closer to a call than the first-in company. A company officer can also request that an apparatus from another territory take a call if the officer feels that the other apparatus would arrive sooner than the apparatus initially dispatched.

Two other distinct problems exist regarding response maps. First, the size is inconsistent. Maps can vary from .62 square miles to .03 square miles. Six or seven small maps previously could fit in some of the larger maps. The second problem is the response maps have no relationship to census tracts. Demographic data is most collected during the decennial census and organized by census tracts. Trying to compare data in census tracts with data in response maps directly is very difficult.

Most recently, with the change of placing Truck 3 and Rescue 1 as jump crews in 2023, maps were changed once again. The latest change to the maps has narrowed them down to three to four maps per territory. While the concept of fewer maps to run data seems ideal, these maps have constantly changed over time, and what would have been a response to map 1907 previously, this map may now be 1951 and cover a much larger square mileage. It would be very difficult to obtain data for these previous map numbers and correspond those to the new map numbers and the possible change in response. The fact remains that zip codes in the city of Peoria have not changed for probably over 100 years. So, by running data according to zip code historical perspective can easily be achieved.

Map 13: Zip Code Boundaries



H. Historical Perspective and Summary of System Performance

The Peoria Fire Department (PFD) currently uses *Emergency Reporting (ERS)* as its RMS for fire incident reporting and *ESO* for ePCR reporting for EMS responses. *ESO* data transfers to *ERS* to allow a complete record of all calls on the *Emergency Reporting* system. These data collection platforms have been in use since October 2016. These programs have been found to deliver accurate and reliable data which has improved with user familiarity and refinement of the system over time. The data collected continues to improve, and this improved data is available for analysis.

As noted earlier, the PFD is using zip codes as geographical planning zones. While zip codes have remained constant historically, the demographics of each zip code have changed with modern population shifts. Because the areas vary considerably, so do the characteristics of each zip code. The areas vary considerably as to square mileage, population, and income level, among other things.

Specialty Team Responses

The PFD maintains three specialty teams. These teams include a hazardous materials team, an underwater rescue dive team, and a technical rescue team. For purposes of data collection, vehicle rescues are listed under technical rescues but are not generally done by the technical rescue team. The specialty team vehicles are not permanently staffed by the specialty team personnel. Every time the vehicle is called to a scene, the personnel gather at a specific rally point and then proceed to the scene. The arrival of the vehicle does not usually mean the effective response force (ERF) has assembled. While the “specialty team” name indicates special training and special equipment are needed for these unusually dangerous incidents, these teams are very seldom deployed.

The comparison of turnout times, travel time, and overall response time is statistically insignificant due to the minimal number of calls because the specialty team apparatus could be used to respond anywhere in the city and because the arrival of the apparatus does not constitute the arrival of the ERF.

As data is examined for responses to fire, medical, and hazardous materials incidents certain parameters are key in determining system performance. Some key parameters are alarm handling times and turnout times. The following is a brief description of each of these terms and how they affect system performance. Each of these has been outlined in data achieved for 2021-2023.

Alarm Handling

Alarm handling refers to the time between when the call gets answered by the dispatcher and the time the alarm is sent to the fire station. NFPA 1710 phrases it this way, “Alarm Handling Time: The time interval from the receipt of the alarm at the primary PSAP until the beginning of the transmittal of the response information via voice or electronic means to emergency response facilities or the emergency response units in the field.” (3.3.53.2)

Turnout Times

The turnout time is the time between the announcement of the alarm at the fire station to the time when the crew has begun its response to the emergency. NFPA 1710 defines turnout time as “The time interval that begins when the

emergency response facilities and emergency response units’ notification process begins with either an audible alarm or visual annunciation or both and ends at the beginning point of travel time.” (3.3.53.8)

Distribution Factors

The City of Peoria has five distinct zip codes with four ancillary zip codes with smaller square miles of coverage. Of the five primary zip codes, three are in the southern portion of the city which is primarily in Battalion 1 for fire department response. The other two primary zip codes are in the northern end of the city within the territory of Battalion 3 for fire department response. The population density is much higher in the southern zip codes with a much lower median income.

Table 12: Zip Code Data

	Land Area	Population	Housing Units	Median Income
61602	1.52 sq mi.	693 per sq mi	665	\$25,875
61603	4.29 sq mi.	4,100 per sq mi	7,731	\$34,422
61604	4 sq mi. *city*	5,200 per sq mi	9,562	\$40,630
61605	4.16 sq mi.	3,921 per sq mi	7,105	\$19,442
61606	1.33 sq mi.	6,044 per sq mi	2,998	\$35,904
61614	12.07 sq mi.	2,290 per sq mi	13,929	\$59,920
61615	31.62 sq mi.	709 per sq mi	10,534	\$67,246
* Very small portions of 61528 and 61525 are contained within city limits also				
*Bradley University campus has a zip code of 61625				

As such, the fire stations in Battalion 1 are spaced geographically much closer together as opposed to the northern half of the city. Although there is inherently higher risk in the southern half of the city, and incident volume is much greater, this also creates a large response gap in the northern half of the city. When making the comparison from the table, it is apparent that the southern three zip codes covered by the six fire stations of Battalion 1 comprised approximately twelve and a half square miles; however, the six stations of Battalion 3 are responsible for over 33 square miles.

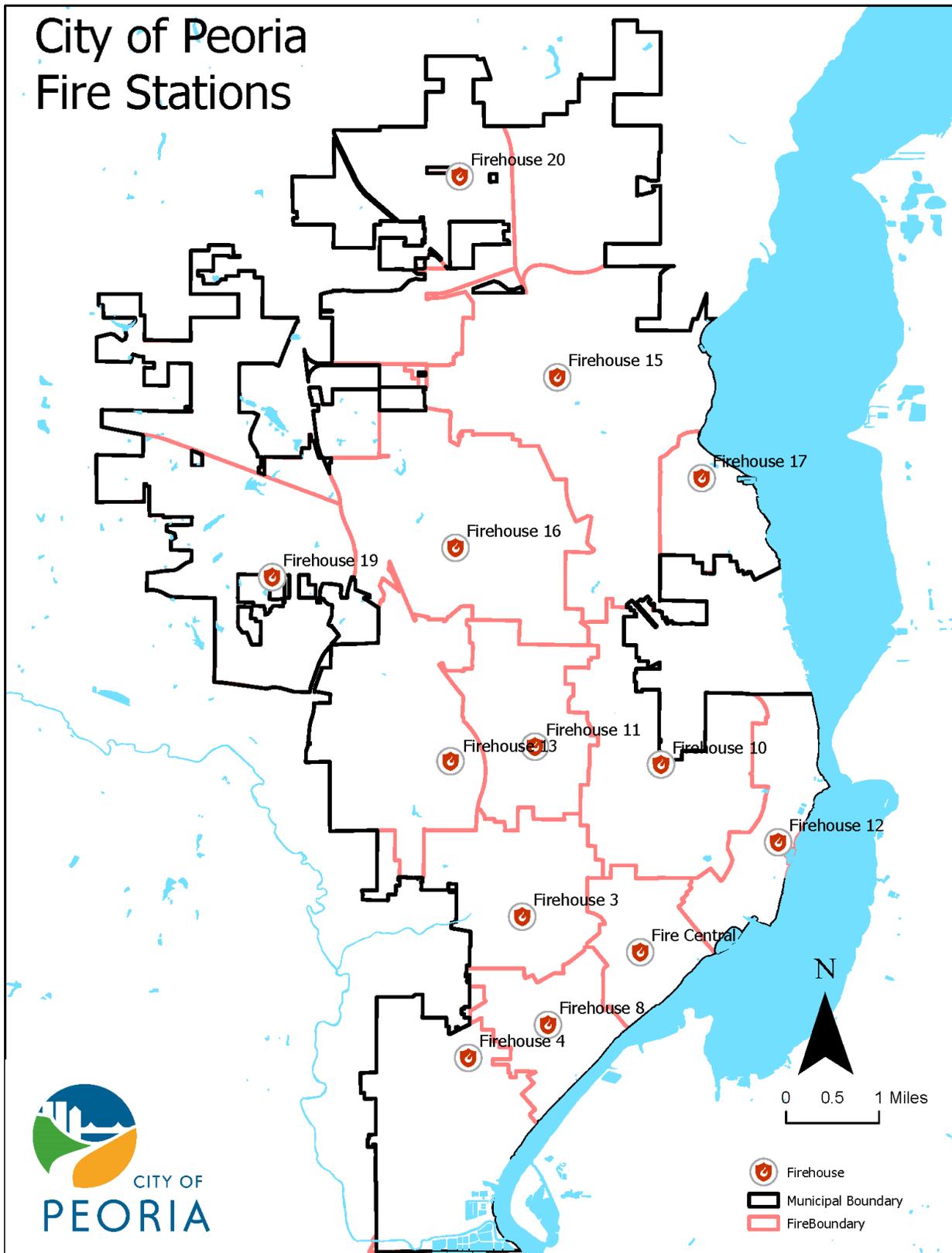
Concentration Factors

The ERF is the minimum number of firefighters required to accomplish the basic tasks generally needed at a multiple company incident. For fires, ERF times indicate the amount of time it takes to assemble the firefighters needed to make an effective coordinated attack. Shorter ERF times equate to faster knockdowns and more timely searches, not to mention increased firefighter safety. The accumulation of firefighters on the scene is a direct result of how close the firefighters providing support are located. This concept of the spacing of fire stations is the idea behind the concentration paradigm. The concentration of fire stations refers to the relative distance between fire stations. Areas with exceptional ERF times may have fire stations that are too concentrated too close together. Long ERF times would indicate that fire stations are not concentrated enough, that is, too far apart.

The following fire station distribution map shows that the PFD fire stations are not uniformly distributed throughout the city. The reasons for this inconsistent distribution are difficult to determine. Various theories include this is a

distribution left over from horse drawn fire apparatus, the city using annexed fire stations that weren't necessarily well positioned, and fire stations being built where land was donated. Regardless of the reason, the fire stations are located so that ERF times vary considerably. This map demonstrates the greater concentration of fire stations in the southern end of the city.

Map 14: Peoria Fire Station Locations



Jason Biller GIS Manager City of Peoria; 5/14/2024; Data: City of Peoria and Peoria County

Reliability Factors

Reliability refers to the frequency with which the first-in apparatus responds to alarms. In addition to being on a call, the PFD recognizes four reasons for an apparatus to be out of service: staffing, maintenance, training, or special duty. When a fire apparatus is tied up on other calls or out of service, that fire apparatus is unavailable to answer the call, and a second apparatus must be sent. Reliability is important because when the first-in apparatus is tied up, the next apparatus may come from a significantly farther distance. For this reason, reliability is tied to concentration. The further away the next responding apparatus is, the more important reliability becomes.

The PFD has collected reliability data in two forms. First, reliability was calculated by the station territory. When a station has multiple apparatus, the reliability is higher because when one apparatus is unavailable, another can usually respond. Some built-in reliability or redundancy exists when multiple companies are at the same fire station.

Reliability is also recorded by the first-in company. This statistic gives insight into how busy the first-in company is. A first-in company might be unavailable 60% of the time, but due to multiple companies at that station, the reliability may still be 90% or more. The first in company reliability speaks to the availability of that apparatus when all the companies from that station respond to the same alarm, removing the benefit of the multiple companies. It also indicates what the reliability would be if companies were redistributed within the city. At stations where only one company is in service, the station reliability and the first-in reliability should be the same.

Table 13: Fire Station Reliability (2021-2023)

Central	82.70%	70.0%	+12.70%
Station 3	82.70%	70.0%	+12.70%
Station 4	95.60%	70.0%	+25.60%
Station 8	64.20%	70.0%	-5.80%
Station 10	83.50%	70.0%	+13.50%
Station 11	78.70%	70.0%	+8.70%
Station 12	85.60%	70.0%	+15.60%
Station 13	83.00%	70.0%	+13.00%
Station 15	82.50%	70.0%	+12.50%
Station 16	83.00%	70.0%	+13.00%
Station 19	85.20%	70.0%	+15.20%
Station 20	87.10%	70.0%	+17.10%

It should be noted that the 70% standard is a parameter of unit hour utilization. Once that reliability drops below the 70% standard, then additional resources should be considered. Another highlight of the reliability table is the reliability for Station 8, which is where Engine 2 is located. In 2021, Engine 2 was decommissioned due to budget deficits. It remained decommissioned until November of that year. This station would require a separation of 2021 reliability and reliability for 2022 and 2023.

Dataset Qualification

Alarm handling is determined from the time the 911 call is answered until the apparatus is assigned to the call. After cleaning the distractors, 63,862 alarm handling times remain.

The minimum alarm handling time is 0:07. Utilizing this setting eliminated 497 data times and accounted for 0.7% of the total data available.

Maximum alarm handling time is 5:59. Utilizing this setting eliminated 1,697 data times and accounted for 2.54% of the total data available. This was kept at a long point to account for the *Pro QA* system for medical responses, as well as the first in companies for 15 fire incidents where they cleared late but still arrived first.

Turnout time is determined from the time the apparatus receives the call until they go en route to the scene. After cleaning the distractors, 60,084 turnout times remain.

The minimum turnout time is 0:06. Utilizing this setting eliminated 837 data times and accounted for 1.35% of the total data available.

Maximum turnout time is 3:20. Utilizing this setting eliminated 840 data times and accounted for 1.36% of the total data available.

Travel time is determined from the time the apparatus is enroute until they are on-scene. After cleaning the distractors, 54,904 travel times remain.

Minimum travel time is 0:35. Utilizing this setting eliminated 751 data times and accounted for 1.33% of the total data available.

Maximum travel time is 12:00. Utilizing this setting eliminated 622 data times and accounted for 1.10% of the total data available.

All editing was done within *Python*. Workbooks are available in [Appendix G](#).

Baseline Performance Tables

Baseline performance for the PFD is examined by hazard classification. The following tables will show alarm time, turnout time, travel time, and overall response time by hazard classification and category.

Table 14: Baseline Fire Low Risk

Low Risk Fire - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		0:43	2:24	1:59	2:06
Turnout Time	Dispatch to Enroute		2:14	1:46	1:58	1:59
Travel Time	Enroute to On Scene 1st Unit		4:51	4:42	4:20	4:37
Total Response Time	PSAP to On Scene 1st Unit		7:00	6:54	6:22	6:55
		n=	59	82	75	216

The low risk fire category refers to a response to a fire requiring a single company. Examples of low risk fire incidents would include a dumpster fire, a car fire, or a groundcover fire.

Table 15: Baseline Fire Moderate Risk

Moderate Risk Fire - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		1:10	1:19	1:18	1:16
Turnout Time	Dispatch to Enroute		2:10	1:55	2:00	2:02
Travel Time	Enroute to On Scene 1st Unit		4:48	5:26	5:21	5:07
	Enroute to On Scene ERF		8:31	10:01	9:34	9:31
	Concentration					
Total Response Time	PSAP to On Scene 1st Unit		6:44	7:21	7:10	7:09
		n=	332	429	376	1,137
	PSAP to On Scene ERF		12:15	11:59	12:15	12:10
		n=	53	65	97	215

Examples of fires that would receive a moderate risk fire response would include a house fire, a car fire in a garage, or a dumpster fire next to a building.

Table 16: Baseline EMS Low Risk

Low Risk Medical - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		3:00	2:56	2:46	2:54
Turnout Time	Dispatch to Enroute		2:00	2:01	1:59	2:00
Travel Time	Enroute to On Scene 1st Unit		5:16	5:21	5:22	5:20
Total Response Time	PSAP to On Scene 1st Unit		8:36	8:37	8:28	8:34
		n=	11,220	10,841	11,602	33,663

Low risk EMS calls account for most of the EMS calls run by the PFD. A low risk EMS call gets a single company response.

Table 17: Baseline EMS Moderate Risk

Moderate Risk Medical - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		2:39	2:51	3:05	2:53
Turnout Time	Dispatch to Enroute		1:56	1:50	1:51	1:53
Travel Time	Enroute to On Scene 1st Unit		4:36	4:53	4:38	4:43
	Enroute to On Scene ERF		5:41	5:49	5:22	5:38
Total Response Time	PSAP to On Scene 1st Unit		7:24	7:34	7:19	7:25
		n=	639	587	519	1,745
	PSAP to On Scene ERF		8:45	8:42	8:54	8:46
	Concentration	n=	513	464	403	1,380

Moderate risk EMS calls require more than a single company response. These calls could include a vehicle accident without entrapment, which had an apparatus without water as the first company, or multiple patients. Additional moderate risk responses could be life-threatening EMS calls, such as cardiac arrests.

Table 18: Baseline EMS High Risk

High Risk Medical - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		2:41	3:15	3:24	3:01
Turnout Time	Dispatch to Enroute		1:56	1:44	1:51	1:53
Travel Time	Enroute to On Scene 1st Unit		4:03	4:30	4:01	4:10
	Enroute to On Scene ERF		7:05	5:57	9:15	8:44
Total Response Time	PSAP to On Scene 1st Unit		7:20	7:18	6:47	7:15
		n=	91	90	88	269
	PSAP to On Scene ERF		11:59	9:04	11:15	11:26
	Concentration	n=	16	17	31	64

High Risk EMS calls consist of mass casualty incidents (MCI) and involve more than three apparatus responding. These calls would be MVAs with multiple patients, active shooter situations with multiple victims, etc.

Table 19: Baseline Technical Rescue Moderate Risk

Moderate Risk Rescue - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		2:46	3:27	2:51	2:53
Turnout Time	Dispatch to Enroute		1:58	1:58	1:56	1:58
Travel Time	Enroute to On Scene 1st Unit		4:54	4:48	4:06	4:48
	Enroute to On Scene ERF		7:17	5:49	7:53	7:16
Total Response Time	PSAP to On Scene 1st Unit		7:19	7:57	7:50	7:45
		n=	65	71	60	196
	PSAP to On Scene ERF		11:38	9:09	10:51	10:45
	Concentration	n=	20	18	27	65

Moderate risk rescues are generally a standard vehicle extrication.

Table 20: Baseline Hazardous Materials Low Risk

Low Risk HazMat - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		1:05	1:52	1:37	1:40
Turnout Time	Dispatch to Enroute		2:08	2:04	2:09	2:09
Travel Time	Enroute to On Scene 1st Unit		5:48	5:02	5:39	5:39
Total Response Time	PSAP to On Scene 1st Unit		7:44	7:17	8:50	7:44
		n=	54	51	43	148

The low risk hazardous materials (hazmat) responses are for small hazardous materials releases, including carbon monoxide responses with no symptoms, natural gas leaks outside, or minor fuel spills. These are one company responses.

Table 21: Baseline Hazardous Materials Moderate Risk

Moderate Risk HazMat - Citywide			2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch		1:23	1:43	1:42	1:33
Turnout Time	Dispatch to Enroute		2:04	2:01	1:54	1:59
Travel Time	Enroute to On Scene 1st Unit		4:29	4:47	5:15	4:47
	Enroute to On Scene ERF		9:22	8:00	8:22	8:39
Total Response Time	PSAP to On Scene 1st Unit		6:20	7:15	7:29	7:09
		n=	112	128	132	372
	PSAP to On Scene ERF		11:02	10:28	10:59	11:01
	Concentration	n=	54	54	51	159

The moderate risk hazardous materials response would be a small spill or a material. These can also include incidents that can normally be handled with only a few companies and without the assembly of a contingent of hazmat technicians. These incidents would include carbon monoxide alarms with symptoms and investigations to determine if a hazardous material has been released and the degree of hazard of the product.

I. Evaluation of Service Delivery

Performance Objectives – Benchmarks

The Peoria Fire Department (PFD) responds to a large variety of emergency incidents, including but not limited to fires of all types, emergency medical situations, boating and drowning accidents, motor vehicle accidents and a wide range of technical rescues. The following section documents the “benchmarks” the PFD uses to respond to these incidents. These benchmarks are the response time goal the department desires to achieve 90% of the time for the effective response force necessary to complete all the tasks associated with each incident.

Fire Suppression Services Program

The PFD benchmark for a low, moderate, and high risk fire is to have the initial responding unit arrive on scene with a total response time of 6 minutes and 30 seconds, 90% of the time. The initial company will have an officer and a minimum of two crew members. This company will be able to supply 500 gallons of water from the tank and pump 1,000 gallons per minute when connected to a permanent water supply. The crew will have the ability to initiate incident command; secure a permanent water supply; advance an attack line flowing 150 gallons per minute for containment and suppression, or begin search for and rescue of trapped occupants depending on tactical priorities of the incident. The PFD has instituted Standard Operating Guidelines (SOGs) to control these activities. The officer on the first-in company is responsible for seeing that these operations are carried out safely and in accordance with the SOGs.

The PFD’s moderate risk benchmark for the effective response force is to have all 17 personnel necessary to accomplish initial operations on scene 90% of the time with a total response time of 12 minutes or less. The effective response force will initiate incident command; set up and maintain two continuous water supplies; begin search and rescue of trapped victims; advance an attack line; staff and maintain a backup line; provide for RIT operations if they become necessary; and provide truck company functions (laddering, ventilation, utility control, etc.).

For high-risk fire suppression response, the Peoria Fire Department will have the first unit with three firefighters on scene in 6 minutes and 30 seconds. This unit will be able to initiate command and start to prioritize tactical operations. An ERF of 28 firefighters will be on scene in 15 minutes and will have the capability to handle multiple tasks. These tasks will include establishing command and safety officers, establishing water supply, effecting rescue as necessary, and establishing fire attack. This ERF will also handle the establishment of RIT and all truck company operations, including ventilation and utilities.

Emergency Medical Services Program

The PFD responds to a wide variety of emergency medical calls classified as low risk, moderate risk and high risk. The fire department is responsible for responding and beginning care. The transport of patients is the responsibility of a third-party ambulance service, in this case, Advanced Medical Transport of Central Illinois. The PFD currently maintains advanced life support (ALS) coverage in all areas of the city.

The benchmark for emergency medical services (EMS) initial response force for low, moderate, and high-risk EMS calls is to have the first company on scene with three firefighters with a total response time of 6 minutes and 30 seconds 90% of the time. Patient care should begin within 30 seconds of the crew reaching the patient's side. The first-in company can identify scene hazards; do a patient assessment; initiate oxygen therapy, CPAP, rescue pump CPR, defibrillation, hemorrhage control, and many other types of therapy; call for additional help if necessary; brief the ambulance crew en route or upon their arrival; and assist with packaging and loading of the patient. ALS engine companies can do all the BLS level activities as well as: start IV access, provide advanced airway procedures, begin medication administration in accordance with EMS protocols, and capture and interpret EKG readings, among other skills.

The benchmark for moderate risk EMS incidents with an effective task force of six personnel is 8 minutes 90% of the time. When the officer identifies a need for additional personnel, they will call for additional help if additional help has not already been dispatched. These six firefighters accomplish all the tasks completed in a low-risk EMS; however, it also allows for CPR to be done with high quality and minimizes the interruption in chest compressions. The extra personnel are also able to assist in the extrication of the patient from difficult areas such as second floors or basements.

A third-party ambulance service is staffed at an advanced life support level. When the paramedic on the ambulance determines that patient care would best be served by having additional help, members of the fire department accompany the patient to the hospital to provide as much care as needed. If the paramedic on the ambulance does not need additional assistance, the fire department personnel are available to respond to other calls.

The benchmark for a high-risk EMS response with an effective task force of 13 personnel is a total response time of 10 minutes 90% of the time. These personnel can fill incident command positions for command, documentation, and safety. The remaining personnel will be able to perform patient assessments; initiate oxygen therapy, CPAP, rescue pump CPR, defibrillation, hemorrhage control, and many other types of therapy; brief the ambulance crew en route or upon their arrival; and assist with packaging and loading of multiple patients.

Technical Rescue Services Program

Technical rescues encompass dive incidents and trench, collapse, and high angle rope rescues. All these incidents are generally long-lasting and very labor-intensive. The following section documents the benchmarks for these types of incidents.

Because low risk technical rescues are generally categorized as a medical response that can be handled by a one-company response of three firefighters, subsequently, this benchmark will be set at the same 6 minutes and 30 seconds as a low-risk EMS response. This complement can identify scene hazards; do a patient assessment; initiate oxygen therapy, CPAP, rescue pump CPR, defibrillation, hemorrhage control, and many other types of therapy; brief the ambulance crew; and assist with packaging and loading of the patient. ALS engine companies can do all the BLS level activities as well as: start IV access, provide advanced airway procedures, begin medication administration in accordance with EMS protocols, and capture and interpret EKG readings, among other skills. Since this is categorized as a low-risk rescue, the crew of three firefighters would also be capable of handling minor rescue situations. Incidents such as these would include operations involving children locked in a vehicle or someone locked out of their home. This could also involve tasks associated with someone entrapped who can easily be freed by a crew of three firefighters.

The benchmark for a moderate risk technical rescue effective response force is 13 technical rescue team members to arrive within 10 minutes 90% of the time. This response involves a battalion chief and the core team members on duty, plus additional support personnel. The special vehicle needed would also be brought to the scene, i.e., Dive or TRT Vehicle. This complement of thirteen would allow for command, operations, and safety to be established. It will provide staffing to accomplish all the tasks needed in each technical rescue incident.

For a high-risk technical rescue, the benchmark for the ERF is to affect a rescue within a time of 30 minutes. The first unit on scene will establish command, perform scene assessment, and set zone parameters. Once the ERF arrives on scene multiple tasks will need to be completed depending on the nature of the rescue and what discipline is required. Different tasks are critical to each technical rescue discipline, with high-risk dive incidents requiring 17 while high risk collapse incidents requiring 24. Certain tasks will be addressed, however, at all technical rescue incidents, including the establishment of command and safety officers, operations personnel assignments that assist with the operation, and technicians that carry out the task of mitigating the incident.

Hazardous Materials Services Program

The benchmark for low-risk effective task force response for hazardous materials calls within the city will require the first-in unit with three personnel to be on the scene of the incident with a total response time of 6 minutes and 30 seconds or less, 90% of the time. Low risk are incidents such as a small fuel spill that will not require additional assistance. This unit will assume command, assess the situation, ensure the spill has not reached any storm drains and put down absorbent to soak up the fuel spill, as well as provide care for injured people and protect the lives and property of those nearby.

For moderate risk hazardous material incidents, the PFD has established a benchmark for the arrival of an ERF of 13 firefighters in 10 minutes. Arrival of an ERF will be able to establish command, perform patient care, and perform ventilation where necessary. If the incident is a hazardous material chemical spill or leak, the ERF will accomplish the following tasks: establish command and safety officers, establish a science sector and a scribe, and establish an entry team, a backup team, and a decontamination team.

The benchmark for a high-risk hazardous material incident, if it were to occur, would be set at 6 minutes and 30 seconds for the first unit with three firefighters to arrive and perform reconnaissance, identify the incident as one involving hazardous materials, and set control zones and a safe perimeter. The benchmark for the arrival of an ERF of 19 firefighters, who are certified hazardous material technicians, in a high-risk hazardous material incident would be 60 minutes by the time technicians would gather, and mitigation efforts could begin. The ERF would be capable of completing a wide array of tasks. First, establishing command, safety, operations, and decontamination officers. Establishing a scribe and entry team leaders would be completed, and finally, the establishment of an entry, backup, and decontamination team would be completed.

Performance Objectives – Baselines

The following information documents the baseline of response time for the various incidents to which the PFD responds. Whereas benchmark times are the goal of the department, baseline times are the actual response times for the first-in and effective task force complement needed to complete all the tasks for each type of incident. All charts

of baselines are presented with an urban response only because the Peoria Fire Department does not have a response area within its jurisdiction that is considered rural.

Fire Suppression Services Program

The PFD's initial response force baseline at a low risk is a total response time of 6 minutes and 55 seconds 90% of the time. The low-risk incidents have brought one company with a crew of three personnel. This company has supplied 500 gallons of water from the tank and pump 1,000 gallons per minute when connected to a permanent water supply. The crew has initiated incident command; secured a permanent water supply; advanced an attack line flowing 150 gallons per minute for containment and suppression, or began search for and rescue of trapped occupants depending on tactical priorities.

For moderate risk fire incidents, the total response time is 7 minutes and 9 seconds for the initial unit with three firefighters and 12 minutes and 10 seconds for an effective response force of 17 firefighters, 90% of the time. For a moderate risk fire incident (which includes a residential structure fire), the effective response force has initiated incident command; set up and maintained two continuous water supplies; began search and rescue of trapped victims; advanced an attack line; staffed and maintained a backup line; provided for RIT operations; and provided truck company functions (laddering, ventilation, utility control, etc.).

Data for high-risk fire incidents is statistically insignificant to determine baseline times.

Emergency Medical Services Program

The baseline total response time for low-risk emergency medical services (EMS) responses with one company of three firefighters is 8 minutes and 34 seconds 90% of the time. For low-risk EMS incidents, the responding company of three firefighters has identified scene hazards; performed a patient assessment; where necessary, initiated oxygen therapy, CPAP, hemorrhage control, and many other types of minor therapy. Additionally, brief the ambulance crew en route or upon their arrival; and assist with packaging and loading of the patient. ALS engine companies can do all the BLS level activities as well as: start IV access, provide advanced airway procedures, begin medication administration in accordance with EMS protocols, and capture and interpret EKG readings, among other skills.

For moderate risk EMS incidents total response time is 7 minutes and 25 seconds for the initial unit with three firefighters and 8 minutes and 46 seconds for an effective response force of six firefighters, 90% of the time. When the first responding company called for additional help, this moved the incident into a moderate risk EMS. For certain responses, moderate risk has been determined at the time of dispatch and resulted in more advanced patient care. The first-in unit has still performed all the tasks of the low risk EMS response, but now patient care has moved into ALS-level care with advanced therapies needed. With an ERF on scene the multiple company response has allowed for numerous patient care tasks to take place simultaneously. Additionally, this response has allowed for the establishment of command and a scribe to record information.

The total response time for high-risk EMS incidents is 7 minutes and 15 seconds for the initial unit of three firefighters and 11 minutes and 26 seconds for an effective response force of 13 firefighters, 90% of the time. For high risk EMS responses, the first-in unit of three firefighters established command, triaged the incident, and began the most

immediate needed patient care. The arrival of the ERF has allowed for further tasks to be accomplished. These personnel have filled incident positions for command, Documentation, and Safety. The remaining personnel performed patient assessments; and initiated oxygen therapy, CPAP, rescue pump CPR, defibrillation, hemorrhage control, and many other types of therapy on either a BLS or ALS level. Additionally, with an ERF present, personnel can brief the ambulance crew en route or upon their arrival; and assist with packaging and loading of multiple patients.

Technical Rescue Services Program

Technical rescue incidents do not land in the category of technical rescue due to these being categorized as EMS responses.

The baseline for moderate risk technical rescue reveals the arrival of the initial unit with three firefighters in 7 minutes and 45 seconds and for the ERF of 13 firefighters is a total response time of 10 minutes and 45 seconds. Most of the moderate risk technical rescue incidents in the City of Peoria have been complex vehicle extrication incidents. The first arriving unit has established command and has begun triage of the incident. Upon the arrival of an ERF, the following tasks have been completed: establish a command and safety officer, secure water supply and suppression safety line, assign extrication team members, and accomplish patient care.

High risk technical rescue incidents have statistically insignificant data to determine a baseline for these incidents.

Hazardous Materials Services Program

The baseline for a low-risk hazardous material incident is 7 minutes and 44 seconds, 90% of the time. This is a one-company response with three firefighters that has accomplished the following tasks: established command and safety, recon of the incident, and finally, mitigation of the incident. Mitigation for the Peoria Fire Department has been to determine if carbon monoxide was present in a structure, eliminate or secure the source of a gas leak, or place absorbent on a small chemical spill.

For moderate risk hazardous material incidents, the total response time is 7 minutes and 9 seconds for the initial unit and 11 minutes and 1 second for the ERF, 90 % of the time. For the Peoria Fire Department, many of these responses are gas leaks inside a structure, and carbon monoxide releases with symptoms. For these types of incidents, the first arriving units with three firefighters have established command and performed reconnaissance. The arrival of an ERF with 12 firefighters has established command, performed patient care, and performed ventilation where necessary. Additionally, upon arrival of an ERF, the following tasks have been accomplished: command and safety officers established, science sector established, entry team established, backup team established, and decontamination team established.

Data is statistically insignificant to determine a baseline for high-risk hazardous material incidents.

Performance Gaps – Baseline to Benchmark Time Gap

Fire Suppression Services Program

2021 - 2023 Low Risk Fire Suppression Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	6:55	6:30	00:25
		n=216		

2021 - 2023 Moderate Risk Fire Suppression Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:09	6:30	00:39
		n=1,137		
ERF	Urban	12:10	12:00	00:10
		n=215		

Emergency Medical Services (EMS) Program

2021-2023 Low Risk EMS Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	8:34	6:30	02:04
		n=33,663		

2021 - 2023 Moderate Risk EMS Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:25	6:30	00:55
		n=1,745		
ERF	Urban	8:46	8:00	00:46
		n=1,380		

2021-2023 High Risk EMS Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:15	6:30	00:45
		n=269		
ERF	Urban	11:26	10:00	01:26
		n=64		

Technical Rescue Services Program

2021-2023 Moderate Risk Tech Rescue Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:45	6:30	01:15
		n=196		
ERF	Urban	10:45	10:00	00:45
		n=65		

Hazardous Materials Services Program

2021 - 2023 Low Risk Hazmat Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:44	6:30	01:14
		n=148		

2021-2023 Moderate Risk Hazmat Response Times				
1st/ERF	Urban/Rural	Baseline	Benchmark	Gap
1st Due	Urban	7:09	6:30	00:39
		n=372		
ERF	Urban	11:01	10:00	01:01
		n=159		

Community Areas for Program Delivery and Coverage Improvement

For the Peoria Fire Department to seek improvement, it must first identify where it is deficient. This begins with a look at the gap between the baseline (where the organization is currently) and the benchmark (where the organization desires to be). A brief breakdown of the previous tables will reveal where improvements can be made.

Although a gap is present between the benchmark and baseline in fire suppression response for low risk and moderate risk response, 25 seconds and 39 seconds, respectively, once the PFD moves to ERF for moderate risk response, the gap becomes much smaller. With a deficit of only 10 seconds, it appears the PFD is performing well in establishing an ERF in moderate risk fire suppression. The gap in first unit arrival could be due to several factors, including apparatus on other calls for service, distance of apparatus from incident location, or just simple traffic barriers that prevent a timely response.

For low risk EMS responses, the gap lies at 2 minutes and 4 seconds. This is a concerning gap that the Peoria Fire Department will need to analyze to determine the cause. It could be explained that some of these responses began as Code 1 incidents and then were downgraded while en route to the scene to a Code 2, less emergent response. The gap for moderate risk EMS response is lower as the first unit arrival is 55 seconds beyond the benchmark, and the gap for an ERF for moderate risk EMS is at a 46-second gap. The biggest reason for this low gap is only 7 personnel are required to fulfill an ERF on moderate risk EMS responses. Whereas once moved to an ERF for high-risk EMS responses, the gap is revealed to be at 1 minute and 26 seconds. Again, more personnel are needed to meet the ERF requirements in a high-risk response. Interestingly, the gap for the first unit response is at its lowest, with the high-risk response at only a 45-second deficit.

Technical rescue response for moderate risk has a gap for first unit arrival of 1 minute and 15 seconds. This is a concerning gap because a delay in this response could be a delay in the rescue of victims. Although many times multiple resources are necessary for these types of incidents, some preliminary actions can be accomplished by the first unit on scene. On a positive note, the gap for ERF for rescue incidents is smaller at 45 seconds.

For low-risk Hazardous Materials responses, a gap of 1 minute and 14 seconds exists. This could be similar to EMS responses where one company responses for hazardous materials are generally a much less emergent response and warrant only a Code 2 response. Again, this would explain the reason the first unit arrival is at a lower deficit on

moderate risk hazardous materials response at only 39 seconds as these responses are typically Code 1. A larger gap does exist for ERF on moderate risk hazardous materials responses at 1 minute and 1 second; however, this gap reflects a similar ERF gap across all other risk categories and shows the response model appears uniform for most risk categories.

The distribution of fire stations in the city is unbalanced. While the southern half of the city is adequately covered by resources, the northern half has large gaps that extend response times and affect overall baseline numbers. Considering the southern half of the fire department resources cover one third of the square miles of the northern half of the city, the problem lies in providing more resources to the northern half of the city. A glance at tables for responses in moderate fire risk for the predominant east bluff zip code of 61603 compared to the same table for the northern zip code of 61615 highlights this disparity.

Table 22: Moderate Risk Fire in 61603

Moderate Risk Fire - 61603		2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch	0:51	1:27	1:14	1:09
Turnout Time	Dispatch to Enroute	2:10	2:08	2:03	2:06
Travel Time	Enroute to On Scene 1st Unit	3:35	3:22	3:18	3:27
	Enroute to On Scene ERF	7:48	8:15	8:29	8:23
	Concentration				
Total Response Time	PSAP to On Scene 1st Unit	5:35	6:02	4:58	5:32
		n= 68	67	79	214
	PSAP to On Scene ERF	10:23	11:24	10:49	10:56
	Concentration	n= 11	7	34	52

Table 23: Moderate Risk Fire in 61615, 61525, and 61528

Moderate Risk Fire - 61615, 61525, and 61528		2021	2022	2023	2021-2023
Alarm Handling	PSAP Pick-up to Dispatch	1:18	1:39	1:11	1:28
Turnout Time	Dispatch to Enroute	1:54	1:55	2:00	1:56
Travel Time	Enroute to On Scene 1st Unit	6:15	6:30	5:46	6:24
	Enroute to On Scene ERF	7:32	9:05	11:37	10:31
	Concentration				
Total Response Time	PSAP to On Scene 1st Unit	8:34	8:17	8:09	8:19
		n= 66	99	74	239
	PSAP to On Scene ERF	8:53	14:19	15:02	14:13
	Concentration	n= 2	6	7	15

Two extreme examples of this are proven with the farthest response for Station 19 in the northwest corner of the city and the far north response for Station 12. Travel time from Station 19 to Crosswynd Court, the farthest northwestern street of the city, is 8 minutes with a travel distance of 4.8 miles. The travel time from Station 12 to Derby Road at its far north end is 7 minutes with a travel distance of 5 miles.

Additionally, as the Peoria Fire Department looks at the delivery of specialized teams in the areas of hazardous materials, technical rescue, and dive, it becomes apparent that identifying response times is very limited because the method of deployment is varied. Without a dedicated centralized location for the members of each specialty team,

the deployment of the team is not a Code 1 response. While the team can handle most low and moderate risk incidents with on-shift personnel, a call back for off-duty personnel is necessary for many incidents.

Recommendations for Improved Effectiveness in Deployment and Coverage

The recommendations for improving these deficiencies are shown to follow. Deficiencies were considered on a three-element basis. Alarm handling time, turnout time, and travel time make up the total response time. The Peoria Fire Department considered the deficiencies in three separate silos to see where improvements could be accomplished.

Alarm Handling Time

The alarm handling time is not overseen by the Peoria Fire Department. While the target per the National Fire Protection Association is 64 seconds, the City of Peoria Emergency Communication Center rarely meets this benchmark. The emergency communications director made the following suggestions for improvement of the alarm handling time:

The City of Peoria Emergency Communication Center strives to process fire calls for the PFD within 60 seconds from receipt of dispatch. Ongoing updates to the fire station alerting system, first installed in late 2017, have improved and reduced the processing time. Staff will receive additional training on steps they can take to ensure calls are processed more efficiently. The City of Peoria Emergency Communications Center strives to process emergency medical service calls within 90 seconds from receipt to dispatch. Implementation of a new computer-aided dispatch system as well as a fire records management system will allow both PFD as well as emergency communications staff to more accurately pinpoint inefficiencies in call processing. Both systems will also allow for the implementation of the proper resource deployment for each level of incident, which was recommended for EMS call responses as far back as 2004.

Turnout Time

The turnout time is a persistent problem. While turnout time may seem to some to be a minor problem, it constitutes a serious delay in mitigating whatever emergency the crew responds to. The 90th percentile turnout time for the city is 30 seconds over the benchmark. The plan for improving turnout times begins with improving the data collection. While PFD has automated this process to a degree with mobile data terminals (MDTs) in each apparatus there is still the concept of human error that should be addressed within the department. Help continues to be sought from the City of Peoria Information Systems Department to bring more reliability to the current system. Next, turnout timers have been installed and set up to give immediate feedback as to how efficiently the crew performed turnout time. Finally, daily reports will be run on turnout times by PFD staff. This report will be reviewed by battalion chiefs and determine whether there is a need to address constant egregious times.

First-in Company Travel Time

The first-in company travel times are a problem responding from certain fire stations.

Several ideas have been generated to improve these times. Fire response maps have been reviewed multiple times to ensure that the closest company is responding to that area. However, this is only when apparatus is located within their respective stations. The current computer-aided dispatch (CAD) system does not incorporate automated vehicle

locating (AVL) with any degree of certainty. An upgrade to CAD is currently in progress which will utilize AVL in collaboration with GIS mapping, verifying that the closest company is responding.

The next idea is to continue the extensive use of traffic pre-emption devices. The city has budgeted funds for many years for a small number of traffic pre-emption devices each year. The city currently has devices installed at 111 intersections. Six more are slated for 2024. This program increases the number of green lights for emergency vehicles, thereby shortening travel time.

Next, long-range planning indicates that a new fire station is needed in the northwest area of the city. This station, usually referred to as “Station 21,” would be able to shorten some of the longest response times for Station 19 and provide additional staffing in the north end of the city. This station would provide needed coverage for the fastest-growing area of the city, again shortening the distance traveled. If budget allocation did not allow for this additional station, the recourse would be to relocate Station 19 from its current location towards the northwestern portion of the city.

The territory of Station 12 is required to cover a section of the city left vacant when a fire station was closed in 1992. The response by engine 12 takes them through a neighboring community and adds 3 minutes to their response. Plans would call for the placement of a two-person EMS crew at the vacated fire station. Many of the calls in this area are EMS calls due to two large elderly care facilities, which have grown considerably since the fire station was closed. Long-term plans would include establishing the EMS Division of the fire department within this Station to further assist with call volume. The fire station is still maintained by the fire training academy staff as a storage area and student residence.

Effective Response Force Travel Time

The ERF travel time is also a problem in several areas, especially the areas of the city that are farthest north. Only three ways exist to decrease the ERF travel time, they are:

- Shorten the distance traveled by some or all the companies.
 - Increase the number of personnel per apparatus responding.
 - Decrease the critical tasking.
1. The distance can be shortened by building new fire stations closer to the problem areas or by repositioning apparatus to shorten their response. New roads can be constructed, which would reduce the distance traveled.
 2. The rate of speed of the response can be increased in several ways, which include:
 - ▶ Traffic pre-emption
 - ▶ Infrastructure improvement (wider or better-constructed roads, allowing for easier movement past stopped traffic)
 - ▶ Purchase smaller apparatus or “quick response” vehicles. This would lead to better utilization of resources for medical response and leave personnel available for ERF for more complex incidents.

3. Increasing the number of responders on each apparatus is possible. For example, the department could increase all companies from three personnel to four personnel or increase truck companies from three personnel to five personnel. The financial commitment would be very large during very difficult budget times. However, by adding one extra firefighter to each truck company, more personnel would get to each scene quicker, leading to a decreased effect response force time. This action would also allow more tasks to be completed in a timelier manner.
4. Finally, the critical tasking could be changed. This solution seems counterintuitive because if a department has conscientiously determined the minimum number of personnel necessary, that number should not change. However, changes in technology could potentially change the number of firefighters needed to accomplish some tasks. A change in building construction may change the tasks that need to be accomplished. Engines with 2000-gallon water tanks might eliminate the need for establishing a water supply immediately.

The construction and staffing of Station 21, discussed before, would help improve ERF times in the territory currently covered by Station 19 as well as improving those first-in travel times. Future discussion should incorporate total concepts of relocation of fire stations and how that will positively impact or negatively impact overall response for improved response for first in units and ERF.

J. Performance Maintenance and Improvement Plans

The Peoria Fire Department (PFD) has developed a program of continuous evaluation to identify deficiencies in all aspects of the department's responses. No problem can be corrected without first identifying it and its causes. Ongoing self-examination is the hallmark of a progressive fire department. Progress begins with the identification of weaknesses and the desire to change. The willingness to accept the discomfort of change is necessary for the attainment of excellence. The PFD's program to identify deficiencies is executed by a Compliance Team made up of members of the bargaining unit and administration to work together to improve the department.

Compliance Team / Responsibility

To ensure the agency is meeting current service level objectives, continuous monitoring of service level performance must be conducted on a regular basis. The Compliance Team helps evaluate the baseline times and compares them to the predetermined benchmarks. The team will initially meet bi-monthly and gradually morph into meeting on a quarterly basis. The team will be made up of three members of IAFF Peoria Firefighters Local 50 as chosen by the union president or designee as well as two members from the department command staff as determined by the fire chief in consultation with staff; currently the division chief of training and the assistant fire chief. The committee reviews the current responses, the previous quarter's response time data, and the difference between the benchmark and the baseline. Included in the review shall be a summary of the results of the service level objectives, a comparison of current results to previous results, and calculations of the difference in results between periods.

In addition to the review of service level objectives, the Compliance Team will review the response demands within each zip code and the identified risks within. The Compliance Team will determine if there have been any changes within a zip code, changes to service demands, or changes in standards or operations that impact the service level objectives or the Standards of Cover document. The results are discussed within the team and, where necessary, followed up on by staff. Recommendations are forwarded to the chief for consideration.

Performance Evaluation and Compliance Strategy

The Compliance Team evaluates the following areas:

- ▶ Alarm Handling Times
- ▶ Turnout Times
- ▶ First-in Travel Times
- ▶ First-in Total Response Times
- ▶ ERF Travel Time
- ▶ ERF Total Response Time

Twice a year, the Compliance Team evaluates the geographic area of 5 fire map responses to look for differences. The fire maps evaluated are from various geographic locations so responses are seen from a citywide perspective. Each time the Compliance Team meets, it will ensure that five different fire maps are used from the previous evaluation. This information is leveraged to identify problems and implement solutions. This examination includes noting

changes in the volume of calls in various areas. An increase in calls could signal a problem requiring more personnel to be stationed nearby or a need for public education to address a specific problem. Changes to operations within various parts of the city are also examined in this meeting. All changes are evaluated to see if they should be continued, stopped, changed, or implemented over a broader scale.

Finally, the Compliance Team checks the data to ensure it is still meeting the standards of cover. The Standards of Cover is the level of protection that the jurisdiction has chosen as appropriate. When the Standards of Cover has changed the stakeholders are notified. Further, the AHJ is notified of changes within the Standards of Cover and if adjustments of resources are needed to meet those changes.

Compliance Verification Reporting

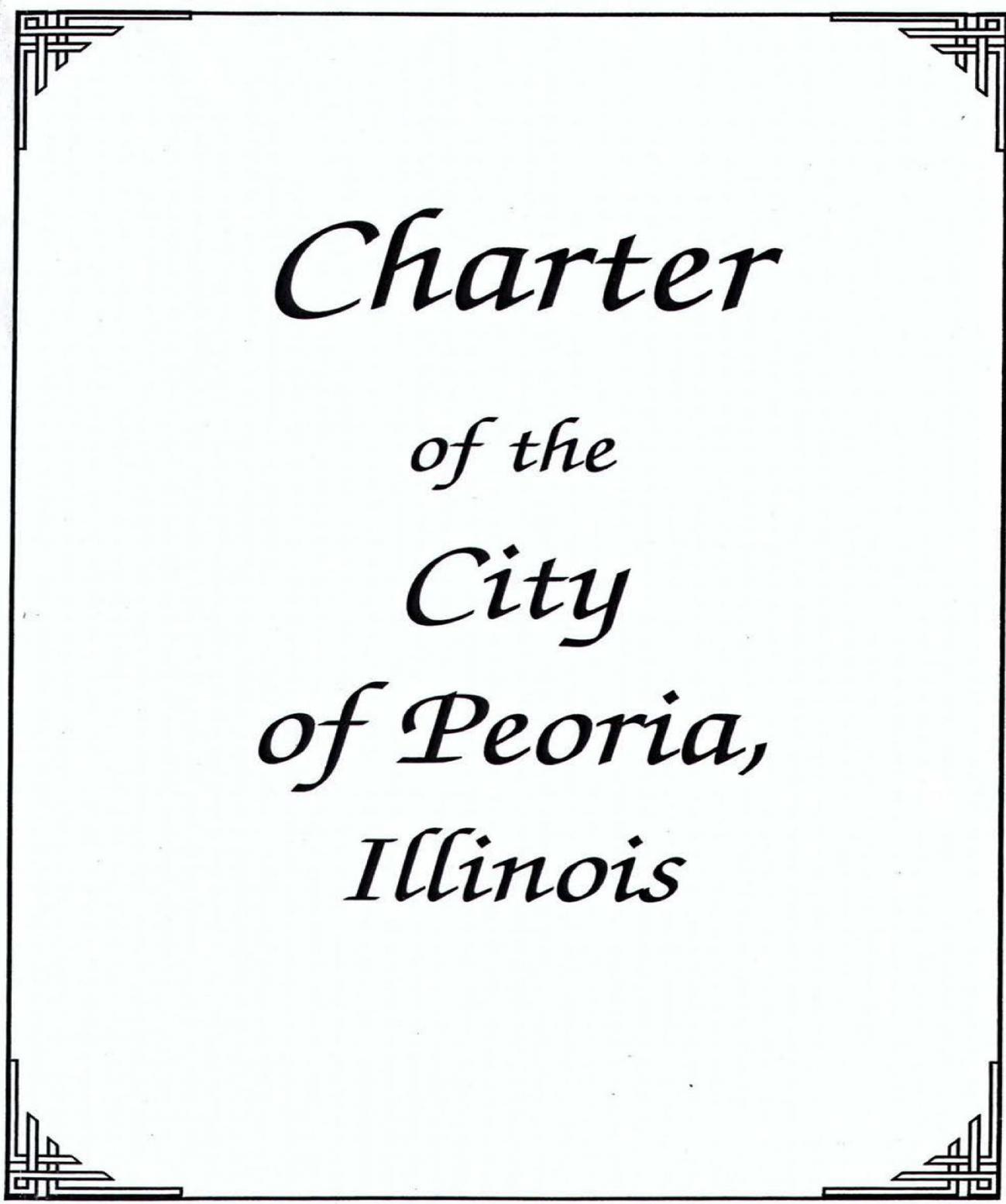
The Compliance Team presents an annual report to the fire chief, outlining the team's findings. The fire chief will then present this report to the city manager and discuss the findings. The fire chief and manager will then present to the city council. To aid in the collection and presentation of this information, the Compliance Team will work as a group to assemble all required information and assist in the interpretation of data and considerations for improvement toward achieving targets (benchmarks). The command staff then formulates a plan to recommend changes necessary to the approved Standards of Cover. When appropriate and at the recommendation of the Compliance Team, the command staff and the authority having jurisdiction move the benchmarks to continue to push performance forward.

Continuous Improvement Strategy

A continuous quality improvement process will be implemented department-wide. This will include a thorough analysis of all functions of the Peoria Fire Department, including response and coverage capabilities. The process will involve determination from the command staff in conjunction with the union workforce as to whether improvements are being accomplished. The process will involve semi-annual discussions among the parties concerning the progress of the Peoria Fire Department.

K. Appendices

Appendix A: City of Peoria Charter



Charter
of the
City
of Peoria,
Illinois

No. 377 No. 3 Box 84.

An Act to incorporate
the City of Peoria.

Laid before the Council
of Revision.

Enrolled

Laid on the Table under
the first Monday of
December 1844.

Copied
Signature

Originated in the State.

Pa a e l Bury

Secy. Senate

An Act to incorporate the City of Peoria

Article 1.

Of boundaries and general powers

1. Be it enacted by the People of the State of Illinois represented in the General Assembly, That the inhabitants of the town of Peoria, in the County of Peoria and State of Illinois, be and they are hereby constituted a body politic and corporate, by the name and style of the "City of Peoria"; and by that name shall have perpetual succession, and may have and use a common seal, which they may change and alter at pleasure.

Sec 2. All that district of Country in fractional section nine, fractional section ten, the South half of section four and fractional section three in Township Eight North and Eight East of the fourth principal meridian, and to the middle of the Illinois River and Lake Peoria together with such additions as from time to time have been made to the town of Peoria since its incorporation are hereby declared to be within the boundaries of the said City of Peoria.

Sec 3. Whenever any tract of land adjoining the City of Peoria shall have been laid off into town lots and duly recorded, as required by law, the

same shall be annexed to and form part of the City of Peoria. Provided that the limits of said incorporation shall never exceed one mile square.

Article 3.
Of the City Council.

- Sec 1. There shall be a City Council to consist of a Mayor and board of Aldermen.
- Sec 2. The board of Aldermen shall consist of Eight members to be chosen for two years by the qualified free voters of said City.
- Sec 3. No person shall be an Alderman unless at the time of his election, he shall have resided six months within the limits of the City, and shall be at the time of his election twenty one years of age.
- Sec 4. At the first meeting of the City Council, the Aldermen shall be divided by lot into two classes, the seats of those of the first class shall be vacated at the first annual election, and of the second class, at the second annual election, so that one half of the board shall be elected annually.
- Sec 5. The City Council shall judge of the qualifications, elections and returns of their own members and shall determine all contested elections.

- Sec. 6 A majority of the City Council shall constitute a quorum to do business, but a smaller number may adjourn from day to day, and compel the attendance of absent members, under such penalties as may be prescribed by ordinance.
- Sec. 7 The City Council shall have power to determine the rules of its proceedings, punish its members for disorderly conduct, and with the concurrence of two thirds of the members elected expel a member.
- Sec. 8 The City Council shall keep a journal of its proceedings and the year and day when demanded by any member present shall be entered on the journal.
- Sec. 9 No Alderman shall be appointed to any office under the authority of the City, which shall ^{have} been created or the emoluments of which shall have been increased during the time for which he shall have been elected.
- Sec. 10 The Mayor and each Alderman before entering upon the duties of their office shall take and subscribe an oath that they will support the constitution of the United States, and of this State, and that they will well and truly perform the duties of their office to the best of their skill and abilities.
- Sec. 11 Whenever there shall be a tie in the election of Alderman the Judges of election shall certify the same to the Mayor, who shall determine the same by lot in such manner as shall be provided by ordinance.
- Sec. 12 There shall be twelve stated meetings of the City Council in each year, at such times and places as may be prescribed by ordinance.

Article 3.

Of the Chief Executive Officers

- Sec. 1. The Chief executive officers of the City shall be a Mayor, who shall be elected by the qualified voters of the City, and shall

hold his office for one year, and until his successor shall be elected and qualified.

Sec. 2. No person shall be eligible to the office of Mayor who shall not have been a resident of the City for one year next preceeding his election, or who shall be under twenty-one years of age, or who shall not at the time of his election be a citizen of the United States and a bona fide freeholder in the City.

Sec. 3. If any Mayor shall during the term for which he shall have been elected remove from the City, his office shall be vacated.

Sec. 4. When two or more persons shall have an equal number of votes for Mayor, the Judges of election shall certify the same to the City Council, who shall proceed to determine the same by lot, in such manner as may be provided by ordinance.

Sec. 5. Whenever an election of Mayor shall be contested, the City Council shall determine the same in such manner as may be provided by ordinance.

Sec. 6. Whenever any vacancy shall happen in the office of Mayor it shall be filled by election.

Article 4. Of Elections

Sec. 1. On the last Monday in April next an election shall be held in said City for one Mayor for the City and eight Aldermen, and forever thereafter on the last Monday of November of each year there shall be an election held for one Mayor for the City and four Aldermen, the first election for Mayor and Aldermen shall be held

conducted and returns thereof made as may be provided by ordinance of the present Trustees of the Town of Peoria.

Sec 2. All free white male Inhabitants over the age of Seventy one years who are entitled to vote for State officers and who shall have been actual residents of said City six months next preceding said election shall be entitled to vote for City officers.

Article 5
Of the Legislative powers of the City Council.

Sec 1. The City Council shall have power and authority to levy and collect taxes on all property real and personal within the limits of the City not exceeding three fourths per cent per annum upon the assessed value thereof, and ^{may} enforce the payment of the same in any manner to be prescribed by ordinance not repugnant to the Constitution of the United States and of this State and laws of this State.

Sec 2. The City Council shall have power to appoint a Clerk ~~and~~ Treasurer, a Peacor, Marshall, Supervisor of Streets and such other officers as may be necessary.

Sec 3. The City Council shall have power to require of all officers appointed in pursuance of this Charter Bonds with penalty and security for the faithful performance of their respective duties as may be deemed expedient, and also

to require all officers appointed as aforesaid to take an oath for the faithful performance of the duties of their respective offices before entering upon the discharge of the same. To establish, support and regulate Common Schools, to borrow money on the credit of the City: Provided that no sum or sums of money shall be borrowed at a greater interest than six per cent per annum, nor shall the interest on the aggregate on all the sums borrowed and outstanding ever exceed one half of the City revenue arising from taxes, assessed on real property within the limits of the Corporation.

Sec 4. To appropriate money and provide for the payment of the debt and expenses of the City.

Sec 5. To make regulations to prevent the introduction of contagious diseases into the City, to make quarantine laws for that purpose, and enforce the same within five miles of the City.

Sec 6. To establish hospitals and make regulations for the Government of the same.

Sec 7. To make regulations to secure the general health of the inhabitants, to declare what shall be a nuisance and to prevent and remove the same.

Sec 8. To open, alter, abolish, widen, extend, establish, grade, pave or otherwise improve and keep in repair, Streets, Avenues, Lanes and Alley.

- Sec 9. To establish, erect and keep in repair Bridges.
- Sec 10. To divide the City into wards, alter the boundaries thereof, and erect additional wards as the occasion may require, and to provide for the election of Aldermen for each ward.
- Sec 11. To provide for lighting the streets and erecting Lamp Posts.
- Sec 12. To establish support and regulate night watches.
- Sec 13. To erect market houses, establish markets, and market places and provide for the government and regulation thereof.
- Sec 14. To provide for the erection of all needful buildings for the use of the City.
- Sec 15. To provide for enclosing, improving and regulating all public grounds belonging to or in the City.
- Sec 16. To improve and procure the navigation of the Illinois River within the limits of the City.
- Sec 17. To erect ~~and~~ repair and regulate public wharves and docks to regulate the erection and repair of private wharves and the rates of wharfage thereof.
- Sec 18. To license regulate and tax Auctioneers, merchants, retailers, taverns, grocers, ordinaries, hawkers, peddlers, brokers, pawn-brokers and money-changers.

- Sec 19. To license, tax and regulate hackney carriages waggons, carts and drays, and fix the rates to be charged for the carriage of persons and for the waggonage, drayage & cartage of property.
- Sec 20. To license and regulate porters and fix the rates of portage.
- Sec 21. To license tax and regulate theatrical and other exhibitions, shows and amusements.
- Sec 22. To restrain, prohibit and suppress gaming houses and bawdy and other disorderly houses.
- Sec 23. To provide for the prevention and extinguishment of fires and to organize and establish fire Companies.
- Sec 24. To regulate or prohibit the erection of wooden buildings in any part of the City.
- Sec 25. To regulate the fixing of chimneys, stove pipes and the flues thereof.
- Sec 26. To regulate the storage of gunpowder, tar, pitch, rosin and other combustible materials.
- Sec 27. To regulate and order parapet walls and partition fences.
- Sec 28. To establish standard weight and measure and regulate the weights and measures to be used in the City in all cases not otherwise provided for by law.
- Sec 29. To provide for the inspection and measuring of lumber and other building materials and

- for the measurement of all kinds of mechanical work.
- Sec 30. To provide for the inspection and weight of hay and stone coal, the measuring of charcoal, firewood and other fuel to be sold or used in the City.
- Sec 31. To provide for and regulate the inspection of tobacco and of beef, pork, flour and meal and whisky in barrels.
- Sec 32. To regulate the inspection of butter lard and other provisions.
- Sec 33. To regulate the size of bricks to be sold or used in the City.
- Sec 34. To provide for the taking enumerations of the Inhabitants of the City.
- Sec 35. To regulate the election of City officers and provide for removing from office any person holding an office created by ordinance.
- Sec 36. To fix the compensation of all City officers and regulate the fees of Jurors witnesses and others for services rendered under this Act or any ordinance.
- Sec 37. To regulate the police of the City, to impose fines and forfeitures and penalties for the breach of any ordinances and provide for the recovery and appropriation of such fines and forfeitures and the enforcement of such penalties.
- Sec 38. The City Council shall have power to make all

ordinances which shall be necessary and proper for carrying into execution the powers specified in this Act, so that such ordinance be not repugnant to nor inconsistent with the Constitution of the United States or of this State.

Sec 39. The style of the ordinances of the City shall be "Be it Ordained by the City Council of the City of Peoria"

Sec 40. All Ordinances passed by the City Council shall within one month after they shall have been passed be published in some newspaper published in the City, and shall not be in force until they shall have been published as aforesaid.

Sec 41. All Ordinances of the City may be proven by the seal of the Corporation, and when printed and published in book or pamphlet form and purporting to be printed and published by authority of the Corporation, the same shall be received in evidence in all Courts and places without further proof.

Article Sixth of the Mayor

Sec 1. The Mayor shall preside at all meetings of the City Council and shall have a casting vote and no other, in case of non-attendance of the Mayor at any meeting, the Board of Aldermen shall appoint one of their own Members Chairman.

man, who shall preside at that meeting.

Sec 2. The Mayor or any two Aldermen may call special meetings of the City Council.

Sec 3. The Mayor shall at all times be active and vigilant in enforcing the laws and ordinances for the government of the City, he shall inspect the conduct of all subordinate officers of said city and cause negligence and positive violation of duty to be prosecuted and punished, he shall from time to time communicate to the Aldermen such information and recommend all such measures as in his opinion may tend to the improvement of the finances, the police, the health, security, comfort and ornament of the City.

Sec 4. He is hereby authorized to call on every male inhabitant of said City, over the age of eighteen years to aid in enforcing the laws and ordinances, and in case of riot to call out the Militia to aid him in suppressing the same, or carrying into effect any law or ordinance, and any person who shall not obey such call shall forfeit to the said City a fine not exceeding ten dollars.

Sec 5. He shall have power whenever he may deem it necessary to require any of the officers of said City an exhibit of his books and papers.

Sec 6. He shall have power to execute all acts that may be required of him by any ordinance made

and corruptly, be guilty of appropriation, malconduct or partiality in the discharge of the duties of his office, he shall be liable to be indicted in the Circuit Court of Peoria County, and on conviction he shall be fined not more than two hundred dollars, and the Court shall have power on the recommendation of the Jury to add to the Judgment of the Court, that he be removed from office.

Article Seventh. Proceedings in special cases.

- Sec 1. When it shall be necessary to take private property for opening, widening or altering any public street, lane, avenue or alley, the corporation shall make a just compensation therefor to the person whose property is so taken. And if the amount of such compensation can not be agreed on, the Mayor shall cause the same to be ascertained by a Jury of six disinterested freeholders of the City.
- Sec 2. When the owners of all the property on a street, lane, avenue or alley proposed to be opened, widened or altered shall petition therefor the City Council may open, widen or alter such street, lane, avenue or alley upon condition to be prescribed by ordinance, but no compensation shall be made in such case to those whose property shall be taken for the opening, widening or altering such street, lane, avenue or alley, nor shall there be any apportionments of benefits or

damages that may accrue thereby to any of the petitioners -

Sec 3. All persons empannelled to inquire into the amount of benefit or damage which shall happen to the owners of property proposed to be taken for opening, widening or altering any street, lane, avenue or alley, shall first be sworn to that effect, and shall return to the Mayor their inquest in writing and signed by each juror.

Sec 4. In ascertaining the amount of compensation for property taken for widening, opening or altering any street, lane, avenue or alley, the Jury shall take into consideration the benefit, as well as the injury happening by such opening, widening or altering such street, lane, avenue or alley.

Sec 5. The Mayor shall have power for good cause shown within ten days after any inquest shall have been returned to him as aforesaid to set the same aside, and cause a new inquest to be made.

Sec 6. The City Council shall have power by ordinance to levy and collect a special tax on the holders of the lots in any street, lane, avenue or alley or part of any street, lane, avenue or alley according to their respective fronts owned by them for the purpose of paving and grading the sidewalks and lighting such street, lane, avenue or alley.

in pursuance of this Act.

Sec 7. He shall be commissioned by the Governor as a Justice of the Peace for said City, and as such shall be a conservator of the peace in said City, and shall have power and authority to administer oaths, issue writs and process under the seal of the City, to take depositions, the acknowledgments of Deeds, Mortgages and all other instruments of writing, and certify the same under the seal of the City, which shall be good and valid in law.

Sec 8. He shall have exclusive jurisdiction in all cases arising under the Ordinances of the Corporation and concurrent jurisdiction with all other justices of the peace in all civil and criminal cases within the limits of the City arising under the laws of the State, and shall receive the same fees and compensation for his services in similar cases.

Sec 9. He shall also have such jurisdiction as may be vested in him by ordinance of the City, and over all places within five miles of the boundaries of the City for the purpose of enforcing the health and quarantine ordinances and regulations thereof.

Sec 10. He shall receive for his services such salary as shall be fixed by an ordinance of the City.

Sec 11. In case the Mayor shall at any time be guilty of a palpable omission of duty, or shall willfully

Article Eight

Miscellaneous provisions.

Sec 1. The inhabitants of the City of Peoria are hereby exempted from working on any road beyond the limits of the City.

Sec 2. The City Council shall have power for the purpose of keeping the streets lanes avenues and alleys in repair, to require every male inhabitant in said City over twenty one years of age to labor on said streets, lanes, avenues or alleys not exceeding three days in each and every year; and any person failing to perform such labor, when duly notified by the supervisor, shall forfeit and pay the sum of one dollar per day for each day neglected or refused.

Sec 3. The City Council shall have power to provide for the punishment of offenders, by imprisonment in the County or City jail in all cases when such offenders shall fail or refuse to pay the fines and forfeitures which may be recovered against them.

Sec 4. The City Council shall cause to be published annually a full and complete

Statement of all money received and expended by the Corporation during the preceding year, and on what account received and expended.

- Sec 5. All ordinances and resolutions passed by the President and Trustees of the town of Peoria, shall remain in force, until the same shall be repealed by the City Council hereby created or the General Assembly of this State.
- Sec 6. All suits, actions and prosecutions instituted, commenced or brought by the Corporation hereby created, shall be instituted, commenced and prosecuted in the name of the City of Peoria.
- Sec 7. All actions, fines, penalties and forfeitures which have accrued to the Trustees of the Town of Peoria, shall be vested in, and prosecuted by the Corporation hereby created, and liabilities incurred, and obligations entered into shall attach to, and be obligatory upon the Corporation hereby created.
- Sec 8. All property, real and personal heretofore belonging to "The Trustees of the town of Peoria" for the use of the inhabitants of said town shall be and the same is hereby declared to be vested in the Corporation hereby created.

- Sec. 9. This Charter shall not invalidate any act done by ^{the} Trustees of the town of Peoria, nor divest them of any right which may have accrued to them prior to the passage of this act.
- Sec. 10. The Trustees of the town of Peoria shall immediately after the passage of this act take measures to promulgate this law within the limits of the City of Peoria and cause their proclamation for the election of officers and cause the same to be published in all the news papers in said city for four weeks in succession prior to the day of election for said officers.
- Sec. 11. Appeals shall be allowed from decisions in all cases arising under the provisions of this act or any ordinance passed in pursuance thereof to the Circuit Court of Peoria County, and every such appeal shall be taken and granted in the same manner and with like effect as appeals are taken from, and granted by justice of the peace to the Circuit Court under the law of this State.
- Sec. 12. Whenever the Mayor shall absent himself from the City, or shall resign, or die, or his office shall be otherwise vacated, the Board of Aldermen shall immediately proceed to elect one of their members President who shall be Mayor pro-tem.
- Sec. 13. This act is hereby declared to be a public act, and may be read in evidence in all courts of law and equity in this State without proof.
- Sec. 14. All acts or parts of acts coming within the provisions of this Charter or contrary to, or inconsistent with its provisions are hereby repealed.
- Sec. 15. The City Marshall or any other officer authorized to execute writs or other process issued by the Mayor shall have power to execute the same within the limits of Peoria

County, and shall be entitled to the same fees for traveling as are allowed to Constables in similar cases.

Sec. 16. The President and trustees of the town of Peoria shall cause an election to be held in said town on the third Monday in April next at which the inhabitants of said town who are authorized to vote for State officers shall vote for or against the adoption of this Charter, and if a majority of the votes given at such election shall be in favor of the adoption of said Charter, said Charter shall immediately take effect as a law, but if a majority of the votes given shall be against the adoption of said Charter, then this act to be of no effect.

Sam. Mackelton
Speaker of the House of Representatives

John Moore
Speaker of the Senate.

Appendix B: Minutes of Peoria City Council, March 12, 1875

30

Peoria March 9th 1875

the same as now in use in the City of Peoria Adopted

Adjournment w
Appropriations bill

Ald Loney moved that when the Council adjourn they adjourn until Thursday next at that no business be taken up except the Annual Appropriations bill and that the reports of the Committees be printed upon slips Carried

By Alderman Callender

Resolved That it is the sense of this Council that the Mayor be and is hereby authorized to have the City Engineer make a general survey of the whole City from one Corporate line to the other and permanently set and establish a regular grade for the grading of all the streets and alleys within the Corporate limits of the City of Peoria together with a public and complete record and plats of such grade or survey a report to this Council on or before the first Tuesday in November 1875 Commencing at the most practicable point in Main Street

Permanent Grade

Alderman Callender moved to refer to the Street Committee

Ald Wenne moved to adopt the resolution

Alderman Wenchery moved to lay on the Table which motion prevailed

Alderman Kellogg called up the Ordinance Creating a paid fire department

Ordinance Paid
Fire Department

The Ordinance was read

Ald Loney moved to strike out "two ladder of two men" and insert "Chemical Fire engine with three men" Carried

Ald Wenne moved to strike out the section in reference to salaries Carried

The Ordinance was then passed and ordered published by the following vote

Ayes Alderman Bicket Callender Carroll Wenne Loney Wenschery Wenchery Kellogg Moore Smith Treber and White
Nays None

\$ 1000 for No 4

Ald Wenne moved that the Fire & Water in their report, report \$1000 for Fire Company No 4 said do to sleep at least one man constantly at the engine Carried

Wages of No 4

Ald Loney moved that the Committee report an ordinance defining the duties of Fire Co No 4 fixing pay &c Carried

Opening Douglas Street

By Alderman Kellogg

Resolved That the Mayor be requested to proceed and open Douglas Street from Russell to Chambers Street Adopted

Chief Engineer

Ald White moved to go into an election for Chief Engineer of the Fire Department Candidates John Traugh O B Martin Wm Steffe and J J Thomas were nominated

On the first ballot O B Martin received 7 votes John Traugh 2 votes Wm Steffe 1 vote and J J Thomas 2 votes

O B Martin

O B Martin having received a majority of the City Council was declared elected Chief Engineer of the Fire Department

On motion of Ald White the Council adjourned

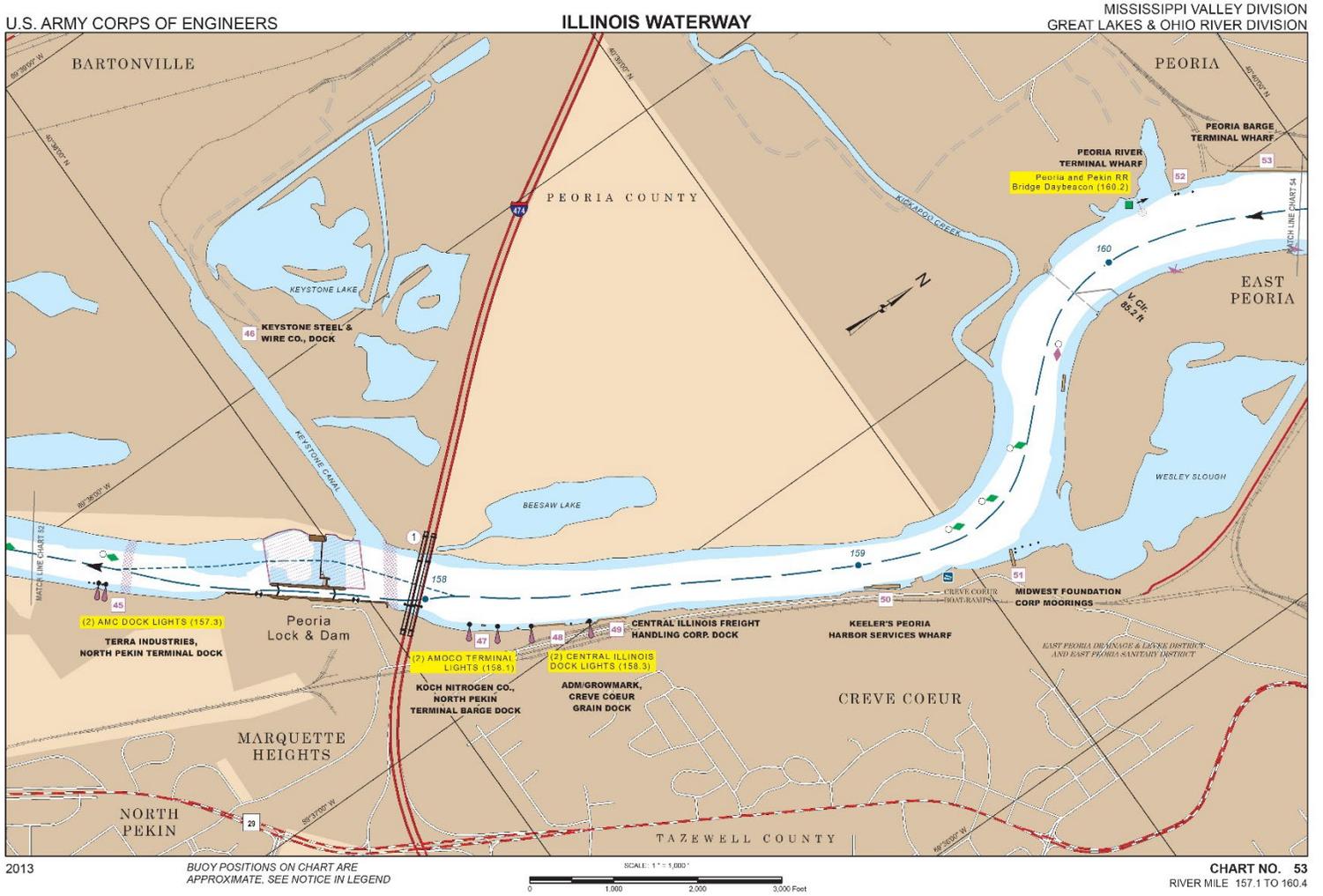
J J Forgyth
City Clerk

Appendix C: Peoria Municipal Code Chapter 11

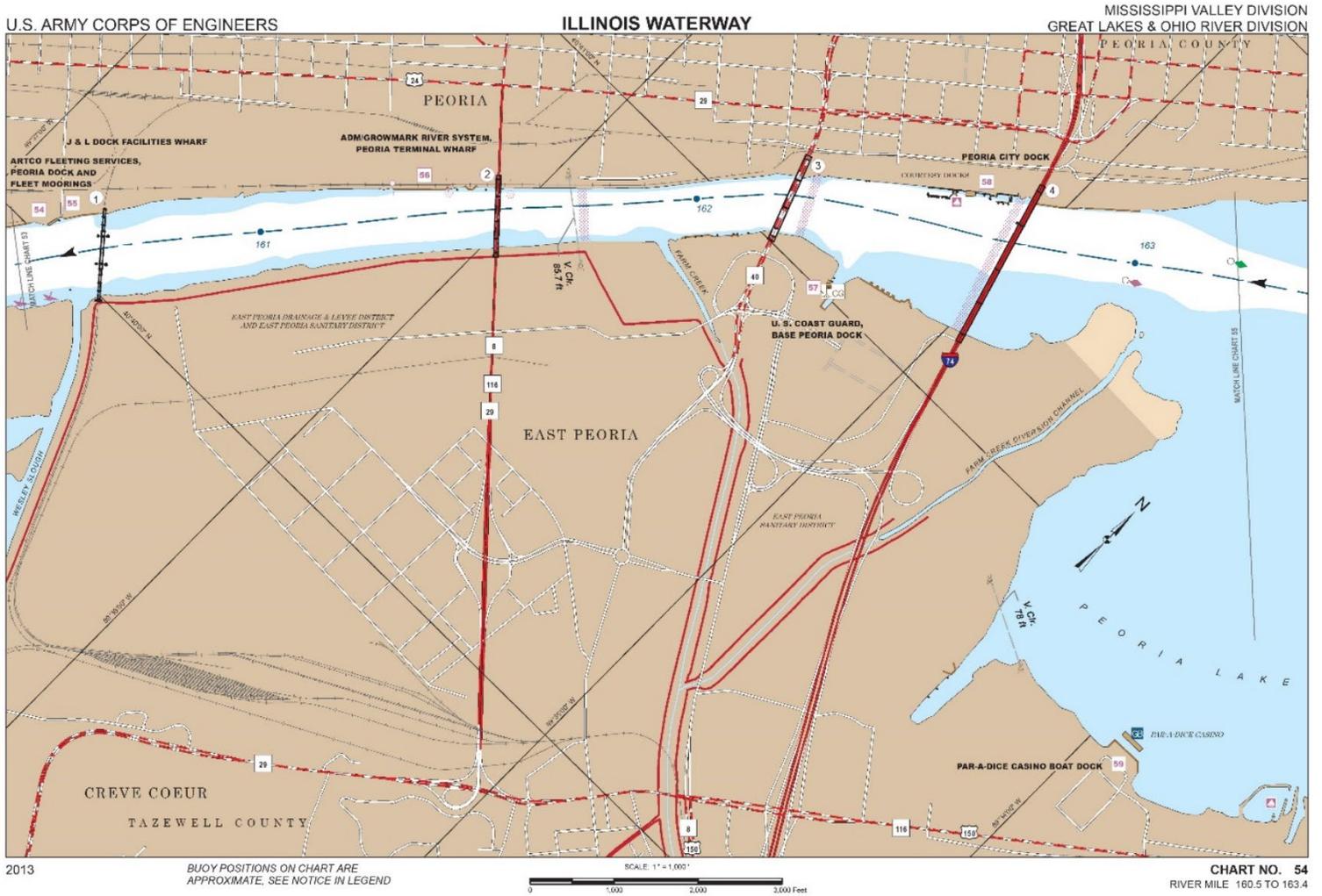
Due to size, this appendix item can be found at

https://library.municode.com/il/peoria/codes/code_of_ordinances/309258?nodeId=CO_CH11FIPRPR

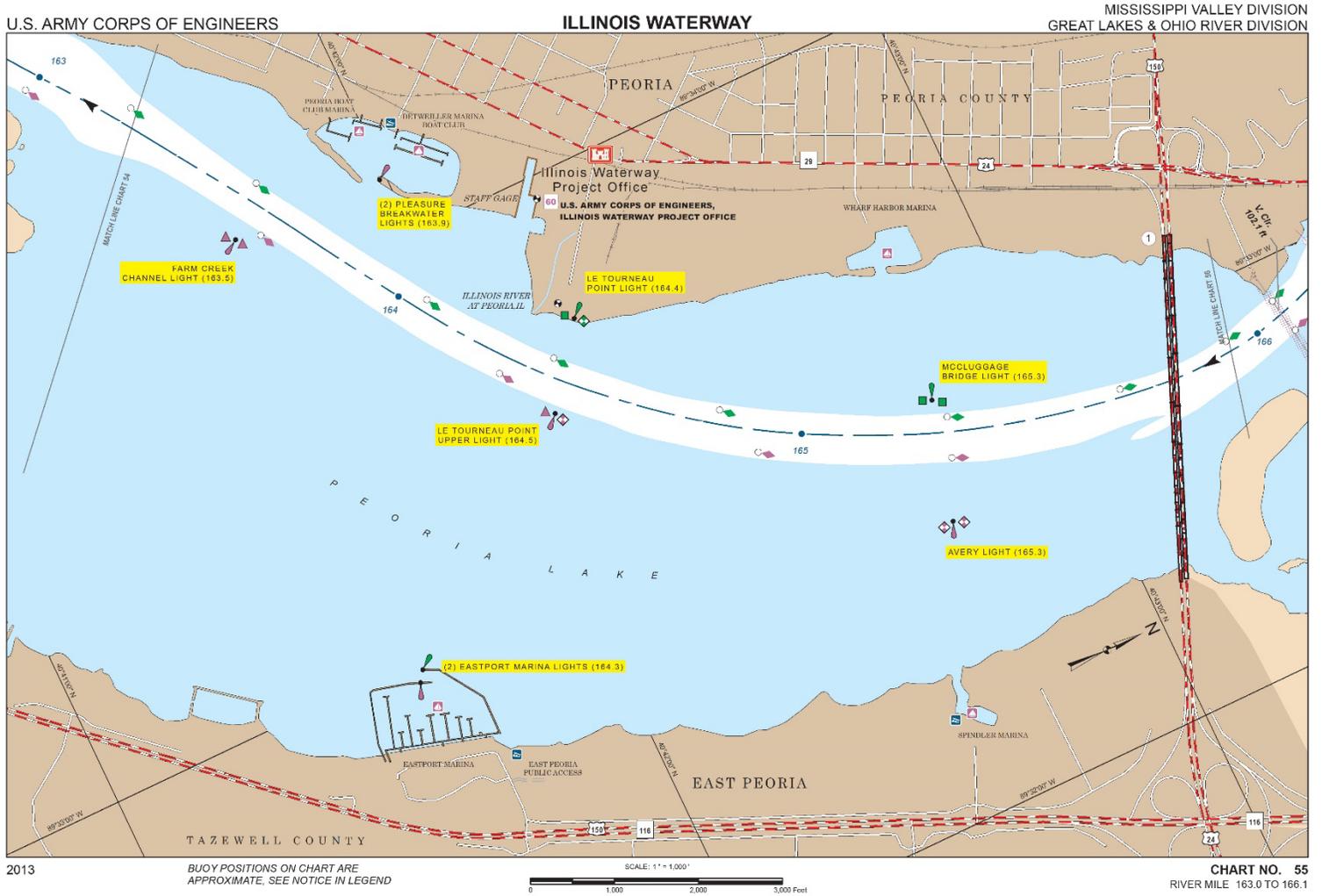
Appendix D: Illinois Waterway Navigation Charts



PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER



PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER



PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

U.S. ARMY CORPS OF ENGINEERS

ILLINOIS WATERWAY

MISSISSIPPI VALLEY DIVISION
GREAT LAKES & OHIO RIVER DIVISION

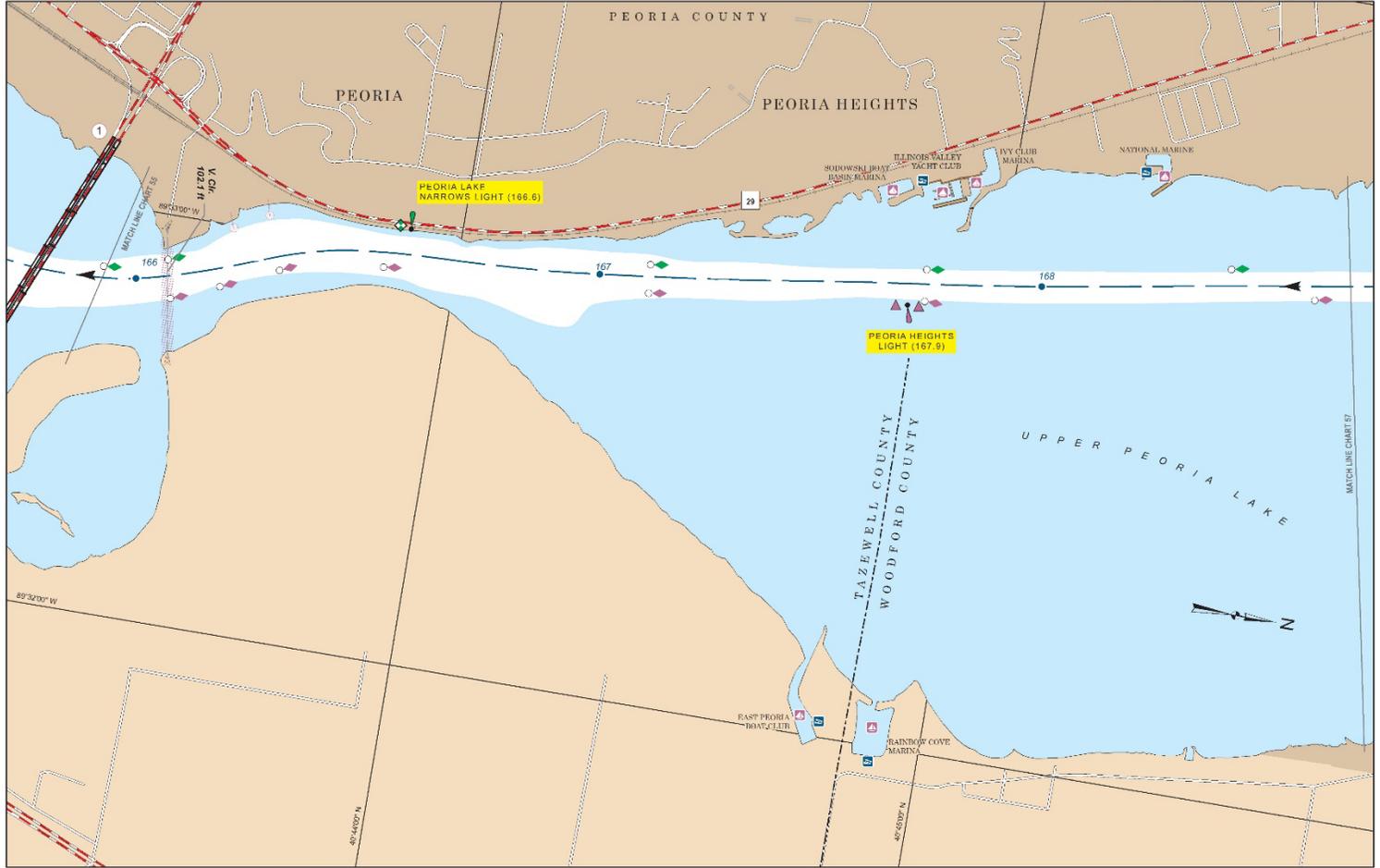


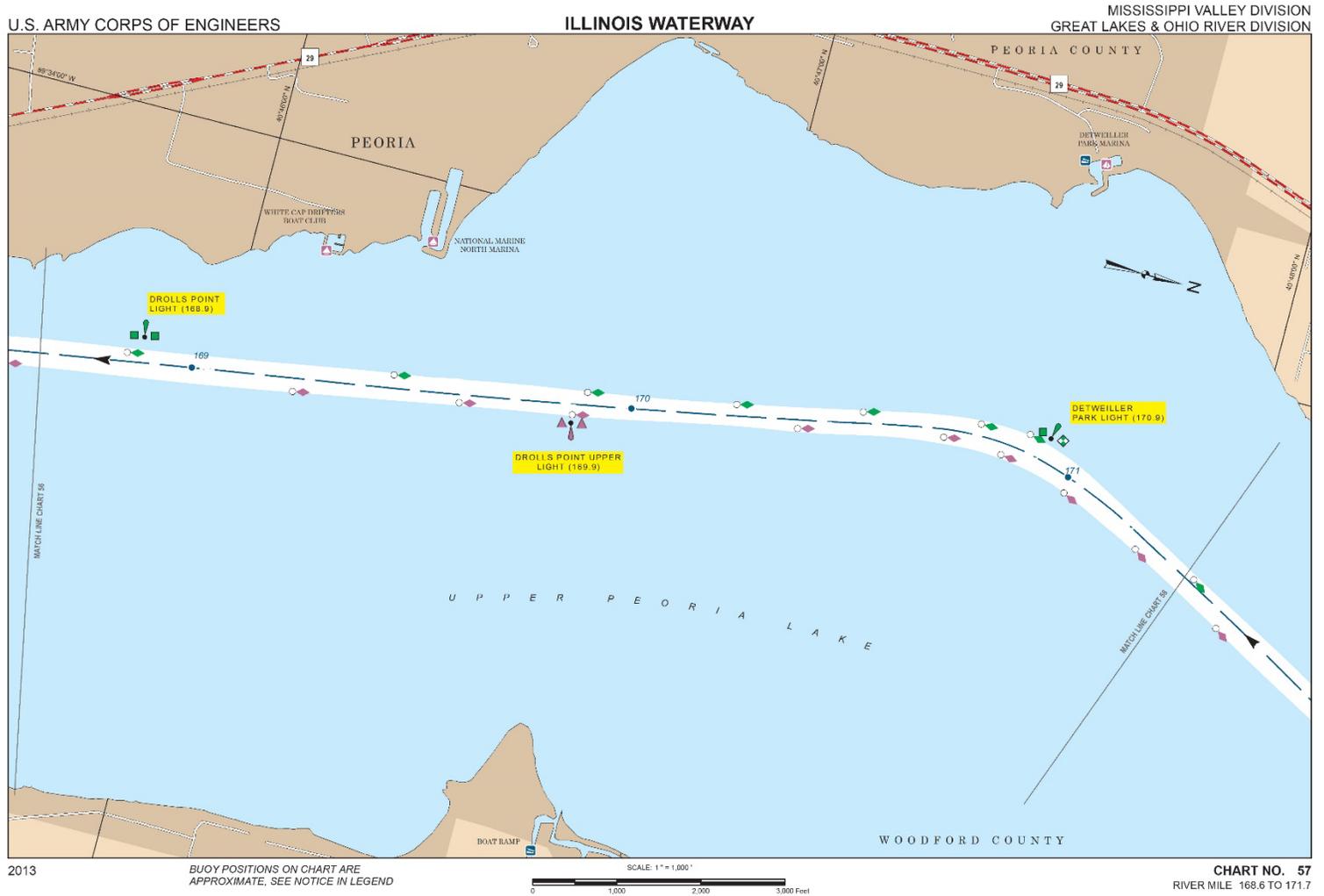
CHART NO. 56
RIVER MILE 165.8 TO 168.7

BUOY POSITIONS ON CHART ARE
APPROXIMATE. SEE NOTICE IN LEGEND

SCALE: 1" = 1,000'
0 1,000 2,000 3,000 Feet

2013

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER



2013

BUOY POSITIONS ON CHART ARE APPROXIMATE, SEE NOTICE IN LEGEND

SCALE: 1" = 1,000'
0 1,000 2,000 3,000 Feet

CHART NO. 57
RIVER MILE 168.6 TO 171.7

Appendix E: Peoria MABAS Cards

2200 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

General Disaster

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 EPEO 1 DNLP 1 PHTS	1 CHLI			1 WPEO			CANT 1 engine to Peoria central house PEKN 1 engine to Peoria 16 house LGTR 1 engine to Peoria 11 house LIME 1 truck to Peoria 3 house BTVL 1 squad to Peoria central house WASH 1 ambulance to Peoria central house
2nd	1 BRIM 1 TMBR 1 ELMW	1 MRTN			1 MRTN			
3rd	1 NTAZ 1 SPBA 1 PKPR	1 WASH			1 FCEMA			
4th	1 TUSC 1 META 1 CRCR	1 GBGF		1 BYE				
5th	1 TRMT 1 EURK 1 FARM	1 BLOM			1 M116			
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

2201 - Peoria Fire Department

Last changed by David Tuttle on 08/14/2007

Hazardous Materials

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box						PEKN HAZ MAT team		
2nd						SPFD HAZ MAT team		
3rd						GBGF HAZ MAT team		
4th						CHAM HAZ MAT team		
5th						DECT HAZ MAT team		
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

2202 - Peoria Fire Department
EMS Mass Casualty

Last changed by Sandy Klatt on 10/03/2018

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 LGTR 1 DNLP	1 LIME			1 EPEO 1 WPEO			BRIM 1 engine to Peoria 16 house CHLI 1 engine to Peoria 11 house PEKN 1 truck to Peoria central house
2nd	1 TMBR 1 CANT				1 TRMT 1 MRTN			
3rd					1 M116 1 NTAZ 1 APA			
4th					1 BYE 1 SPBA 1 BRFD			
5th					1 LAC-SPAR 1 BENS 1 ROAN			
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

2204 - Peoria Fire Department
Rural No Hydrants

Last changed by Sandy Klatt on 09/10/2018

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 BTVL 1 PHTS 1 WPEO			1 DNLP 1 AGFD 1 BRIM				
2nd				1 CHLI 1 LGTR 1 WASH				
3rd				1 ELMW 1 TMBR 1 TUSC				
4th				1 TRMT 1 META				
5th				1 MRTN 1 FARM 1 AKPR				
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

2205 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE West of University/North of Northmoor

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 DNLP 1 LIME	1 PHTS						BTVL 1 engine to Central house WPEO 1 rescue to Central house CHLI 1 truck to station 11 BRIM 1 engine to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

2206 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE West of University Between Northmoor and McClure

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 DNLP 1 WPEO	1 LIME						PHTS 1 engine to station 11 BTVL 1 engine to central house CHLI 1 truck to central house BRIM 1 rescue to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

2207 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE East of University / North of Northmoor

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 DNLP 1 PHTS	1 CHLI						WPEO 1 engine to station 3 LIME 1 truck to station 3 BTVL 1 engine to central house BRIM 1 rescue to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

2208 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE East of University Between Northmoor and McClure

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 PHTS 1 DNLP	1 CHLI						WPEO 1 engine to station 11 LIME 1 truck to station 3 BTVL 1 engine to central house BRIM 1 rescue to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:
2nd Choice:
3rd Choice:

Card Date: _____ Signature: _____

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

2209 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE East of University / South of McClure

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 EPEO 1 PHTS	1 CHLI						DNLP 1 engine to central house WPEO 1 engine to station 11 LIME 1 truck to station 3 BRIM 1 rescue to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:

2nd Choice:

3rd Choice:

Card Date: _____ Signature: _____

2210 - Peoria Fire Department

Last changed by Sandy Klatt on 09/05/2018

STRUCTURE FIRE West of University / South of McClure

	Engine(s)	Truck(s)	Squad(s)	Tender(s)	Ambulance(s)	Special Equip.	Chief(s)	Change of Qtrs
Box	1 WPEO 1 BTVL	1 LIME						DNLP 1 engine to station 11 PHTS 1 engine to central house CHLI 1 truck to central house BRIM 1 rescue to station 16
2nd								
3rd								
4th								
5th								
6th								
7th								

Interdivisional Request

1st Choice:

2nd Choice:

3rd Choice:

Card Date: _____ Signature: _____

Appendix F: Peoria Fire Department Vehicles

City of Peoria Fire Department



Peoria, IL

This report was generated on 2/19/2024 3:48:41 PM

Apparatus Details (Make - Model - Replacement Year)

Apparatus: All Apparatus

APPARATUS	VEHICLE #	MAKE	MODEL	MANUFACTURER YEAR	VIN	PRIMARY USE	DATE IN SERVICE	EXPECTED REPLACEMENT YEAR
A1	892	FORD	EXPLORER	2013	1FM5K8AR1DGB28476	Other	07/01/2013	
A2	813	Ford	F250 Super Duty 4x2	2003	1FTNF20547EA34578	Other		
A3	866	FORD	EXPLORER 4WD	2017	1FM5K8B82HGC78902	Other	06/01/2017	
A4	803	Jeep	Patriot	2011	1J4NF1GB7BD258281	Other	01/01/2011	
ADM1	804	Chevy	Colorado	2016	1GCGTBE34G1108761	Suppression	8/24/2015	2025
ADM2	811		Ford Explorer	2015	1FM5K8AR2GGA19108	Other		
B1	826	Chevy	Tahoe	2021	1GNSKLED2MR480633	Suppression	02/10/2022	
B3	825	Chevy	Tahoe	2021	1GNSKLED4MR480567	Suppression	01/26/2022	
BCK1	233	Caterpillar	Backhoe and Loader	2009		Other		
C1	815	Chevy	Tahoe Silver	2023	1GNSKLED2PR272417	Other	4/25/2023	
C2	816	Chevy	Tahoe Silver	2023	1GNSKLED9PR272916	Other	4/25/2023	
C3	817	Chevy	Tahoe Silver	2023	1GNSKLED3PR272393	Other	4/25/2023	
C4	868	FORD	EXPLORER 4WD	2017	1FM5K8B86HGC78904	Other	06/01/2017	
C5	865	CHEVY	TAHOE 4WD	2017	1GNSKFKC7HR292032	Other	05/01/2017	
CPAT1	876		30' WHITE TRAILER			Other		
DCN36	856	INTERNATIONAL	SBA 4300 4 X 2	2006	1HTMMAAL46H331102	Other	07/01/2006	
Drone		DJI				Other		
DV1	890	FORD	E450 SUPREME	2011	1FDXE4FS2BDA42323	Other	07/01/2011	
E1	839	E-One	Typhoon	2020	4EN6AHA83L2003574	Suppression	11/13/2020	
E10	830	E-ONE	TYPHOON	2017	4EN6AAA89H1000795	Suppression	11/14/2017	
E11	852	Pierce	Impel XM	2023	4P1BAAFF7PA025898	Suppression	12/13/2023	2043
E12	845	E-One	Typhoon	2020	4EN6AHA85L2003883	Suppression	12/24/2020	
E13	831	E-ONE	TYPHOON	2017	4EN6AAA80H1000796	Suppression	11/03/2017	
E15	840	PIERCE	IMPEL	2013	4P1CJ01A8DA013863	Suppression	07/01/2013	
E16	837	E-ONE	TYPHOON	2017	4EN6AAA80H1001298	Suppression	10/30/2017	
E19	842	PIERCE	IMPEL	2012	4P1CJ01A6CA013214	Suppression	07/01/2012	
E2	802	E-One	Typhoon	2021	4EN6AHA86M2004543	Suppression	12/8/2021	
E20	843	PIERCE	IMPEL	2012	4P1CJ01A8CA013215	Suppression	07/01/2012	
E3	844	E One	Typhoon	2020	4EN6AHA83L2003882	Suppression		
E32	838	KME	PREDATOR	2008	01K9AF4285N058494	Suppression	07/01/2008	
E34	834	PIERCE	IMPEL	2009	4P1CJ01A29A010366	Suppression	07/1/2009	
E35	841	PIERCE	IMPEL	2009	4P1CJ01A69A010368	Suppression	07/01/2009	
E39	833	KME	PREDATOR MFD	2007	1K9AF42847NO58212	Suppression	07/01/2007	
E4	851	Pierce	Impel XM	2023	4P1BAAFF9PA025899	Suppression	12/20/2023	2043
ECC1	864	CHEVY	TAHOE 4WD	2017	1GNSKFKC9HR292047	Other	05/01/2017	
Gar1	800	FORD	F-250 4 X 4	2017	1FTBF2B62HEE09099	Other	08/01/2017	
Gar3	899	Ford	F350 Pickup	2008	1FDWF37598EE26677	Other	01/01/2008	
Gar4	894	HYSTER	S60 XM FORK LIFT	2000	D187V19486X	Other	01/01/2000	
HM1	857	FREIGHTLINER	FL70	1998	1FV6HJCA6XH983439	Other	07/01/1998	
I1	897	FORD	EXPLORER 4WD	2015	1FM5K8B82FGC16655	Other	07/01/2015	
I3	808	Ford	F150 Crew Cab 4x4	2020	1FTEW1P45LKF19993	Other	04/23/2021	
I4	893	FORD	EXPLORER	2013	1FM5K8AR3DGB28477	Other	7/1/2013	
I5	805	Ford	F150 Crew Cab 4x4	2020	1FTEW1P43LKF19992	Other	04/23/2021	
I8	895	FORD	EXPLORER 4WD	2015	1FM5K8B80FGC16654	Other	7/1/2015	
I9	898	FORD	EXPLORER 4WD	2015	1FM5K8B84FGC16656	Other	7/1/2015	
MC1	855	Forest River	Georgetown	2003	1FCNF53S930A02168	Suppression	3/28/2019	
MR1	880	THOMAS	DOLPHIN	1995	TME261530595	Suppression	07/01/1995	

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

APPARATUS	VEHICLE #	MAKE	MODEL	MANUFACTURER YEAR	VIN	PRIMARY USE	DATE IN SERVICE	EXPECTED REPLACEMENT YEAR
MR2	888	Rescue One Connector Boats	1673 x3 Connector Boat White	2022	ROAA4824K12200000	Other	12/7/2021	2041
MR3	889	MERCURY	QUICKSILVER	2002		Other	07/01/2002	
NWB1	827	Dodge	Ram 1500		1C6SRFGT4RN150475	Suppression		
NWB3	828	Dodge	Ram 1500		1C6SRFGTXRN142669	Suppression		
OEM3	891	OLYMPIAN	D50P35 PERKINS 1796/1500 GENERATOR	2001		Other	01/01/2001	
OEM4	875	PIONEER	FLEETWOOD RADIO TRAILER	2005	1EB1C282466012184	Other	01/01/2005	
QRV1	822	FORD	EXPEDITION 4 X 4	2015	1FMJU1GT1FEF34243	Suppression	07/01/2015	
R1	870	KME	SEVERE SERVICE	2012	1K9AF4284CN058320	Other	07/01/2012	
SAFE1	879			2008	M092409 License	Other	01/01/2008	
SBC1	867	FORD	EXPLORER 4WD	2017	1FM5K8B84HGC78903	Other	06/01/2017	
SpInv	801	Ford	Expedition	2007	3GKEC16R8VG528241	Other	01/01/2007	
SRT1	821	FORD	EXPEDITION 4 X 4	2015	1FMJU1GTXF34242	Suppression	07/01/2015	
T1	859	PIERCE	VELOCITY	2015	4P1BCAGF6FA015452	Suppression	07/01/2015	
T14	853	PIERCE	IMPEL	2010	4P1CJ01A2AA011313	Suppression	07/01/2010	
T3	863	PIERCE	DASH	2002	4P1CT02W21A001790	Suppression	07/01/2002	
T4	850	Pierce	Impel XM	2023	4P1BCAFF9PA025900	Suppression	12/13/2023	2043
T40	860	KME	PREDATOR	2008	1K9AF648X8NO58483	Suppression	07/01/2008	
T41	854	SMEAL	SPARTAN GLADIATOR	1994	4S7AT9U08RC014412	Suppression	07/01/1994	
TOW1	881	Ford	F-550	2008	1FDAF57R28EE30739	Other	01/01/2008	
TRL1	882	EZ-Loader	Trailer for Marine 1	1995		Other	01/01/1995	
TRL10	807	Aluminum Flat Bed Utility Trailer				Suppression		
TRL2	883	Cargo Mate	Trailer Used by Explorers	2006	5NHUCMT296N056833	Other		
TRL3	884	Cargo Mate	TRT Trailer	2008	5NHUCMB328N064303	Other		
TRL4	886	Becks	Red Flat bed Trailer			Other		
TRL5	887		Double Decker Trailer for Inflatables			Other		
TRL6	873	CARGO MATE	16' TRAILER	2010	5NHUBL225BN072472	Other	01/01/2010	
TRL7	874	INTERSTATE	36' IF832TA3 XLT TRAILER	2005	1UK500P2351055332	Other	01/01/2005	
TRL8	877		BLACK FLATBED TRAILER			Other		
TRL9	878		24' BOAT TRAILER FOR MARINE 2			Other		
TRN1	823	Pierce	Dash	1986	1P9CT01H5GA040433	Other	01/01/1986	
TRN2	824	Pierce	Saber	1995	4P1CT02U6TA000126	Other		
TRT1	872	KME	PREDATOR	2004	1K9AF42895N058879	Other	07/01/2004	
TRT3	858	FORD	F750	2004	3FRXW75T54V684567	Other	07/01/2004	
UTV1	885	Polaris	UTV	2008		Other	01/01/2008	
UTV2	806					EMS		

Appendix G: Data Processing Workbooks

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [1]: import pandas as pd
import numpy as np
import os
```

```
In [2]: #Gets the file path.
os.getcwd()

Out[2]: 'C:\\Users\\Roland\\Documents\\NFPA 1710 Data'
```

```
In [3]: #Bringing in the entire dataset.
data = pd.read_csv('C:\\Users\\Roland\\Documents\\NFPA 1710 Data\\2021-2023_Complete_v2.csv', low_memory = False)
```

```
In [4]: #Evaluating the range for alarm handling times to validate the dataset.
data['AlarmTime'].describe()

Out[4]: count    66865.000000
      mean     103.676153
      std    1015.706440
      min       0.000000
      25%      15.000000
      50%      38.000000
      75%     110.000000
      max     86550.000000
      Name: AlarmTime, dtype: float64
```

```
In [5]: #Identifying a point to slice away outliers on the low side for alarm time. This was done to limit the percentage to 2.
# or less if possible.
(data['AlarmTime'] < 6).value_counts()

Out[5]: False    81035
      True     497
      Name: AlarmTime, dtype: int64
```

```
In [6]: #Demonstrates the percentage of data points removed for alarm time under 6 seconds.
497/66865

Out[6]: 0.007432887160696926
```

```
In [7]: #Identifying a point to slice away outliers on the high side for alarm time. This was done to limit the percentage to 2
# or less if possible.
(data['AlarmTime'] > 360).value_counts()

Out[7]: False    79835
      True     1697
      Name: AlarmTime, dtype: int64
```

```
In [8]: # A view of the trouble data related to structure fires where the alarm time was over 360 seconds (3 minutes) and the
# apparatus arrived first. These would be situations where they clear another call or there was a dispatch delay for
# the closest apparatus to respond. The action removed 9 alarm times for first in fire apparatus.
trouble = data.loc[(data['AlarmTime'] > 360) & (data['catagory'] == 'STRUCTURE FIRE') & (data['OrderOfArrival'] == 1)]
trouble['catagory'].value_counts()

Out[8]: STRUCTURE FIRE    9
      Name: catagory, dtype: int64
```

```
In [9]: # Viewing of the apparatus that arrived first after a 360 second alarm time.
trouble['IDOfApparatusOrResource1'].value_counts()

Out[9]: T4    2
      E4    2
      B1    2
      HM1   1
      E1    1
      B3    1
      Name: IDOfApparatusOrResource1, dtype: int64
```

```
In [10]: # Viewing the 90th Percentile alarm handling time for the structure fire data. A substantial number demonstrates it is
# an error and should be removed.
trouble['AlarmTime'].quantile(0.9)

Out[10]: 839.0000000000001
```

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [11]: # Calculating the percentage of data points removed using 360 seconds as the maximum alarm time.  
1697/66865
```

```
Out[11]: 0.02537949599940178
```

```
In [12]: # Removing all of the outliers for alarm time under 6 seconds or over 360 seconds for alarm time.  
data = data.loc[(data['AlarmTime'] > 6) & (data['AlarmTime'] < 360)]
```

```
In [13]: # Viewing the alarm time data to be sure all the data points are within the set range.  
data['AlarmTime'].describe()
```

```
Out[13]: count    63862.000000  
mean      67.599308  
std       67.541141  
min       7.000000  
25%      15.000000  
50%      37.000000  
75%     106.000000  
max      359.000000  
Name: AlarmTime, dtype: float64
```

```
In [14]: # This is the 90th percentile alarm time for all categories of incidents, all incidents with a Lights and siren respons  
# and the data cleaned to include alarm handling times from 6 to 360 seconds only.  
data['AlarmTime'].quantile(0.9)
```

```
Out[14]: 163.0
```

```
In [15]: # This is a view of the turnout times remaining after cleaning up the alarm times.  
data['TurnOutTime'].describe()
```

```
Out[15]: count    62096.000000  
mean      76.529165  
std       43.896604  
min       0.000000  
25%      51.000000  
50%      71.000000  
75%      96.000000  
max     1330.000000  
Name: TurnOutTime, dtype: float64
```

```
In [16]: #Identifying a point to slice away outliers on the low side for turnout time. This was done to Limit the percentage to  
# or less if possible.  
(data['TurnOutTime'] < 5).value_counts()
```

```
Out[16]: False    63025  
True         837  
Name: TurnOutTime, dtype: int64
```

```
In [17]: # A view of the percentage removed from the low side for turn out time under 5 seconds.  
837/62096
```

```
Out[17]: 0.013479129090440608
```

```
In [18]: #Identifying a point to slice away outliers on the high side for turnout time. This was done to Limit the percentage to  
# or less if possible.  
(data['TurnOutTime'] > 200).value_counts()
```

```
Out[18]: False    63022  
True         840  
Name: TurnOutTime, dtype: int64
```

```
In [19]: # Calculating the percentage removed from the high side for turn out times over 200 seconds.  
840/62096
```

```
Out[19]: 0.013527441381087349
```

```
In [20]: # Removing all of the outliers for turn out times under 5 seconds and over 200 seconds.  
data = data.loc[(data['TurnOutTime'] > 5) & (data['TurnOutTime'] < 200)]
```

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [21]: # Verifying the turn out times are now within the correct range.
data['TurnOutTime'].describe()

Out[21]: count    60084.000000
         mean     75.076443
         std      34.114004
         min       6.000000
         25%      52.000000
         50%      71.000000
         75%      95.000000
         max     199.000000
         Name: TurnOutTime, dtype: float64

In [22]: # The 90th percentile turn out time including all Lights and siren responses.
data['TurnOutTime'].quantile(0.9)

Out[22]: 120.0

In [23]: # A unedited view of the travel time data before adjusting for outliers.
data['TravelTime'].describe()

Out[23]: count    56321.000000
         mean     219.785941
         std      182.987902
         min       0.000000
         25%      135.000000
         50%      191.000000
         75%      265.000000
         max     13819.000000
         Name: TravelTime, dtype: float64

In [24]: # Identifying a point to slice the travel time outliers off the low side.
(data['TravelTime'] < 35).value_counts()

Out[24]: False    59333
         True     751
         Name: TravelTime, dtype: int64

In [25]: # Calculating the percentage of data effected by removing travel times less than 35 seconds.
751/56321

Out[25]: 0.01333428028621651

In [26]: # Identifying a point to slice the travel time outliers off the high side.
(data['TravelTime'] > 720).value_counts()

Out[26]: False    59462
         True     622
         Name: TravelTime, dtype: int64

In [27]: # Calculating the percentage of data effected by removing travel times greater than 720 seconds
622/56321

Out[27]: 0.01104383800003551

In [28]: # Adjusting the data frame to remove the travel time outliers as calculated above.
data = data.loc[(data['TravelTime'] > 35) & (data['TravelTime'] < 720)]

In [29]: # Verifying that the travel times in the data frame fall within the settings created.
data['TravelTime'].describe()

Out[29]: count    54904.000000
         mean     210.905927
         std      105.116402
         min       36.000000
         25%      137.000000
         50%      192.000000
         75%      263.000000
         max     719.000000
         Name: TravelTime, dtype: float64

In [30]: # Creating a data frame of only the first arriving apparatus for response time metrics.
first = data.loc[data['OrderOfArrival'] == 1]
```

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [31]: # Overall 90th percentile travel time for all apparatus.
data['TravelTime'].quantile(0.9)
```

Out[31]: 346.0

```
In [32]: # Viewing the total response time information to see if there is any need for editing. It was identified that there wa
# need. The travel time adjustment made the total response time reasonable. It was not edited.
data['TotalResponseTime'].describe()
```

```
Out[32]: count    54904.000000
mean       352.760382
std        124.535699
min         57.000000
25%        264.000000
50%        335.000000
75%        422.000000
max        1099.000000
Name: TotalResponseTime, dtype: float64
```

```
In [33]: # Viewing the category of calls. The category was set based on NFIRS Incident Type and grouping them into a sensible r
data['catagory'].value_counts()
```

```
Out[33]: EMS            37069
ALARM             8536
STRUCTURE FIRE   4731
SERVICE          1795
HAZMAT            1391
FIRE              813
RESCUE            569
Name: catagory, dtype: int64
```

```
In [34]: # Creating a data frame of the hazmat category and first apparatus to get counts of incidents.
hazmat = data.loc[(data['catagory'] == 'HAZMAT') & (data['OrderOfArrival'] == 1)]
hazmat['OrderOfArrival'].value_counts()
```

```
Out[34]: 1.0    520
Name: OrderOfArrival, dtype: int64
```

```
In [35]: # Viewing the category for hazardous materials response and the associated incident types from the NFIRS records.
hazmat['IncidentType'].value_counts()
```

```
Out[35]: 412.0    343
671.0     79
424.0     33
411.0     14
422.0     13
746.0     12
423.0      6
421.0      6
410.0      4
413.0      3
451.0      3
420.0      2
400.0      1
672.0      1
Name: IncidentType, dtype: int64
```

Low Risk Fire Data All 2021-2023

```
In [36]: # Creating a low risk fire data frame based on the "FIRE" category. We had to add a second component as we located som
# no lights and siren responses in the data set for fires outside not near a building. We treat them as non-emergency
# responses.
lowriskfireall = data.loc[(data['catagory'] == 'FIRE') & (data['FireCode2'] == 0)]
```

```
In [37]: # Low risk fire data frame alarm handling times. Overview to make sure there are enough time to be valid and they are
# within the appropriate range.
lowriskfireall['AlarmTime'].describe()
```

```
Out[37]: count    409.000000
mean     44.941320
std      59.769299
min       7.000000
25%      12.000000
50%      21.000000
75%      41.000000
max      356.000000
Name: AlarmTime, dtype: float64
```

90th Percentile Low Risk Fire Alarm Handling Time 2021-2023

```
In [38]: # This is the 90th percentile alarm handling time in seconds for all of the low risk lights and siren response incident
lowriskfireall['AlarmTime'].quantile(0.9)
```

Out[38]: 119.0

```
In [39]: # This creates a data frame for 2021 low risk fire, and views the times for validity.
lowriskfire2021 = lowriskfireall.loc[(lowriskfireall['Year'] == 2021)]
lowriskfire2021['AlarmTime'].describe()
```

```
Out[39]: count    96.000000
         mean     32.052083
         std      51.602605
         min       7.000000
         25%     10.750000
         50%     14.000000
         75%     29.250000
         max     331.000000
         Name: AlarmTime, dtype: float64
```

90th Percentile Low Risk Fire Alarm Handling Time 2021 Only

```
In [40]: # This is the 90th percentile alarm handling time in seconds for all low risk fire lights and siren response incidents.
lowriskfire2021['AlarmTime'].quantile(0.9)
```

Out[40]: 76.5

```
In [41]: # This creates a data frame for 2022 low risk fire, and views the times for validity.
lowriskfire2022 = lowriskfireall.loc[(lowriskfireall['Year'] == 2022)]
lowriskfire2022['AlarmTime'].describe()
```

```
Out[41]: count    166.000000
         mean     47.596386
         std      59.721574
         min       7.000000
         25%     13.000000
         50%     25.500000
         75%     41.000000
         max     265.000000
         Name: AlarmTime, dtype: float64
```

90th Percentile Low Risk Fire Alarm Handling Time 2022 Only

```
In [42]: # This is the 90th percentile alarm handling time in seconds for all low risk fire lights and siren response incidents.
lowriskfire2022['AlarmTime'].quantile(0.9)
```

Out[42]: 131.0

```
In [43]: # This creates a data frame for 2023 low risk fire, and views the times for validity.
lowriskfire2023 = lowriskfireall.loc[(lowriskfireall['Year'] == 2023)]
lowriskfire2023['AlarmTime'].describe()
```

```
Out[43]: count    147.000000
         mean     50.360544
         std      63.818122
         min       7.000000
         25%     14.000000
         50%     24.000000
         75%     59.500000
         max     356.000000
         Name: AlarmTime, dtype: float64
```

90th Percentile Low Risk Fire Alarm Handling Time 2023 Only

```
In [44]: # This is the 90th percentile alarm handling time in seconds for all low risk fire lights and siren response incidents.
lowriskfire2023['AlarmTime'].quantile(0.9)
```

Out[44]: 123.00000000000006

Low Risk Fire Turnout Time

```
In [45]: # This is a view of all of the turn out times for low risk fire lights and siren responses. Valid times.
lowriskfireall['TurnOutTime'].describe()
```

```
Out[45]: count    409.000000
         mean     77.026895
         std     34.143394
         min      6.000000
         25%     54.000000
         50%     75.000000
         75%     96.000000
         max    192.000000
         Name: TurnOutTime, dtype: float64
```

90th Percentile Low Risk Fire Turnout Time 2021-2023

```
In [46]: # This is the 90th percentile turn out time in seconds for all low risk fire lights and siren responses from 2021-2023.
lowriskfireall['TurnOutTime'].quantile(0.9)
```

```
Out[46]: 120.19999999999999
```

```
In [47]: # Viewing the turn out time for 2021 only. Valid times.
lowriskfire2021['TurnOutTime'].describe()
```

```
Out[47]: count     96.000000
         mean     82.614583
         std     38.675266
         min      6.000000
         25%     54.750000
         50%     78.000000
         75%    104.750000
         max    192.000000
         Name: TurnOutTime, dtype: float64
```

90th Percentile Low Risk Fire Turnout Time 2021

```
In [48]: # This is the 90th percentile turn out time in seconds for all low risk fire lights and siren responses for 2021.
lowriskfire2021['TurnOutTime'].quantile(0.9)
```

```
Out[48]: 137.5
```

```
In [49]: # Viewing the turn out time for 2022 only. Valid times.
lowriskfire2022['TurnOutTime'].describe()
```

```
Out[49]: count    166.000000
         mean     75.849398
         std     32.086931
         min     10.000000
         25%     56.000000
         50%     73.500000
         75%     93.000000
         max    171.000000
         Name: TurnOutTime, dtype: float64
```

90th Percentile Low Risk Fire Turnout Time 2022

```
In [50]: # This is the 90th percentile turn out time in seconds for all low risk fire lights and siren responses for 2022.
lowriskfire2022['TurnOutTime'].quantile(0.9)
```

```
Out[50]: 117.5
```

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```
In [51]: # Viewing the turn out times for 2023 only. Valid times.
lowriskfire2023['TurnOutTime'].describe()
```

```
Out[51]: count    147.000000
         mean     74.707483
         std     33.066809
         min      7.000000
         25%     54.000000
         50%     72.000000
         75%     96.000000
         max    173.000000
         Name: TurnOutTime, dtype: float64
```

90th Percentile Low Risk Fire Turnout Time 2023

```
In [52]: # This is the 90th percentile turn out time in seconds for all low risk fire lights and siren responses for 2023.
lowriskfire2023['TurnOutTime'].quantile(0.9)
```

```
Out[52]: 117.80000000000001
```

Low Risk Fire Travel Time

```
In [53]: # A view of the Low risk fire order of arrival identifying there were some incidents that were not dispatched as a Low
# risk fire. There may also be instances where an additional resource was requested for more personnel or water.
lowriskfireall['OrderOfArrival'].value_counts()
```

```
Out[53]: 1.0    218
         2.0    51
         3.0    36
         4.0    21
         5.0    10
         6.0     9
         11.0   8
         9.0     8
         12.0   8
         10.0   6
         8.0    5
         13.0   5
         23.0   3
         16.0   2
         26.0   2
         27.0   2
         15.0   2
         14.0   2
         7.0    2
         18.0   1
         17.0   1
         25.0   1
         19.0   1
         28.0   1
         29.0   1
         22.0   1
         24.0   1
         31.0   1
         Name: OrderOfArrival, dtype: int64
```

```
In [54]: # This sets the low risk fire single company only time for travel time. Low risk fire is a single engine company respon
lowriskfireallfirst = lowriskfireall.loc[(lowriskfireall['OrderOfArrival'] == 1)]
lowriskfireallfirst['TravelTime'].describe()
```

```
Out[54]: count    218.000000
         mean    170.128440
         std     91.238898
         min     37.000000
         25%    111.250000
         50%    147.000000
         75%    206.000000
         max    685.000000
         Name: TravelTime, dtype: float64
```

```
In [55]: # Verifying that we are only looking at first apparatus times for low risk fires. Validity check.
lowriskfireallfirst['OrderOfArrival'].value_counts()
```

```
Out[55]: 1.0    218
         Name: OrderOfArrival, dtype: int64
```

90th Percentile Low Risk Fire Travel Time 2021-2023

```
In [56]: # This is the 90th percentile travel time for 2021-2023 all together.
lowriskfireallfirst['TravelTime'].quantile(0.9)
```

Out[56]: 283.3

```
In [57]: # This separates out 2021 only and verifies there is enough data points for an accurate 90th percentile travel time.
lowriskfirefirst2021 = lowriskfireallfirst.loc[(lowriskfireallfirst['Year'] == 2021)]
lowriskfirefirst2021['TravelTime'].describe()
```

```
Out[57]: count      59.000000
mean       171.694915
std        94.810383
min        37.000000
25%       112.000000
50%       153.000000
75%       202.500000
max        568.000000
Name: TravelTime, dtype: float64
```

90th Percentile Low Risk Fire Travel Time 2021

```
In [58]: # The 90th percentile travel time for Low risk fire response 2021 only.
lowriskfirefirst2021['TravelTime'].quantile(0.9)
```

Out[58]: 261.6

```
In [59]: # This separates out 2022 only and verifies there is enough data points for an accurate 90th percentile travel time.
lowriskfirefirst2022 = lowriskfireallfirst.loc[(lowriskfireallfirst['Year'] == 2022)]
lowriskfirefirst2022['TravelTime'].describe()
```

```
Out[59]: count      81.000000
mean       166.580247
std        76.527751
min        43.000000
25%       114.000000
50%       148.000000
75%       199.000000
max        389.000000
Name: TravelTime, dtype: float64
```

90th Percentile Low Risk Fire Travel Time 2022

```
In [60]: # The 90th percentile travel time for Low risk fire response 2022 only.
lowriskfirefirst2022['TravelTime'].quantile(0.9)
```

Out[60]: 284.0

```
In [61]: # This separates out 2023 only and verifies there is enough data points for an accurate 90th percentile travel time.
lowriskfirefirst2023 = lowriskfireallfirst.loc[(lowriskfireallfirst['Year'] == 2023)]
lowriskfirefirst2023['TravelTime'].describe()
```

```
Out[61]: count      78.000000
mean       172.628205
std        102.873660
min        51.000000
25%       110.250000
50%       142.000000
75%       217.750000
max        685.000000
Name: TravelTime, dtype: float64
```

90th Percentile Low Risk Fire Travel Time 2023

```
In [62]: # The 90th percentile travel time for Low risk fire response 2023 only.
lowriskfirefirst2023['TravelTime'].quantile(0.9)
```

Out[62]: 280.09999999999997

90th Percentile Low Risk Fire Total Response Time 2021-2023

```
In [63]: # The 90th percentile total response time for low risk response 2021-2023.
lowriskfireallfirst['TotalResponseTime'].quantile(0.9)
```

Out[63]: 414.3

```
In [64]: # Verifying the total response time has enough data points and the data falls within the parameters for 2021-2023.
lowriskfireallfirst['TotalResponseTime'].describe()
```

```
Out[64]: count    218.000000
mean      275.844037
std       107.423335
min       86.000000
25%      201.000000
50%      247.000000
75%      332.250000
max       819.000000
Name: TotalResponseTime, dtype: float64
```

```
In [65]: # Looking at the 2021 data points and range to verify the data.
lowriskfirefirst2021['TotalResponseTime'].describe()
```

```
Out[65]: count    59.000000
mean      278.288136
std       112.430063
min       101.000000
25%      209.500000
50%      258.000000
75%      319.500000
max       670.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Low Risk Fire Total Response Time 2021

```
In [66]: # The 90th percentile total response time for low risk fire incidents.
lowriskfirefirst2021['TotalResponseTime'].quantile(0.9)
```

Out[66]: 414.59999999999997

```
In [67]: # Looking at the 2022 data points and range to verify the data.
lowriskfirefirst2022['TotalResponseTime'].describe()
```

```
Out[67]: count    81.000000
mean      273.271605
std       91.546711
min       86.000000
25%      201.000000
50%      247.000000
75%      335.000000
max       511.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Low Risk Fire Total Response Time 2022

```
In [68]: # The 90th percentile total response time for low risk fire incidents.
lowriskfirefirst2022['TotalResponseTime'].quantile(0.9)
```

Out[68]: 405.0

```
In [69]: # Looking at the 2023 data points and range to verify the data.
lowriskfirefirst2023['TotalResponseTime'].describe()
```

```
Out[69]: count    78.000000
mean      276.666667
std       119.499787
min       137.000000
25%      196.000000
50%      244.000000
75%      330.250000
max       819.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Low Risk Fire Total Response Time 2023

```
In [70]: # The 90th percentile total response time for low risk fire incidents.
lowriskfirefirst2023['TotalResponseTime'].quantile(0.9)

Out[70]: 424.39999999999986
```

Moderate Risk Fire Data

```
In [71]: # Moderate risk fires are structural fires. This breaks out the structure fire data from our RMS Incident Type. Separ
# the order of arrival to only look at the first apparatus, and then get the ERF Met by having between 16 and 18 person
# on scene. The 16-18 number accounts for the 3 person apparatus range with one person battalion chief apparatus.
modriskfireall = data.loc[(data['category'] == 'STRUCTURE FIRE')]
modriskfirefirst = modriskfireall.loc[(modriskfireall['OrderOfArrival'] == 1)]
modriskfireerf = modriskfireall.loc[(modriskfireall['ERFMet'] == 'YES')]
```

```
In [72]: # Description of the moderate risk fire alarm handling times. Verifying range setting and count. This includes all
# order of arrival numbers not just first apparatus.
modriskfireall['AlarmTime'].describe()

Out[72]: count    4731.000000
mean      35.694356
std       47.488318
min        7.000000
25%      12.000000
50%      19.000000
75%      35.000000
max      351.000000
Name: AlarmTime, dtype: float64
```

90th Percentile Moderate Fire Risk Alarm Handling Time 2021-2023

```
In [73]: # 90th percentile moderate risk fire alarm handling time for 2021-2023.
modriskfireall['AlarmTime'].quantile(0.9)

Out[73]: 77.0
```

```
In [74]: # This separates out the 2021 times and views alarm handling times for validation and count.
modriskfire2021 = modriskfireall.loc[(modriskfireall['Year'] == 2021)]
modriskfire2021['AlarmTime'].describe()

Out[74]: count    1468.000000
mean      33.431888
std       46.520288
min        7.000000
25%      12.000000
50%      18.000000
75%      31.000000
max      346.000000
Name: AlarmTime, dtype: float64
```

90th Percentile Moderate Risk Fire Alarm Time 2021

```
In [75]: # 90th percentile moderate risk fire alarm handling time for 2021 only.
modriskfire2021['AlarmTime'].quantile(0.9)

Out[75]: 69.0
```

```
In [76]: # This separates out the 2022 times and views alarm handling times for validation and count.
modriskfire2022 = modriskfireall.loc[(modriskfireall['Year'] == 2022)]
modriskfire2022['AlarmTime'].describe()

Out[76]: count    1560.000000
mean      36.023077
std       47.322357
min        7.000000
25%      12.000000
50%      18.000000
75%      37.000000
max      351.000000
Name: AlarmTime, dtype: float64
```

90th Percentile Moderate Risk Fire Alarm Time 2022

```
In [77]: # 90th percentile moderate risk fire alarm handling time for 2022 only.
modriskfire2022['AlarmTime'].quantile(0.9)
```

Out[77]: 80.50000000000068

```
In [78]: # This separates out the 2023 times and views the alarm handling times for validation and count.
modriskfire2023 = modriskfireall.loc[(modriskfireall['Year'] == 2023)]
modriskfire2023['AlarmTime'].describe()
```

```
Out[78]: count    1703.000000
         mean     37.343511
         std     48.408745
         min      7.000000
         25%     13.000000
         50%     22.000000
         75%     36.000000
         max     348.000000
         Name: AlarmTime, dtype: float64
```

90th Percentile Moderate Risk Fire Alarm Time 2023

```
In [79]: # 90th percentile moderate risk fire alarm handling time for 2023 only.
modriskfire2023['AlarmTime'].quantile(0.9)
```

Out[79]: 83.39999999999986

```
In [80]: # Describing the turnout time for 2021-2023 all order of arrival for apparatus. Verifying range for settings and count
modriskfireall['TurnOutTime'].describe()
```

```
Out[80]: count    4731.000000
         mean     77.544917
         std     34.460748
         min      6.000000
         25%     55.000000
         50%     75.000000
         75%     97.000000
         max    194.000000
         Name: TurnOutTime, dtype: float64
```

Moderate Risk Fire Turnout Times

90th Percentile Moderate Fire Risk Turnout Time 2021-2023

```
In [81]: # 90th percentile turn out time for 2021-2023. This includes all order of arrival apparatus.
modriskfireall['TurnOutTime'].quantile(0.9)
```

Out[81]: 122.0

```
In [82]: # Describing the turn out time for 2021 only.
modriskfire2021['TurnOutTime'].describe()
```

```
Out[82]: count    1468.000000
         mean     82.992507
         std     35.698187
         min      6.000000
         25%     59.000000
         50%     80.000000
         75%    103.000000
         max     194.000000
         Name: TurnOutTime, dtype: float64
```

90th Percentile Moderate Fire Risk Turnout Time 2021

```
In [83]: # 90th percentile turn out time for 2021 only.
modriskfire2021['TurnOutTime'].quantile(0.9)
```

Out[83]: 130.0

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In [84]: # Describing the turn out time for 2022 only.
modriskfire2022['TurnOutTime'].describe()

Out[84]: count 1560.000000
mean 75.174359
std 32.221099
min 6.000000
25% 54.000000
50% 74.000000
75% 94.000000
max 194.000000
Name: TurnOutTime, dtype: float64

90th Percentile Moderate Fire Risk Turnout Time 2022

In [85]: # 90th percentile turn out time for 2022 only.
modriskfire2022['TurnOutTime'].quantile(0.9)

Out[85]: 114.10000000000014

In [86]: # Describing the turn out time for 2023 only.
modriskfire2023['TurnOutTime'].describe()

Out[86]: count 1703.000000
mean 75.020552
std 34.839369
min 6.000000
25% 52.000000
50% 72.000000
75% 95.000000
max 193.000000
Name: TurnOutTime, dtype: float64

90th Percentile Moderate Fire Risk Turnout Time 2023

In [87]: # 90th percentile turn out time for 2023 only.
modriskfire2023['TurnOutTime'].quantile(0.9)

Out[87]: 119.0

Moderate Risk Fire Travel Times First Apparatus

In [88]: # Describing the travel time for the first apparatus on scene for 2021-2023. Verifying range and count.
modriskfirefirst['TravelTime'].describe()

Out[88]: count 1162.000000
mean 181.969880
std 96.357118
min 36.000000
25% 113.250000
50% 163.000000
75% 230.750000
max 697.000000
Name: TravelTime, dtype: float64

90th Percentile Moderate Risk Fire Travel Time First Apparatus 2021-2023

In [89]: # 90th percentile moderate risk fire travel time for first apparatus on scene 2021-2023.
modriskfirefirst['TravelTime'].quantile(0.9)

Out[89]: 307.0

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```
In [90]: # This separates out the 2021 data for first apparatus. It then views the description of the travel time for 2021 for # validity.
modriskfirefirst2021 = modriskfirefirst.loc[(modriskfirefirst['Year'] == 2021)]
modriskfirefirst2021['TravelTime'].describe()
```

```
Out[90]: count    349.000000
         mean    177.103152
         std     87.366093
         min     37.000000
         25%    115.000000
         50%    164.000000
         75%    224.000000
         max    697.000000
         Name: TravelTime, dtype: float64
```

90th Percentile Moderate Risk Fire Travel Time First Apparatus 2021

```
In [91]: # 90th percentile moderate risk fire travel time first apparatus on scene 2021 only.
modriskfirefirst2021['TravelTime'].quantile(0.9)
```

```
Out[91]: 277.7999999999999
```

```
In [92]: # This separates out the 2022 data for first apparatus. It then views the description of the travel time for 2022 for # validity.
modriskfirefirst2022 = modriskfirefirst.loc[(modriskfirefirst['Year'] == 2022)]
modriskfirefirst2022['TravelTime'].describe()
```

```
Out[92]: count    429.000000
         mean    187.191142
         std     95.702571
         min     36.000000
         25%    118.000000
         50%    167.000000
         75%    234.000000
         max    564.000000
         Name: TravelTime, dtype: float64
```

90th Percentile Moderate Risk Fire Travel Time First Apparatus 2022

```
In [93]: # 90th percentile moderate risk fire travel time first apparatus on scene 2022 only.
modriskfirefirst2022['TravelTime'].quantile(0.9)
```

```
Out[93]: 326.0
```

```
In [94]: # This separates out the 2023 data for first apparatus. It then views the description of the travel time for 2023 for # validity.
modriskfirefirst2023 = modriskfirefirst.loc[(modriskfirefirst['Year'] == 2023)]
modriskfirefirst2023['TravelTime'].describe()
```

```
Out[94]: count    384.000000
         mean    180.559896
         std     104.500985
         min     38.000000
         25%    106.000000
         50%    158.000000
         75%    230.000000
         max    638.000000
         Name: TravelTime, dtype: float64
```

```
In [95]: # 90th percentile moderate risk fire travel time first apparatus on scene 2023 only.
modriskfirefirst2023['TravelTime'].quantile(0.9)
```

```
Out[95]: 321.09999999999997
```

Moderate Risk Fire ERF Travel Time Data

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```
In [96]: # Describing the moderate risk fire travel time effective response force travel times for 2021-2023. Validating range
# and count.
modriskfireerf['TravelTime'].describe()
```

```
Out[96]: count    213.000000
mean      400.380282
std       127.240787
min       45.000000
25%      305.000000
50%      404.000000
75%      486.000000
max       715.000000
Name: TravelTime, dtype: float64
```

90th Percentile Moderate Risk Fire ERF Travel Time 2021-2023

```
In [97]: # 90th percentile moderate risk fire effective response force travel time for 2021-2023.
modriskfireerf['TravelTime'].quantile(0.9)
```

```
Out[97]: 569.0
```

```
In [98]: # Viewing a count of effective response force moderate fire incident responses by zip code.
modriskfireerf['ZipCode'].value_counts()
```

```
Out[98]: 61605    70
61603    52
61604    37
61614    20
61615    13
61606    11
61602     8
61528     2
Name: ZipCode, dtype: int64
```

```
In [99]: # Separating out the 2021 data for effective response force travel times. Describing for validation.
modriskfireerf2021 = modriskfireerf.loc[(modriskfireerf['Year'] == 2021)]
modriskfireerf2021['TravelTime'].describe()
```

```
Out[99]: count    51.000000
mean      383.039216
std       112.884359
min       70.000000
25%      319.000000
50%      382.000000
75%      465.000000
max       575.000000
Name: TravelTime, dtype: float64
```

90th Percentile Moderate Risk Fire ERF Travel Time 2021

```
In [100]: # 90th percentile effective response force travel time for 2021 only.
modriskfireerf2021['TravelTime'].quantile(0.9)
```

```
Out[100]: 511.0
```

```
In [101]: # Separating out the 2022 data for effective response force travel times. Describing for validation
modriskfireerf2022 = modriskfireerf.loc[(modriskfireerf['Year'] == 2022)]
modriskfireerf2022['TravelTime'].describe()
```

```
Out[101]: count    64.000000
mean      426.765625
std       131.383450
min       45.000000
25%      308.750000
50%      446.000000
75%      524.500000
max       674.000000
Name: TravelTime, dtype: float64
```

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90th Percentile Moderate Risk Fire ERF Travel Time 2022

```
In [102]: # 90th percentile effective response force travel time for 2022 only.
modriskfireerf2022['TravelTime'].quantile(0.9)
```

Out[102]: 591.9

```
In [103]: # Separating out the 2023 data for effective response force travel times. Describing for validation.
modriskfireerf2023 = modriskfireerf.loc[(modriskfireerf['Year'] == 2023)]
modriskfireerf2023['TravelTime'].describe()
```

```
Out[103]: count    98.000000
mean    392.173469
std     130.075634
min      89.000000
25%    292.750000
50%    390.500000
75%    459.000000
max     715.000000
Name: TravelTime, dtype: float64
```

90th Percentile Moderate Risk Fire ERF Travel Time 2023

```
In [104]: # 90th percentile effective response force travel time for 2023 only.
modriskfireerf2023['TravelTime'].quantile(0.9)
```

Out[104]: 565.5

Moderate Risk Fire Total Response Time Data

```
In [105]: # Describing the total response time for first apparatus to view data and range.
modriskfirefirst['TotalResponseTime'].describe()
```

```
Out[105]: count    1162.000000
mean    284.367470
std     104.792351
min      94.000000
25%    213.000000
50%    264.000000
75%    340.750000
max     799.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time First Apparatus 2021-2023

```
In [106]: # 90th percentile total response time for first apparatus on scene.
modriskfirefirst['TotalResponseTime'].quantile(0.9)
```

Out[106]: 428.9000000000001

```
In [107]: # Describing the total response time for first apparatus to view data and verify the correct range for 2021.
modriskfirefirst2021['TotalResponseTime'].describe()
```

```
Out[107]: count    349.000000
mean    279.495702
std     96.891028
min     112.000000
25%    213.000000
50%    263.000000
75%    327.000000
max     799.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time First Apparatus 2021

```
In [108]: # 90th percentile total response time for first apparatus 2021 only.
modriskfirefirst2021['TotalResponseTime'].quantile(0.9)
```

Out[108]: 386.4

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [109]: # Describing the total response time for first apparatus to view data and verify the correct range for 2022.
modriskfirefirst2022['TotalResponseTime'].describe()
```

```
Out[109]: count    429.000000
          mean    289.251748
          std     103.938659
          min     94.000000
          25%    217.000000
          50%    272.000000
          75%    349.000000
          max     631.000000
          Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time First Apparatus 2022

```
In [110]: # 90th percentile total response time for first apparatus 2022 only.
modriskfirefirst2022['TotalResponseTime'].quantile(0.9)
```

```
Out[110]: 442.0
```

```
In [111]: # Describing the total response time for first apparatus to view data and verify the correct range for 2023.
modriskfirefirst2023['TotalResponseTime'].describe()
```

```
Out[111]: count    384.000000
          mean    283.338542
          std     112.411915
          min     94.000000
          25%    212.000000
          50%    260.500000
          75%    337.500000
          max     782.000000
          Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time First Apparatus 2023

```
In [112]: # 90th percentile total response time for first apparatus 2023 only.
modriskfirefirst2023['TotalResponseTime'].quantile(0.9)
```

```
Out[112]: 429.7
```

```
In [113]: # Describe the total response time for effective response force moderate risk fire.
modriskfireerf['TotalResponseTime'].describe()
```

```
Out[113]: count    213.000000
          mean    539.553991
          std     136.073382
          min    136.000000
          25%    440.000000
          50%    533.000000
          75%    638.000000
          max     902.000000
          Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time ERF 2021-2023

```
In [114]: # 90th percentile total response time for effective response force 2021-2023.
modriskfireerf['TotalResponseTime'].quantile(0.9)
```

```
Out[114]: 723.8
```

```
In [115]: # Describe the 2021 total response time for effective response force to validate data and count.
modriskfireerf2021['TotalResponseTime'].describe()
```

```
Out[115]: count     51.000000
          mean    542.470588
          std     138.309125
          min    216.000000
          25%    450.500000
          50%    526.000000
          75%    638.000000
          max     876.000000
          Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time ERF 2021

```
In [116]: # 90th percentile total response time for effective response force 2021 only.
modriskfireerf2021['TotalResponseTime'].quantile(0.9)
```

Out[116]: 728.0

```
In [117]: # Describe the 2022 total response time for effective response force to validate data and count.
modriskfireerf2022['TotalResponseTime'].describe()
```

```
Out[117]: count      64.000000
mean       557.984375
std        131.564878
min        136.000000
25%        472.500000
50%        567.000000
75%        654.500000
max         859.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time ERF 2022

```
In [118]: # 90th percentile total response time for effective response force 2022 only.
modriskfireerf2022['TotalResponseTime'].quantile(0.9)
```

Out[118]: 706.6

```
In [119]: # Describe the 2023 total response time for effective response force to validate data and count.
modriskfireerf2023['TotalResponseTime'].describe()
```

```
Out[119]: count      98.000000
mean       526.000000
std        137.662743
min        166.000000
25%        423.750000
50%        502.000000
75%        625.250000
max         902.000000
Name: TotalResponseTime, dtype: float64
```

90th Percentile Moderate Risk Fire Total Response Time ERF 2023

```
In [120]: # 90th percentile total response time for effective response force 2023 only.
modriskfireerf2023['TotalResponseTime'].quantile(0.9)
```

Out[120]: 711.5999999999999

High Risk Fire Response

```
In [121]: # Creating a high risk dataset. The high risk fire was manually tabulated based on response.
highriskfireall = data.loc[(data['catagory'] == 'STRUCTURE FIRE') & (data['HighRiskFire'] == 1)]
```

```
In [122]: # Describing the alarm handling time for high risk fire incidents. 9 is not enough to create a valid 90th percentile n
# This is the 2021-2023 data.
highriskfireall['AlarmTime'].describe()
```

```
Out[122]: count      9.000000
mean       33.888889
std        38.270238
min         9.000000
25%         9.000000
50%        14.000000
75%        30.000000
max        123.000000
Name: AlarmTime, dtype: float64
```

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Accreditation V2023.3 Fire Citywide - Jupyter Notebook

```
In [123]: # Describing the turn out time for high risk fire incidents. 9 is not enough to create a valid 90th percentile number.
# This is the 2021-2023 data.
highriskfireall['TurnOutTime'].describe()
```

```
Out[123]: count    9.000000
mean    94.333333
std    26.400758
min    57.000000
25%    79.000000
50%    85.000000
75%    102.000000
max    146.000000
Name: TurnOutTime, dtype: float64
```

```
In [124]: # Describing the travel time for high risk fire incidents. 3 is not enough to create a valid 90th percentile number.
# This is the 2021-2023 data.
highriskfireallfirst = highriskfireall.loc[(highriskfireall['OrderOfArrival'] == 1)]
highriskfireallfirst['TravelTime'].describe()
```

```
Out[124]: count    3.000000
mean   133.000000
std    86.758285
min    66.000000
25%    84.000000
50%    102.000000
75%    166.500000
max    231.000000
Name: TravelTime, dtype: float64
```

```
In [125]: # Describing the total response time for high risk fire incidents. 3 is not enough to create a valid 90th percentile n
# This is the 2021-2023 data.
highriskfireallfirst['TotalResponseTime'].describe()
```

```
Out[125]: count    3.000000
mean   239.333333
std    77.138404
min    165.000000
25%    199.500000
50%    234.000000
75%    276.500000
max    319.000000
Name: TotalResponseTime, dtype: float64
```

```
In [126]: # Analysis of the years for high risk fires.
highriskfireallfirst['Year'].value_counts()
```

```
Out[126]: 2021.0    2
2022.0    1
Name: Year, dtype: int64
```

```
In [127]: # Describing the effective response force information for high risk incidents.
highriskfireallerf = highriskfireall.loc[(highriskfireall['ERFMet'] == 'YES')]
highriskfireallerf['TravelTime'].describe()
```

```
Out[127]: count    0.0
mean    NaN
std    NaN
min    NaN
25%    NaN
50%    NaN
75%    NaN
max    NaN
Name: TravelTime, dtype: float64
```

```
In [ ]: #
```



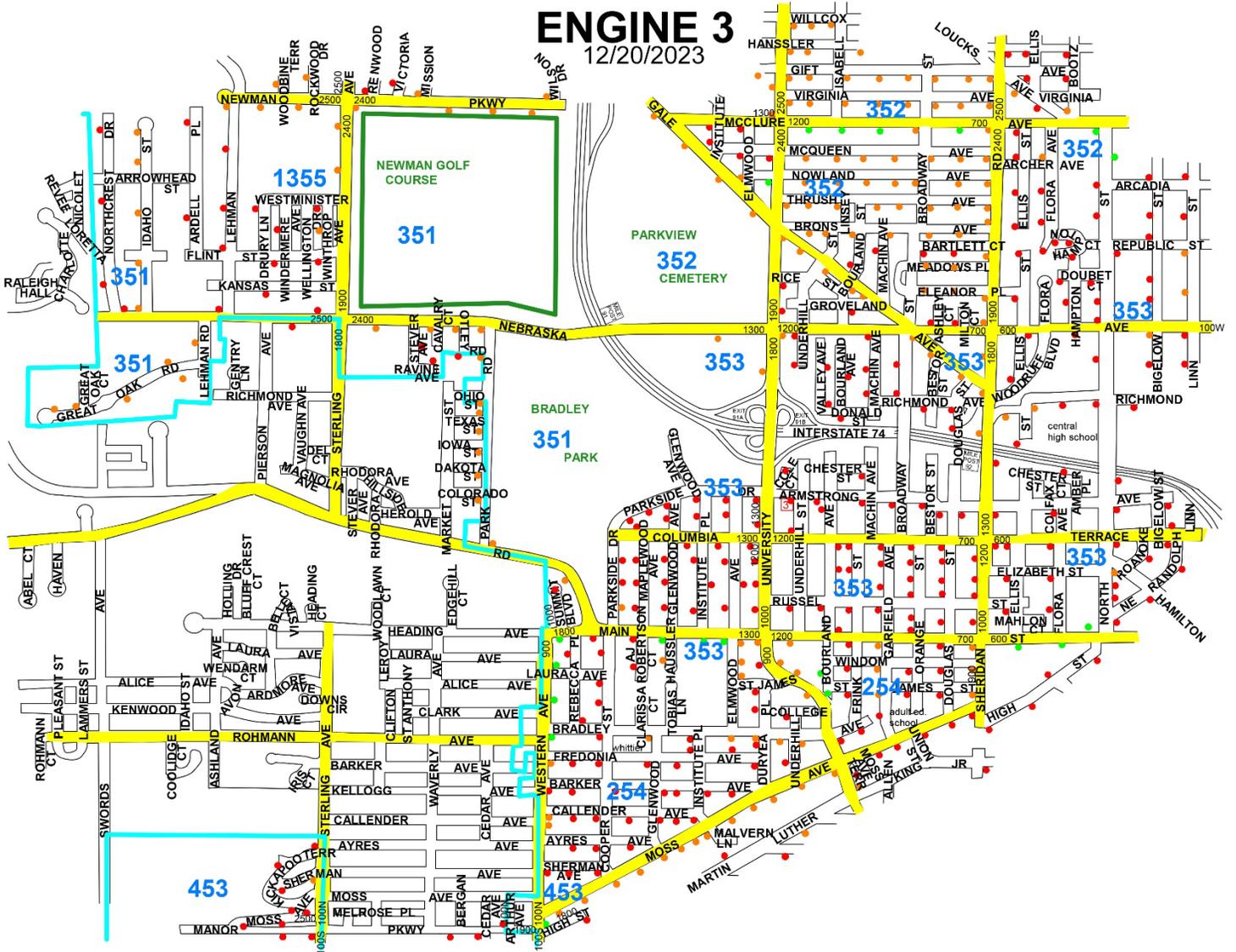

ENGINE 2

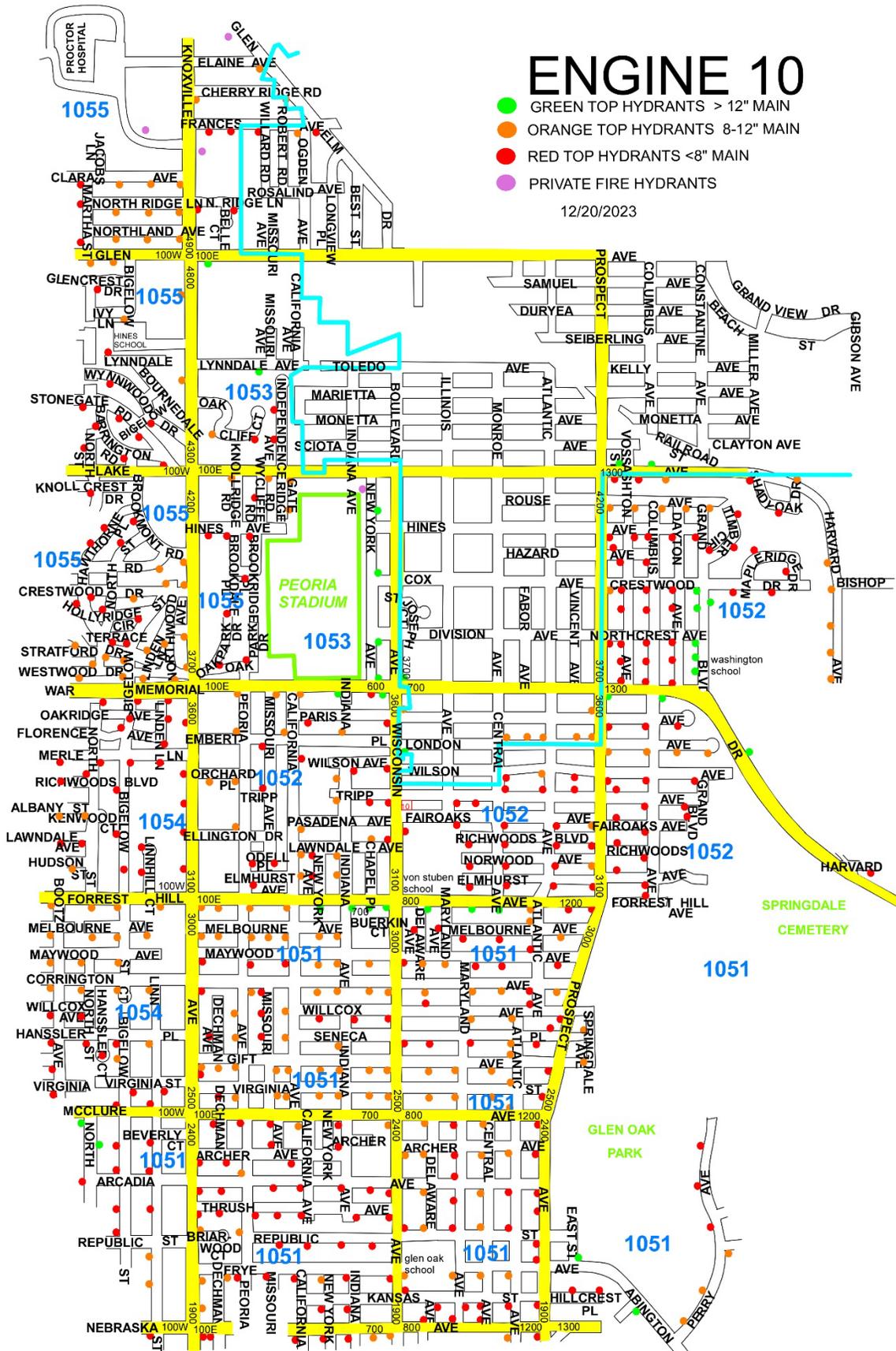
12/20/2023

- GREEN TOP HYDRANTS > 12" MAIN
- ORANGE TOP HYDRANTS 8-12" MAIN
- RED TOP HYDRANTS <8" MAIN
- PRIVATE FIRE HYDRANTS

PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

ENGINE 3 12/20/2023

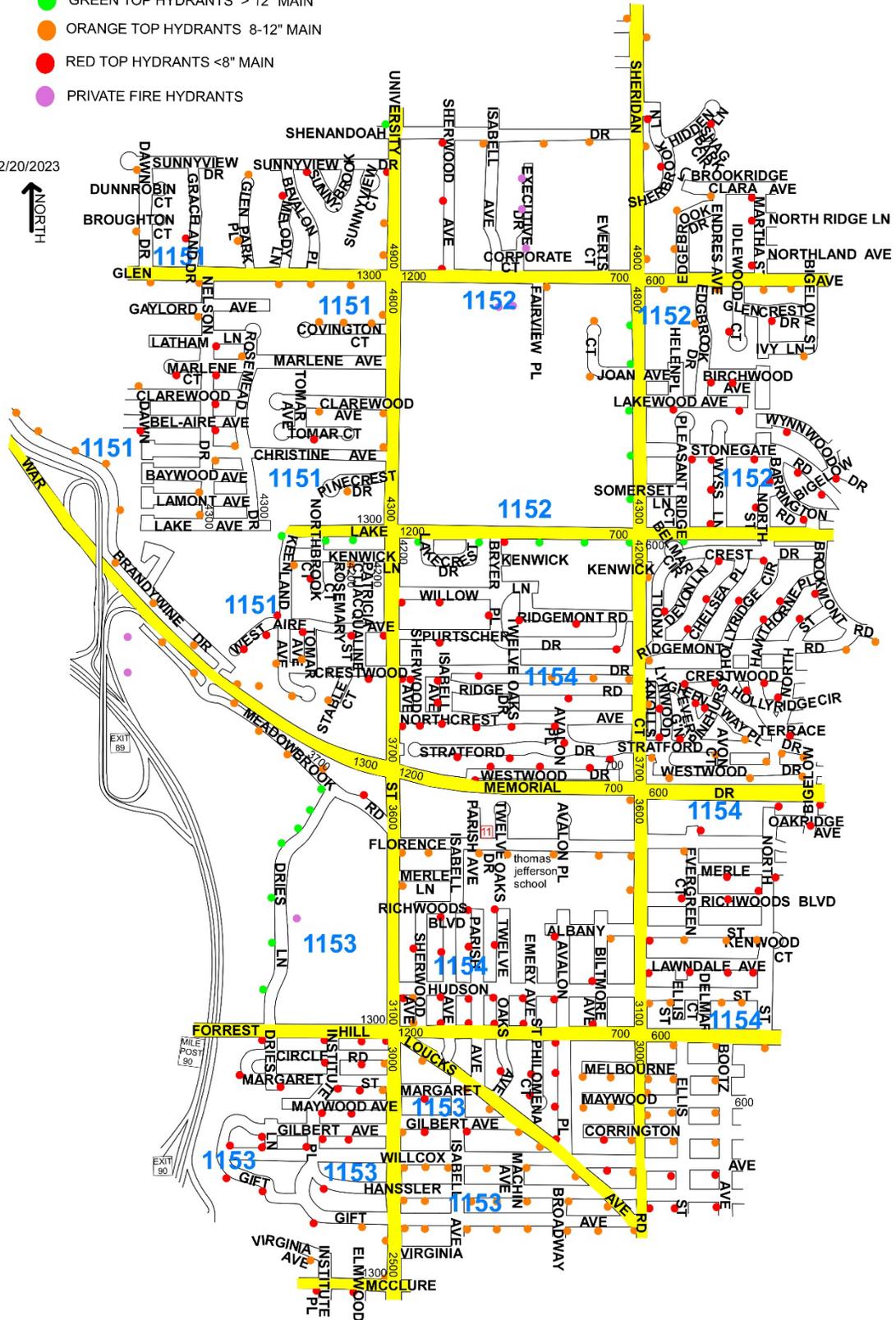


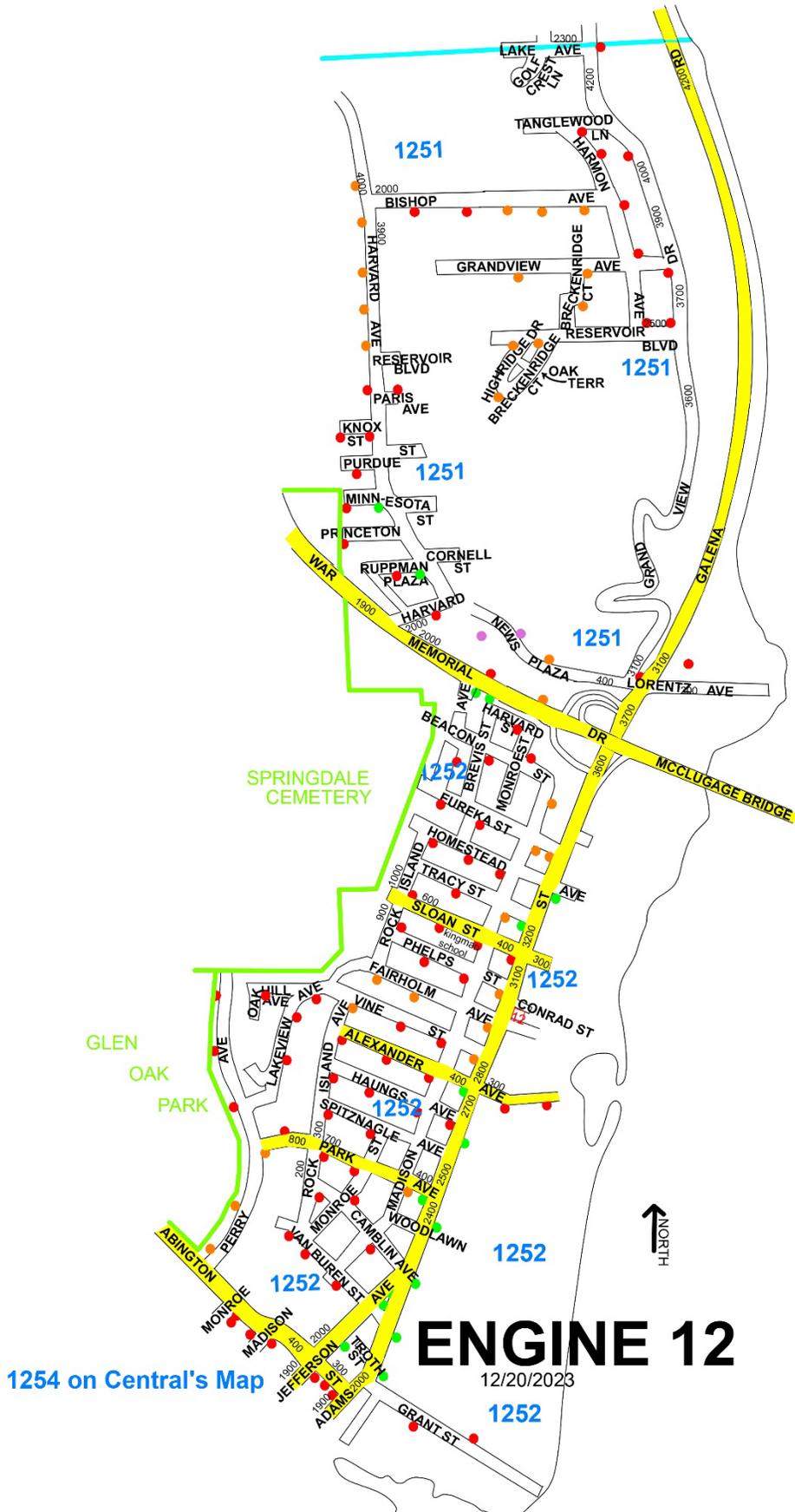


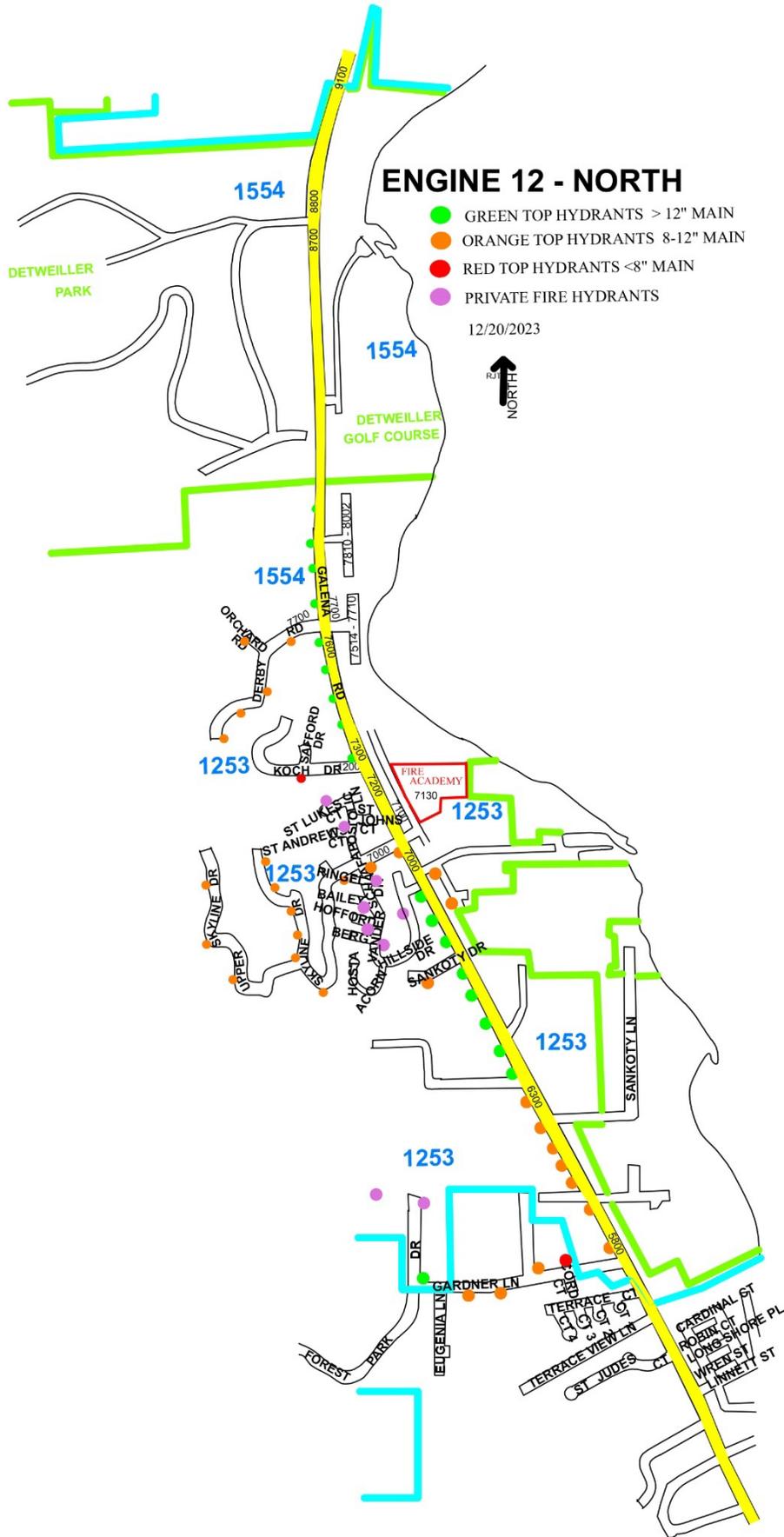
ENGINE 11

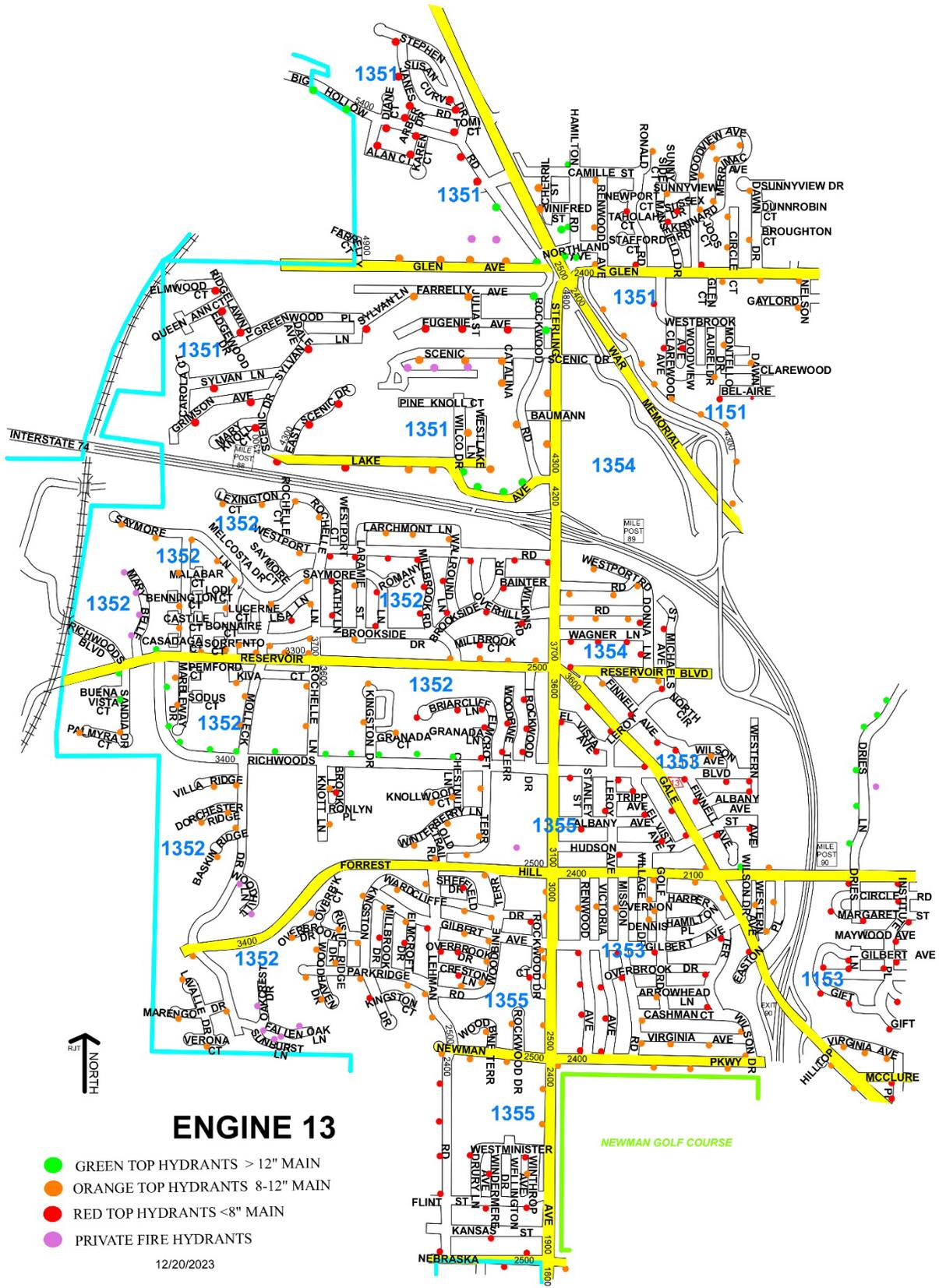
- GREEN TOP HYDRANTS > 12" MAIN
- ORANGE TOP HYDRANTS 8-12" MAIN
- RED TOP HYDRANTS <8" MAIN
- PRIVATE FIRE HYDRANTS

12/20/2023







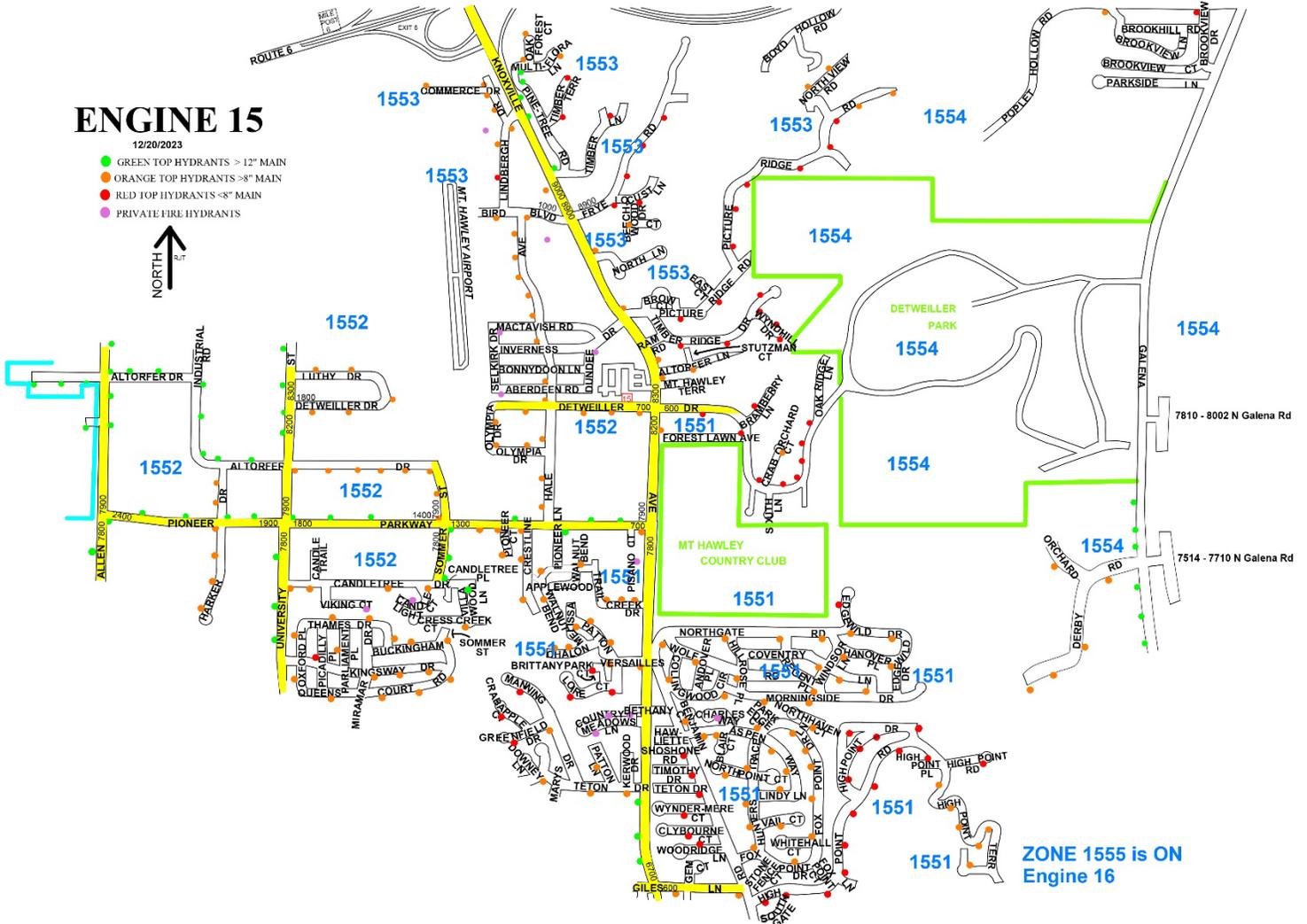


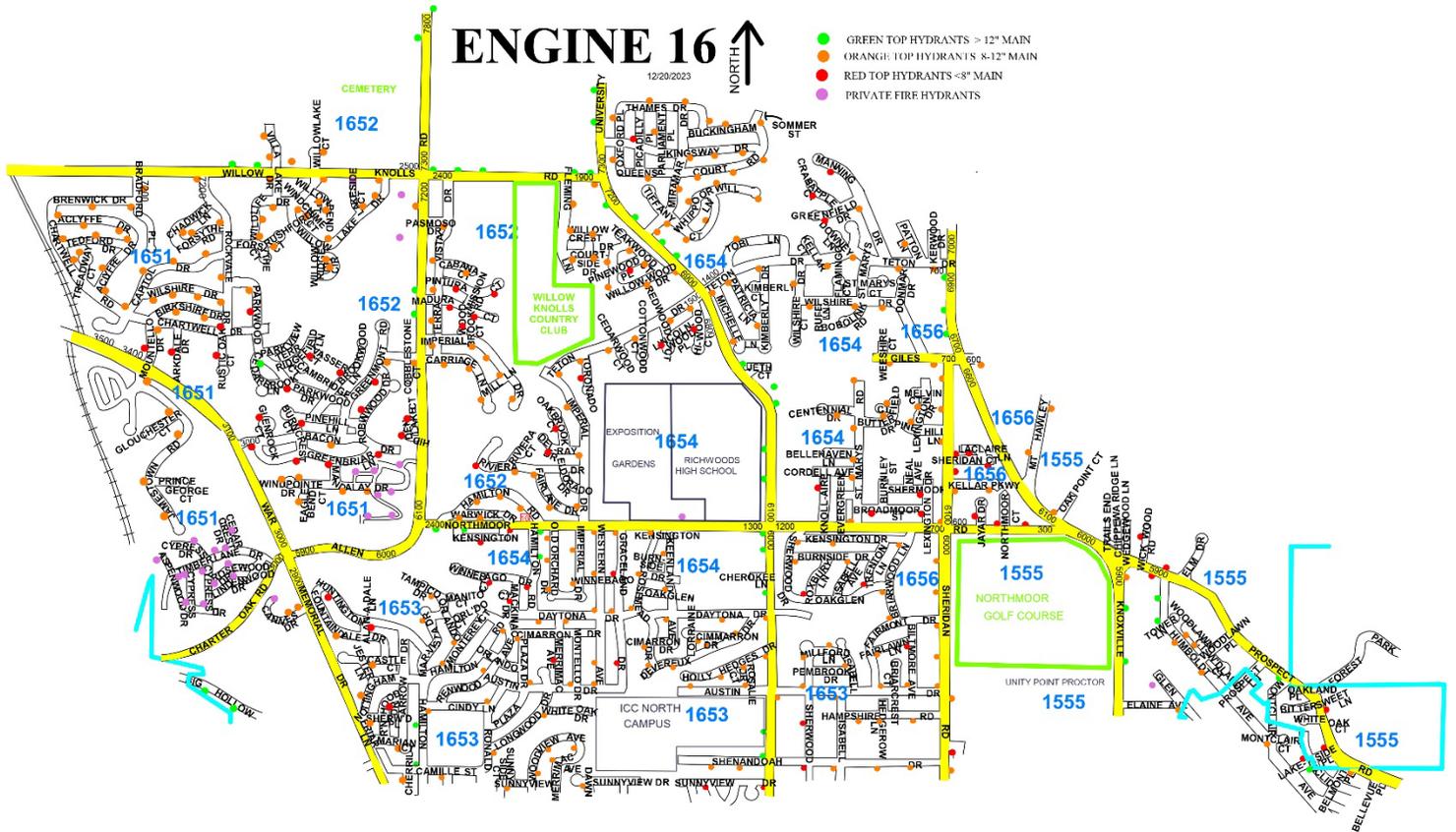
PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

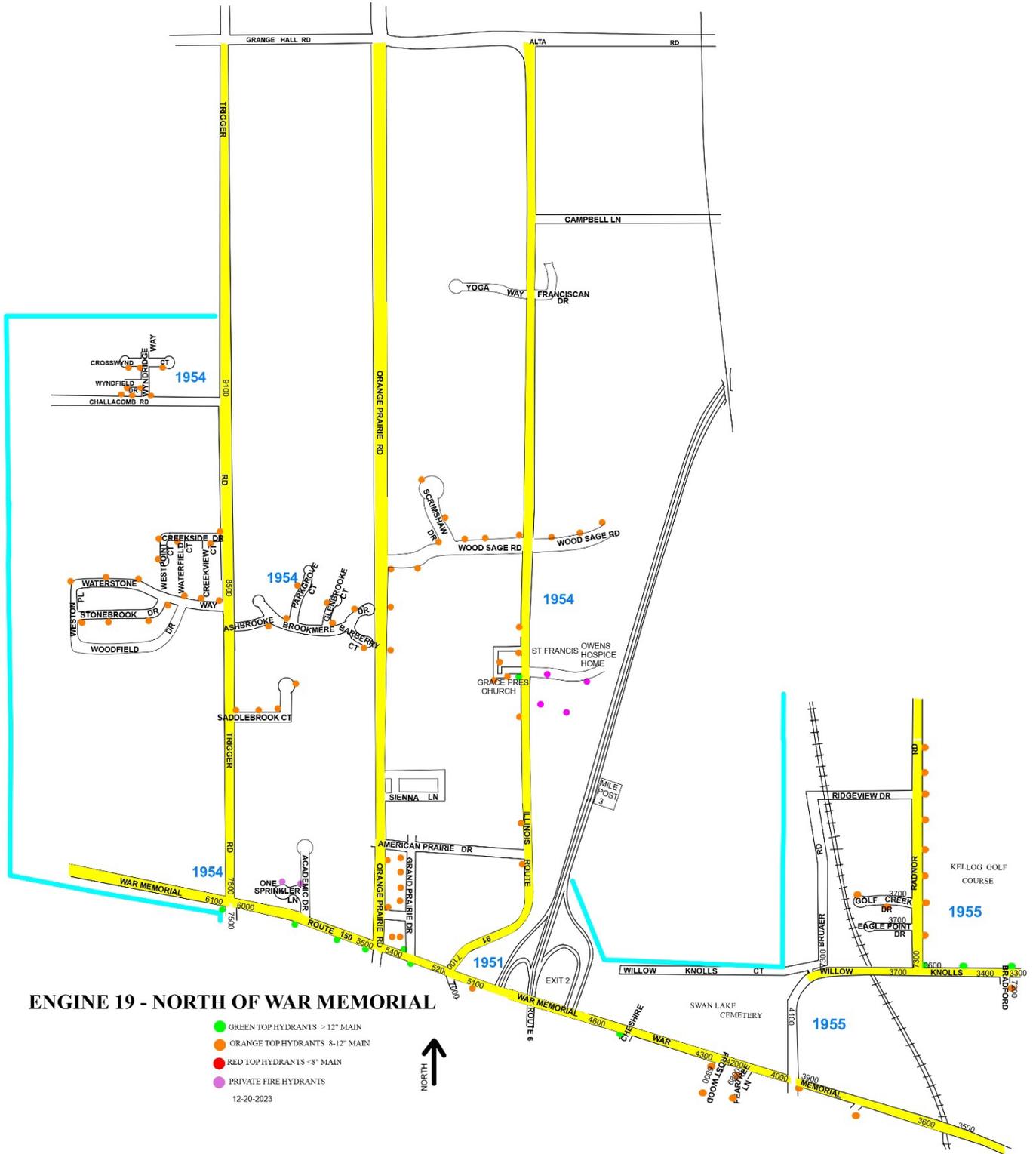
ENGINE 15

12/20/2023

- GREEN TOP HYDRANTS > 12" MAIN
- ORANGE TOP HYDRANTS > 8" MAIN
- RED TOP HYDRANTS < 8" MAIN
- PRIVATE FIRE HYDRANTS





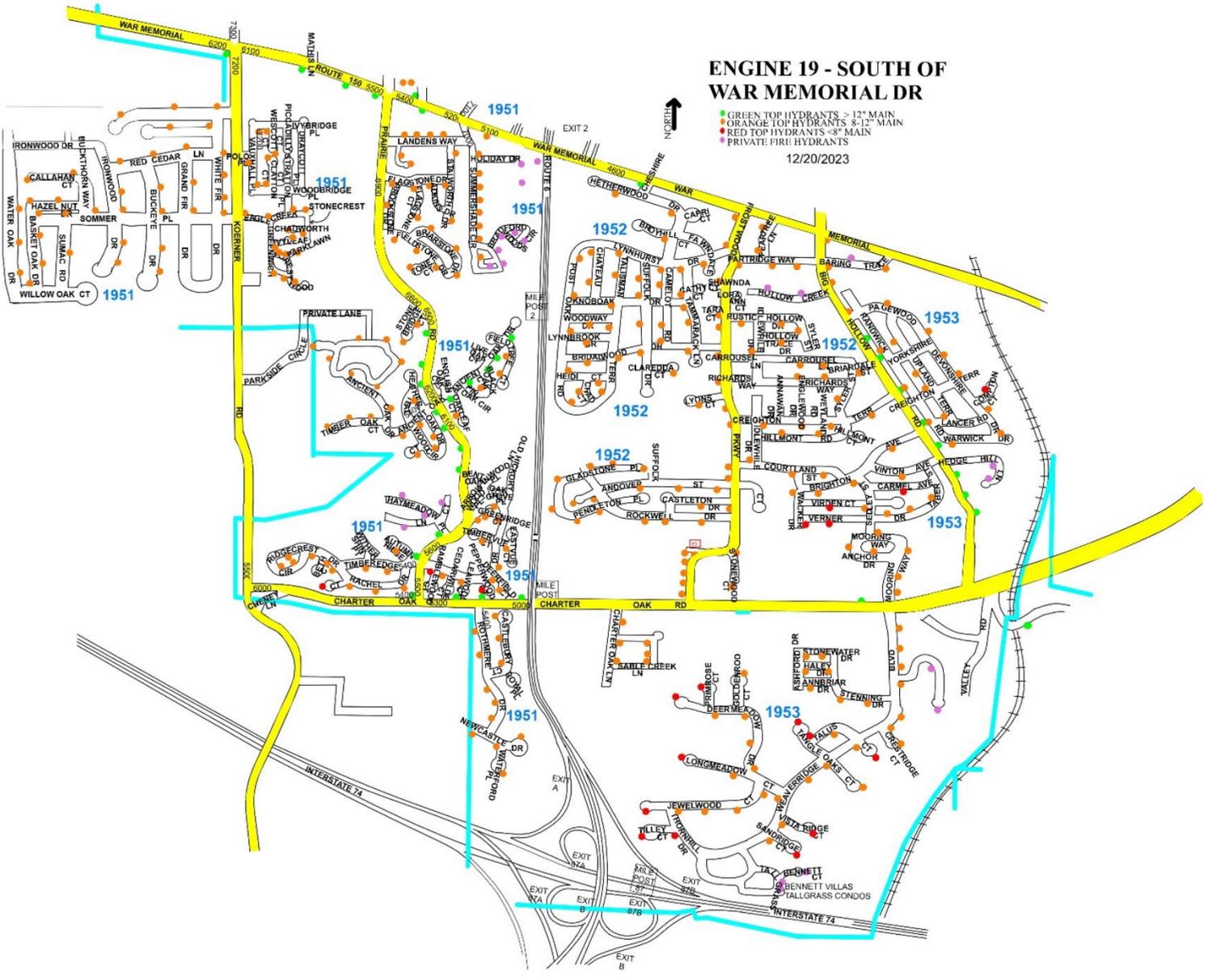


ENGINE 19 - NORTH OF WAR MEMORIAL

- GREEN TOP HYDRANTS > 12" MAIN
 - ORANGE TOP HYDRANTS 8-12" MAIN
 - RED TOP HYDRANTS < 8" MAIN
 - PRIVATE FIRE HYDRANTS
- 12-20-2023



PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER



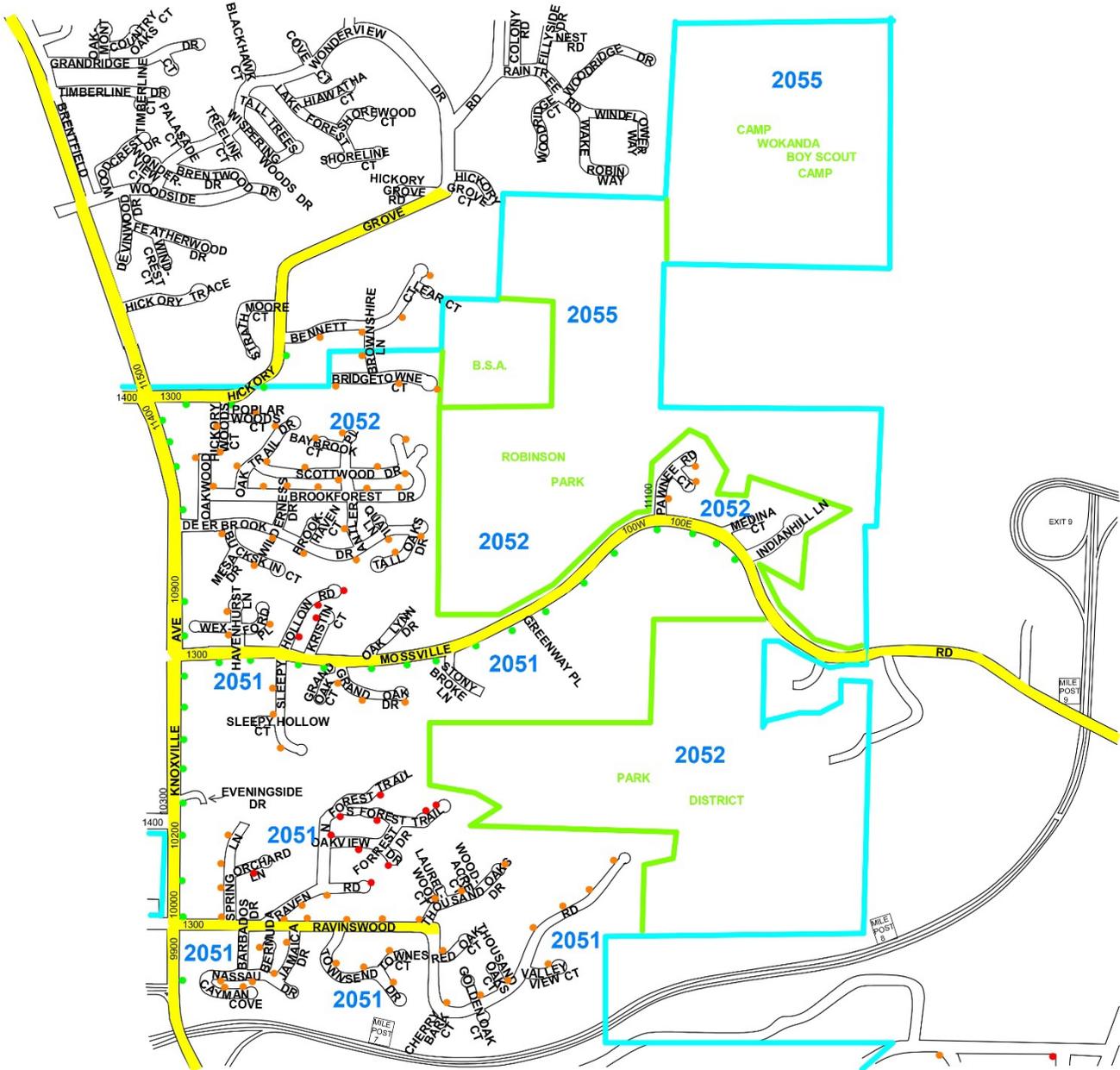
PEORIA FIRE DEPARTMENT COMMUNITY RISK ASSESSMENT/STANDARDS OF COVER

ENGINE 20 - EAST OF KNOXVILLE

12/20/2023



- GREEN TOP HYDRANT > 12" MAIN
- ORANGE TOP HYDRANT 8 - 12" MAIN
- RED TOP HYDRANT < 8" MAIN
- PRIVATE FIRE HYDRANTS



ENGINE 20 WEST OF KNOXVILLE



- GREEN TOP HYDRANTS > 12" MAIN
- ORANGE TOP HYDRANTS 8-12" MAIN
- RED TOP HYDRANTS < 8" MAIN
- PRIVATE FIRE HYDRANTS

12/20/2023

