CITY OF
KISSIMMEE
FIRE DEPT

Approved

March 2023

Revised August 29, 2023

Community Risk Assessment Standard of Cover

Commission on Fire Accreditation International

Introduction

This Community Risk Assessment Standard of Cover (CRA SOC) is part of an optional but vitally important accreditation process available to fire departments. To ensure that a fire department is meeting the community's expectations, a thorough community risk assessment must be completed and considered when planning for emergencies and determining the level of emergency services that the community desires. The Kissimmee Fire Department (Department) assigned a level of risk to every structure in the City of Kissimmee (City). The term "Standard of Cover," borrowed from military organizations, means the standard of coverage or in this case, how the Department responds to the identified risks outlined in the community risk assessment.

Dedicated internal and external stakeholders provided valuable input to help guide the Department into the future. Fire Department Accreditation is through the Commission on Fire Accreditation International (CFAI), which is part of the Center for Public Safety Excellence (CPSE). This agency offers third party verification and validation of the Department's research based on a proven model.

This is the first time that the Department has been involved with the international accreditation process. Many associations support the accreditation model which include the National Fire Protection Association (NFPA), the International Association of Fire Chiefs (IAFC), the International Association of Firefighters (IAFF) and the International City-County Managers Association (ICMA). In addition, the Department of Defense requires that all fire departments on military bases achieve international accreditation.

This document contains an overview of the community, the community risk assessment, fire/rescue coverage throughout the City, several goals and objectives related to the findings from the accreditation model and finally policy recommendations. The City of Kissimmee leadership and the Kissimmee City Commission have approved this document (2D.8).

Note: The numbers and letter in parenthesis (e.g., 2D.8) refer to the 250 performance indicators from the Center for International Accreditation's (CFAI) accreditation process. The Center for Public Safety Excellence (CPSE) awards accreditation through the CFAI.

ACKNOWLEGEMENTS

City Commission

Olga Gonzalez, Mayor - Commissioner (Seat 5)

Olga Castaño, Vice-Mayor - Commissioner (Seat 1)

Angela Eady, Mayor Pro-Tem - Commissioner (Seat 2)

Carlos Alvarez III, Commissioner (Seat 3)

Janette Martinez, Commissioner (Seat 4)

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Desiree S. Mathews, Deputy City Manager

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Fire Chief James F. Walls

Deputy Fire Chief Joseph Leone

Deputy Fire Chief Jeremy Donovan

Standard of Cover Development

Department Leadership

CFAI Accreditation Manager John Rooney

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EXECUTIVE SUMMARY

It is crucial that a fire/rescue department perform a strategic and comprehensive assessment of the risks in their community. Using the critical information from the community risk assessment and valuable input from community stakeholders, the fire department can then determine adequate resources and response postures to the many diverse types of emergencies in the community. It is the Department's responsibility to share with City leadership the type and severity of risk in the City, resources needed to respond to the risk, and expected outcomes. This information dictates the need for the Community Risk Assessment Standard of Cover (CRA SOC).

The development of this Standard of Cover (needed fire/rescue coverage) uses the community input and statistical data from the Community Risk Assessment (CRA). Information from the CRA allows the Department to help determine the fire/rescue facilities, apparatus, equipment, staffing, and response planning needed in the future.

This is the Department's first accreditation process and hence the first CRA SOC. There are numerous recommendations, new goals, and benchmarks that the Department will actively strive to achieve over the upcoming 5-year accreditation cycle. One of the major benchmarks the Department seeks to improve is the response time to incidents. It is critical to arrive quickly and safely at the scene of emergencies for successful mitigation.

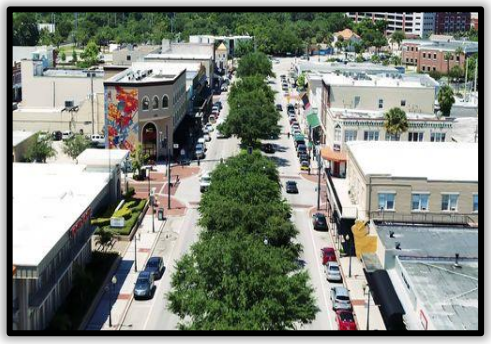
The CRA SOC will be a living, continuously updated document. This will allow the Department to provide updated information to City leadership on the fire/rescue needs and its continuous quality improvement. The Department is seeking approval of this document from the City manager and the City commission to perform more efficient and effective services to our community. The presentation of this document to our community leaders will verify and validate the Department's accreditation process. The below chart shows some of the critical findings from this process and the opportunities for improvement.

90th Percentile Times - Incidents Not Requiring Turnout Gear					
Critical Times	**NFPA Standards**	**Department Benchmark (goals)**	**Department Baseline (actual)**	**Opportunity for Improvement**	**Percent Benchmark Met**
Alarm Handling	**1:04**	**2:00**	**3:30**	**+1:30**	**53.5%**
Turnout	**1:00**	**1:00**	**2:04**	**+1:04**	**52.1%**
Travel Time - 1st Due	**4:00**	**6:30**	**8:08**	**+1:38**	**78.8%**
Total Response Time – 1st Due	**6:04**	**9:30**	**11:52**	**+2:22**	**71.8%**
Note: See page 154 for the definition and more information about the 90th percentile.					

SECTION 1 – COMMUNITY CHARACTERISTICS

City Overview

The City of Kissimmee (City), incorporated in 1883, thrives with its Council – Manager form of government. The city manager acts as the City's chief executive officer and reports to its 5-member commission. The city manager is responsible for carrying out the commission's policies using his/her appointed department heads and a responsive and skilled workforce. The commissioners, elected by the citizens, serve at-large representing all the residents. They can hold two consecutive four-year terms.



Downtown Kissimmee

Kissimmee is located near the geographic center of Florida and is the County Seat of Osceola County. Osceola is the State of Florida's sixth largest county in geographical size with a land area of 1507 square miles. There are 21.82 square miles or approximately 13,965 acres within the corporate limits of the City. The City is primarily residential in character but also serves as a regional retail and commercial center and is the third largest medical district in Central Florida. It has done an excellent job removing buildings in poor repair and ensuring no blighted areas exist in the City. A substantial portion of its economic activity stems from the City's proximity to Walt Disney World, its medical district, its airport, its position as the County seat as well as its proximity to Medical City in the Lake Nona area.

Osceola County has funded the $160 million NeoCity project that will provide a state-of-the-art advanced manufacturing research and development center for the nano sensor industry. This 500-acre technology and research district are currently under construction and has attracted investment from both national and international research and manufacturing partners. The center presents opportunities for Kissimmee's future and has the potential to improve the State of Florida's economy.

There are fifty attractions easily accessible from the Kissimmee resort area. In addition to Walt Disney World, located approximately seven miles west of the City, some of the tourist attractions

near the City include Sea World, Gatorland Zoo, Reptile World Serpentarium, Medieval Times, Universal Studios and Kennedy Space Center. Since the beginning of Disney World development in 1971, there has been significant growth in the City and the surrounding areas. The local economy also consists of many retail, trade, lodging, food and beverage and manufacturing establishments.

City of Kissimmee Facts (2021) (2A.7)

- **Gender**

Male	50.8%
Female	49.2%

- **Age**

Under 5 Years Old	6.7%
Under 18 Years Old	23.0%
65 and Older	12.2%

- **Race**

White	59.6%
Black or African American	10.5%
Native American	0.2%
Asian	2.8%
Other	17.7%

- **Ethnicity**

Hispanic or Latino	69.6%

- **Population Estimates**

2022	82,108
2020	79,226
2010	59,682

- **Percentage Increase in Population between 2010 and 2019**

Kissimmee	33.09%
Florida	14.55%
USA	7.55%

- **Income and Poverty (2016-2020)**

Median household income (2016-2020)	41,399
Per capita income in past 12 months	20,188
Persons in poverty	25.1%

- **Property Taxes**

2021 Millage rate	4.6253
2020 Millage rate	4.6253
2014 Millage rate	4.6253

- **Assessed Real Estate Values** (2022 – MLS data)

Median Home Sale Price	$290,00
Percent increase (year over year)	+7.4%

- **Social Characteristics/Households**

Total Households	22,836
Average Household Size	3.14
Average Family Size	3.70

- **Employment Status (16 years and over)**

In Labor Force (employed and unemployed persons)	68.2%
Employed	64.6%
Unemployed	3.5%

- **Industry**

Arts, entertainment, recreation, hospitality services	28.5%
Retail Trade	16.2%
Educational, health and social services	13.4%
Construction	7.5%
Professional, scientific, management, administrative	10.3%
Transportation, warehousing, and utilities	5.2%
Finance, insurance, real estate	4.7%
Manufacturing	3.3%
Other Services (except public administration)	4.4%
Wholesale Trade	2.6%

Public Administration	2.3%
Information	1.4%
Agriculture, forestry, fishing, hunting, and mining	0.1%

Source: U.S. Census Bureau, Bureau of Economic and Business Research, and American Community Survey

City History

The City of Kissimmee was originally a small trading post on the northern bank of Lake Tohopekaliga (Lake Toho) known as the community of Allendale. After the civil war, this area was included in a purchase of four million acres of marshland and plains by Hamilton Disston, the owner of Disston Saw Company in Philadelphia. The sale price for the land totaled $1 million at $25 an acre. The infusion of $1 million to the state of Florida reportedly rescued the State from financial disaster. In January 1881, Disston contracted to drain the area and deepen the Kissimmee River to be able to ship products into the Gulf of Mexico and points beyond. Many steamboat captains navigated the chain of lakes leading from Kissimmee to the Gulf with cargos of cypress lumber and sugar cane. The City was originally incorporated in 1863 and was reincorporated On October 5, 1992 (Ord. No. 1859 § 1).

Steamship c. 1903 Courtesy Florida Memory

City Milestones

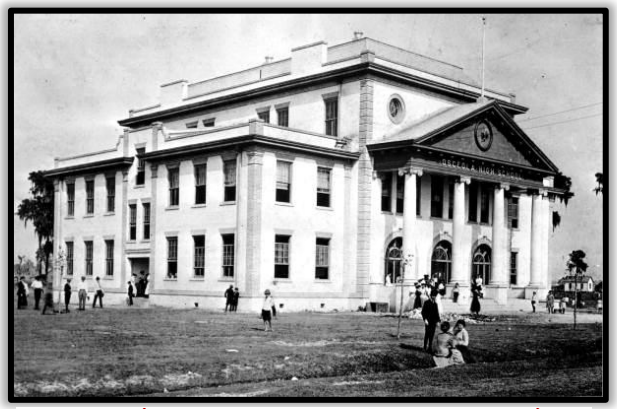
- 1845 - Florida is granted statehood
- 1873 - Kissimmee's first post office was established near Shingle Creek. The first postmaster was Clement R. Tyner.
- 1882 - The first newspaper in Kissimmee published. A one-room schoolhouse opened on Main Street and the First United Methodist Church opened its doors.

- 1883 – 33 of 36 registered voters voted to incorporate Allendale as Kissimmee City. The first elected Mayor was T.A. Bass.
- 1884 - W.B. Makinson, Sr. opens Makinson Hardware in downtown Kissimmee, it was the oldest continuously operating hardware store in Florida until its closing in 2022.
- 1895 - A disastrous freeze led many families to relocate further south. Hamilton Disston's land company stops payments on bonds and returns to Philadelphia.
- 1900 - Electricity comes to Kissimmee. The initial rates were thirty cents per night, $7.50 per month.
- 1908 – A Fourth of July celebration welcomed the residents of the new City of St. Cloud. The owner of a new flying school in Kissimmee planned his first flight to highlight the occasion. When taking off, the airplane hit a cow destroying the plane and resulted in the drafting of an air-ship ordinance.
- 1915 - Osceola High School plays its first football game, beating Orlando High School 6-0.
- 1920 – The population increased to more than 2,700.
- 1924 - Kissimmee Chamber of Commerce is chartered.

Makinson Hardware, Courtesy of Pinterest

Monument of States, Courtesy Florida Memory

- 1934 - Cattleman's Association is established in Kissimmee
- 1940s - The U.S. Army Corps of Engineers constructed the Kissimmee Airport in the 1940s in preparation of the U.S. involvement in World War II. This caused Kissimmee's population to increase by 38% to 3,700 residents.
- 1943 - Construction of the Monument of States is completed.
- 1944 - The first Silver Spurs Rodeo was held on July 4. Admission is the purchase of one war bond.
- 1950s - City leaders wanting to continue Kissimmee's prosperous history, encouraged growth by attracting retirees to the area. This effort stimulated growth by nearly 60%.
- 1956 - Record rainfall brings flooding and $2 million in damages to Kissimmee.
- 1970s - The development of Walt Disney World and other tourist attractions doubled the population from 7,500 to 15,000 in 1980.
- 1998 - Fifteen tornados touchdown in State. These were the deadliest tornados in Florida's history with forty-two deaths in the State, 15 deaths in the Kissimmee area.
- 2004 - Three major hurricanes crossed Central Florida.



Osceola High School c. 1930. Courtesy Florida Memory

Courtesy Silver Spurs Rodeo

1998 Tornados

- 2015 - Kissimmee Lakefront Park undergoes a $30M renovation.
- 2016 - Kissimmee Medical Arts Districts is established.
- 2018 - Regional Intermodal Station opened in downtown Kissimmee.

Kissimmee Intermodal Station, Courtesy of SunRail

Area Characteristics

Kissimmee Medical Arts District

The Kissimmee Medical Arts District lies in the heart of the City of Kissimmee and serves as a massive hub for healthcare-related businesses. The two area hospitals, Advent Health Kissimmee and HCA Florida Osceola Hospital have invested well over $300 million into their campus expansions in just the last few years. The Kissimmee Medical Arts District has incentives tailored to attract medical specialties. Figure 1 is a map of this area.

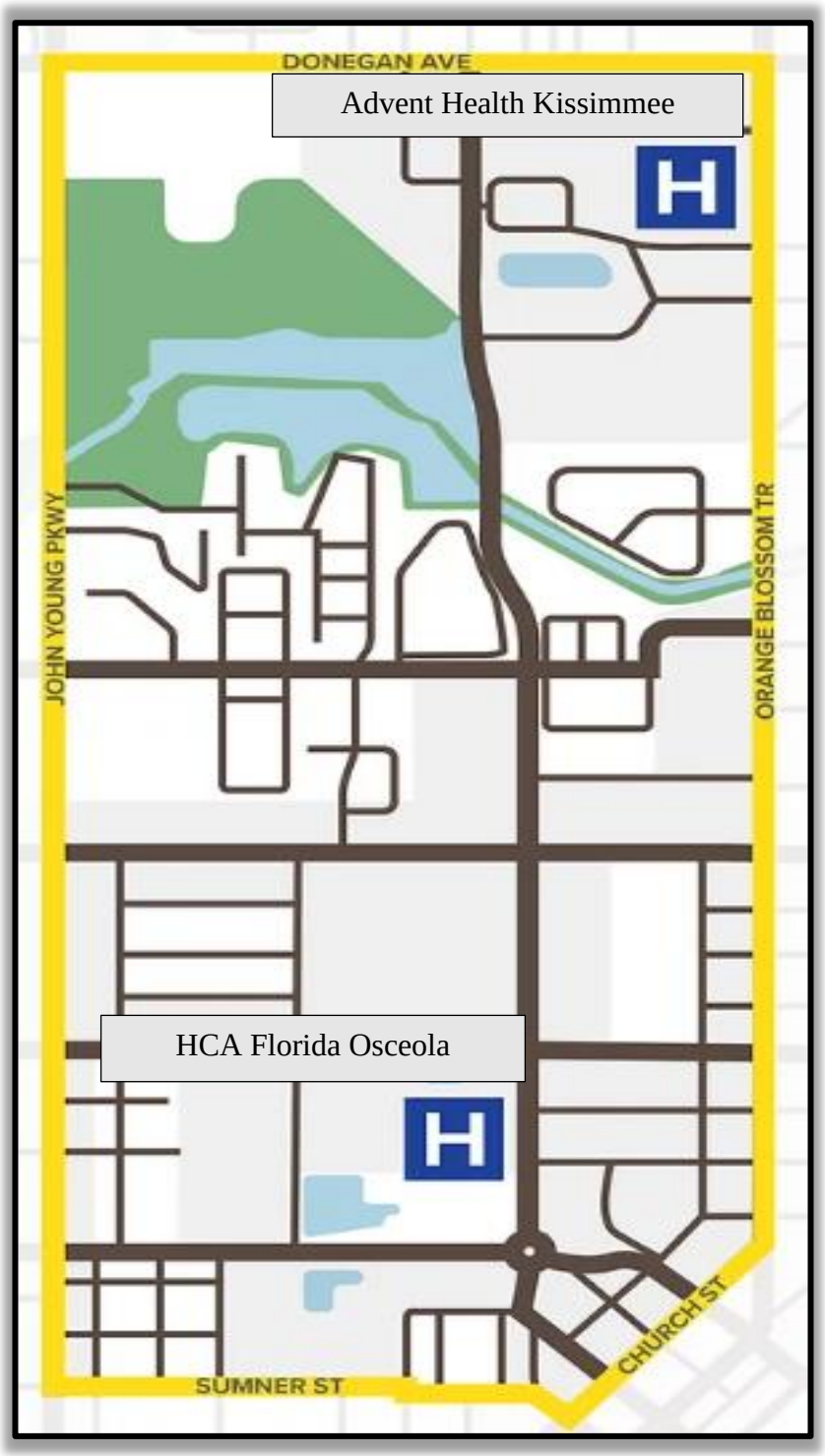


Figure 1 Kissimmee Medical Arts District

South Beaumont Historic Preservation District

The City adopted the South Beaumont Historic District in 2007, which established standards for the protection of historic properties. The district is in the *National Register of Historic Places* and covers a portion of Downtown Kissimmee and the South Beaumont District that encompasses approximately one hundred commercial and residential structures. The buildings that are within the local (Beaumont) historic district have many more protections than those in the National Register. Figure 2 shows an outline of this district.

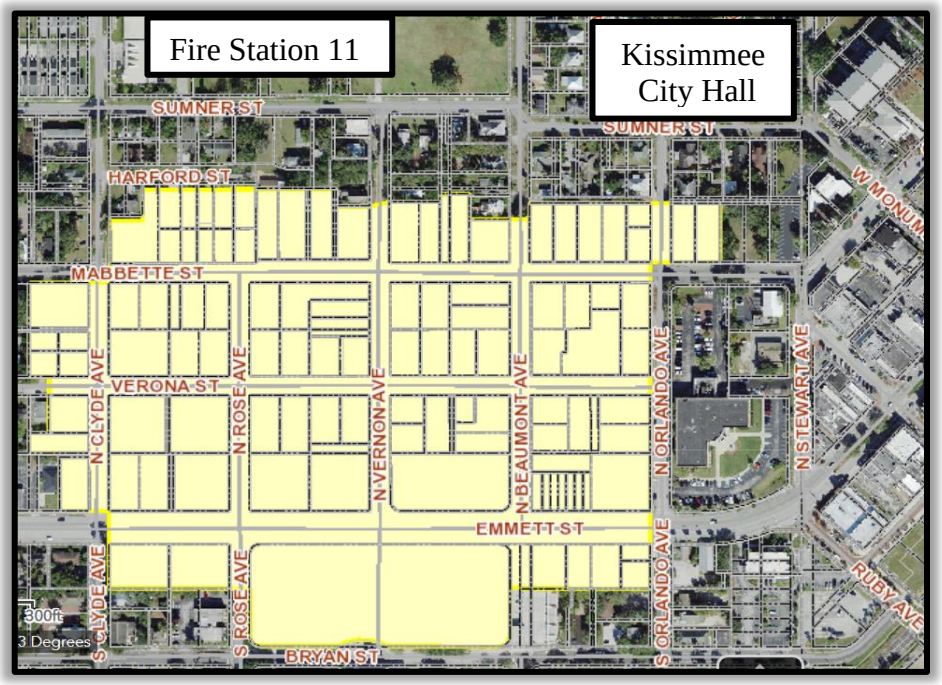


Figure 2 South Beaumont Historic Preservation Historic District

Topography and Weather

The Florida weather is known as humid subtropical. This is defined as a rainy season from May to October when air mass thunderstorms drop heavy but brief summer rainfall. Central Florida is the most active lightning hotspot in all North America when it comes to strikes per square mile. This is why the corridor from Tampa Bay to Titusville has gained the nickname "Lightning Alley." On average, this zone experiences about fifty-six lightning strikes per square mile annually. Ninety percent of these strikes happen from May to October between noon and midnight. *(Courtesy*

Climate Center at the Florida State University) Figure 3 shows the cloud to ground lightning incidents between 1997 and 2010.

Kissimmee is located at approximately 28.294695° N latitude and -81.402534° E making it prone to tropical cyclones (hurricanes) that develop in the Caribbean and the Gulf of Mexico. The flat topography makes the state more susceptible to wind damage and storm surge. Figure 4 shows the last two hurricanes to hit Florida. Hurricane season runs from June 1 to November 30.

Dry and slightly cooler temperatures follow the rainy season. The wildfire season in Florida is between March and June which is typically the driest part of the year. Although Kissimmee has very little rural area, there are still 1,700 acres of wildland in the response area. Many homes are destroyed each year in the state. Figure 5 shows the average monthly temperatures and rainfall.

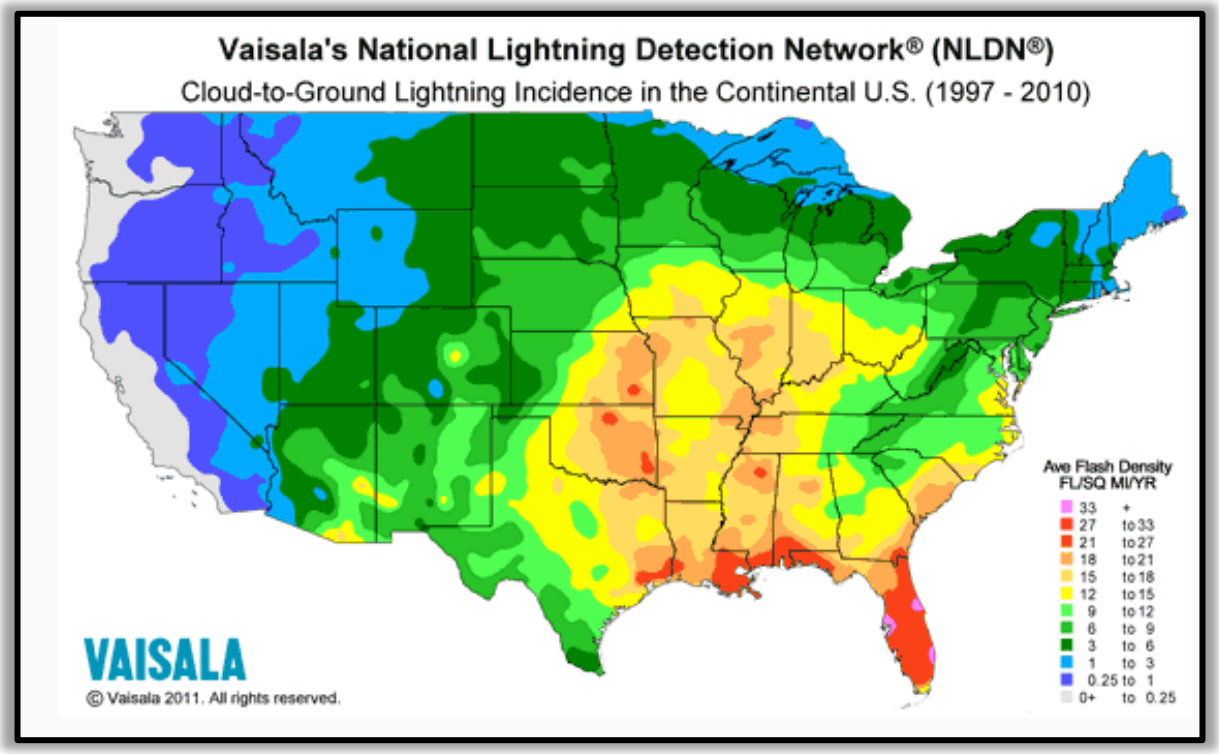


Figure 3 Cloud to Ground Lightning Incidence, Courtesy Vaisala

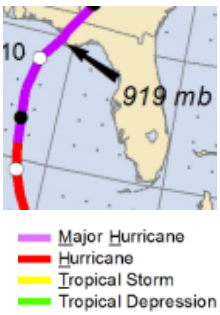
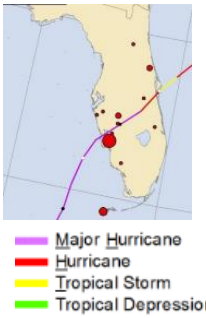
Name	Hurricane Michael	Hurricane Ian	Hurricane Nicole
Landfall	October 2018	September 2022	November 2022
Path			
Category	5	4	1
Florida Impact	Massive damage to the Florida Panhandle	Major Flooding	Minimal Damage
City Impact	The Department deployed one ALS engine and one ALS ambulance (rescue) to the Florida panhandle. These were part of an Osceola County Engine and Rescue Strike Team	The City sustained major flooding in several areas and over 500 still water rescues were performed.	The City sustained little damage. This was mostly a wind and rain event.
Department Operations Center Staffed	Yes	Yes	Yes

Figure 4 Recent Florida Hurricanes, National Hurricane Center

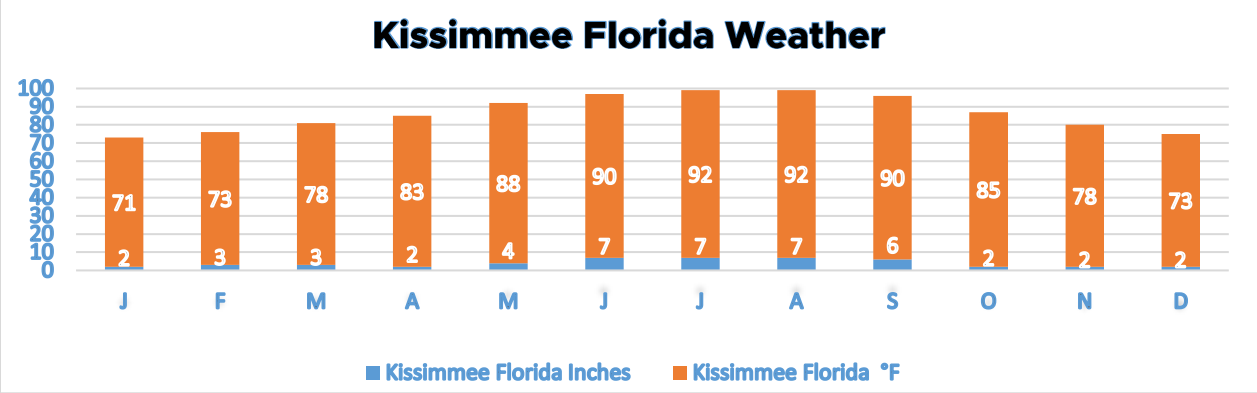


Figure 5 Temperature and Rainfall Chart

Tornado Threat

According to the Climate Center at the Florida State University, truly destructive tornadoes are most frequently reported in Florida during the spring and summer; the most powerful usually strike in spring. Florida has the dubious distinction of having a higher frequency of tornadoes per 10,000 square miles than any other state. The coast between Tampa Bay and Fort Myers has a particularly high incidence, as do the western panhandle and parts of the Atlantic Coast. Except for severe tornados in 1966 and 1998, most tornados near Kissimmee have been less severe, in the EF2 range.

Flood Prone Areas of the City

According to the City's Storm Water Division, its storm water management system consists of six watersheds. Two watersheds, Shingle Creek, and Mill Slough are natural drainage systems. The remaining four watersheds are man-made and include Bass Slough, the East City Ditch, the West City Ditch, and the downtown culvert system. These man-made watersheds greatly improved the flood threat to the City. There are still a few low areas in the City as shown on the flood map. Minor flooding occasionally occurs but major flooding occurred during Hurricane Nicole in November 2022 in most of the shaded areas indicated on the map in Figure 6.

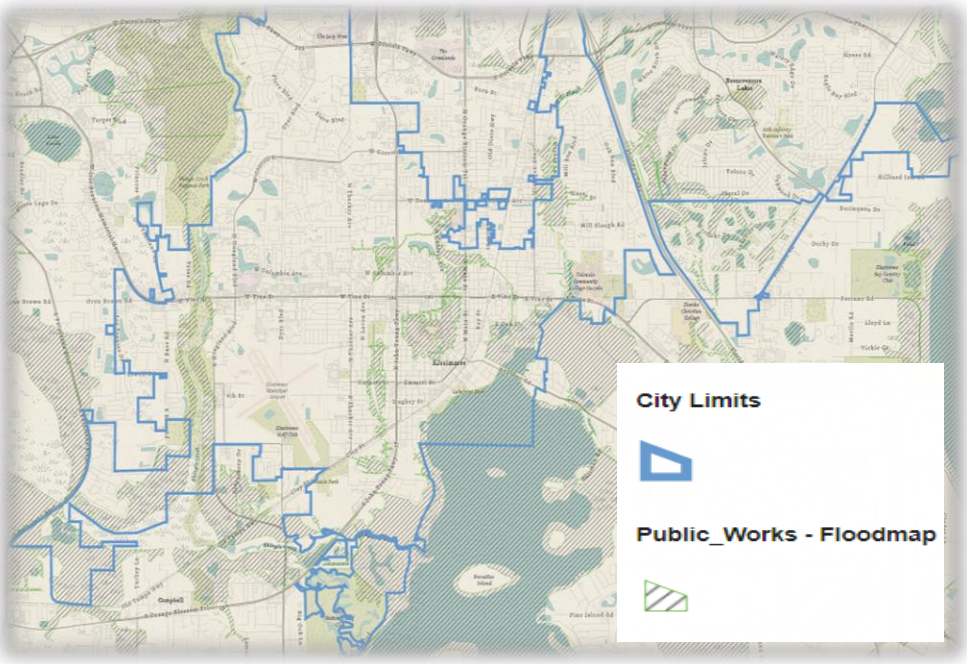


Figure 6 Kissimmee Flood Map, Courtesy City of Kissimmee

Geography

According to the Florida Department of Environmental Protection, Florida geography consists of soft Florida limestone sitting on top of bedrock known as the Florida Platform. The soft limestone makes western Central Florida susceptible to sink holes, but they are not a significant issue in south Central Florida where the City of Kissimmee is located. The peninsula of Florida has the largest coastline in the contiguous United States.

Population, Demographics, and Development

The population of the City increased approximately 33.09% between 2010 and 2021. The City has a large Hispanic and Latino community making up 69.6% of the population. The average annual household income in Kissimmee is $54,326. In the past three to five years, development of single family and 4-story mid-rise residential buildings has dramatically increased. This development has largely been in Fire Station 13 and 14's area.

Critical Infrastructures in the City (2A.9)

The City of Kissimmee Fire Department utilizes the Department of Homeland Security's definition of critical infrastructure. It is defined as the vast network of highways, connecting bridges and tunnels, railways, utilities, and buildings necessary to maintain normalcy in daily life. Transportation, commerce, clean water, and electricity all rely on these vital systems.

Transportation (2B.7)

The transportation section includes roads, rail, bus, and air travel. The rail service includes both freight service, Amtrak, and SunRail, the central area commuter train.

Area Roadways

The City is located between two of the major expressways in the State. Interstate 4 passes through Osceola County five miles west of the City and the Florida Turnpike cuts diagonally across Osceola County along the eastern edge of the City. U.S. Route 192 runs east and west through the middle of the City and provides direct access to Walt Disney World to the west, and the Atlantic coast to the east. Osceola Parkway serves as a major east-west corridor across the northern section of the County. Two major north/south commuter roads through Kissimmee are John Young Parkway and Orange Blossom Trail.

Freight Rail Service

CSX provides rail lines that move freight service through the City. The 2021 CSX Transportation Hazardous Materials Density Study for the CSX Track Segment in the City has provided valuable information that has contributed to emergency response plans. The total 2021 hazardous materials traffic through the City was 695 loaded shipments including intermodal shipments (trailer or container on flat cars). Intermodal hazardous materials shipments are non-bulk and less than 55 gallon/package formats. The density report shows that thirteen products accounted for all hazardous materials traveling through the City by rail.

Passenger Rail Service

Amtrak and SunRail provide passenger rail service. Amtrak advised that approximately five hundred passengers travel through Kissimmee daily on their four trains (two northbound and two southbound). The Central Florida commuter train, SunRail advised that 25,000 commuters travel through the City daily on forty trains (20 northbound and 20 southbound).

Bus Service

The Lynx bus system provides local bus service in Central Florida and uses the Intermodal Station in Kissimmee as one of their Central Florida bases. The SunRail Intermodal Station is close to the Amtrak train station and the Greyhound bus station and is located near historic downtown Kissimmee.

Air Travel

The closest major airport is Orlando International Airport (OIA), located twelve miles northeast of the City. OIA has more than eight hundred scheduled flights by major airlines leaving daily.

The Kissimmee Gateway Airport is the closest general aviation airport to the Orlando Metro area. It is in the City of Kissimmee, just 8 miles south of Walt Disney World and 10 miles south of the Orlando/Orange County Convention Center. The airport has three full service fixed-base operators that serve the airport and a unique cluster of vintage “Warbird” aircraft businesses, including a

museum. The airport has emerged as a regional leader in aviation career education with three large flight schools, numerous smaller flight schools, an aircraft electronics (avionics) technician training school and an FAA approved airframe and power plant aircraft mechanic's school. There are two paved, lighted runways capable of handling the largest corporate aircraft (Boeing 737 BBJ). The runways are 6,000 and 5,000 feet in length, have clean unobstructed approaches and are equipped with a Precision Approach Path Indicator (PAPI) lighting system as visual landing aids. An FAA maintained Instrument Landing System (ILS) serves runway 15. The airport has the 28th busiest air traffic control tower in Florida. Figure 7 shows an elevated view of the airport.

Figure 7 Kissimmee Gateway Airport

Waterways

Lake Tohopekaliga (Toho) and the Lakefront Park

Lake Tohopekaliga (Lake Toho) is a 23,000-acre lake that borders the eastern side of the City. It is known for bass fishing, airboat tours, and other forms of recreation. Along the northwest shores of the lake near the historic downtown area is the 27-acre Lakefront Park. Large-scale events and festivals occur at the park and many of them are listed in *Figure 8.*

Lakefront Park, Courtesy City of Kissimmee

Event	Date	Event	Date
Movie in the Park (monthly)	October to March	March for Meals 5k	March
VIVA Osceola	October	Kowtown Festival	March
Boo! On Broadway	October	CAFA- Caribbean Festival	April
Veterans Day Parade (bi-annual)	November	PrideFest Kissimmee	June
Orlando Japan Festival	November	Juneteenth	June
Festival of Lights Parade	December	Monumental 4th of July	July
MLK Jr Unity Celebration	January	Fandom Kissimmee	September
Kissimmee 5k	February		

Figure 8 Lakefront Park Events

Shingle Creek

Approximately five miles of Shingle Creek borders the western side of the City. The creek begins in a swamp, to the north, in southern Orange County. This is considered to be where the northernmost headwaters of the Everglades begin. Much of the area around the creek is what is left of the natural area in northwestern Osceola County. There are several parks near the creek with amenities including picnic areas, canoeing, kayaking, and walking/jogging trails. Figure 9 shows the location of Shingle Creek and Lake Toho.

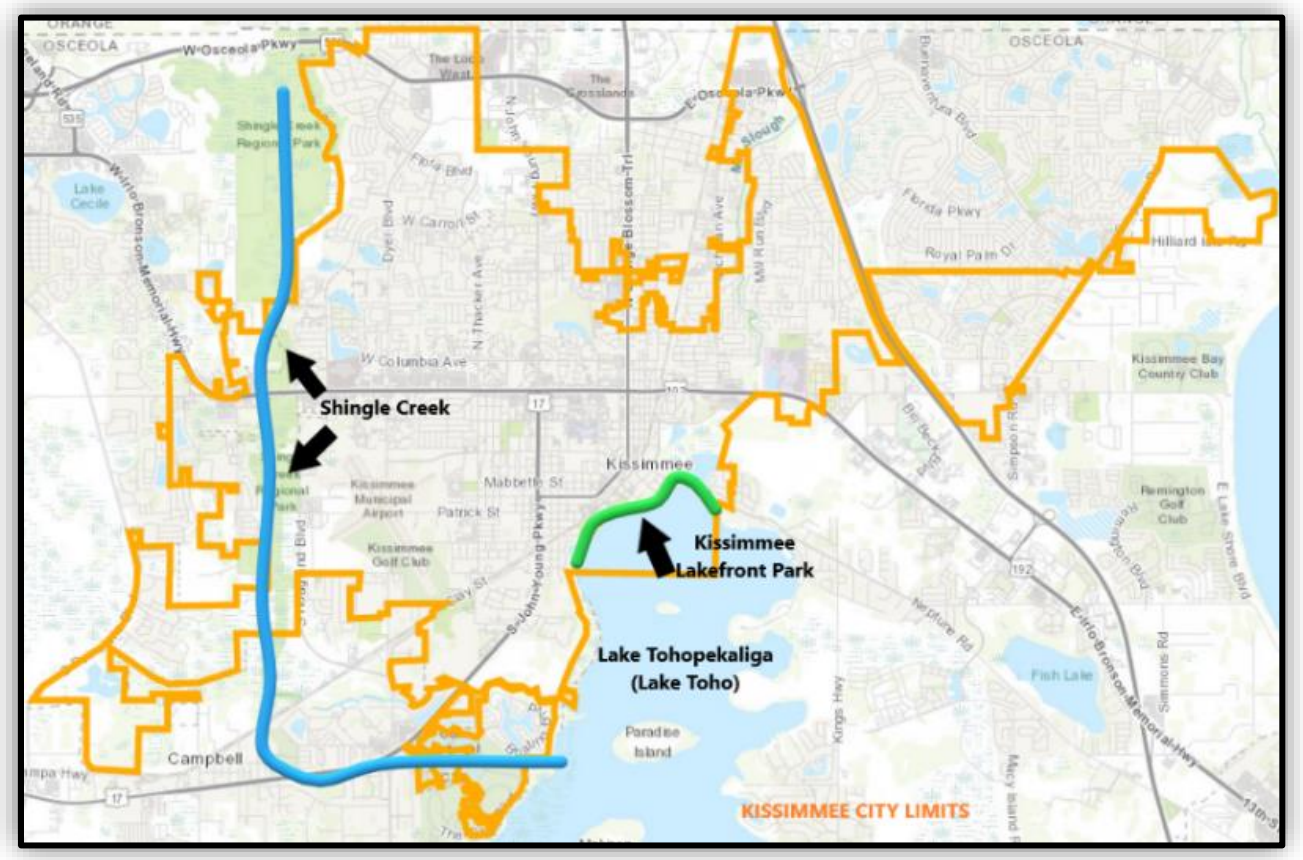


Figure 9 Shingle Creek and Lake Toho

City Trails

The City of Kissimmee is working toward creating an expansive trail system for walkers, bikers, and runners. The trail system combines routes through the urban core of the City and through Shingle Creek Regional Park. The two main paved trails in the City of Kissimmee are the Kissimmee Loop Trail and the Shingle Creek Regional Trail. Currently there are ten miles of completed trails in this project.


CITY OF KISSIMMEE 1883
BIKE & PEDESTRIAN TRAILS
CURRENT & FUTURE PLANS
MAP LEGEND
Shingle Creek Regional Trail
Kissimmee Loop Trail
Trail Extensions
Future Section of Shingle Creek Regional Trail
Future Trail Extensions
Non-Paved Trail
City Park
Trail Head/ Parking
Proposed Connection To Orange County Trail
Connection To Orange County Trail
OSCEOLA PKWY
DYER BLVD
CARROLL ST
JOHN YOUNG PKWY
SHINGLE CREEK REGIONAL PARK
VINE ST (U.S. 192)
OAK STREET PARK
MAIN ST
AQUATIC CENTER & DENN JOHN PARK
To Valencia College
To NeoCity
MARTIN LUTHER KING JR BLVD
HOAGLAND BLVD
THACKER BLVD
KISSIMMEE LAKEFRONT PARK
To St. Cloud via Bill Johnston Memorial Trail
LANCASTER PARK (FUTURE)
Updated February 2021
kissimmee.gov/trails
@cityofkissimmee

Natural Gas Service

TECO Peoples Gas provides natural gas to the residents and businesses of the City. The natural gas received at the Central Florida gate station is measured and injected with methyl mercaptan. It is then distributed to customers through a distribution system of pipelines, mains, and service lines. Figure 10 shows the distribution gas lines for residential and commercial natural gas service in and around the City limits.

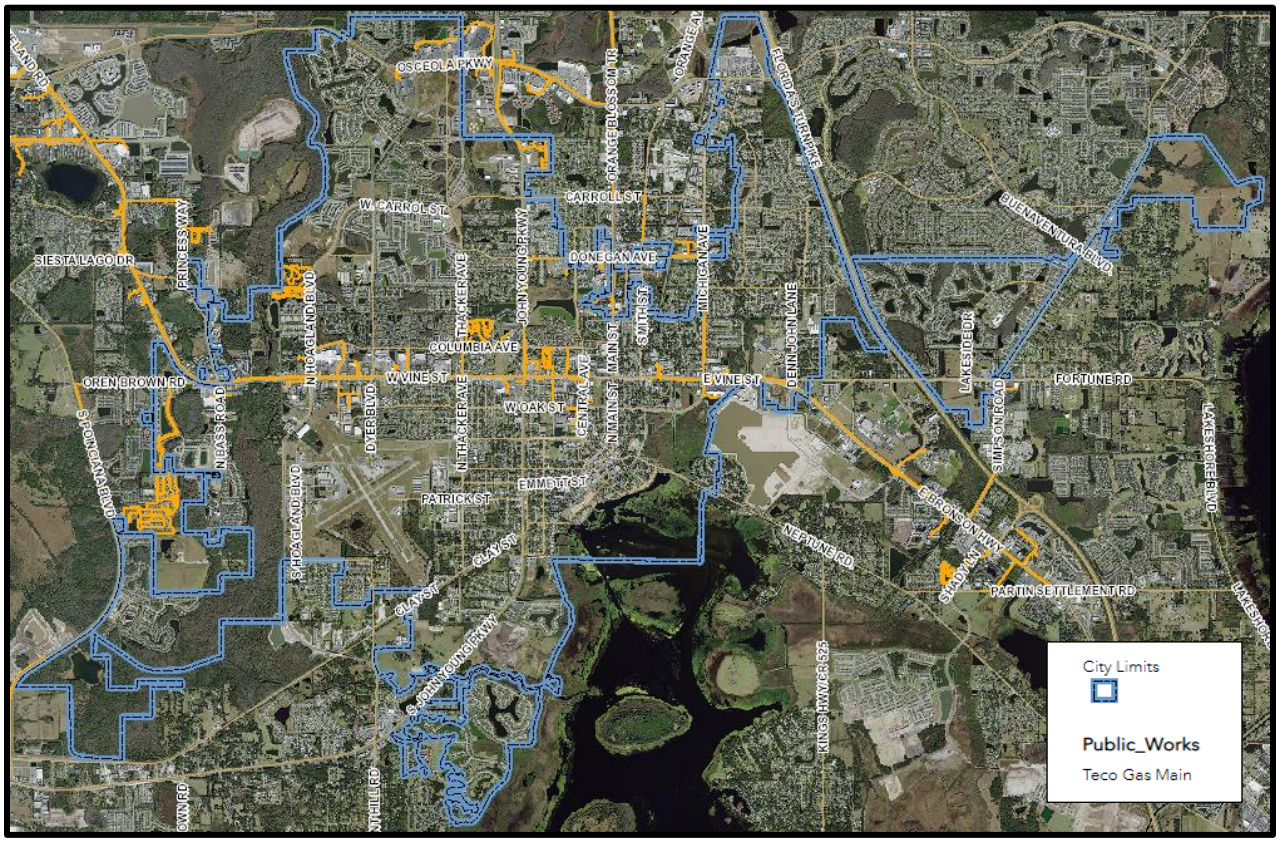


Figure 10 Gas Main Distribution, Courtesy City of Kissimmee

Pipelines

Figure 11 shows the approximate location, size, and products of the three companies who have transmission pipelines running through the City. Here is a list of the pipelines:

- Sabal Trail Gas Pipeline – This odorized high-pressure natural gas transmission pipeline ranges in size from thirty" to 36" starts in Alabama and travels through Districts 13 and 14.

- Florida Gas Pipelines – These odorized high-pressure natural gas transmission pipelines range in size from eighteen" to 30" start in Texas and then is dispersed to all parts of Florida. It travels through Districts 11, 12, and 14.
- Central Florida Petroleum Pipeline – These transmission pipelines start at the port of Tampa and deliver jet fuel and diesel fuel to a location near Orlando International Airport. One pipeline is ten" and the other is 16".

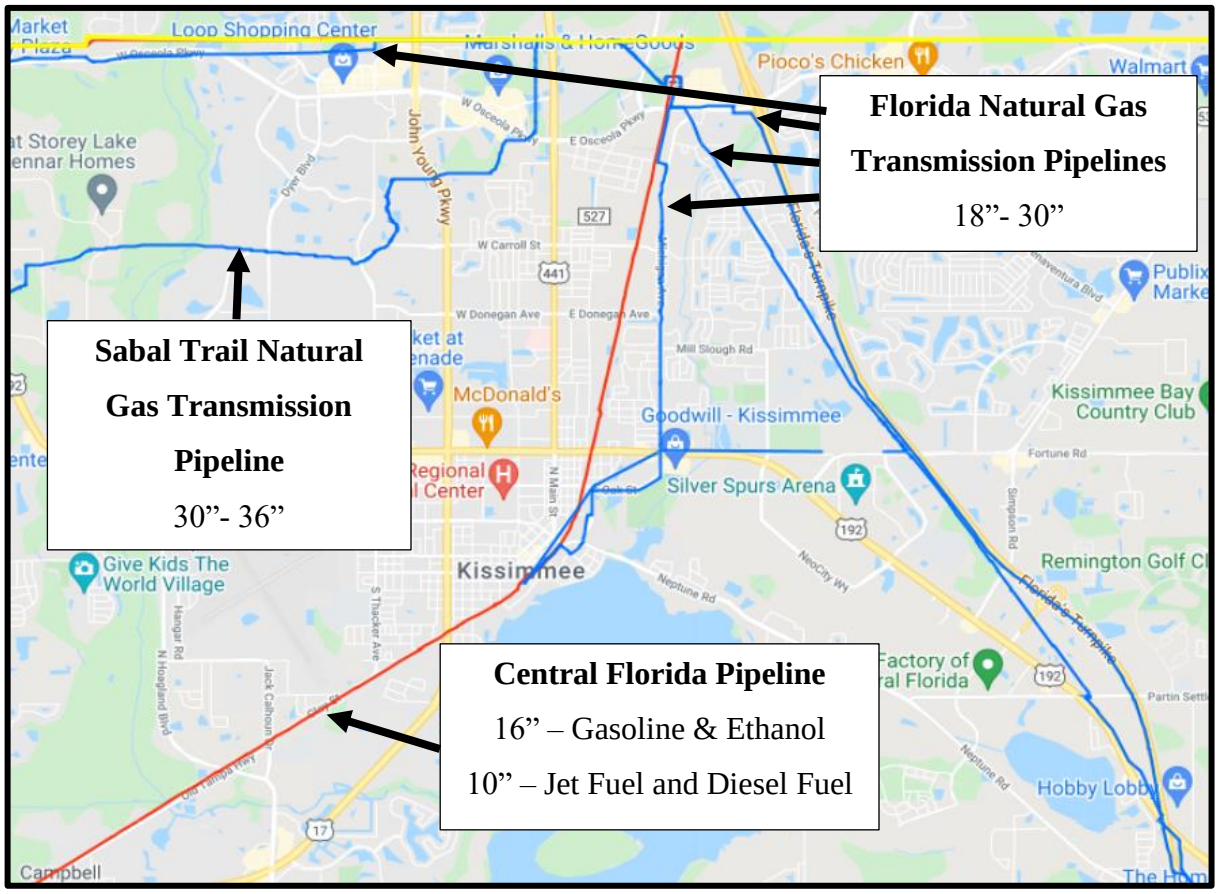


Figure 11 Transmission Pipelines through Kissimmee, Courtesy Pipeline Companies

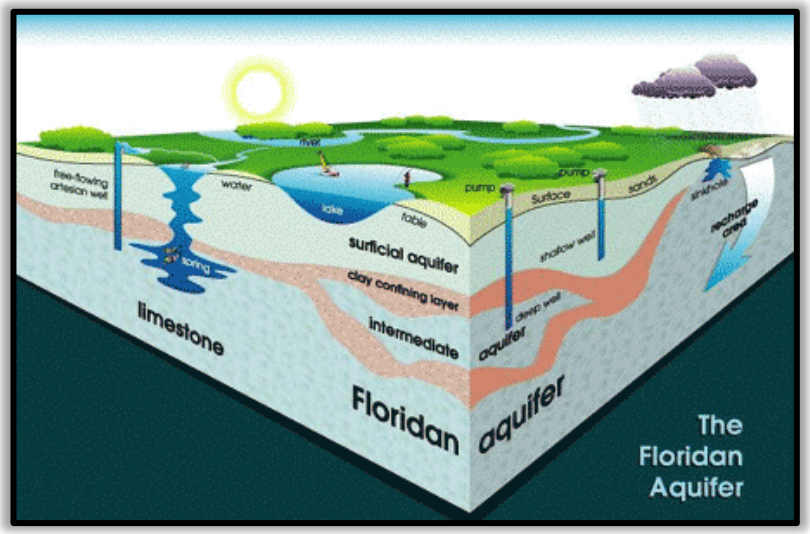
Solid Waste

The City's Public Works Solid Waste Division manages the City's solid waste collection services on eight fully automated routes, two fully automated yard trash routes and three bulk waste routes. The Division provides collection to more than 14,000 customers at all single-family residences and small commercial locations within the City limits. The Solid Waste Division oversees the commercial solid waste collection services in the City limits, provided by the franchised hauler, Waste Management.

Water System

Toho Water Authority (TWA) provides potable water for fire suppression and water consumption to the City of Kissimmee and the surrounding communities. TWA owns and operates thirteen water plants and 8 wastewater plants.

With a 400+/person workforce, TWA treats and distributes approximately 41.2 million gallons of potable water and reclaims 28.5 million gallons of wastewater each day. Underneath Osceola County lies one of the largest pristine reservoirs of fresh groundwater in the country, the Floridan Aquifer. Consistently high-quality water from this aquifer supplies all potable water for the Toho Water Authority water system. The aquifer is recharged by rainfall on the Lake Wales Ridge (US 27) in Osceola, Polk and Lake counties that is filtered through hundreds of feet of sand and rock in a natural cleansing process. The high-quality aquifer water requires little or no treatment other than aeration to remove hydrogen sulfide (rotten egg odor) and chlorine for disinfection. Figure 12 shows the location of the residential water mains and the more than 2800 fire hydrants in the City.



Compliments University of Florida

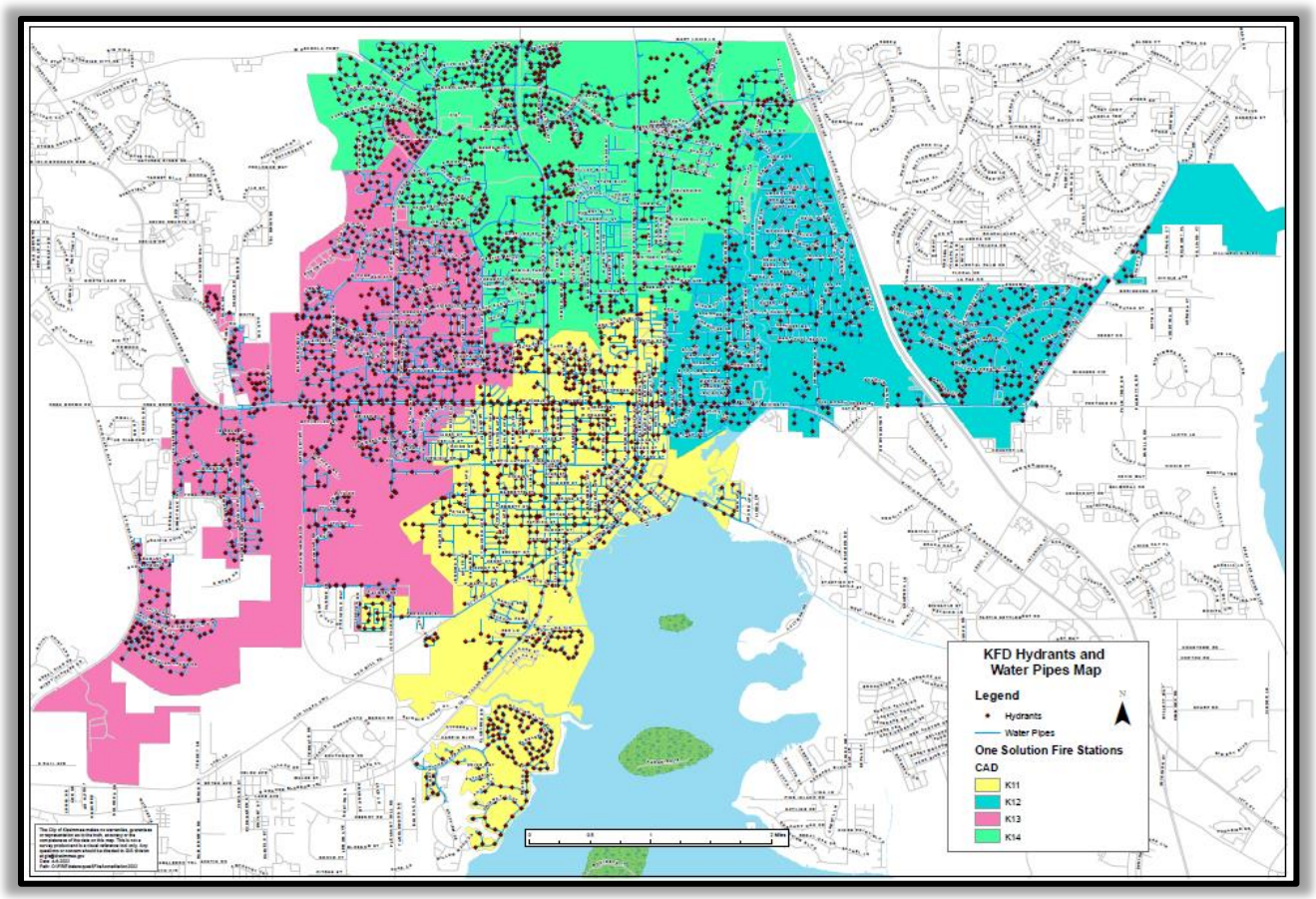


Figure 12 Water Mains and Fire Hydrants

Electric

The Kissimmee Utility Authority (KUA) owns, operates, and manages the municipal electric system established by the City of Kissimmee in 1901. Compared to the other municipally owned electric utilities, KUA is the sixth largest utility in Florida. KUA's 300 employees serve approximately 90,000 customers in Kissimmee and surrounding areas. KUA works with the Florida Municipal Power Agency (FMPA) to provide electricity through a complex electric grid. KUA maintains a staff around the clock to provide service for their customers including the fire department. Most of KUA's electricity comes from the Cane Island Power Plant located in Intersession City as shown in Figure 13.

Figure 13 Cane Island Power Plant, Compliments of KUA

SECTION 2 – DESCRIPTION OF THE DEPARTMENT

Legal Basis to Operate (CC 1A.1)

To date, several documents have been found dating back to 1902 that prove the City of Kissimmee provided infrastructure (1910) and fire protection for its citizens. Not until City Ordinance 604 (8/8/1972) were we able to find any organizational structure mentioned. This ordinance established a Fire Prevention Bureau under the direct supervision of the fire chief of the City of Kissimmee who then reported to the city manager. In 1998, City Ordinance 2234, Title II, Chapter 2-4 provided the legal authority for the Department as a principal administrative unit within the City's organization. It further stated that the fire department shall consist of the department head, who shall be the fire chief and was given the authority and budget to provide programs for prevention, suppression, and emergency rescue. State of Florida Title XII Chapter 180.20 provides this authority to municipalities.

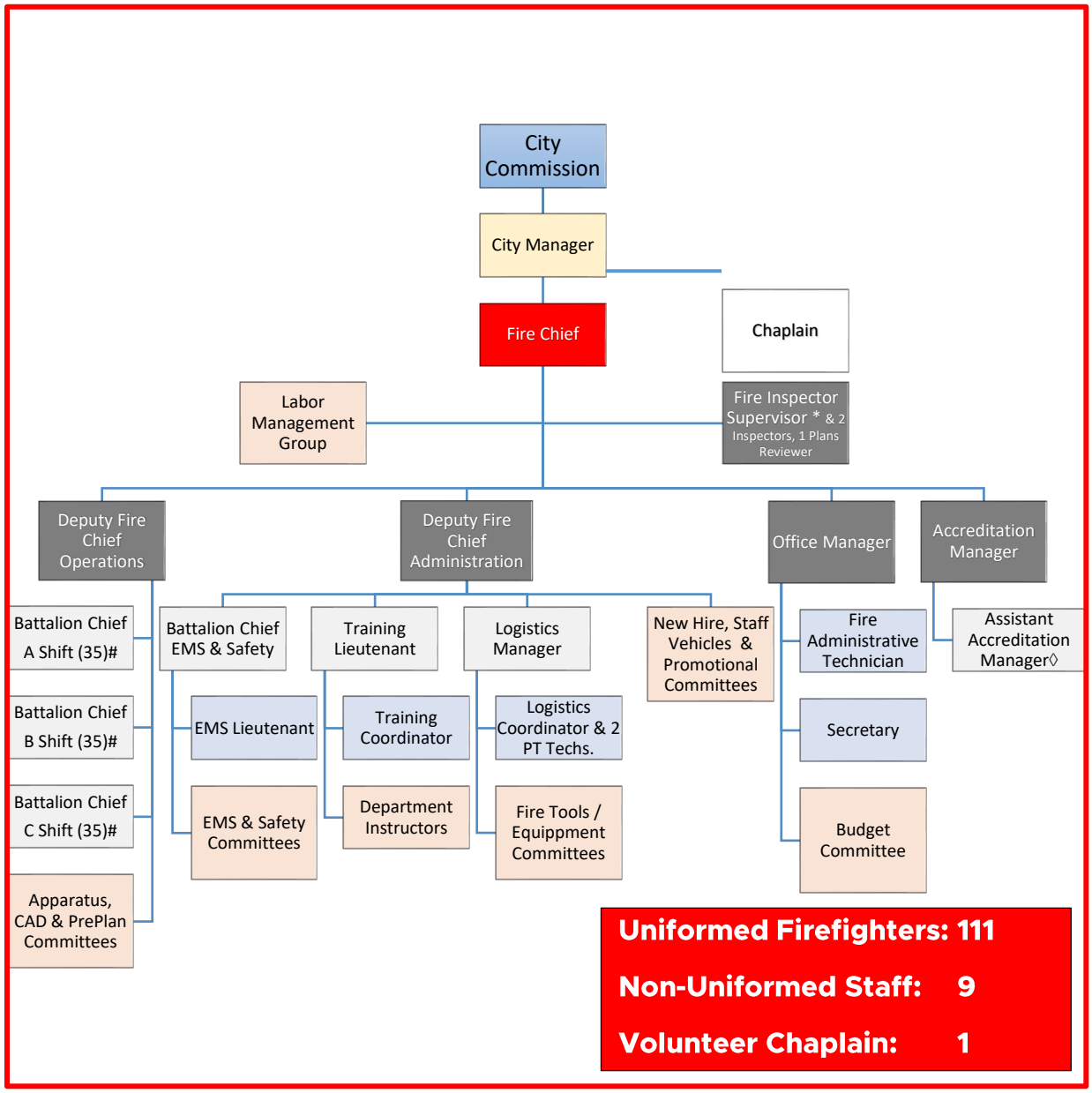
Fire Department Milestones

- 1909 – Department formed
- 1910 – Water works approved (elevated water tank and hydrants), (3) 500' hose reels purchased, (3) small metal roof fire stations erected, requests for professional fire department
- 1912 – 1st American LaFrance engine purchased, and first paid employee/driver
- 1934 – New fire station erected
- 1947 – Ford hose and ladder truck and Chevrolet chemical truck purchased
- 1948 – New fire station erected
- 1967 – First modern-day fire station dedicated (old Station 11).
- 1975 – The Department's 1923 American LaFrance engine discovered in airport hanger and restored.
- 1979 – Station 12 dedicated
- 1979 – EMS calls for service were added to the fire department PSAP (dispatch center).
- 1979 – ALS Care and EMS transport started
- 1981 - Kissimmee Police Department established 911 PSAP for fire, police, or ambulance.
- 1989 – Station 13 dedicated
- 2004 – Station 14 dedicated
- 2010 – Station 11 dedicated (old Station 11 was demolished)
- 2014 – Achieved Public Protection Classification ISO 1for fire suppression

City of Kissimmee Fire Department Organizational Chart

(1A.5)

Figure 14 shows the Department's organizational chart which is approved annually by the fire chief and city manager and is published as part of the City's annual budget. The Department's administrative staff shown below meets most of the needs of the Department. Additional staff are requested as needed through the budgetary process.



*Fire inspection supervisor reports to fire chief on fire code issues only.

#Each shift maintains one battalion chief, six lieutenants, five engineers, and 23 firefighter/paramedics or firefighter/EMTs

◊The assistant accreditation manager is a shift lieutenant.

Figure 14 Department Organizational Chart

Budget Process (CC 1B.1, 4A.7, CC 4C.1, 4C.3)

The goals and objectives in the Strategic Plan have short and long-term objectives that directly relate to the Department's budget requests. The Department's mission, size, complexity and its goals and objectives guide the budget process and fine tune the allocation of resources. The provision of equipment, personnel, and other financial resources is reviewed annually by staff during the budget process to ensure that the Department is properly equipped, staffed, and funded. In addition to these resources, the Department budgets project asset maintenance and repair costs. The administrative structure of the Department is reviewed and approved by the fire chief and City leadership during the budget approval process. Given current and forecasted revenues, the agency has sustained the level of service adopted by the fire chief and City leadership.

City Manager / City Commission (1A.3)

The city manager is the chief executive officer of the City and reports to the city commission. The Department's annual budget is fine-tuned by the city manager and then approved by the city commission. As part of the annual budget process, the Department's top goals and objectives are included and approved in the budget process. This process, as well as the budget workshops, provide two of several avenues of communication between the governing body and fire administration. This serves as the formal approval of programs and services for all departments.

Fire Chief (1A.7)

The fire chief (chief) is appointed by the city manager and serves as an executive-level department head in the City. The chief reports to the city manager and maintains an open line of communication with City senior staff and department heads through weekly department head meetings. The fire chief or designee also attends twice-monthly commission meetings. The chief is responsible for the overall management of fire suppression, emergency medical services, special operations response activities, fire prevention, and community education programs. The chief fosters teamwork on all levels and plans, implements, and reviews departmental short and long-range goals and objectives. The chief is the authority having jurisdiction (AHJ) over the fire code for the City. The fire chief also responds to major emergency incidents.

Office Manager

The office manager directs and manages administrative and clerical staff for the Department and performs routine to complex administrative work in support of daily operations. They report to the fire chief and are considered part of the senior management team. The office manager provides a variety of responsible, confidential, and complex administrative support including analysis of the budget. They perform daily functions such as preparation of financial reports, budgets, and related analyses. The office manager maintains and updates a variety of files and records, including confidential documents. They oversee all financial matters of the Department including payroll, accounts receivable/payable, budget adjustments and transfers, purchasing and internal departmental audits. The office manager is the budget committee chairperson. They prepare city commission agenda items in a timely, accurate and comprehensive fashion.

Deputy Fire Chief of Operations

The deputy fire chief of operations (operations chief) leads the Operations Division of the Department and reports to the fire chief. They provide supervisory support and direction to the Department in all fire, special operations, and emergency medical functions. The operations chief is responsible for purchasing new apparatus and works with the City's Fleet Maintenance Division to ensure timely repairs of the fleet. The three shift battalion chiefs report to the operations chief on all administration and operational issues involving their personnel. The operation's chief evaluates program and personnel performance and develops intervention strategies where appropriate. They develop and enforce standard operating procedures to ensure Department efficiency, productivity and compliance with all applicable policies, codes, statutes, laws and regulations, and standards of quality and safety. They participate in the development of the Department's capital and operating budgets. The operations chief is responsible for the apparatus committee and the special operations committee. The operation's chief assumes responsibilities of the fire chief when assigned. They respond to significant emergency incidents and assumes a leadership role in the incident command system.

Deputy Fire Chief of Administration

The deputy fire chief of administration (administration chief) leads the Administration Division of the Department and reports to the fire chief. They provide supervisory support and direction to the EMS/Health and Safety Bureau, the Logistics Bureau, and the Training Bureau. The administration chief is responsible for the development and timely revisions of Department policies and procedures. They are responsible for Department HR functions and conduct formal employee investigations following City & state & federal rules, laws, and regulations. The administration chief participates in the development and oversight of the Department's capital and operating budgets. They respond to significant emergency incidents and assume a leadership role in the incident command system. The administration chief assumes responsibilities of the fire chief when assigned.

Battalion Chief of EMS & Safety

The battalion chief of EMS & safety (EMS chief) oversees the Department's EMS/Health & Safety Bureau and its functions and reports to the deputy fire chief of Administration. They provide supervisory support and direction to the EMS lieutenant who reports to the EMS chief. The EMS chief performs complex administration, technical, and planning work in the development and administration of a comprehensive emergency medical services (EMS) and health & safety program for the Department. They serve as the liaison to the medical directors, safety committee chair, compliance officer, and infection control officer. They order all EMS supplies and oversee EMS billing. The EMS chief ensures Department licensure compliance required by the Florida Department of Health and other regulatory agencies. They are responsible for the safety committee. The EMS chief responds to significant emergency incidents and assumes a leadership role in the incident command system.

Training Officer

The training lieutenant oversees the Training Bureau and reports to the deputy fire chief of administration. They provide supervisory support and direction to the civilian training coordinator, the Department's NFPA 1403 instructors, and other instructors when they are assigned to the training lieutenant. The training lieutenant is responsible for managing, coordinating, organizing, and supervising all aspects of training. They assist with promotional processes, the new firefighter

hiring process, and recruiting firefighters. The training lieutenant coordinates and schedules all training including supervisory programs and officer development. They supervise the Veterans Administration's "Probationary Firefighter Program." The training lieutenant oversees the Department's on-line learning platform and maintains training records, the training resource library and lesson plans. They oversee the fire-related areas of the City of Kissimmee's Public Safety Training Center that include the burn building and tower that were dedicated in 2019.

Logistics Manager

The civilian logistics manager oversees the Logistics Bureau and reports to the deputy fire chief of administration. They provide supervisory support and direction to the civilian logistics coordinator and two civilian logistics technicians. The logistics manager is responsible for managing, coordinating, organizing, and supervising all aspects of personal protective equipment (PPE) and uniforms for recruit firefighters, active firefighters, and fire officers. They are responsible for budget preparation, the purchasing and maintenance of firefighting tools and equipment, and the purchase of facility-related equipment in conjunction with Public Facilities. The logistics manager oversees the inventory control, bookkeeping, and other administrative functions and ensures equipment compliance with OSHA and NFPA requirements. They conduct special projects and work method and feasibility studies. They also conduct cost analyses, making recommendations to improve existing services, introduce new services, improve cost effectiveness, or obtain greater utilization of equipment. The logistics manager is responsible for the PPE Committee.

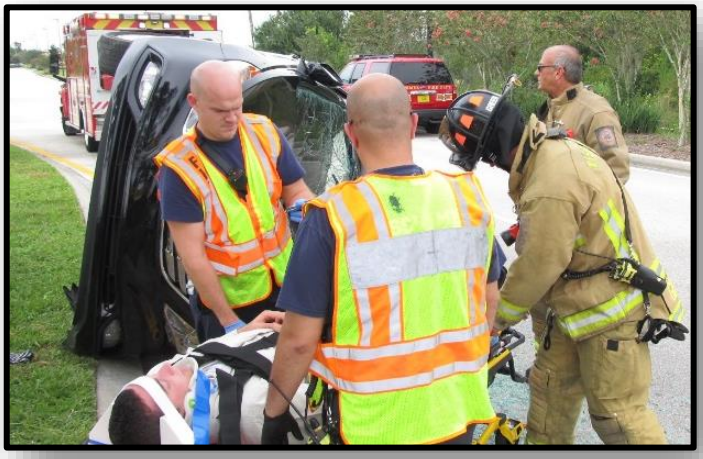
Fire and Emergency Services Provided (CC 2C.1)

The Department provides emergency services as well as several non-emergency programs. The emergency services include fire suppression, emergency medical service (EMS), vehicle machinery rescue, confined space rescue, high angle rescue, hazardous materials mitigation, and response to aviation incidents. The non-emergency programs include public education and numerous fire prevention programs. All these services and programs are periodically reviewed and approved by the fire chief.

Fire Suppression

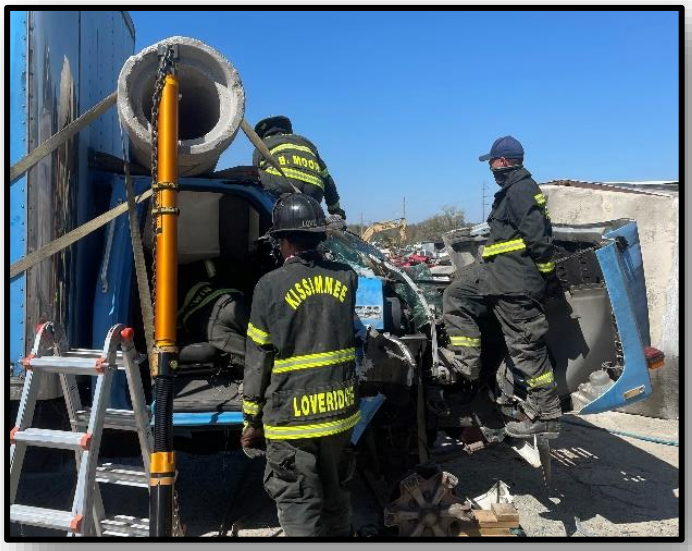
The fire department provides an ISO Class 1 public protection classification for fire suppression service to the citizens and visitors of the City of Kissimmee through four fire stations. The Department staffs three Class A pumpers (1500 GPM), one Tower truck (100 ft. aerial w/1500 GPM pump), and one squad (1500 GPM rescue pumper). Five Rescues (ambulances) are staffed with firefighters and are outfitted to perform search, rescue, and other fire ground operations. A battalion chief responds to provide incident command to ensure tactical priorities are executed. A safety officer responds and is designated to oversee the safety of all personnel operating in an incident.

EMS



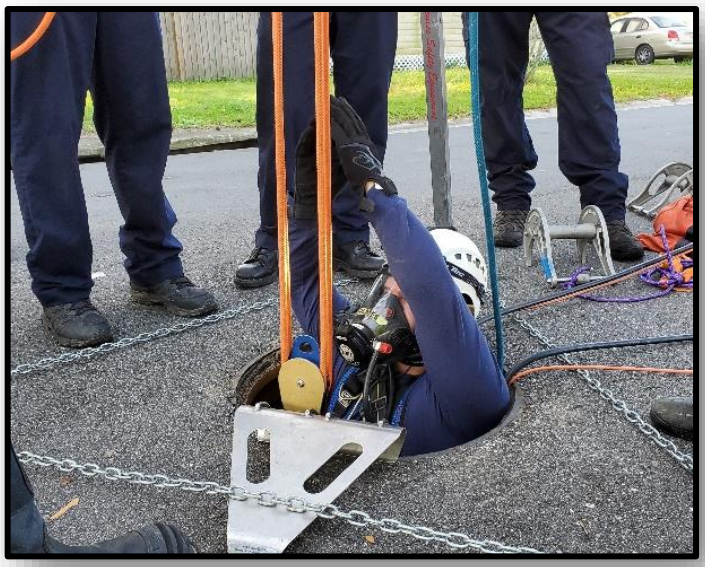
All Department fire and rescue apparatus can provide basic and advanced life support (ALS) to the community and its' visitors. Rescue units provide treatment and transport to local hospitals. Highly skilled personnel, dually certified as firefighters and paramedics or EMTs, provide patient care. These apparatus are equipped with state-of-the-art lifesaving equipment and supplies. All medical care falls under the auspices of the Osceola County Medical Director(s).

Vehicle Machinery Rescue (VMR)



The squad is a combination engine and "toolbox on wheels" which performs safe extrication and disentanglement operations at the scene of incidents including vehicle accidents and those involving machinery. It also carries high angle (rope rescue) equipment and supplies to support confined space rescue. The state-of-the-art VMR equipment includes multiple types of hand tools, hydraulic tools, and lift bags. The tower truck also carries a large cache of VMR and high angle equipment to assist the squad on incidents and can handle many VMR incidents by itself if the squad is on another incident. All the engines carry some VMR equipment including a battery-operated combination hydraulic tool and basic stabilization tools.

Confined Space



The squad and tower carry special equipment including air monitoring meters, communication devices, and breathing apparatus to provide rescues in underground vaults, storage tanks, sewers or other confined space locations that may have poor air quality. The Department is the primary confined space rescue responder to the City of Kissimmee and the Osceola County contract area.

High Angle Rescue

The special operation's personnel receive advanced training at the technician level and can perform high angle rescues. The squad and tower truck carry the equipment needed for most high angle rescue needs in the City and surrounding areas. These trucks are equipped with rescue rope, rescue harnesses, descent equipment and other devices. The location of potential rescue sites in the City includes radio/cell towers, high-rise buildings or possibly sink holes. Many of the Department personnel are trained to the advanced technician level.

Trench Rescue

Currently Department firefighters are trained to the awareness level of trench rescue and initiate scene management, rescue non-entrapped patients, and assist technician-trained trench rescuers. Technician-level firefighters respond mutual aid to the City if needed from Orange County Fire Rescue. Special operations firefighters are training to the technician level and in the future, the Department plans to implement technician-level response capabilities.

Special Operation's Levels of Training and Response

Special Operations	Level of Training & Response		Notes
Vehicle Machinery Rescue	Operations	Technician	Over 90% of the firefighters at Station 11 (special operations station) are trained to the technician level of these disciplines plus trench rescue.
Confined Space	Operations	Technician	
High Angle/Rope Rescue	Operations	Technician	
Trench	Awareness		Osceola County Fire Rescue or Orange County Fire Rescue provide the technician- level response for these incidents.
Hazardous Materials	Operations		

Aviation

The Department responds to various aircraft emergencies at the Kissimmee Gateway Airport and surrounding area. In addition to the standard fire and rescue apparatus, a large cache of foam is maintained on a vehicle at Station 11. A Department fire station is scheduled to open on or near airport property in 2024 with at least one engine or squad. In 2026, an aircraft rescue and firefighting (ARFF) vehicle is planned for airport.

Hazmat Response

The Department provides operations-level hazardous materials response, and all Department firefighters are trained to the operation's level. They can assist in controlling and minimizing the spread of the release of hazardous materials. Establishing hazard zones, air monitoring, and damming/diverting hazardous materials are part of the operations-level training. The Osceola County Fire and EMS Department provides technician-level Hazmat response. The Department trains with them on establishing a Decontamination Group and operating the gross and technical decontamination process.

Fire Stations, Personnel and Apparatus

The City of Kissimmee Fire Department (Department) currently operates four fire stations. A fifth station is scheduled to open in 2024. Currently, the fire stations are staffed with 111 dually certified career personnel working a 24/48 schedule. Nine non-uniformed staff also provide a valuable contribution to the team. The minimum daily apparatus staffing of the four stations is twenty-seven uniformed personnel staffing five ALS transport rescues, three engines, one squad, one tower, one battalion chief vehicle, and one safety lieutenant vehicle. Minimum staffing is three on fire apparatus and two on rescues. In 2014, the Insurance Services Office (ISO) increased the City's public protection classification from a Class 2 to an ISO Class 1 rating. It was again awarded an ISO Class 1 public protection classification in 2019. Figure 16 shows the apparatus, minimum/maximum staffing, and reserve apparatus at each station.

<table>
<tr><th>Station</th><th>Apparatus</th><th>Staffing min.(max.)</th><th>Reserves</th><th>Station</th><th>Apparatus</th><th>Staffing min.(max.)</th><th>Reserves</th></tr>
<tr><td rowspan="8">Station 11</td><td>Squad 11</td><td>3(4)</td><td></td><td rowspan="8">Station 13</td><td rowspan="3">Engine 13</td><td rowspan="3">3(4)</td><td rowspan="3">(1) Engine</td></tr>
<tr><td>Tower 11</td><td>3(5)</td><td></td></tr>
<tr><td>Rescue 11</td><td>2</td><td></td></tr>
<tr><td>Rescue 15</td><td>2</td><td></td><td rowspan="3">Rescue 13</td><td rowspan="3">2</td><td rowspan="3">(1) Rescue</td></tr>
<tr><td>Battalion 1</td><td>1</td><td></td></tr>
<tr><td>Safety 1</td><td>1</td><td></td></tr>
<tr><td>Event 1</td><td colspan="2">Staffed with overtime</td><td rowspan="2">Brush 13</td><td colspan="2" rowspan="2">Cross staffed</td></tr>
<tr><td>U-11 (Foam & Special Ops. Trailer)</td><td colspan="2">Cross staffed</td></tr>
<tr><td rowspan="2">Station 12</td><td>Engine 12</td><td>3(4)</td><td>(1) Engine</td><td rowspan="3">Station 14</td><td>Engine 14</td><td>3(4)</td><td>(1) Engine</td></tr>
<tr><td>Rescue 12</td><td>2</td><td>(1) Rescue</td><td>Rescue 14</td><td>2</td><td>(1) Tower</td></tr>
<tr><td></td><td></td><td></td><td></td><td>Rescue 114</td><td>2</td><td></td></tr>
<tr><td colspan="2">Staffing</td><td>17-21</td><td></td><td></td><td></td><td>12-14</td><td>27-33 Total</td></tr>
</table>

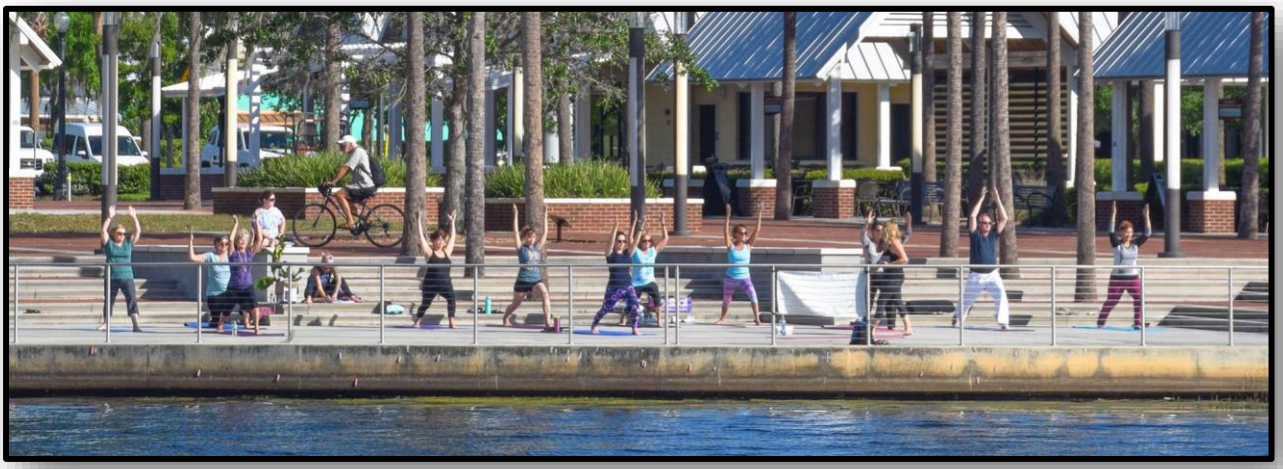
Figure 16 Department Stations, Apparatus and Staffing

Fire Station Boundaries and Response Area

The boundaries of the City of Kissimmee were most recently adopted on April 19, 2022, by the city commission (agenda item 4.B) when additional annexation occurred. The City maps are kept current by the Global Information Systems (G.I.S) staff of the City's Information Technology (I.T.) Department. The maps showing the current City boundaries are published on the City's SharePoint site.

Primary Service Areas (2A.1)

The two primary service areas for the four stations or districts in the Department are the City of Kissimmee boundaries (City Ordinance 1867, Article 1, Chapter 2, § 1, passed 12-08-1992/03-30-1993) and the Osceola County contract area (OCCA) adjacent to the northern most part of the City. The City's G.I.S. staff and the 911 Addressing Section of the Osceola County Sheriff's Office keep them updated. The 911 Addressing Section ensures the emergency service numbers (ESNs) are directed to the correct 911 Public Safety Answering Point (PSAP). The G.I.S. staff ensure that maps used by all City departments remain updated. The change in boundaries occurs most frequently when the annexing of properties occurs from Osceola County to the City. Figure 17 shows the Department's primary service areas and the four fire station districts.



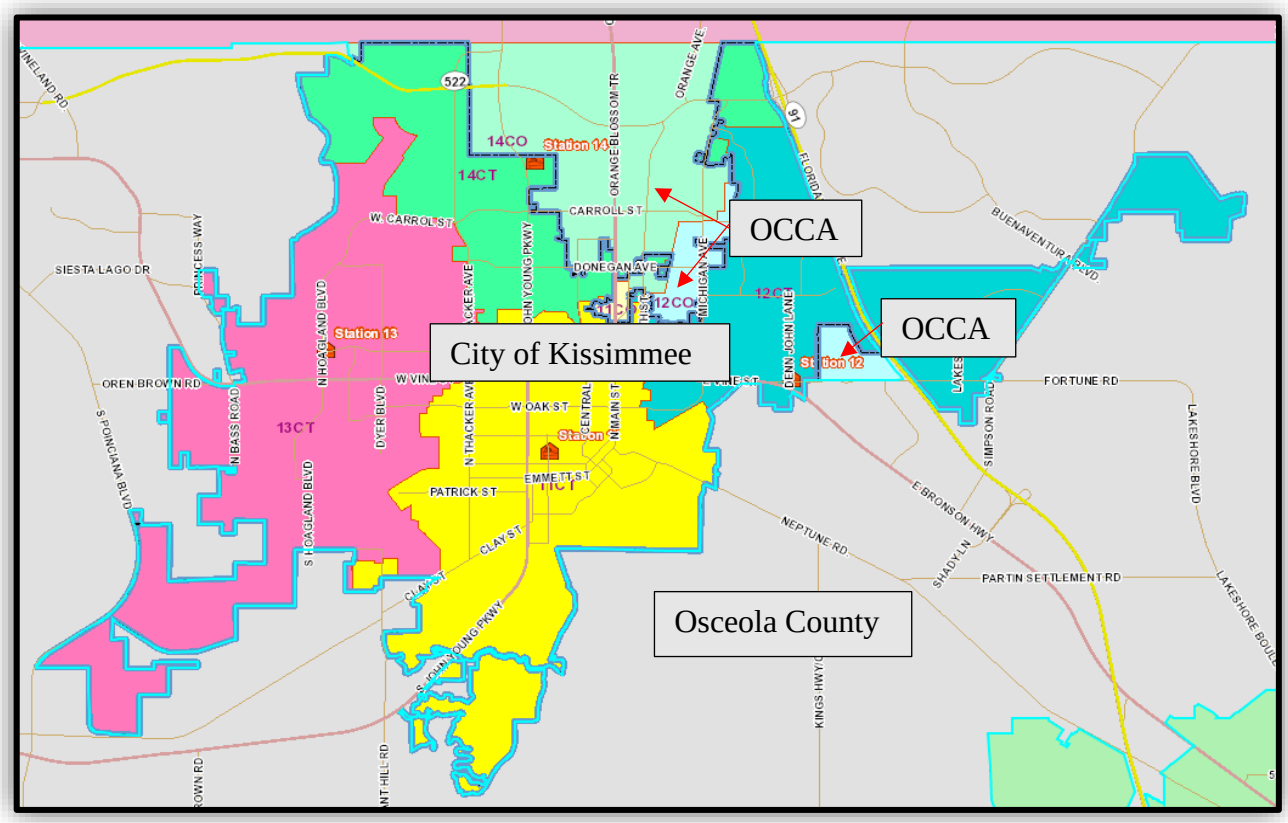


Figure 17 Kissimmee Fire Station Districts

Osceola County Contract Area (OCCA)

The Kissimmee City Commission and Osceola County Board of County Commissioners approved the OCCA per the *Inter-local Agreement between Osceola County Board of County Commissioners and the City of Kissimmee for the Fire/EMS Service for a Portion of Osceola County from Kissimmee Fire Station No. 14.* The document originally dated 11/01/2006 was last updated 03/8/2021. The ESNs for the OCCA are directed to the Kissimmee PSAP.

Secondary Service Areas and Interlocal Agreements (2A.2)

Figure 18 lists the interlocal agreements between the City of Kissimmee (COK) and Osceola County, City of St. Cloud, and Orange County for fire protection, EMS, and specialty services. In addition to the OCCA mentioned above, Osceola County provides automatic aid to a small area located in the southwestern part of the City of off Poinciana Blvd. Figure 19 shows the Department's secondary service area surrounding the City limits and the OCCA.

Interlocal (Mutual/Automatic Aid) Agreements		
Jurisdiction	**Conditions**	**Adopted**
Osceola County	Mutual aid as needed and if available and automatic aid to the City off Poinciana Blvd.	05/04/2004
Osceola County (OCCA)	Inter-local Agreement between Osceola County Board of County Commissioners and the City of Kissimmee for the Fire/EMS Service for a Portion of Osceola County from Kissimmee Fire Station No. 14.	11/01/2006
Orange County	Mutual aid as needed and if available	04/20/2004
City of St. Cloud	Mutual aid as needed and if available	10/19/1989
State of Florida	Mutual aid during disasters	02/21/2001

Figure 18 Interlocal Agreements

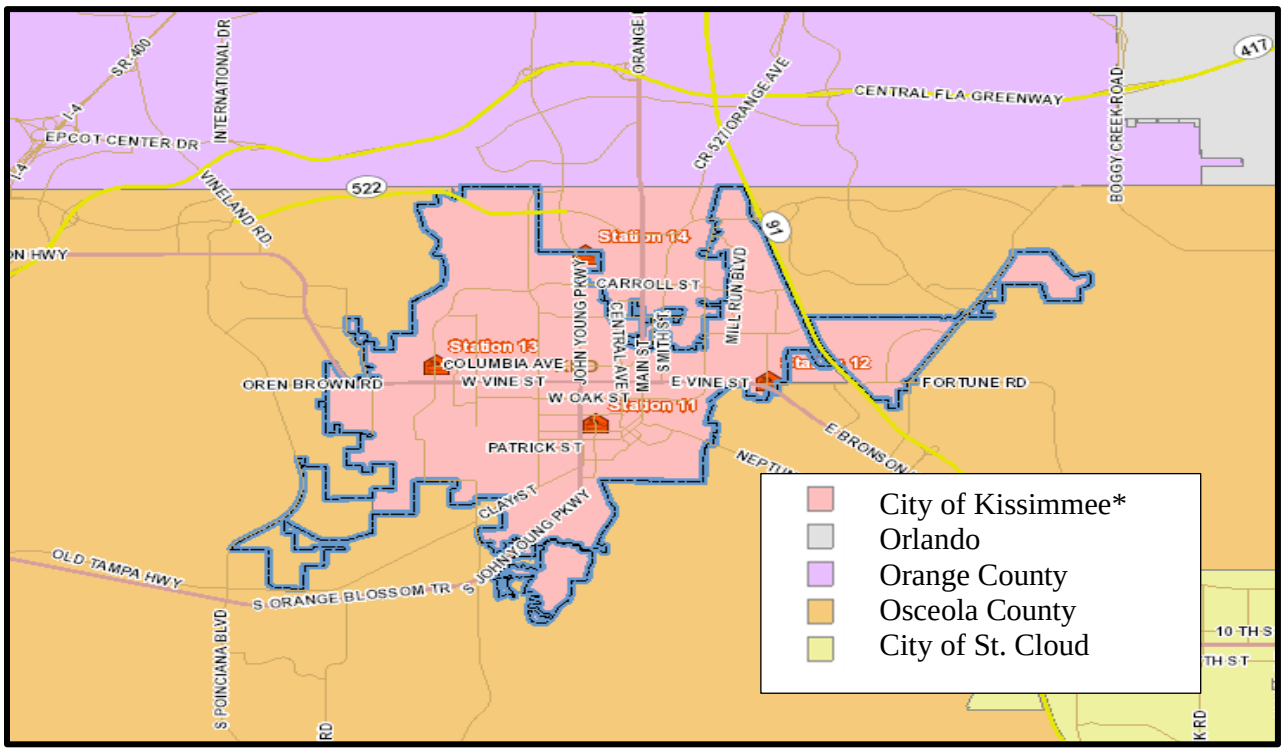


Figure 19 Fire Department Primary* and Secondary Service District

Community Risk Reduction Programs (2A.8)

Community Risk Reduction (CRR) is a newer term in the fire/rescue service and includes programs that provide knowledge and activities that lower risks in the community. In addition to emergency services, the Department also provides public education, fire inspections, building plans reviews, code enforcement, and advanced training to firefighter/paramedics. These programs are documented in various city and fire department software programs.

Public Safety Training Center

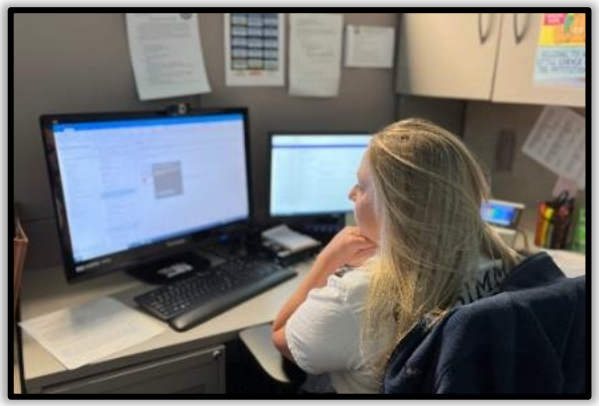
The Department proudly opened its new Public Safety Training Center in 2019. It consists of a five-story training tower, two live fire training rooms, a search and rescue area with movable walls, a simulated elevator shaft, a system-wide smoke generator and other features that can be used for confined space and high angle rope training.

Life Safety Bureau

The three fire inspectors are assigned to the City's Development Services Department and provide numerous services to the community. The fire prevention bureau delivers a comprehensive fire and life safety compliance and education program. This is done through construction plans review, development of site plans, annual inspections, permitted inspections, and public education.

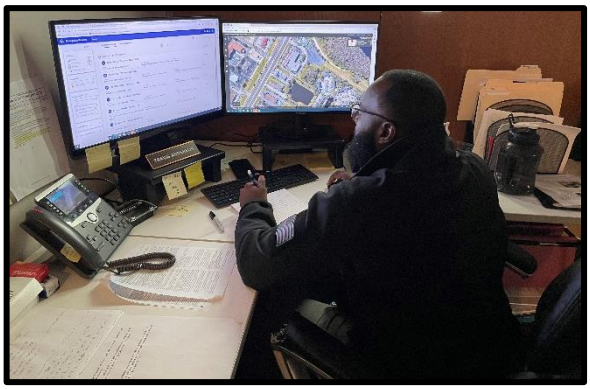
Fire Inspection Program

The City of Kissimmee fire inspectors are certified by the state fire marshal and performed over 1500 inspections in 2022. These inspections included critical occupancies, new construction, underground water mains, above ground sprinkler systems, hood suppression systems, fire alarm systems and burn permits. The inspectors ensure buildings and systems are being maintained and confirm fire safety measures are being upheld for occupant and firefighter safety. They also identify corrective actions necessary to bring properties into compliance with applicable fire and life safety codes.



Fire Plans Review

The City fire plans reviewer, and the fire inspectors perform fire and life safety plan reviews on all new construction and occupancy changes. This occurs through the City's permitting process and ensures that the latest Florida fire prevention code and City ordinances are followed. The fire plans reviewer attends the Development Review Committee (DRC) meetings and reviews building site plans for the location of hydrants, fire mains, interior alterations, sprinkler systems, fire department connections (FDC's), etc. In 2022, 1,087 plan reviews were performed.



Fire Code Enforcement (CC 5A.2)

Code enforcement is an essential element of a fire prevention program. It incorporates the reduction of fire hazards that may pose a threat to life and property. The code enforcement program ensures compliance with applicable fire protection laws including the Florida Fire Prevention Code, Florida Administrative Code 69A, City ordinances, and Department objectives. The Florida Fire Prevention Code is adopted every three years. The current code is the seventh edition and was approved in

2020. An annual program appraisal is completed on its fire prevention program. The State Bureau of Fire and Arson Investigations of the Division of Investigative and Forensic Services performs fire and explosion investigations in the City when needed.

Fire Code Development

Occasionally the City's Fire Prevention Bureau determines that a new City ordinance needs to be developed or an existing City ordinance needs to be updated. The inspectors provide input using state and national fire code standards.

Life Safety Education

The fire inspectors, the training bureau, and the Department firefighters provide the Department's public education program. There was a decrease in this program due to the COVID pandemic but this important education it is getting back to pre-pandemic levels. The program includes these elements:

- **School Demonstrations**

  Firefighters provide life saving information to school-aged children and demonstrate their equipment, gear, and apparatus.

- **Career Days**

  Firefighters or staff attend these special days at area schools and clubs and provide future leaders with information about the career as a firefighter/paramedic.

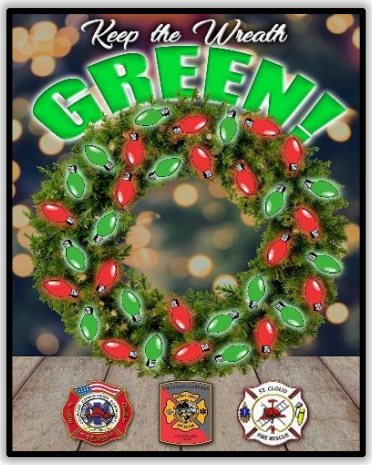
- **Community Events**

  Crews provide standbys and public education displays at numerous City events and provide public education and disseminate life safety materials.

- **Social Media**

  The Department PIO provides weekly social media safety tips to the community. Prior to every thanksgiving, the Department sends a social media public safety announcement (PSA) on the hazards of deep frying a turkey. Prior to

hurricane season, the Department provides hurricane safety information at the annual Hurricane Expo and provides it at other community events throughout the year. To help target electrical fires, The Department participates in "Keep the Wreath Green" program urging the community to stay safe during the holidays, especially with lighting, electrical cords, and candles. Fire and health safety is taught at numerous schools and community events throughout the year. The Department's #TUESDAYTIPS on its Facebook page promotes a variety of these and other targeted public education topics covering specific risks including heater safety, changing smoke alarm batteries, flood water safety, generator safety, and Halloween safety tips. The opportunity to schedule a fire inspection is also sent out on Facebook.



- **School of Government**

  Local community members take part in a several week program and experience each of the City departments. During the fire department day, the residents experience many aspects in the day of a firefighter including extinguishing a fire with a fire extinguisher, providing medical care to a robotic training manikin, and learning about the tools and equipment on the apparatus.

- **Fire Station Visits**

  Members of the community often stop by for a tour of the station and apparatus. Safety tips are often discussed on these visits.

- **Keep the Wreath Green**

  The Department, along with St. Cloud Fire Rescue Department and Osceola County Fire Rescue & EMS Department, participate in the Keep the Wreath Green program. During the Christmas holidays, a wreath with green bulbs hangs on the front of each fire station. If there is a fire during the season, one of the green bulbs is removed and replaced with a red bulb. Therefore, the goal for the community is to remain safe during the holidays and keep the wreath green.

- **Cooking Fires**

  Due to an increase in kitchen fires a few years ago, the Department began a cooking fire safety campaign and continues to hand out safety material about this important topic.

- **American Red Cross Sound the Alarm Program**

  The Department assisted the Red Cross with their Sound the Alarm Program prior to the COVID pandemic and is looking forward to continuing this partnership soon. The program installs smoke alarms into high-risk neighborhoods.

- **Hurricane Expo and Touch a Truck**

  Osceola County Emergency Management sponsors this annual event. The City's fire inspectors and staff are on hand to teach residents about the hazards during hurricanes and hurricane preparedness.

- **Fire Safety Fest**

  Fire Safety Fest is an annual collaboration between the three fire departments located in Osceola County: St. Cloud Fire Rescue, City of Kissimmee Fire Department, and Osceola County Fire Rescue and EMS. All three agencies come together to promote fire safety in October which is fire prevention month. Visitors learn life-saving information and discover the community involvement of firefighters. Classes are offered such as basic first aid and the use of a fire extinguisher. A burn trailer demonstrates the difference between buildings having sprinkler systems versus ones that do not.

- **Fire Extinguisher Training**

  The Department provides annual fire extinguisher training to the staff of Give Kids the World , during the Osceola Schoold of Government, and other City events.

Stop the Bleed Program

Due to the increase in active shooter events on the national level, the Department educates City employees on how to use the medical equipment in the Stop the Bleed program. Stop the Bleed kits are installed in most City buildings near the AEDs.

- **CPR/AED Training**

The City offers CPR/AED training for all employees and AEDs are in most City buildings. Although the Department does not offer CPR/AED training to the public, the Department urges the community to take this life-saving class.

The Department greatly supports our local businesses who provide this valuable service. Cardiopulmonary Resuscitation (CPR) can prolong brain function after cardiac arrest and an automated external defibrillator (AED) can analyze a heart rhythm, deliver an electric shock (defibrillation), and help reestablish an effective heart rhythm. Defibrillation must be completed within the first five minutes after cardiac arrest and in many cases; it takes first responders longer than that to arrive at the scene of emergencies.

Public Safety Answering Point (Kissimmee Police Department Communications Center)

The Kissimmee Police Department oversees the Communications Center for the City of Kissimmee. The Communications Center is the Public Safety Answering Point and answers emergency, and nonemergency calls for service 24 hours a day, 365 days a year. The Center dispatches police, fire, and emergency medical service incidents and is staffed daily with a minimum of six highly trained personnel on four 12- hour shifts. The

center has thirty-seven authorized full-time positions. In addition to taking all 911 calls within the City boundaries and the Osceola County contract area, the center handles 911 rollover calls from the rest of Osceola County as needed. The professional staff provides quality service to citizens, first responders and other agencies. The center can alert the fire stations using the Motorola Call Alert system on both 800 MHz and VHF (back-up system). Osceola Radio Services provides technical support to the center.

Strategic Goals

These seven strategic goals/initiatives are outlined in detail in the Department's Strategic Plan. Each of these broad goals is assigned to a Division, Bureau, or Team in the Department. Numerous objectives are assigned to each goal and include completion timelines and the names of the personnel responsible for their completion. These goals and objectives will help achieve the mission of the Department and were developed using input from both internal and external stakeholders. Throughout the implementation of the goals and objectives, the Department leadership can track their progress and address any obstacles that may arise.

1. Enhance the safety, health and wellness of Department personnel and maintain a strong EMS program. (EMS and Safety Bureau)
2. Distribute/maintain tools and equipment and continue to improve all fire facilities (Logistics Bureau)
3. Continuous improvement of fire, rescue and EMS Operations while maintaining efficient apparatus repair and scheduled replacements. (Operations Division)
4. Advance administrative effectiveness, accountability, and communications while maintaining fiscal responsibility (Administration Division)
5. Provide an effective Department-wide training program. Recruit and promote the best possible candidates. (Training Bureau)
6. Achieve and maintain International Accreditation though the Center for Public Safety Excellence (CPSE). (Accreditation Team)
7. Provide continuous improvement to the City's fire prevention program. (Fire Prevention Bureau)

SECTION 3 – COMMUNITY RISK ASSESSMENT

A community risk assessment (CRA) is critical in determining the hazards that exist in the community. These hazards not only include fire hazards but also natural disasters, emergency medical, hazardous materials, and special operations such as high angle and confined space rescues. With these hazards come inherent risk to the residents and visitors of the City. A community risk assessment shows the degree of risk or danger and helps the City's emergency services determine the appropriate response to those hazards. Risk assessment must consider available resources, deployment models, and concentration of incidents in the assessed areas. A systematic methodology or clear set of instructions provides an efficient and effective CRA and ensures that future CRAs provide the same results. The City of Kissimmee Fire Department determines the amount of risk using the all-hazards approach.

Inputs that the Department uses to measure risk per planning zone includes this information:

- Geographic Information Systems (GIS)
- U.S. Census Block
- Computer-Aided Dispatch (CAD) data
- Incident types and historical incident data
- National Fire Protection Association (NFPA) Standards
- Survey of all response areas
- Information from internal and external stakeholders

The Department uses these factors when assessing risk:

- The likelihood of an incident occurring (probability)
- The severity of an incident to the community (consequence)
- Impact on the Department's response plan
- Ability to provide ongoing emergency service.

Risk Assessment Methodology (2B.1)

For the community risk survey, the Department adopted the two-axis parabolic curve risk-assessment model (Figure 20). The model puts risk into levels of probability and consequence for each threat. The parabolic curve provides more flexibility than other models in determining category levels. The methodology is based on the numbers of similar types of incidents that occur in a specific level of risk and the consequences to the community. This model is used for both fire and non-fire risks.

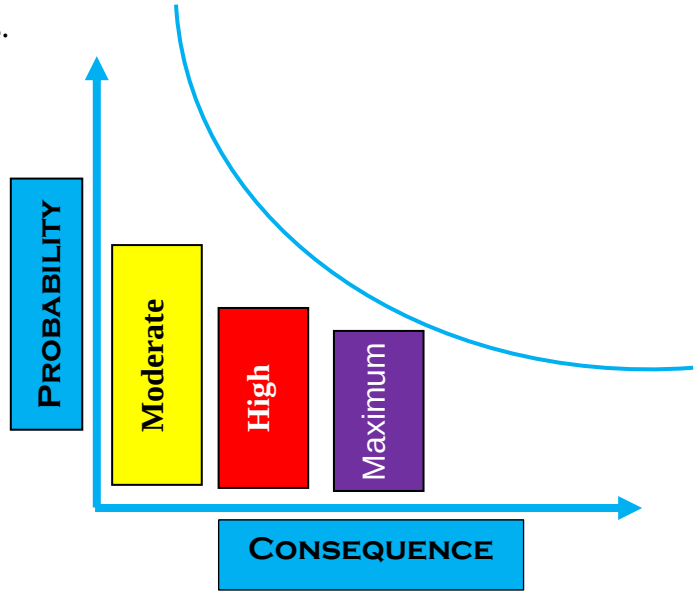
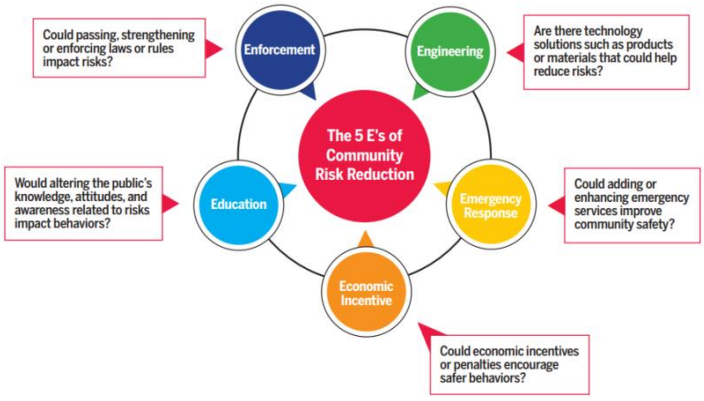


Figure 20 Community Risk Assessment Parabolic Curve (CPSE)



Compliments of Fairfax County, VA

Natural Disaster Risk

Hurricanes

According to Colorado State University, annually, there are an average of fourteen named tropical storms of which seven are hurricanes. Hurricane landfall occurs approximately 56% of the time in Florida. The impact from a major hurricane can have devastating effects on society, the economy, and infrastructure. Torrential rains can cause flooding from area rivers, lakes, and ponds. The worst inland damage is usually from the intense winds associated with a hurricane or tropical storm. The winds can cause major structural damage and road blockage from trees and other debris. Small tornados created by the hurricane wind speed can also cause similar damage. A systematic approach and support from many local, state, and federal agencies is often needed to assist in emergency response and mitigation to tropical cyclones (hurricanes).

Tornadoes

According to Florida State University, Florida has a higher frequency of tornadoes per 10,000 square miles than any other state. This is due to the high frequency of thunderstorms and tropical storms in the state. Tornadoes can be devastating, destroying anything in their path and can cause significant damage to structures and infrastructure outside of their path. Roof damage and shattered windows are common even for minor tornadoes. Like hurricanes, a systematic approach and support from many local, state, and federal agencies are often needed to assist in emergency response and mitigation of large tornadoes.

Flooding

According to the National Oceanic Atmospheric Administration (NOAA), Shingle Creek, which runs through the southern and western areas of the City has reached flood stage 6 times since 2003. During flooding that occurred in 2017, the Department assisted Osceola County Fire Rescue & EMS with a large evacuation of a senior community. Hurricane Nicole, in 2022, caused significant flooding within the City due to the large amount of rainfall in a 48-hour period. Emergency evacuations were conducted in several areas due to high water inside of structures and roadways. According to the City, the primary threat of flooding results from the "ponding" of water during heavy storms. Flooding can result from the overflow of small ditches and streams during significant

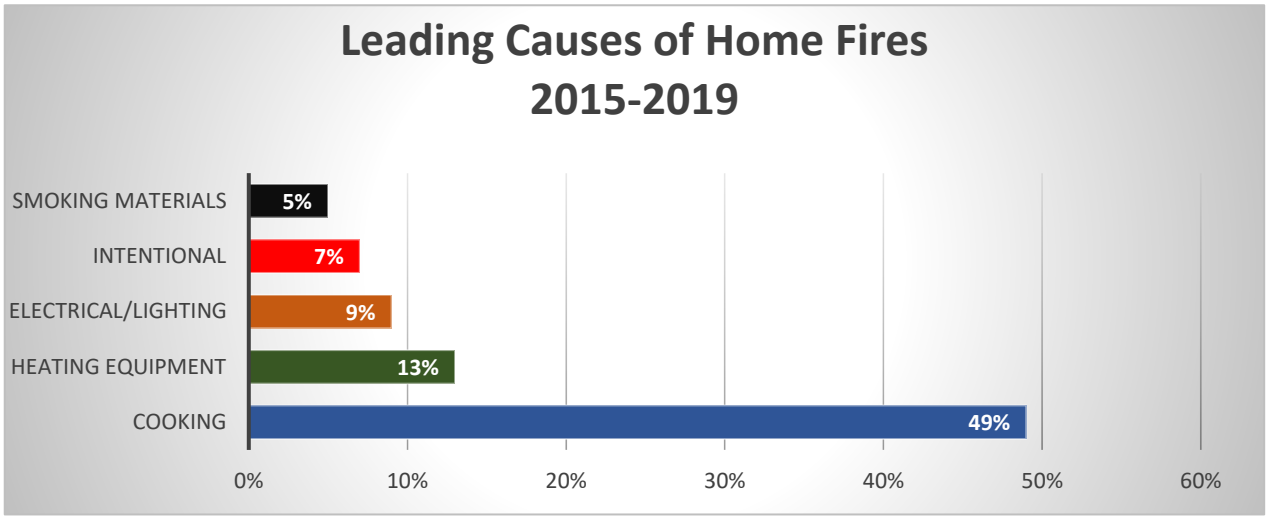
storm events such as Hurricane Nicole. Much of the historical flooding in the City has been alleviated due to engineering and the construction of canals through the City making severe flooding a low risk.

Terrorism Risk

According to the U.S. Department of Homeland Security, the United States remains in a heightened threat environment. Public gatherings, mass transit, faith-based institutions, schools, racial and religious minorities, government facilities, government personnel, critical infrastructures, and the media are most at risk. In addition to violent attacks, cyber-terrorism is on the rise. Cyber-terrorism involves the use of computers and information technology to cause disruption and fear. This form of terrorism could be a threat to our infrastructure having system-wide effects on communications, utilities, and emergency networks. High-risk areas for cyber-terrorism include railroads, airports, utility companies, banks, and companies involved with hazardous materials. The City of Kissimmee uses *Knowbe4* for their security awareness training.

The Need for Rapid Response to Fires – The Fire Problem in the U.S.

According to the National Fire Protection Association (NFPA), structure fires double in size every 60 seconds and the leading cause of home fires is cooking. During a five-year period, U.S. fire departments responded to an average of 346,800 structure fires per year. Annually, in the U.S., these fires cause approximately 2,620 civilian deaths, 11,070 civilian fire-related injuries and $7.3 billion in direct property damage. Smoking materials and cooking were the leading causes of home fire deaths and the leading areas of origin for these deaths were the living room and the bedroom. There were fewer deaths in apartments and high-rise buildings because they are more regulated. The highest percentage of fire deaths were in the 55-75 age group. Here were the leading causes of home fires in the U.S. between 2015-2019:



Commercial Property CRA Methodology - Windshield Survey

(CC 2B.4, 2B.5, 2B.6)

In addition to the Department's current pre fire plans and fire flows from the Toho Water Authority, the Department performed a windshield survey using a modified version of the Federal Emergency Management Agency's *Risk, Hazard, and Value Evaluation (RHAVE) model* modified system. This system was used to rate the risk of commercial structures and was used in conjunction with other methodology for hazardous materials, EMS, and auto fire risks. The windshield survey was conducted in the thirteen planning zones (fire response polygons) of the City to develop the CRA. Several fire departments such as Jacksonville Naval Air Station, Winter Park Florida, Ocoee Florida, and Loveland-Symmes Ohio used a similar CRA methodology.

Although the Department has noted fire protection systems in its fire risk assessment, the risk category was not directly impacted. During a task analysis it was determined that the magnitude and scale of the incident would not be affected enough to change the deployment strategy. Several points noted were that the systems could change the trajectory of fire growth, but other problems

remain. Such problems are system support, hose deployment, ventilation, water mitigation, and search and evacuation. The Department continues to analyze these systems for better inclusion in its risk assessment and review response strategies to these structures.

Procedure for Completing the Commercial CRA Survey

1. All commercial property is assessed for risk using these eight considerations:
    a. Life Hazard (based on maximum number of occupants)
    b. Building Usage (probability of an occurrence based on occupancy type or activities conducted)
    c. Community Impact (based on financial, historical, job, tax, or dollar loss)
    d. Building Construction (based on speed and magnitude of fire spread and safety of first responders)
    e. Hazard Index (complexity arrangement or layout of the contributes to the risk and may require additional resources based on the arrangement of the structure, could contribute to the fire load)
    f. Number of Stories (contributes to the number of resources needed to mitigate the incident which could affect the ERF)
    g. Water Supply (helps determine the fire flow formula)
    h. Square Footage (contributes to the quantity of the fire load). The Department placed a higher value on square footage to ensure adequate resources could respond to all sides/quadrants of the building(s) in a timely manor.
2. Each of the eight considerations receives a score between one and three and all are added for a total score between eight and thirty.
3. Elementary schools, middle schools, high schools, nursing homes, special needs homes, group homes, and 24-hour psychiatric facilities are considered high risk properties even if they receive a lower score. For tallying the scores on an Excel spreadsheet, ten additional points are given to each of these special consideration occupancies.
4. The square footage of the structure(s) is determined using the measurement tool on googlemaps.com. The number of stories is factored into the measurement for accurate square footage.

5. Figure 21 shows the risk classification and the corresponding score.

Commercial Risk Assessment Chart	
Moderate Risk	8 to 12
High Risk	13 to 19
Maximum	20 to 34

Figure 21 Risk Classification Chart

6. KFD Form 0101 *Risk Assessment Form* is shown in Figure 22. This form is used during a windshield survey and to update the current risk assessment spreadsheet when the accreditation team is notified of a new occupancy. All Department firefighters have access to the form and can update structures as needed.
7. An Excel spreadsheet showing the details and hazard risks of commercial properties in the City is in the shared folder on the primary Department network drive and available to all personnel. Moderate risk structures on the spreadsheet are boxed in yellow, high-risk structures in red, and maximum risk in purple. Figure 23 is a sample of the Excel spreadsheet and color-coding.

Downtown Kissimmee

8. Periodic updates are performed to maintain the CRA. The accreditation team has access to the City's new occupancy permits. For properties in the Osceola County contract area (OCCA), Osceola County emails a quarterly report to the accreditation team with a list of the new or changed occupancies in the OCCA. The CRA spreadsheet is updated with the risk category of the new occupancies.

City of Kissimmee
Risk Assessment Form

Building Address		TOTAL SCORE
Property Name		0
Property Type		
Assessor Name/ID	**Building Sprinklered? Y/N**	

Life Hazard	Criteria	SCORE 0	**Risk Index (activities, storage)**	Criteria	SCORE 0
High Life Hazard (> 100 occupants)	3		Industrial, High Life/Fire Hazard, HazMats	3	
Moderate Life Hazard (25-99 occupants)	2		Moderate Hazards, Moderate Fire Load	2	
Low Life Hazard (<25 occupants)	1		Office, Business, Residential	1	
Community Impact	Criteria	0	**Building Construction**	Criteria	0
Severe Impact (hospital, irreplaceable, historical)	3		Combustible (NFPA Type 4 and 5)	3	
Moderate Impact (high casualty, job/tax/dollar loss, food store)	2		Limited Combustibility (NFPA Type 3)	2	
Minor Impact(minor casualty / family loss)	1		Non-Combustibility (NFPA Type 1 or 2)	1	
Property Layout / Access	Criteria	0	**Number of Stories**	Criteria	0
Complex, Multiple, Industrial, Special, Gas Station, Lg. Strip Malls	3		3 or more stories (or 40 feet high or more)	3	
Moderate Business, Strip Mall more than 4 Occupancies	2		2 story building	2	
Simple/Stand Alone Business, Residential	1		Single story building	1	
Water Supply (<600')	Criteria	0	**Square Footage**	Criteria	0
0-1 Hydrants (<1000gpm)	3		More than 15,000	8	
1 hydrant (>1000gpm)	2		5000 - 15,000	5	
2 hydrants (1000gpm or over)	1		4900 or less	1	

SPECIAL CONSIDERATION NOTES

Circle Hazards that Apply: EMS HazMats/Chemicals High Angle Confined Space			
Elementary, Middle and High Schools, Nursing Homes, Group Homes, 24 Hr. Psychiatric Facilities	Consider all of these maximum risk (add 5 points)	**Special Risk SCORE**	0
Notes:			

KFD Form: 0101 1 of 1 8/22/2023

Figure 22 Department's Commercial Risk Assessment Form

Planning Zone	Street Number	Street Prefix	Street Name	Property Name/Description	Building Type	Sprinklered	Life Hazard	Risk Index	Community Impact	Building Construction	Property Layout/Access	Number of Stories	Water Supply	Square Foot	Square Footage Score	Special Consideration Score	Total Score	Special Considerations/Notes
11A	1217	W	Vine Street	Dairy Queen	Restaurant	N	1	1	1	2	1	1	1	1,600	1		9	
12B	1570	N	Kelley Ave.	Custom Cabinetry and Millwork	Mixed Use/Warehouse	N	1	3	1	2	3	1	1	7,700	5		17	
13C	401	S	Poinciana Blvd	Mater Palms Academy	Charter School	Y	3	3	2	2	3	2	1	25,700	8	5	29	School

Figure 23 Sample CRA Spreadsheet

Residential and Non Structure Fire Risk Assessment Methodology

A review of prior incidents, simulated training, collaboration of Department staff, and a review of NFPA 1710, were used to determine the fire risk of residential structures and fires involving non-structures.

Residential

1. **Moderate Risk** – One- and two-family homes
2. **High Risk** – Multi-family apartments and condominiums

Non-Structure

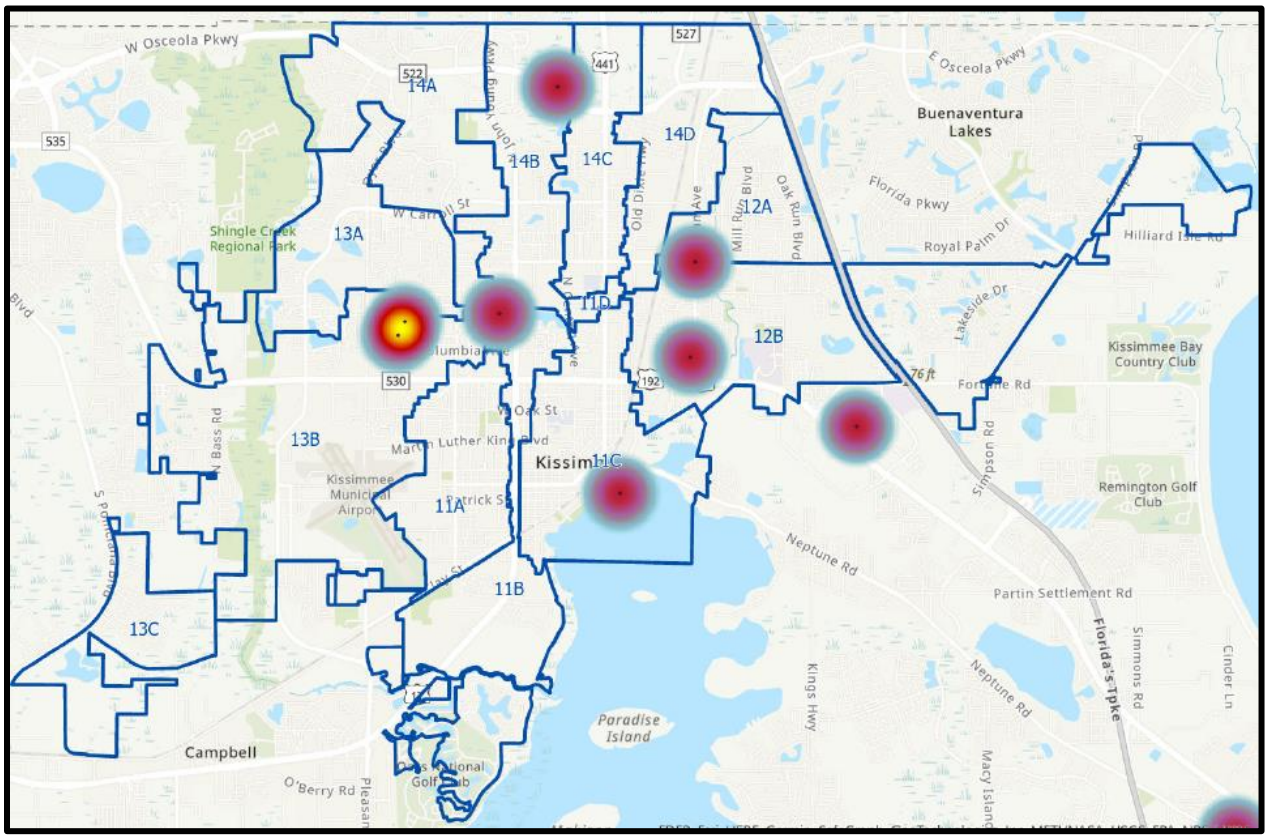
1. **Low Risk 1 -** Auto, brush, dumpster, illegal/legal burns, smoke odor
2. **Low Risk 2 -** RV, bus, semi, train

Emergency Medical Services Risk Methodology

These types of incidents can happen anywhere in the City, so the risk categories are determined by the severity of the patient(s) using ProQA/EMD to determine the prescribed unit(s) response(s).

1. **Low Risk** – Emergency or nonemergency responses, single patient; one rescue response.
2. **Moderate Risk** – Emergency response, single ALS patient; engine and rescue response.

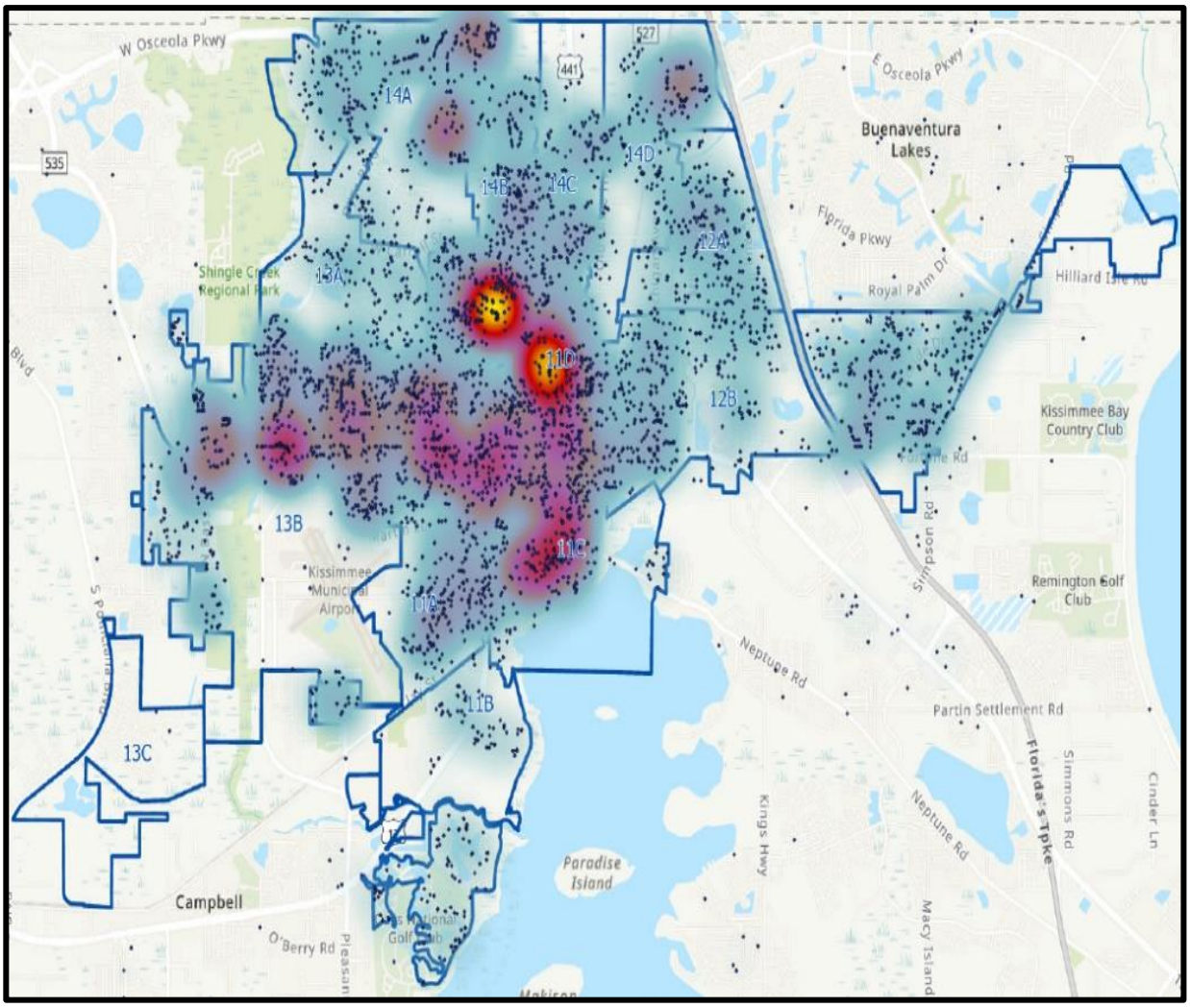
3. **High Risk** – Emergency response, one or more ALS patients, all medical and trauma alerts, mass casualty incidents; engine, rescue, and safety officer response is the minimum response.



2022 EMS Incidents

Technical Rescue Operations Risk Methodology (VMR, Confined Space, High Angle Rope Rescue)

All technical rescue disciplines are considered high-risk incidents. These types of incidents can happen anywhere in the City and historical data was used to help determine their probability and location. They require specialized resources and staff with specialized training. The Incident Command System (ICS) is implemented on these types of incidents requiring an incident commander and a dedicated safety officer.



2022 Technical Rescue Incidents

VMR Risk Methodology Based on Historical Data

These are low probability and usually high-risk incidents. These events most often occur at various intersections along the heavily traveled and higher speed roads in the City including Route 192, Osceola Pkwy., John Young Pkwy., Main Street/Orange Blossom Trail, and Michigan Ave. On some incidents involving motor vehicles, a "door pop" using a hydraulic tool is required to free the occupant(s) and was not considered in the data. High-risk VMR incidents involve detailed vehicle extrications performed by a special operations team from the squad or tower truck. Among all of the technical rescue operations performed in the City, VMR has the highest frequency of occurrences.

Confined Space Risk Methodology Based on Historical Data

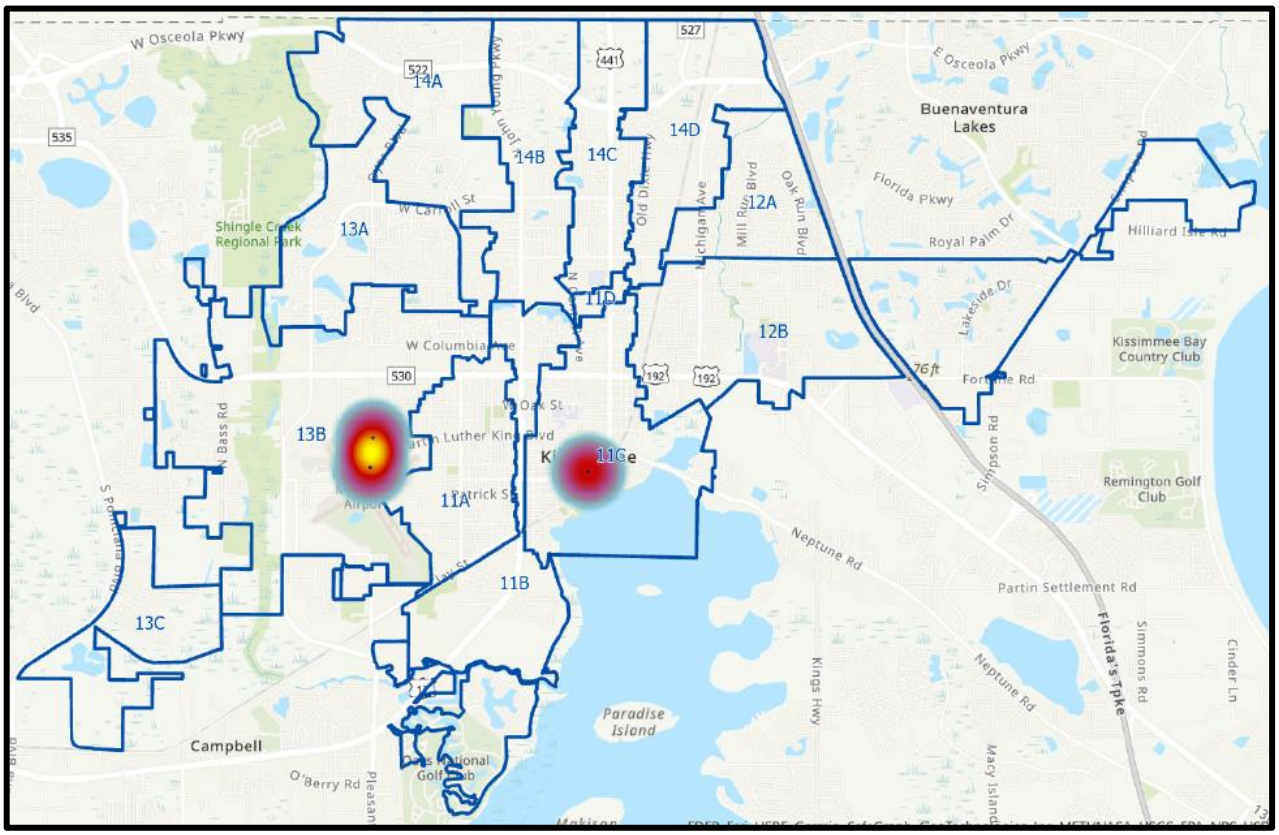
These are low probability and usually very high-risk incidents. Confined spaces are areas that are entered for repair, inspection, and maintenance, but they are not designed for an employee to work in for extended periods. These types of events would occur where utility work is being performed in underground vaults, storage tanks, sewers or other confined space locations that may have poor air quality. Toho Water Authority (TWA), City of Kissimmee (COK) Public Works (COKPW), and its contractors perform year-round confined space entries in the City and surrounding area. Between 2019 and 2021, TWA performed numerous confined space entries and the COKPW performed 13. Other contractors perform confined space entries to install and repair fiber optic, telephone, and electrical lines. The state of Florida does not require confined space permits and Florida is not an OSHA state.

High Angle Risk Methodology Based on Historical Data

These are low probability, high-risk incidents. These events most often occur at cell/radio towers, midrise/high rise buildings, amusement rides, elevator shafts, and construction sites.

Aircraft Emergency Methodology Based on Historical Data

These are low probability, high-risk incidents. These events most often have occurred at the airport or just off the airport property during take-offs and landings and usually involve small single engine aircraft.



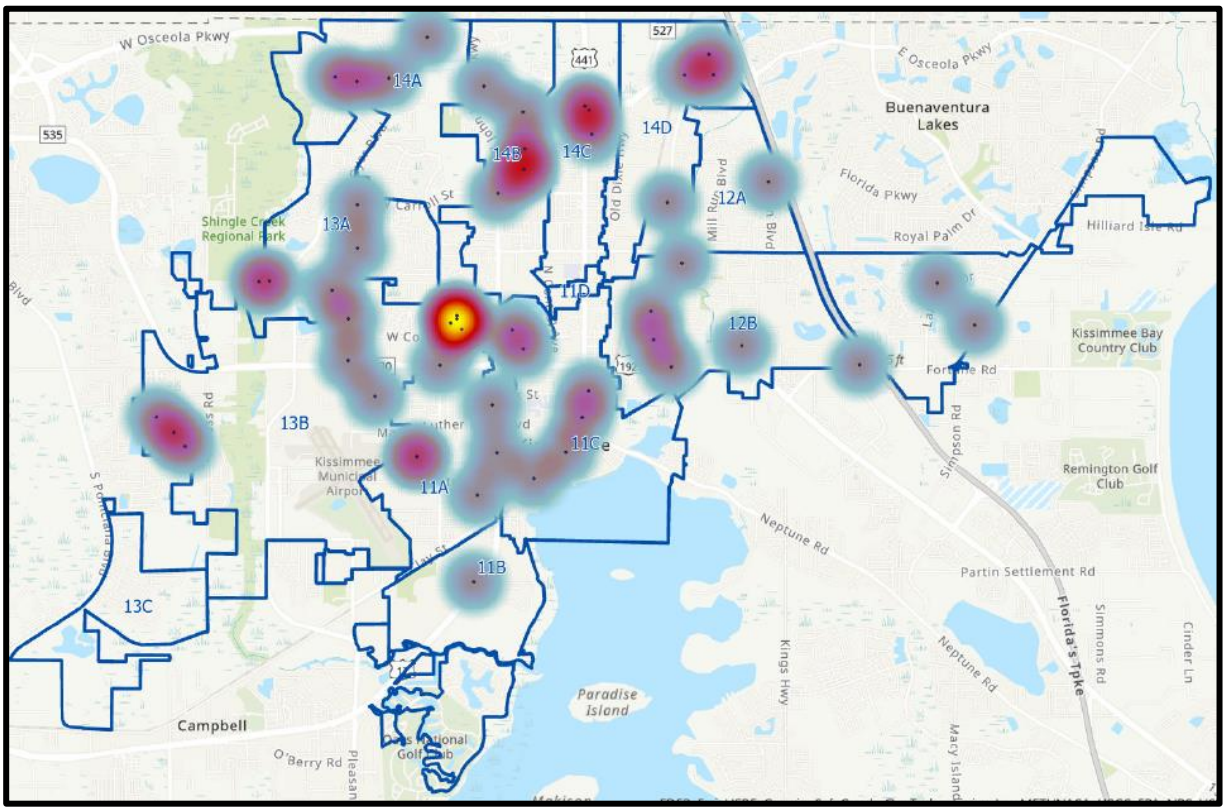
2022 Aircraft Incidents

Hazardous Material Risk Methodology

Numerous hazardous materials are transported by rail and on many of the roads in the City and surrounding areas. During the windshield survey, buildings containing hazardous materials were noted and results were shown in the planning zone sections of this document. Historical data shows that most responses by the Department are to CO alarms (Low), gasoline spills, and natural gas/liquid propane (LP) odors (Moderate) in structures.

1. **Low Risk** – The release of less than 25 gallons liquid or less than 50 pounds solid of a "known" hazardous material with no deaths or injuries. Department resources can handle the incident. Dispatched as HazMat Level 1. Reports of Carbon Monoxide detector activations in occupancies are considered low risk.
2. **Moderate Risk** 1 –. Reports of an odor of natural gas or LP in a structure(s). Dispatched as HazMat Level 2 (without HazMat team).
3. **Moderate Risk 2 -** The release or potential release of a known or unknown hazardous substance with no deaths and may have some minor injuries. Requires a mutual aid hazardous materials team. Dispatched as HazMat Level 2.

   High Risk – The spill, release, or potential release of hazardous substance with an associated fire, explosion, or toxic/corrosive cloud. Injuries or deaths may have already occurred. Only the on-scene incident commander can determine if the incident is a high-risk Hazmat Level 3, which is a critical incident, or a HazMat Level 4, which exceeds local resources.



2022 Hazmat Incidents

SECTION 4 – PLANNING ZONES

(CC 2A.3, 2A.6, 2B.2, 2B.3, 2C.7)

The four fire station response districts are divided into thirteen response polygons. These polygons indicate the response posture (order of closest responding station) of the fire and rescue apparatus by mileage from the four fire stations. This includes the City limits and the surrounding area. These thirteen response polygons are being used as our planning zones due to the ease of obtaining incident statistics. For the purpose of the CRA, the thirteen polygons were labeled with their district number (11, 12, 13, 14) followed by an arbitrary alphabet letter. District 11 has four planning zones, District 12 has two, District 13 has three and District 14 has four. Figure 24 shows a map with the thirteen planning zones.

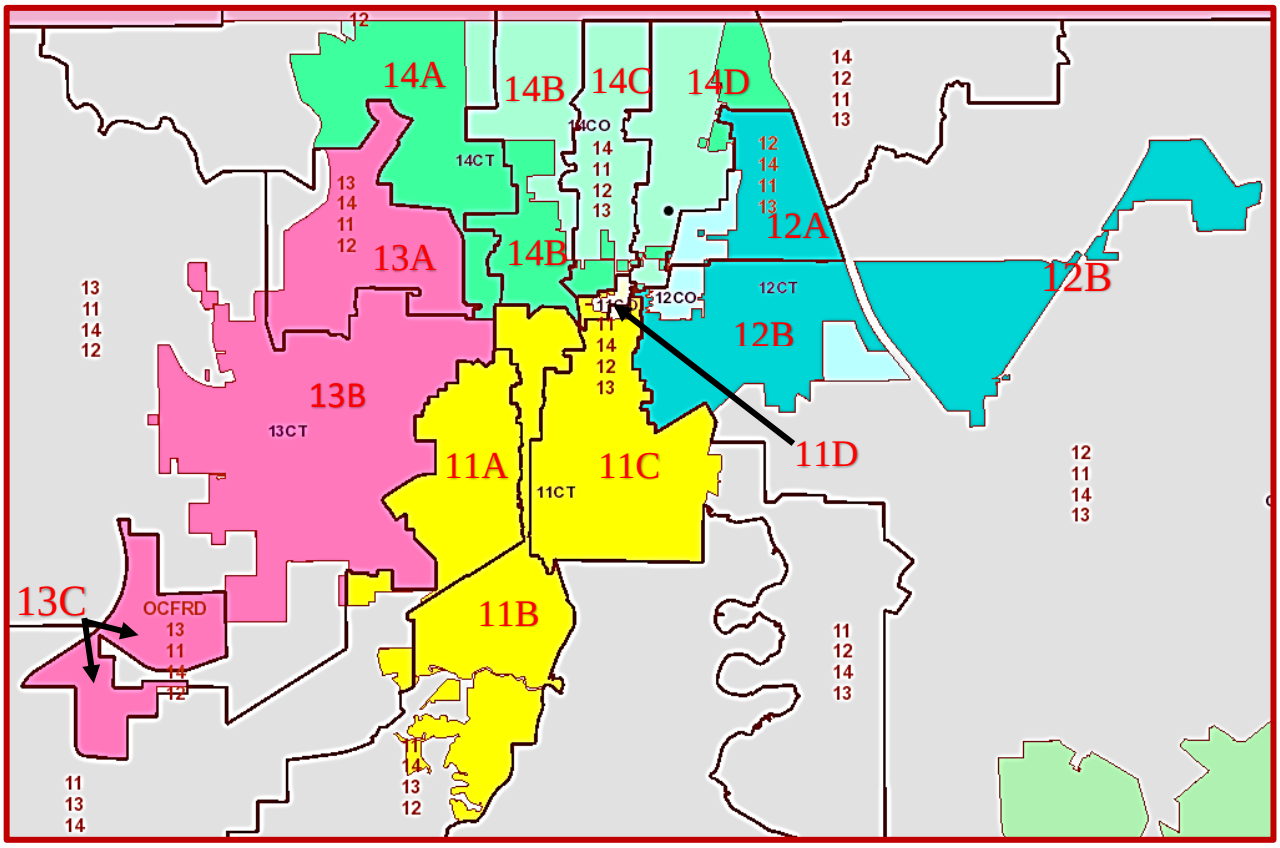
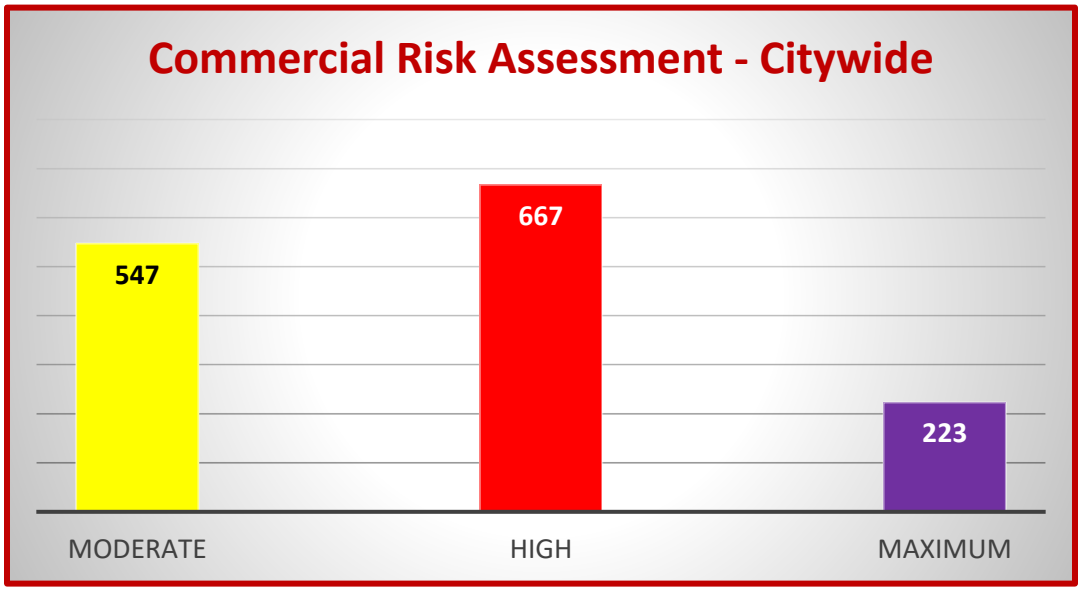
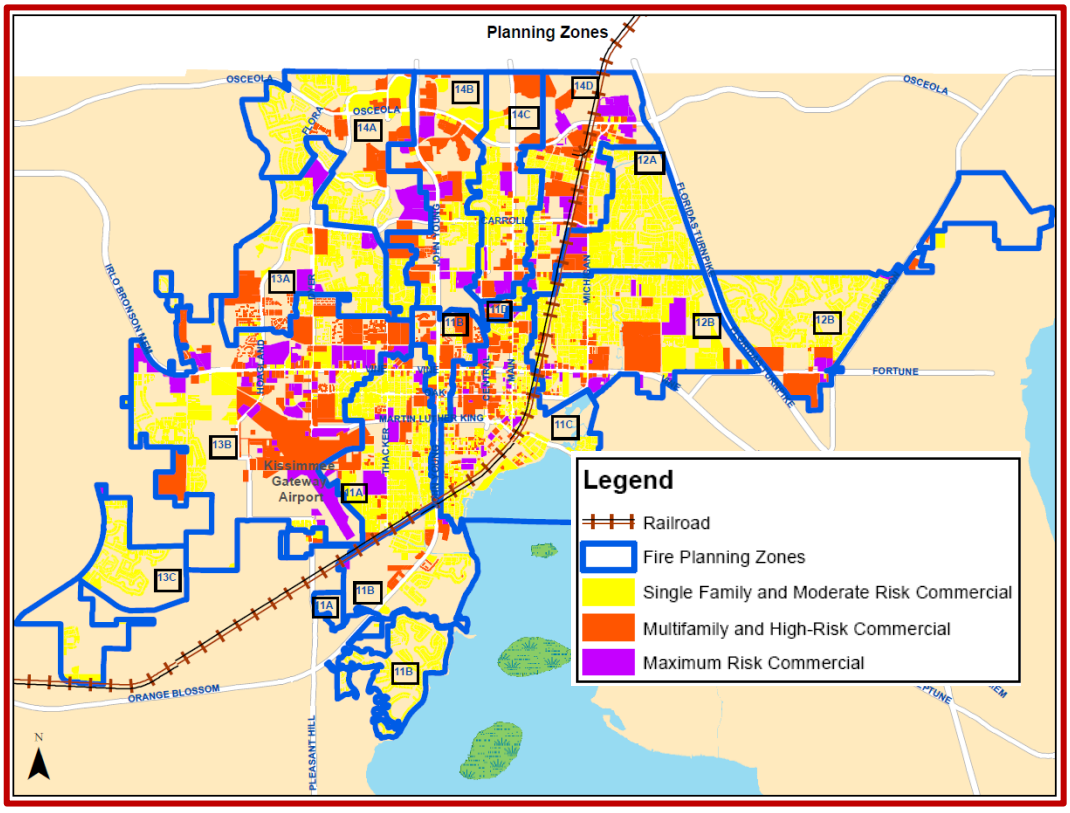


Figure 24 Community Planning Zones

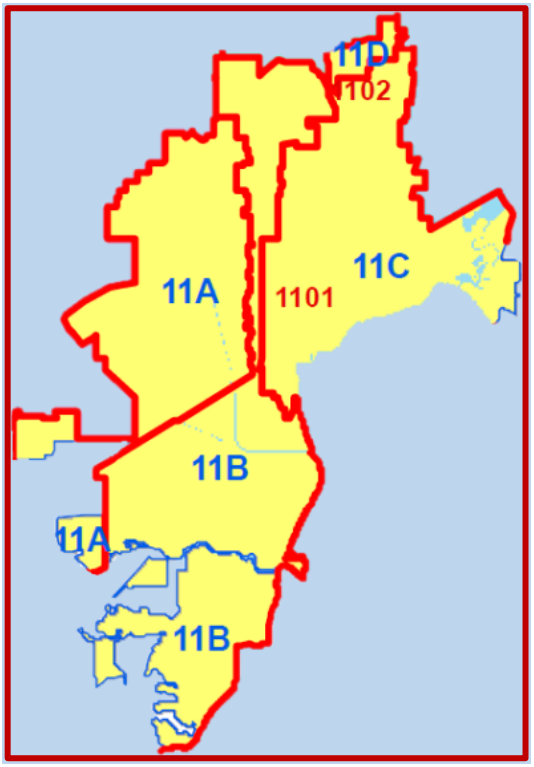
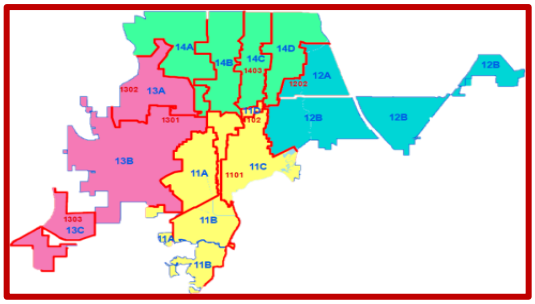
City-Wide Risk Assessment – Commercial Occupancies



City-Wide All Hazards Risk – All occupancies

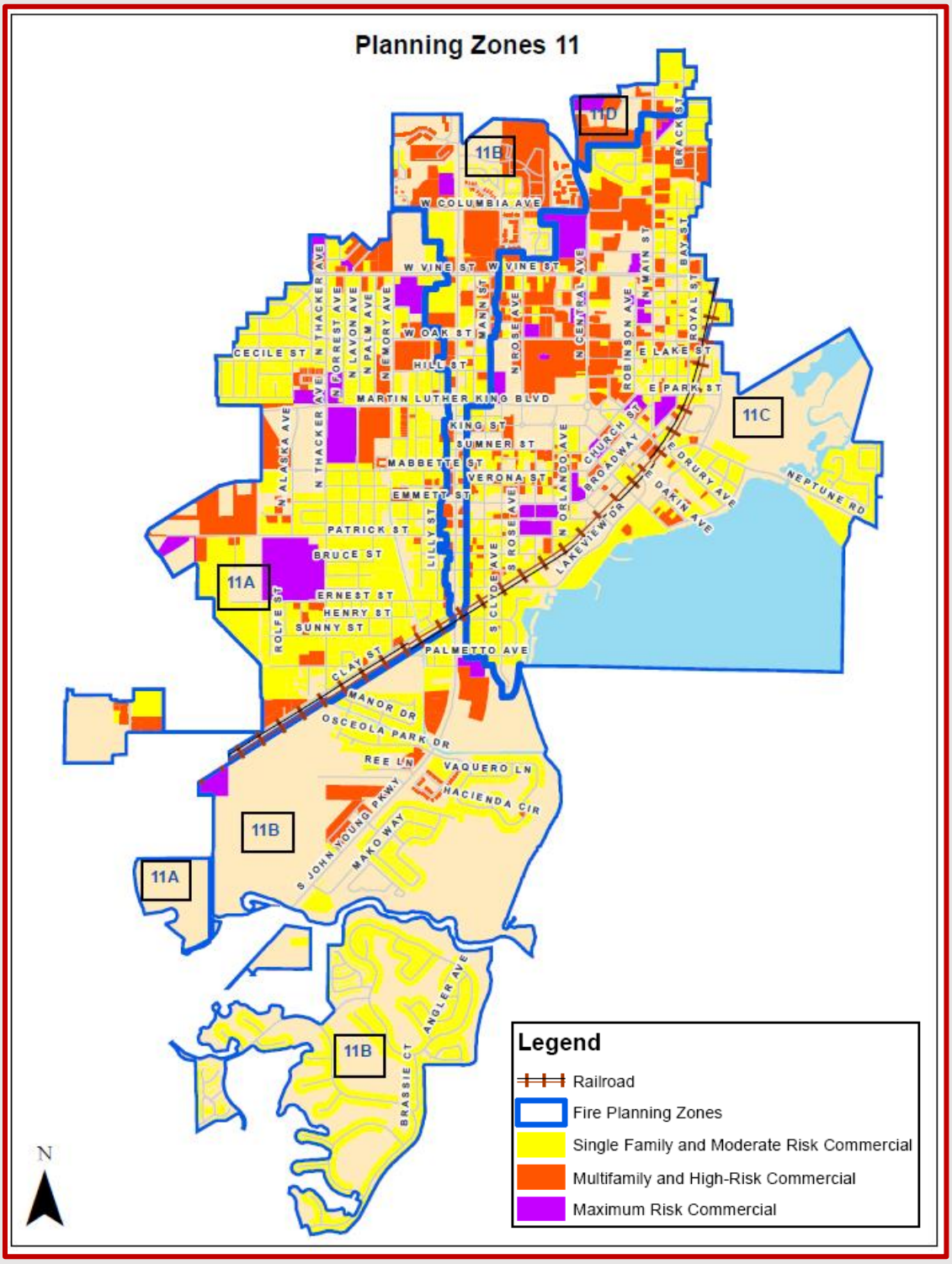


District 11 and Planning Zones 11A, 11B, 11C and 11D

Fire Station 11 343 N. Clyde Ave, Kissimmee	Planning Zones: 11A, 11B, 11C, 11D
	 

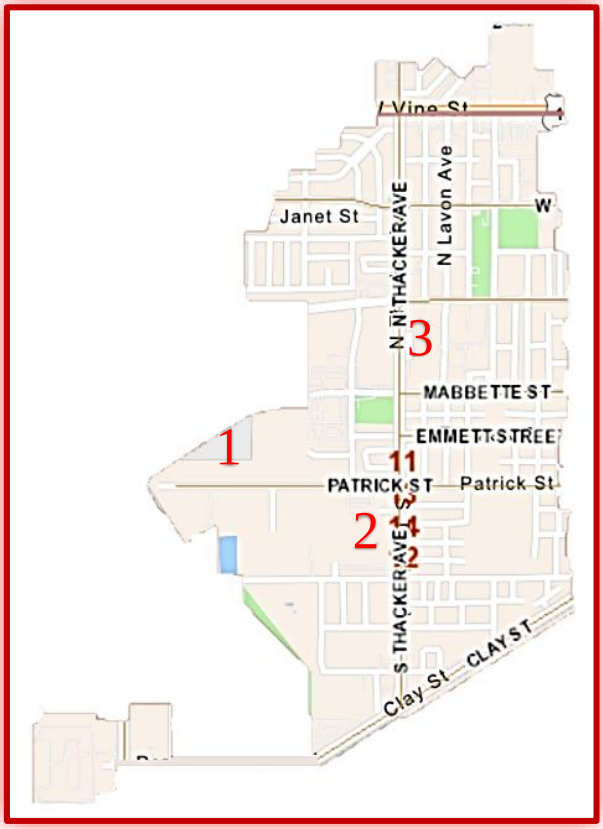
Apparatus & Minimum Staffing	Station Information
Squad 11–3 **Tower 11-3** **Rescue 11–2** **Rescue 15–2** **Battalion 1-1** **Safety 1-1** **Utility 11 & Special Operations Trailer (cross staff)** **Event 1 – Overtime as needed**	**Built – 2010** **Station also houses the Logistics Bureau, EMS Supplies, a Tools & Equipment Maintenance Area, and Spare Personnel Protective Equipment (PPE).**

Fire Risk Assessment Results - District 11



Planning Zone 11A	Fire Station Response Order Stations 11, 14, 13, 12

Map

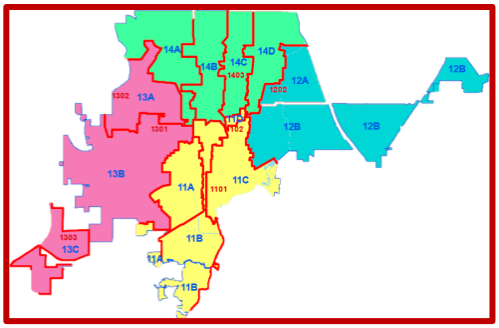


Critical Infrastructure

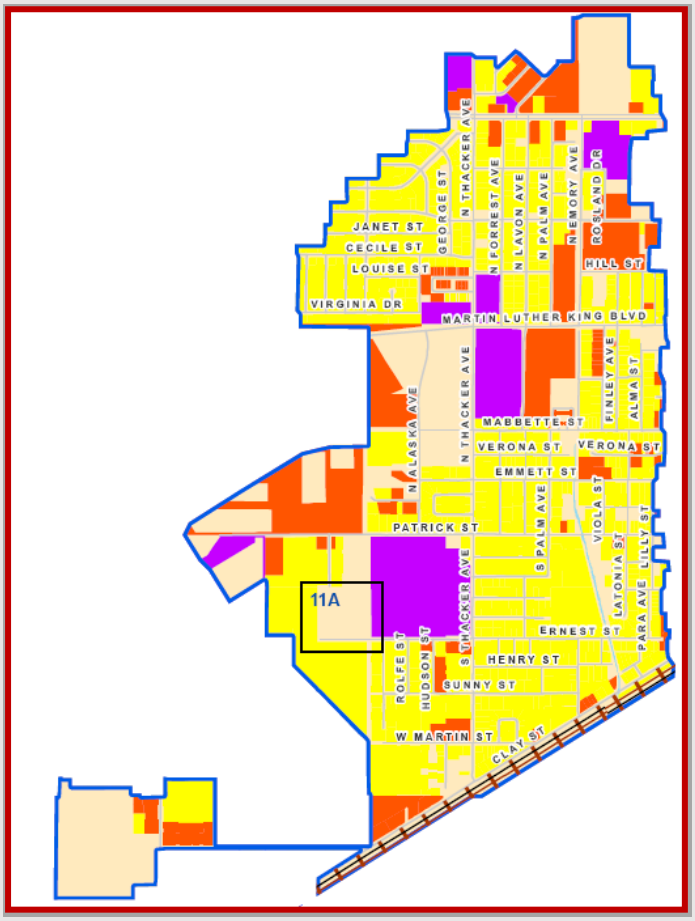
1. City of Kissimmee Central Service/Fleet Maintenance
2. Osceola High School
3. Thacker Elementary School
4. CSX Railroad Tracks

Characteristics

1. Square miles: 1.60
2. Road Miles: 29.19
3. Population: 3,950
4. Occupancies
   a. One and Two Family: 1417
   b. Apartments (2, 3 story): 14
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 58
6. Schools
   a. Grades PreK-5: 1
   b. Grades 9-12: 1
7. Nursing Homes: 0
8. Assisted Living Facility: 0
9. Cell/Radio Towers: 0
10. Churches: 7



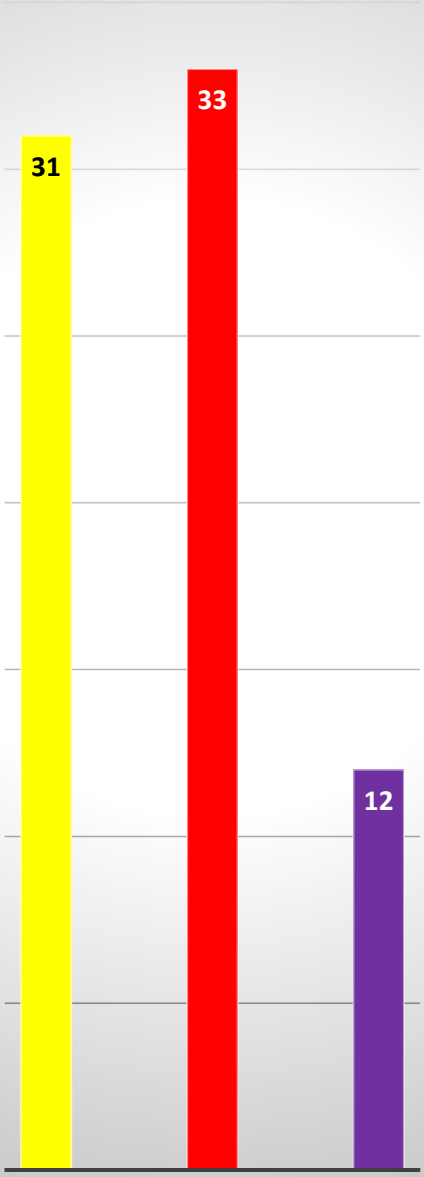
Residential and Commercial Fire Properties Zone 11A



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 11A



Community Profile

Properties

Planning Zone 11A has a mix of single-family homes, strip malls, mixed-use commercial properties, restaurants, and a few churches. Several commercial properties and medical offices are part of the Medical Arts District, mostly along N. Thacker Ave, W. Oak Street and W. Vine Street (US192). One of the two US Post Offices within the City is in this zone.

There are two large single-family residential neighborhoods in Zone 11A. City Heights and a portion of Orange Gardens are located on the west side of the zone consisting of 1500 – 2500 square feet homes built using ordinary or wood frame construction. There are also several 2-story multi-family complexes.

1. **Maximum Risk Structures**
   a. Super 8
   b. Terry's Electric*
   c. COK Central Service*
   d. Osceola High School (several buildings) *
   e. Thacker Elementary School*
   f. Sunstate Aviation Flight School*
   g. SheltAir Aviation*
   h. Park Royal Orlando*
2. **Hazardous Materials Risks**
   a. US Post Office
   b. Several gas stations and auto repair shops
   c. Kissimmee-Gateway Airport – east side
3. **Aircraft Accident Risk** – western side of planning zone near the airport

*Building maintains fire sprinkler system

Schools

Osceola High School is the only public high school in the City and is in the western section of the zone. Many of the school buildings have fire sprinklers. Thacker Elementary School is also located in this zone, and it has a fire protection system. Both schools have comprehensive detection systems and are monitored through a central station.

Government

The City of Kissimmee Central Services is located just north of the high school and contains Premise Health (City employee clinic) and several public works divisions. The public work's divisions include Fleet Maintenance, Public Facilities, Sanitation, and the weld shop.

Airport

The Kissimmee Gateway Airport borders the western area of this zone and several of its hangers are in the zone. One of the approaches to the airport for aircraft landing and takeoff is over this zone.

Roads

N. Thacker Ave. is the major north/south road in this zone and Vine Street, Clay Street, MLK, Jr Blvd, and W. Oak Street are some of the busier east/west streets. A major rail line used by Amtrak, CSX and SunRail is in the southern section of the zone along Clay Street.

Probability of a Major Incident

- Maximum Risk Buildings are listed in the chart on page 74. Osceola High School has several buildings and most of them are listed as maximum risk.
- Based on historical data, the below chart shows the likelihood of the various types of incidents occuring in this planning zone.
- Mitigating factors include fire inspections of the schools, commercial properties and the airport. Fire safety education has been performed at the schools and the airport. The airport maintains good use of technology to decrease the fire and injury risk. The excellent airport staff has been well educated to assist in emergencies.

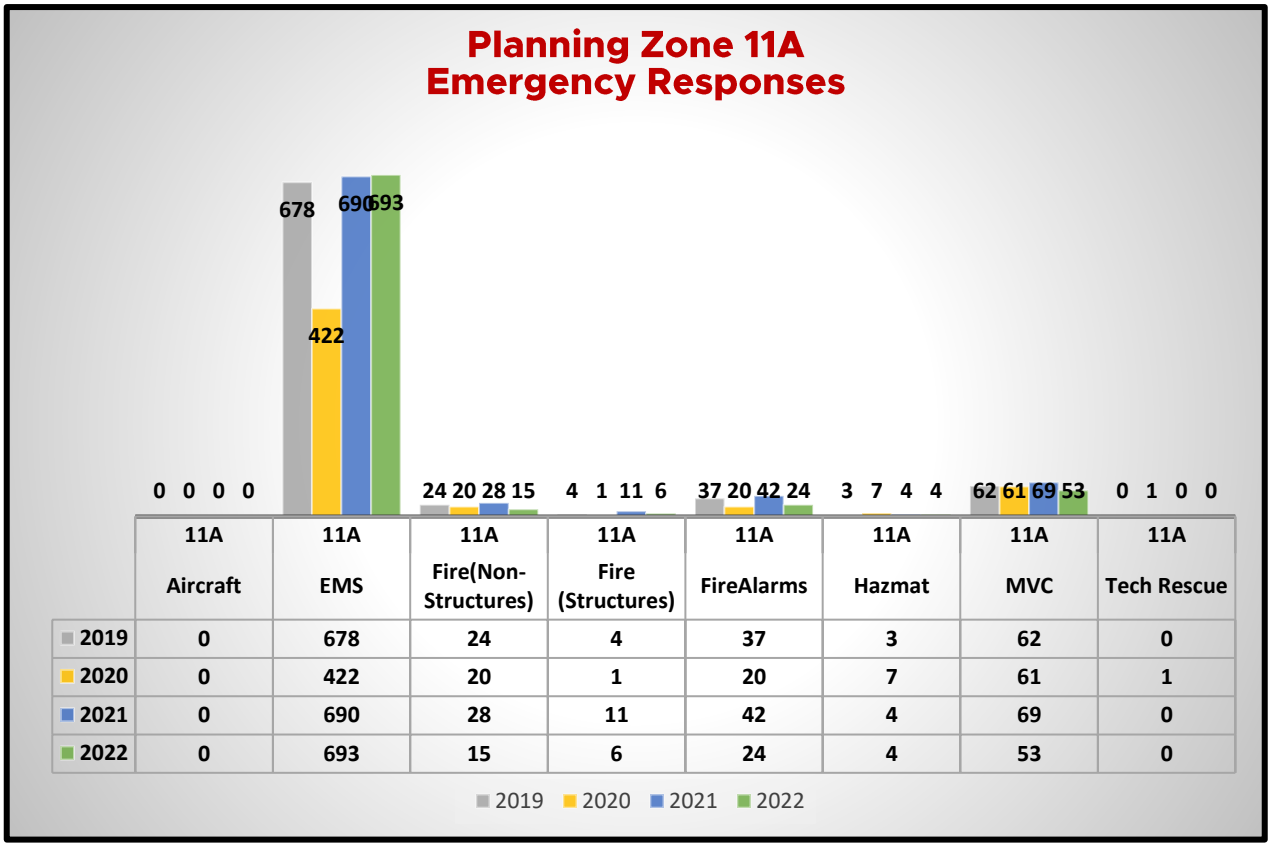
Consequence - Magnitude or Reasonably Expected Loss

- There have been aircraft accidents in this zone but no loss of life in the past four years. The worst case scenario in the future would be an aircraft accident or explosion into a high or maximum risk occupied structure.
- Relative loss comparisons: A major aircraft accident involving a building could have a large property loss with various implications.
- Fire protection systems in the schools have lessened the potential fire and loss of life in the event of a large incident. There are several buildings in this zone that do not have fire sprinklers including some apartment complexes, several churches, a women's center, and the City's Oak Street Park Community Center. There is one historical property in this zone,

which is not sprinkled. Fire drills and active shooter training should improve outcomes in the event of a major incident.

- Infrastructure impact in this zone includes the airport and the railroad right-a-way which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	11A Aircraft	11A EMS	11A Fire(Non-Structures)	11A Fire (Structures)	11A FireAlarms	11A Hazmat	11A MVC	11A Tech Rescue
2019	0	678	24	4	37	3	62	0
2020	0	422	20	1	20	7	61	1
2021	0	690	28	11	42	4	69	0
2022	0	693	15	6	24	4	53	0

Future Prabability Planning Zone 11A

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	697	15	9	20	5	54	0	799
Forecast % + / -	0%	0.55%	-9%	13%	-9%	8%	2%	0%	0.4%

Note: 2020 stats were not used in the formula due to COVID.

Fire Flow Requirements

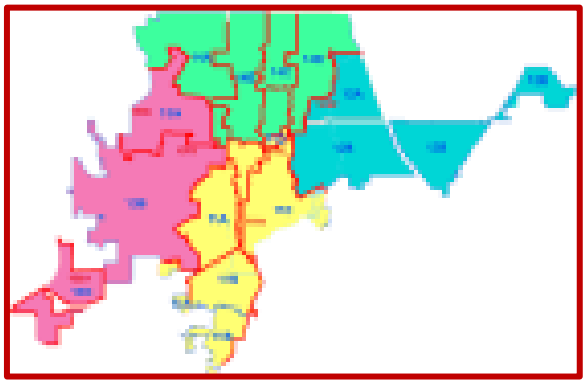
The below chart shows the largest commercial and residential structure in the zone. For each property, the below chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Osceola High School (1 Building)	420 S. Thacker Ave.	426,300	2131 GPM	2110 GPM (2 hydrants)
Park Royal Hotel	1500 N. Thacker Ave	350,280	1752 GPM	2110 GPM (2 hydrants)

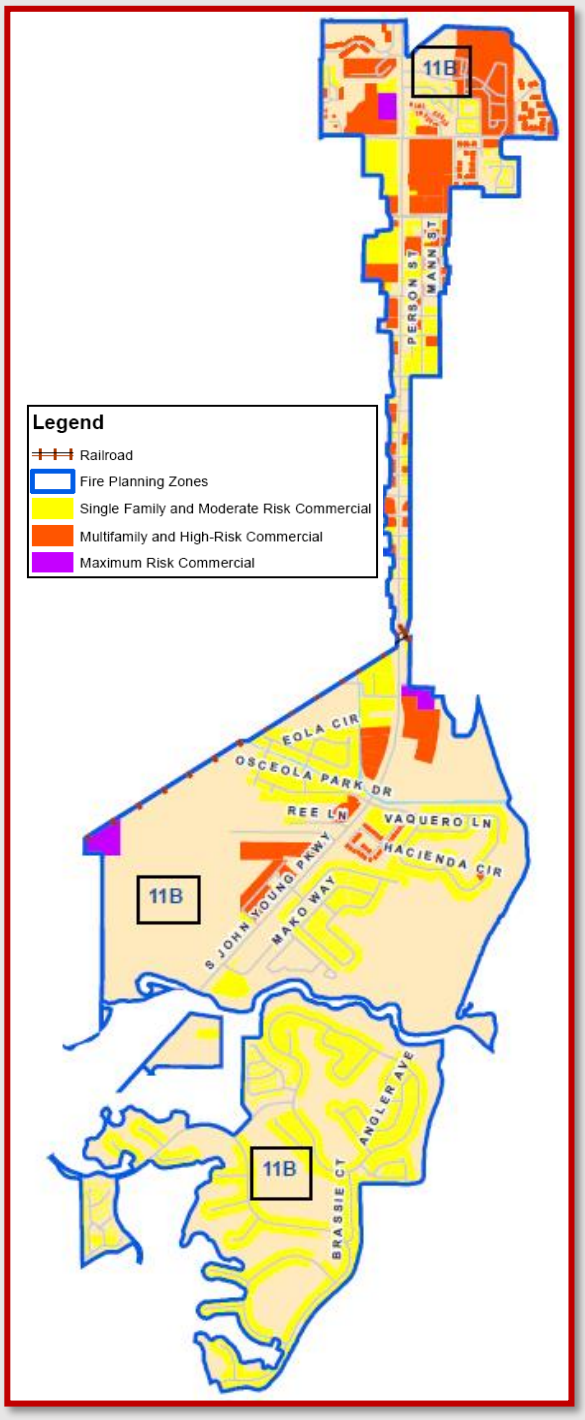
*Iowa Formula (30 second knockdown)

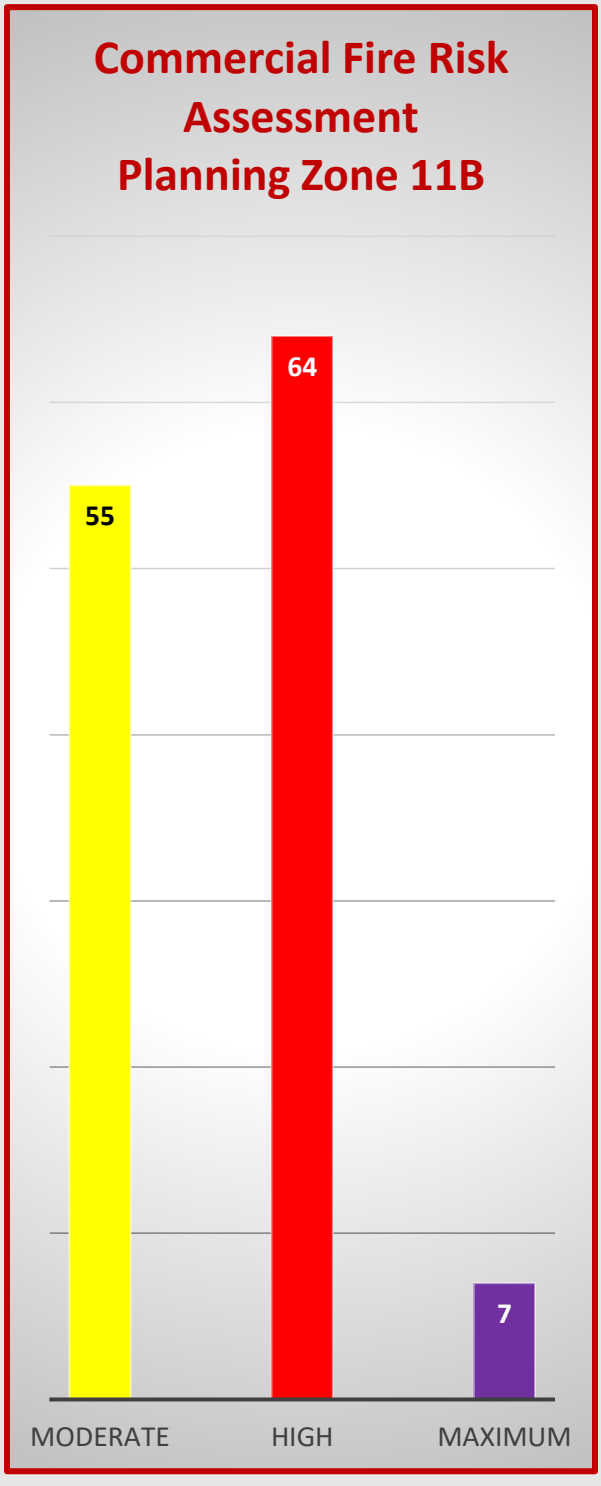
Planning Zone 11B	Fire Station Response Order Stations 11, 14, 13, 12
Map	**Characteristics**

1. Square miles: 2.37
2. Road Miles: 29.19
3. Population: 5,543
4. Occupancies
    a. One and Two Family: 1600
    b. Garden Apartments: 163
    c. Mid-Rise (4 stories): 0
    d. High Rise (>4 stories): 0
5. Commercial Properties: 117
6. Cell/Radio Towers: 2
7. Churches: 7



Residential and Commercial Fire Risk Assessment Zone 11B





Community Profile

Properties

One of the major north-south commuter roads in the City is John Young Pkwy (JYP). It traverses this entire zone and moves commuters to-and-from Orange County to the north and communities to the south in Osceola County. Along JYP, there are numerous medical offices, strip malls, light commercial, other small businesses, and several churches. A large residential neighborhood is currently being developed in the southern part of the zone along the east side of S. John Young Parkway. The Oaks is a large residential neighborhood located in the southern-most end of this zone and contains numerous 2500 – 3500 square foot single-family homes. A portion of The Oaks community is in Osceola County and is covered by Osceola County Fire and EMS.

Industrial

The south and west areas of the zone include a TOHO water treatment plant, strip malls and the City's Public Safety Training Center (PSTC).

Government

The training bureaus for both Kissimmee fire and police maintain offices in the building and the office building is fully sprinklered.

Waterways

Shingle Creek flows from west to east under S. John Young Pkwy. A large City park is currently being developed on the west side of S. John Young Pkwy.

Recreation

The only golf course in the City is in the Oaks.

Railways

A major rail line used by Amtrak, CSX and SunRail is in the southern section of the zone along Clay Street.

Roads

N. John Young Pkwy and W. Vine Street is one of the busiest intersections in the City and is a major north/south road that intersects with several other primary east/west roads.

Trails

There are approximately three miles of the Shingle Creek Trail in this zone. The trail runs from E. Vine Street, along the western side of Neo City through Kissimmee Lake Front Park and continuing past Palmetto Ave. The trail is not marked but there are numerous street crossings and access points along this section of the trail.

Probability of a Major Incident

- Maximum Risk Buildings are listed in the chart to the right.

1. **Maximum Risk Structures**
   a. Toho Water Treatment Plant*
   b. Public Storage
   c. 1000 Mann St. Medical Office
   d. PSTC
   e. JYP Strip Mall (1910-1934)
   f. Mormon Church (JYP)
   g. TOHO Water Treatment Plant
   h. First Baptist Church (JYP)
2. **Hazardous Materials Risks**
   a. TOHO Water Treatment Plant*
   b. Asphalt 365*
   c. Aquatic Weed
   d. Hallmark Pool and Spa World
   e. Several gas stations and auto repair shops

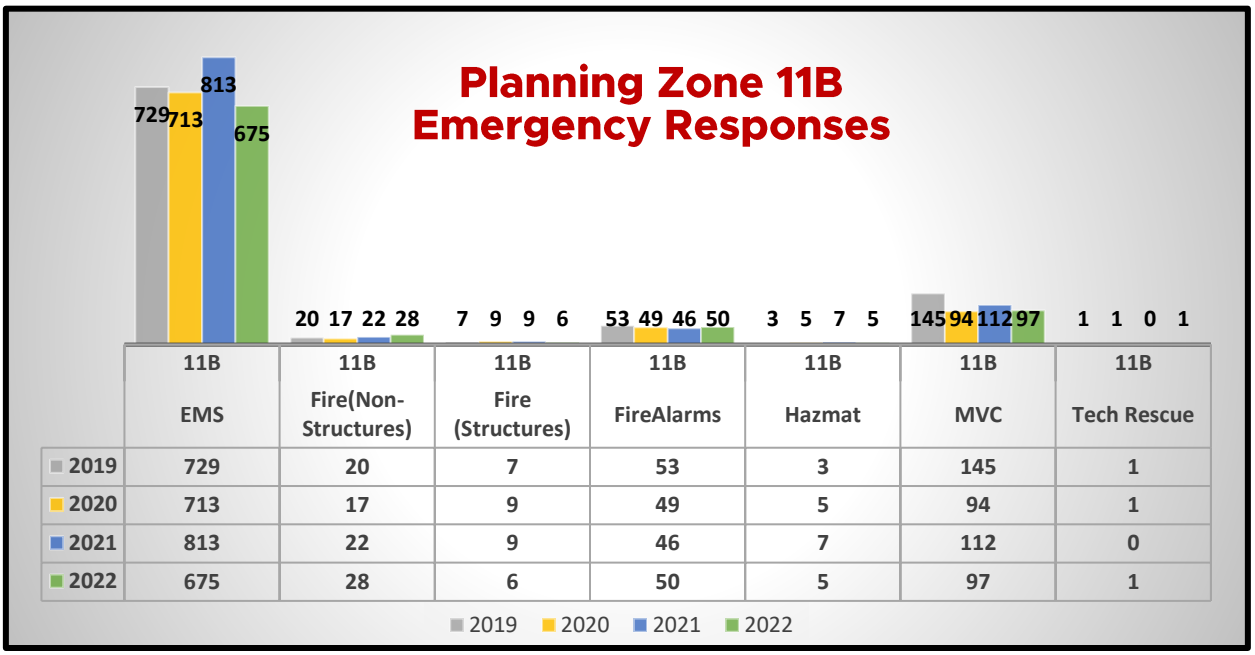
*Building maintains fire sprinkler system

- Based on historical data, the below chart shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections).
- Mitigating factors include fire inspections of the commercial properties and the Toho water treatment plant. Toho has an outstanding Safety Department that provides safety eduction to Toho staff and performs safety inspections of the plant. The water treatment plant uses the latest technology to decrease the fire, hazmat and injury risk.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been low and medium risk structure fires. The worst case scenario in the future could be a hazmat or major EMS incident at the water treatment plant or a large fire or explosion in a high or maximum risk building.
- Relative loss comparisons: A major incident at the water treatment plant could have far reaching implications involving raw sewage, property, and revenue loss.
- Modifying Factors: Several buildings in this zone do not have fire sprinklers including a few apartment complexes, several churches, warehouses, and storage facilities. There are five facilities in this zone with hazardous materials risks. The Toho water treatment plant has a hazardous material and a confined space rescue risk. The water treatment plant, numerous auto repair facilities, and Kissimmee Auto Salvage pose an increased risk of injuries due to activities occurring at these locations.
- Infrastructure impact in this zone includes the railroad right-a-way which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	11B EMS	11B Fire(Non-Structures)	11B Fire (Structures)	11B FireAlarms	11B Hazmat	11B MVC	11B Tech Rescue
2019	729	20	7	53	3	145	1
2020	713	17	9	49	5	94	1
2021	813	22	9	46	7	112	0
2022	675	28	6	50	5	97	1

Note: 2020 stats were not used in the formula due to COVID.

Future Prabability Planning Zone 11B

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	677	31	6	47	7	71	1	840
Forecast % + / -	0%	-2%	11%	-4%	-0.1%	17%	-8%	0%	-3%

Fire Flow Requirements

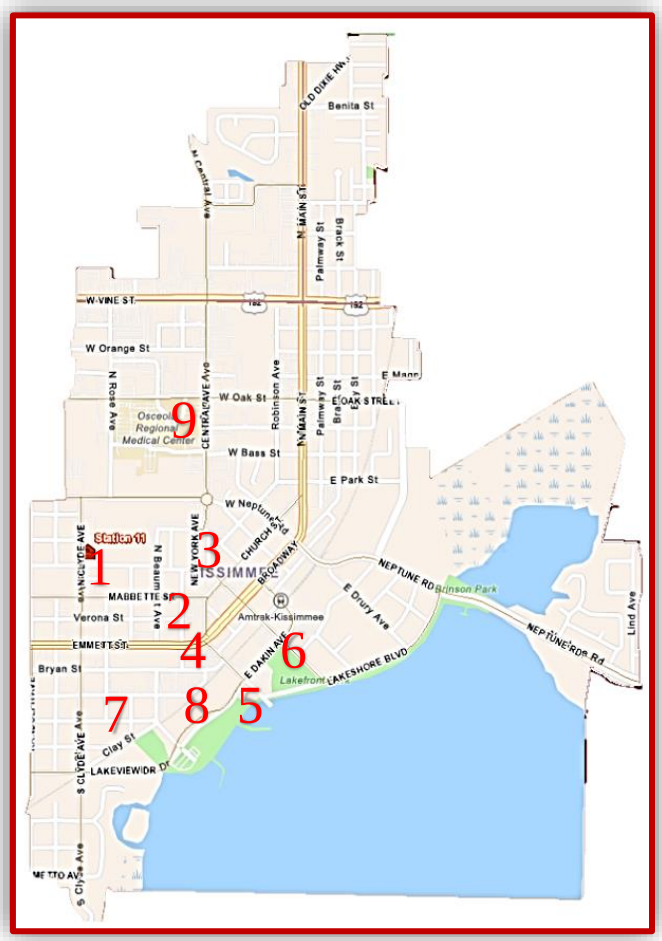
The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
First Baptist Church	1900 N. John Young Pkwy.	459,704	2298 GPM	2110 GPM (2 hydrants)
The Hamilton at Lakeside	2250 Blue Hesper Drive	308,000	1540 GPM	2110 GPM (2 hydrants)

*Iowa Formula (30 second knockdown)

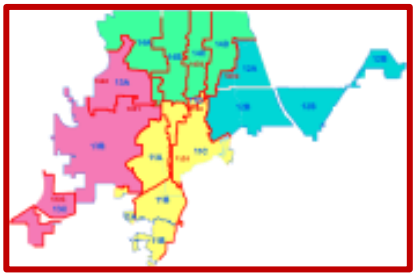
Planning Zone 11C	Fire Station Response Order Stations 11, 12, 14, 13

Map



Characteristics

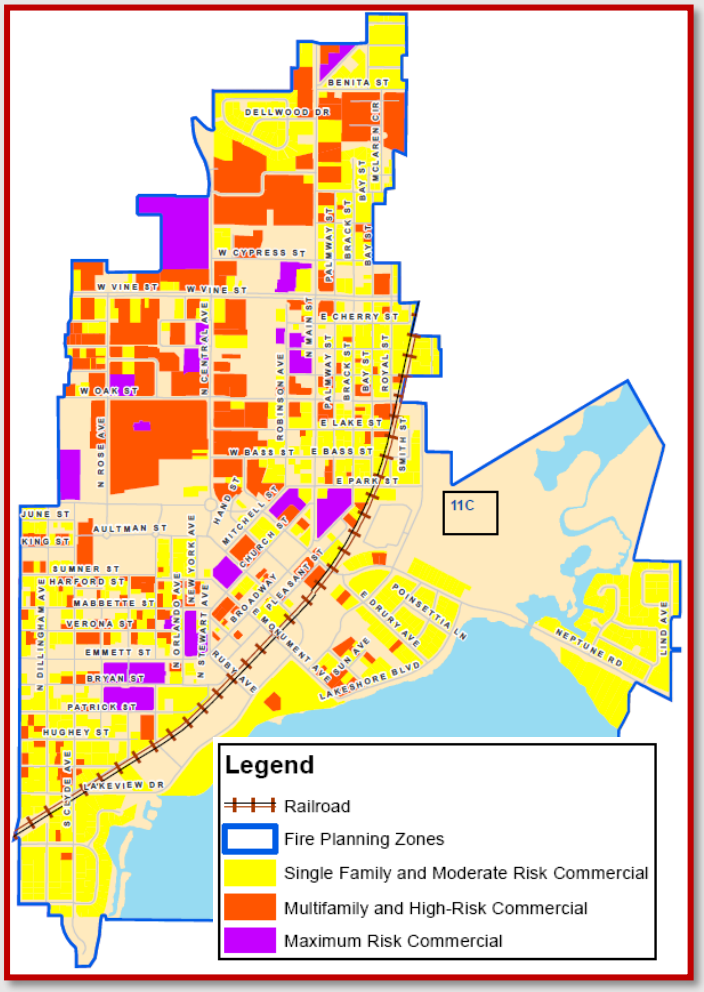
1. Square miles: 2.39
2. Road Miles: 34.76
3. Population: 5,538
4. Occupancies
   a. One and Two Family: 871
   b. Apartments (2/3 story): 42
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 1
5. Commercial Properties:
6. Schools
   a. Grades PreK-5: 2
   b. Grades K-8: 1
   c. Grades K-12: 1
   d. Grades 9-12: 2
7. Cell/Radio Towers: 2
8. Churches: 9
9. Fire Station: 1
10. City Police Department: 1
11. City Dispatch Center: 1



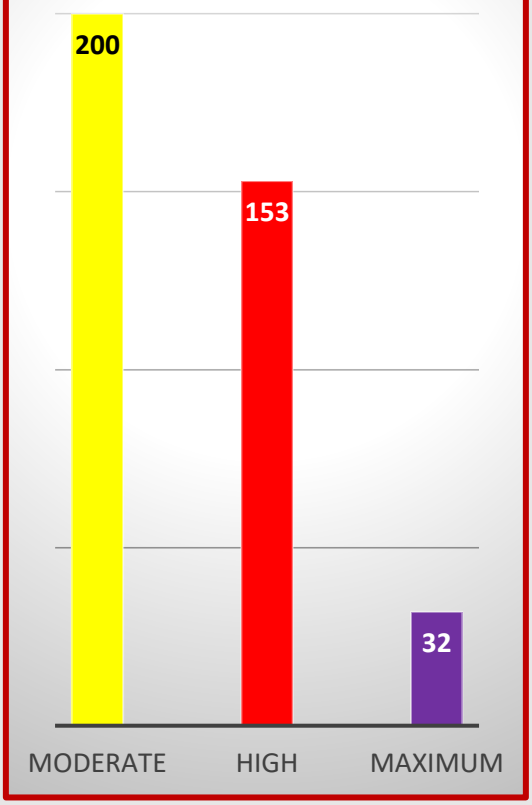
Critical Infrastructure

1. Station 11
2. Kissimmee PSAP
3. Kissimmee City Hall
4. Kissimmee Police
5. Lakefront Park
6. Kissimmee Parks Ops.
7. Osceola Co. Courthouse
8. KUA Substation
9. HCA Florida Osceola Hospital

Residential and Commercial Fire Risk Assessment Zone 11C



Commercial Fire Risk Assessment Planning Zone 11C



Community Profile

Historic Downtown

Planning Zone 11C includes the historic downtown urban core and one of the showcases of the City, the Kissimmee Lakefront Park. The primary historic area of the City is referred to as the Beaumont Historic District with many of the structures over one hundred years old. This area boasts numerous shops and restaurants as well as other commercial structures. This is the primary tourist district of the City. Several apartment buildings are currently being constructed between Lakefront Park and the downtown area. Numerous older 1500-2500 square foot single-family homes are located throughout this zone.

Government

Kissimmee City Hall, Osceola County Courthouse, and City Center (mixed-use businesses and condominiums) are three

1. **Maximum Risk Structures:**
   a. Kissimmee Police Department*
   b. Osceola County Courthouse*
   c. #1 Courthouse Square *
   d. #2 Courthouse Square*
   e. HCA Florida Osceola Hospital*
   f. Osceola County Office Building*
   g. Historic Downtown Marketplace*
   h. Main Street High School*
   i. Kissimmee City Hall*
   j. House of Freedom Rehabilitation*
   k. First United Methodist School
   l. Freedom Land Christian Academy
   m. Green Leaf of Kissimmee ALF*
   n. Orchid Cove of Kissimmee Nursing Home
   o. Central Ave. Elementary School*
   p. Freedom Land Christian Academy
   q. Parkview at City Center (mixed commercial/residential) *
   r. Strip Mall - 101 W. Cyress
   s. 201-205 Broadway
   t. Osceola Cancer Center (737 W. Oak Street)*
   u. Parking Garage (521 W. Bryan Street)*
   v. Omega Square (505 W. Vine Street)
   w. Hart Memorial Central Library*
   x. Fire Station 11*
   y. Lambert Inn
   z. Optum (461 W. Oak Street)
   aa. Kissimmee Christian Church and Preschool Academy*
   bb. Strip Mall (101-105 W. Vine Street)
   cc. Morgan and Morgan Attorneys (201 Broadway)
   dd. Osceola Medical Arts (720 Oak Street)
   ee. TOHO (951 Martin Luther King Blvd.)*
   ff. Kissimmee Civic Center*
   gg. ALF (509 Verona Street)*
2. **Hazardous Materials Risk**
   a. Pinch-A-Penny Pool Store
   b. Bugsy Malone Pest Control
   c. Several gas stations and auto repair shops
3. **Auto Fire Risk - several parking garages**

*Building maintains fire sprinkler system

of the five high-rise buildings (>4 stories) in the City. The Kissimmee Police Station and Kissimmee Fire Station 11 are also located in this district.

Hospital

The HCA Florida Osceola Hospital has a Level 2 trauma center, which is the only trauma center in Osceola County. This hospital is another one of the high-rise buildings in the City. Planning Zone 11C shares a section of the Medical Arts District with Planning Zone 11B.

Transportation/Railway

On the east side of the downtown area is the Kissimmee Intermodal Station. This includes the SunRail commuter train and the Lynx area-wide bus service. The Amtrak train and the Greyhound bus stations are located next to the Intermodal Station and offer a hub for public transportation.

Recreation

Lake Toho and the Kissimmee Lakefront Park offer recreational opportunities for families and sportsman. The park includes walking trails, picnic pavilions, a small water park, playgrounds, fishing pier, and a concession stand. The boat ramp offers access to top-of-class freshwater fishing.

Commercial

Throughout other parts of this zone are strip malls, mixed-use commercial properties, and restaurants. In addition, there are several city and county buildings, several schools, a few churches, and several multi-story parking garages.

Roads

Broadway Ave/Main Street is the major north/south road running through the downtown area. Vine Street (US Route 192) is the primary east/west street that traverses the northern part of this zone.

Probability of a Major Incident

- Maiximum Risk Buildings are listed in the chart on page 86. The buildings include many government buildings, schools, churches, historic properties, and a hospital.
- Based on historical data, the below chart shows the likelihood of the various types of incidents occuring in this planning zone.

- Mitigating factors include fire inspections of the commercial properties, government buildings, nursing homes, schools and the hospital. A few of the historic structures have been retrofitted with fire sprinkler systems when occupancies have changed.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the distant past have been large fires in the historic area. The worst case scenario in the future could be a fire or explosion in a high or maximum risk occupied structure or a fire in the historic district with adjacent structures.
- Relative loss comparisons: A major incident at one of these structures has a potential for loss of life, historic property loss, and job/revenue loss implications.
- Modifying Factors: Fire drills and active shooter training have been performed in the schools/government buildings and should improve outcomes in the event of a major incident. Several churches, numerous businesses, and historic properties are not protected by fire protection systems. All of the government buildings, high rise buildings, schools, and the hospital have sprinkler systems.
- Infrastructure impact in this zone includes the railroad right-a-way and Lake Toho which could effect fire/rescue response to this area. Several of the historic district buildings are connected.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

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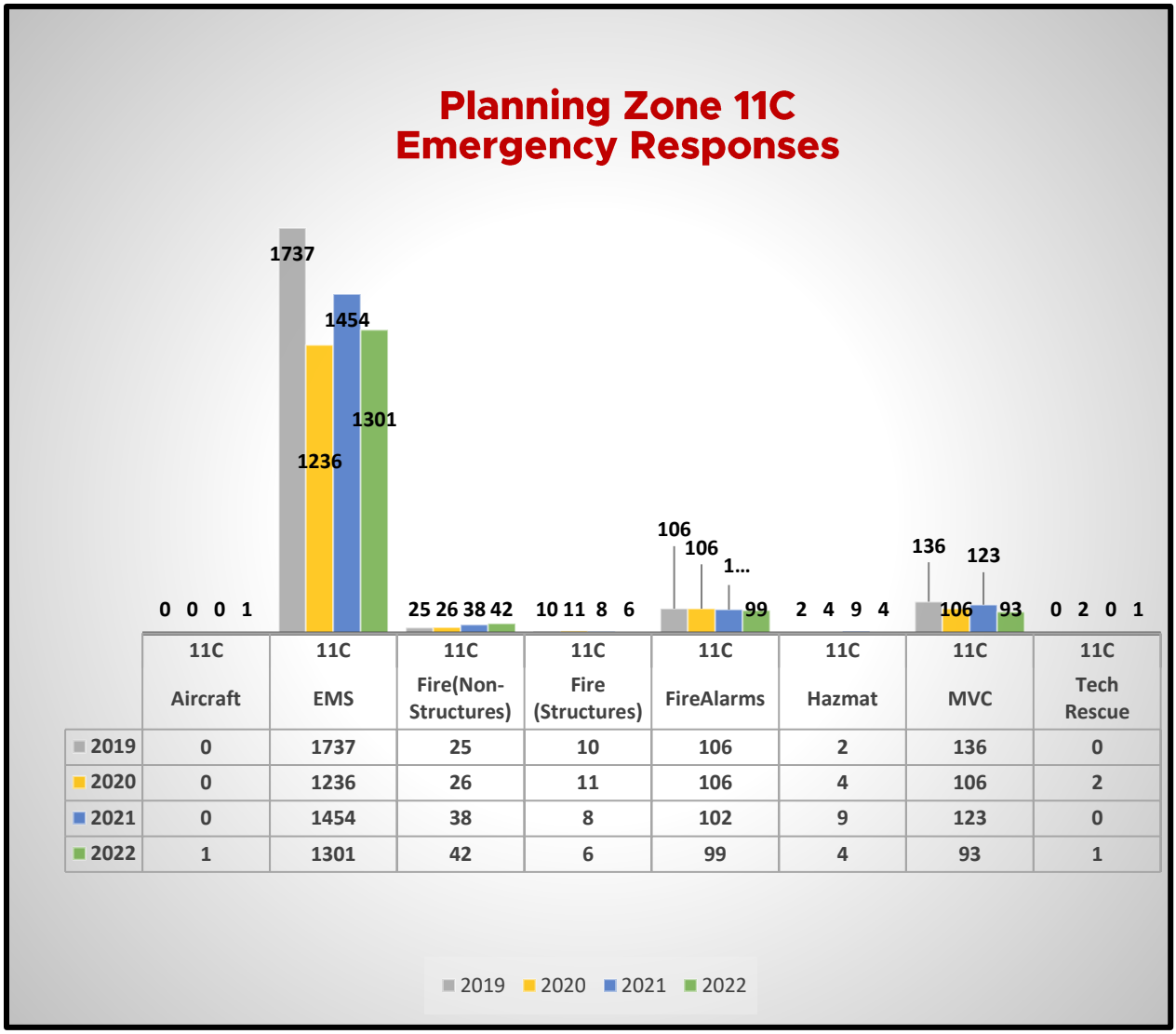
Planning Zone Activity 2019 – 2022



	11C Aircraft	11C EMS	11C Fire(Non-Structures)	11C Fire (Structures)	11C FireAlarms	11C Hazmat	11C MVC	11C Tech Rescue
2019	0	1737	25	10	106	2	136	0
2020	0	1236	26	11	106	4	106	2
2021	0	1454	38	8	102	9	123	0
2022	1	1301	42	6	99	4	93	1

Future Prabability Planning Zone 11C

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	1066	51	4	95	7	110	1	1334
Forecast % + / -	0%	-6%	17%	-10%	-2%	25%	-8%	1%	-6%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

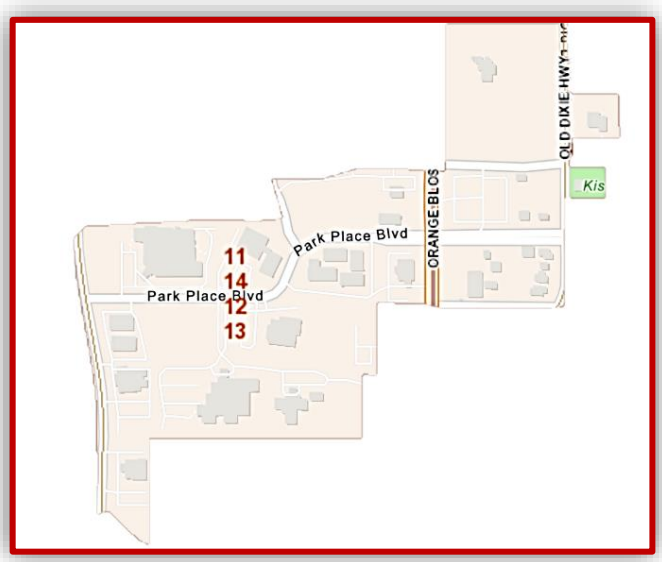
The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

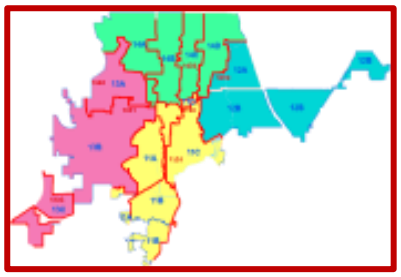
Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
HCA Florida Osceola Hosp.	700 W. Oak Street	6,300,000	31,500 GPM	7 hydrants on property
Parkview at City Center	111 E. Monument Street	2,128,000	10,640 GPM	4220 GPM (4 hydrants)

*Iowa Formula (30 second knockdown)

Planning Zone 11D	Fire Station Response Order Stations 11, 14, 12, 13

Map



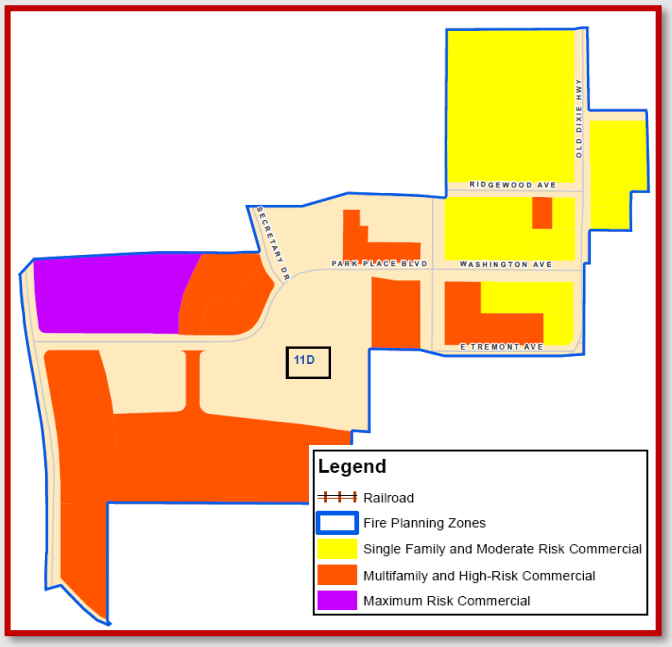


No Major Critical Infrastructure

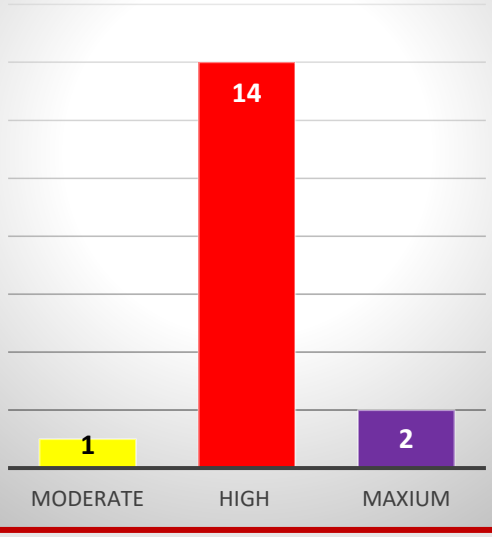
Characteristics

1. Square miles: 0.10
2. Road Miles: 1.66
3. Population: 217
4. Occupancies
   a. One and Two Family: 3
   b. Garden Apartments: 0
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 15
6. Assisted Living Facility: 1
7. Cell/Radio Towers: 0

Residential and Commercial Fire Risk Assessment Zone 11D



Commercial Fire Risk Assessment Planning Zone 11D



Community Profile

Properties

Planning Zone 11D is a small zone mostly containing property that is in Osceola County. The Department responds to all fire/rescue incidents in this area for city residents and is contracted with Osceola County to provide fire/rescue services to County residents. The zone is largely one- and two-story medical offices that are part of the City Medical Arts District and a few older 2000-2500 square foot single-family homes with ordinary and wood frame construction.

1. **Maximum Risk Structures**
   a. The Terrace of Kissimmee*
   b. Park Place Behavioral Center*

*Building has a fire sprinkler system

Commercial

The Park Place Behavioral Center is a maximum risk 24-hour psychiatric center in this zone and there is one assisted living facility. There are several churches, strip malls, warehouses, and other commercial properties.

Roads

N. Orange Blossom Trail is the major north/south road through the zone.

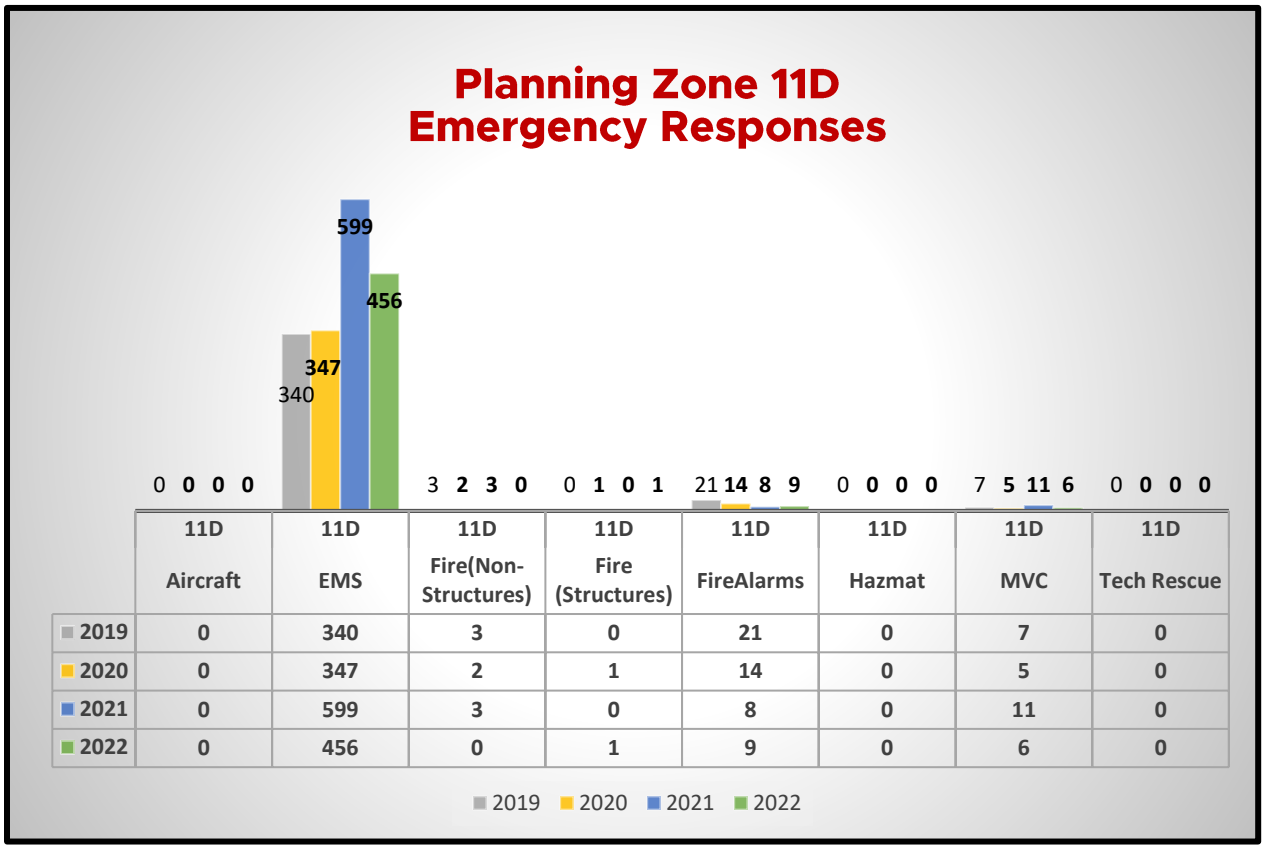
Probability of a Major Incident

- This is the smallest planning zone and only contains two maximum risk structures which is a strip mall containing a school.
- Based on historical data, the below chart shows the likelihood of the various types of incidents occuring in this planning zone.
- Mitigating factors include fire inspections of the commercial properties and the school.

Consequence - Magnitude or Reasonably Expected Loss

- There have been no major incidents in this small planning zone. The worst case scenario in the future could be a fire or explosion in the strip mall/school while occupied.
- Relative loss comparisons: A major incident at one of the high or maximum risk structure could have potential loss of life.
- Modifying Factors: Fire protection systems, fire drills, and active shooter training at the school should improve outcomes in the event of a major incident.
- There is no major infrastructure impact in this zone.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	11D Aircraft	11D EMS	11D Fire(Non-Structures)	11D Fire (Structures)	11D FireAlarms	11D Hazmat	11D MVC	11D Tech Rescue
2019	0	340	3	0	21	0	7	0
2020	0	347	2	1	14	0	5	0
2021	0	599	3	0	8	0	11	0
2022	0	456	0	1	9	0	6	0

Future Prabability Planning Zone 11D

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	566	1	1	0	0	7	0	566
Forecast % + / -	0	9%	-25%	0%	14%	0%	-4%	0	7%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

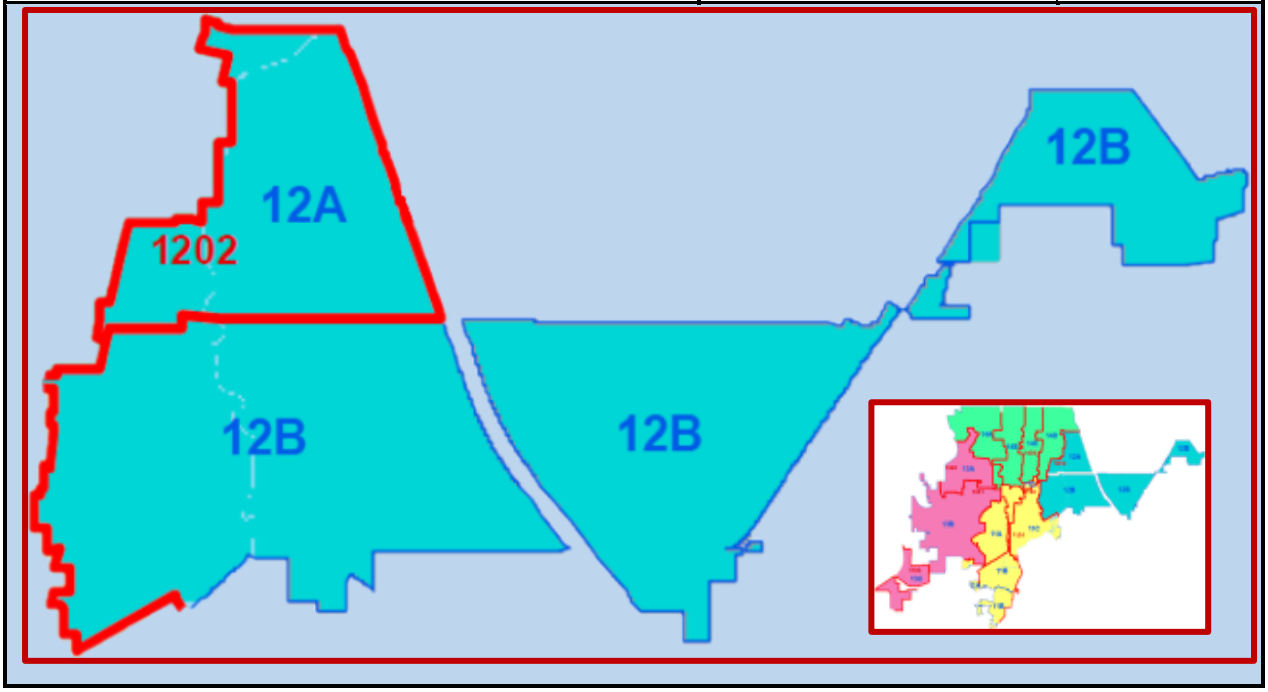
The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Office Building	102 Park Place Blvd.	504,000	2520 GPM	3165 GPM (3 hydrants)
The Terrace of Kissimmee	221 Park Place Blvd.	756,000	3780 GPM	4220 GPM (4 hydrants)

*Iowa Formula (30 second knockdown)

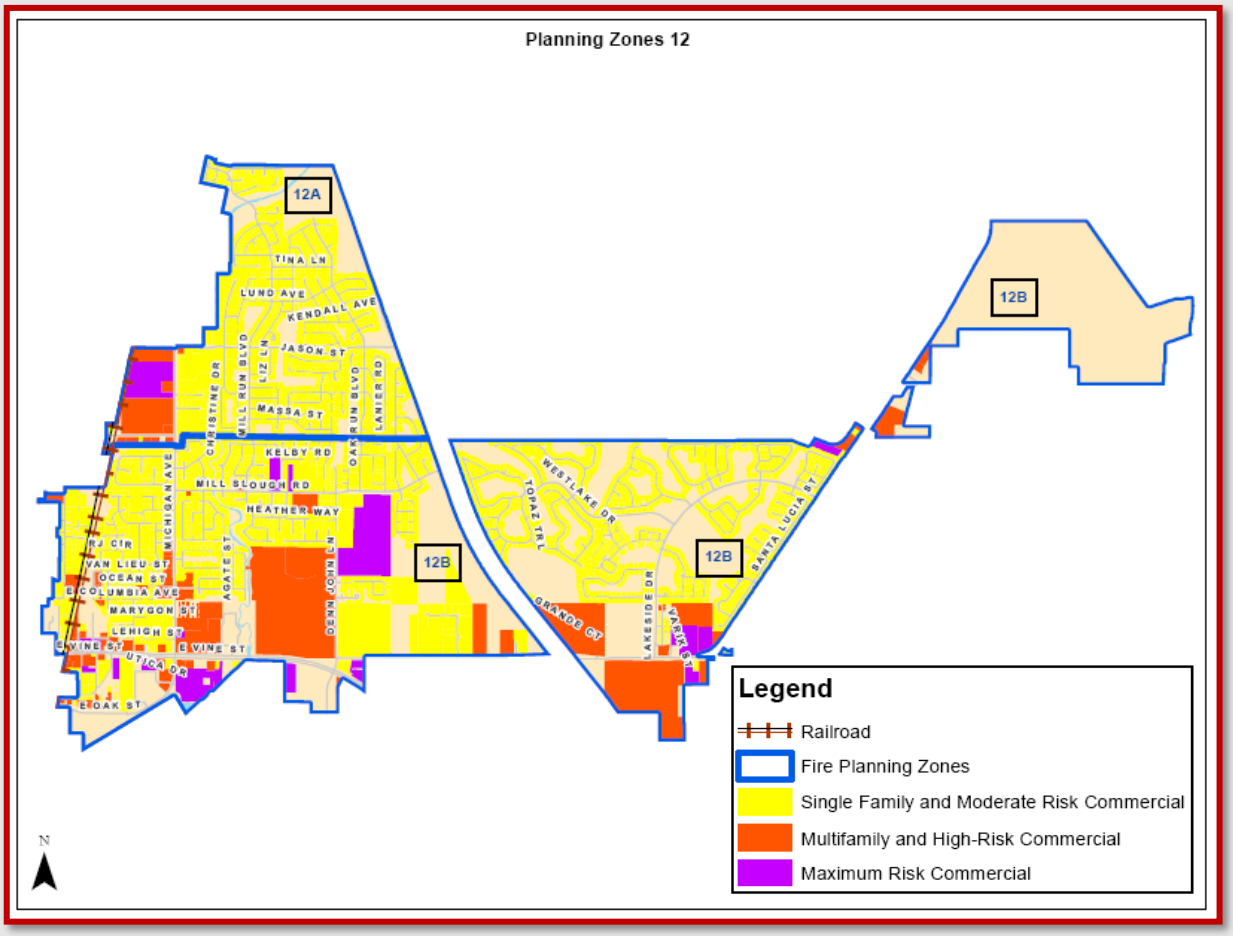
District 12 and Planning Zones 12A and 12B

Fire Station 12 1403 Denn John Lane, Kissimmee	Planning Zones: 12A, 12B	
	**Apparatus & Minimum Staffing**	**Station Information**
	Engine 12 - 3 **Rescue 12 - 2**	**Built: 1979** **Renovated: 2013**



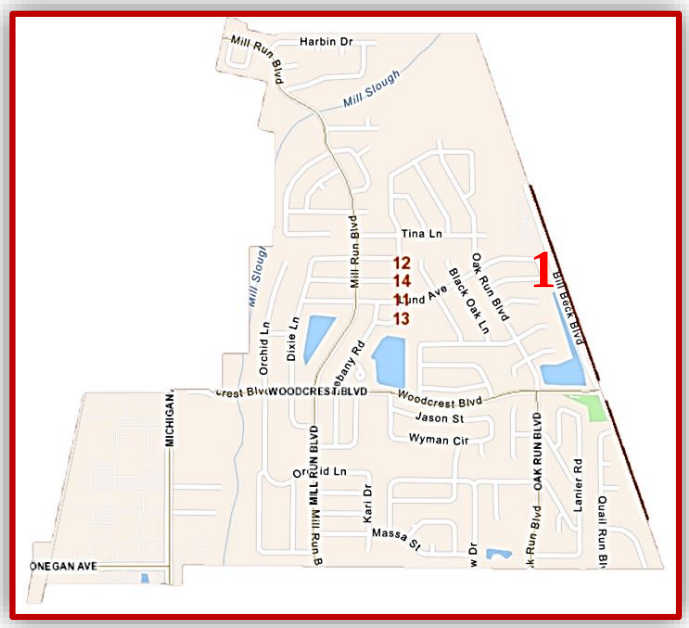
Residential and Commercial Fire Risk Assessment Results

District 12



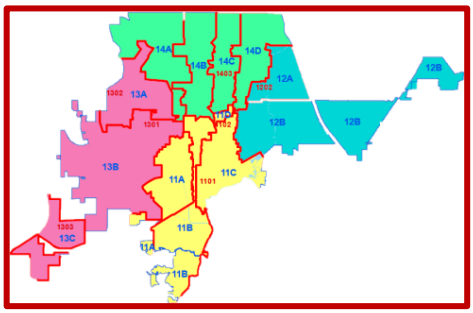
Planning Zone 12A	Fire Station Response Order Stations 12, 14, 11, 13

Map



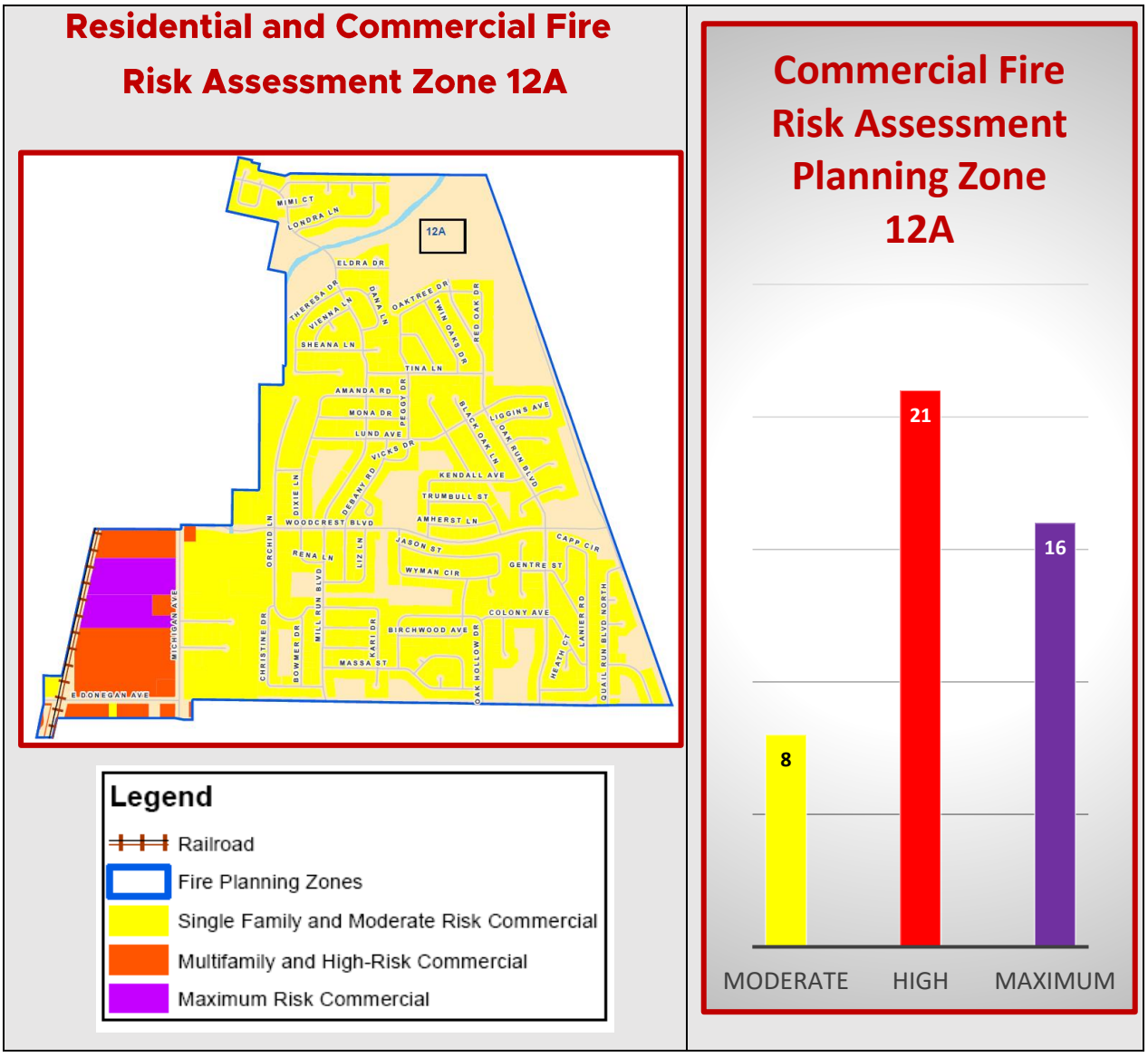
Critical Infrastructure

1. Kissimmee Charter School



Characteristics

1. Square miles: 1.14
2. Road Miles: 18.91
3. Population: 4,310
4. Occupancies
   a. One and Two Family: 1652
   b. Garden Apartments: 0
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 42
6. Schools: 1
7. Churches: 4



Community Profile

Properties

Planning Zone 12A is primarily an urban/suburban area with several 1000-3000 square foot single-family homes. It is common to find ordinary and wood frame construction in most areas. The well-established Mill-Run subdivision is in this zone.

Commercial

There are several strip malls, warehouses, and churches.

Government

The primary post office for the City is in this zone along with one charter school.

Roads

The major north/south road in this zone is Michigan Ave. and the major east/west road is E. Donegan. The Florida Turnpike runs just to the east of the Mill-Run neighborhood but there is no access point to the turnpike from this zone.

1. **Maximum Risk Structures**
   a. The Vine Christian Academy/Strip Mall
   b. Strip Mall (1130-1146 E. Donegan Ave.
   c. Solid Rock Church
   d. Strip Mall (2530 Michigan Ave.)
   e. Strip mall (1201-1215 E. Donegan Ave.)*
   f. Strip Mall (2510 Michigan Ave.)
   g. Strip Mall (2550 Michigan Ave.)
   h. Self Storage 2580 Michigan Ave.
   i. Century Link (1101 E. Donegan Ave.)*
   j. Warehouse (2644 Michigan Ave.)
   k. Warehouse (2652 Michigan Ave.)
   l. Warehouse (2700 Michigan Ave.)
   m. Warehouse (2642 Michigan Ave.)
   n. Post Office (2644 Michigan Ave.)
   o. Warehouse (2600 Michigan Ave.)
   p. Strip Mall (2540 Michigan Ave.)
2. **Hazardous Materials Risk**
   a. SCP Pool Supply Distributer
   b. US Post Office

*Building maintains fire sprinkler system

Probability of a Major Incident

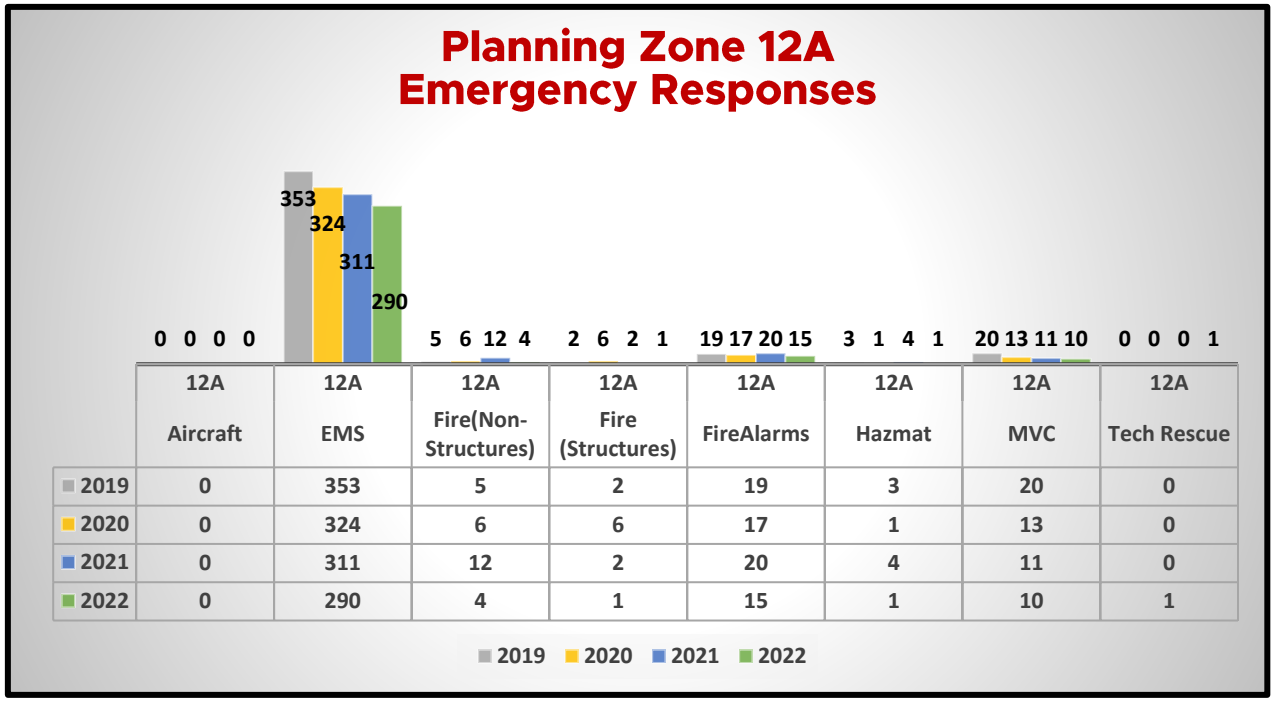
- Several maximum risk buildings are located in this zone but the zone is largely residential.
- Based on historical data, the chart on page 101 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections).
- Mitigating factors include fire inspections of the commercial properties and the school in this zone. Some of the residential areas do not have enough hydrants and long supply lines would be required.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident in the school while occupied.

- Relative loss comparisons: A major incident at one of the structures could have loss of life, property and revenue loss implications.
- Modifying Factors: Fire protection systems, fire drills, and active shooter training at the school should improve outcomes in the event of a major incident.
- Infrastructure impact in this zone includes the Florida Turnpike which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	12A Aircraft	12A EMS	12A Fire(Non-Structures)	12A Fire (Structures)	12A FireAlarms	12A Hazmat	12A MVC	12A Tech Rescue
2019	0	353	5	2	19	3	20	0
2020	0	324	6	6	17	1	13	0
2021	0	311	12	2	20	4	11	0
2022	0	290	4	1	15	1	10	1

Future Prabability Planning Zone 12A

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	256	5	1	14	1	4	1	227
Forecast % + / -	0%	-4%	-5%	-13%	-5%	-17%	-13%	0%	-5%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-1000 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Self Storage	2580 Michigan Ave.	210,448	1052 GPM	2110 GPM (2 hydrants)
Single Family	2610 Orchard Lane	110,000	550 GPM	1055 GPM (1 hydrants)

*Iowa Formula (30 second knockdown)

Planning Zone 12B	Fire Station Response Order Stations 12, 11, 14, 13

Map

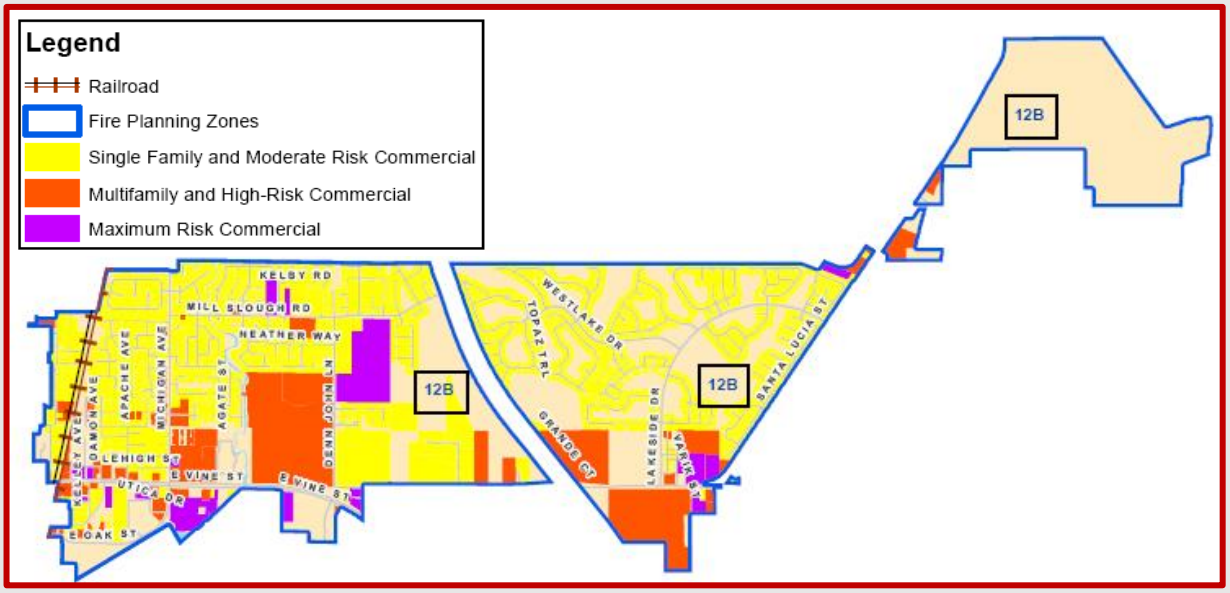
Critical Infrastructure

1. Kissimmee Fire Station 12
2. Valencia College
3. Denn John Middle School
4. Mill Creek Elementary School
5. Lakeside Elementary School
6. KUA Substation

Characteristics

1. Square miles: 4.19
2. Road Miles: 48.78
3. Population: 14,206
4. Occupancies
   a. One and Two Family: 3982
   b. Garden Apartments: 11
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 136
6. Schools
   a. Grades PreK-5: 2
   b. Grades K-8: 1
   c. Grades 6-8: 1
   d. Grades K-12: 2
   e. Colleges: 1
7. Cell/Radio Towers: 2
8. Churches: 16
9. Fire Stations: 1

Residential and Commercial Fire Risk Assessment Zone 12B



Community Profile

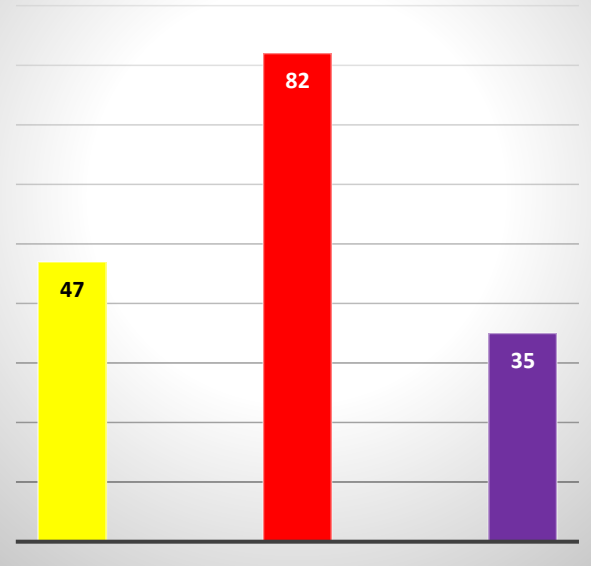
Properties

Planning Zone 12B is the largest response zone in District 12 and is an urban area with mostly 1000 - 3000 square foot single-family homes with ordinary and wood frame construction. The Lakeside community is a large development of single-family and apartments and makes up nearly half of this zone.

Commercial

The zone also includes medical offices, professional offices, strip malls, warehouses, and some light industrial buildings.

Commercial Fire Risk Assessment Planning Zone 12B



1. **Maximum Risk Structures**
   a. Lincoln-Marti Charter School
   b. Faith Harvest Christian Academy
   c. Bible Baptist Church/Heritage* Christian School*
   d. Osceola Christian Prep School
   e. Denn John Middle School*
   f. Mill Creek Elementary School*
   g. Cypress Elementary School
   h. Transition House Group Home
   i. Valencia College (several buildings)*
   j. Kingdom Hall of Jehovah's Witness
   k. Office Building (1631 E. Vine St.)*
   l. Office Building (1633 E. Vine St.)
   m. My First Academy (2245 Fortune Rd.)*
   n. Medical Offices (1627 E. Vine St.)
   o. Faith Harvest Christian Academy
   p. Iglesia Adventista Church
   q. Casa de Fey Benedicion
   r. Iglesia Bautista Central*
   s. Strip Mall (1400-1426 Simpson Rd.)
   t. Strip Mall (1718-1732 N. Kelley Ave.)
   u. Strip Mall (1150-1184 E. Vine St.)
   v. Publix Grocery Store*
   w. StorQuest Express (161 Oakwood Dr.)*
   x. Flamingo Inn (801 E. Vine St.)
   y. Strip Mall (1301-1339 E. Vine St.)
   z. Strip Mall (1312-1392 E. Vine St.)*
   aa. Church of the Nazarene
   bb. Strip Mall (715 E. Vine St.)
   cc. Strip Mall (2595-2651 Simpson Rd.)*
   dd. Personal Mini Storage (1404 E. Vine St.)
   ee. Strip Mall (1341-1379 E. Vine St.)*
2. **Hazardous Materials Risk**
   a. Orkin Pest Control
   b. Compass Pest Control
   c. Makinson Aquatic Center
   d. Several gas stations and auto repair shops

*Building maintains fire sprinkler system

Schools/Churches

There are several schools and many churches in the zone. The largest school in this planning zone is the Osceola Campus of Valencia College that is fully sprinklered.

Roads

Commuters traveling east/west will use E. Vine Street to enter the city from the east, and the primary north/south street is Michigan Ave. There is a railroad crossing across E. Vine Street in the

600 block that has delayed response times. Due to this crossing, the City decided in the late 1970s that Station 12 was needed and opened it in 1979. The Florida Turnpike borders to the east of the area but there is no access from this zone.

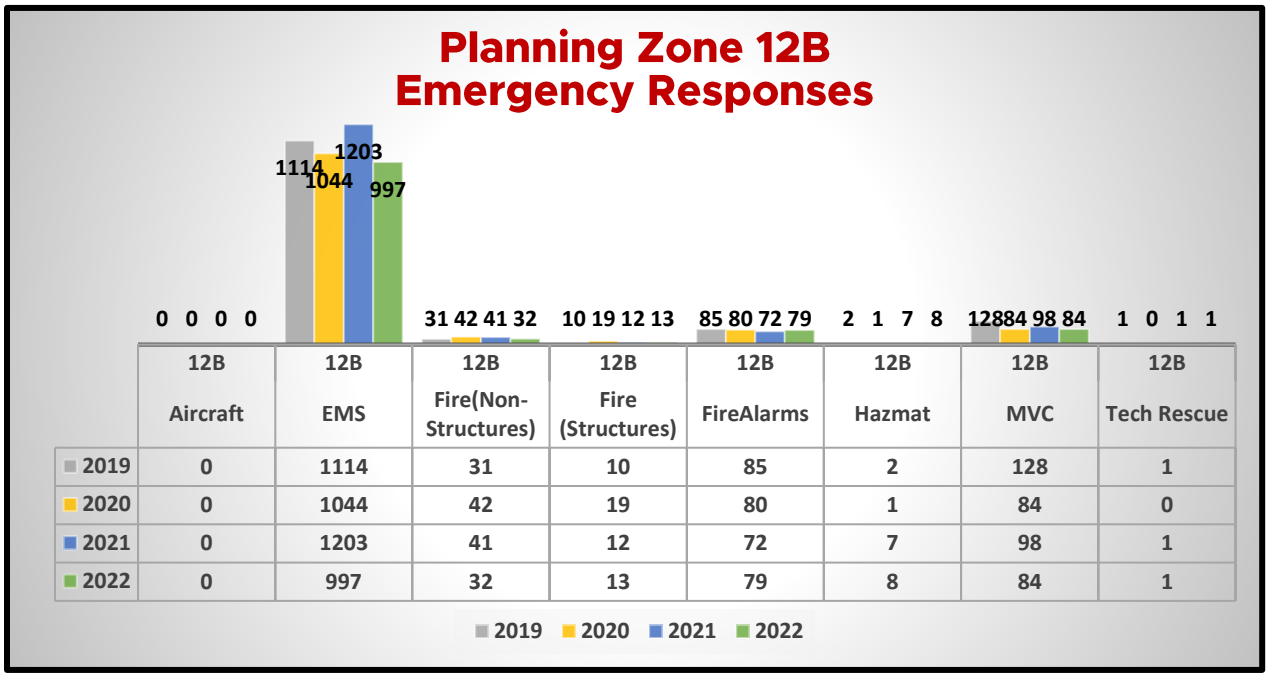
Probability of a Major Incident

- The maximum risk buildings are listed in the chart on page 105.
- Based on historical data, the chart on page 107 shows the likelihood of the various types of incidents occuring in this planning zone.
- Mitigating factors include fire inspections of the commercial properties and the many schools in this zone.
- The northeast section of this zone is slated for a large development and the need for additional resources for this area is being analyzed.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be an explosion, a fire or a large EMS incident in one of the schools or other high or maximum risk properties when occupied.
- Relative loss comparisons: A major incident at one of the structures could have loss of life, property, and revenue loss implications.
- Modifying Factors: Fire inspections, fire protection systems, fire drills, and active shooter training at the schools should improve outcomes in the event of a major incident. The Transition House Group Home which is a maximum risk structrure has limited access and water supply to sides bravo and charlie (east and south) of the buildings due a canal and a pond.
- Infrastructure impact in this zone includes the Florida Turnpike which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	12B Aircraft	12B EMS	12B Fire(Non-Structures)	12B Fire (Structures)	12B FireAlarms	12B Hazmat	12B MVC	12B Tech Rescue
2019	0	1114	31	10	85	2	128	1
2020	0	1044	42	19	80	1	84	0
2021	0	1203	41	12	72	7	98	1
2022	0	997	32	13	79	8	84	1

Future Prabability Planning Zone 12B

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	977	35	13	75	11	60	1	1171
Forecast % + / -	0%	-3%	1%	5%	-2%	75%	-9%	0%	-3%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

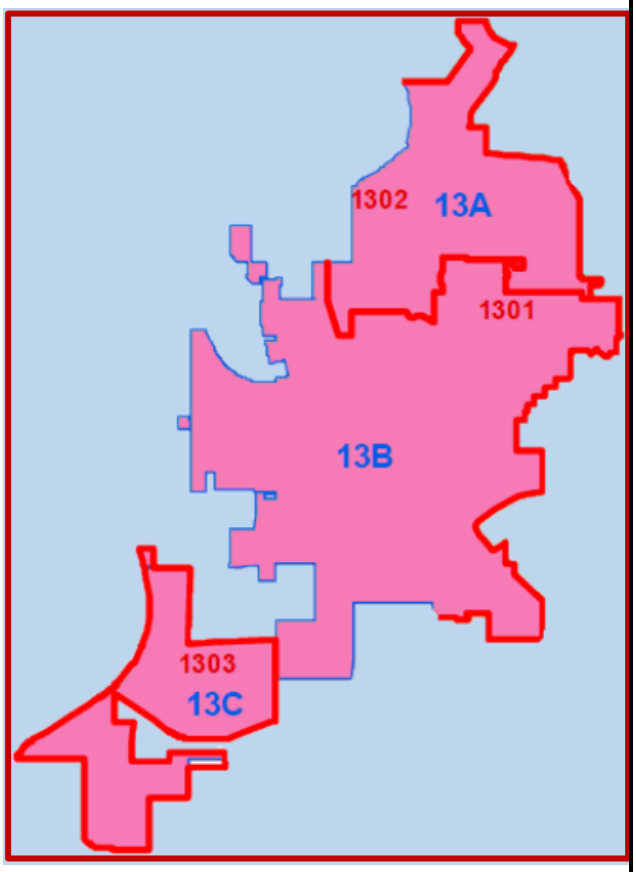
Fire Flow Requirements

The chart on page 108 shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

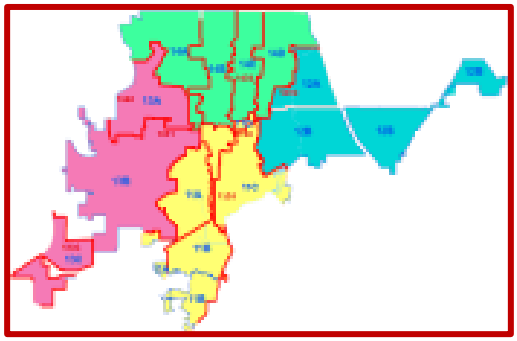
Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Velencia College (C)	1800 Denn John Lane	4,323,424	21,617 GPM	6 hydrants on property
Apartments	2003-2005 Grande Court	421,400	2107 GPM	2110 GPM (2 hydrants)

*Iowa Formula (30 second knockdown)

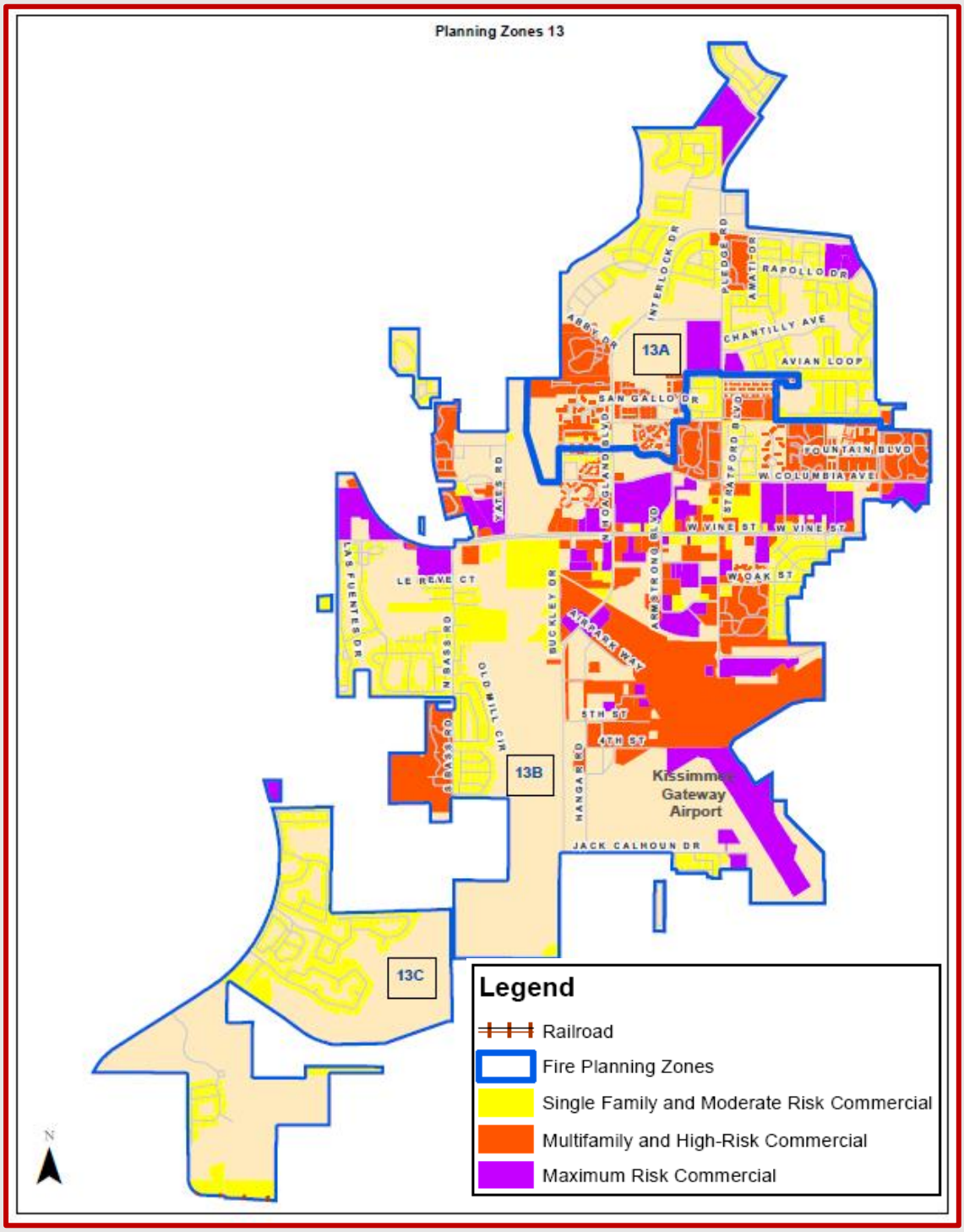
District 13 and Planning Zones 13A, 13B, and 13C

Fire Station 13 1801 N. Hoagland Boulevard, Kissimmee	Zoning Plans 13A, 13B, 13C
	

Apparatus & Minimum Staffing	Station Information
Engine 13 - 3 **Rescue 13 – 2** **Brush 13 – (cross staffed as needed)**	**Built – 1989** **Renovated – 2015**

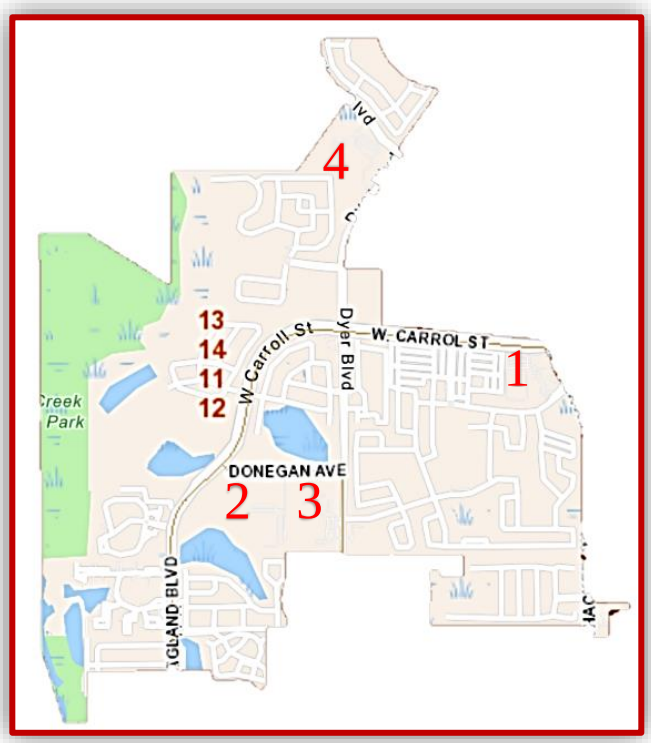


Residential and Commercial Fire Risk Assessment Results
District 13



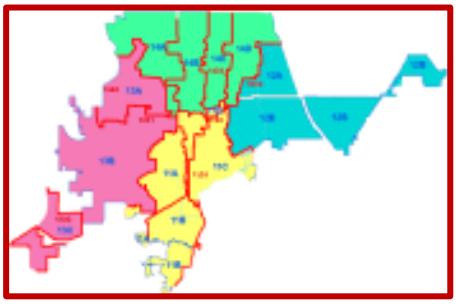
Planning Zone 13A	Fire Station Response Order Stations 13, 14, 11, 12

Map



Critical Infrastructure

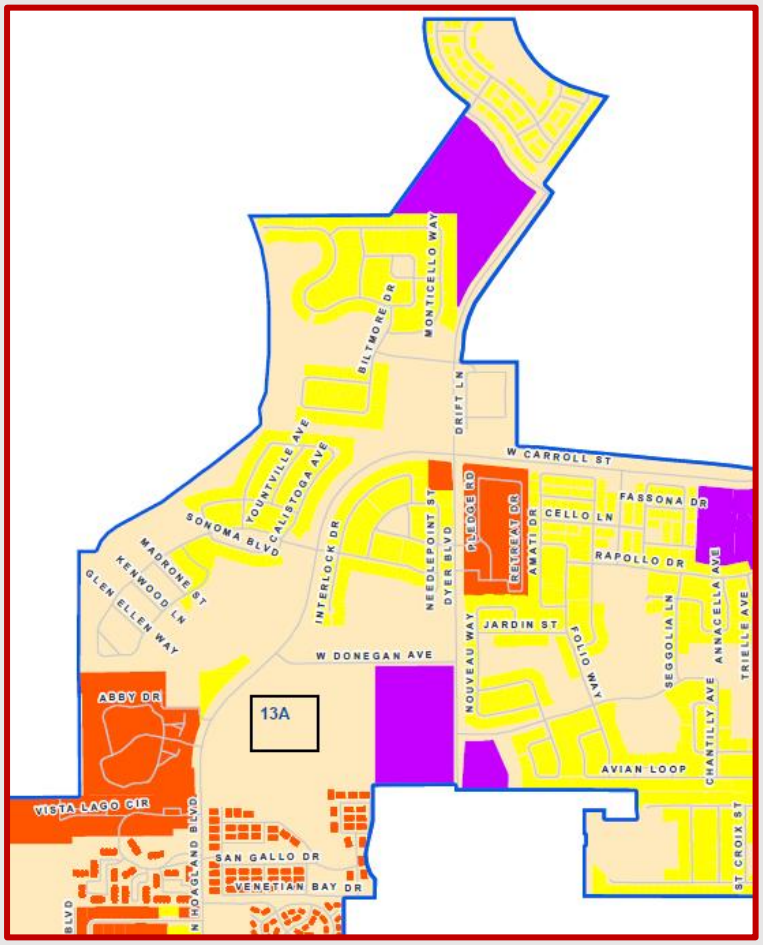
1. Renaissance Charter School
2. Kissimmee Elementary School
3. Kissimmee Middle School
4. Flora Ridge Elementary



Characteristics

1. Square miles: 1.71
2. Road Miles: 28.05
3. Population: 6,909
4. Occupancies
   a. One and Two Family: 2119
   b. Apartments (2, 3 story): 456
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 15
6. Schools
   a. Grades K-8: 1
   b. Grades PreK-5: 2
   c. Grades 6-8: 1

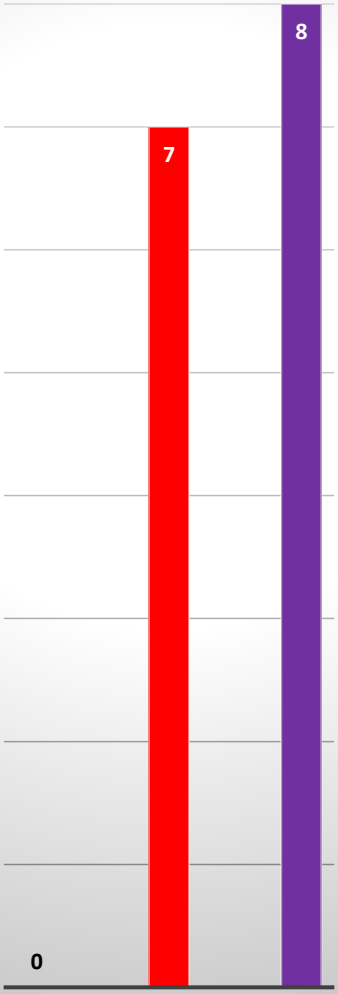
Residential and Commercial Fire Risk Assessment Zone 13A



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 13A



Community Profile

Properties

Planning Zone 13A is largely two- and three-story walk-up apartments and single-family homes. Most of the single-family homes in this this zone range from 2500-3500 square feet. Many of the apartments in this zone are Florida Section 8 housing. Large detached single family and townhome neighborhoods have recently been developed which has increased the population in this zone.

1. **Maximum Risk Structures**
   a. Kissimmee Elementary School*
   b. Kissimmee Middle School*
   c. Renaissance Charter School*
   d. Floral Ridge Elementary School*
   e. Vacant Movie Theater*
   f. Cube Smart Self Storage*
   g. Boys and Girls Club*
   h. Renaissance Charter School at Tapestry*
2. **Hazardous Materials Risk**
   a. Gas station

*Building maintains fire sprinkler system

Schools, Churches, Clubs

There are several schools, two churches and a mosque in the area. The Boys and Girls Club of Osceola is also in this zone.

Recreation

The Kissimmee Trail (biking/walking/jogging) starts in the 2200 block of N. Central Ave. spanning across Districts 14, 11 and 13 and ending at the Shingle Creek Preserve. From there the Shingle Creek Regional Trail continues.

Roads

The major north/south routes are N. Hoagland Blvd., N. Thacker Ave., and Dyer Ave. The major east/west routes are Carroll Street and W. Donegan Ave. The Shingle Creek Preserve borders the west side of this zone.

Trails

There are approximately two miles of the Shingle Creek Regional Trail in this zone. Currently there are no trail markers, but the City plans to install them within the year. There are approximately three access points along this part of the trail that can be used by rescues or the brush truck to access

in case of a medical emergency or brush fire. There are also approximately 4 miles of the Kissimmee Loop Trail in this zone. Emergency service access can be made at cross streets.

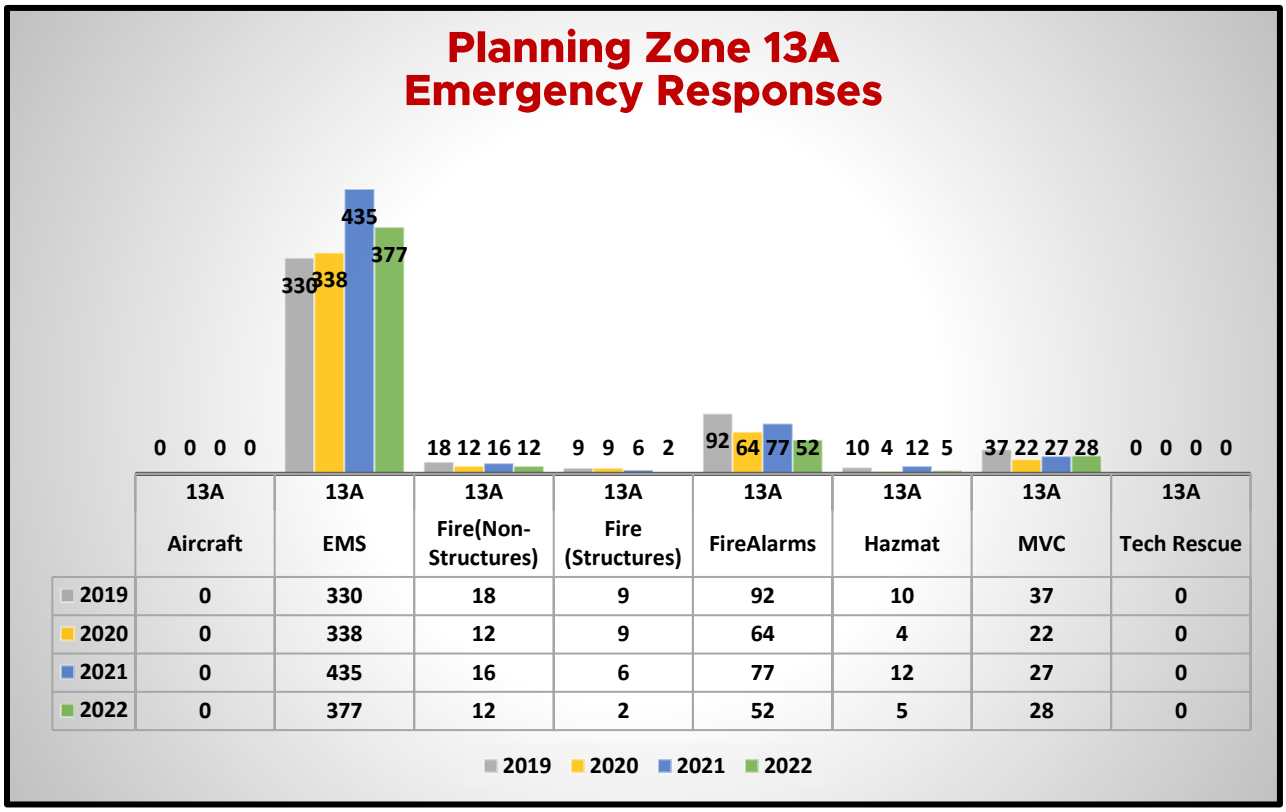
Probability of a Major Incident

- The eight maximum risk buildings in this planning zone are all schools and are in the chart on page 113.
- Based on historical data, the chart on page 116 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)
- Mitigating factors include fire inspections at the schools.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a large fire, explosion or major EMS incident in one of the high or maximum risk properties or schools when occupied.
- Relative loss comparisons: A major incident at one of the structures would have loss of life, property, and revenue loss implications.
- Modifying Factors: Fire protection systems, fire drills, and active shooter training at the schools should improve outcomes in the event of a major incident.
- Infrastructure impact in this zone includes the Shingle Creek Regional Park which could effect fire/rescue response to this area and potentially delay patient care to the park and trail areas.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	13A Aircraft	13A EMS	13A Fire(Non-Structures)	13A Fire (Structures)	13A FireAlarms	13A Hazmat	13A MVC	13A Tech Rescue
2019	0	330	18	9	92	10	37	0
2020	0	338	12	9	64	4	22	0
2021	0	435	16	6	77	12	27	0
2022	0	377	12	2	52	5	28	0

Future Prabability Planning Zone 13A

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	422	9	1	33	4	22	0	488
Forecast % + / -	0%	0%	-8%	-519	-11%	-13%	-6%	0%	-1%

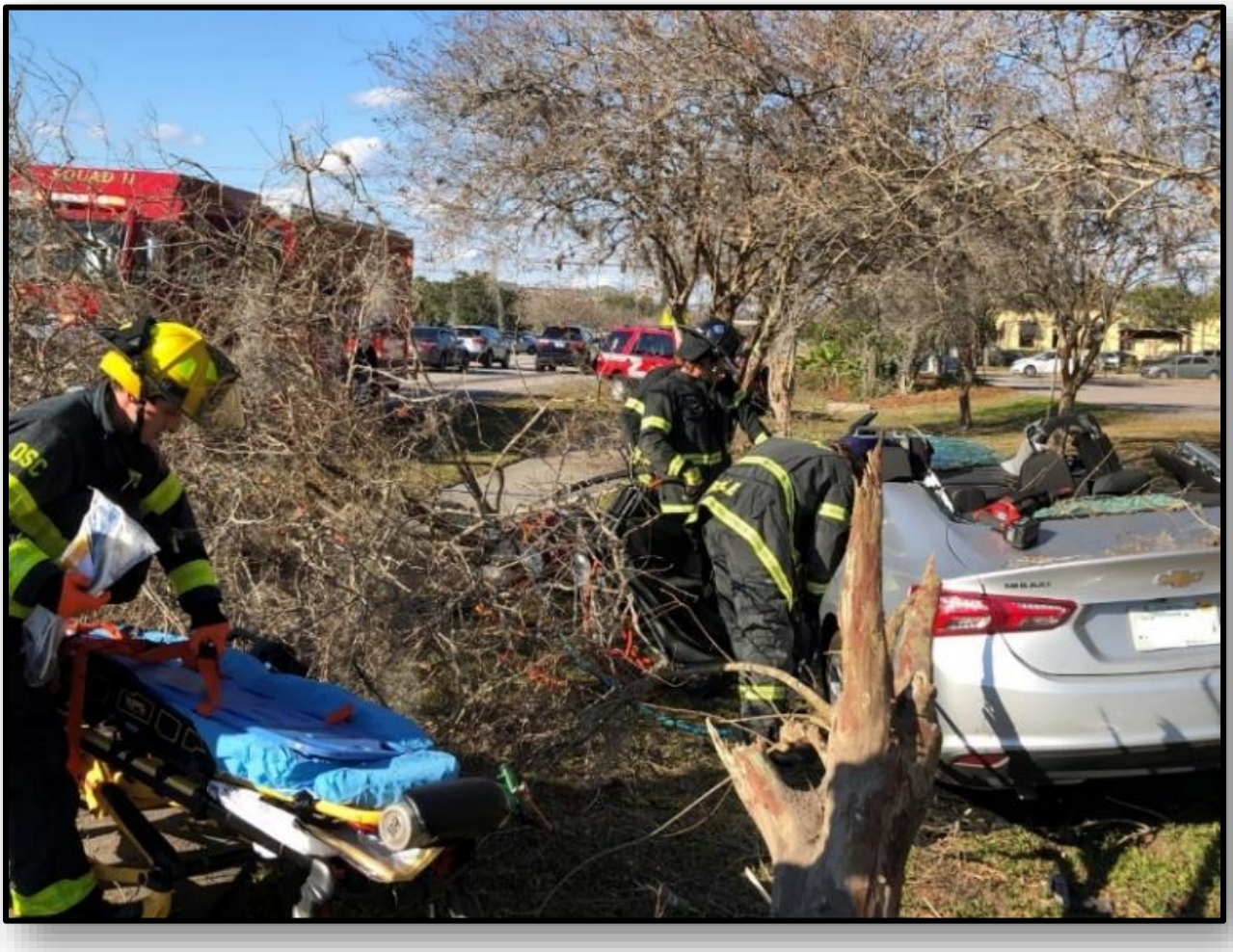
Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

The chart on page 116 shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Kissimmee Elementary School	3700 W. Donegan Street	636,188	3180 GPM	3165 GPM (3 hydrants)
Laguna Place Apartments	2221 Polo Club Drive	364,000	1820 GPM	2110 GPM (2 hydrants)

*Iowa Formula (30 second knockdown)

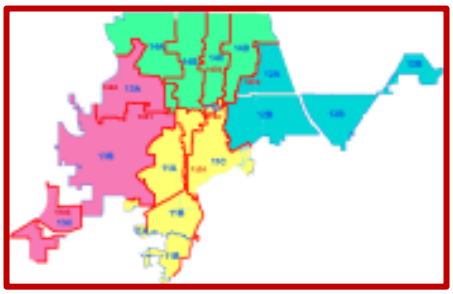


Planning Zone 13B	Fire Station Response Order Stations 13, 11, 14, 12

Map

Critical Infrastructure

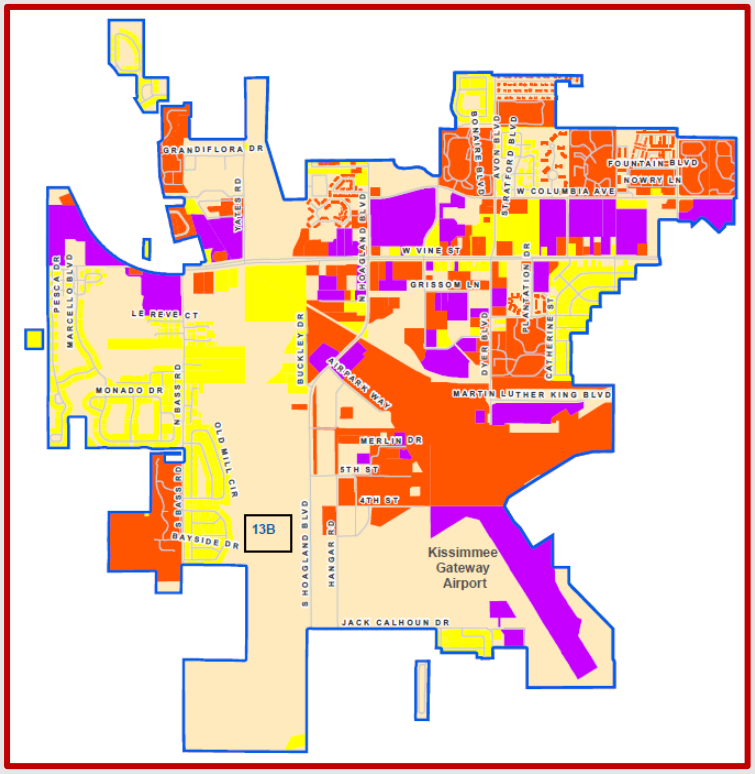
1. Kissimmee Fire Station 13
2. Kissimmee-Gateway Airport
3. Give Kids the World



Characteristics

1. Square miles: 4.60
2. Road Miles: 45.80
3. Population: 8,818
4. Occupancies
   a. One and Two Family: 1882
   b. Garden Apartments: 118
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 162
6. Schools
   a. PreK-8: 2
   b. K-12: 1
   c. Flight School: 1
7. Cell/Radio Towers: 4
8. Churches: 4
9. Fire Stations: 1
10. Airports: 1

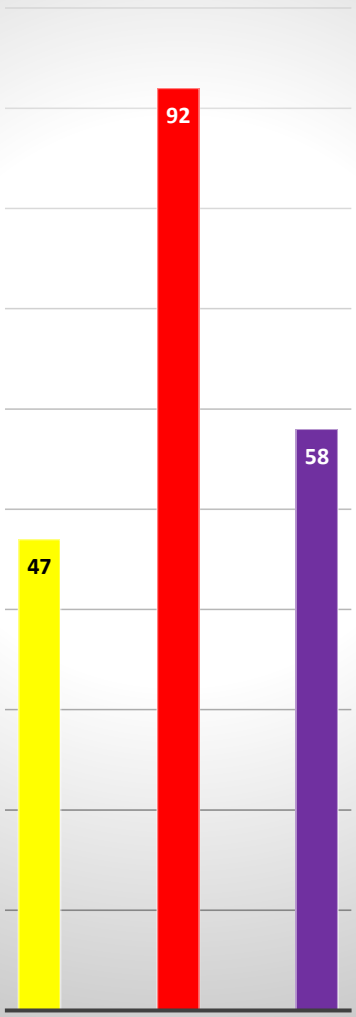
Residential and Commercial Fire Risk Assessment Zone 13B



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 13B



1. **Maximum Risk Structures**
   a. Staymore Hotel
   b. Baymont Hotel*
   c. Medieval Times*
   d. Sunset Aviation Flight School*
   e. Holy Redeemer School*
   f. Trinity Lutheran School*
   g. New Beginnings Education Center*
   h. Chateau Motel
   i. Florida Coach
   j. Crown Motel*
   k. Aviation Blade Services
   l. Florida Coach
   m. UVT/AV Dog*
   n. Dreaming Big Learning Center
   o. Titan Solar Power
   p. PPG Distributor*
   q. AMF Bowling Alley*
   r. Stoneage Arts
   s. Vacant (2211 W. Vine St.)*
   t. KISM Hangar LLC*
   u. Strip Mall (2200-2272 W. Columbia Ave.)*
   v. Skate Reflections*
   w. Big Lots*
   x. Performance Door and Hardware*
   y. Good Homes*
   z. Vacant (4140 Aviation Drive)*
   aa. ASAP Aerospace*
   bb. Osceola County Sheriff's Office*
   cc. Mixed Occupancy (840-850 N. Hoagland Blvd)*
   dd. Mixed Occupancy (860-870 N. Hoagland Blvd.*
   ee. BuiQui (4009 5th St.)*
   ff. Rapco Supply
   dd. Refinishing/Upholstery (3718-3722 Grissom Lane)*
   ee. Warehouse (3724-3734 Grissom Lane)*
   ff. Stallion 51*
   gg. Vacant (4018 Vine St.)*
   hh. Holy Redeemer Catholic Church
   ii. Odyssey Aviation*
   jj. Ambassador Inn
   kk. Enterprise Motel
   ll. Days Inn
   mm. Oakridge Inn
   nn. Signature Flight Service*
   oo. Strip Mall (800-828 N. Hoagland Blvd.)*
   pp. Strip Mall (201 Dyer Blvd.)
   qq. Give Kids the World
   rr. Offices (3700 Commerce Street)*
   ss. Multi Story Office Building
   tt. Food Distribution
   uu. Home Depot*
   vv. Strip Mall (3107-3199 W. Vine St.)*
   ww. Disney Warehouse*
   xx. Walmart*
   yy. Plaza Del Sol*
   zz. Give Kids the World*
   aaa. Office High Rise (3501 W. Vine Street)*
   bbb. Weiman Hotel*
   ccc. Howard Johnson's
   ddd. Flea Market
   eee. Goodman Distributor + Others*
2. **Hazardous Materials Risk**
   a. 88 Laundry
   b. Family Dollar/Clean Laundry
   c. Pest Patrol of Central FL
   d. Gorman Pools
   e. Home Depot*
   f. PPG Distributor*
   g. Florida Pest Control
   h. Several gas stations, fuel at the airport, and auto repair shops

*Building maintains fire sprinkler system

Community Profile

Properties

Planning Zone 13B is the largest response zone in District 13 and has a mix of several types of occupancies including maximum risk structures. The residential properties in this zone include two and three-story walk-up apartments, townhomes, detached single-family homes, motels, and hotels. The single-family homes are approximately 1000-3500 square feet, and the construction types are mostly ordinary and wood frame. Give Kids the World is in this zone, and it is one of the most unique resort properties in the world. The resort provides cost-free "magical" vacations to critically ill children and their families. According to Give Kids the World, approximately 177,000 children and their families have been guests at this resort.

Airport

The Kissimmee Gateway Airport is in this planning zone. Chartered, private and historic aircraft frequently are flown in and out of the airport 24 hours a day. Several VIPs use the airport including the POTUS on occasion using smaller government aircraft. There are several flight schools and commercial occupancies on the property. There are also commercial and industrial properties surrounding the airport.

Waterways

Shingle Creek flows from north to south under W. Vine Street. There is limited access to the undeveloped areas west of Shingle Creek. W. Vine Street is the only road in this zone to cross Shingle Creek.

Recreation

Medieval Times is a large dinner attraction for both locals and tourists. The occupancy of this facility can be up to 1500.

Roads

The primary east/west roads in this district are W. Vine Street and W. Columbia Ave. The major north/south roads are N. Hoagland Blvd. and Dyer Blvd.

Trails

There are approximately two miles of the Shingle Creek Trail in this zone. It runs from the Welcome Center on W. Vine Street to the north on Hoagland Blvd. Currently there are no trail markers, but the City plans to install them within the year. Part of the trail is in a wooded area which could cause delayed access but most of the trail runs next to Hoagland Blvd. Approximately two miles of the Kissimmee Loop Trail is also in this zone and most of it has good access.

Probability of a Major Incident

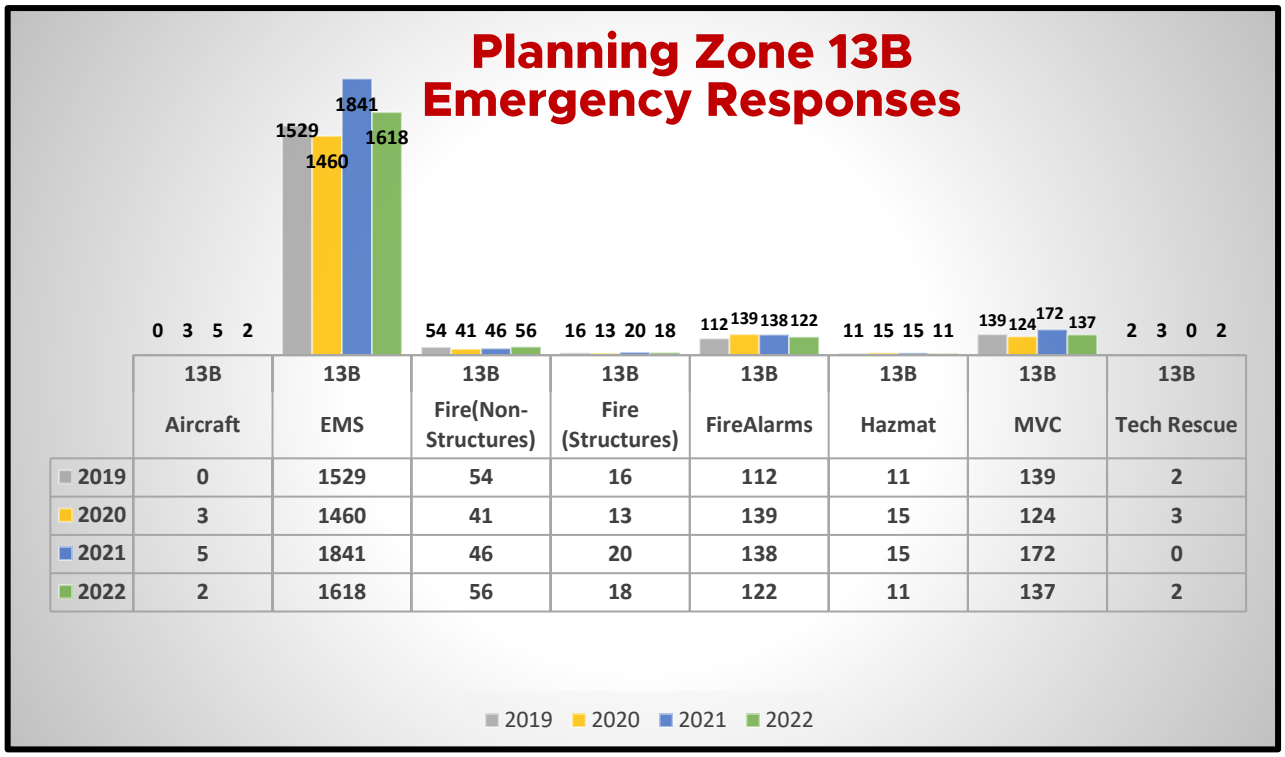
- The maximum risk buildings are listed in the chart on page 120. They include schools, hotels and Medieval Times.
- Based on historical data, the chart on page 122 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)
- Mitigating factors include fire inspections of the commercial properties and the schools. Safety education has been performed at the schools. Staff at Medieval Times have received safety education including evacuation procedures.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be an explosion, large fire, plane crash or a major EMS incident in one of the schools or Medieval Times when occupied.
- Relative loss comparisons: A major incident at one of the structures could have loss of life and would have property, and revenue loss implications.
- Modifying Factors: Fire protection systems at the schools should improve outcomes in the event of a major incident.
- Infrastructure impact in this zone includes the Shingle Creek Regional Park and the Kissimmee-Gateway Airport.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022

EMS Incidents continue to have the most significant demand on the Department. The total number of responses in this planning zone is shown on the below chart.



	13B Aircraft	13B EMS	13B Fire(Non-Structures)	13B Fire (Structures)	13B FireAlarms	13B Hazmat	13B MVC	13B Tech Rescue
2019	0	1529	54	16	112	11	139	2
2020	3	1460	41	13	139	15	124	3
2021	5	1841	46	20	138	15	172	0
2022	2	1618	56	18	122	11	137	2

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Future Prabability Planning Zone 13B

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	4	1732	55	20	132	12	172	1	2128
Forecast % + / -	100%	2%	1%	2%	2%	0%	3%	0%	2%

Fire Flow Requirements

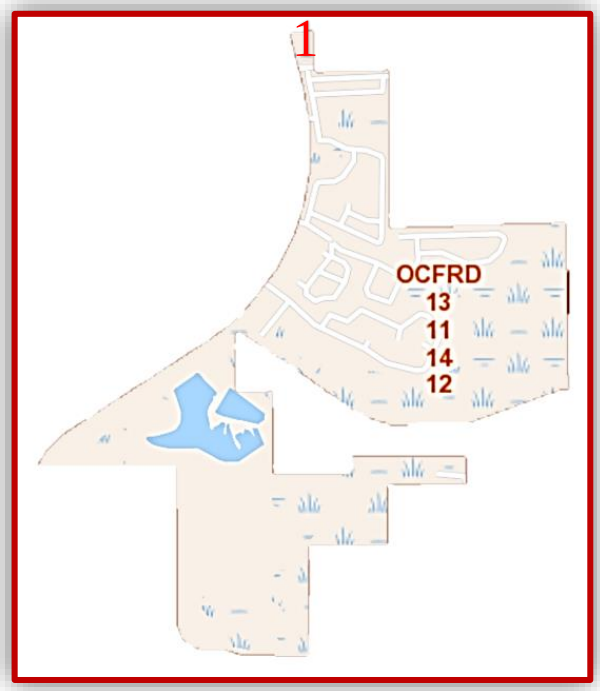
The chart on page 123 shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Plaza del Sol	3819-4018 W. Vine Street	5,880,000	29,400 GPM	9 hydrants on property
Howard Johnsons Motel	4311 W. Vine Street	1,015,000	5075 GPM	2110 GPM (2 hydrants)

*Iowa Formula (30 second knockdown)

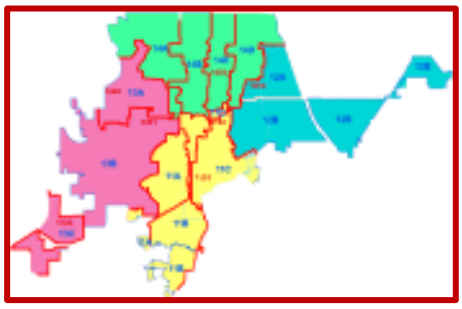
Planning Zone 13C	Fire/Rescue Responsibility: Osceola County

Map



Critical Infrastructure:

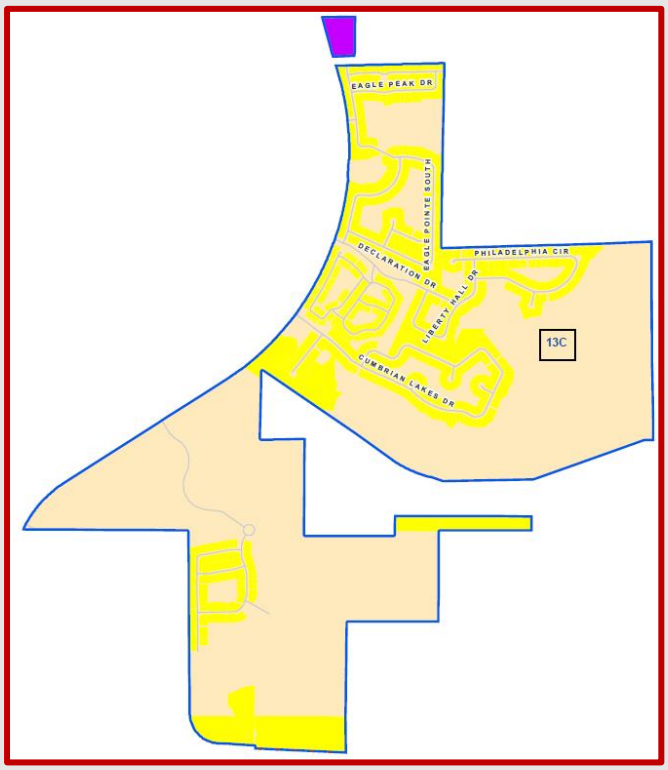
Mater Palms Academy



Characteristics

1. Square miles: 1.24
2. Road Miles: 7.54
3. Population: 1,604
4. Occupancies
   a. One and Two Family: 1079
   b. Garden Apartments: 0
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 0
6. Schools
   a. K-12: 1

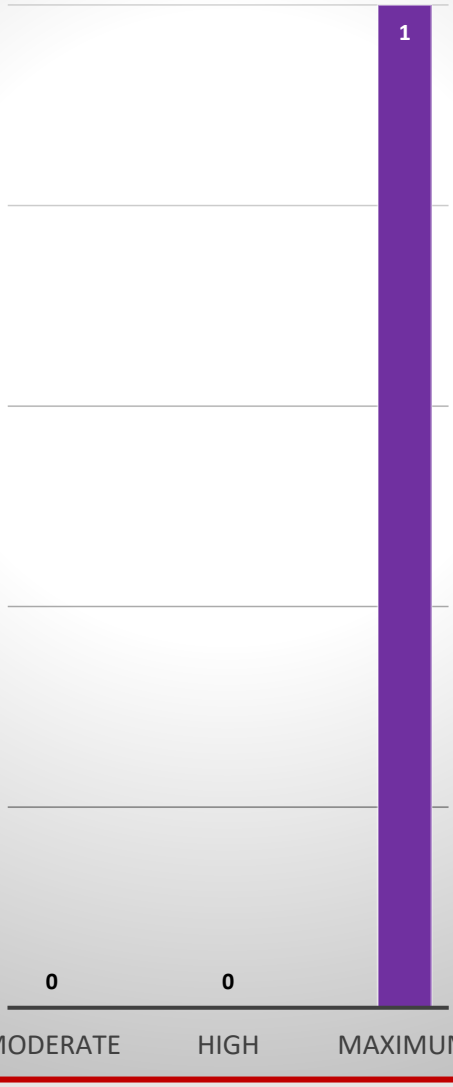
Residential and Commercial Fire Risk Assessment Zone 13C



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 13C



Community Profile

Overview

Osceola County provides first due responses to Planning Zone 13C due to the closer proximity of their fire stations. The primary mutual aid agreement dated May 4, 2004, between the City and Osceola County covers the agreement in this response area. The City of Kissimmee Fire Prevention Bureau manages all fire prevention events, inspections, and approvals.

Properties

The two residential communities in this zone consist of a mix of townhomes and single-family homes with ordinary construction.

School

There is one modern school in the zone, which meets the latest building and fire codes. Poinciana Blvd. is the only primary road in this zone.

1. Maximum Risk Structures

a. Mater Academy*

*Building maintains fire sprinkler system

Roads

The only major road in this zone is N. Poinciana Blvd. that is a four-lane divided highway.

Probability of a Major Incident

- One maximum risk building which is a school is listed in the chart above.
- Based on historical data, the chart on page 127 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)
- Mitigating factors include fire inspections of the school.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident in the school.
- Relative loss comparisons: A major incident at the school would have life and property loss implications.

- Modifying Factors: Fire protection systems at the school should improve outcomes in the event of a major incident. The school is a large two-story property that is fully sprinkled and has a modern fire alarm system.
- Infrastructure impact in this zone includes the Shingle Creek Regional Park and other wooded properties. Also, there are limited roads to the area which could delay access to this zone.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Fire Flow Requirements

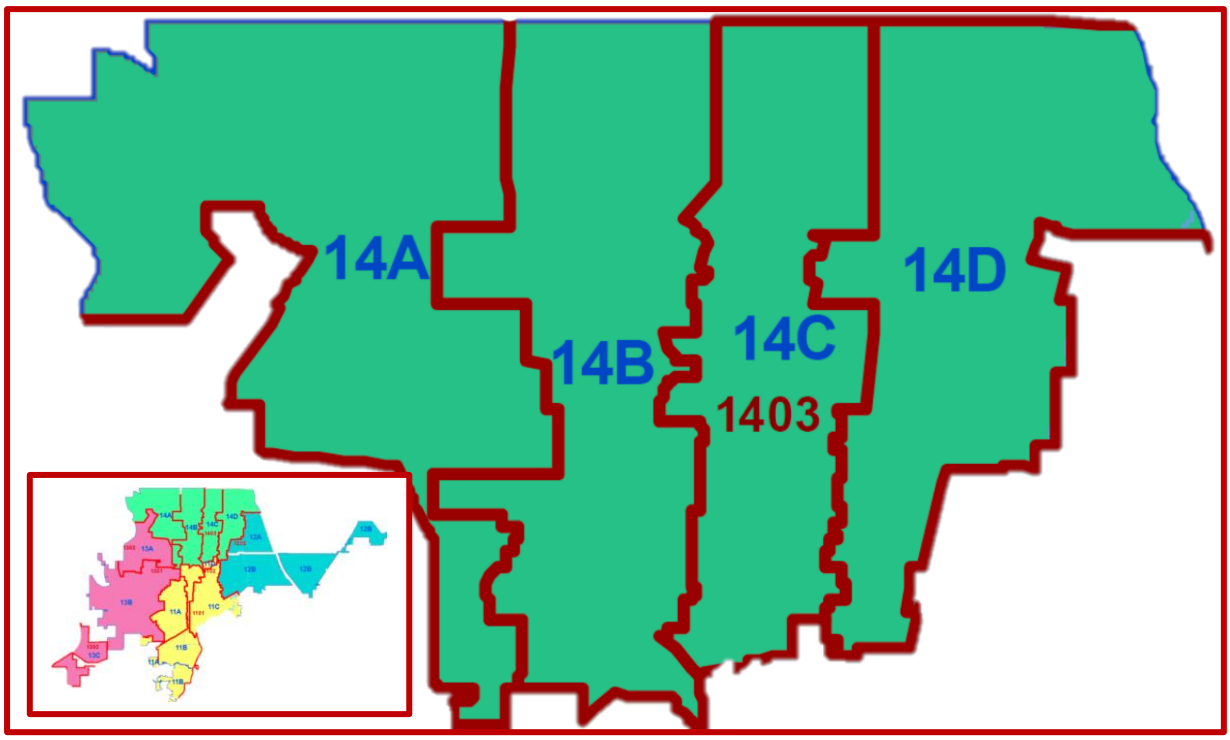
The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Mater Palms Academy	401 S. Poinciana Blvd	359,800	1799 GPM	2110 GPM (2 hydrants)
Apartments	1275-1295 South Beach Circle	217,000	1085 GPM	2110 GPM (2 hydrants)

*Iowa Formula (30 second knockdown)

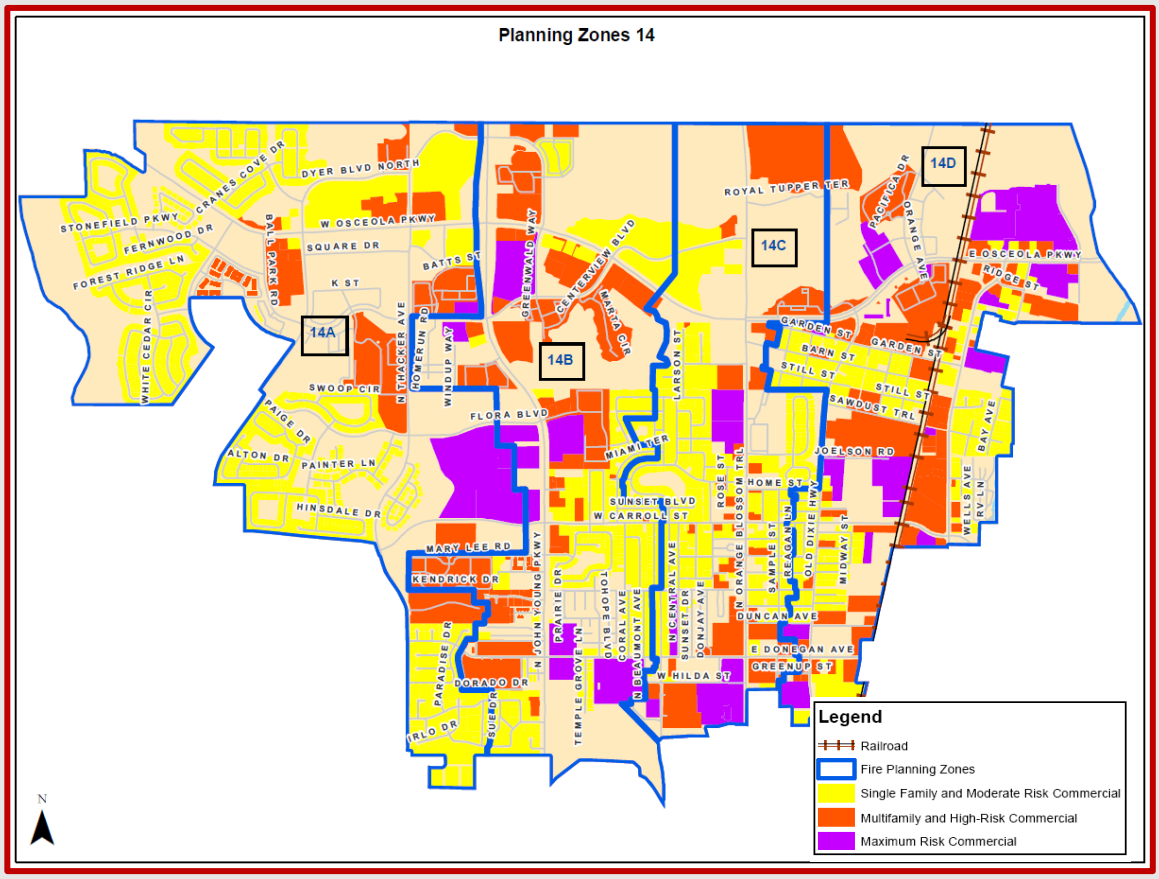
District 14 and Planning Zones 14A, 14B, 14C and 14D

Fire Station 14 1101 Regatta Bay Blvd	Zoning Plans 14A, 14B, 14C, 14D	
	**Apparatus & Minimum Staffing**	**Station Information**
	Engine 14 - 3 **Rescue 14 – 2** **Rescue 114 - 2**	**Built – 2004** **Renovated – 2019**



Residential and Commercial Fire Risk Assessment Results

District 14



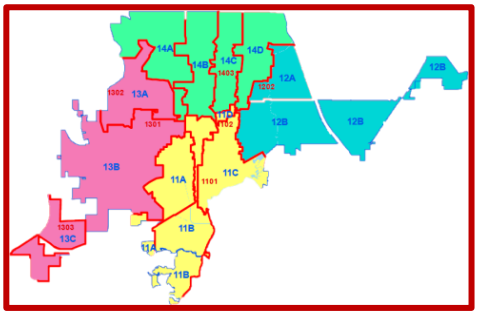
Planning Zone 14A	Fire Station Response Order Stations 14, 13, 11, 12

Map

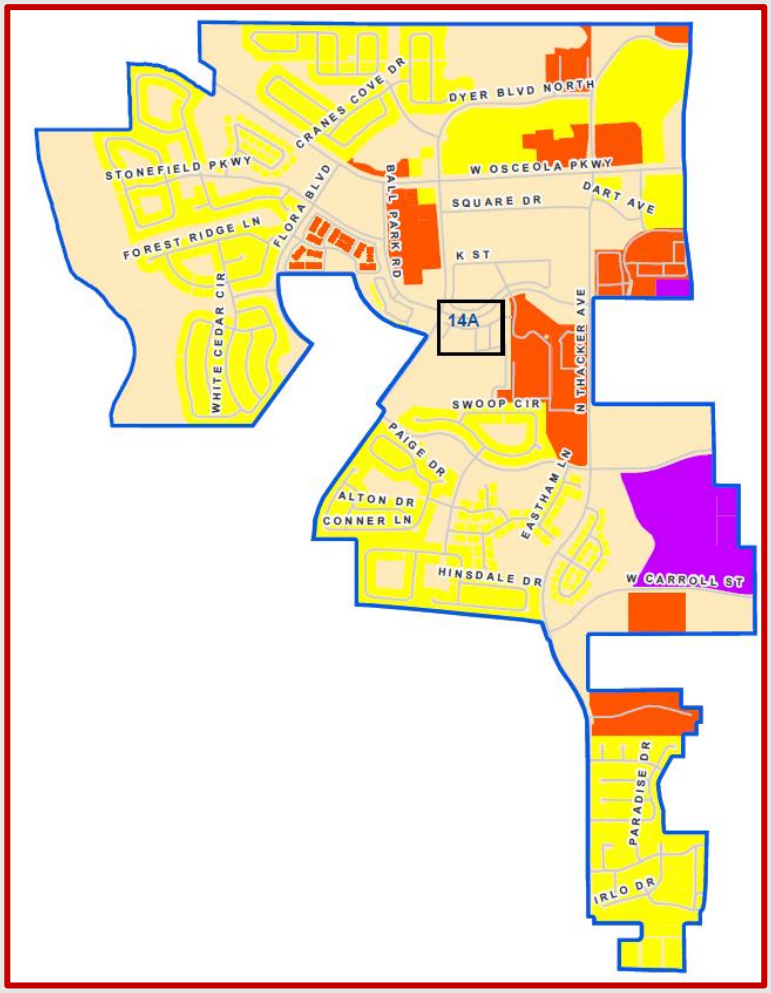
No Critical Infrastructure

Characteristics

1. Square miles: 2.22
2. Road Miles: 30.68
3. Population: 6,856
4. Occupancies
   a. One and Two Family: 1984
   b. Garden Apartments: 14
   c. Mid-Rise (4 stories): 1
   d. High Rise (>4 stories): 0
5. Commercial Properties: 44
6. Assisted Living Facility: 1



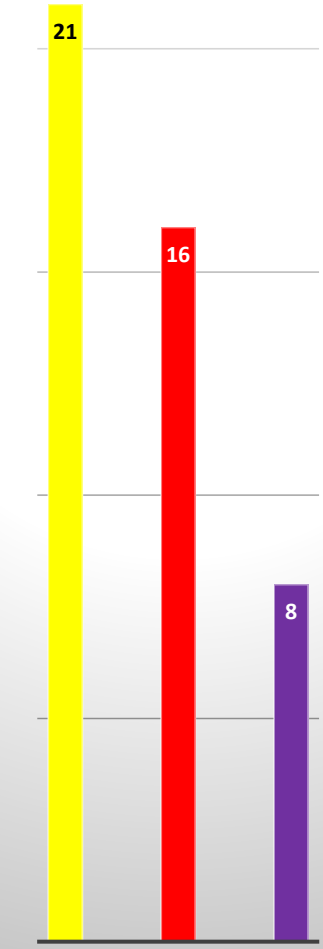
Residential and Commercial Fire Risk Assessment Zone 14A



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 14A



Community Profile

Properties

Planning Zone 14A has a mix of several types of residential occupancies including two-and-three-story walk-up apartments, townhomes, and single-family homes. There are also several newer four-story mid-rise apartment buildings. The single-family homes are approximately 1500 – 3500 square feet and the construction type for most of the residential structures is ordinary and wood frame.

1. **Maximum Risk Structures**
   a. Sonata (assisted living facility)
   b. Strip Mall (2549-2571 W. Osceola Pkwy.)*
   c. Publix*
   d. Regal Cinemas*
   e. Strip Mall (3254-3282 N. John Young Pkwy.)*
   f. Strip Mall (3202-3230 N. John Young Pkwy.)*
   g. Strip Mall (2601-2703 W. Osceola Pkwy.)*
   h. KUA Main Office
2. **Hazardous Materials Risk**
   a. Several gas stations, fuel at the airport, and auto repair shops

*Building maintains fire sprinkler system

Commercial

There are also several strip malls and other commercial properties. The Loop West is a large shopping area with shops and restaurants. Approximately sixty acres directly south of the Loop West is in the process of being developed into a mixed-use residential and retail complex.

Roads

The major north/south roads in the zone are Dyer Blvd. and N. Thacker Ave. The major east/west road is Osceola Pkwy.

Probability of a Major Incident

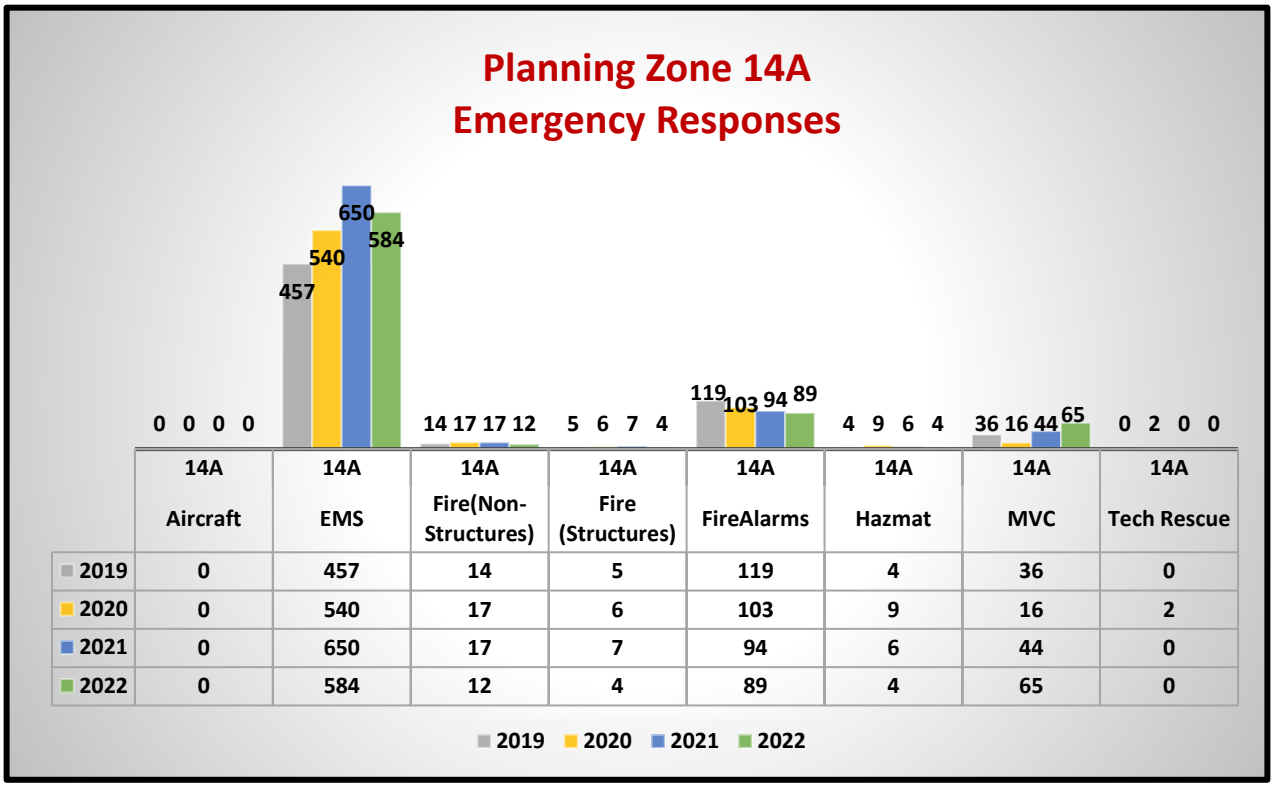
- Eight maximum risk buildings are located in this planning zone and is listed in the above chart.
- Based on historical data, the chart on page 133 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)

- Mitigating factors include fire inspections of the assisted living facility (ALF), the airport, and other commercial properties. Staff at the ALF received safety education including evacuation procedures.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident in the ALF.
- Relative loss comparisons: A major incident at one of the structures could have loss of life, property, and revenue loss implications.
- Modifying Factors include fire sprinkler and protection systems at the assited living facility (ALF). Also safety eduction for the staff at the ALF should improve outcomes in the event of a major incident.
- Infrastructure impact in this zone includes the Shingle Creek Regional Park.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	14A Aircraft	14A EMS	14A Fire(Non-Structures)	14A Fire (Structures)	14A FireAlarms	14A Hazmat	14A MVC	14A Tech Rescue
2019	0	457	14	5	119	4	36	0
2020	0	540	17	6	103	9	16	2
2021	0	650	17	7	94	6	44	0
2022	0	584	12	4	89	4	65	0

Future Prabability Planning Zone 14A

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	681	12	4	74	5	78	0	851
Forecast % + / --	0%	7%	-4%	-5%	-6%	0%	20%	0%	5%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Strip Mall	2601-2703 W. Osceola Pkwy.	3,052,000	15,260 GPM	10 hydrants on property
Sonata ALF	1701 Ball Park Rd.	2,436,000	12,180 GPM	6 hydrants on property

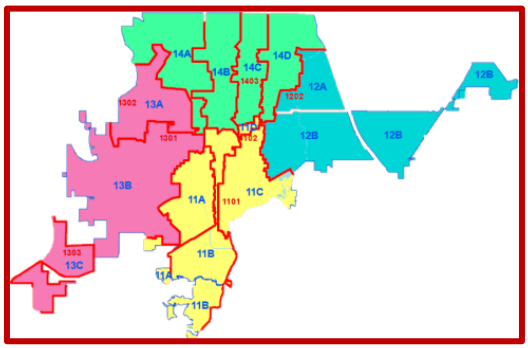
*Iowa Formula (30 second knockdown)

Planning Zone 14B	Fire Station Response Order Stations 11, 14, 13, 12
Map	**Characteristics**

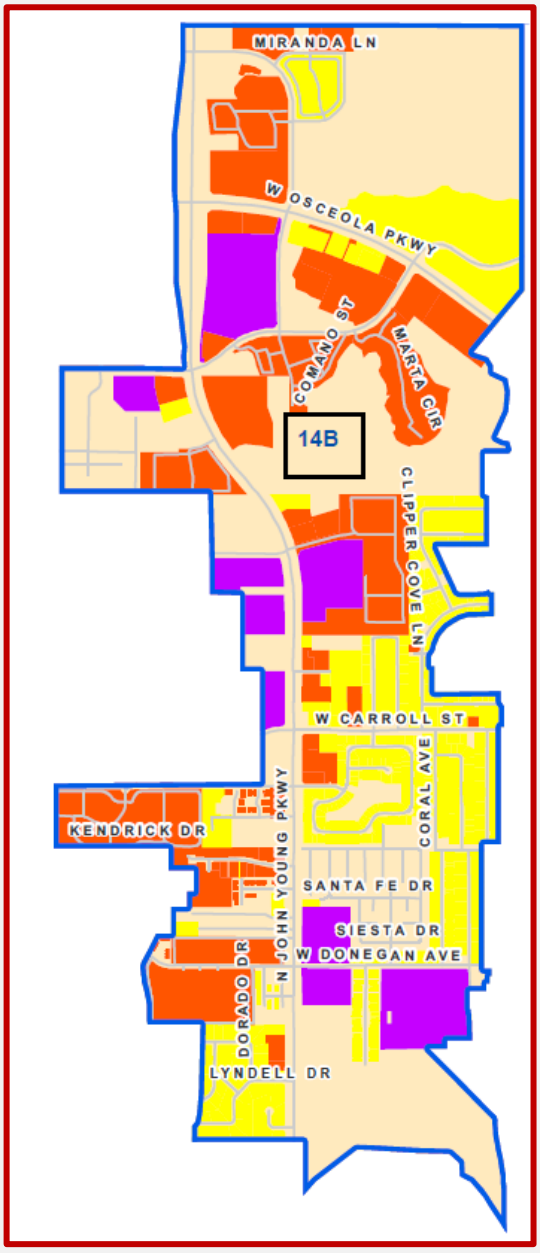
Critical Infrastructure

1. Kissimmee Fire Station 14
2. Osceola Science Stem School
3. Kissimmee Utility Authority Water Treatment Plant
4. Highlands Elementary School

1. Square miles: 1.64
2. Road Miles: 25.01
3. Population: 5,295
4. Occupancies
   a. One and Two Family: 421
   b. Garden Apartments: 59
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties:
6. Schools
   a. Elementary: 1
   b. K-12: 1
7. Nursing Homes: 2
8. Assisted Living Facility: 3
9. Cell/Radio Towers: 1
10. Churches: 5



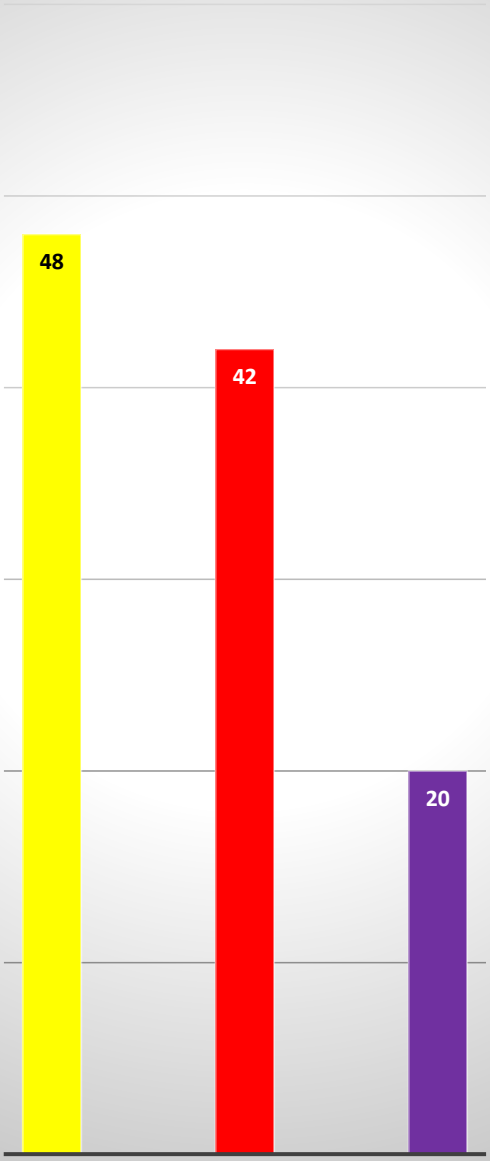
Residential and Commercial Fire Risk Assessment Zone 14B



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 14B



Community Profile

Properties

This zone contains a mix of residential, commercial, and light industrial properties. Many properties are being developed and the population is growing rapidly. There are also several newer four and five-story mid-rise apartment buildings. The single-family homes are approximately 1500 – 3000 square feet and the construction type for most of the residential structures is ordinary or wood frame.

Industrial

Toho Water Authority has a water treatment plant, and the main office of the Kissimmee Utility Authority is in this zone. The Osceola Animal Diagnostic Lab has a high hazardous materials risk.

Other

There are also several assisted living facilities and two schools in this planning zone.

Probability of a Major Incident

- The maximum risk buildings in this planning zone are listed in the chart to the right. The North Bermuda Water Treatment Plant

1. **Maximum Risk Structures**
   a. Keystone Villas #1 (assisted living)
   b. Keystone Villas #2 (assisted living)
   c. Keystone Rehab*
   d. Living Center of Kissimmee* (nursing home)
   e. Osceola Science STEM School*
   f. Highland Elementary School*
   g. Paladin Healthcare / Precision Mold and Tool*
   h. Strip Mall (1255-1301 W. Osceola Pkwy.)*
   i. Burlington Coat Factory*
   j. Strip Mall (601-641 Centerview Blvd.)*
   k. Strip Mall (711-751 Centerview Pkwy.)*
   l. Strip Mall (3280-3302 N. John Young Pkwy.)*
   m. Osceola Animal Diagnostic Lab*
   n. Crunch Fitness*
   o. Esporta Fitness*
   p. Hide Manufacturers*
   q. KUA Lackey Service Center*
   r. BJs Wholesale Warehouse*
   s. Lowes*
   t. Vacant (2949 N. John Young Pkwy.)
2. **Hazardous Materials Risk**
   a. North Bermuda Water Treatment Plant*
   b. Osceola Animal Diagnostic Lab*
   c. Several gas stations and auto repair shops

*Building maintains fire sprinkler system

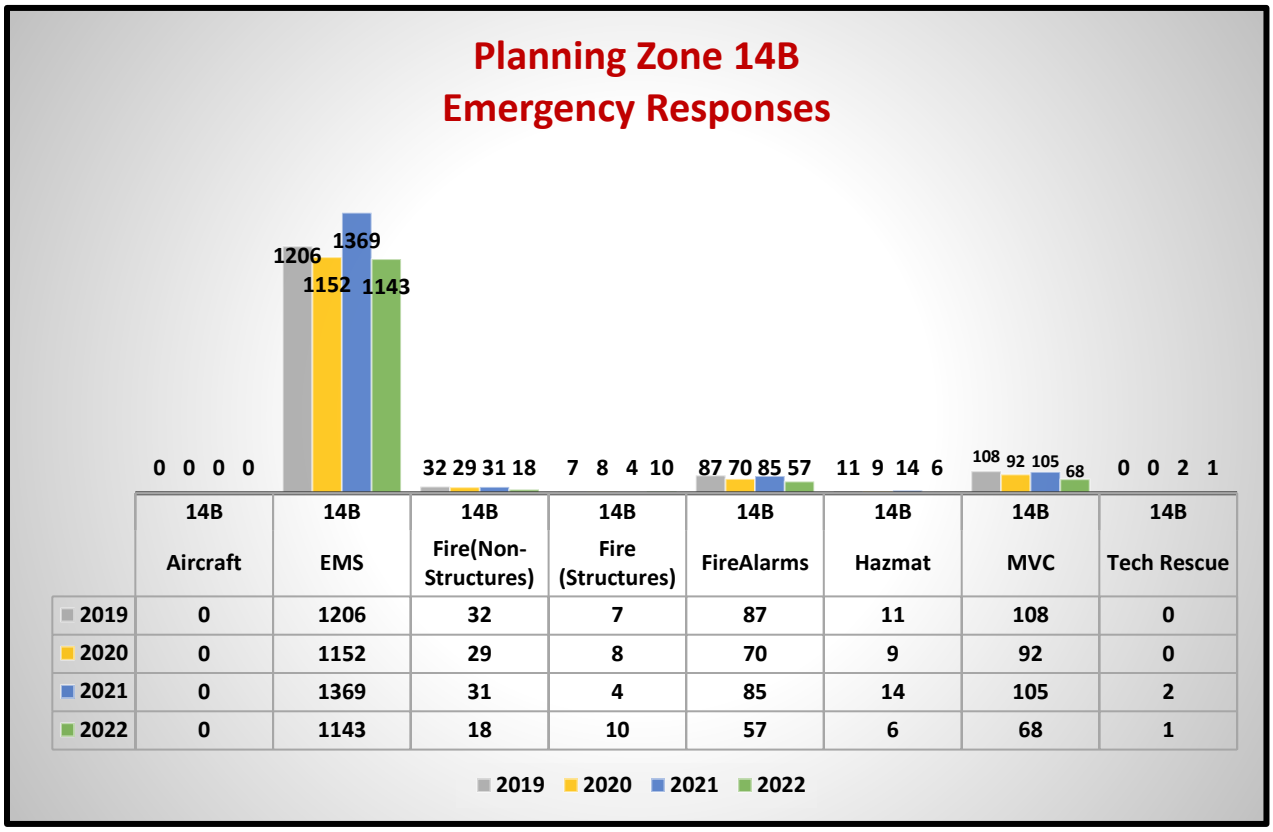
is a smaller facility than the South Bermuda Plant but still maintains a potential hazmat risk.

- Based on historical data, the chart on page 139 shows the likelihood of the various types of incidents occuring in this planning zone.
- Mitigating factors include fire inspections of the nursing home, ALFs, schools and other commercial properties. Staff at the ALFs and nursing home received safety education including evacuation procedures.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident in one of the high or miximum risk strutures in this planning zone.
- Relative loss comparisons: A major incident at one of the structures would have life, property, and revenue loss implications.
- Modifying Factors include fire protecting systems and safety eduction for the staff at the maximum risk facilities should improve outcomes in the event of a major incident.
- No major infrastructure impacts in this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	14B Aircraft	14B EMS	14B Fire(Non-Structures)	14B Fire (Structures)	14B FireAlarms	14B Hazmat	14B MVC	14B Tech Rescue
2019	0	1206	32	7	87	11	108	0
2020	0	1152	29	8	70	9	92	0
2021	0	1369	31	4	85	14	105	2
2022	0	1143	18	10	57	6	68	1

Future Prabability Planning Zone 14B

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	1162	13	10	45	5	52	2	1289
Forecast % + / -	0%	-1%	-11%	11%	-9%	-11%	-9%	100%	-3%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

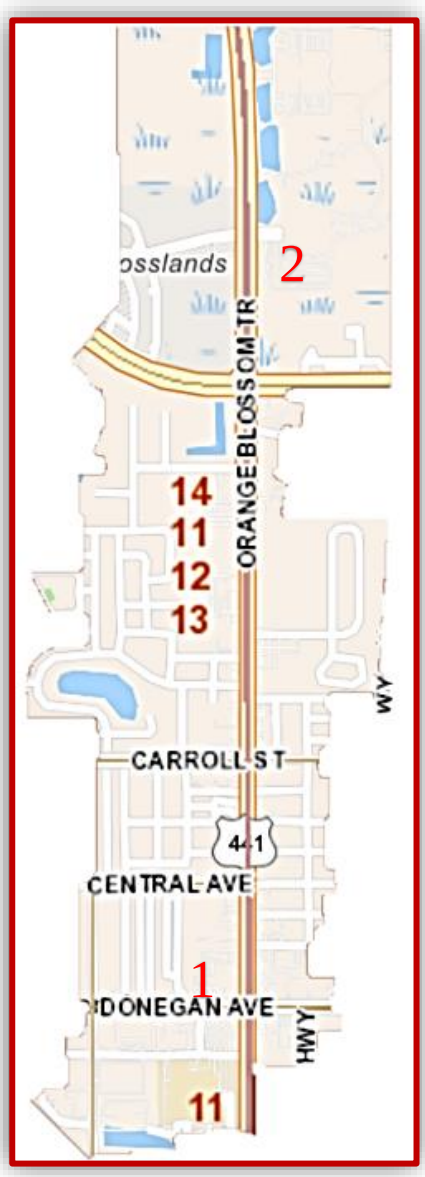
The chart on page 140 shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Lowes	1300 W. Osceola Pkwy.	2,124,024	10,620 GPM	13 hydrants on property
Living Center of Osceola	2511 N. John Young Pkwy.	721,000	3605 GPM	4220 GPM (4 hydrants)

*Iowa Formula (30 second knockdown)

Planning Zone 14C	Fire Station Response Order Stations 14, 11, 12, 13

Map

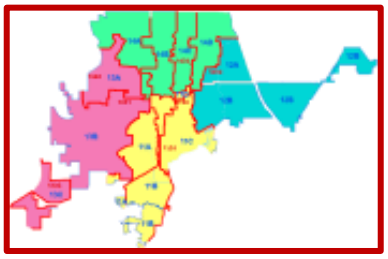


Characteristics

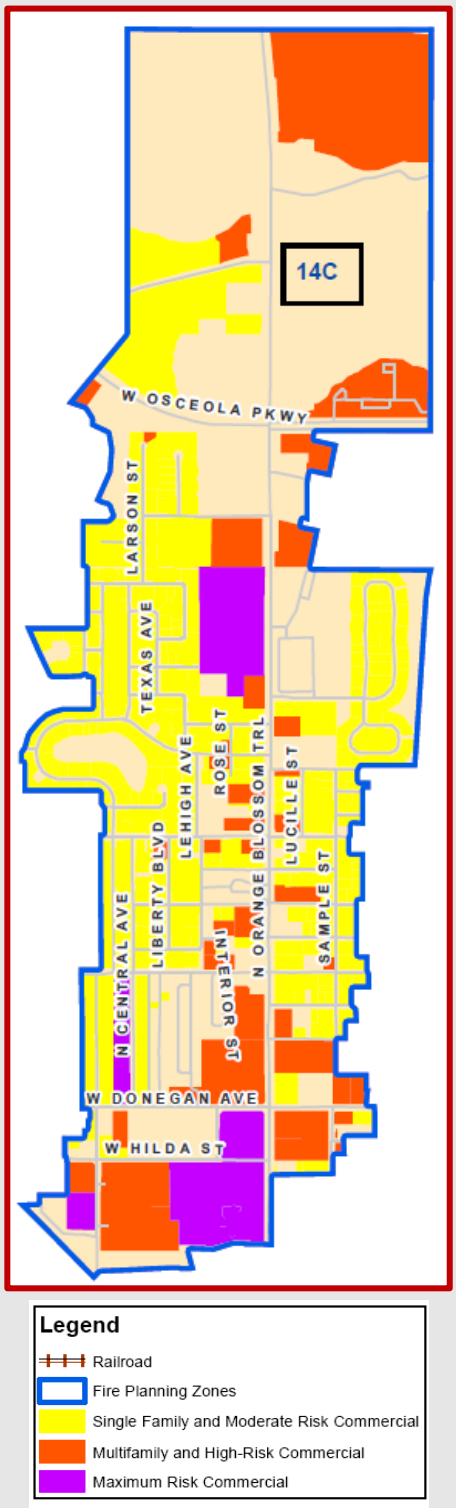
1. Square miles: 1.24
2. Road Miles: 20.19
3. Population: 2,456
4. Occupancies
   a. One and Two Family: 3
   b. Garden Apartments: 5
   c. Mid-Rise (4 stories): 0
   d. High Rise (>4 stories): 0
5. Commercial Properties: 99
6. Schools
   a. Grades PK-12: 2
   b. Grades 6-12: 1
   c. High School: 1
7. Assisted Living Facility: 1
8. Churches: 5
9. Cell/Radio Towers: 1
10. Hospital: 1

Critical Infrastructure

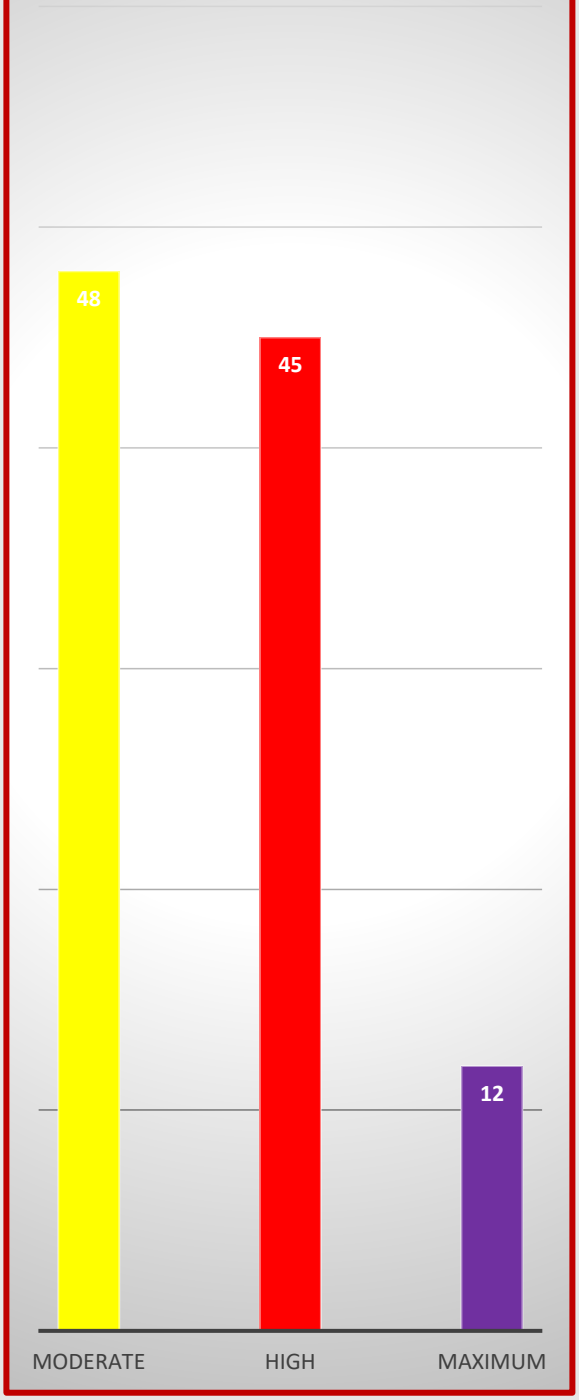
1. Florida Hospital Kissimmee
2. Osceola School of the Arts



Residential and Commercial Fire Risk Assessment Zone 14C



Commercial Fire Risk Assessment Planning Zone 14C



Community Profile

Properties

Planning Zone 14C covers a large part of the Osceola County Contract Area. It contains a mix of several types of occupancies including two- and three-story walk-up apartments, townhomes, and single-family homes. The single-family homes are approximately 2000-3500 square feet, and the construction types are mostly ordinary and wood frame.

Tropical Lakes is a modular home neighborhood with mainly lightweight wood construction and one of the few areas to which the Department responds that does not have adequate fire hydrants. Surrounding Tropical Lakes are several neighborhoods and some commercial properties along N. Orange Blossom Trail, Carroll Street, and Osceola Parkway.

1. **Maximum Risk Structures**
   a. Advent Health Hospital*
   b. Oak Leak Landing Assisted Living*
   c. Victory Charter School*
   d. Osceola County School for the Arts*
   e. West Kissimmee Baptist Church*
   f. Kissimmee Multi-Specialty Clinic (201 Hilda Street)*
   g. World Car Center (2537-2531 N. Orange Blossom Trail)*
   h. Mission Cosecha (2830 N. Orange Blossom Trail)
   i. Tupperware Brands Complex*
   j. Advent Health Medical Plaza*
2. **Hazardous Materials Risk**
   a. Royal Battery
   b. Several gas stations and auto repair shops

*Building maintains fire sprinkler system

Hospital

Advent Health Kissimmee is one of two large hospitals in the City.

Commercial/Schools

There are several schools, auto repair facilities, and several churches in the planning zone. There is one assisted living facility.

Roads

The primary north/south roads in the area are N. Orange Blossom Trail and Old Dixie Highway. The major east/west roads are Osceola Parkway and Carroll Street.

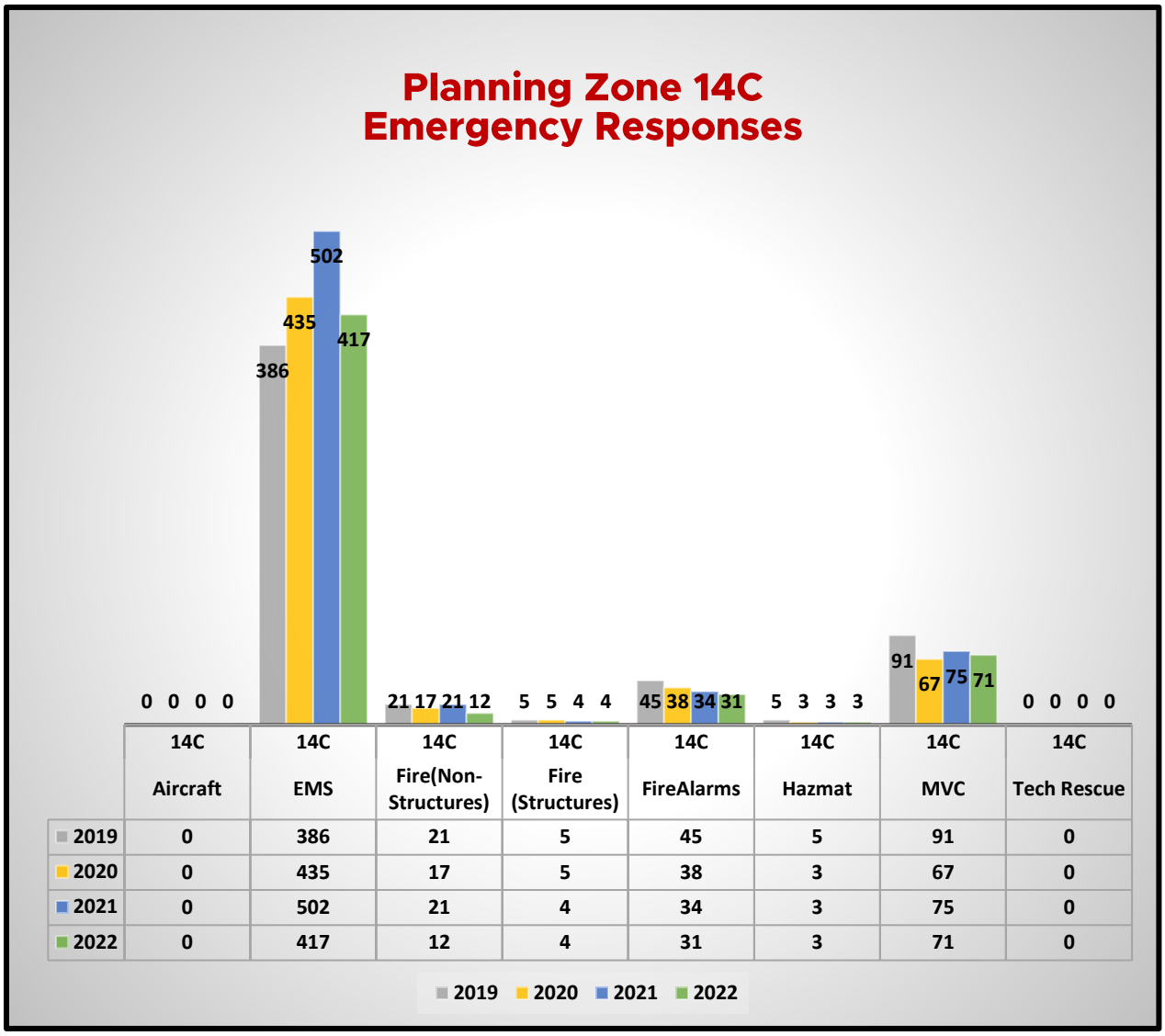
Probability of a Major Incident

- The maximum risk buildings in this planning zone are listed in the chart on page 143.
- Based on historical data, the chart on page 145 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)
- Mitigating factors include fire inspections of the high and maximum risk facilities in this zone. Staff at the senior living centers, schools and the hospital received safety education including evacuation procedures.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident in one of the high or maximum risk facilities in this planning zone.
- Relative loss comparisons: A major incident at one of the structures would have life, property, and revenue loss implications.
- Modifying Factors include fire protection systems and safety eduction for the staff at the maximum risk facilities which should improve outcomes in the event of a major incident.
- Infrastructure impact in this zone includes the railroad right-of-way which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	14C Aircraft	14C EMS	14C Fire(Non-Structures)	14C Fire (Structures)	14C FireAlarms	14C Hazmat	14C MVC	14C Tech Rescue
2019	0	386	21	5	45	5	91	0
2020	0	435	17	5	38	3	67	0
2021	0	502	21	4	34	3	75	0
2022	0	417	12	4	31	3	71	0

Future Prabability Planning Zone 14C

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	458	9	3	9	2	59	0	546
Forecast % + / -	0%	2%	-11%	-5%	-8%	-10%	-5%	0%	1%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from two fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Advent Health Hospital	2450 Orange Blossom Trail	12,600,000	63,000 GPM	8 hydrants on property
Hotel (opening soon)	151 Centerview Blvd.	825,972	4129 GPM	3165 GPM (3 hydrants)

*Iowa Formula (30 second knockdown)

Planning Zone 14D	Fire Station Response Order Stations 14, 12, 11, 13

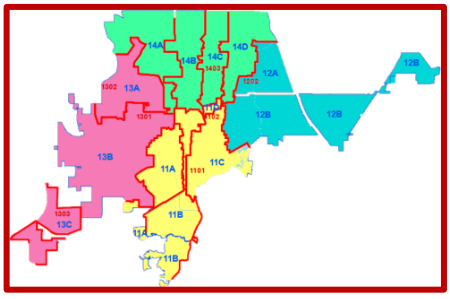
Map

Critical Infrastructure

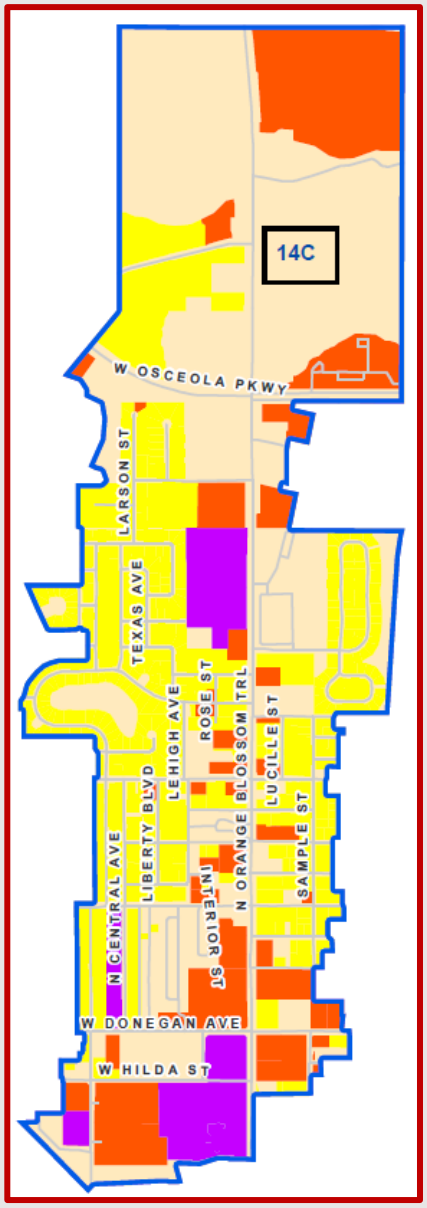
1. Kissimmee Community Release Center

Characteristics

1. Square miles:1.60
2. Road Miles: 19.08
3. Population: 1,294
4. Occupancies
   a. One and Two Family: 40
   b. Garden Apartments: 0
   c. Mid-Rise (4 stories): 1
   d. High Rise (>4 stories): 0
5. Commercial Properties: 156
6. Schools
   a. PreK-12: 1
7. Churches: 8
8. Hospitals: 1 Emergency Department
9. Cell/Radio Towers: 4
10. Pre-Release Center: 1



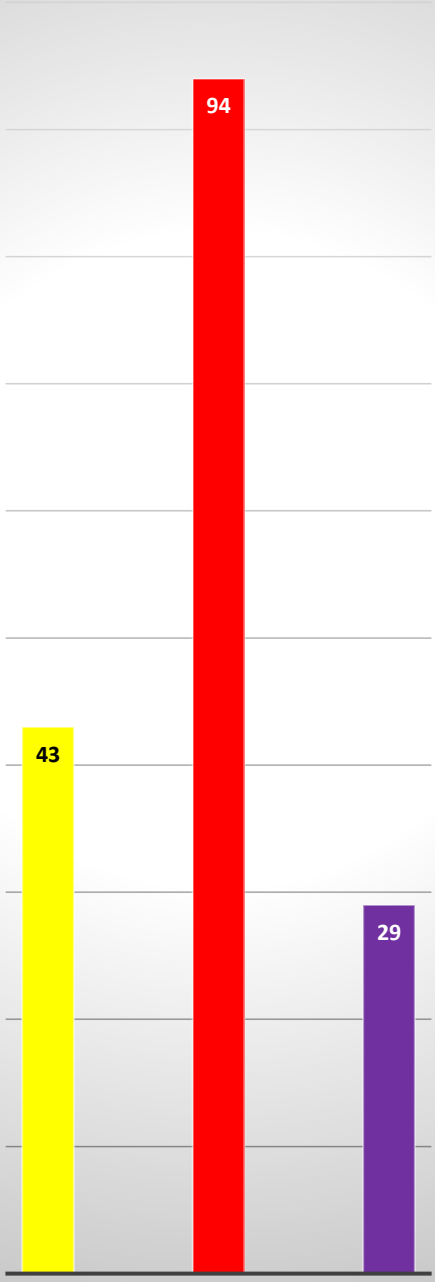
Residential and Commercial Fire Risk Assessment Zone 14D



Legend

- Railroad
- Fire Planning Zones
- Single Family and Moderate Risk Commercial
- Multifamily and High-Risk Commercial
- Maximum Risk Commercial

Commercial Fire Risk Assessment Planning Zone 14D



Community Overview

Properties

Planning Zone 14D is a small planning zone and mostly covered by the Osceola County Contract Area. The area contains commercial properties, some light industrial, 1000-3000 square foot single-family homes, and a few new 4-story mid-rise apartments.

Commercial

Suburban Propane and Lynch Oil are two maximum risk properties that are next door to each other. Suburban Propane maintains two 30,000-gallon propane tanks and Lynch Oil has various size tanks of diesel fuel, motor oils, and grease. Orlando Health has a large free-standing Emergency Department in the northern section of the zone. The Tupperware World Headquarters is located on a large track of land in the north central area of this zone, but several working groups of the company are being relocated. This is mostly office space with a few outbuildings for storage.

1. **Maximum Risk Structures**
   a. Suburban Propane
   b. Gate Precast Company
   c. Building Blocks GFRC
   d. Orlando Health Free Standing ED*
   e. Nazareth Christian Academy*
   f. FL Department of Corrections Pre-Release Center
   g. Lynch Oil
   h. Renaissance Park II*
   i. Gateway Shopping Center*
   j. Old Dixie Industrial Park
   k. Strip Mall (2450 Smith Street)
   l. Strip Mall (2420 Smith Street)*
   m. Caliper Collision
   n. Gateway Shopping Center*
   o. Napleton Car Dealer*
   p. Gateway Shopping Center*
   q. Old Dixie Industrial Park
   r. Donegan-Smith Warehouses
   s. Strip Mall (3055-3071 Michigan Ave.)
   t. Strip Mall (994 E. Carroll Street)
   u. Strip Mall (2832 Michigan Street)
   v. Metal Building Supply
   w. Strip Mall (948-994 E. Osceola Pkwy.)
   x. Strip Mall (900-936 E. Osceola Pkwy.)*
   y. Walmart*
   z. Strip Mall
   aa. Osceola County Maintenance Dept
   bb. Strip Mall (2836 Michigan Ave.)
2. **Hazardous Materials Risk**
   a. SiteOne Landscape Supply
   b. Preferred Materials
   c. Pool Store Strip Mall 840/850 E. Donegan
   d. Suburban Propane
   e. Lynch Oil
   f. Marydia Industrial Center
   g. Gate Precast Concrete
   h. Building Blocks GFRC

*Building maintains fire sprinkler system

Roads

The major north/south road is Michigan Ave., and the main east/west roads are Carroll Street and Osceola Pkwy. A main rail line runs north/south through this area with major a crossing at Carroll Street between Old Dixie Highway and Michigan Ave.

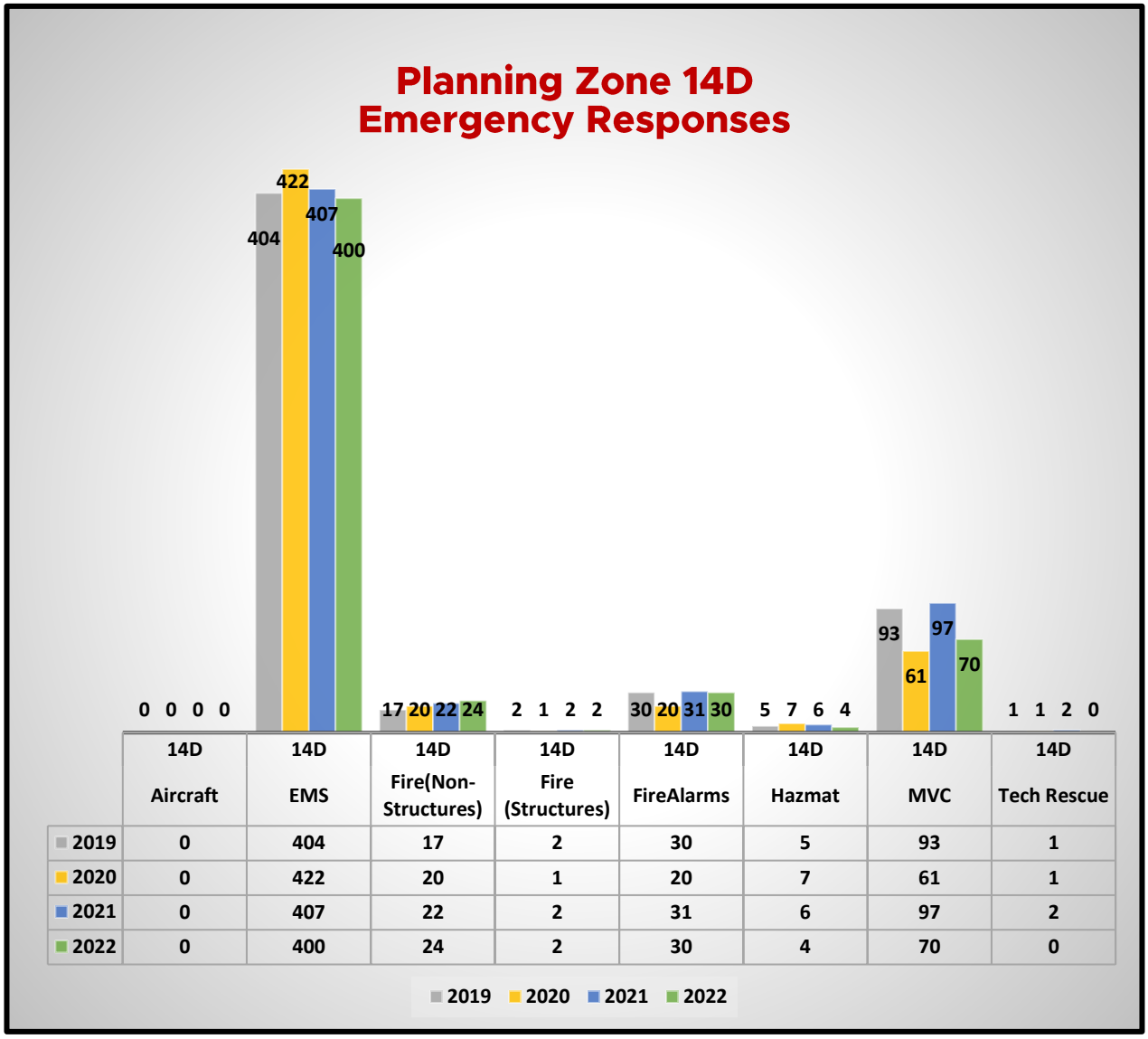
Probability of a Major Incident

- The maximum risk buildings in this planning zone are listed in the chart on page 149.
- Based on historical data, the chart on page 151 shows the likelihood of the various types of incidents occuring in this planning zone (multitude of hazards in close proximity, highways intersections)
- Mitigating factors include fire inspections of the nursing home, ALFs, schools and other commercial properties.

Consequence - Magnitude or Reasonably Expected Loss

- The worst case scenarios in the past have been residential fires. The worst case scenario in the future could be a fire or a large EMS incident at one of the high or maximum risk strutures in this planning zone.
- Relative loss comparisons: A major incident at one of the structures would have life, property, and revenue loss implications.
- Modifying Factors include fire protection systems at the miximum risk facilities which should improve outcomes in the event of a major incident. Staff at the ALFs and nursing home received safety education including evacuation procedures.
- Infrastructure impact in this zone includes the railroad right-of-way which could effect fire/rescue response to this area.
- Mutual aid from area jurisdictions and future fire stations will help with drawdown from other incidents.

Planning Zone Activity 2019 – 2022



	14D Aircraft	14D EMS	14D Fire(Non-Structures)	14D Fire (Structures)	14D FireAlarms	14D Hazmat	14D MVC	14D Tech Rescue
2019	0	404	17	2	30	5	93	1
2020	0	422	20	1	20	7	61	1
2021	0	407	22	2	31	6	97	2
2022	0	400	24	2	30	4	70	0

Future Prabability Planning Zone 14D

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	399	28	2	30	4	63	0	526
Forecast % + / -	0%	-.25%	10%	0%	0%	5%	-6%	0	-0.1%

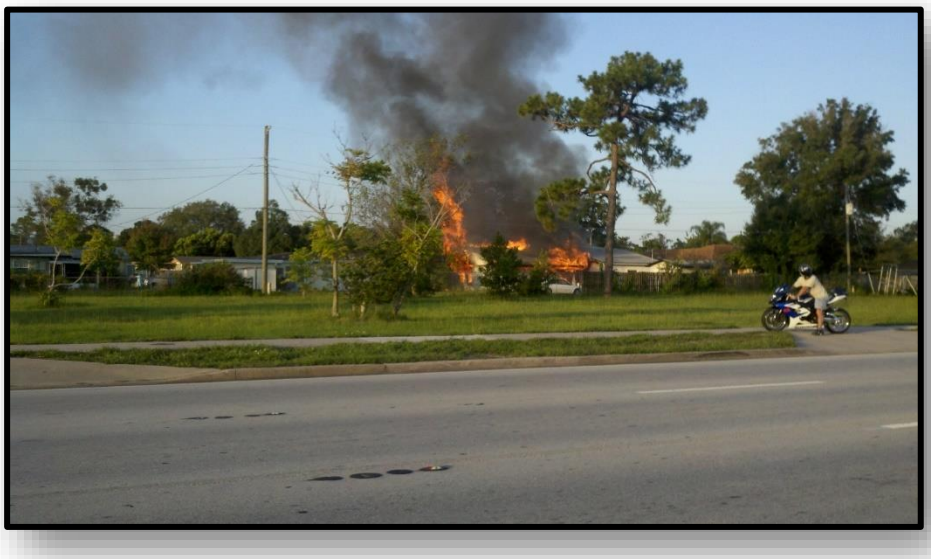
Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Fire Flow Requirements

The below chart shows the largest commercial and residential structure in the zone. For each property, the chart lists the square feet, the fire flow based on 100% involvement and the available water supply from 2 fire hydrants within 300-600 feet.

Structure (Commercial / Residential)	Address	Volume	50% Fire Flow Required*	Available Water Supply
Walmart	1471 E. Osceola Pkwy.	3,152,800	15,554 GPM	15 hydrants on property
Behavioral Health	206 Park Place Blvd.	700,000	3500 GPM	3165 GPM (3 hydrants)

*Iowa Formula (30 second knockdown)



SECTION 5 – STANDARD OF COVER

(CC 2A.4, 2A.6)

The Standard of Cover (SOC) describes the deployment of personnel and physical resources by service type (call type) throughout the coverage area (City legal boundaries and OCCA). A critical task analysis was used to determine what resources are indicated for each incident type. The population density of each planning zone was considered for the purpose of developing response time standards. To develop response time goals, the 2020 Census Bureau's urban area classification was used since it includes at least 2,000 housing units or has a population of at least 5,000. Based on information received at the PSAP, a call type is entered into the CAD. The CAD then deploys the predetermined resources based on the deployment strategies identified in the Department's Fire Dispatch Protocols Chart and ProQA for EMS calls. This Standard of Cover was created using established policies and new policies to meet the objectives. The policies and procedures found only in the SOC, have been fully adopted by the Department. All times referenced below are from 2019 through 2022 unless indicated.

Benchmark Vs. Baseline Performance

Benchmark statements describe the performance goal that the Department is striving to achieve. Baseline performance is what the Department is currently delivering with the existing resources and processes. Throughout this section of the SOC, response time benchmark statements are made for each program and risk category followed by baseline performance statements. Charts that include benchmark and baseline times are also included. These include both the first due and the effective response force (ERF).

Baseline Performance Data Processing Methodology

For the purpose of evaluating response performance, it was determined that it is best to make this analysis based on what was known at the time the call was initiated. Data for baseline performance was gathered from raw CAD data in Excel format. It was then filtered for pertinent fields and calculated to desired format. Only emergency call types were selected for the

evaluation of performance. Units that did not go Enroute or arrive to the scene were not included in the performance data. (See Appendix 5 for the detailed process.)

Response Performance Components

Benchmark and Baseline charts in this section do not contain data from incidents within Planning Zone 13C since Osceola County responds to all incidents in that zone per an interlocal agreement. (See Appendix 6 for performance charts for Planning Zone 13C)

Alarm Handling

The alarm handling time is the time between receipt of a 911 call until the first unit in CAD is dispatched. The PSAP uses two segments of time to calculate alarm handling time (route time plus processing time). The route time is the time between the receipt of the 911 call and the time that the call is routed to the dispatcher. The call processing time starts when the call is routed to the dispatcher and continues until the dispatch of the first unit in CAD.

PSAP Benchmark Statements

Alarm Handling Benchmark:

Currently PSAP does not have an alarm handling benchmark or route time benchmark. **Here is the PSAP's Call Processing Time Benchmark:** For 90 percent of all incidents, the call processing time shall be **60 seconds**. (*KPD SOP 030 03.10.21*).

Here is the Department's goal for the alarm handing benchmark: For 90 percent of all EMS calls, the alarm handling time is **30 seconds**. For 90 percent of all other emergency calls, the alarm handling time is **120 seconds**. Additional units may be dispatched to assist the first alerted unit after the call taker completes ProQA or attains additional information.

Note: For the alarm handling benchmarks, 120 seconds was used in the CRA SOC for all programs.

PSAP Baseline Statements

Here are the 90th percentile* alarm handling baselines for each program and risk category:

2019-2022 Alarm Handling Times	
EMS Low Risk	3:39
EMS Moderate Risk	3:25
EMS High Risk	3:27
Motor Vehicle Collision	3:28
Fire Low Risk	4:03
Fire Moderate Risk	3:56
Fire High Risk	3:58
Fire Non-Structure	4:03
Aviation Low Risk	2:46
Aviation Moderate Risk	2:40
Aviation High Risk	2:03
HazMat Low Risk	3:52
HazMat Mod Risk	4:20
HazMat High Risk	6:50
Tech Rescue	4:30
Fire Alarms	2:54

* 90th Percentile Definition: In a data set of 100, the 90th percentile would be the highest value in the lowest (slowest) 90 percent of the data, so it would be the 90th value when sorted in rank order. In a data set of 10, it would be the ninth value. This means that almost all other times are faster than the reported figure.

Alarm Handling Baseline: The average of the 90th percentile alarm handling times for all programs and categories (emergency calls only) is **3 minutes and 44 seconds (3:44).**

Turnout Time

Turnout time is the time it takes a unit to begin response from the moment of notification. It is the measurement from the time the unit is dispatched or "paged" to the time the unit is enroute.

Department Turnout Time Benchmark Statement

Turnout Time Benchmark: For 90 percent of calls, the turnout time is not to exceed **60 seconds** for incidents not requiring turnout gear and not to exceed **80 seconds** for incidents requiring turnout gear. (Department SOG *300.07 12-07-18)*

Department Turnout Time Baseline Statement

Turnout Time Baseline: The average of the 90th percentile turnout times for all programs and categories (emergency calls only) was **2 minutes and 4 seconds (2:04)** or less in all areas for calls not requiring turnout gear and **1 minute and 59 seconds (1:59)** or less for calls requiring turnout gear.

Here are the 90th percentile turnout time baselines for each program and risk category:

2019-2022 Turnout Times	
EMS Low Risk	2:08
EMS Moderate Risk	2:08
EMS High Risk	1:58
Motor Vehicle Collision	2:08
Fire Low Risk	2:09
Fire Moderate Risk	2:06
Fire High Risk	2:14
Fire Non-Structure	2:09
Aviation Low Risk	1:57
Aviation Moderate Risk	1:23
Aviation High Risk	2:02
HazMat Low Risk	2:15
HazMat Mod Risk	2:32
HazMat High Risk	:08
Tech Rescue	2:20
Fire Alarms	2:26

Travel Time (Distribution and Concentration)

Distribution

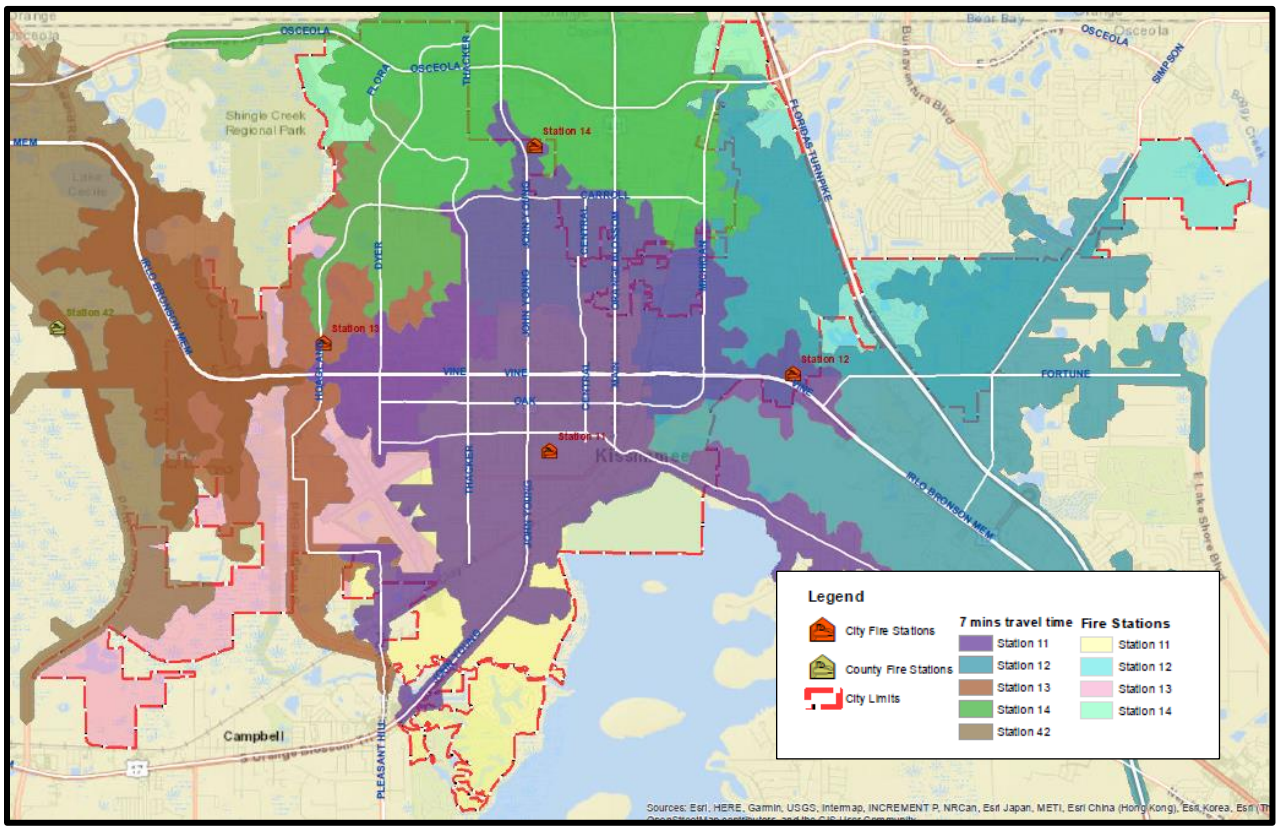
Distribution is the geographic location of all first due resources for initial intervention. It is expressed as the travel time of the first due unit to the scene from a fire station. The success of the City's distribution can be measured when the correct resource (apparatus, equipment, and staffing) is sent to the scene of an incident within a given time and can complete the tasks in Figure 25. Response districts are determined by the shortest distance (road mileage) traveled to the closest fire station from a given point. This method was determined to be best because with all variables removed, it is generally the fastest. Variables that can affect the distribution can include traffic, time of day, and weather. The Department operates four fixed fire stations. The response coverage area has changed over time and the history of determining station locations has followed no modern methodology. Although the response area is not symmetrical, the stations are logically arranged to rapidly deploy first-due resources for initial intervention. Due to the recent rapid growth of the City, additional resources will be needed in the future to maintain and improve response times.

Distribution Tasks (first unit on scene)
1. Establish Command
1. Assess the scene and call for additional resources as needed
2. Perform tasks to begin successful mitigation of the incident

Figure 25 Distribution Tasks

2019-2022 Distribution Success
The Department has determined that the 90th percentile distribution (travel) time should be **6 minutes 30 seconds (6:30)** for **all** emergency calls and the Department met this **79.8%** of the time (2019-2022).

Drive Time – Seven Minutes from Each Fire Station



Note: Additional drive time maps are available in Appendix 2

Concentration

Concentration is the spacing and the number of resources that are available to arrive at an incident within a timeframe determined by the Department. It is expressed as the travel time it takes to get the effective response force (ERF) to the scene. Proper concentration illustrates how well areas are covered with both first-due resources and the arrival of the ERF for successful mitigation of an incident. The correct concentration is also needed to prevent escalation of an incident. The success of the Department's concentration can be measured when the correct resources (apparatus, equipment, and staffing) are sent to the scene of an incident and can complete the tasks in Figure 26. The best way to measure good concentration is to measure a large percentage of the area that is covered by an ERF that arrives within the given timeframe.

Concentration Tasks (arrival of ERF)
1. Perform tasks to successfully mitigate the incident
2. Ensure the safety of on-scene personnel and the community
3. May assume command from concentration

Figure 26 Concentration Tasks

2019-2022 Concentration Success (ERF)
The Department has determined that for all emergency call types, (not including structure fire and high-risk hazmat) the 90th percentile concentration (travel) time should be **9 minutes and 30 seconds (9:30)** and it met this **81.1%** of the time. All structure fire calls have a 90th percentile concentration time of **11 minutes and 30 second (11:30)** and it met this **92.5%** of the time (2022).

Total Response Time (2C.7, CC2.8)

Total response time is the interval from when the alarm is received, and the unit(s) arrives at the scene. The total response time for the first due unit is usually the alarm handling, turnout, and distribution times combined. The total response times for the ERF begin with the receipt of the alarm and end when the total prescribed resources arrive. The Department is working with the PSAP to improve alarm handling times, and with the crews to improve turnout times.

Note: Planning Zone 13C is a small section in the southwestern part of the City and Osceola County provides all fire, rescue, and EMS service. All benchmarks and baseline performance standards for that planning zone are listed in Appendix 6.

Deployment and Current Performance by Service Type (Program)

Critical Task Analysis (CC 2C.4)

A critical tasks analysis has been performed for each risk class and risk category. This has been done to identify effective response capabilities. It is important to identify critical tasks in order to deploy adequate resources for each class and category. Response configurations for all EMS call types are listed in EMD EMS Response Configurations. Response configurations for non-EMS call types can be found in Fire Dispatch Protocols. These are located in the Standard Operating Guidelines for Communications.

The process for conducting critical task analyses is validated through simulated training, live training evolutions, a review of prior incidents, and the collaboration on the Osceola Countywide Command Manual by the three fire departments in Osceola County. EMS protocols were included in determining the critical task analysis for EMS incidents. The Osceola Countywide Command Manual, NFPA, and OSHA were included in determining the critical tasks for technical recue incidents.

The process in place to validate the first due and effective response force (ERF) includes patient outcomes, quality assurance, fire control, fire confinement, fire out, industry standards and best practice benchmarks.

By the end of 2025, the Department plans to have its response posture match the risk categories in the Community Risk Assessment. Currently Moderate Risk and Maximum Risk commercial structures and all multi-family occupancies are dispatched as High Risk.

Fire Suppression Program

Resources by Call Type

Figure 27 shows several different call types and the deployment of fire/rescue apparatus dispatched to fire incidents (Fire Dispatch Protocols Chart).

Incident Type	Engines	Squad*	Towers	Brush	Rescues	Battalion	Safety
Illegal and Legal Burn	1 #						
Brush	1			1			
Dumpster	1						
Smoke Odor (Inside a Structure)	1						
Fire: minor(non-structure)	1						
Vehicle	1						
RV/Bus/Semi/Train	2				2	1	1
Residential Structure	3		1		3	1	1
Commercial Structure Fire/ Multi- family	4		1		5	1	1

Figure 27 Fire Suppression Call Types

*The squad can respond to incidents as an engine. # Non-emergency response

Fire Suppression Critical Tasks, Benchmarks, and Baselines

Figure 28 shows the critical tasks and how many trained personnel are needed for low, moderate, and high-risk fire calls. On structure fire calls, additional resources beyond the ERF may be needed based on variables that cannot always be predicted such as number of patients upon arrival, heat/humidity, blocked/fortified entries, rescues needed/persons trapped, complicated hose deployment, water supply issues, and interior fire load complexity.

Fire Incidents - Critical Tasks	Recommended Number of Personnel			
	Low Risk 1	Low Risk 2	Moderate Risk	High Risk
Attack hose line (min. 150GPM)	2	2	2	4
Pump operator (min. 750 gallons from tank then hydrant)	1	2	1	2
Establish water supply/Accountability		1	1	1
Search and Rescue/Forcible Entry		1	2	4
Back-up hose line/Initial 2-Out (min. 150 GPM)		2	2	4
Lobby/Elevator control			0	1
Ventilation/Salvage and overhaul			2	2
Aerial operator			1	1
Patient Care Rescue/Firefighter rehab		2	2	2
Ready Rescue			2	2
Rapid intervention team (RIT)			3	3
Incident command		1	1	2
Division officer			0	1
Safety officer		1	1	1
Total	**3#**	**12**	**20**	**30**
Number of Personnel Dispatched (if only 3 on fire apparatus)	**3#**	**12**	**20**	**27***
*** Mutual aid engine called by I.C. if needed** **# Four personnel on brush fires**				

Figure 28 Structure Fire Critical Tasks

Low Risk Fires - First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **low-risk fires**, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of: providing 500 to 1000 gallons of water with a pump capacity of 1,500 gallons per minute (GPM), initiating command, requesting additional resources, and advancing an attack line, flowing a minimum of 175 GPM, establishing an uninterrupted water supply, containing the fire, protect exposures, rescuing at-risk victims, and performing salvage operations. These operations shall be done in accordance with Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

Low Risk Fires - Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **low-risk fires**, the total response time for the arrival of the ERF, staffed with up to 8 or 10 firefighters and 4 officers, shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of establishing command, appointing a site safety officer, providing an uninterrupted water supply, advancing an attack line and a backup line for fire control, completing forcible entry, searching, and rescuing at-risk victims, ventilation if needed, and performing salvage and overhaul. These operations shall be done in accordance with Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

Low Risk Fires - First Due Unit / Distribution Baseline (actual):

For 90 percent of all **low-risk fires** during this period, the total response time for arrival of the first unit was **12 minutes and 24 seconds (12:24)** or less in all areas. The first on-scene unit, generally an engine, can provide personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the Department's standard operating procedures and the Osceola County Command Manual.

Low Risk Fires - ERF / Concentration Baseline (actual):

For 90 percent of all **low-risk fires**, the total response time for the arrival of the ERF, staffed with up to 12 firefighters and officers, was **12 minutes and 34 seconds (12:34)** or less in all areas. The ERF used during this period is capable of the following actions: establishing formal command, uninterrupted water supply, fire attack, search, ventilation, scene lighting, and medical care. All the operations described above are based on the Department's standard operating procedures and the Osceola County Command Manual.

Low Risk Fires - Baseline (actual) Chart

Fire (Low Risk) - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:28 (50.9%)	4:44	4:00	4:01	4:07	2:00	+2:07
Turnout Time	Turnout Time 1st Unit	Urban	2:03 (71.4%)	1:59	2:22	2:12	2:11	1:20	+0:51
Travel Time	Travel Time 1st Unit Distribution	Urban	8:10 (74.1%)	8:12	8:01	7:37	8:01	6:30	+1:31
	Travel Time ERF **Concentration**	Urban	8:32 (93.1%)	8:30	8:01	7:45	8:30	9:30	-1:00
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	12:24 (74.6%)	13:10	11:59	12:05	12:24	9:50	+2:34
			n=213	n=222	n=176	n=181	n=792		
	Total Response Time ERF **Concentration**	Urban	12:24 (91.0%)	13:49	11:59	12:05	13:10	12:50	+0:20
			n=192	n=226	n=176	n=181	n=775		

ERF =
Vehicle, Dumpster, Boat, Minor, Wires Down: 1 Engine
Brush Fire: 1 Engine, 1 Brush
Fire: RV/Bus/Semi/Train: 2 Engines, 1 Rescue, Battalion, Safety
Note: Success equals percent the benchmarks were met.

Moderate Risk Structure Fires - First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **moderate-risk fires**, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (GPM) pumping capacity, initiating command, requesting additional resources, establishing a back-up line, and advancing an attack line, each flowing a minimum of 150 GPM, establishing an uninterrupted water supply, containing the fire, rescuing at-risk victims, and performing salvage operations. These operations shall be done in accordance with Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

Moderate Risk Structure Fires - Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **moderate-risk fires**, the total response time for the arrival of the effective response force (ERF), staffed with 20 firefighters and officers, shall be **14 minutes and 50 seconds (14:50)** in all areas. The ERF shall be capable of establishing command, appointing a site safety officer, providing an uninterrupted water supply, advancing an attack line and a backup line for fire control, complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out, completing forcible entry, searching, and rescuing at-risk victims, ventilating the structure, controlling utilities, and performing salvage and overhaul. These operations shall be done in accordance with Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

Moderate Risk Structure Fires - First Due Unit / Distribution Baseline (actual):

For 90 percent of all **moderate-risk fires** during this period, the total response time for arrival of the first unit was **10 minutes and 9 seconds (10:09)** or less in all areas. The first on-scene unit, generally an engine, can provide personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the Department's standard operating procedures and the Osceola County Command Manual.

Moderate Risk Structure Fires - ERF / Concentration Baseline (actual):

For 90 percent of all **moderate-risk fires**, the total response time for the arrival of the ERF, staffed with 20 firefighters and officers, was **18 minutes and 10 seconds (18:10)** or less in all areas. The ERF used during this period is capable of the following actions: establishing formal command, uninterrupted water supply, fire attack, search group, ventilation, rapid intervention team (RIT), scene lighting, and medical care. All the operations described above are based on the Department's standard operating procedures and the Osceola County Command Manual.

Structure Fire Moderate Risk - Baseline Chart (actual):

Fire (Moderate Risk) - 90th Percentile Times - Baseline Performance			2022 (%Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:55 (35.6%)	3:39	3:54	4:16	3:57	2:00	+1:57
Turnout Time	Turnout Time 1st Unit	Urban	1:56 (70.8%)	1:27	2:14	2:47	2:06	1:20	+0:46
Travel Time	Travel Time 1st Unit Distribution	Urban	6:38 (89.1%)	6:58	6:13	6:34	6:30	6:30	0:00
	Travel Time ERF **Concentration**	Urban	11:36 (85.0%)	11:53	8:42	12:10	11:53	11:30	+0:23
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	10:26 (83.7%)	10:19	9:27	10:25	10:24	9:50	+0:34
			n=75	n=69	n=57	n=50	n=251		
	Total Response Time ERF **Concentration**	Urban	15:22 (85.7%)	21:08	19:52	16:21	17:17	14:50	+3:07
			n=22	n=29	n=5	n=15	n=71		

n=number of incidents
Note: Success equals percent the benchmarks were met.

High Risk Structure Fires - First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **high-risk fires**, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (GPM) pumping capacity, initiating command, requesting additional resources, establishing a back-up line, and advancing an attack line, each flowing a minimum of 150 GPM, establishing an uninterrupted water supply, containing the fire, rescuing at-risk victims, and performing salvage operations. These operations shall be done in accordance with Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

High Risk Structure Fires - Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **high-risk fires**, the total response time for the arrival of the effective response force (ERF), staffed with 30 firefighters* and officers, shall be **14 minutes and 50 seconds (14:50)** in all areas. The ERF shall be capable of establishing command, appointing a site safety officer, providing an uninterrupted water supply, advancing an attack line and a backup line for fire control, complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out, completing forcible entry, searching, and rescuing at-risk victims, ventilating the structure, controlling utilities, and performing salvage and overhaul. These operations shall be done in accordance with the Department's standard operating procedures and the Osceola County Command Manual while providing for the safety of responders and the public.

High Risk Structure Fires - First Due Unit / Distribution Baseline (actual):

For 90 percent of all **high-risk fires** during this period, the total response time for arrival of the first unit was **9 minutes and 29 seconds (9:29)** or less in all areas. The first on-scene unit, generally an engine, can provide personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the Department's standard operating procedures and the Osceola County Command Manual.

High Risk Structure Fires - ERF / Concentration Baseline (actual):

For 90 percent of all **high-risk fires**, the total response time for the arrival of the ERF, staffed with 27 firefighters* and officers, was **16 minutes and 24 seconds (16:24)** or less in all areas. The ERF used during this period is capable of the following actions: establishing formal command, uninterrupted water supply, fire attack, search group, ventilation, rapid intervention team (RIT), dedicated safety officer, accountability, and rehab scene lighting, and medical care,). All the operations described above are based on the Department's standard operating procedures and the Osceola County Command Manual.

*The Department dispatch protocol indicates 27 personnel in the initial alarm. This does not meet the 30 personnel indicated in the High-Risk Critical Task Analysis. All critical tasks except division officer, second command staff, and elevator/lobby control can be filled with the initial alarm. If the arriving incident commander determines it necessary, an additional alarm is requested to fill those positions. Additional resources of the second alarm report to staging and are assigned as needed.

Structure Fire High Risk Baseline Chart (actual)

Fire (High Risk) - 90th Percentile Times - Baseline Performance			2022 (%Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	4:25 (33.3%)	3:46	3:58	3:43	4:01	2:00	+2:01
Turnout Time	Turnout Time 1st Unit	Urban	2:14 (67.6%)	1:59	2:10	2:34	2:18	1:20	+0:58
Travel Time	Travel Time 1st Unit Distribution	Urban	6:03 (100%)	5:18	5:03	5:17	5:25	6:30	-1:05
	Travel Time ERF **Concentration**	Urban	9:04 (100%)	10:06	8:54	10:32	10:04	11:30	-1:26
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	10:03 (87.8%)	8:52	9:28	9:33	9:45	9:50	-0:05
			n=100	n=88	n=88	n=82	n=358		
	Total Response ERF **Concentration**	Urban	17:42 (71.4%)	15:10	17:28	15:17	17:13	14:50	+3:23
			n=36	n=37	n=33	n=41	n=147		

n=number of incidents
Note: Success equals percent the benchmarks were met.

Emergency Medical Services (EMS) Program

EMS incidents are processed using the ProQA systems, so the numerous EMS call types are not listed. A unit response is initiated as soon as the 911 call is determined to be EMS related. ProQA recommends the response level. This can include a rescue, a fire suppression unit, and a safety officer if indicated. Simultaneously a dispatcher/call taker provides pre-arrival instructions, which could include the techniques used to stop severe bleeding or providing CPR instructions for a victim of cardiac arrest.

EMS Critical Care Incidents

The Department responds to many diverse types of EMS incidents. Among the more critical incidents are cardiac and respiratory arrests, severe allergic reactions, and drug overdoses. On these and other critical incidents, it is essential that the Department rapidly and safely respond to them and transport the patients to the nearest appropriate medical facility. Here is an overview of the above-mentioned three incident types:

- Cardiac/Respiratory Arrest – According to the American Heart Association (AHA), brain death occurs within 4 to 6 minutes after cardiac arrest and after 10 minutes, the patient's outcome is poor. 90% of people who suffer out-of-hospital cardiac arrest die. CPR, especially if performed immediately, can double, or triple the chance of survival of these patients. Hands-only CPR can be learned by watching a 90-second AHA video at American Heart Association CPR & First Aid. In addition to CPR, early defibrillation is essential to restoring the heart's normal rhythm. All City buildings, all Department fire/rescue apparatus and all City police vehicles are equipped with defibrillators. There are also several other buildings in the City that have automated external defibrillators (AEDs). Here are the six links to the AHAs adult out-of-hospital Chain of Survival:
- Severe Allergic Reactions (Anaphylaxis) - Patients with severe allergic reactions often develop hives, swelling of the lips, tongue and throat, and respiratory distress. Anaphylaxis can be fatal. According to the Asthma and Allergy Foundation of America (AAFA), at least one-in-50 people in the U.S. are affected by anaphylaxis. A medication called epinephrine opens the airways of the patient and reduces the symptoms. All Department fire/rescue

apparatus carry this important medication and many patients carry epinephrine auto-injectors.

- Narcotic (Opioid) Drug Overdoses – Opioid drugs can cause breathing problems, loss of consciousness and respiratory failure. A medication called Naloxone (Narcan) can reverse the effects of the narcotic and restore normal breathing. All Department fire/rescue apparatus and City police vehicles carry Naloxone.

EMS Critical Tasks – Low Risk

EMS Critical Tasks – Low Risk	Recommended Number of Personnel
Scene management/scene safety	1 Paramedic
Patient interview/assessment	
BLS patient care per protocol	
Information/documentation	
Equipment to scene	1 EMT/Paramedic
Vital signs	
Patient handling/Packaging	
Drive transport	

EMS Low Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **low-risk EMS** responses, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic shall be **9 minutes and 30 seconds (9:30)** in all areas. The first-due unit can establish command, maintain scene safety, evaluate the need for additional resources, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

EMS Low Risk Effective Response Force / Concentration Benchmark * (goal):

For 90 percent of all **low-risk EMS** response incidents, the total response time for the arrival of the effective response force (ERF), is **9 minutes and 30 seconds (9:30)** in all areas. Low risk EMS response is only 1 rescue meaning the first unit is the ERF. The ERF can establish command, maintain scene safety, evaluate the need for additional resources, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

EMS Low Risk First Due Unit / Distribution Baseline * (actual):

For 90 percent of all **low-risk EMS** responses for this period, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic, was **14 minutes and 19 seconds* (14:19)** or less in all areas. The first-due unit can establish command, maintain scene safety, evaluate the need for additional resources, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

*Initial response mode for these types of calls is non-emergency. Often, they are upgraded to an emergency response when ProQA is completed by the PSAP. When evaluating travel times for responses in this category, it must be noted that the responses may have been in-part or whole in the non-emergency mode.

EMS Low Risk ERF / Concentration Baseline (actual):

For 90 percent of all **low-risk EMS** response incidents for this period, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 1 firefighter/EMT and 1 firefighter/paramedic, was **14 minutes and 19 seconds (14:19)** or less in all areas. The ERF can establish command, maintain scene safety, evaluate the need for additional resources, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

EMS Low Risk Baseline (actual) Chart

EMS Low - 90th Percentile Times - Baseline Performance			2022 (%Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	4:35 (57.3%)	3:37	3:10	3:15	3:47	2:00	+1:47
Turnout Time	Turnout Time 1st Unit	Urban	2:20 (49.0%)	1:58	2:06	2:08	2:10	1:00	+1:10
Travel Time	Travel Time 1st Unit Distribution	Urban	9:50 (64.6%)	10:43	9:56	9:42	10:07	6:30	+3:37
	Travel Time ERF **Concentration**	Urban	9:50 (64.6%)	10:43	9:56	9:42	10:07	6:30	+3:37
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	14:34 (56.4%)	14:42	13:33	14:29	14:40	9:30	+5:10
			n=4074	n=2109	n=1776	n=1789	n=9647		
	Total Response Time ERF **Concentration**	Urban	14:34 (56.4%)	14:42	13:33	14:29	14:40	9:30	+5:10
			n=4074	n=2109	n=1776	n=1789	n=9848		

n=number of incidents
ERF= 1 Rescue only
Note: Success equals percent the benchmarks were met.

EMS Critical Tasks – Moderate Risk

EMS Critical Tasks – Moderate	Recommended Number of Personnel
Patient interview/assessment	1 Paramedic (Rescue)
ALS patient care per protocol	
Equipment handling	1 EMT/Paramedic (Rescue)
Vital signs	
Patient Handling/packaging	
Drive transport	
Scene management/scene safety	EMT/Paramedic (Suppression Lieutenant)
Information/documentation	
Equipment handling	EMT/Paramedic (Suppression Engineer)
Assist with ALS patient care	EMT/Paramedic (Suppression Firefighter)
Assist with Patient handling/packaging	

EMS Moderate Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **moderate-risk EMS** responses, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic shall be **9 minutes and 30 seconds (9:30)** in all areas. The first-due unit is capable of assessing scene safety and establishing command, sizing-up the situation, conducting an initial patient assessment, obtaining vitals and patient's medical history, initiating mitigation efforts within one minute of arrival, providing first responder medical aid including defibrillation, and assisting transport personnel with packaging the patient.

EMS Moderate Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **moderate-risk EMS** response incidents, the total response time for the arrival of the effective response force (ERF), staffed with 4 or 5 firefighters and 1 officer shall be **12 minutes and 30 seconds (12:30)** in all areas. The ERF is capable of providing incident command and producing related documentation, appointing a scene safety officer, completing patient assessment, providing appropriate treatment, performing defibrillation, initiating cardio-pulmonary resuscitation (CPR), and providing intravenous (IV) access-medication administration.

EMS Moderate Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **moderate-risk EMS** responses for this period, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic, was **11 minutes and 1 second (11:01**) or less in all areas. The first-due unit can establish command, maintain scene safety, evaluate the need for additional resources, initiate basic life support and early defibrillation, and assist with transportation of the patient to the appropriate receiving facility.

EMS Moderate Risk ERF / Concentration Baseline (actual):

For 90 percent of all **moderate-risk EMS** response incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 4 or 5 firefighters and 1 officer, was **13 minutes and 45 seconds (13:45)** or less in all areas. The ERF can maintain command and scene safety, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

EMS Moderate Risk Baseline (actual) Chart

EMS Moderate - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:46 (53.9%)	3:21	3:11	2:59	3:31	2:00	+1:21
Turnout Time	Turnout Time 1st Unit	Urban	2:08 (54.3%)	1:57	2:08	2:12	2:06	1:00	+1:06
Travel Time	Travel Time 1st Unit Distribution	Urban	7:27 (82.2%)	7:28	7:08	7:38	7:25	6:30	+0:55
	Travel Time ERF **Concentration**	Urban	8:45 (100%)	8:33	8:04	8:40	8:21	9:30	-1:09
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	11:22 (75.8%)	10:51	10:37	11:15	10:43	9:30	+1:13
			n=6393	n=7661	n=6542	n=7079	n=23,132		
	Total Response Time ERF **Concentration**	Urban	14:23 (80.4%)	13:44	13:10	13:44	13:36	12:30	+1:06
			n=4529	n=5550	n=4839	n=4874	n=21,942		

n=number of incidents
ERF = 1 Engine, 1 Rescue
Note: Success equals percent the benchmarks were met.

EMS Critical Tasks – High Risk

EMS Critical Task – High Risk	Minimum Number of Personnel
Patient interview/assessment	Paramedic (Rescue)
ALS patient care per protocol	
Equipment handling	EMT/Paramedic (Rescue)
CPR if needed	
Vital signs	
Patient handling/packaging	
Drive transport unit	
Scene Safety	Paramedic (Suppression Lieutenant)
Assist with ALS patient care	
Information/documentation	
Equipment handling	EMT/Paramedic (Suppression Engineer)
Assist with ALS patient care	EMT/Paramedic (Suppression Firefighter)
Assist with patient handling/packaging	
CPR if needed/airway management	
Scene management/scene safety	Paramedic (Safety Officer)
Patient care supervision	

EMS High Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **high-risk EMS** responses, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic shall be **9 minutes and 30 seconds (9:30)** in all areas. The first-due unit is capable of assessing scene safety and establishing command, sizing-up the situation, conducting an initial patient.

assessment, obtaining vitals and patient's medical history, initiating mitigation efforts within one minute of arrival, providing first responder medical aid including defibrillation, and assisting transport personnel with packaging the patient.

EMS High Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **high-risk EMS** response incidents, the total response time for the arrival of the effective response force (ERF), staffed with 4 or 5 firefighters and 2 officers, shall be **12 minutes and 30 seconds (12:30)** in all areas. The ERF is capable of providing incident command and producing related documentation, appointing a site safety officer, completing patient assessment, providing appropriate treatment, performing defibrillation, initiating cardio-pulmonary resuscitation (CPR), and providing intravenous (IV) access-medication administration.

EMS High Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **high-risk EMS** responses, the total response time for the arrival of the first-due unit, staffed with 1 firefighter/EMT and 1 firefighter/paramedic, was **10 minutes and 17 seconds (10:17)** or less in all areas. The first-due unit can establish command, maintain scene safety, evaluate the need for additional resources, initiate basic life support and early defibrillation, and assist with transportation of the patient to the appropriate receiving facility.

EMS High Risk ERF / Concentration Baseline (actual):

For 90 percent of all **high-risk EMS** response incidents, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 4 or 5 firefighters and 1 officer, was **15 minutes and 23 seconds (15:23)** or less in all areas. The ERF can maintain command and scene safety, deliver advanced life support including the appropriate treatment, and transport the patient to the appropriate receiving facility.

EMS High Risk Baseline Chart (actual):

EMS High - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Bench mark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:34 (49.3%)	3:42	3:24	3:11	3:30	2:00	+1:30
Turnout Time	Turnout Time 1st Unit	Urban	2:02 (53.2%)	1:43	2:05	2:08	2:01	1:00	+1:01
Travel Time	Travel Time 1st Unit Distribution	Urban	6:32 (89.7%)	6:44	6:44	7:45	6:50	6:30	+0:20
	Travel Time ERF **Concentration**	Urban	9:42 (88.9%)	9:56	9:29	9:08	8:51	9:30	-0:39
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	10:13 (83.2%)	10:10	9:52	11:39	10:17	9:30	+0:47
			n=410	n=534	n=392	n=294	n=1631		
	Total Response Time ERF **Concentration**	Urban	15:02 (75.6%)	15:17	15:24	15:50	14:21	12:30	+1:51
			n=182	n=193	n=139	n=105	n=715		

n=number of incidents
ERF = 1 Engine,1 Rescue, and Safety
Note: Success equals percent the benchmarks were met.

Hazardous Material (HazMat) Incidents

The Department responds to and can successfully mitigate HazMat Level 1 incidents. These are low risk incidents where a small release of a HazMat or unknown substance occurred. For larger releases or where there is potential for a larger release, the Department relies on assistance from mutual aid agreements. Most of the time, the assistance will be from Osceola County Fire, Rescue, and EMS or Orange County Fire Rescue.

Hazardous Materials Resources by Call Type

Incident Type	Engines	Squad*	Towers	Rescues	Command	Safety	Hazmat Team #
HazMat Low Risk (minor situation, e.g., <25 gals. of liquid or < 50 lbs. of unknown substance. CO alarms	1						
HazMat Moderate Risk 1 (LP or Natural gas leak).	2	0	0	1	1	1	
HazMat Moderate Risk 2 ◊ (potential to be major, e.g., release of unknown substance).	2	0	1	2	1	1	6 #
HazMat High Risk ◊ (on-scene I.C. declares significant hazmat incident)	2	0	1	2	1	1	6 #
HazMat Maximum Risk ◊ (on-scene I.C. declares significant hazmat incident – exceeds resources)	Resources Determined by Incident Commander						

◊ Hazmat Level 3 incidents are similar to a Level 2; however, injuries or deaths may have already occurred. Additional resources determined by Incident Commander

◊ Hazmat Level 4 incident is the spill or release of a hazardous substance resulting in a serious fire, explosion, or environmental contamination over an extended area.

This resource is mutual aid from Osceola County Fire Rescue, Orange County Fire Rescue, or Orlando Fire Department.

*The squad can respond to incidents as an engine.

Hazardous Materials Critical Tasks – Level 1

Hazardous Materials Critical Tasks – Low Risk	Recommended Number of Personnel
Hazard Mitigation	2-3
Incident Commander	1
Total	**3-4**

Hazmat Low Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **low-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit is capable of establishing command, sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device, determining the need for additional resources, estimating the potential harm without intervention, and begin establishing a hot, warm, and cold zone.

Hazmat Low Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **low-risk hazardous materials** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 2 or 3 firefighters and 1 officer shall be **9 minutes and 50 seconds (9:50)** in all areas. The ERF shall be capable of appointing a site safety officer, and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with Department standard operating guidelines.

Hazmat Low Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **low-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer was **12 minutes and 23 seconds (12:23)** or less in all areas. The first-due unit shall be capable of establishing command, evaluating the need for additional resources, establishing the initial isolation distance, and assessing the situation to determine the presence of a potential hazardous material or explosive device.

Hazmat Low Risk ERF / Concentration Baseline (actual):

For 90 percent of all **low-risk hazardous materials** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 2 or 3 firefighters and 1 officer was **12 minutes and 23 seconds (12:23)** or less in all areas. The ERF can provide a dedicated incident safety officer; emergency or mass decontamination; defensive containment measures; and the knowledge, skills, and abilities to mitigate a hazardous materials incident.

Low Risk Baseline Chart (actual)

Hazmat Low - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	5:09 (41.1%)	4:06	3:11	3:04	3:11	2:00	+1:11
Turnout Time	Turnout Time 1st Unit	Urban	1:44 (41.1%)	1:56	2:20	3:02	2:42	1:20	+1:22
Travel Time	Travel Time 1st Unit Distribution	Urban	8:16 (52.9%)	7:49	7:07	7:03	7:05	6:30	+0:33
	Travel Time ERF **Concentration**	Urban	8:16	7:49	7:07	7:03	7:05	6:30	+1:17
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	14:53 (47%)	12:00	11:40	11:00	11:07	9:50	+1:17
			n=18	n=35	n=30	n=27	n=110		
	Total Response Time ERF **Concentration**	Urban	14:53	12:00	11:40	11:00	11:07	9:50	+1:17
			n=18	n=35	n=30	n=27	n=110		

n=number of incidents
ERF = 1 Engine
CO Alarm and Hazmat Level 1: 1 Engine
Note: Success equals percent the benchmarks were met.

Hazardous Materials Critical Tasks – Moderate Risk 1

Hazardous Materials Critical Tasks Moderate Risk	Recommended Number of Personnel
Scene Assessment	3
Air Monitoring	
Ventilation	
Scene Control	3
Patient Care	2
Incident Commander	1
Safety Officer	1
Total	10

Hazardous Materials Critical Tasks – Moderate Risk 2

Hazardous Materials Critical Tasks Moderate Risk	Recommended Number of Personnel
Scene Assessment	3
Decon	
Water Supply	
Scene Control	3
Patient Care	2
Ventilation and Support	3
HazMat Team Assessment/Care	2
Incident Commander	1
Safety Officer	1
Department Total	15
Mutual Aid HazMat Team	6
Total	21

Hazmat Moderate Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **moderate-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of establishing command, sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device, determining the need for additional resources, estimating the potential harm without intervention, and begin establishing a hot, warm, and cold zone.

Hazmat Moderate Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **moderate-risk hazardous materials** response incidents, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 21 firefighters and officers shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of appointing a scene safety officer, and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with Department standard operating guidelines, the Osceola County Command Manual and other policies, practices and procedures used by the hazardous materials team.

Hazmat Moderate Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **moderate-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, was **10 minutes and 51 seconds (10:51)** or less in all areas. The first-due unit shall be capable of establishing command, evaluating the need for additional resources, establishing the initial isolation distance, and assessing the situation to determine the presence of a potential hazardous material or explosive device.

Hazmat Moderate Risk ERF / Concentration Baseline (actual):

For 90 percent of all **moderate-risk hazardous materials** response incidents, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 21 firefighters and officers, was **19 minutes and 27 seconds (19:27)** or less in all areas. The ERF can provide a dedicated incident safety officer; emergency or mass decontamination; defensive containment measures; and the knowledge, skills, and abilities to mitigate a hazardous materials incident.

Hazmat Moderate Risk Baseline Chart (actual):

Hazmat Moderate - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	5:33 (25%)	4:15	3:47	3:45	4:20	2:00	+2:20
Turnout Time	Turnout Time 1st Unit	Urban	2:38 (50.0%)	2:29	2:50	2:14	2:29	1:20	+1:09
Travel Time	Travel Time 1st Unit **Distribution**	Urban	7:12 (87.8%)	7:13	6:09	6:26	6:39	6:30	+0:09
	Travel Time ERF **Concentration**	Urban	12:10 (69.5%)	10:59	13:45	11:24	12:02	9:30	+2:32
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	11:44 (65.8%)	11:06	9:50	10:44	11:00	9:50	+1:10
			n=42	n=42	n=29	n=25	n=127		
	Total Response Time ERF **Concentration**	Urban	18:47 (34.7%)	21:04	20:13	17:47	19:46	12:50	+6:56
			n=24	n=14	n=17	n=25	n=82		

n=number of incidents

ERF =

Hazmat Level 2: 2 Engines, 2 Rescues, 1 Tower, Battalion, Safety. Mutual Aid HazMat Team

Note: The above ERF includes the HazMat team if it arrived on the scene. The other ERF times include the Department units. A Hazmat Team arrived twice during the 2019-2022 period.

Natural Gas or Propane Leak 2 Engines, 1 Rescue, Battalion, Safety

Bomb Threat: 1 Engine, 1 Rescue, Battalion, Safety

Note: Success equals percent the benchmarks were met.

Hazardous Materials Critical Tasks – High and Maximum Risk

Hazardous Materials Critical Tasks High and Maximum Risk	Recommended Number of Personnel
Scene Assessment	3
Decon	
Water Supply	
Scene Control	3
Water supply	
Patient Care	2
Ventilation and Support	3
HazMat Team Assessment/Care	2
Incident Commander	1
Safety Officer	1
Total	15
Mutual Aid HazMat Team	6
Total	**21**

Hazmat High Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **high-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of establishing command, sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device, determining the need for additional resources, estimating the potential harm without intervention, and begin establishing a hot, warm, and cold zone.

Hazmat High Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **high-risk hazardous materials** response incidents, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 21 firefighters and officers shall be **17 minutes and 50 seconds (17:50)** in all areas. The ERF shall be capable of appointing a scene safety officer, and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with Department standard operating guidelines, the Osceola County Command Manual and other policies, practices and procedures used by the hazardous materials team.

Hazmat High Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **high-risk hazardous materials** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, was **13 minutes and 10 seconds (13:10)** or less in all areas. The first-due unit shall be capable of establishing command, evaluating the need for additional resources, establishing the initial isolation distance, and assessing the situation to determine the presence of a potential hazardous material or explosive device.

Hazmat High Risk ERF / Concentration Baseline (actual):

There were no high-risk (Level III or IV) hazmat incidents in 2020, 2021 or 2022.

The hazmat team was canceled on the only High-Risk incident in 2019.

Hazmat High Risk Baseline Chart (actual):

Hazmat High - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	N/A	N/A	6:50	6:50	2:00	+4:50
Turnout Time	Turnout Time 1st Unit	Urban	N/A	N/A	N/A	0:08	0:08	1:20	-1:12
Travel Time	Travel Time 1st Unit Distribution	Urban	N/A	N/A	N/A	6:12	6:12	6:30	-0:28
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	14:30	N/A
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	N/A	N/A	13:10	13:10	9:50	+3:20
			n=0	n=0	n=0	n=1	n=0		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	17:50	N/A
			n=0	n=0	n=0	n=0	n=0		

n=number of incidents

ERF =

Hazmat Level 3 or 4: 2 Engines, 2 Rescues, 1 Tower, Battalion, Safety, Mutual Aid Hazmat Team

Technical Rescue

Technical Rescue is the use of specialized tools and skills for performing advanced rescues. The Department performs technician-level vehicle machinery rescue (VMR), high angle rescue, and confined space rescue. Listed below is the response posture for these types of incidents and the critical tasks required to safely mitigate them.

Technical Rescue Resources by Call Type

Incident Type	Engines	Squad*	Towers	Rescues	Command	Safety	Special Ops Trailer
Vehicle Machinery Rescue (VMR)	1	1	1	2	1	1	
High Angle Rescue	1	1	1	2	1	1	
Confined Space Rescue	1	1	1	2	1	1	1

*Squad 11 can respond as an Engine

VMR Critical Tasks

Figure 29 shows the critical tasks and how many trained personnel are needed for VMR calls. On VMR calls, additional resources beyond the ERF may be needed based on variables that cannot always be predicted. Due to Factors such as number of patients upon arrival, complexity of the accident or machinery incident, or if multiple vehicles with entrapment are found, more units may be required. Additionally, outside resources may be needed if vehicles involved require a class D wrecker to lift or have hazardous materials such as fuel leaking, or materials spilled from accident. Such resources are not listed in this task analysis.

VMR Critical Tasks	Recommended Number of Personnel
Scene Assessment and Stabilization	3
Water Supply/Hose Line	
Extrication Supervisor	1
VMR Team	5
Patient Care	2
Ready Rescue	2
Incident Commander	1
Safety Officer	1
Total	**15**

Figure 29 VMR Critical Tasks

High Angle Rescue Critical Tasks*	Recommended Number of Personnel
Rescuer #1 / Scene Assessment	1
Operations Supervisor	1
Anchor Set Up	2
Systems Set Up	2
Edge Attendant	1
Rescuer #2	1
RIT	2
Patient Care Rescue	2
Ready Rescue	2
Incident Command	1
Safety Officer	1
Total	**15**

Figure 30 High Angle Rescue Critical Tasks

*On high angle rescue calls, additional resources beyond the ERF may be needed based on variables that cannot always be predicted such as number of patients and the complexity of the incident which could involve towers, high rise buildings, and buildings under construction.

Confined Space Rescue Critical Tasks

Confined Space Rescue Critical Tasks*	Recommended Number of Personnel
Entry Supervisor/Operations Supervisor	1
Attendant/Entry Coordinator	1
Communications Operator	1
Air Cart Operator	1
Safety Line Operator	1
Air Monitoring/Ventilation	1
Rescuer #1	1
Rescuer #2	1
RIT	3
Patient Care Rescue	2
Incident Command	1
Safety Officer	1
Total	**15**

Figure 31 Confined Space Rescue Critical Tasks

*On confined space rescue calls, additional resources beyond the ERF may be needed based on variables that cannot always be predicted such as number of patients trapped underground, complexity of the accident, underground pipes, and hazardous gas.

Technical Rescue High Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **high-risk technical rescue** incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of establishing command, sizing up to determine if a technical rescue response is required, requesting additional resources, and providing basic life support to any patient without endangering response personnel.

Technical Rescue High Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **high-risk technical rescue** incidents, the total response time for the arrival of the effective response force (ERF), staffed with 15 firefighters and officers including technician-level trained personnel shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of appointing a scene safety officer, establishing patient contact, staging and apparatus set up, and providing technical expertise, knowledge, skills, and abilities during technical rescue incidents, and providing first responder medical support.

Technical Rescue High Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **high-risk technical rescue** incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 or 3 firefighters and 1 officer, was **8 minutes and 55 seconds (8:55)** or less in all areas. The first-due unit can establish command, evaluate the need for additional resources, and control immediate hazards and life safety issues.

Technical Rescue High Risk ERF / Concentration Baseline (actual):

For 90 percent of all **high-risk technical rescue** incidents, the total response time for the arrival of the effective response force (ERF), staffed with 15 firefighters and officers including the technical response team, was **15 minutes and 56 seconds (15:16)** or less in all areas. The ERF can appoint a site safety officer; hazard control; and patient stabilization and transport.

Technical High Risk Baseline Chart (actual)

Technical Rescue - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:59 (53.3%)	3:52	6:22	3:49	3:53	2:00	+1:53
Turnout Time	Turnout Time 1st Unit	Urban	1:58 (66.6%)	1:47	2:43	2:14	2:12	1:20	+0:52
Travel Time	Travel Time 1st Unit Distribution	Urban	5:37 (93.3%)	5:37	6:38	5:07	5:11	6:30	-1:19
	Travel Time ERF **Concentration**	Urban	8:08 (100%)	5:47	10:15	10:16	9:42	9:30	-0:12
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	9:15 (90.9%)	8:49	8:59	8:39	8:46	9:50	-1:04
			n=45	n=42	n=22	n=48	n=157		
	Total Response Time ERF **Concentration**	Urban	15:48 (66.6%)	12:43	18:52	16:24	18:01	12:50	+5:11
			n=7	n=8	n=8	n=19	n=71		

n=number of incidents
ERF =
Vehicle vs. Structure: 1 Engine, 1 Rescue, 1 Squad, Battalion, Safety
Vehicle Crash with Entrapment/Ejections: 1 Engine, 2 Rescues, 1 Tower, 1 Squad, Battalion, Safety
Collapse, Confined Space, Trench: 1 Engine, 2 Rescues, 1 Tower, 1 Squad, Safety, Battalion, Special Operations Trailer
Note: Success equals percent the benchmarks were met.

Aviation

The Department can usually manage most aviation incident types but may require assistance from our mutual aid partners for larger incidents. The Department's aviation incident types are Alert Level 1, Alert Level II, and Alert Level III. Figure 31 is a map of the Kissimmee Gateway Airport showing the three Stand-By areas. During control tower operating hours, one or more of the stand-by areas is determined by them. The incident commander will determine the stand-by location when the control tower is not operating. Figure 32 shows the three Aviation call types used by the Department and the usual fire/rescue resources dispatched to these incidents.

Figure 31 Kissimmee Gateway Airport Emergency Operations Map

Aviation Resources by Call Type

Incident Type	Engines	Squad*	Towers	Rescues	Command	Safety	Foam 11
Low Risk (aircraft experiencing minor difficulty, e.g., oil leak)	**1**			**1**	**1**		**1**
Moderate Risk (aircraft experiencing major difficulty, e.g., engine failure)	**1**			**1**	**1**	**1**	**1**
High Risk (aircraft accident or fire)	**2**	**1**	**1**	**2**	**1**	**1**	**1**

Figure 32 Aviation Resource by Call Type

*The squad can respond to incidents as an engine.

Aviation Critical Tasks – Alert Level 1 / Low Risk

Aviation Critical Tasks – Low Risk	Recommended Number of Personnel
Hazard Mitigation	2-3
Incident Commander	1

Figure 33 Aviation Critical Tasks - Low Risk

Aviation Low Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **low-risk alert level 1 aviation** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation Low Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **low-risk alert level 1 aviation** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 7 firefighters, officers, and chiefs shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation Low Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **low-risk alert level 1 aviation** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, was **9 minutes and 47 seconds (9:47)** or less in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation Low Risk ERF / Concentration Baseline (actual):

For 90 percent of all **low-risk alert level 1 aviation** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 7 firefighters, officers, and chiefs was **11 minutes and 30 seconds (11:30)** or less in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation Low Risk Baseline Chart (actual):

Aviation Low - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	2:17	2:24	3:35	2:50	3:35	2:00	+1:35
Turnout Time	Turnout Time 1st Unit	Urban	1:39	3:14	1:39	1:17	2:34	1:20	+1:14
Travel Time	Travel Time 1st Unit Distribution	Urban	4:49	5:39	4:12	7:20	7:20	6:30	+0:50
	Travel Time ERF **Concentration**	Urban	6:29	10:16	N/A	7:31	7:20	9:30	-2:10
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	8:45	10:36	8:27	11:23	11:23	9:50	+1:33
			n=1	n=4	n=3	n=1	n=9		
	Total Response Time ERF **Concentration**	Urban	9:46	13:18	N/A	11:28	12:53	12:50	+0:03
			n=1	n=2	n=0	n=1	n=4		

n=number of incidents

ERF = 1

Alert 1: Engine, 1 Rescue, Bat, Safety

Aviation Critical Tasks – Alert Level II / Moderate Risk

Aviation Critical Tasks – Moderate Risk	Recommended Number of Personnel
Size-up/Scene Assessment and Stabilization	4
Water Supply/Hose Line	
Patient Care	2
Incident Commander	1
Safety Officer	1
Total	**8**

Aviation Moderate Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **moderate-risk alert level 2 aviation** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation Moderate Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **moderate-risk alert level 2 aviation** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 8 firefighters, officers, and chiefs shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation Moderate Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **moderate-risk alert level 2 aviation** response incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, was **8 minutes and 09 seconds (8:09)** or less in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation Moderate Risk ERF / Concentration Baseline (actual):

For 90 percent of all **moderate-risk alert level 2 aviation** response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 8 firefighters, officers, and chiefs was **14 minutes and 47 seconds (14:47)** or less in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation Moderate Risk Baseline Chart (actual):

Aviation Moderate - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	2:22	2:17	3:31	2:33	2:34	2:00	+0:34
Turnout Time	Turnout Time 1st Unit	Urban	1:49	0:16	1:42	2:43	1:49	1:20	+0:29
Travel Time	Travel Time 1st Unit Distribution	Urban	4:45	6:22	3:38	4:21	4:45	6:30	-1:45
	Travel Time ERF **Concentration**	Urban	6:27	6:45	5:33	5:25	6:45	9:30	-2:45
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	8:56	8:45	7:54	8:09	8:45	9:50	-1:05
			n=2	n=1	n=2	n=2	n=7		0
	Total Response Time ERF **Concentration**	Urban	8:20	12:38	11:25	14:47	11:47	12:50	-1:03
			n=1	n=1	n=1	n=2	n=5		0

n=number of incidents

ERF =

Alert 2: 1 Engine, 1 Rescue, Bat, Safety, and Foam 11

Aviation Critical Tasks – Alert Level III / High Risk

Aviation Critical Tasks – High Risk Fire/VMR	Recommended Number of Personnel
Size-up/Scene Assessment and Stabilization	3
Water Supply/Hose Line	
Water Supply	3
RIT	
Foam Truck	1
VMR Team Leaders	2
VMR Team 1	2
VMR Team 2	2
Patient Care	4
Incident Commander	1
Safety Officer	1
Total	**19**

Aviation High Risk First Due Unit / Distribution Benchmark (goal):

For 90 percent of all **high-risk alert level 3 aviation response** incidents, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, shall be **9 minutes and 50 seconds (9:50)** in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation High Risk Effective Response Force / Concentration Benchmark (goal):

For 90 percent of all **high-risk alert level 3 aviation response incidents**, the total response time for the arrival of the effective response force (ERF) staffed with 19 firefighters, officers, and chiefs shall be **12 minutes and 50 seconds (12:50)** in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation High Risk First Due Unit / Distribution Baseline (actual):

For 90 percent of all **high-risk alert level 3 aviation response incidents**, the total response time for the arrival of the first-due unit, staffed with 2 or 3 firefighters and 1 officer, was **9 minutes and 22 seconds (9:22)** or less in all areas. The first-due unit shall be capable of assessing the situation, requesting additional resources, effecting rescue, fire control, and establishing command.

Aviation High Risk ERF / Concentration Baseline (actual):

For 90 percent of all **high-risk alert level 3 aviation response incidents**, the total response time for the arrival of the effective response force (ERF) staffed with 19 firefighters, officers, and chiefs was **11 minutes and 9 seconds (11:09)** or less in all areas. The ERF shall be capable of supporting aviation rescue and firefighting.

Aviation High Risk Baseline Chart (actual):

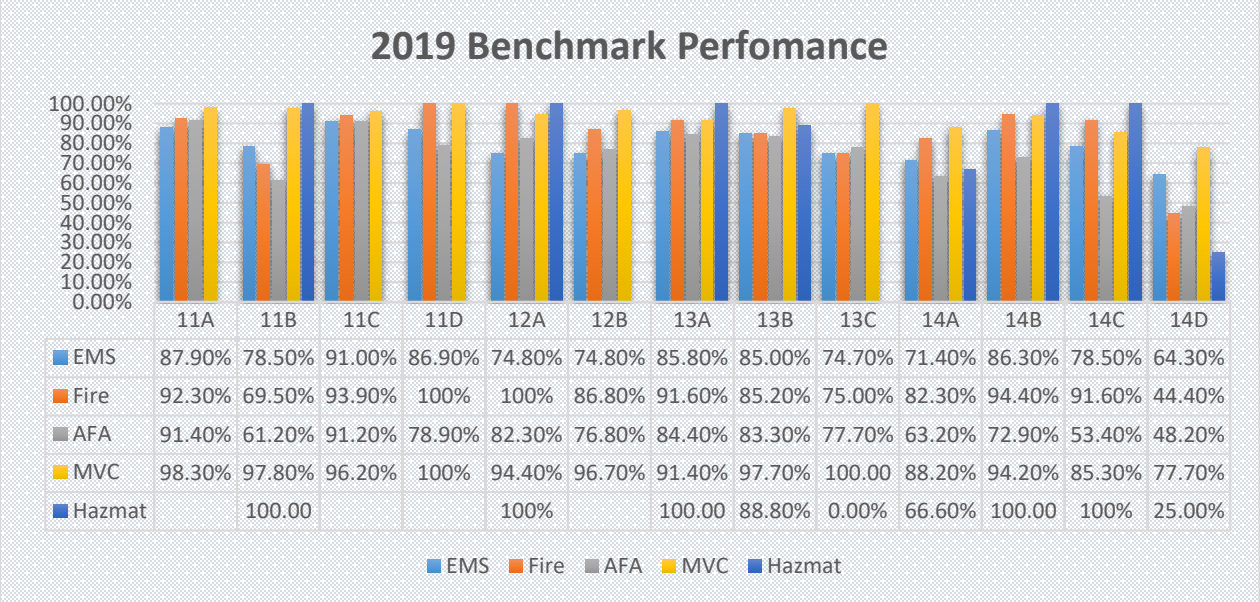
Aviation High - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	1:33	N/A	N/A	2:33	2:53	2:00	+0:33
Turnout Time	Turnout Time 1st Unit	Urban	2:00	N/A	N/A	2:04	2:04	1:20	+0:44
Travel Time	Travel Time 1st Unit Distribution	Urban	8:20	N/A	N/A	2:06	8:20	6:30	+1:50
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	6:33	6:33	9:30	-2:57
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	11:53	N/A	N/A	6:52	11:53	9:50	-2:03
			n=1	n=0	n=0	n=1	n=2		0
	Total Response Time ERF **Concentration**	Urban	n/a	N/A	N/A	11:09	11:09	12:50	-1:41
			n=0	n=0	n=0	n=1	n=1		-1

n=number of incidents

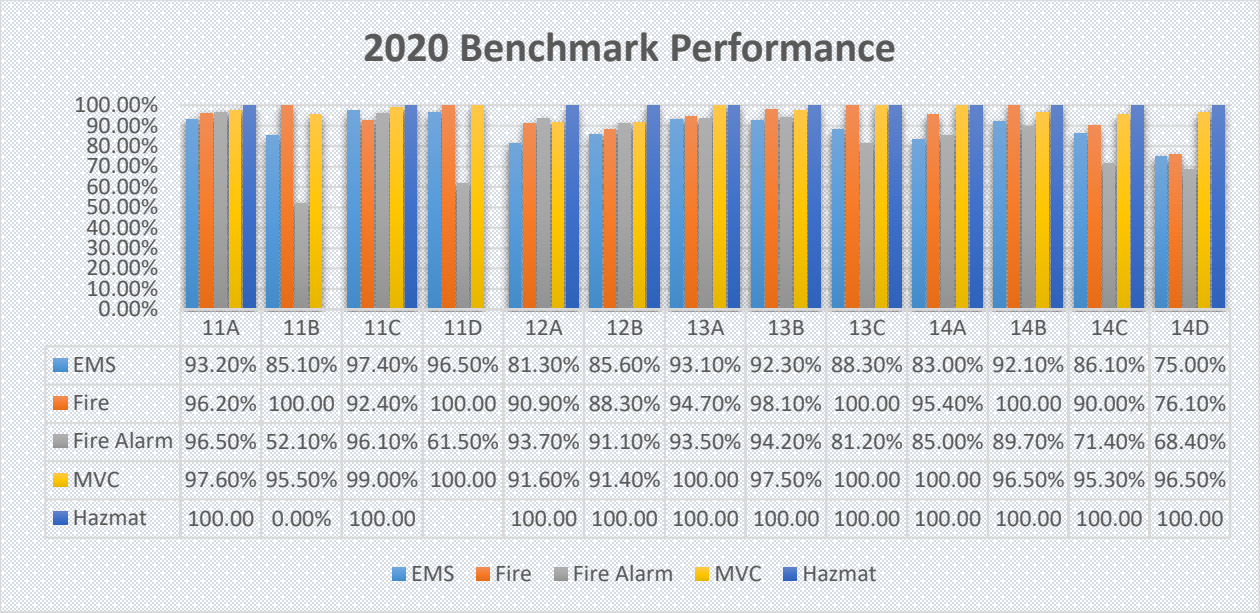
ERF = **Alert 3**: 2 Engine, 2 Rescues, 1 Tower, 1 Squad, Battalion, Safety, and Foam 11

Benchmark Performance by Planning Zone - 2019-2022

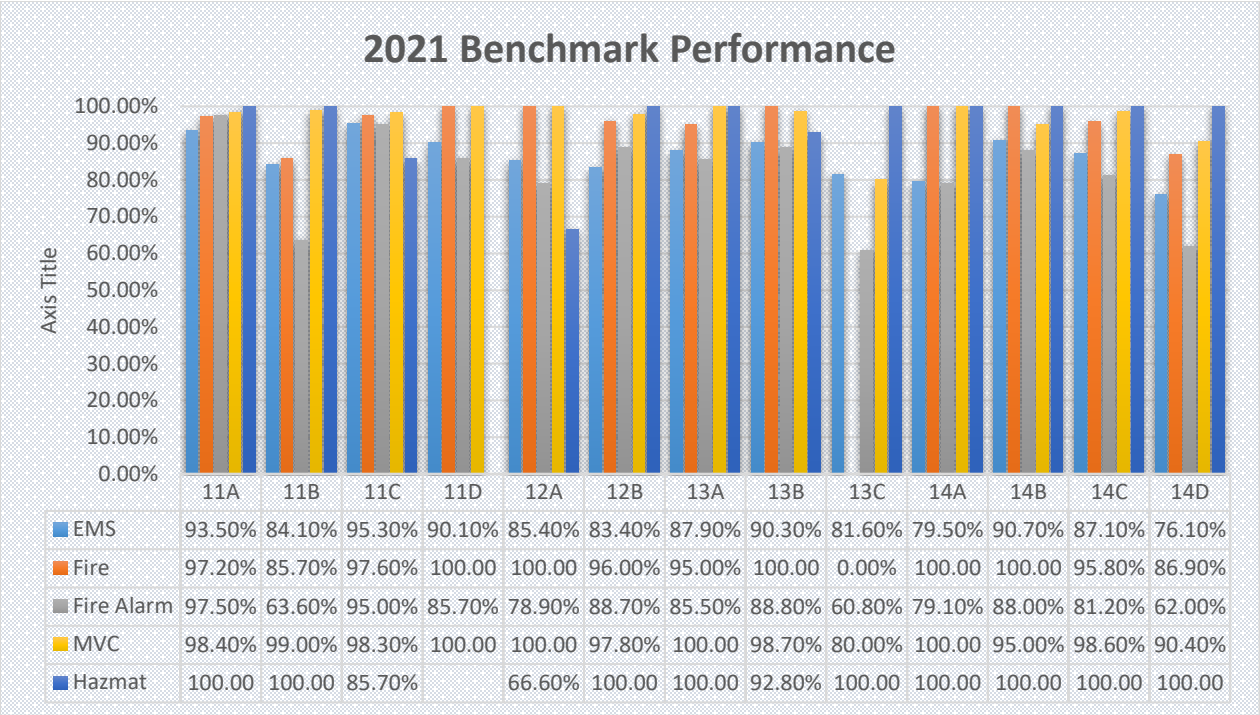
When comparing baseline and benchmark performance for total response time by planning zone, the Department uses the success percentage for each emergency incident type. The chart and table display the percentage of responses that the first arriving unit meets the associated benchmark. (9 minutes and 30 seconds for EMS) (9 minutes and 50 seconds for all others)



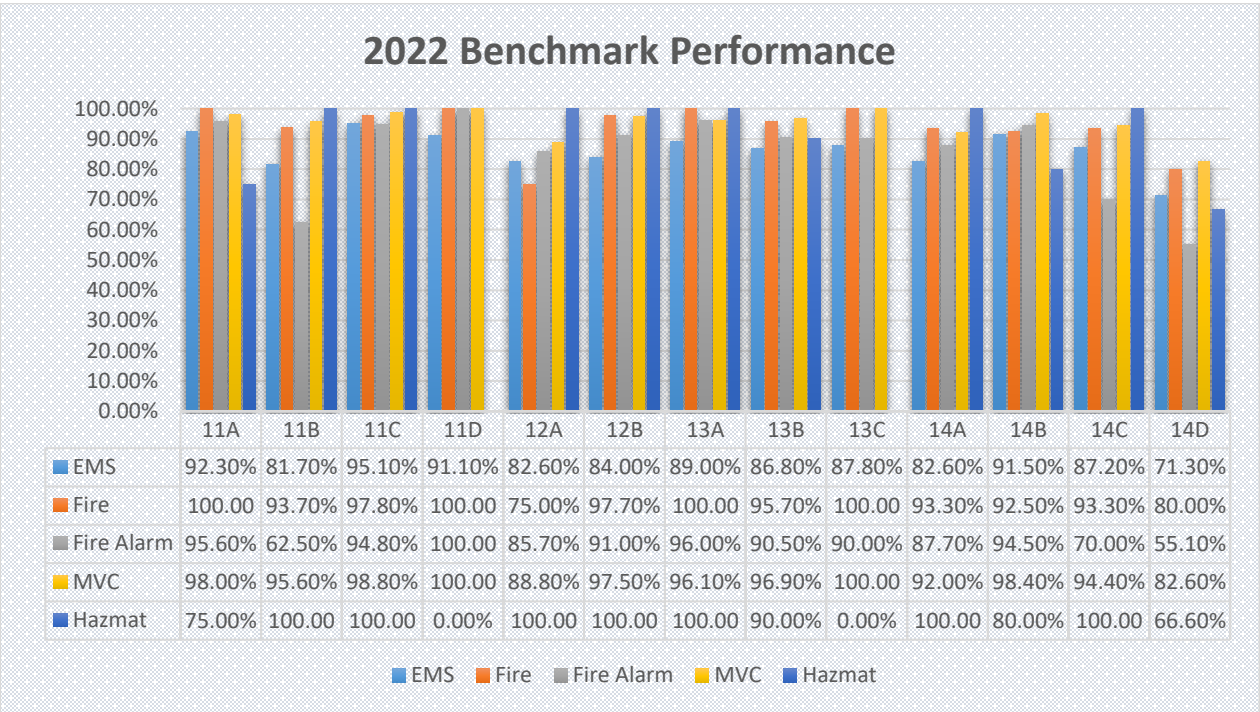
	11A	11B	11C	11D	12A	12B	13A	13B	13C	14A	14B	14C	14D
EMS	87.90%	78.50%	91.00%	86.90%	74.80%	74.80%	85.80%	85.00%	74.70%	71.40%	86.30%	78.50%	64.30%
Fire	92.30%	69.50%	93.90%	100%	100%	86.80%	91.60%	85.20%	75.00%	82.30%	94.40%	91.60%	44.40%
AFA	91.40%	61.20%	91.20%	78.90%	82.30%	76.80%	84.40%	83.30%	77.70%	63.20%	72.90%	53.40%	48.20%
MVC	98.30%	97.80%	96.20%	100%	94.40%	96.70%	91.40%	97.70%	100.00	88.20%	94.20%	85.30%	77.70%
Hazmat		100.00			100%		100.00	88.80%	0.00%	66.60%	100.00	100%	25.00%



	11A	11B	11C	11D	12A	12B	13A	13B	13C	14A	14B	14C	14D
EMS	93.20%	85.10%	97.40%	96.50%	81.30%	85.60%	93.10%	92.30%	88.30%	83.00%	92.10%	86.10%	75.00%
Fire	96.20%	100.00	92.40%	100.00	90.90%	88.30%	94.70%	98.10%	100.00	95.40%	100.00	90.00%	76.10%
Fire Alarm	96.50%	52.10%	96.10%	61.50%	93.70%	91.10%	93.50%	94.20%	81.20%	85.00%	89.70%	71.40%	68.40%
MVC	97.60%	95.50%	99.00%	100.00	91.60%	91.40%	100.00	97.50%	100.00	100.00	96.50%	95.30%	96.50%
Hazmat	100.00	0.00%	100.00		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



	11A	11B	11C	11D	12A	12B	13A	13B	13C	14A	14B	14C	14D
EMS	93.50%	84.10%	95.30%	90.10%	85.40%	83.40%	87.90%	90.30%	81.60%	79.50%	90.70%	87.10%	76.10%
Fire	97.20%	85.70%	97.60%	100.00	100.00	96.00%	95.00%	100.00	0.00%	100.00	100.00	95.80%	86.90%
Fire Alarm	97.50%	63.60%	95.00%	85.70%	78.90%	88.70%	85.50%	88.80%	60.80%	79.10%	88.00%	81.20%	62.00%
MVC	98.40%	99.00%	98.30%	100.00	100.00	97.80%	100.00	98.70%	80.00%	100.00	95.00%	98.60%	90.40%
Hazmat	100.00	100.00	85.70%		66.60%	100.00	100.00	92.80%	100.00	100.00	100.00	100.00	100.00



	11A	11B	11C	11D	12A	12B	13A	13B	13C	14A	14B	14C	14D
EMS	92.30%	81.70%	95.10%	91.10%	82.60%	84.00%	89.00%	86.80%	87.80%	82.60%	91.50%	87.20%	71.30%
Fire	100.00	93.70%	97.80%	100.00	75.00%	97.70%	100.00	95.70%	100.00	93.30%	92.50%	93.30%	80.00%
Fire Alarm	95.60%	62.50%	94.80%	100.00	85.70%	91.00%	96.00%	90.50%	90.00%	87.70%	94.50%	70.00%	55.10%
MVC	98.00%	95.60%	98.80%	100.00	88.80%	97.50%	96.10%	96.90%	100.00	92.00%	98.40%	94.40%	82.60%
Hazmat	75.00%	100.00	100.00	0.00%	100.00	100.00	100.00	90.00%	0.00%	100.00	80.00%	100.00	66.60%

Performance Gaps (CC 2C.5, CC2D.6, CC 2D.9)

After a thorough review of all 2019 through 2022 baseline and benchmark time charts for all Department programs, several gaps have been identified. The gaps and the areas for improvement have been outlined in the below chart. Performance gaps include inadequacies, inconsistencies, and negative trends and these gaps will be determined at least annually. The Department formally notifies the City leadership of any gaps in its current capabilities, capacities, and level of service in its response area. These gaps deal with the mitigation of the identified risks in its Community Risk Assessment Standard of Cover (CRA SOC). The notifications occur through the approval of the CRA SOC, during annual budget process, quarterly/annual reports, and meetings with City leadership. Although some performance gaps exist, the delivery of service in each service program has been determined to be consistent and reliable within the response area. The following performance gaps were obtained by averaging the baseline times and the (90th percentile) benchmark times of all programs and risks.

90th Percentile - Incidents Not Requiring Turnout Gear (total response area)				
Critical Times	**Baseline**	**Benchmark**	**Opportunity for Improvement**	**Percent Benchmark Met**
Alarm Handling	**3:30**	**2:00**	**+1:30**	**53.5%**
Turnout	**2:04**	**1:00**	**+1:04**	**52.1%**
Travel Time - 1st Due	**8:08**	**6:30**	**+1:38**	**78.8%**
Travel Time - ERF	**9:21**	**9:30**	**-0:09**	**84.5%**
Total Response Time – 1st Unit	**11:52**	**9:30**	**+2:22**	**71.8%**
Total Response Time - ERF	**14:29**	**13:30**	**+0:59**	**70.8%**

90th Percentile - Incidents Requiring Turnout Gear				
Critical Times	**Baseline**	**Benchmark**	**Opportunity for Improvement**	**Percent Benchmark Met**
Alarm Handling	**3:47**	**2:00**	**+1:47**	**46.4%**
Turnout	**1:59**	**1:20**	**+0:39**	**61.2%**
Travel Time - 1st Due	**6:32**	**6:30**	**+0:02**	**80.8%**
Travel Time - ERF	**8:29**	**9:00**	**-0:23**	**87.9%**
Total Response Time – 1st Unit	**10:47**	**9:50**	**+1:33**	**74.5%**
Total Response Time - ERF	**13:56**	**13:30**	**+0:14**	**73.2%**

Resiliency (2C.9)

Resiliency is the Department's ability to quickly recover from an incident or event. It could also mean the Department's ability to adjust easily to changing needs or requirements. These incidents, events, or changing needs could include a high call volume day in the City or it could be from a major hurricane. There are times when the Department is pushed to its limits, leaving limited resources. From time to time, the Department relies on its mutual aid partners from Osceola County, Orange County and occasionally St. Cloud. Firefighters are trained to respond to changing needs and the Department personnel perform an exemplary job when these situations arise. Many factors influence the return to "normal" operations including:

- Capability - Capability includes the knowledge, skills, and abilities (KSAs) to perform the critical tasks for each program type listed below. The completion of the critical tasks will lead to successful termination of an incident. Functional capabilities are the physical resources to support completion of the critical tasks. An example of a critical task is applying water to the fire.

- Capacity - Capacity refers to the number of physical resources to meet the many types of responsibilities in a response area. The resources of the Department include ALS engines, ALS squad, ALS tower, ALS transport ambulances, and brush truck.
- Resistance – The Department's ability to deploy only resources necessary to control an incident and to bring it to termination safely and effectively.
- Absorption - The Department's ability to quickly add or duplicate resources to maintain service levels during incidents beyond the normal reliability demands and incidents of rare occurrences and/or magnitude.
- Restoration - The Department's rapid return of resource capabilities to normalcy and in-service status.

Methodology for Providing Consistent Service Levels (CC 2C.1)

1. Continue daily review of all incidents and patient care reports by company officers and battalion chiefs.
2. Review of all response time components.
3. Continue EMS QA program by the EMS lieutenant.
4. The battalion chiefs will ensure that after action reviews occur for all major incidents per *SOG 500.07 After Action Reviews*
5. All operations personnel will maintain a working knowledge of these documents:
    a. Osceola County Medical Protocols
    b. Osceola County Command Manual
    c. Department SOGs
6. Operations personnel will strive to meet or exceed the turnout time benchmarks.
7. The EMS Bureau will implement a patient survey by the end of 2024.
8. The accreditation team will annually update the CRA SOC with the City's demographics and socio-economic factors and report unusual trends to the fire chief.

Methodology for Monitoring and Maintaining Emergency Response Performance

(CC 2C.2, CC 2D.3, 2D.4)

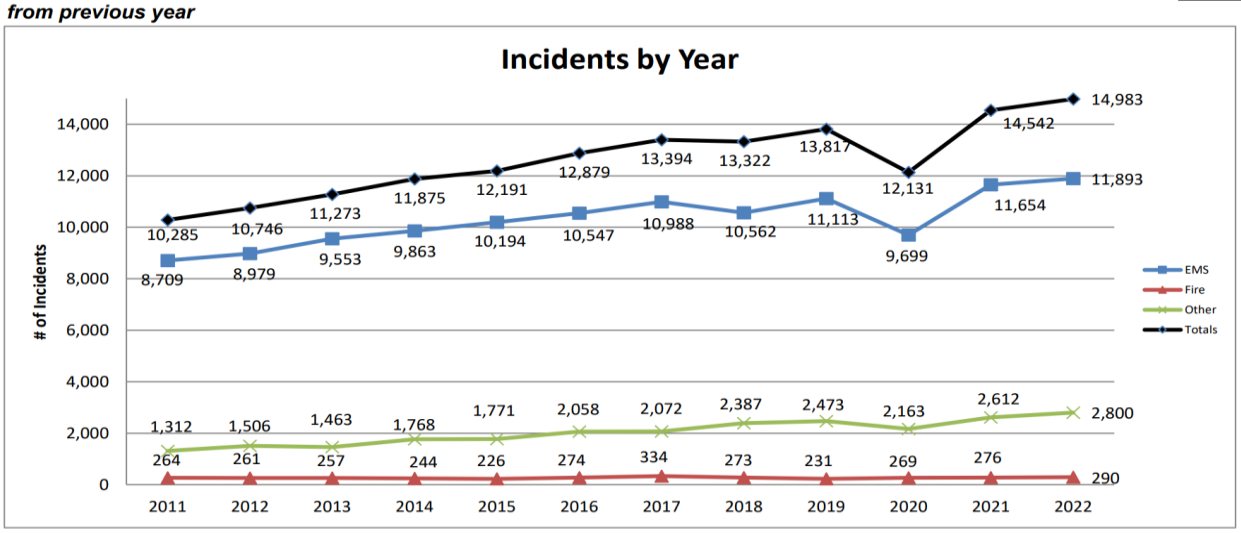
1. Provide resources in the right locations. The Department's four current station locations are strategically located around the City. Provide resources in data driven locations and continue to analyze the need for additional fire stations.
2. Continue to evaluate SOG 200.01 *Staffing Assignments* which provides for the adequate staffing of apparatus.
3. Review PSAP policies, Dispatch Protocols, Emergency Medical Dispatch procedures and Pro QA.
4. Assist with periotic updates of the Osceola Countywide Command Manual which guides the consistent fire and rescue strategies and tactics across the County.
5. Maintain mutual aid agreements. When the Department units are committed to other incidents, mutual aid partners provide the same service as the Department.
6. The Department will track and improve where possible all components of response times for each service type by planning zone and total response area.
7. The accreditation team will work with the City Planning Division and identify future external influences, altering conditions, growth, and development trends, and new or evolving risks, for purposes of analyzing the balance of service capabilities with new conditions or demands.
8. The accreditation team will report negative response time and other trends to the senior staff that will research the need for additional apparatus, personnel, or fire stations.

Methodology for Predicting Future Service Needs

It is difficult to know the exact future resources needed at any given time. The method used by the Department is to analyze past performance, historical trends, and projected growth within the service area. The CRA identifies risks within the service area and is used to assist with planning. Projected growth is monitored and communicated through the city management team. Historical

data is compiled and analyzed to see trends. The below chart shows an average annual increase of 3.72% of total incidents over an 11-year period.

Type	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
EMS	8,709	8,979	9,553	9,863	10,194	10,547	10,988	10,562	11,113	9,699	11,654	11,893	11 Year Avg
Fire	264	261	257	244	226	274	334	273	231	269	276	290	
Other	1,312	1,506	1,463	1,768	1,771	2,058	2,072	2,387	2,473	2,163	2,612	2,800	
Totals	10,285	10,746	11,273	11,875	12,191	12,879	13,394	13,322	13,817	12,131	14,542	14,983	% +/-
% change +/- from previous year		4.48%	4.90%	5.34%	2.66%	5.64%	4.00%	-0.54%	3.72%	-12.20%	19.87%	3.03%	3.72%



Continuous Improvement and Program Monitoring

(2D.5, CC 2D.7)

For any successful agency, it is essential that all services and programs are effectively maintained and continually improved. The recommendations in this document and the goals and objectives in the Department's Community Driven Strategic Plan will ensure this continual improvement. Analyzing data in the Department has been identified as a weakness and several of the recommendations and goals and objectives will improve this issue.

Department Outputs and Outcomes (2C.6)

The Department identifies outputs and/or outcomes for its EMS, fire suppression, fire prevention, public education and for fire investigations conducted by the state Bureau of Fire, Arson, and Explosives Investigations (BFAEI). Impacts from these and other community risk reduction and community services programs are considered and assessed in the Department's monitoring process aimed at excellence. The EMS Bureau identifies patients who had AEDs applied prior to fire/rescue

and patients who had the return of spontaneous circulation (ROSC) (see Figure 34). Fires (structure and vehicle), arson, property saved/loss, and injuries and deaths are tracked (see Figure 35 and Appendix 4). The Fire Prevention Bureau tracks the number of inspections and plans reviews (see Figure 36). Suspicious structures and vehicle fires are investigated by the state BFAEI. The cause of the fires and arrests if applicable are also recorded (see Figure 37). Public Education events, the number of personnel involved, and the staff hours were captured for 2022 (see Figure 38). Firefighter on-duty injuries have been captured in Figure 39. The Department ties the outcomes for its programs when the community risk assessment is updated or adjusted.

EMS

2019-2022 Patients with Return Of Spontaneous Circulation (ROSC)			
Years	No. of Patients	ROSC	% ROSC
2019	92	23	26%
2020	98	22	23%
2021	138	43	29%
2022	100	22	21%

2019-2022 AED Applied Prior to Fire Rescue		
Years	No Shock Indicated	Shock Indicated
2019	16	0
2020	11	1
2021	16	4
2022	14	1

Figure 34 EMS Outputs and Outcomes

Fire Suppression

2019-2022 Arsons and Property Saved/Lost						
Years	Arson	Property Saved	Property Loss	Civilian Injuries	Civilian Deaths	Firefighter Injuries
2019	2	$1,475, 250	$399,750	2	0	0
2020	1	$4,038,500	$141,750	1	1	1
2021	4	$7,870,500	$495,500	1	0	0
2022	4	$4,818,999	$780,491	1	0	0

Figure 35 Fire Suppression Outputs and Outcomes

Fire Prevention

2019-2022 Fire Inspections and Plan Reviews			
Years	Maintenance Inspections	Permitted Inspections	Plan Reviews
2019	0	174	853
2020	249	483	172
2021	224	895	860
2022	425	1,131	1,087

Figure 36 Fire Prevention Outputs

Fire and Life Reduction Annual Benchmarks

Based on historical data, the Department has established these annual benchmarks for incident-related injuries, deaths, and fire loss.

Property Loss	Civilian Injuries	Civilian Deaths	Firefighter Injuries
$480,000	1	0	0

Fire Investigations (Structure and Vehicle)

2019-2022 Fire Investigations by State Bureau of Fire, Arson, and Explosives Investigations						
Years	No of Fires investigated	Cause of Fire				Arrests
		Incendiary	Accidental	Undetermined	Other/NA	
2019	10	3	5	0	2	0
2020	12	2	4	3	3	0
2021	12	2	4	3	3	0
2022	7	4	1	1	0	0

Figure 37 Fire Investigations (structures and vehicles)

Public Education

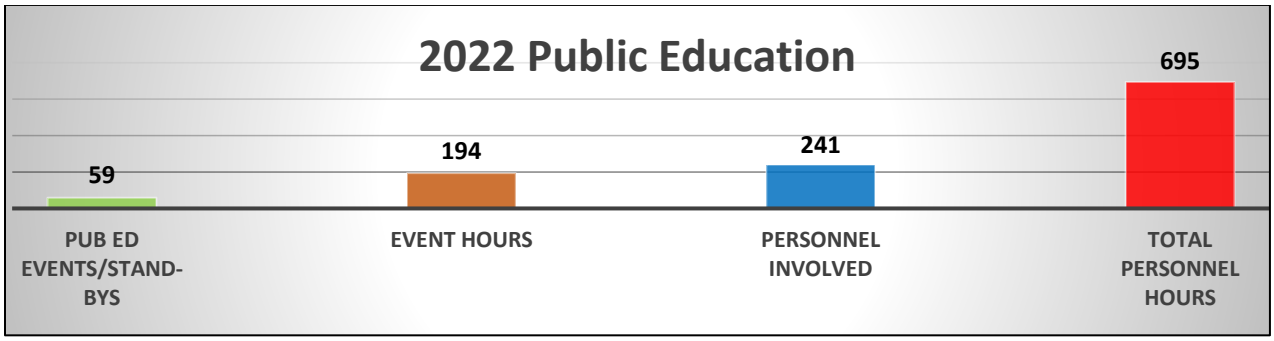


Figure 28 Public Education Outputs

On-Duty Injuries

2019-2022 Work Related Injuries					
Year	Activities when Injuries Occurred				Totals
	Incidents	Training	Exercise/Misc.	Apparatus	
2019	0	2	0	0	2
2020	4	4	4	1	13
2021	3	6	1	1	11
2022	7	0	1	2	10
Percentages	**39%**	**33%**	**17%**	**11%**	**100%**

Figure 39 Firefighter On-Duty Injuries

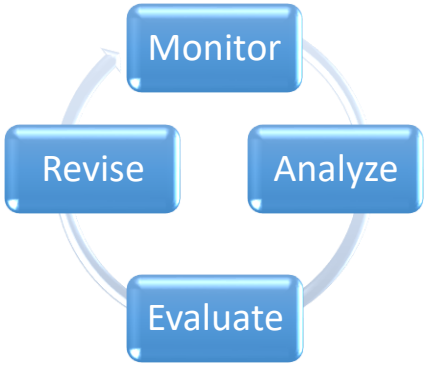
Assessing Performance and Opportunities for Improvement

(CC 2D.1, CC 2D.3, CC 2D.7)

The Department has developed a simple but effective methodology to monitor, assess, and ensure that the delivery system is meeting expected outcomes. These outcomes include performance adequacies, service consistency, reliability, and resiliency. Remedial actions and opportunities to correct deficiencies must be taken when necessary. Another goal of this methodology is to ensure that the need for additional resources is obtained due to the expected increase in workload. If by

chance the size of the response decreased, fewer resources could be required. Here are the steps of the Department's compliance and quality methodology:

1. Monthly
    a. Follow *SOG 100.32 Review and Revision Timeline* which incorporates annual review of all SOGs, Department programs, goals & objectives, and plans including the Community Driven Strategic Plan (Strategic Plan) and the CRA SOC (per monthly schedule).
    b. Track accomplishments of the goals and objectives and their critical tasks.
2. Quarterly
    a. Compliance issues involving operating practices and SOG procedural issues will be discussed at the monthly operation's meetings (deputy chief of operations (operations chief) and battalion chiefs). The operation chief will determine the remedial actions needed to ensure that improvement occurs. Response times, provided by the deputy fire chief of administration, will also be discussed at these meetings and any concerns addressed.



    b. Call handling/processing time reports and Incident Clarification Forms will be forwarded to the PSAP supervisor. Meetings will be held with PSAP supervisor as needed.
    c. Quarterly reports will be distributed which include the delivery system expected outcomes and a prioritized list of remedial actions (2D.2).
3. Annual
    a. Information from the quarterly reports will be included in the annual report.
    b. The annual report will also cover other informational items determined by senior staff.
    c. The accreditation team will identify future external influences, alerting conditions, growth, and development trends, and new or evolving risks, for purposes of

analyzing the balance of service capabilities with new conditions or demands. (CC 2D.3)

4. On-going
    a. Continue to follow the past practices of the EMS QA program, the daily review of all incidents and patient care reports, and incident critiques for all major calls.
    b. Continue to follow the past practice of daily officer web meetings. Opportunities for improvement can be discussed at these meetings.
    c. Collaborating with senior staff, the Planning Department, and G.I.S., the accreditation team will monitor future external influences*, operational or administrative deficiencies and analyze the annual charts and reports to identify growth & development trends and changing needs & circumstances.
    d. The team will present its findings to senior staff so they can be fully analyzed to determine if existing resources can continue to provide adequate response performance or if additional resources will be needed in the future (4C).
    e. The team will revise the CRC SOC annually based on these determinants.

*Factors to Consider when Evaluating Resources (equipment, apparatus, facilities)

1. Population increases - Work with City Planning for growth and development trends. Review statistical data annual budgets.
2. Call-load increase
3. Changing economic factors – review annual City budget, department head meetings, and new of change of occupancy reports.
4. Change in mutual aid given or received.
5. Changing in zoning practices (e.g., retrofit of existing facilities to residential)
6. Construction type changes (e.g., increase in wooden construction)
7. Changing of risks in the community (e.g., introduction of a HazMat processing facility)

*Factors to Consider when Evaluating Service Programs (emergency and nonemergency)

- Consider using outputs vs, inputs when possible (e.g., classroom hours spent vs. number of sessions)
- Use quantitative measures (e.g., financial figures, percentages, ratios)
- Industry research findings and Information shared with other agencies.
- Corrective actions should be based on effective long-term results vs. quick fixes.
- Inadequacies, inconsistencies, and negative trends (to determine how the required resources should be deployed to match the risks)
- Gaps and relationship between baseline and benchmark times - adjust them as needed.
- Decide on acceptable levels of risk.
- Strive to change behaviors to encourage outcome-based performance measures.

Program Effectiveness and Efficiency (2D.4)

1. Evaluate the Department's quarterly and annual reports and other program-related data to measure the effectiveness (quality) and efficiencies (quantity) of Department programs.
2. Evaluate program data from Vector Solutions, Fire Prevention, surveys & critiques, etc.
3. Evaluate all response time components.
4. Keep abreast of new industry research in all fire, rescue, and EMS programs.
5. Be open to participating in industry studies and trials on equipment, procedures, and techniques.
6. Enhance the annual program appraisals and ensure they are reviewed by senior staff.
7. Utilize new programs and software that measure quality and productivity of services.
8. Record additional outcomes and analyze for program improvements.
9. Per SOG 100.32 *Review and Revision Timeline*, annually complete form *KFD106 Annual Appraisal Form* for all Department programs.

Incident Mitigation Program Efforts (2D.5)

1. The operation chief and fire prevention supervisor will review reports from Vector Solutions and the fire prevention activities and data.
2. The accreditation team will review census data, City demographic data, and information available from organizations.
3. The accreditation team will identify trends in the community.
4. The operation chief will review quarterly and annual Department reports.
5. The accreditation team will provide annual updates to the community risk assessment (CRA). per documented system and annual updates to the CRA SOC using the above information.
6. Senior staff will review the surveys and other responses from the community and other stakeholders.
7. The Department will establish an "After the Fire Program" per Objective 6.2 in the Strategic Plan.
8. The Department will increase its social media campaign per Objective 6.5 in the Strategic Plan.
9. The Training Bureau will implement an Officer Academy per Objective 5.2 in the Strategic Plan.
10. Complete goals and objectives relating to community outreach including community CPR programs and numerous other public education objectives.
11. The Department will continue participation in the Hurricane Expo and other community outreach programs.

Plan for Maintaining or Improving Response Capabilities

(CC 2C.8, 2D.2, 2D.7)

The plan to continuously monitor, assess, and report on the ability of the delivery system to meet expected outcomes and to identify remedial action is outlined below. Since the retrieval of the response time components using CAD and ESO data has been less than desirable, In FY2023, the Department will be purchasing a program to provide better data and dashboards available to all personnel.

Improvement Plan

1. Short-term plans (90 day) and goals will be established by the operations chief to address operational issues that adversely affect turnout times (CC 2D.7).
2. The Department will purchase the FirstWatch software program that will improve response time reporting and provide dashboards for personnel to review.
3. The accreditation team will review response time components at monthly Operation's meetings. Quarterly reports listing all response time components and 90th percentile times and benchmarks to the Department. This report will include expected statistics and some outcomes of its delivery system.
4. The operations chief and administrative chief will review (at least) quarterly, the reports from the quarterly reports/FirstWatch. Remedial actions will be identified from the report and prioritized. (2D.2)
5. The administrative chief will identify opportunities for alarm handling improvement times and work with the PSAP supervisor to develop an improvement plan (90 day).
6. Install the FY2026 approved state-of-the-art station alerting system with countdown clocks to improve turn-out and response times.
7. Per *SOG 100.33 Outlier Policy*, for all times (except alarm handling) that exceed the upper thresholds, an explanation shall be written in the narrative section of the incident report.
8. Long-term plans include analysis of this data with the goal of request additional resources before they are needed. A focused analysis of data will occur during budget season.

Community's Expectation of Service

(2D.10, 3A.1, 3A.2, CC 3B.1, CC 3B.1, 3B.2, CC 3B.3, 3B.4, 3B.5, 3B.6, CC 3C.1, CC 3.2, 3C.2, 3C.3, CC3D.1)

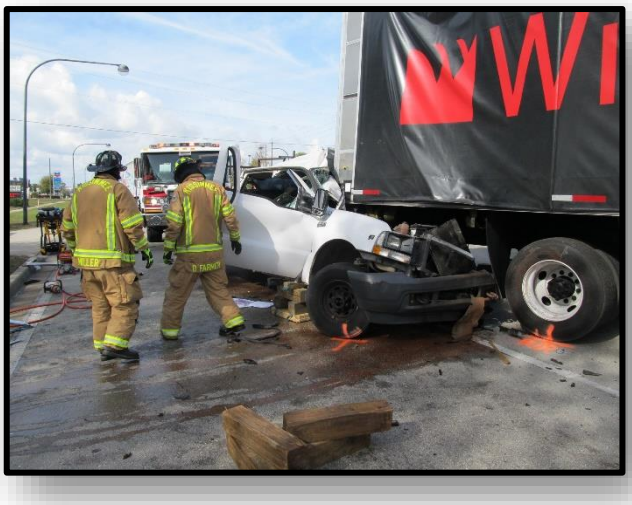
Every three years the Department interacts with external stakeholders and City leadership. The stakeholders complete a survey which contains questions such as fire/rescue service priorities, their expectations of the Department, any areas of concern, and feedback about the Department. Following the survey, a community workshop is held to provide an overview of the Department and to further discuss the survey along with other related questions and topics. Information from

the latest survey and community workshop can be found in the Department's published, 2022-2026 Community Driven Strategic Plan (Strategic Plan). An environmental scan was conducted with the internal stakeholders producing some valuable results. Goals and S.M.A.R.T. objectives were created from the environmental scan, internal stakeholders, community survey, and community workshop. These goals and objectives directly relate to the Department's mission, vision, and core values and are located in the Strategic Plan. External resources have been identified which are used to assist the Department in completing several of its goals and objectives. The Department's division/bureau heads track the progress and results of their goals and objectives and review them annually when completing their annual program appraisals. To ensure that the goals and objectives and the Strategic Plan were consistent with City plans, a review of the City's planning component in various documents including the annual budget was completed. The City does not have a stand-alone master plan. It is woven throughout its annual budgets. Department personnel received information explaining the goals and objectives and they were reviewed by City leadership and the Kissimmee City Commission when the Strategic Plan was approved. This was accepted by the commission in December 2022, and they are published on the City's website. The Strategic Plan including the Department's goals and objectives will be revised annually, reviewed, and approved by City management and republished on the City's website.

Appendix 1 Performance Charts (other)

MVC - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:34 (61.6%)	3:18	3:27	3:34	4:03	2:00	+2:03
Turnout Time	Turnout Time 1st Unit	Urban	2:09 (64.9%)	1:58	2:09	2:16	2:16	1:20	+0:56
Travel Time	Travel Time 1st Unit Distribution	Urban	6:39 (89.0%)	6:52	6:19	6:23	6:55	6:30	+0:25
	Travel Time ERF **Concentration**	Urban	8:18 (93.8%)	8:52	7:54	8:02	8:10	9:30	-1:20
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	10:26 (85.9%)	10:05	10:03	10:31	11:13	9:50	+1:23
			n=1023	n=992	n=803	n=964	n=3782		
	Total Response Time ERF **Concentration**	Urban	12:44 (90.6%)	12:43	12:12	12:50	12:37	12:50	-0:13
			n=863	n=803	n=619	n=885	n=3170		

ERF=
Vehicle Crash, vs. Motorcycle, vs Pedestrian: 1 Engine, 1 Rescue
Vehicle Crash vs. Buss/Semi/Train/MCI, Vehicle Crash with Fire: 2 Engines, 2 Rescues, Battalion, Safety
Note: Success equals percent the benchmarks were met.

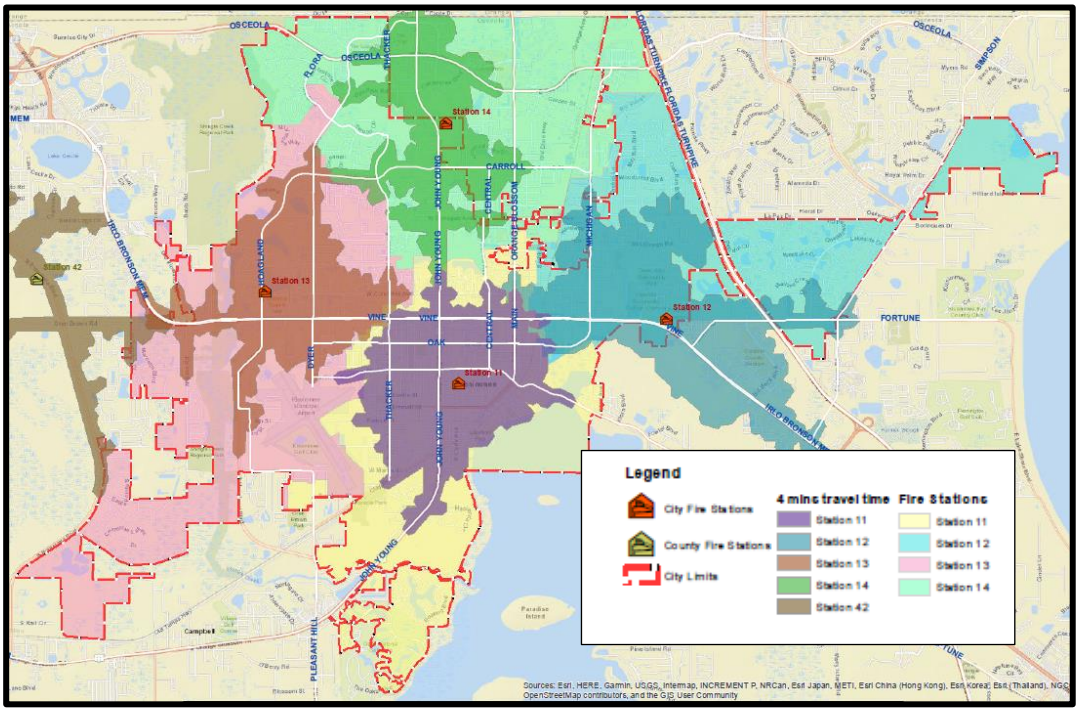


Fire Alarms - 90th Percentile Times - Baseline Performance			2022 (% Success)	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:08 (68.3%)	2:47	2:38	3:03	2:41	2:00	+0:41
Turnout Time	Turnout Time 1st Unit	Urban	2:26 (59.8%)	2:07	2:29	2:43	2:28	1:20	+1:08
Travel Time	Travel Time 1st Unit Distribution	Urban	8:46 (72.5%)	8:51	8:40	8:46	8:46	6:30	+2:16
	Travel Time ERF **Concentration**	Urban	9:02 (91.6%)	9:10	9:17	9:29	9:15	9:30	-0:15
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	12:45 (73.1%)	12:10	12:31	12:59	12:36	9:50	+2:46
			n=925	n=774	n=800	n=847	n=3346		
	Total Response Time ERF **Concentration**	Urban	12:59 (89.1%)	12:26	12:37	13:05	12:57	12:50	-0:07
			n=888	n=739	n=772	n=825	n=3224		

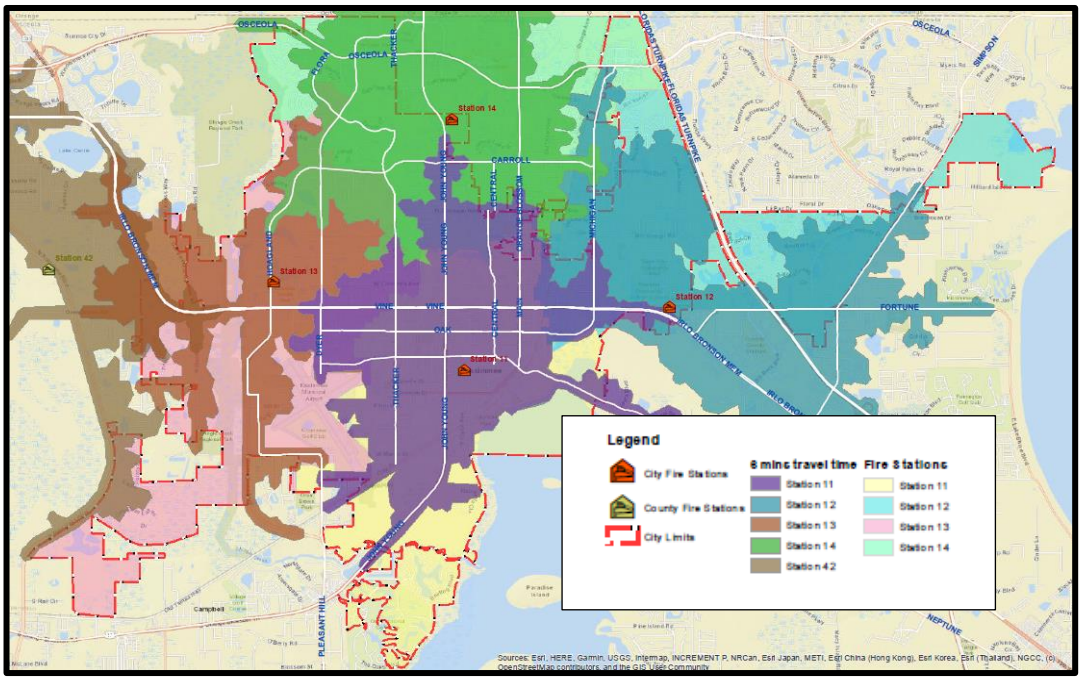
ERF =
Fire Alarm. Elevator Emergency, Fire Investigation, Smoke odor inside a Structure: 1 Engine
Alarm with Waterflow: 2 Engines, 1 Rescue, Tower, Battalion, Safety
Note: Success equals percent the benchmarks were met.

Appendix 2 Drive Time Maps

4-Minute Drive Time Map



6-Minute Drive Time Map



Appendix 3 Performance Monitoring, Required Program Review and Reporting Frequency

Minimum Frequency	Accreditation Criterion	Requirement
Periodic	1A.3	The governing body of the agency periodically reviews and approves services and programs.
Every 3 Years	2B.2	The historical emergency and nonemergency service demands frequency for a minimum of three immediately previous years and the future probability of emergency and nonemergency service demands, by service type, have been identified and documented by planning zone.
Periodic	CC 2D.1	The agency has a documented and adopted methodology for assessing performance adequacies, consistency, reliability, resiliency, and opportunities for improvement for the total response area.
Quarterly	2D.2	The agency continuously monitors, assesses, and internally reports, at least quarterly, on the ability of the existing delivery system to meet expected outcomes and identifies and prioritizes remedial actions.
Annually	CC 2D.3	The performance monitoring methodology identifies, at least annually, future external influences, altering conditions, growth, and development trends, and new or evolving risks, for purposes of analyzing the balance of service capabilities with new conditions or demands.
Annually	2D.4	The performance monitoring methodology supports the assessment of the efficiency and effectiveness of each service program at least annually in relation to industry research.
Periodic	2D.5	Impacts of incident mitigation program efforts, such as community risk reduction, public education, and community service programs, are considered and assessed in the monitoring process.
Annually	CC 2D.6	Performance gaps for the total response area, such as inadequacies, inconsistencies, and negative trends, are determined at least annually.

Minimum Frequency	Accreditation Criterion	Requirement
Annually	2D.9	On at least an annual basis, the agency formally notifies the AHJ of any gaps in current capabilities, capacity, and the level of service provided within its delivery system to mitigate the identified risks within its service area, as identified in its community risk assessment/standards of cover.
Every 3 Years	2D.10	The agency interacts with external stakeholders and the AHJ at least once every three years, to determine the stakeholders' and AHJ's expectations for types and levels of services provided by the agency.
Annually	CC 3D.1	The agency reviews its goals and objectives at least annually and modifies as needed to ensure they are relevant and contemporary.
Annually	CC 3D.2	The agency reviews, at least annually, its overall system performance and identifies areas in need of improvement, which should be considered for inclusion in the organizational goals and objectives.
Annually	3D.3	The agency provides progress updates, at least annually, on its goals and objectives to the AHJ, its members and the community it serves.
Every 3 Years	4A.2	The agency has formally adopted financial policies that address general fund reserves, reserves in other funds, fund balances, grants, debt, investment, accounting and financial reporting, risk management and internal controls, procurement, long-term financial planning, structurally balanced budgets, capital, revenues, expenditures, operating budgets, and charges/fees. The agency reviews financial policies at least every three years and updates as needed.
Annually	5A.6	The agency sets specific, targeted, and achievable annual loss reduction benchmarks for fire incidents and fire casualties based upon the community risk assessment and baseline performance.
Annually	5D.6	The agency has a documented continuity of operations plan that is reviewed annually and updated at least every five years to ensure essential operations are maintained.
Annually	CC 8C.8	Training materials are evaluated, at least annually, to reflect current practices and meet the needs of the agency.
Every 3 Years	CC 9C.1	Organizational documents, forms, standard operating procedures or general guidelines, and manuals are reviewed at least every three years and updated as needed for all agency programs.

Minimum Frequency	Accreditation Criterion	Requirement
Every 3 Years	CC 10B.1	External agency agreements are reviewed every three years and revised as necessary to meet objectives.
Annually	10B.3	The agency evaluates external agency performance annually to ensure that external agencies are capable and effective in supporting the agency's goals and objectives.
Regularly	CC 11B.1	The agency provides for initial, regular, and rehabilitative medical, and fitness evaluations.
Regularly	11B.5	The agency provides for cancer and behavioral health screenings and a cardiac assessment.
Annually	Various Criterion: All Core Competencies	The agency conducts a formal and documented program appraisal, at least annually, to determine the program's impacts and outcomes, and to measure performance and progress in reducing risk based on the community risk assessment/standards of cover: a. Fire Prevention Program b. Public Education Program c. Fire Investigation, Origin, and Cause Program d. Domestic Preparedness, Planning and Response e. Fire Suppression f. EMS g. Technical Rescue h. Hazardous Materials i. Aviation j. Wildland Services k. Drone Program l. Emergency Communication Systems m. Wellness/Fitness Program

Appendix 4 Property, Life, Injury, Environmental and other Losses (2A.5)

2019						
Incident Date	Incident Type	Property Use	Estimated Property Value	Estimated Property Loss	Estimated Contents Value	Estimated Contents Loss
1/23/2019	Building fire	Multifamily dwelling	$75,000	$40,000	$10,000	$10,000
2/13/2019	Electrical equipment	1 or 2 family dwelling	$50,000	$2,000	$10,000	$1,000
2/21/2019	Building fire	Multifamily dwelling	$76,000	$20,000	$10,000	$5,000
4/16/2019	Building fire	Multifamily dwelling	$275,000	$75,000	$25,000	$6,000
4/26/2019	MVA	High school/junior	$50,000	$5,000	$2,500	$500
6/5/2019	Automobile	1 or 2 family dwelling	$25,000	$25,000	$500	$500
6/23/2019	Building fire	1 or 2 family dwelling	$1,000	$750	$1,000	$750
7/5/2019	Building fire	Multifamily dwelling	$300,000	$20,000	$100,000	$15,000
7/9/2019	Building fire	Multifamily dwelling	$74,000	$30,000	$8,000	$8,000
7/22/2019	Vehicle Fire	Vacant Land	$5,000	$5,000	$0	$0
8/5/2019	Building fire	Laundry, dry cleaning	$200,000	$10,000	$100,000	$10,000
8/18/2019	Building fire	Multifamily dwelling	$40,000	$1,000	$5,000	$2,000
9/17/2019	Mobile home fire	1 or 2 family dwelling	$4,000	$4,000	$10,000	$3,000
10/8/2019	Building fire	1 or 2 family dwelling	$200,000	$75,000	$30,000	$20,000
11/7/2019	Cooking fire (confined)	Multifamily dwelling	$50,000	$5,000	$10,000	$2,500
11/13/2019	Building fire	Multifamily dwelling	$150,000	$80,000	$15,000	$15,000
11/22/2019	Building fire	1 or 2 family dwelling	$300,000	$2,000	$20,000	$500
Total			**$1,875,000**	**$399,750**	**$357,000**	**$99,750**
Civilian Injury: 2, Arson: 2 **Property Saved: $1,475,250, Property Loss: $399,750**						

2020						
Incident Date	**Incident Type**	**Property Use**	**Estimated Property Value**	**Estimated Property Loss**	**Estimated Contents Value**	**Estimated Contents Loss**
1/3/2020	Building fire	Multifamily dwelling	$6,000	$6,000	$2,000	$0
1/24/2020	Automobile	Vehicle parking area	$2,000	$2,000	$300	$300
1/24/2020	**Building fire**	**Multifamily dwelling**	**$50,000**	**$1,000**	**$12,000**	**$500**
1/29/2020	Cooking fire (confined)	Multifamily dwelling	$750	$750	$100	$100
1/31/2020	Automobile	Street commercial	$10,000	$10,000	$50	$50
2/7/2020	Automobile	Vehicle parking area	$12,500	$12,500	$200	$200
5/10/2020	Building fire	1 or 2 family dwelling	$25,000	$25,000	$75,000	$75,000
5/30/2020	Automobile	Street or road in commercial area	$12,000	$12,000	$500	$500
6/4/2020	Building fire	Motor vehicle, services, repair	$200,000	$5,000	$500,020	$5,000
7/27/2020	Automobile	Highway or divided highway	$2,500	$2,500	$500	$500
8/24/2020	Cooking fire (confined)	Multifamily dwelling	$3,000,000	$5,000	$20,000	$2,500
9/2/2020	**Mobile home fire**	**1 or 2 family dwelling**	**$43,000**	**$43,000**	**$10,000**	**$10,000**
9/26/2020	Automobile	Residential street	$4,500	$4,500	$200	$200
11/2/2020	Cooking fire (confined)	Food and beverage sales, grocery store	$12,000	$500	$100	$100
11/28/2020	**Building fire**	**Multifamily dwelling**	**N/A**	**$2,000**	**N/A**	**$500**
12/4/2020	Building fire	Multifamily dwelling	$800,000	$10,000	$20,000	$3,000
Total			**4,180,250**	**141,750**	**640,970**	**98,450**

Firefighter Injury: 1, Civilian Injury: 1, Civilian Death: 1, Arson: 1
Property Saved: $4,038,500, Property Loss: $141,750

2021						
Incident Date	Incident Type	Property Use	Estimated Property Value	Estimated Property Loss	Estimated Contents Value	Estimated Contents Loss
1/10/2021	Building fire	1 or 2 family dwelling	$140,000	$70,000	$20,000	$12,000
1/10/2021	Passenger vehicle fire	Residential street	$2,000	$2,000	$25,000	$25,000
1/16/2021	Passenger vehicle fire	1 or 2 family dwelling	$2,000	$2,000	$1,000	$250
2/10/2021	Building fire	1 or 2 family dwelling	$300,000	$50,000	$50,000	$10,000
2/23/2021	Building fire	1 or 2 family dwelling	$250,000	$75,000	$30,000	$30,000
4/27/2021	Passenger vehicle fire	Street commercial	N/A	$2,500	N/A	$100
4/29/2021	Building fire	1 or 2 family dwelling	$225,000	$5,000	$15,000	$1,000
5/7/2021	Passenger vehicle fire	Street commercial	$12,000	$12,000	$2,000	$2,000
5/11/2021	Passenger vehicle fire	Vehicle parking area	$18,000	$18,000	$250	$250
5/18/2021	Building fire	Multifamily dwelling	$140,000	$100,000	$10,000	$7,500
5/23/2021	Cooking fire, confined	Multifamily dwelling	$1,500	$1,500	$1,500	$1,500
5/23/2021	Vehicle Fire	Residential street	N/A	$22,000	N/A	$1,000
5/28/2021	Building fire	Multifamily dwelling	$600,000	$20,000	$3,000	$3,000
7/1/2021	Building fire	Multifamily dwelling	$75,000	$40,000	$15,000	$15,000
7/1/2021	Building fire	Outbuilding	$500	$500	$500	$500
7/6/2021	Building fire	Multifamily dwelling	$600,000	$20,000	$15,000	$6,000
7/19/2021	Alarm system unintentional	Multifamily dwelling	$3,000,000	$50,000	$30,000	$10,000
7/29/2021	Cooking fire, confined	Multifamily dwelling	$3,000,000	$5,000	$25,000	$5,000
Total			$8,366,000	$495,500	$243,250	$130,100
Civilian Injury: 1, Arson: 4 Property Saved: $7,870,500, Property Lost: $495,500						

2282022						
Incident Date	**Incident Type**	**Property Use**	**Estimated Property Value**	**Estimated Property Loss**	**Estimated Contents Value**	**Estimated Contents Loss**
2/3/2022	Passenger vehicle fire	Highway or divided highway	$16,491	$16,491	$700	$500.00
2/14/2022	Building fire	Multifamily dwelling	$999,999	$50,000	$15,000	$5,000
5/25/2022	Building fire	Outbuilding or shed	$20,000	$20,000	$5,000	$5,000
7/16/2022	Building fire	Multifamily dwelling	$500,000	$15,000	$10,000	$2,500
8/1/2022	Building fire	1 or 2 family dwelling	$450,000	$400,000	$75,000	$50,000
8/26/2022	Building fire	1 or 2 family dwelling	$300,000	$5,000	$5,000	$500
8/30/2022	**Building fire**	**Multifamily dwelling**	**$2,000,000**	**$5,000**	**$25,000**	**$5,000**
9/5/2022	**Passenger vehicle fire**	**Vehicle parking area**	**$13,000**	**$13,000**	**$200**	**$200**
12/11/2022	Building fire	Business office	$1,300,000	$250,000	$500,000	$100,000
10/8/2022	**Building fire**	**Outbuilding or shed**	**$2,000,000**	**$6,000**	**$5,000**	**$2,000**
5/8/2022	**Vehicle fire**	**Commercial Road**	**N/A**	**N/A**	**N/A**	**N/A**
2/19/2022	**Building fire**	**Outbuilding or shed**	**N/A**	**N/A**	**N/A**	**N/A**
Total			$5,599,490	$780,491	$635,900	$170,700
Civilian Injury: 1, Arson:4 **Property Saved: $4,818,999, Property Lost: $780,491**						

Appendix 5 Baseline Performance Data Processing Methodology

Sorting of Data into Programs

- Select the desired time period and copy to a sheet.
- Isolate rows where units did not go enroute or arrive. Delete them.
- Insert calculated columns for Handling, Turnout, Travel, and Total Response.
- Sort by call type and move correlating rows to sheets based on programs:
    - Aircraft
    - EMS
    - Fire (Structures)
    - Fire (Non-Structures)
    - Fire Alarm
    - Hazmat
    - MVC
    - Tech Rescue

Separate each Program into Risk Category

- **Aircraft Low**

  (Alert 1)
- **Aircraft Moderate**

  (Alert2)
- **Aircraft High**
- (Alert 3)
- **EMS Low**

  Reference EMD NAE-OMG 13.3.191 Response Configurations 12.13.22 (003).pdf for Rescue only.
- **EMS Moderate**

  Reference EMD NAE-OMG 13.3.191 Response Configurations 12.13.22 (003).pdf for Engine and Rescue responses.

- **EMS High**

  Reference EMD NAE-OMG 13.3.191 Response Configurations 12.13.22 (003).pdf for Engine, Rescue, and Safety Officer responses.
- **Fire (Structures)** sort incidents by addresses into:
  - Low – Single-Family residential and all fires at low rated commercial structures for the CRA spreadsheet.
  - Moderate – Multi-Family residential 3 stories and under as well as all fires at moderate rated structures from the CRA spreadsheet.
  - High – All fires at high-risk rated structures from the CRA spreadsheet.
- **Fire (Non-Structures)**

  (Vehicle) (Dumpster) (Boat) (Minor) (Wires Down) (Brush Fire) (Fire :RV/Bus/Semi/Train)
- **Fire Alarm**

  (Fire Alarm) (Elevator Emergency) (Fire Investigation) (Smoke odor inside a Structure (Alarm with Waterflow)
- **Hazmat Low**

  (Hazmat Level 1)(CO Alarm)
- **Hazmat Moderate**

  (Hazmat Level 2) (Natural gas or Propane leak) (Bomb Threat)
- **Hazmat High**

  (Hazmat level 3 or 4)
- **MVC**
- (Vehicle Crash) (vs. Motorcycle) (vs Pedestrian) (Vehicle crash vs. Buss/Semi/Train/MCI) (Vehicle crash with Fire)
- **Tech Rescue**

  (Vehicle vs Structure) (Collapse) (Confined Space) (Trench) (Vehicle Crash with Entrapment/Ejections)
- **Non-Emergency Calls**

Identify 1st Arriving and ERF

- Sort all columns and rows by:
  Custom (Incident - smallest to largest) then (Arriving – smallest to largest)
- Insert two columns. One is to mark the 1st arriving. The second is to mark the ERF arrival unit.
- Based on the classification and category, mark the 1st arriving and ERF for each corresponding incident row.

Calculating 90th Percentile

- Copy the column (ex; Handling, Turnout, etc.) and paste it. The column must be formatted to the correct time format (hh:mm:ss).
- Sort the column (Largest to smallest) The longest time will be at the top and shortest at the bottom.
- Identify the outliers (See Outlier policy)
- In the "Data" tab of Excel select "Data Analysis"
- Use the "Rank and Percentile" function and select the input range.
- Mark the "Labels in the first row" and "Output" boxes.
- Click inside of the Output blank field.
- Then select the Excel field you want the rank column to begin.
- Then click "OK."
- This will rank all data selected by percentage.

Identify 90th Percentile.

- Scroll down to the box with the closest percentile to 90% and select the correlating time.

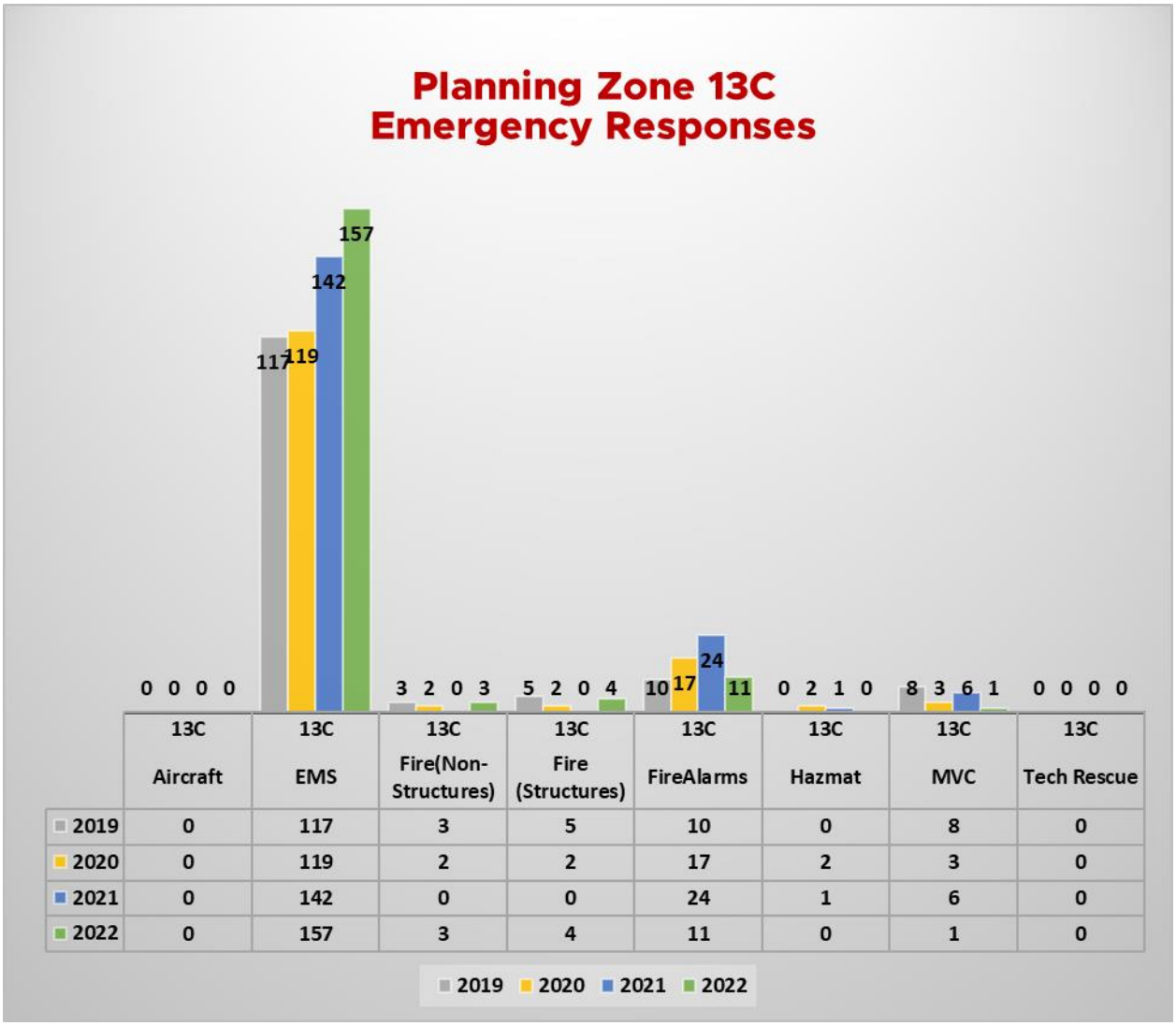
Success Rate

- Success can be found by scrolling down to the baseline and identifying the correlating percentage.

Appendix 6 Planning Zone 13C Data

Note: Planning Zone 13C is a small residential zone in the southwestern section of the City and Osceola County provides all its EMS, fire, and rescue services. Baseline performance data was collected separately from the department's RMS and CAD systems. The data was sorted and processed manually.

Planning Zone Activity 2019 – 2022



	13C Aircraft	13C EMS	13C Fire(Non-Structures)	13C Fire (Structures)	13C FireAlarms	13C Hazmat	13C MVC	13C Tech Rescue
2019	0	117	3	5	10	0	8	0
2020	0	119	2	2	17	2	3	0
2021	0	142	0	0	24	1	6	0
2022	0	157	3	4	11	0	1	0

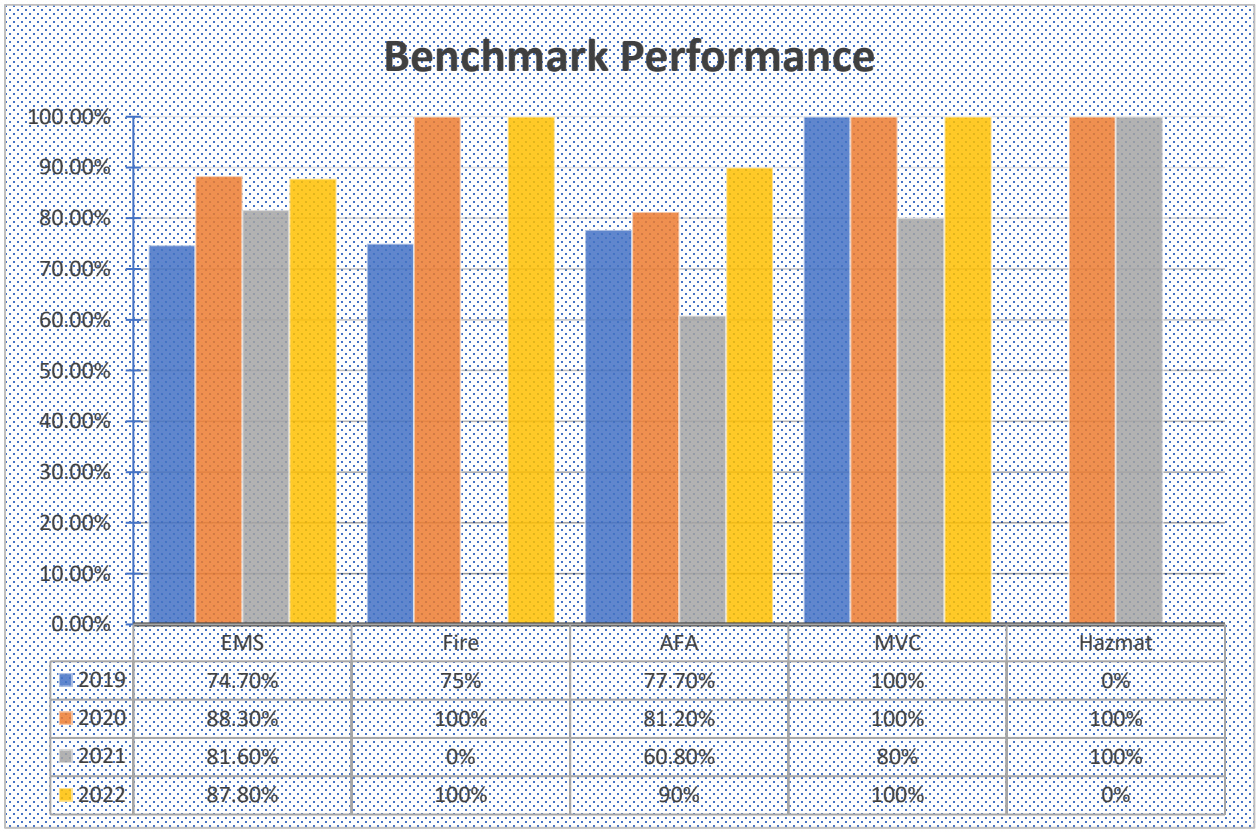
Future Prabability Planning Zone 13C

	Aircraft	EMS	Fine (Non-Structures)	Fire (Structures)	Fire Alarms	Hazmat	MVC	Tech Rescue	Total + / -
2023 Forecast Call Total	0	177	3	4	10	0	1	0	195
Forecast % + / -	0	+12.7 %	0	0	-10.0%	0	0	0	+10.7%

Note: 2020 stats were not used in the formula due to decreased calls due to the COVID pandemic.

Benchmark Performance

The chart and table display the percentage of responses that the first arriving unit meets the associated benchmark. (9 minutes and 30 seconds for EMS) (9 minutes and 50 seconds for all others)



	EMS	Fire	AFA	MVC	Hazmat
2019	74.70%	75%	77.70%	100%	0%
2020	88.30%	100%	81.20%	100%	100%
2021	81.60%	0%	60.80%	80%	100%
2022	87.80%	100%	90%	100%	0%

Baseline Performance Charts for Planning Zone 13C

Fire (Structures) Low - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	2:28	N/A	1:04	2:27	2:27	2:00	+0:27
Turnout Time	Turnout Time 1st Unit	Urban	1:05	N/A	0:54	0:58	0:58	1:20	-0:22
Travel Time	Travel Time 1st Unit Distribution	Urban	5:00	N/A	5:53	6:19	5:43	6:30	-0:37
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	11:30	
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	6:07	N/A	7:08	8:08	7:08	9:50	-2:42
			n=4	n=0	n=2	n=3	n=9		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	14:50	
			n=0	n=0	n=0	n=0	n=.0		

n=number of incidents

Fire (Structures) Moderate - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	1:02	N/A	1:00	0:44	1:02	2:00	-0:58
Turnout Time	Turnout Time 1st Unit	Urban	1:40	N/A	0:39	1:45	1:45	1:20	+0.25
Travel Time	Travel Time 1st Unit Distribution	Urban	5:18	N/A	5:51	6:19	6:19	6:30	-0:11
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	7:08	7:08	11:30	-4.22
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	7:12	M/A	6:45	8:08	8:08	9:50	-1:42
			n=3	n=0	n=2	n=5	n=10		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	N/A	19:41	19:41	14:50	+4.51
			n=0	n=0	n=0	n=1	n=1		

n=number of incidents
ERF = 18 personnel

Fire (Structures) High - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	N/A	N/A	N/A		2:00	
Turnout Time	Turnout Time 1st Unit	Urban	N/A	N/A	N/A	N/A		1:20	
Travel Time	Travel Time 1st Unit Distribution	Urban	N/A	N/A	N/A	N/A		6:30	
	Travel Time 1st Alarm **Concentration** (No ERF arrivals)	Urban	N/A	N/A	N/A	N/A		11:30	
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	N/A	N/A	N/A		9:50	
			n=0	n=0	n=0	n=0	n=0		
	Total Response Time 1st Alarm **Concentration** (No ERF arrivals)	Urban	N/A	N/A	N/A	N/A		14:50	
			n=0	n=0	n=0	n=0	n=0		

n=number of incidents
ERF = 29 Personnel, **1st Alarm** = 18 Personnel

EMS Low - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	3:16	N/A	N/A	N/A	3:16	2:00	+1:16
Turnout Time	Turnout Time 1st Unit	Urban	0:53	N/A	N/A	N/A	0:53	1:00	-0:07
Travel Time	Travel Time 1st Unit Distribution	Urban	6:55	N/A	N/A	N/A	6:55	6:30	+0:23
	Travel Time ERF **Concentration**	Urban	6:15	N/A	N/A	N/A	6:15	6:30	-0:15
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	7:46	N/A	N/A	N/A	7:46	9:30	-1:44
			n=4	n=0	n=0	n=0	n=4		
	Total Response Time ERF **Concentration**	Urban	7:46	N/A	N/A	N/A	7:46	9:30	-1:44
			n=4	n=0	n=0	n=0	n=4		

n=number of incidents
E
RF= 1 Rescue only

EMS Moderate - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	2:12 (86.9%)	1:36	1:56	2:14	2:00	2:00	0:00
Turnout Time	Turnout Time 1st Unit	Urban	2:14 (39.0%)	2:10	2:01	2:06	2:06	1:00	+1:06
Travel Time	Travel Time 1st Unit Distribution	Urban	8:08 (71.0%)	8:35	7:54	8:17	8:07	6:30	+1:37
	Travel Time ERF **Concentration**	Urban	11:00 (85%)	9:57	11:51	9:46	10:02	9:30	+0:32
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	9:55 (87.8%)	12:21	9:52	12:00	10:33	9:30	+1:02
			n=149	n=137	n=118	n=112	n=500		
	Total Response Time ERF **Concentration**	Urban	13:14 (89.5%)	14:32	12:08	12:58	13:07	12:30	+0:37
			n=116	n=107	n=89	n=99	n=410		

n=number of incidents
ERF = 1 Engine, 1 Rescue

EMS High - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	0:37	2:50	1:04	0:29	0:44	2:00	-1:16
Turnout Time	Turnout Time 1st Unit	Urban	2:06	1:56	1:48	1:51	2:06	1:00	+1:06
Travel Time	Travel Time 1st Unit Distribution	Urban	3:44	6:04	4:44	6:59	6:35	6:30	-0:05
	Travel Time ERF **Concentration**	Urban	3:44	6:24	4:44	7:22	8:21	9:30	1:09
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	6:19	8:00	5:28	8:27	8:21	9:30	-1:09
			n=2	n=5	n=1	n=5	n=14		
	Total Response Time ERF **Concentration**	Urban	6:19	8:21	5:28	8:27	8:21	12:30	-4:09
			n=2	n=5	n=1	n=3	n=14		

n=number of incidents
ERF = 1 Engine,1 Rescue, and Safety

Hazmat Low - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	N/A	0:31	N/A	0:31	2:00	
Turnout Time	Turnout Time 1st Unit	Urban	N/A	N/A	1:14	N/A	1:14	1:20	
Travel Time	Travel Time 1st Unit Distribution	Urban	N/A	N/A	5:12	N/A	5:12	6:30	
	Travel Time ERF **Concentration**	Urban	N/A	N/A	6:57	N/A	6:57	6:30	
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	N/A	6:57	N/A	6:57	9:50	
			n=0	n=0	n=1	n=0	n=1		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	8:42	N/A	8:42	9:50	
			n=0	n=0	n=1	n=0	n=1		

n=number of incidents
ERF = 1 Engine
CO Alarm: 1 Engine

Hazmat Moderate - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	0:52	0:22	N/A	0:52	2:00	-1:08
Turnout Time	Turnout Time 1st Unit	Urban	N/A	1:12	1:57	N/A	1:57	1:20	+0;37
Travel Time	Travel Time 1st Unit **Distribution**	Urban	N/A	4:26	4:26	N/A	4:26	6:30	-2:04
	Travel Time ERF **Concentration**	Urban	N/A	6:59	21:50	N/A	21:50	9:30	+12:20
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	6:30	6:33	N/A	6:33	9:50	-3:17
			n=0	n=1	n=1	n=0	n=2		
	Total Response Time ERF **Concentration**	Urban	N/A	9:30	25:42	N/A	25:42	12:50	+12:52
			n=0	n=1	n=1	n=0	n=2		

n=number of incidents

ERF =

Hazmat Level 2: 2 Engines, 2 Rescues, 1 Tower, Battalion, Safety

Natural Gas or Propane Leak 2 Engines, 1 Rescue, Battalion, Safety

Bomb Threat: 1 Engine, 1 Rescue, Battalion, Safety

Hazmat High - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	N/A	N/A	N/A	N/A	2:00	
Turnout Time	Turnout Time 1st Unit	Urban	N/A	N/A	N/A	N/A	N/A	1:20	
Travel Time	Travel Time 1st Unit Distribution	Urban	N/A	N/A	N/A	N/A	N/A	6:30	
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	14:30	
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	N/A	N/A	N/A	N/A	9:50	
			n=0	n=0	n=0	n=0	n=0		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	17:50	
			n=0	n=0	n=0	n=0	n=0		

n=number of incidents

ERF =

Hazmat Level 3 or 4: 2 Engines, 2 Rescues, 1 Tower, Battalion, Safety, Mutual Aid Hazmat Team

Technical Rescue - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	N/A	N/A	N/A	N/A	N/A	2:00	
Turnout Time	Turnout Time 1st Unit	Urban	N/A	N/A	N/A	N/A	N/A	1:20	
Travel Time	Travel Time 1st Unit Distribution	Urban	N/A	N/A	N/A	N/A	N/A	6:30	
	Travel Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	9:30	
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	N/A	N/A	N/A	N/A	N/A	9:50	
			n=0	n=0	n=0	n=0	n=0		
	Total Response Time ERF **Concentration**	Urban	N/A	N/A	N/A	N/A	N/A	12:50	
			n=0	n=0	n=0	n=0	n=0		

n=number of incidents
ERF =
Vehicle vs. Structure: 1 Engine, 1 Rescue, 1 Squad, Battalion, Safety
Vehicle Crash with Entrapment/Ejections: 1 Engine, 2 Rescues, 1 Tower, 1 Squad, Battalion, Safety
Collapse, Confined Space, Trench: 1 Engine, 2 Rescues, 1 Tower, 1 Squad, Safety, Battalion, Special Operations Trailer

Fire Alarms - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	0:24	4:02	1:36	1:32	1:39	2:00	-0:21
Turnout Time	Turnout Time 1st Unit	Urban	1:38	1:59	2:11	1:48	2:04	1:20	+0:44
Travel Time	Travel Time 1st Unit Distribution	Urban	8:30	9:05	8:31	10:10	9:30	6:30	+3:00
	Travel Time ERF **Concentration**	Urban	8:30	9:05	8:31	10:10	9:30	9:30	0:00
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	9:29	12:15	10:21	11:47	11:47	9:50	+0:57
			n=11	n=24	n=17	n=10	n=62		
	Total Response Time ERF **Concentration**	Urban	9:29	12:15	10:21	11:47	11:47	12:50	-1:03
			n=11	n=24	n=17	n=10	n=62		

ERF =
Fire Alarm. Elevator Emergency, Fire Investigation, Smoke odor inside a Structure: 1 Engine
Alarm with Waterflow: 2 Engines, 1 Rescue, Tower, Battalion, Safety

MVC - 90th Percentile Times - Baseline Performance			2022	2021	2020	2019	2019-2022	Benchmark	*/-
Alarm Handling	Pick-up to Dispatch	Urban	2:16	1:19	1:43	1:45	1:45	2:00	-0:15
Turnout Time	Turnout Time 1st Unit	Urban	0:41	2:21	1:11	2:07	2:20	1:20	+1:00
Travel Time	Travel Time 1st Unit Distribution	Urban	2:54	7:06	7:32	5:31	7:06	6:30	+0:36
	Travel Time ERF **Concentration**	Urban	3:58	7:32	7:42	7:55	7:32	9:30	-1:58
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	5:10	10:16	8:50	7:55	9:06	9:50	-0:44
			n=1	n=6	n=3	n=8	n=18		
	Total Response Time ERF **Concentration**	Urban	5:16	9:48	9:00	9:07	9:48	12:50	-3:02
			n=1	n=5	n=3	n=7	n=16		

ERF=
Vehicle Crash, vs. Motorcycle, vs Pedestrian: 1 Engine, 1 Rescue
Vehicle Crash vs. Buss/Semi/Train/MCI, Vehicle Crash with Fire: 2 Engines, 2 Rescues, Battalion, Safety

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