2019

Topeka Fire Department Standard of Cover

Topeka Fire Department

Contents

Executive Summary

The purpose of this document is to explore the needs and expectations of the Topeka Fire Department. We will look at both goals and objectives together with current data to see how the department is performing at its current level and where changes might benefit the department as well as the citizens of Topeka.

Standards of Cover is defined as "…those adopted written policies and procedures that determine the distribution, concentration, and reliability of fixed and mobile response forces for fire, emergency medical services, hazardous materials, and other technical responses."
The purpose of a Standard of Cover document is to provide TFD with a tool for:

- Assessing community fire and non-fire risk
- Defining baseline emergency response performance standards
- Planning future station locations
- Determining apparatus and staffing patterns
- Evaluating workload and ideal unit utilization
- Measuring service delivery performance
- Assisting in the strategic planning and policy development process relative to resource procurement and allocation

The key elements in a Standard of Cover document include:

- A determination of service levels to be provided throughout the fire department
- A community risk assessment that identifies the fire and non-fire risks common and/or unique to the fire department
- An analysis of the fire department's current response capability in terms of time, equipment, and on-scene performance
- A set of recommendations that describe how the fire department resources will be allocated and deployed to maximize emergency response effectiveness throughout the fire department's service delivery area

Information for this document was gathered through data made available by city staff and compiled by members of the Topeka Fire Department to project a detailed view of how the department responds to the community needs. These criteria include relevant National Fire Protection Association standards, national accreditation criteria, health and safety requirements, federal and state mandates relative to fire protection and emergency medical services (EMS), fire protection standards of the property insurance industry, and generally accepted practices within the fire and emergency services.

City of Topeka

Background

Topeka lies on a rich, sandy river bottomland where a number of different Native American peoples lived for many years near the excellent fords along the Kansas (Kaw) River. The granddaughters of the influential Kaw leader, White Plume, became wealthy landowners in the area that would become Topeka after they inherited valuable tracts of land from their mother. Three of the women married a set of French-Canadian brothers from Missouri called the Pappans. Due to the prime location of their wives' land straddling the Kansas River, the Pappan brothers were able to establish the famous "Pappan Ferry" in 1842 where the Oregon Trail crossed the river. Julie Pappan passed her land down to her grandchildren, one of whom was Charles Curtis, the only Vice President of the United States of acknowledged Native American descent. Charles Curtis served with President Herbert C. Hoover from 1929 to 1933.

On December 5, 1854, nine men met on the banks of the Kansas River at what is now Kansas Avenue and Crane Street. The men drew up an agreement, which later became the basis for the Topeka Association, the organization mainly responsible for the establishment and early growth of Topeka. The nine men were Cyrus K. Holliday, F.W. Giles, Daniel H. Horne, George Davis, Enoch Chase, J.B. Chase, M.C. Dickey, Charles Robinson and L.G. Cleveland. Cyrus K. Holliday became the City's chief promoter. The nine had come here for many reasons: some noble, to make Kansas a free state, some personal, to start over in life or to make money. Topeka was born.

After a decade of abolitionist and pro-slavery conflict, drought and talk of civil war, the Kansas territory was admitted to the Union in 1861 as the 34th state. The great prize up for grabs was the location of the state capital. The contest ultimately centered on two towns; Lawrence and Topeka. The residents of Lawrence and Topeka voted in November. Both cities solicited young men as young as 16 years old to vote. Topeka won 14,288 to Lawrence's 5,334. Topeka was chosen as the capital with Dr. Charles Robinson as the first Governor. Cyrus K. Holliday donated a tract of land to the state for the construction of a state capitol building. The City of Topeka was incorporated February 14, 1857, with Cyrus K. Holliday as Mayor.

With the onset of World War II, the railroad, meat packing, and agricultural base shifted to manufacturing and government/military services. These new patterns were more clearly defined and solidified during the post war years. Forbes Air Force Base was established during the war, and the Goodyear Tire & Rubber Company opened a plant in 1944.

In 1869, the railway started moving westward from Topeka. General offices and machine shops of the Atchison, Topeka and Santa Fe Railroad system were established in Topeka in 1878. During the first half of the century, nature presented challenges to Topeka through numerous floods and tornadoes.

During the early part of the 20th Century, the region's economic structure began to settle into the typical pattern of a medium-sized mid-western area, dependent primarily on its agriculture base. Topeka lies at the point where the cattle ranches of the southwest meet the Corn Belt, between the undeveloped mineral resources of the Mississippi Valley and south of the winter snow line, and with ample supplies of water and plenty of room to develop.

In 1951, the Kansas River overflowed, resulting in the permanent closing of the Morrell Meat Packing Plant and the elimination of more than 1,000 jobs. The attraction of the Hallmark Card and DuPont (now Innovia Films) plants and other manufacturing company expansions were important in keeping the economy diverse. In 1966, an F5 tornado tore through Topeka, cutting a swathe of destruction twenty-one mils long and one half mile wide that destroyed much of Washburn University, damaged the dome of the State Capitol, and devastated many homes and businesses in its wake. The tornado killed 17 people and caused over $104 million in damages.

Recent significant events include the location of a Mars production line expansion, a Home Depot distribution Center, and Bimbo Bakeries USA in the Central Crossing Commerce Park. In 2011, the Kansas Children’s Discovery Center opened and in 2014 Mars Chocolate North America opened a new manufacturing plant for the first time in 35 years, in Topeka’s new Kanza Fire Commerce Park, announcing plans in 2015 to expand operation

Government

Topeka has operated under four forms of government since its founding. From 1857 until 1910, Topeka was governed by the Mayor-Council plan. The commission form of government was adopted in 1910 and remained in effect until 1985 when the Strong Mayor-City Council-Chief Administrative Officer (CAO) plan was adopted. In November 2004, the voters adopted a Council-City Manager plan. Topeka voters had previously rejected City Manager plans during elections in 1929, 1952, 1962, 1964 and 1969.

On November 2, 2004, the citizens of Topeka voted two to one to change from the strong mayor/council form of government to the council/manager form. The change became effective April 2005. The Mayor's administrative powers changed, but they are still elected to a four-year term by the city at-large. Mayoral duties include being the City's ceremonial head, presiding over council meetings, providing community leadership, promoting economic development, representing the City in intergovernmental relations, recommending council legislation, and encouraging programs to develop the City.

Mayor

Michelle De La Isla

Council Districts

Council District 1 - Karen Hiller

Council District 2 – Christina Valdivia-Alcala

Council District 3 - Sylvia Ortiz

Council District 4 - Tony Emerson

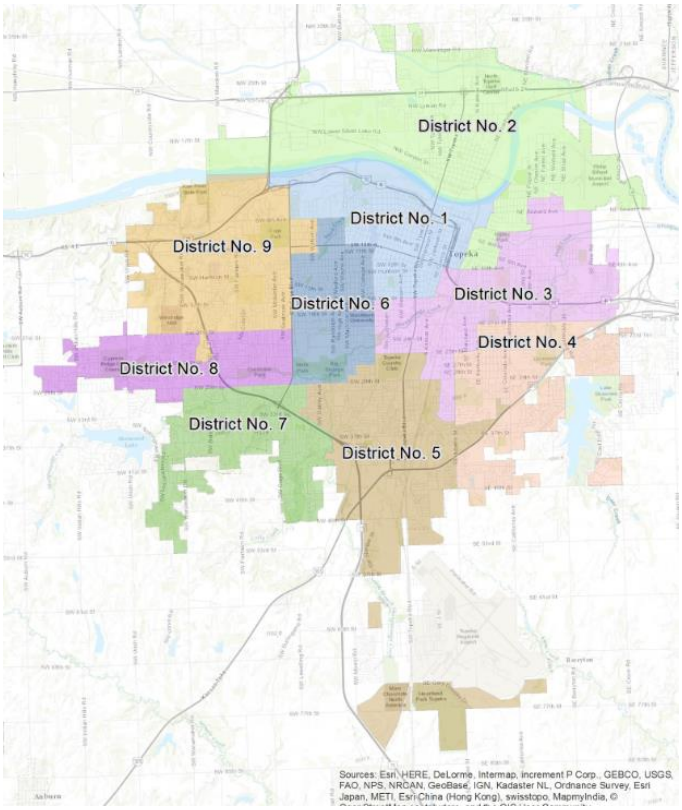
Council District 5 – Mike Padilla

Council District 6 – Hannah Naeger

Council District 7 – Neil dobler

Council District 8 – Spencer Duncan

Council District 9 – Michael Lesser



City Manager

Brent Trout

Department Budget

The fire department is one of fifteen (15) departments that are funded by the city's general fund which generates a total revenue of nearly $96,500,000. The department's 2020 budget is just under $29,000,000.

FIRE DEPARTMENT

DEPARTMENT ALLOCATION SUMMARY

	Actual FY 2017	Actual FY 2018	Budget FY 2019	Adopted FY 2020
Allocation by Expense Category				
Personnel Services	$24,076,204	$24,885,724	$24,875,465	$25,615,517
Contractual Services	1,920,792	2,032,088	2,133,651	2,134,480
Commodities	598,429	732,481	772,300	725,800
Capital Outlay	59,627	126,867	248,000	98,323
Debt Services	-	178,051	-	178,051
TOTAL	**$26,655,052**	**$27,955,211**	**$28,029,416**	**$28,752,171**
Allocation by Fund				
General Fund	$26,655,052	$27,955,211	$28,029,416	$28,752,171
TOTAL	**$26,655,052**	**$27,955,211**	**$28,029,416**	**$28,752,171**
Full-Time Equivalent Positions				
Administration & Business Services	5.0	5.0	5.0	5.0
Training	4.0	6.0	7.0	7.0
Fire Prevention	10.0	9.0	9.0	9.0
Operations	226.0	226.0	227.0	227.0
Emergency Medical Services (EMS)	1.0	2.0	1.0	1.0
TOTAL	**246.0**	**248.0**	**249.0**	**249.0**

Topography

Topeka is located in the north eastern section of the state, 60 miles west of the Kansas City Metropolitan area and covers an area of just over 60 square miles. Topeka was settled and remains along the banks of the Kansas River with a predominately flat surface area that rises from 875 feet above sea level at its lowest point to 1,131 feet above sea level at its highest.

The Kansas River stretches 15 miles from the cities eastern city limits to the western city limits and divides the city into a north and south section. There are four bridges that span the river

located on US Highway 75, Topeka Boulevard, Kansas Avenue and Sardou Avenue. Topeka also has Soldier Creek on its northern edge with four crossings located at Rochester Road, Topeka Boulevard, Kansas Avenue and US Highway 24. One additional waterway that makes its way through the city is Shunga Creek. Shunga Creek winds through the city from the southwest to the northeast corners spanning 24 miles. Although the water level of Shunga Creek is normally low, during periods of heavy rain it swells significantly with a history of flooding into surrounding neighborhoods. There are three smaller creeks within the city limits, Martin Creek that flows from central Topeka north, Butcher Creek that flows from central Topeka South and Deer Creek that flows from south to north into Shunga Creek on the city's east side.

Despite being defined as an urban area, Topeka also has several hundred acres of undeveloped land including farmland that posse a significate risk from grass fires in the dry season.

Population and Demographics[1]

With an estimated population of 125,310 for 2019, Topeka is the fourth largest city in Kansas behind Wichita, Overland Park and Kansas City. Given the land area of 60.17 square miles the city of Topeka maintains a population density of 2,082.6 persons per square mile.

Topeka has a transient workforce of approximately 32,000 that work at a Topeka business or government office but reside outside of the city limits.

There are roughly 100 women to every 92 men (52% to 48%), and the racial makeup of the City is approximately 78.5% White, 10.6% African American, 1.0% Native American, 1.7% Asian and .1% Native Hawaiian or Other Pacific Islander. 15.0% of the population identified are Hispanic or Latino.

The majority of the population (59.8%) is between the ages of 18 and 65 with 23.4% being under the age of 18 and 16.8% being over the age of 65 years of age.

The median household income as of 2018 is $46,890 with a per capita income of $27,145.

There are approximately 4,000 commercial structures in the city giving it a density of

There are approximately 4,719 multi-family structures in the city giving it a density of

There are approximately 38,747 single family structures in the city giving it a density of

[1] United States Census Bureau
https://www.census.gov/quickfacts/fact/table/topekacitykansas,ks#viewtop

Transportation

The City of Topeka has a broad array of transportation aspects such as seven major highways and interstates, two railway lines and one airport.

Interstate Highway I-70 is an east-west trending road. I-70 enters the county from the east-central portion of the city and south of the Kansas River and trends west where it is joined by US Highway 40 and Kansas Highway 4 before exiting the city. Total mileage for this roadway in the city of Topeka is 11 miles and includes 3 major interchanges and 14 exit/entrances.

US Highway 75 is a north-south trending roadway. US Highway 75 enters the city at the North-west portion of the city and trends south where it joins I-70 west. US Highway 75 separates with I-70 and the I-70 / I-470 interchange at the west side of the city and joins with I-470 south. US Highway 75 separates from I-470 on the south side of the city and trends south to the city limits. This roadway is a 9 mile stretch of 4 lane divided highway.

Interstate Highway I-470 bypass, a 6 mile stretch of 4 lane divided highway that loops across the southwest corner of the city connecting US Highway 75, Intestate 335 and Intestate 70 with 3 major interchanges and 6 exit/entrances.

Interstate Highway I-335 is a north-south trending toll road. I-335 (Kansas Turnpike) is a 7 mile stretch of 4 lane divided highway that cuts across the south east corner of the city with 2 exit/entrance interchanges.

US Highway 24 is an east-west trending roadway. US Highway 24 enters the city north of the Kansas River in the north-east portion and trends west along the northern city limits until it reaches the west city limits. Total mileage for this roadway in the city of Topeka is 5 miles of 4 lane divided highway with 1 major interchange connecting to Highway 75 and 3 exit/entrance intersections.

US Highways 4 and US Highway 40 are both 2 lane undivided highways that enter the city merged with one of the 5 major highways and trend from east to west from city limits to city limits.

Union Pacific and Burlington Northern railroad both have railways that dissect the city from several directions with Burlington Northern having a regional shop located near the heart of the downtown.

Billard Regional Municipal airport is located on the North East corner of the city and contains several hangers of small aircraft and is home to the Kansas Highway Patrol helicopter unit. Traffic at this airport is limited to light aircraft and handles approximately 100 landings/takeoffs each year.

Within the city of Topeka there is 680 centerline miles of roadway.

Climate

While Topeka is fortunate to experience all of the four seasons it has been named as one of the leading cities in having the greatest variations in temperature, precipitation and wind by Forbes magazine in 2007[2]. Topeka host a humid continental climate with hot, dry summers and cold dry winters. Average low temperatures range from 20 degrees in January to 69 degrees in July with average high temperatures ranging from 90 degrees in July to 40 degrees in January. Topeka area receives an average of 36.5 inches of precipitation per year with the majority of that coming in the spring months. Snowfall in the winter months is usually light but daily record snowfalls of 17.3 inches in 1900 and 12.9 inches in 2014 have been recorded[3].

	Dates	Average Low	Average High	Average Temperature	Average Precipitation
Spring	March 1 to May 31	19 degrees	92 degrees	56 degrees	3.7 inches
Summer	June 1 to August 31	50 degrees	104 degrees	77 degrees	4.76 inches
Fall	September 1 to November 30	24 degrees	92 degrees	56 degrees	3.16 inches
Winter	December 1 to February 28	-4 degrees	72 degrees	32 degrees	1.76 inches

Disaster Potential

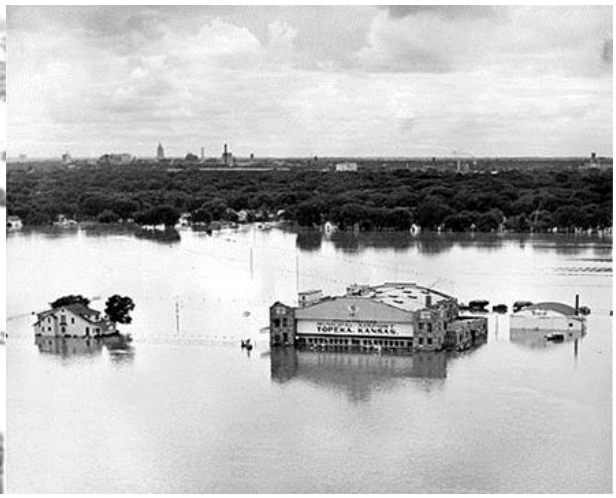
Topeka experiences several significant weather events that include high wind, heavy rains, hail, ice, tornadoes and extreme temperatures. Each of these present different challenges to the city that include downed power lines, flash flooding, heat and cold related emergencies and mass destruction that requires a multi-agency response. While the most common are the downed power lines, flash floods and temperature related emergencies, the potential for large scale events are quite common, a few of the most memorable are listed below.

Northeast Kansas Flood of 1951

The great flood of 1951 killed 24 people and caused thousands to abandon their homes, schools and businesses. The unprecedented high waters affected all area river basins especially the Kansas, Neosho, Marias Des Cygnes and Verdigris. Damage costs in 1951 exceeded 760 million dollars, which today would be over 5 billion dollars. The flooding actually

[2] *Tom Van Riper (2007-07-20). "In Pictures: America's Wildest Weather Cities". Forbes.com.*
[3] https://www.weather.gov/top/top5

began in June and continued into mid-July. Extremely heavy rains of 8 to 16 inches fell from July 9 - 13 culminating in the highest river stages since the Great Flood of 1844. July 13, 1951, can be rightly designated as the single day of greatest flood destruction in Midwestern United States history to that date. On July 13, the Kansas River crested at all official gaging stations, from Manhattan to Bonner Springs, at 4 to 6 feet above all previous recorded crests. The Marais Des Cygnes, Neosho and Verdigris Rivers were also at or near crests; exceeding all previous records by as much as 9 feet.



June 8, 1966 Tornado

June 8, 1966 is the date of one of the most destructive and deadly tornadoes in Kansas history. The massive 1966 Topeka tornado killed 17 people, injured over 500 and caused over $200 million damage; at the time, the highest in America history. With modern day inflation factored in, the tornado still ranks as one of the costliest on record, estimated near 1.8 Billion dollars.

The Path

The tornado formed about 7pm west of Auburn in southwest Shawnee County, and cut a 22 mile long path, at times a half a mile wide, across the heart of the city. Total devastation occurred along an 8 block section in the center of Topeka. Every building on the Washburn University campus was either destroyed or heavily damaged producing $10 million damage, alone. Citywide about 800 homes were completely destroyed with nearly 3000 damaged. Even the state Capitol dome sustained damage from the flying debris, as did many downtown buildings. The intense destruction classified the tornado as an F5, the top of the Fujita Intensity Scale, with winds estimated at over 250 mph.

The Heat Wave and Drought, Summer of 1980

Daily searing heat, accompanied by gusty winds and meager rainfall, began in June and continued into mid-August. Rainfall during June and July was about 15 percent of normal. Reminiscent of the mid-1930s heat wave and drought, temperatures in July 1980 hit 100 degrees or higher on 20 out of 31 days, with 12 consecutive days of 100 degrees or higher. On some days, morning lows remained above 80 degrees. Scattered thunderstorms brought some rainfall by mid- to late-August, but temperatures remained well above normal into September. It was the worst heat wave and drought since the 1930s.

November 15, 1988 Tornado

The 1988 tornado that hit Topeka serves as a reminder that tornadoes can indeed impact our area in any month of the year. Although rare, these cold season events are still capable of producing tornadoes that can do damage and cause injury. Staying prepared year round is critical for residents across the plains.

Here is the write up from the event:

"A narrow but strong tornado touched down in the southwest portion of Topeka shortly after 2pm CST. The tornado then moved northeastward at 50 mph, doing considerable damage to homes, cars and businesses in the area. The tornado was on the ground about 30 percent of its 5 mile long path. The majority of the damage was F0 to F1, but a few homes in the 29th and Wanamaker Road area had roofs completely torn off. Topeka West High School had many windows blown out with considerable damage to dozens of car windows in the school's parking lot. A total of 22 persons suffered minor injuries from flying glass and debris. Damage totals included 107 residences and 15 business units with an estimated dollar amount of 3.9 million. "

January 2002 Ice Storm

A major winter storm affected Kansas and surrounding states from Tuesday January 29th through Thursday January 31st.

Across east central Kansas, the wintry precipitation took the form of heavy freezing rain. This caused major tree damage, numerous power outages, and horrible travel conditions leading to many accidents. In the NWS Topeka County Warning Area, Anderson, Franklin, Osage, Coffey and Lyon counties received the worst of the icing.

Just to the north, Dickinson, Morris, Wabaunsee, Shawnee and Jefferson counties received a mixture of heavy sleet, and some freezing rain and snow. This also caused numerous travel problems and closed many schools and businesses. Snow, heavy at times, was the main precipitation type across the remainder of northeast and north central Kansas. Across this area, reports of six to ten inches were common.

This storm was unusual not only in the amount of sleet and freezing rain that fell, but also in the duration of the precipitation. Some areas saw some type of wintry precipitation falling for 48 hours straight. The cold air at the surface was a result of an arctic front that moved through Kansas early in the week. As the front stalled just to the south, warm moist air was lifted up and over the front and resulted in the variety of nasty conditions that Kansans experienced with the storm.

2005 Floods

In the late evening hours of October 1st, 2005, an upper level system made its way over northeast Kansas.

The rainfall not only caused many road closures due to flooding, but several local creeks roared out of their banks and brought flooding to urban and rural areas near the creeks. Rossville in Shawnee County was likely the hardest hit, mainly due to flooding of Cross Creek in that area. As of Monday evening, 80% of the geographical area was flooded, with voluntary evacuations for the city in place.

In Topeka, Soldier Creek at its highest had a stage of 34.67 feet at 1pm on Monday the 2nd. This is the record highest stage of this creek at this point - the previous record was held by the floods of 1951, when the highest stage was 33.06 feet on June 22, 1951. Many locations in Topeka overnight had reports of flooding and road closures. Jackson and Jefferson counties also had many road closures due to high water and road damage.

Even a few severe thunderstorms were reported in the overnight hours, producing wind gusts in excess of 60 mph and hail over nickel sized in some areas.

Record rainfall also fell at Topeka’s Billard Airport, at 3.31 inches for October 1st. The 30 year average rainfall for the Topeka Billard area is 2.99 inches for the entire month. So the montly average was achieved in just under a day!

Topeka Fire Department History

A brief history of the department

The town of Topeka experienced its first fire in the winter of 1854 burning down the town's only house, a log cabin. In 1870 the first volunteer department was organized after devastating fires in 1869 destroyed several businesses and the post office. As the town and the department grew the first fire station was built north of the river in 1874. The department became a full time paid fire department on January 5, 1876.

During the next 100 years, Topeka and the fire department continued to grow at an astounding pace but was hindered by several historic fires.

The Crawford Opera House at 612-614 S. Kansas Avenue

On the morning of December 2, 1880 the Crawford Opera House that originally opened in 1870 was destroyed by fire and was rebuilt the following year.

Rice Hall, Washburn University Campus

Rice Hall, one of the first buildings constructed at Washburn University was seriously damaged by fire on December 6, 1907. The damage, estimated at $31,000 was repaired but the building was ultimately destroyed by the 1966 tornado.

Hotel Kansan at 9th and

An explosion that originated the hotel at 3:30 P.M. on the building while flames shot vent. Tenants were quickly control in about an hour.

Kansas Avenue

in the basement boiler room shook August 5, 1948. Smoke soon filled out of the upper windows and a roof cleared out and the fire was under

Jayhawk Bowl at 110 SE 10th Street

A fire discovered in the kitchen of the popular bowling alley quickly spread until the whole roof was in flames and eventually collapsed. A general fire alarm was sounded and the entire firefighting force of Topeka responded stopping the fire before reaching any adjoining buildings.

Grace Cathedral at 701 SW 8th Street

November 26, 1975, a raging fire caused by the act of a single arsonist almost completely destroyed the cathedral, only the outer limestone walls were left standing. Reconstruction began immediately and the cathedral reopen to services on October 1, 1978.

Seymour Foods at 1st and Crane Street

October 13, 1988 fire broke out on the fifth floor of Seymour Foods warehouse. The fire eventually burned through the roof and required multiple alarms and several off duty firefighters to extinguish.

Topeka Zoo Rainforest at 10th and Gage Boulavard

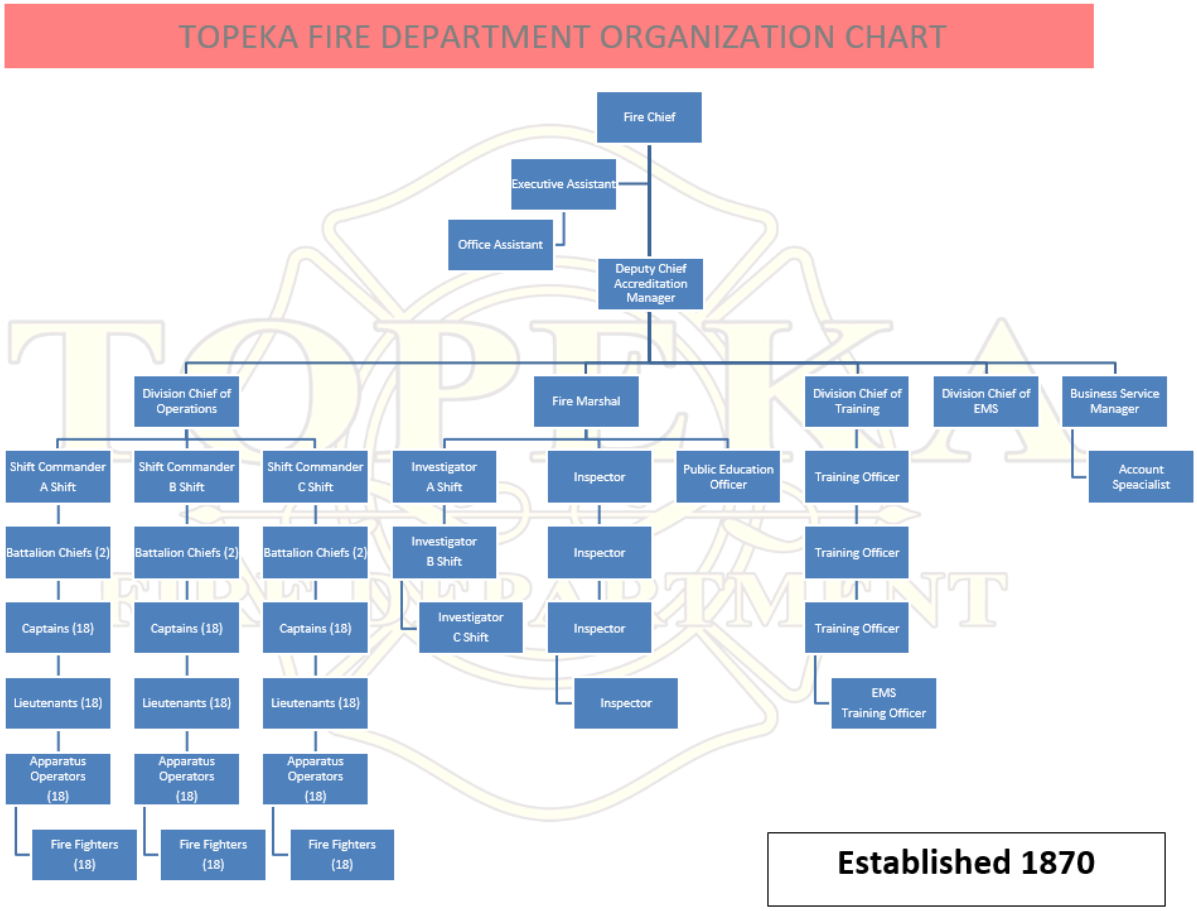
The building that houses the rainforest at the Topeka Zoo was damaged by fire on November 12, 1992. The animals and birds were no hindrance to the efforts of firefighters but seven animals died, three were injured and two escaped

Topeka Fire Department Today

Overview

Topeka Fire Department has grown into a department that utilizes twelve fire stations to house eighteen first response vehicles and 249 sworn Fire Fighters answering in excess of 20,000 calls per year. The department is organized into six divisions which include Operations, Fire Prevention, Training, EMS, Investigation and Public Education. Topeka Fire Department also supports four different special teams within its operations division, Regional Haz-Mat team, Regional Technical Rescue team, Brush trucks, Water Rescue.

Organizational Chart



Administration

324 SE Jefferson

Topeka Fire Department academy was built in 1963 and is located adjacent to fire station #3. Fleet Services maintenance facility and the departments 4 story training tower are located on the grounds as well. The administration building contains ten sworn personnel that include the Fire Chief, Deputy Chief, Division Chief of Operations, Chief of Training, Chief of EMS, four Training Officers and one Public Education Officer with 5 civilian support staff.

Figure 1: Fire Administration

Figure 2: Training Tower

Figure 3: Fleet Maintenance

Stations

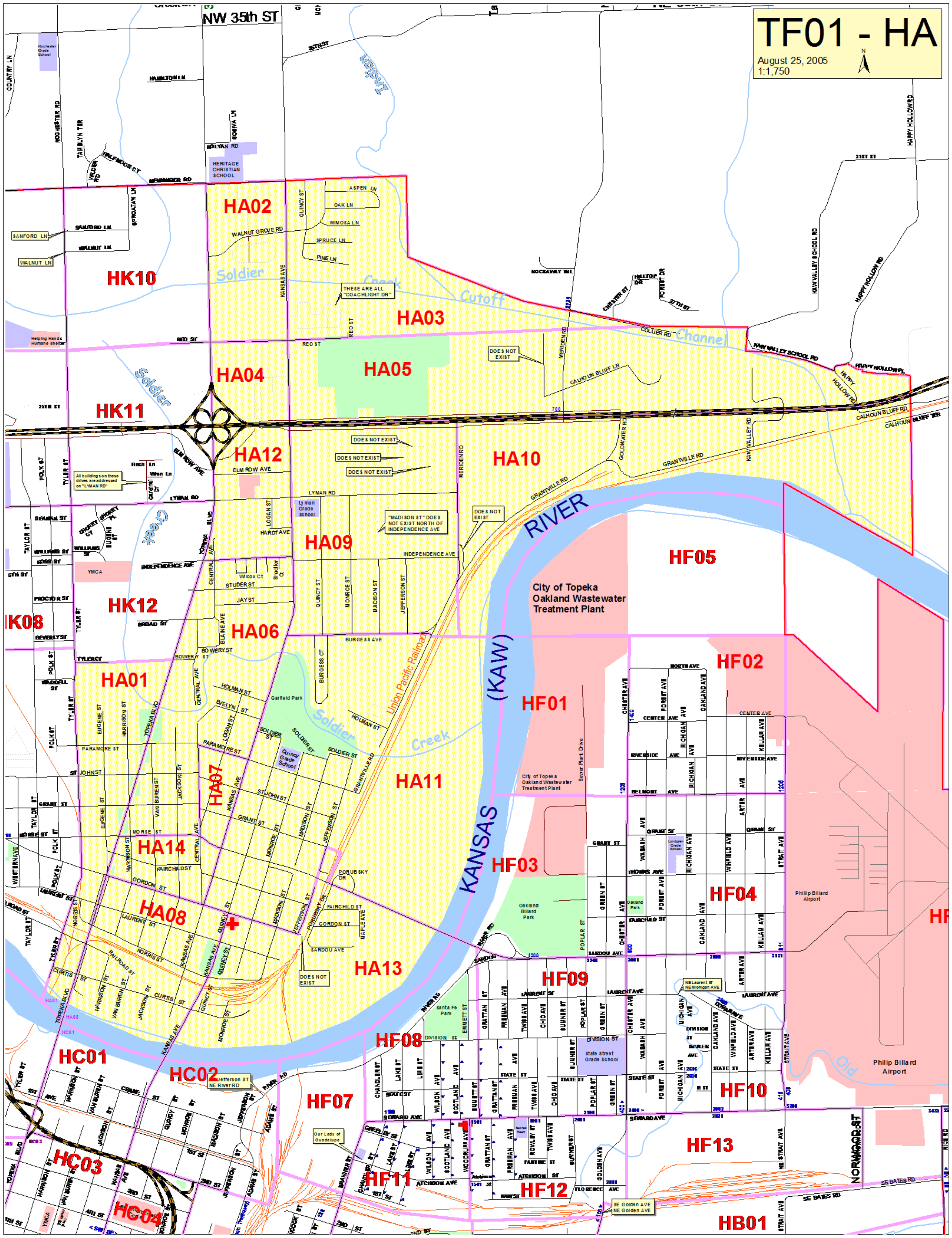
Fire Station # 1

934 NE Quincy

Fire Station 1 was established in May of 1874. A formal station was built in 1881 at Gordon and North Kansas Ave. It was used until 1940 when the current station at Gordon and Quincy Street was built. It currently serves North Topeka, parts of Downtown and Oakland with one Engine Company and 4 fire fighters assigned.

Year built:	**1940**
Council District:	**District # 2**
Apparatus:	**Engine 1 is a 2014 Rosenbauer Commander**
Personnel:	**1 Captain**
	1 Lieutenant
	1 Apparatus Operator
	1 Fire Fighter

Total calls 2019:	**1,844 calls**	
	Fire Calls	**182**
	Overheat	**3**
	Medical	**813**
	Hazardous	**25**
	Service Call	**64**
	Good Intent	**545**
	False Alarms	**209**
	Unknown	**3**

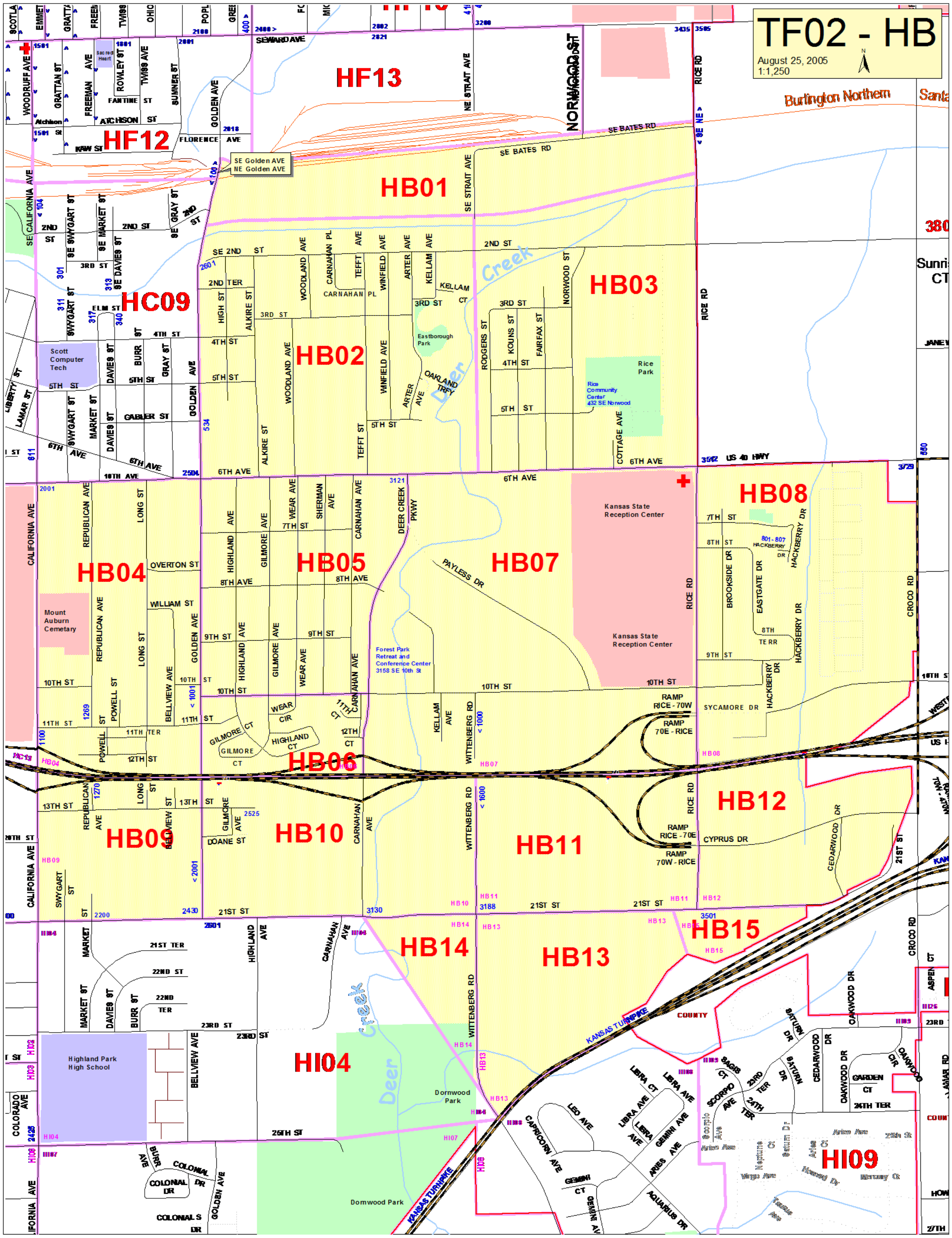

TF01 - HA
August 25, 2005
1:1,750
NW 35th ST
HA02
HA03
HA04
HA05
HA06
HA07
HA08
HA09
HA10
HA11
HA12
HA13
HA14
HA01
HK10
HK11
HK12
HF01
HF02
HF03
HF04
HF05
HF07
HF08
HF09
HF10
HF11
HF12
HF13
HC01
HC02
HC03
HC04
HB01
KANSAS
(KAW)
RIVER
City of Topeka
Oakland Wastewater
Treatment Plant
Union Pacific Railroad
Soldier
Creek
Cutoff
Channel
Philip Billard
Airport

Fire Station # 2

619 SE Rice Rd

Fire Station 2 was first built in September of 1878. In 1927, Station 2 was moved to 719 SW Van Buren into its own free standing building. Station 2 was later closed in 1978. In 1992 the current Station 2 was built at 619 SE Rice Road and serves the Eastern part of the city along with parts of Highland Park and Oakland with one Engine Company and one Brush Truck.

Year built:	**1992**
Council District:	**District # 3**
Apparatus:	**Engine 2 is a 2011 Rosenbauer Metro Star**
	Brush 2 is a 2019 Ford F550
	Water rescue boat
Personnel:	**1 Captain**
	1 Lieutenant
	1 Apparatus Operator
	1 Fire Fighter
Total Calls 2019:	**1,076 calls**
	Fire Calls 121
	Overheat 0
	Medical 563
	Hazardous 15
	Service Call 54
	Good Intent 239
	False Alarms 84


TF02 - HB
August 25, 2005
1:1,250
HF12
HF13
HC09
HB01
HB02
HB03
HB04
HB05
HB06
HB07
HB08
HB09
HB10
HB11
HB12
HB13
HB14
HB15
HI04
HI09
Burlington Northern
SEWARD AVE
SE BATES RD
SE Golden AVE
NE Golden AVE
6TH AVE
10TH ST
21ST ST
US 40 HWY
KANSAS TURNPIKE
Kansas State Reception Center
Mount Auburn Cemetary
Scott Computer Tech
Eastborough Park
Rice Park
Rice Community Center 432 SE Norwood
Forest Park Retreat and Conference Center 3158 SE 10th St
Highland Park High School
Dornwood Park
Deer Creek

Fire Station # 3

318 SE Jefferson

Station 3 was built in 1882 at 314 SE Jefferson. That building remained in use until 1961 when the present day station was built. Today there is an Engine Company and a Truck Company as well as a Shift Commander housed at Station 3. It serves the East Topeka area, parts of Oakland and North Topeka and all of the Downtown area.

Year built: 1961

Council District: District # 1

Apparatus: Engine 3 is a 2011 Rosenbauer

Truck 3 is a 2011 Crimson

Car 101 is a 2016 Ford F150

Personnel: 1 Shift Commander

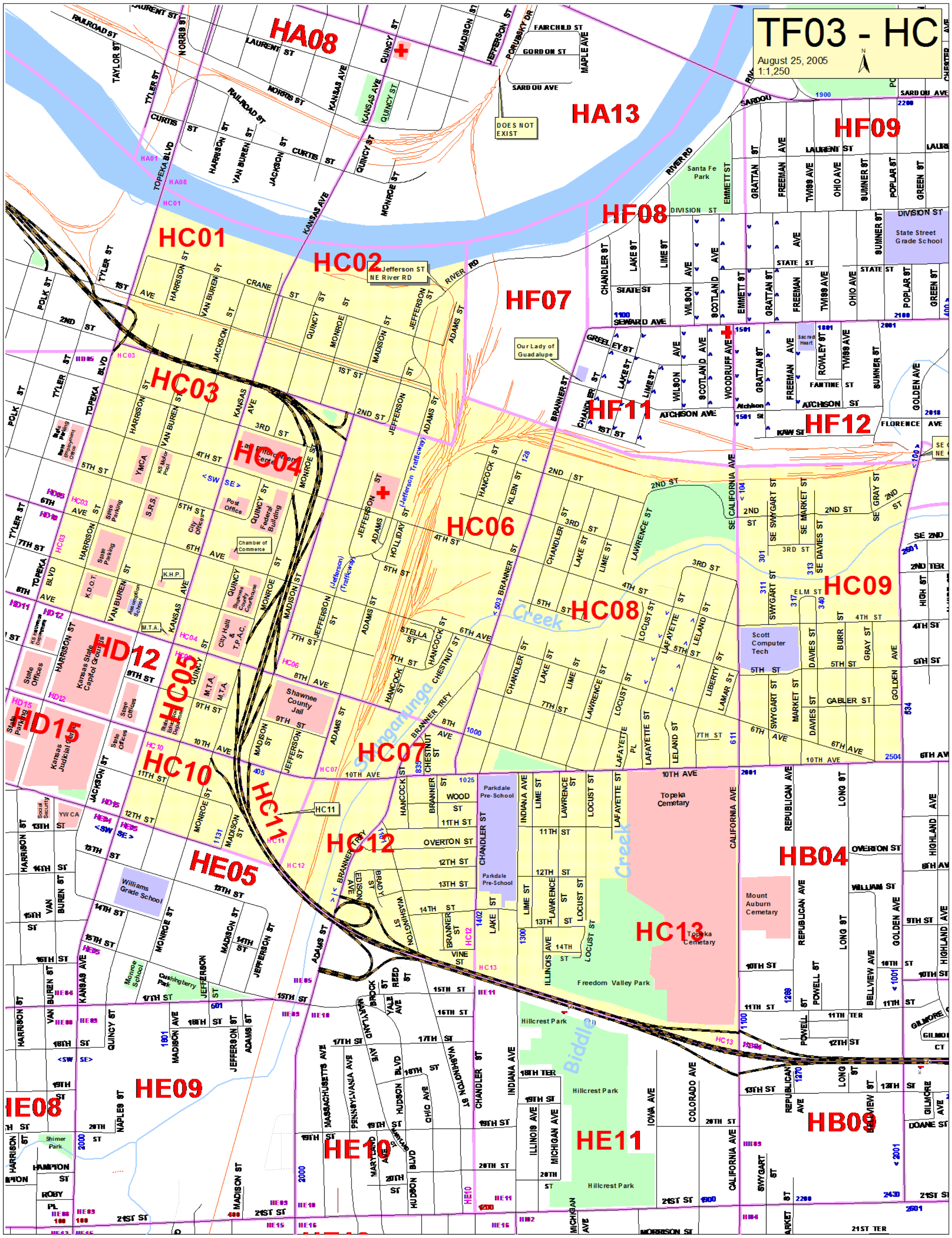
2 Captains

2 Lieutenants

2 Apparatus Operators

2 Fire Fighters

Total Calls 2019:	**Engine 3**	1,083	**Truck 3**	2,207
	Fire Calls	160	245	
	Overheat	1	4	
	Medical	433	772	
	Hazardous	18	50	
	Service Call	49	94	
	Good Intent	257	537	
	False Alarms	165	504	
	Weather	0	1	
	Unknown	0	0	

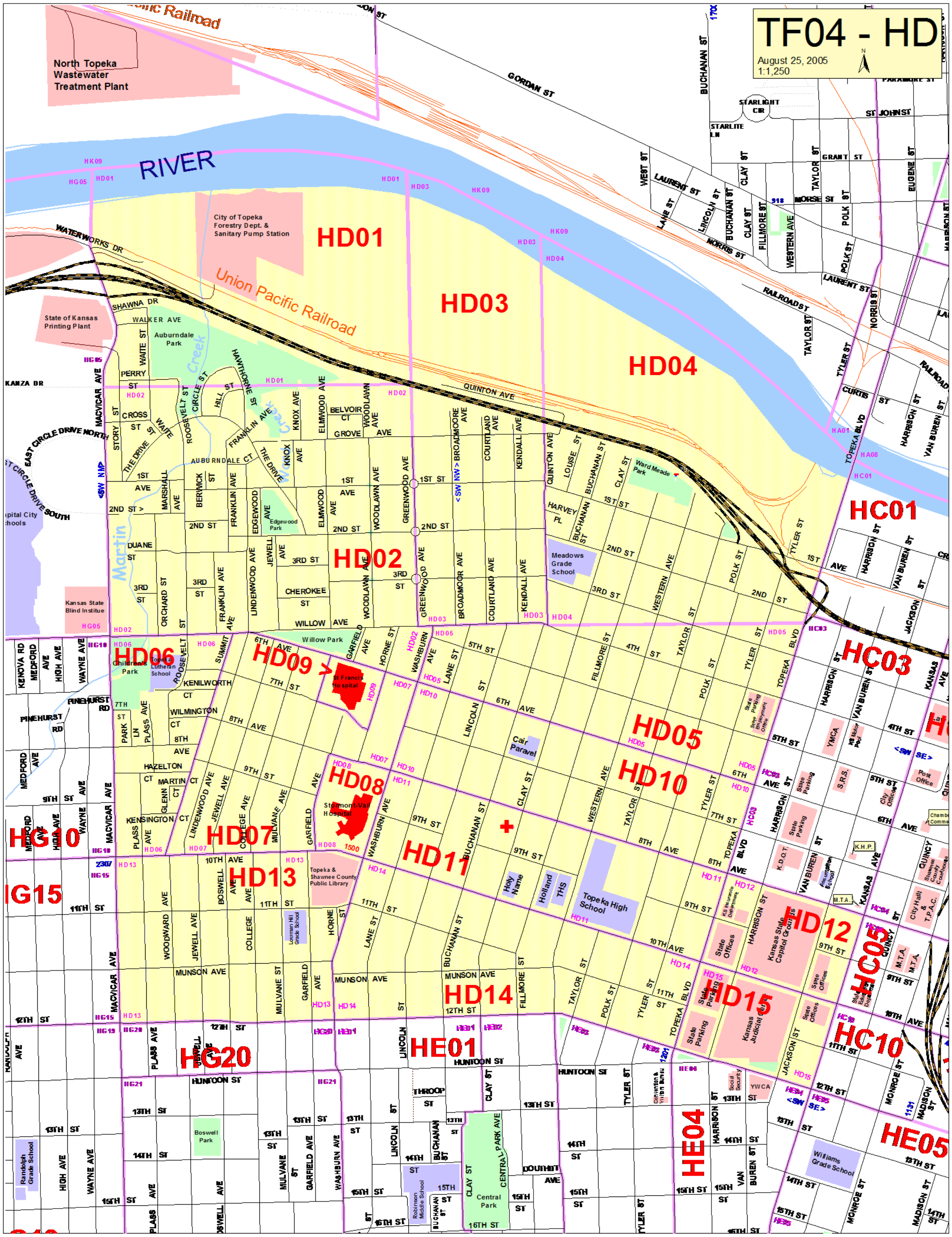

TF03 - HC
August 25, 2005
1:1,250
N
HA08
HA13
HF09
HF08
HF07
HF11
HF12
HC01
HC02
HC03
HC04
HC05
HC06
HC07
HC08
HC09
HC10
HC11
HC12
HC13
HD12
HD15
HE05
HE08
HE09
HE10
HE11
HB04
HB09
DOES NOT EXIST
Jefferson ST
NE River RD
Our Lady of Guadalupe
Santa Fe Park
State Street Grade School
Scott Computer Tech
Shawnee County Jail
Kansas State Capitol Grounds
Kansas Judicial Ctr
Topeka Cemetary
Mount Auburn Cemetary
Freedom Valley Park
Hillcrest Park
Parkdale Pre-School
Williams Grade School
Shunganunga
Creek
Biddle
Chamber of Commerce
Post Office
City Hall & T.P.A.C.
YWCA
Social Security
Shimer Park
Monroe School

Fire Station # 4

813 SW Clay St.

Fire Station 4 was established in 1887 at its current location of 813 Clay Street. It was replaced in 1927 when the current building was built. Currently there is one Engine Company and one Investigator housed at the station. The Engine Company serves the Old Town, Holiday Park, College Hill and parts of Downtown.

Year built:	**1927**	
Council District:	**District # 1**	
Apparatus:	**Engine 4 is a 2016 Rosenbauer Metro Star**	
	Fire Investigator Car 2018 Chevrolet Tahoe	
Personnel:	**1 Captain**	
	1 Lieutenant	
	1 Apparatus Operator	
	1 Fire Fighter	
	1 Fire Investigator	
Total calls 2019:	**2,942 calls**	
	Fire Calls	**214**
	Overheat	**2**
	Medical	**1,424**
	Hazardous	**63**
	Service Call	**89**
	Good Intent	**718**
	False Alarms	**431**
	Weather	**1**



TF04 - HD
August 25, 2005
1:1,250
RIVER
Union Pacific Railroad
North Topeka Wastewater Treatment Plant
City of Topeka Forestry Dept. & Sanitary Pump Station
State of Kansas Printing Plant
Kansas State Blind Institue
Auburndale Park
Edgewood Park
Willow Park
Ward Meade Park
Meadows Grade School
St Francis Hospital
Stormont-Vail Hospital
Topeka & Shawnee County Public Library
Topeka High School
Central Park
Boswell Park
Kansas State Capitol Grounds
HD01
HD02
HD03
HD04
HD05
HD06
HD07
HD08
HD09
HD10
HD11
HD12
HD13
HD14
HD15
HC01
HC03
HC05
HC10
HG10
HG15
HG20
HE01
HE04
HE05

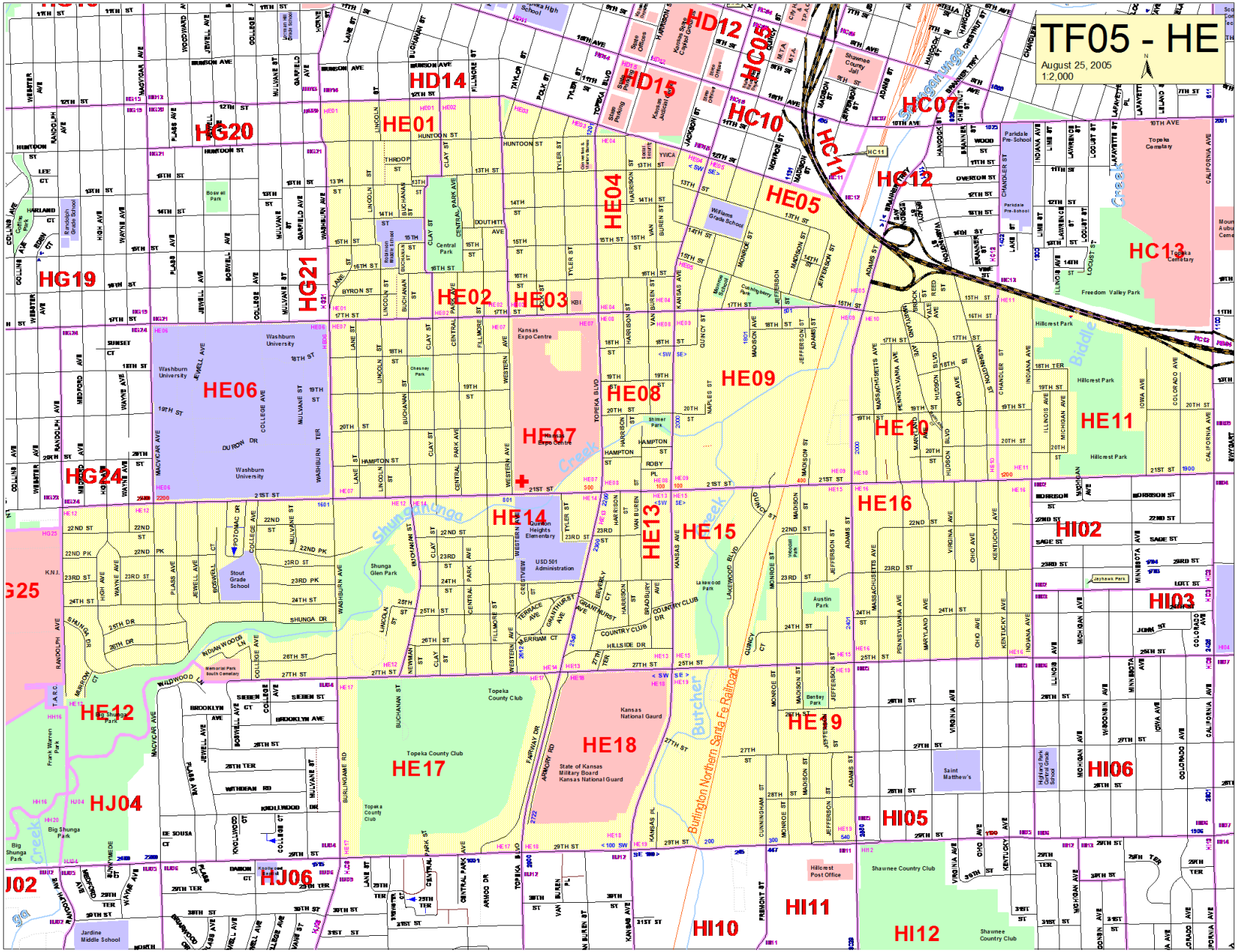
Fire Station # 5

720 SW 21st

Fire Station 5 was originally built at 14th and Lane in 1906. That station served until 1937 when a WPA project built the station at 17th and Topeka on the corner of the Free Fairgrounds. A new station was built at the corner of 21st and Western at the other end of the fairgrounds in January 1987. There has been one major remodel of this station in 2010 to accommodate some structure issues. Fire Station 5 houses one Engine Company, one Aerial Apparatus and one Battalion Chief.

Year built:	**1987**
Council District:	**District # 3**
Apparatus:	**Engine 5 is a 2019 Pierce Enforcer**
	Aerial 5 is a 2011 Rosenbauer
	Car 102 is a 2020 Ford F150
Personnel:	**1 Battalion Chief**
	2 Captains
	2 Lieutenants
	2 Apparatus Operators
	2 Fire Fighter s

Total calls 2019:	**Engine 5**	**3,108**	**Aerial 5**	**1,460**
	Fire Calls	**249**	**239**	
	Overheat	**3**	**3**	
	Medical	**1,365**	**266**	
	Hazardous	**56**	**52**	
	Service Call	**95**	**62**	
	Good Intent	**903**	**294**	
	False Alarms	**435**	**543**	
	Weather	**1**	**0**	
	Special	**0**	**1**	
	Unknown	**1**	**0**	

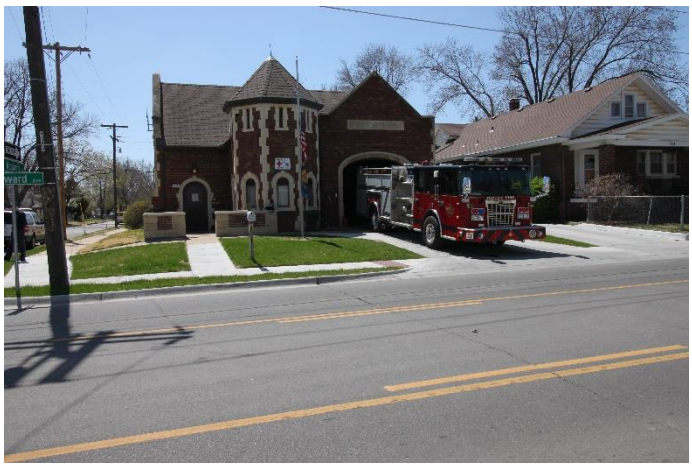

TF05 - HE
August 25, 2005
1:2,000
HD12
HC05
HD14
HD15
HC10
HC07
HE01
HG20
HE04
HE05
HC11
HC12
HG19
HG21
HE02
HE03
HC13
HE06
HE08
HE09
HE07
HE10
HE11
HG24
HE14
HE13
HE15
HE16
HI02
HI03
HE12
HE17
HE18
HE19
HJ04
HI06
HI05
HJ06
HI10
HI11
HI12
Shunga Creek
Burlington Northern Santa Fe Railroad
Topeka Cemetery
Freedom Valley Park
Hillcrest Park
Washburn University
Kansas Expo Centre
Topeka County Club
Kansas National Gaurd
Shawnee Country Club
Hillcrest Post Office
Jardine Middle School

Fire Station # 6

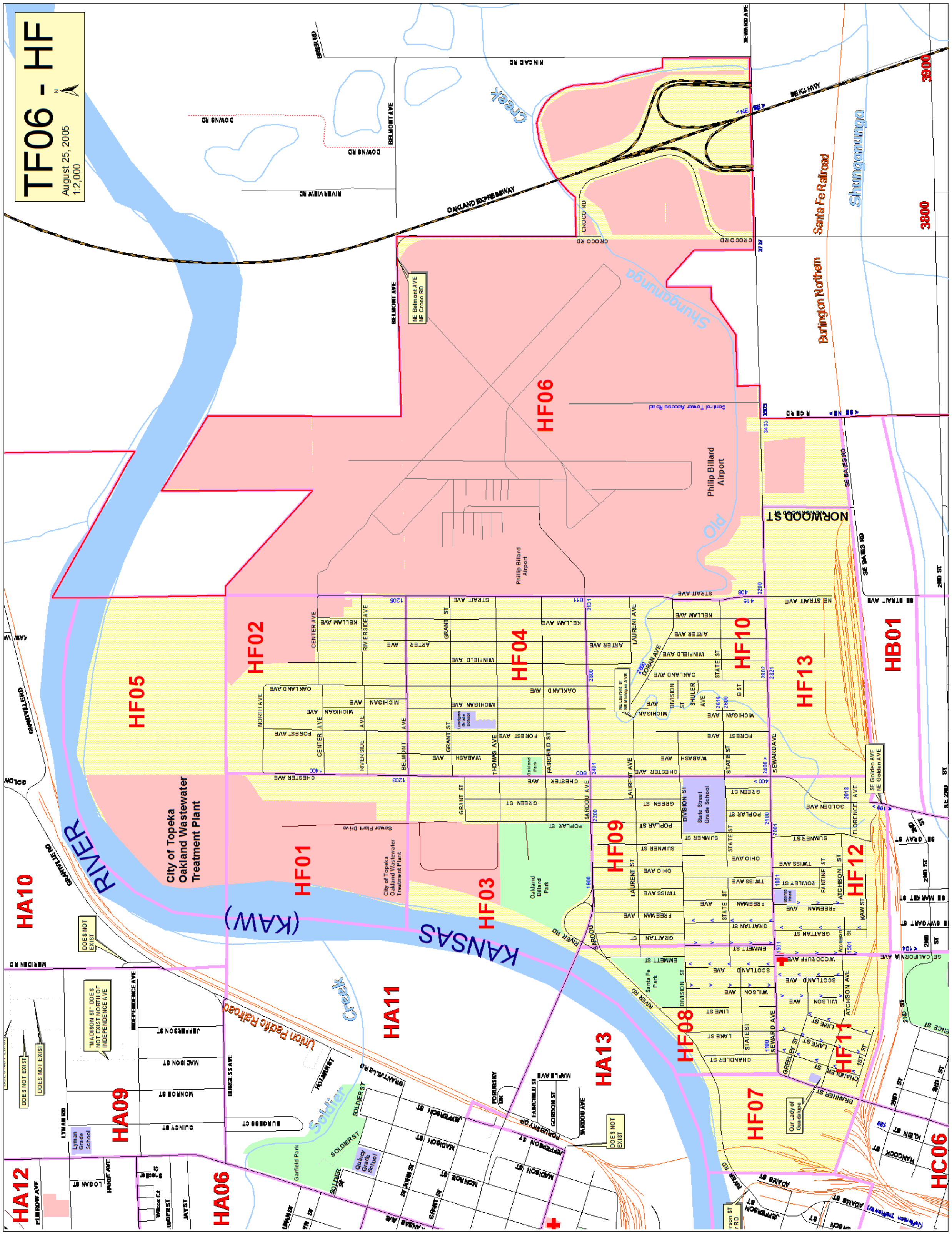
1419 NE Seward

Fire Station 6 was opened in April of 1910. In 1937, this building was replaced as part of the WPA projects ongoing in Topeka. That building is what stands today. It currently houses one Engine Company that serves the entire Oakland area, parts of North Topeka, East Topeka and Downtown.

Year built:	**1937**
Council District:	**District # 2**
Apparatus:	**Engine 6 is a 2011 Rosenbauer Metro Star**
Personnel:	**1 Captain**
	1 Lieutenant
	1 Apparatus Operator
	1 Fire Fighter



Total calls 2019:	**1,443 calls**	
	Fire Calls	**180**
	Overheat	**3**
	Medical	**741**
	Hazardous	**23**
	Service Call	**54**
	Good Intent	**277**
	False Alarms	**162**
	Unknown	**3**


TF06 - HF
August 25, 2005
1:2,000
HF01
HF02
HF03
HF04
HF05
HF06
HF07
HF08
HF09
HF10
HF11
HF12
HF13
HA06
HA09
HA10
HA11
HA12
HA13
HB01
HC06
KANSAS (KAW) RIVER
Philip Billard Airport
City of Topeka Oakland Wastewater Treatment Plant
NORWOOD ST
Santa Fe Railroad
Burlington Northern
Union Pacific Railroad
Shunganunga
OAKLAND EXPRESSWAY

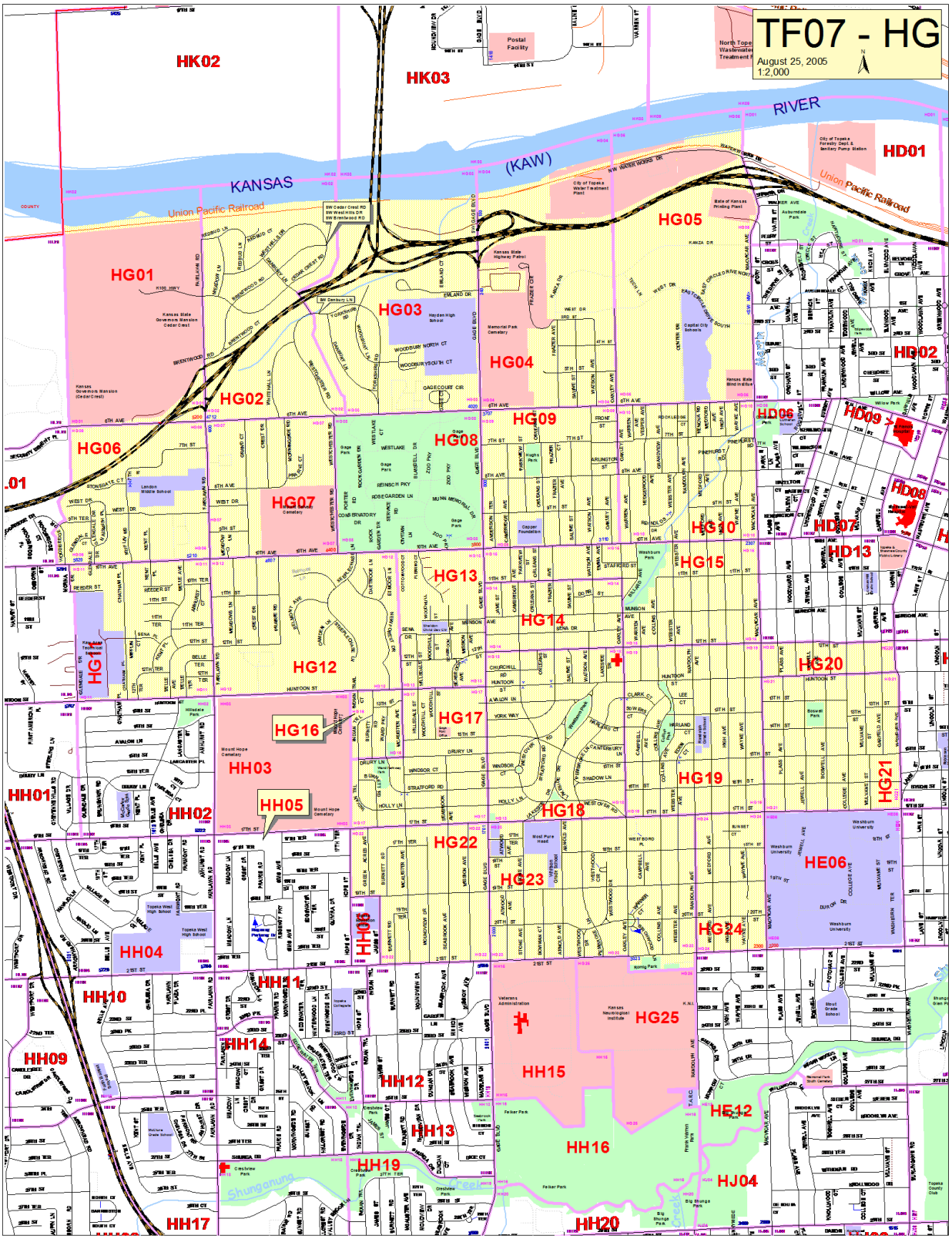
Fire Station # 7

1215 SW Oakley

Fire Station 7 was built in 1937 as part of the WPA projects ongoing in Topeka at the time. Currently Station 7 houses one Engine Company that serves all of Topeka, west of Washburn and North of 21st street to the Kansas River and parts of Central Park.

Year built:	**1937**
Council District:	**District # 6**
Apparatus:	**Engine 7 is a 2016 Rosenbauer Commander**
Personnel:	**1 Captain**
	1 Lieutenant
	1 Apparatus Operator
	1 Fire Fighter

Total calls 2019:	**3,606 calls**	
	Fire Calls	**142**
	Overheat	**4**
	Medical	**1.914**
	Hazardous	**46**
	Service Call	**158**
	Good Intent	**875**
	False Alarms	**466**
	Weather	**1**
	Special	**0**
	Unknown	**0**


TF07 - HG
August 25, 2005
1:2,000
HK02
HK03
RIVER
KANSAS
(KAW)
Union Pacific Railroad
HD01
HG01
HG02
HG03
HG04
HG05
HG06
HG07
HG08
HG09
HG10
HG11
HG12
HG13
HG14
HG15
HG16
HG17
HG18
HG19
HG20
HG21
HG22
HG23
HG24
HG25
HD02
HD06
HD07
HD08
HD09
HD13
HH01
HH02
HH03
HH04
HH05
HH06
HH09
HH10
HH11
HH12
HH13
HH14
HH15
HH16
HH17
HH19
HH20
HE06
HE12
HJ04

Fire Station # 8

2700 SW Fairlawn

Station 8 was opened in December of 1953. It was located at the intersection of 21st and Indian Trail. In the mid 1980's Station 8 was moved to 2700 Fairlawn Road where it currently operates. The station has undergone a major renovation in 1999 to correct some structural issues. Station 8 houses one Engine Company, one Aerial Apparatus and the Hazardous Materials Unit which serves Northeast Kansas.

Year built: 1980

Council District: District # 8

Apparatus: Engine 8 is a 2019 Pierce Enforcer

Aerial 8 is a 2020 Pierce Velocity

Hazmat 8 is a 2008 Ford F550

Personnel: 2 Captains

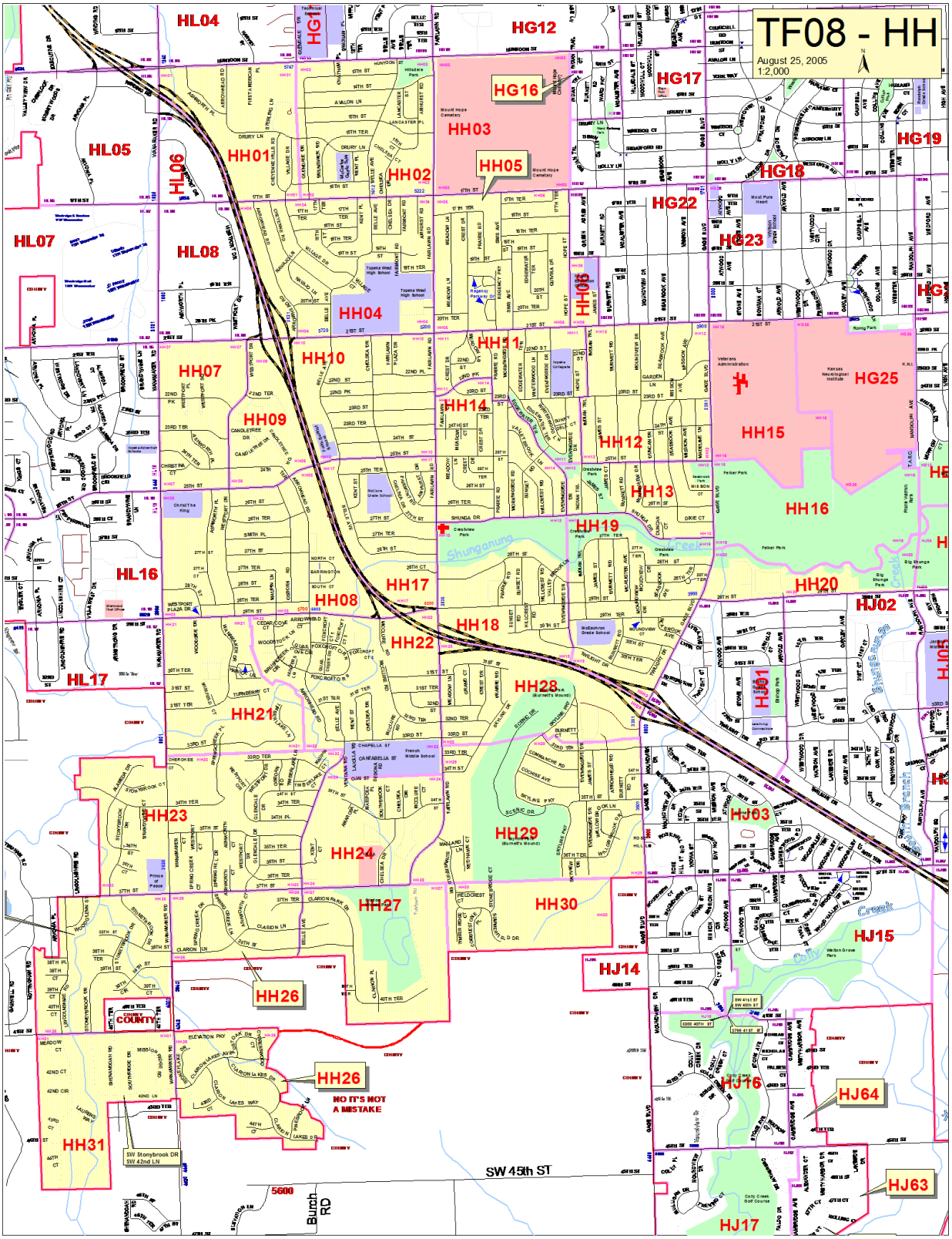
2 Lieutenants

2 Apparatus Operators

2 Fire Fighter

Total calls 2019:

Engine 8	3,009	**Aerial 8**	1,117
Fire Calls	127	89	
Overheat	3	3	
Medical	1,566	339	
Hazardous	57	33	
Service Call	140	54	
Good Intent	787	240	
False Alarms	327	357	
Weather	2	2	


TF08 - HH
August 25, 2005
1:2,000
HL04
HG1
HG12
HG16
HG17
HG19
HH03
HH05
HH01
HH02
HL05
HL06
HG18
HG22
HG23
HL07
HL08
HH04
HH11
HH10
HH07
HH09
HH14
HG25
HH15
HH12
HH13
HH16
HH19
HL16
HH17
HH08
HH18
HH20
HJ02
HH22
HL17
HH28
HJ01
HH21
HH23
HJ03
HH29
HH24
HH27
HH30
HJ15
HJ14
HH26
HH26
NO IT'S NOT A MISTAKE
HJ16
HJ64
HH31
SW Stonybrook DR
SW 42nd LN
SW 45th ST
5600
Burch RD
HJ63
HJ17

Fire Station # 9

2447 SE 29th

In June of 1959, the station was built at 2447 SE 29th next to the newly constructed Kansas Turnpike. Station 9 houses one Engine Company and one Truck Company that serve the eastern part of Topeka, Highland Park, Matthews Park, Oak Park and areas south of the Kanza Fire industrial park across Forbes Field.

Year built: 1959

Council District: District # 4

Apparatus: Engine 9 is a 2011 Rosenbauer Metro Star

Truck 9 is a 2011 Crimson

Personnel: 2 Captains

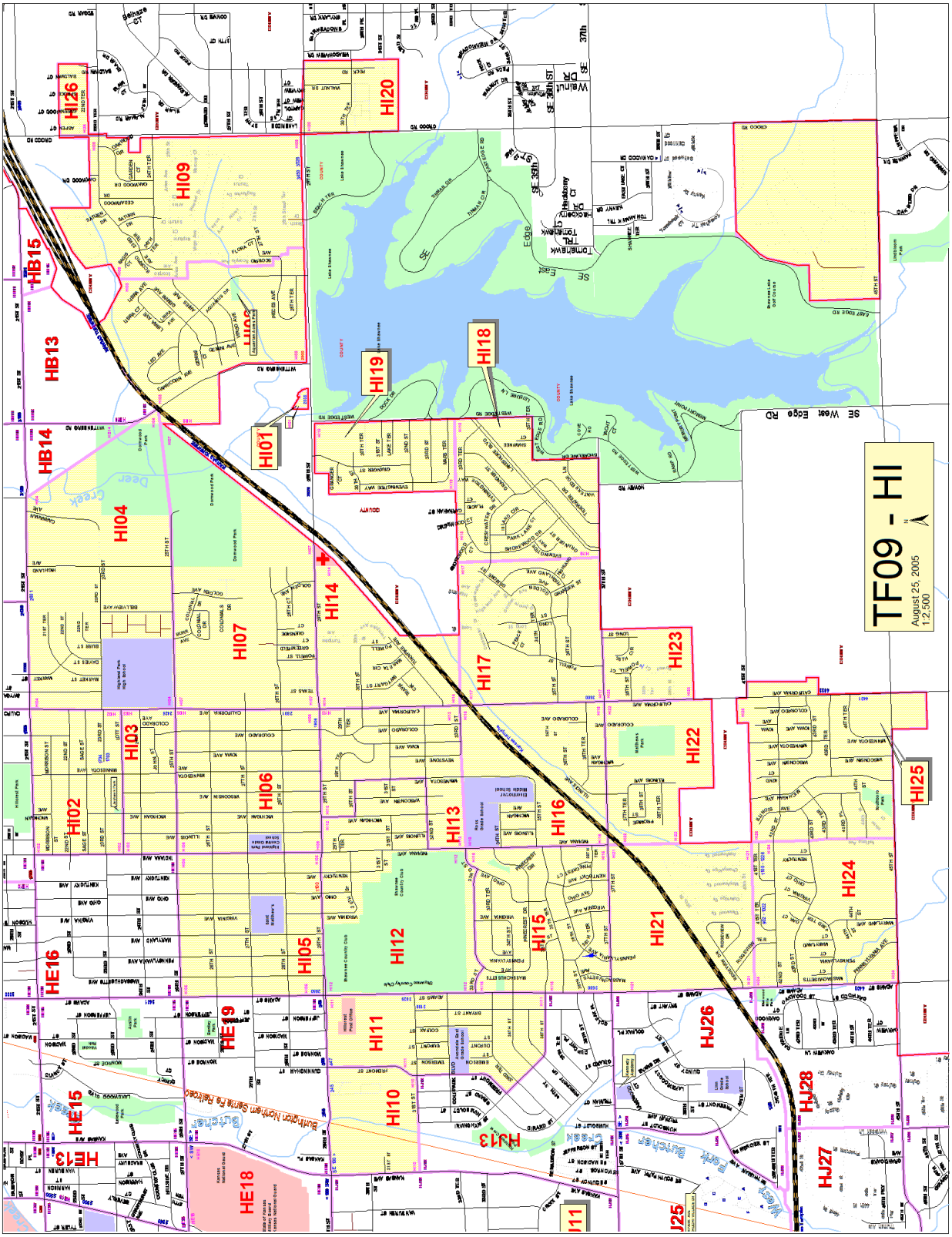
2 Lieutenants

2 Apparatus Operators

2 Fire Fighters

Total calls 2019:

Engine 9	1,771	**Truck 9**	1,134
Fire Calls	129	123	
Overheat	1	1	
Medical	839	492	
Hazardous	32	22	
Service Call	106	75	
Good Intent	500	247	
False Alarms	162	173	
Weather	0	0	
Special	2	0	
Unknown	0	1	


TF09 - HI
August 25, 2005
1:2,500
HI01
HI02
HI03
HI04
HI05
HI06
HI07
HI09
HI10
HI11
HI12
HI13
HI14
HI15
HI16
HI17
HI18
HI19
HI20
HI21
HI22
HI23
HI24
HI25
HI26
HB13
HB14
HB15
HE13
HE15
HE16
HE18
HE19
HJ11
HJ13
HJ25
HJ26
HJ27
HJ28
SE West Edge RD
SE 35th ST
SE 37th
Deer Creek
Burlington Northern Santa Fe Railroad
West Branch
East Branch

Fire Station # 10

2010 SW 37th

Fire Station 10 was opened in December of 1960 at its location of 2010 SW 37th Street. The building was remodeled in the early 2000's to accommodate the larger size of today's equipment. Station 10 houses one Engine Company and one Truck Company that serve all of Topeka south of 29th street and all the way across the city from Croco Road to Urish Road.

Year built: 1960

Council District: District # 5

Apparatus: Engine 10 is a 2014 Rosenbauer Commander

Truck 10 is a 2018 Rosenbauer Commander

Personnel: 2 Captains

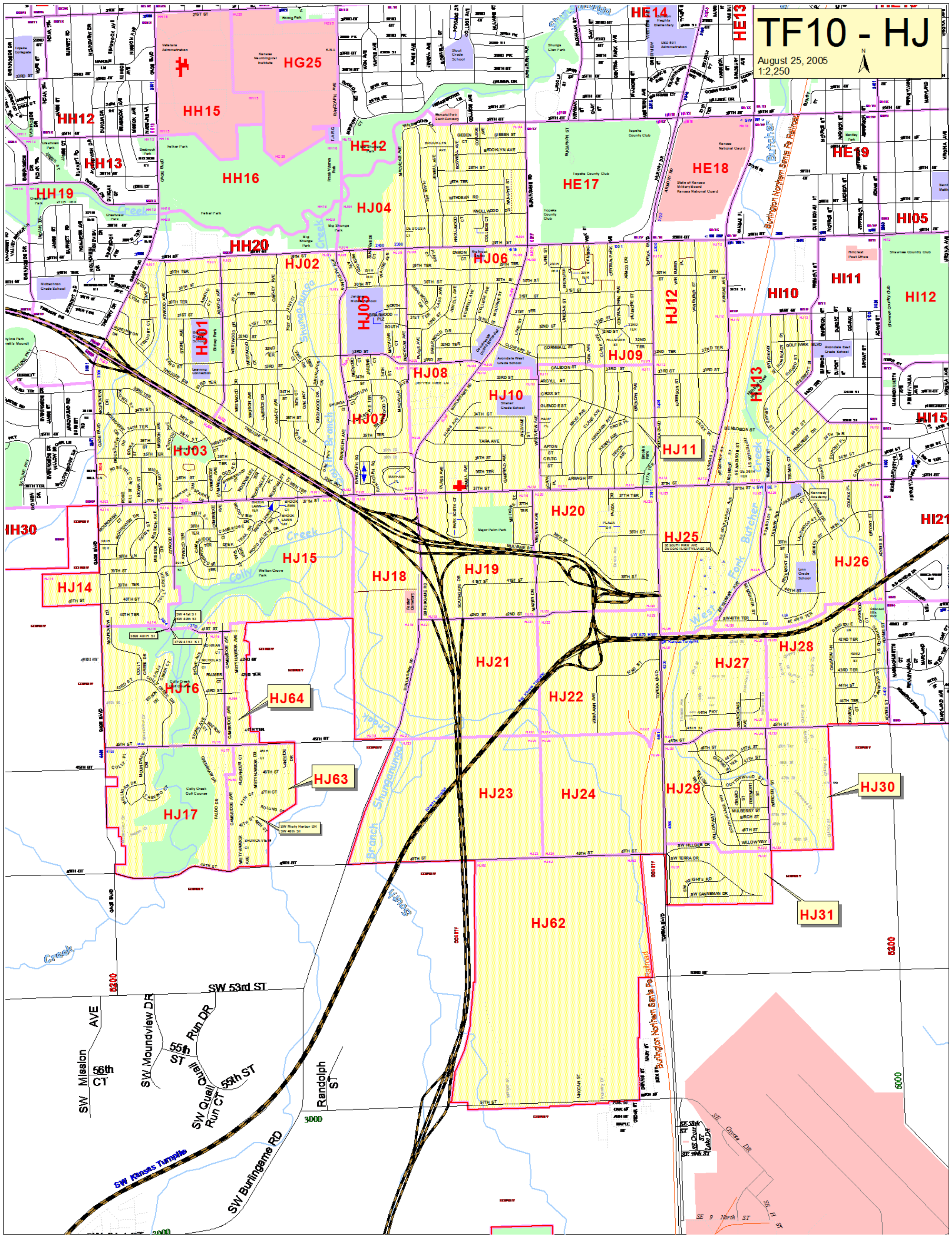
2 Lieutenants

2 Apparatus Operators

2 Fire Fighters

Total calls 2019:

Engine 10	2,462	**Truck 10**	1,716
Fire Calls	153	137	
Overheat	5	2	
Medical	1,266	776	
Hazardous	54	42	
Service Call	77	72	
Good Intent	599	304	
False Alarms	305	379	
Weather	0	1	
Special	1	0	
Unknown	2	3	


TF10 - HJ
August 25, 2005
1:2,250
HJ01
HJ02
HJ03
HJ04
HJ05
HJ06
HJ07
HJ08
HJ09
HJ10
HJ11
HJ12
HJ13
HJ14
HJ15
HJ16
HJ17
HJ18
HJ19
HJ20
HJ21
HJ22
HJ23
HJ24
HJ25
HJ26
HJ27
HJ28
HJ29
HJ30
HJ31
HJ62
HJ63
HJ64
HH12
HH13
HH15
HH16
HH19
HH20
HG25
HE12
HE13
HE14
HE17
HE18
HE19
HI05
HI10
HI11
HI12
HI15
HI21
IH30
SW 53rd ST
SW Mission AVE
SW Moundview DR
56th CT
55th ST
SW Quail Run DR
SW Quail Run CT
55th ST
Randolph ST
SW Burlingame RD
SW Kansas Turnpike
Burlington Northern Santa Fe Railroad
Shunganunga Creek
Butcher Creek
West Fork Butcher Creek
Colly Creek

Fire Station # 11

2000 Lower Silverlake Rd.

Fire Station 11 was built in 1972 at its current location at Lower Silver Lake Road and Vail. Station 11 houses one Engine Company and one Truck Company which serve the entire area North Topeka and parts south of the river and north of SW 6th Street. Station 11 is also home to the Kansas Task Force 2 Search and Rescue Group for Northeast Kansas.

Year built: 1972

Council District: District # 2

Apparatus: Engine 11 is a 2011 Rosenbauer Metro Star

Truck 11 is a 2016 Rosenbauer Commander

Rescue 11 is a 2004 Freightliner

Personnel: 2 Captains

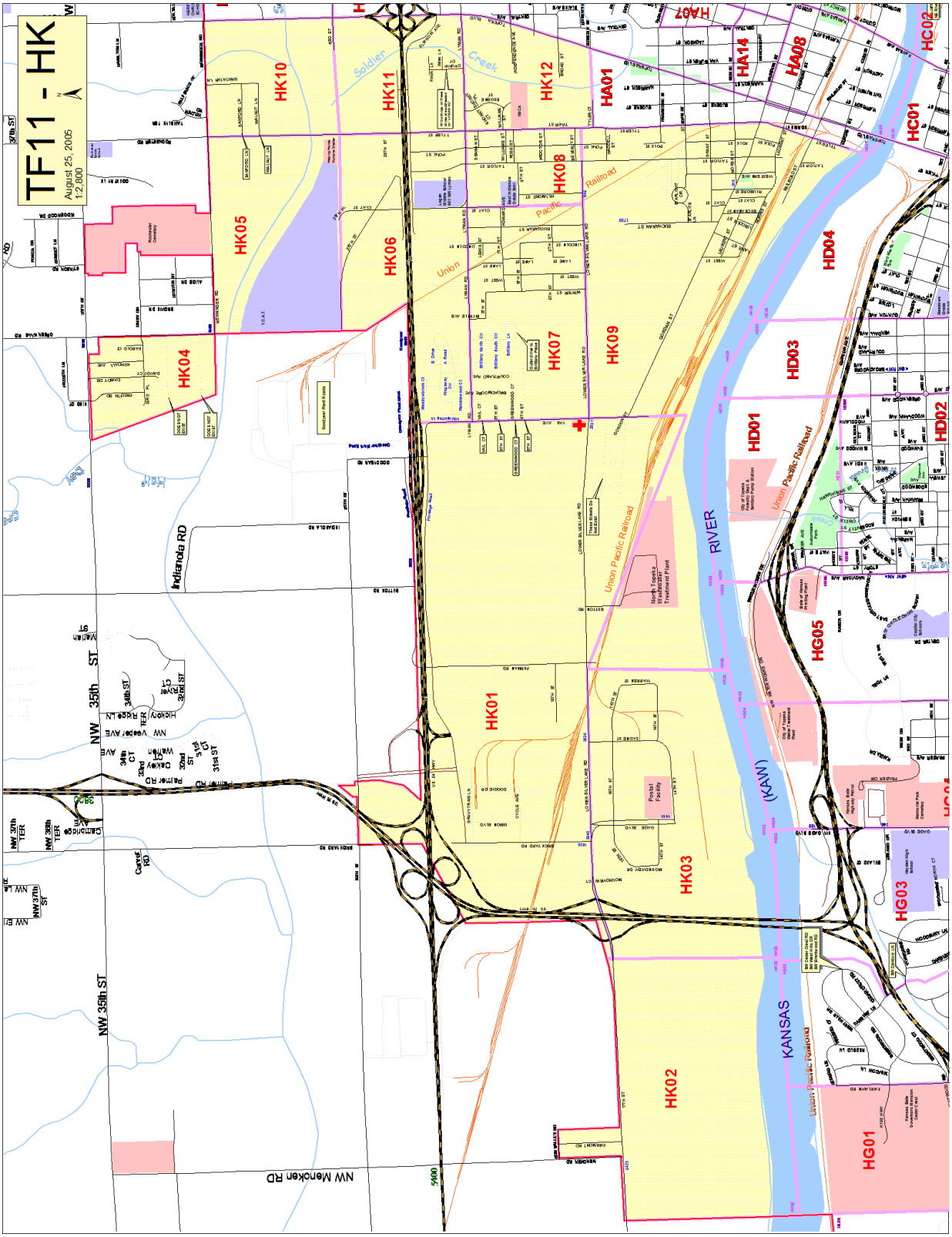
2 Lieutenants

2 Apparatus Operators

2 Fire Fighters

Total calls 2019:

Engine 11	756	**Truck 11**	662
Fire Calls	99	102	
Overheat	1	1	
Medical	365	233	
Hazardous	16	13	
Service Call	27	21	
Good Intent	147	150	
False Alarms	100	141	
Weather	0	1	
Special	1	0	

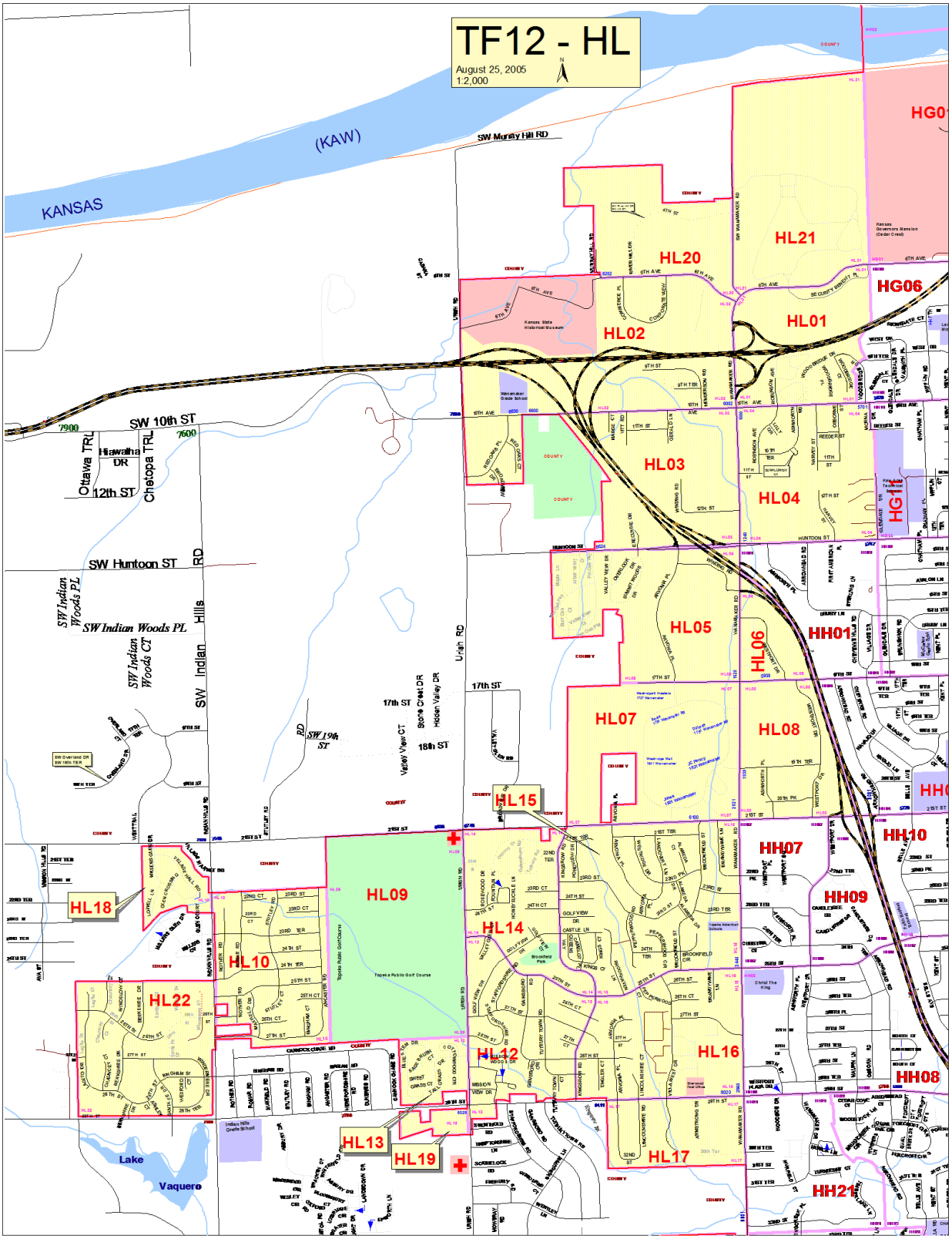

TF11 - HK
August 25, 2005
1:2,800
HK01
HK02
HK03
HK04
HK05
HK06
HK07
HK08
HK09
HK10
HK11
HK12
HA01
HA07
HA08
HA14
HC01
HC02
HD01
HD02
HD03
HD04
HG01
HG03
HG05
Soldier Creek
Union Pacific Railroad
RIVER
KANSAS (KAW)
Indianola RD
NW 35th ST
NW Wenoken RD
North Topeka Wastewater Treatment Plant
Postal Facility

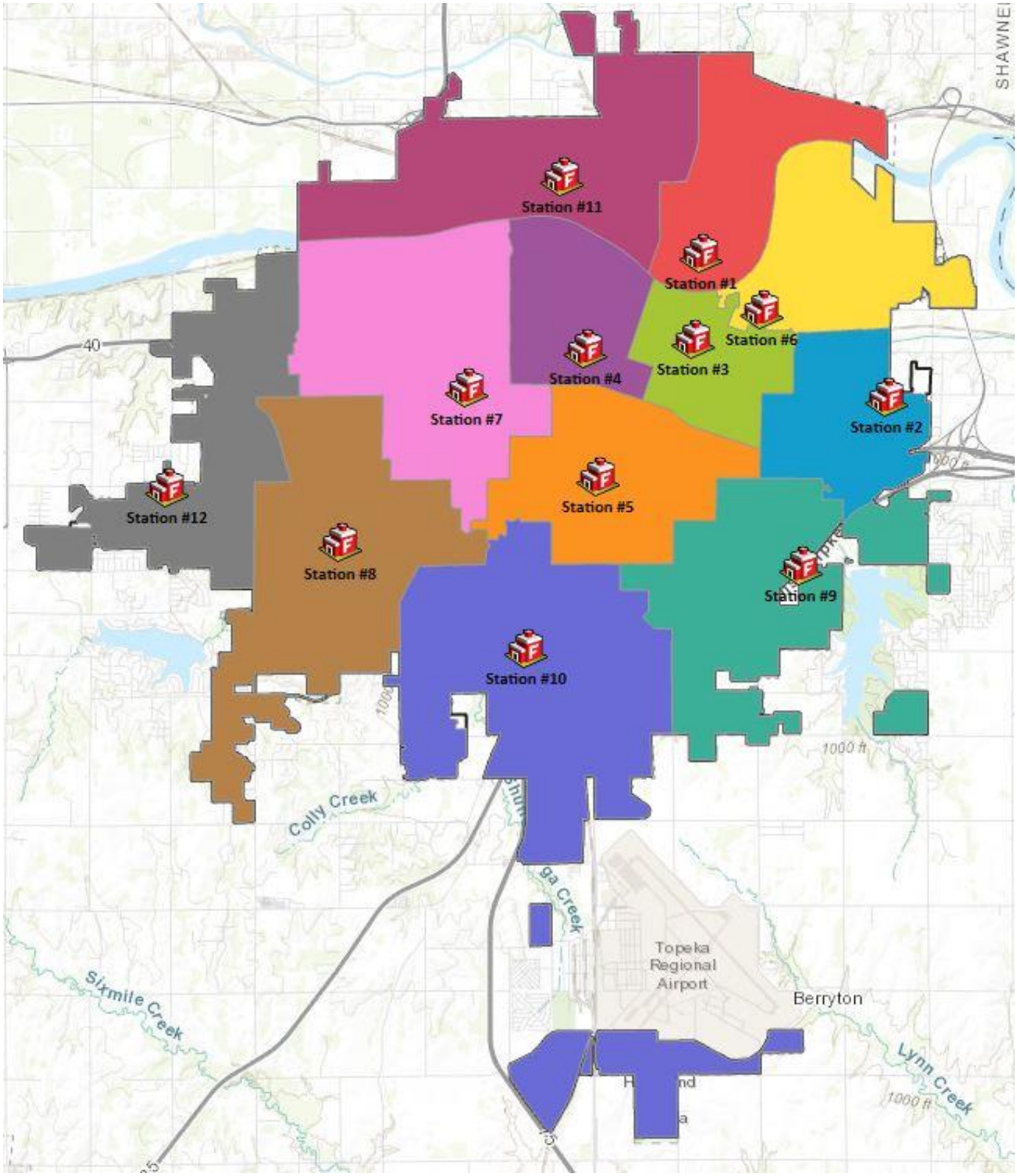
Fire Station # 12

2101 SW Urish Rd.

Fire Station 12 was originally added in the mid 1970's and located at Forbes Field. In 1979 that station was shut down and the crews were moved to companies back inside the city. A new Station 12 located at 21st and Urish Road was built in 1996. Station 12 houses one Engine Company and one Brush Truck as well as one Battalion Chief. Station 12 protects the entire west side of the city from Fairlawn Road and west from the Kansas River to SW 53rd Street.

Year built:	1996
Council District:	District # 8
Apparatus:	Engine 12 is a 2014 Rosenbauer Commander
	Brush 12 is a 1994 Dodge Ram 2500
	Car 103 is a 2017 Ford F150
Personnel:	1 Battalion Chief
	1 Captain
	1 Lieutenant
	1 Apparatus Operator
	1 Fire Fighter
Total calls 2019:	2,173 calls
	Fire Calls 62
	Overheat 4
	Medical 1,194
	Hazardous 22
	Service Call 67
	Good Intent 580
	False Alarms 242
	Special 2


TF12 - HL
August 25, 2005
1:2,000
KANSAS
(KAW)
SW Murray Hill RD
HG0
HL21
HL20
HG06
HL02
HL01
SW 10th ST
7900
7600
Hiawatha DR
Ottawa TRL
Chetopa TRL
12th ST
HL03
HL04
HG1
SW Huntoon ST
SW Indian Woods PL
SW Indian Woods CT
SW Indian Hills RD
Urish RD
HL05
HL06
HH01
17th ST
18th ST
SW 19th ST
Stone Creek DR
Hidden Valley DR
Valley View CT
HL07
HL08
HL15
HH10
HH07
HH09
HL18
HL09
HL14
HL10
HL22
HL12
HL16
HH08
HL13
HL19
HL17
HH21
Lake
Vaquero


Station #11
Station #1
Station #6
Station #3
Station #4
Station #7
Station #2
Station #5
Station #12
Station #8
Station #9
Station #10
40
Colly Creek
Topeka
Regional
Airport
Berryton
Sixmile Creek
Lynn Creek
1000 ft

Throughout the rest of this document we will examine the goals and objectives of each of these divisions and how to best make them carry out the mission statement of the Topeka Fire Department which is:

"To save lives and protect property by providing excellence and leadership in fire, rescue, emergency medical response, fire prevention and public education."

Divisions of the Topeka Fire Department

Administration

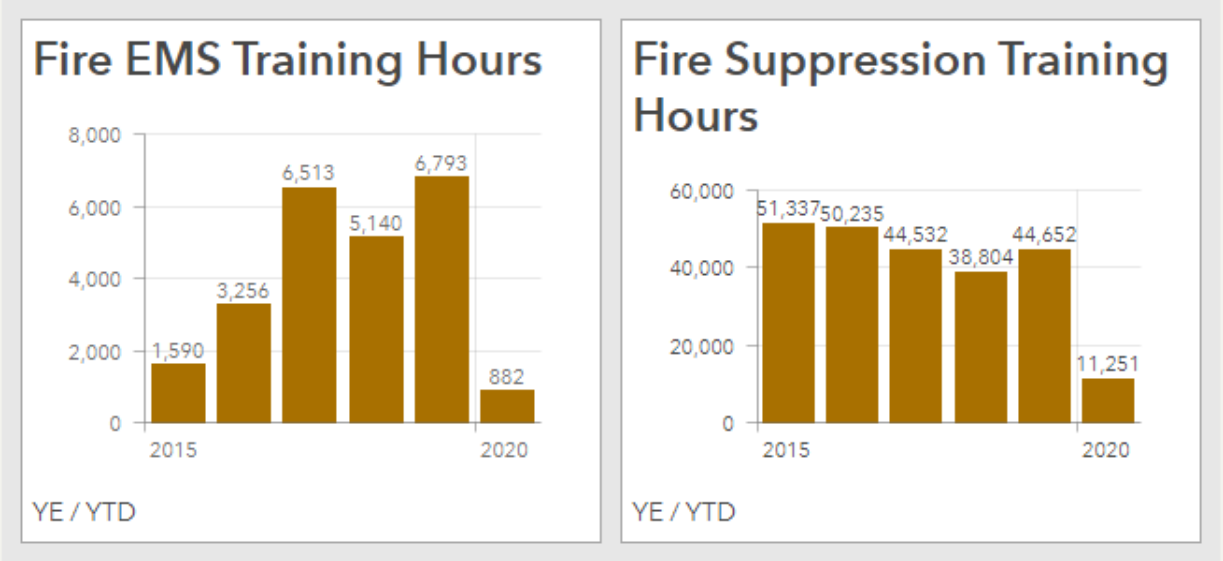
Administration of the department is led by the Fire Chief who is supported by a Deputy Chief and 1 Office Assistant. Business Services division is directly responsible for administering the budget at the direction of the Fire Chief and providing clerical support. Business Services is led by a Business Service Manager and supported by one office specialist and one accounting specialist.

Training Division

The Training Division of the Topeka Fire Department has four training officers working under the direction of the Division Chief of Training Chief.

The Training Division's primary responsibilities are the development, administration, and evaluation of all departmental training. This includes, but is not limited to, fire ground training, emergency medical training, new recruit academy, professional development training, promotional testing programs, hazardous materials and technical rescue training.

The Training Division is responsible for providing approximately 45,000 hours of training to approximately 230 sworn personnel annually

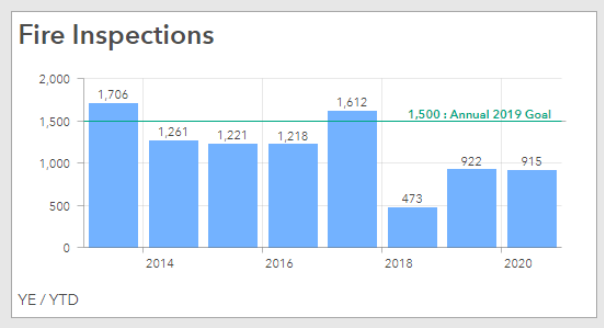


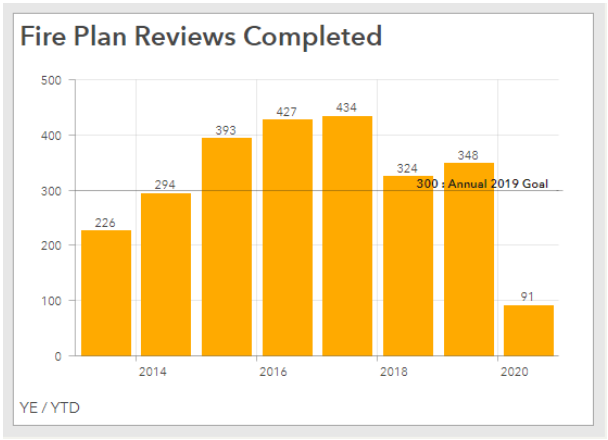
Fire Prevention

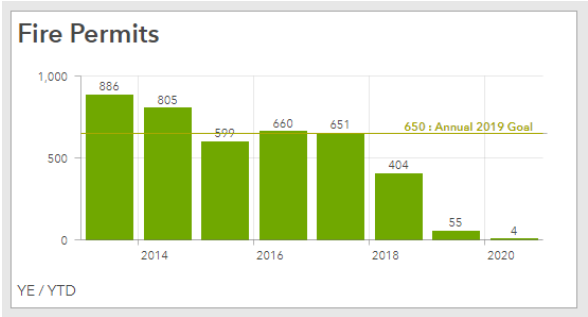
The Fire Prevention Division has three branches, Inspection, Investigation and Public Education working under the direction of the Fire Marshal.

Inspection

Inspection currently has four Fire Inspector's whose duties include fire safety inspections of schools, colleges, child care centers, home daycares, assisted living facilities, residential board and care facilities, hospitals, ambulatory surgical centers and hotel/motels. Fire Inspectors perform commercial plan reviews and are involved throughout all phases of construction projects. They also are responsible for inspections prior to issuing a variety of permits including Residential Open Burn, Bonfires, Fireworks Sale/Display, Salvage Yards, Tent or temporary Structure and Fuel Storage tanks.

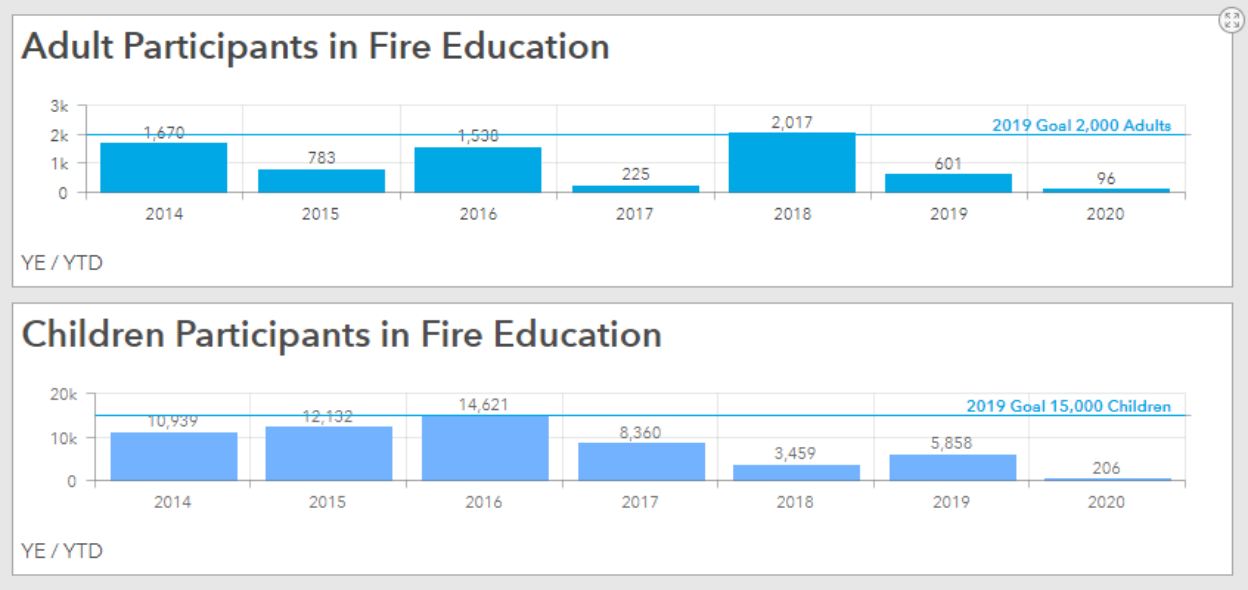






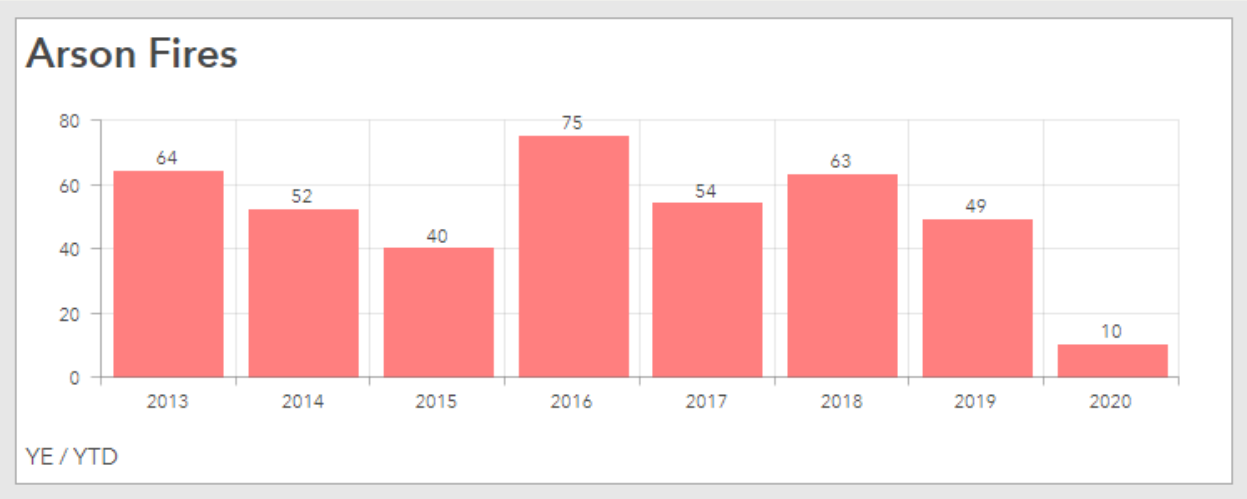
Public Education

Public Education currently has one Public Education Officer who develops and coordinates a variety of public education and training programs used in the community, providing age appropriate fire safety programs to schools, youth groups, businesses, and civic organizations. Programs for children and adults include classroom presentations as well as realistic home fire escape exercises utilizing the department's portable Fire Safety Trailer. Fire extinguisher training opportunities are also provided to adults.



Investigation

The Fire Investigative Unit is staffed by three full time Fire Investigators, each working a 24 hour shift. All investigators are certified law enforcement officers with full powers of arrest and certified at the Investigator II level through the Kansas State Fire Marshal's Office. Fire Investigators determine origin and cause of fires, both intentionally set and accidental. The Investigations unit has been active since 2005 in a collaborative partnership with the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) supporting an Accelerant Detection Canine and handler.



Operations

The Operations Division has three Shift Commanders and six Battalion Chiefs, and 216 personnel working under the direction of a Division Chief of Operations. Emergency services are provided from 18 operational companies housed in 12 stations strategically located throughout the City of Topeka. Types of services are suppression, rescue, medical aid and

responses for hazardous material. Non-emergency services include pre-planning, public education and smoke detector installation. Additionally agreements are in place to provide or receive mutual aid assistance with 8 surrounding county departments. The Operations Division also provides several specialty units that include a technical rescue, confined space team and hazardous materials response team with regional responsibilities. The Division also maintains equipment for water rescue and brush units for grass fires.

Rescue

The department has six heavy rescue apparatus that can respond to all types of rescue calls staffed with a minimum of three EMT's. In addition the department staffs one of six regional task force teams in the state of Kansas. This task force team responds with a 37 foot semi-trailer fully equipped for any type of rescue.

Hazmat

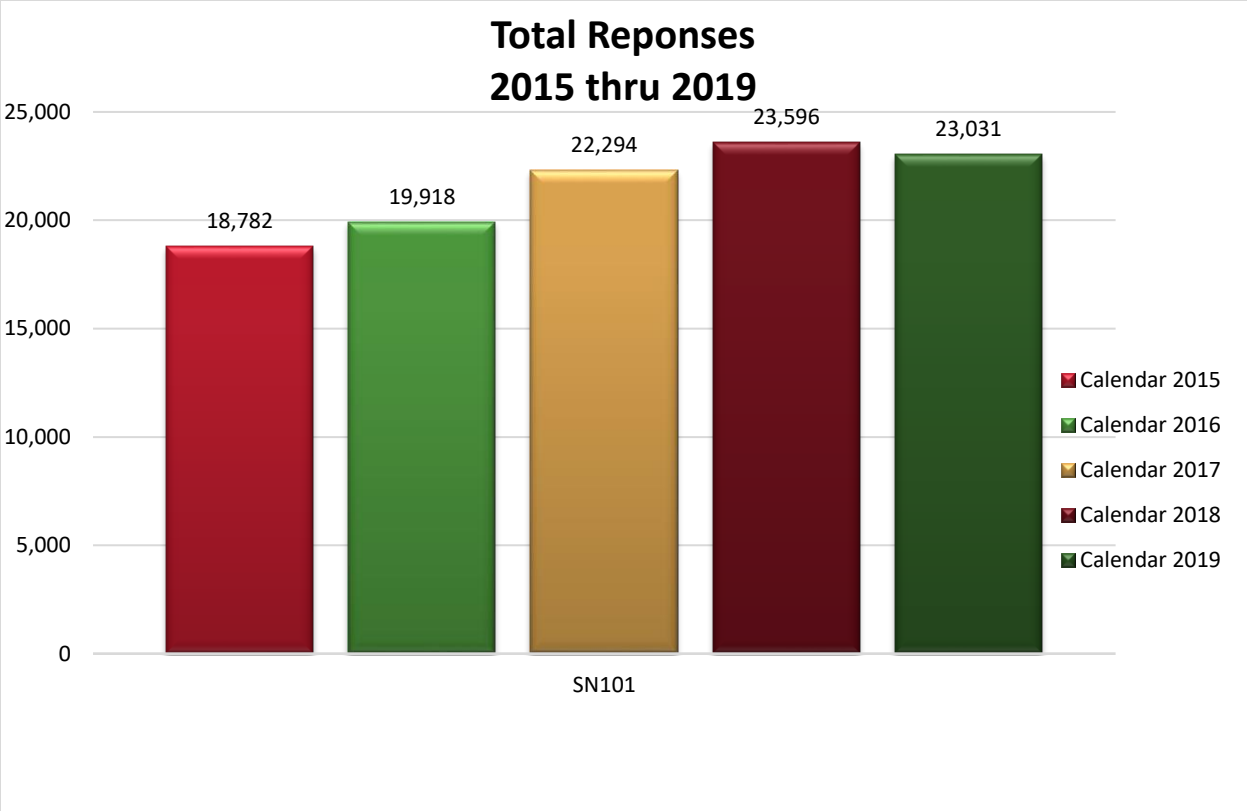
The Hazardous Materials team is a part of the State Fire Marshal's Office Regional Response Team covering 23 counties in Northeast Kansas. The department currently has 68 nationally accredited Hazardous Material Technicians with all other personnel certified at the operations level. Hazardous Materials Incidents team can mitigate chemical, biological, radiological, and nuclear materials. The teams deployable with a one ton dully and a trailer, with six certified Hazardous Materials Technicians and an engine company for deacon.

Emergency Medical Services

The department offers a BLS First Responder service to the city by responding one of 14 apparatus to all EMS calls in the city with a minimum of 3 EMT's. The Emergency Medical Services Division is responsible for the management of the EMS program provided by the department. This management includes compliance with Federal, State and Local laws and regulations related to EMS operations as well as the health and safety of the department members. Other duties include working with community partners in the delivery of EMS and promoting cardiopulmonary resuscitation (CPR) and first aid awareness to the community and keeping the department up to date on current and best practices in care, documentation and innovations related to the scope of practice.

Calls for Service

Demand for service has been historically increased over the years with customers demanding more from their tax dollars as indicated in the chart below. Demand for service has risen 19% over the last 5 years from 17,562 calls in 2013 to 20,857 calls in 2017.



Distribution

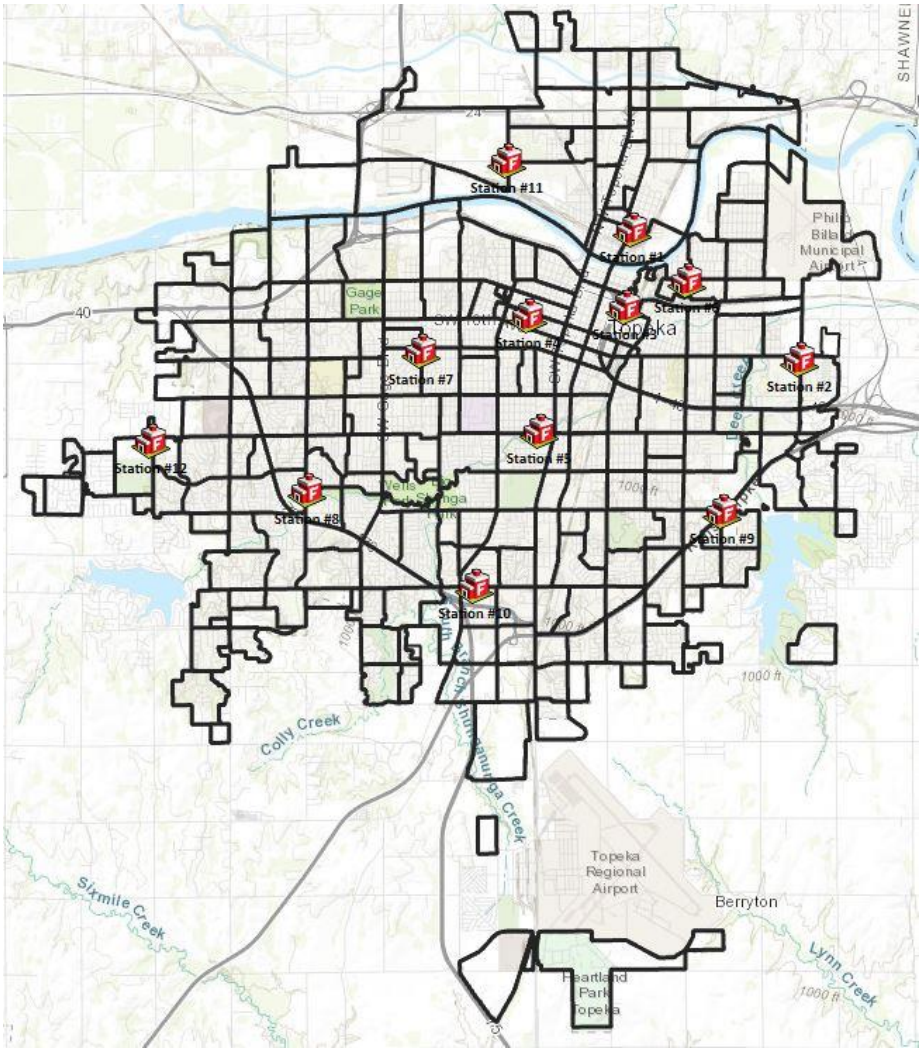
Distribution is the geographic placement of physical resources to accomplish the goals identified. The primary consideration is to locate fire stations and personnel to allow for calls for service to be answered as quickly as possible and arrive with the necessary equipment. The department has made an effort to place stations to provide a 4 minute response time for the populated areas of the city and allow for overlap of coverage that provides additional resources for the emergencies that can occur.

Concentration

The analysis of concentration is used to determine the best placement of resources for the department to complete identified required tasks by assembling an effective response force (ERF) of enough equipment and personnel at the scene within acceptable limits. This includes having enough additional resources to call upon if a larger response force is needed to mitigate an emergency. Topeka Fire Department collects and analyzes data such as number and types of emergency responses, street miles, traffic and square miles serviced to determine if station locations are properly placed throughout the city.

Response Area / Planning Zones

The department collects its data by 12 station territories which are divided into an average of 18 quadrants. This method allows use to look at data and analyze both how a specific piece of equipment is performing and if there are any areas in that territory that have specific needs that are not being met.



Automatic Aid

Topeka fire department currently provides automatic aid to the Shawnee Heights Fire department for calls located on I 70 from the east city limits to the Kansas Turnpike and on the Kansas turnpike between mile markers 182 and 176.

Mutual Aid

All fire departments within Shawnee County participate in a mutual aid agreement that results in providing the Topeka Fire department, six (6) rural fire departments, one (1) full time airport authority and one (1) full time military department the ability to share resources if needed.

Contract fire protection

Topeka fire department offers fire protection services to business located outside of the city of Topeka by agreement. The businesses listed below have entered into agreements with the city to provide full services from the fire department.

1.	US Foods	4725 NW Hwy 24
2.	Crown Distributing	4435 NW Hwy 24
3.	Washburn tower	301 SW Wanamaker Rd.

Risk Analysis

Methodology

The Topeka Fire Department separates community risk into three separate categories and evaluates each of them independently. The three categories with descriptions are listed below.

1. Community threats / risk – defined as threats present in the community that we are not able to control but are able to plan for.
2. Community risk – defined as risk to the community that the department can engage to help control the outcome.
3. Response risk – defined as the multi hazard incidents that the department responds to on daily basis.

Community Threat / Risk

The city of Topeka is vulnerable to a wide range of hazards that threaten the community, businesses and environment. To determine the hazards that pose the greatest threat, the city adopts the findings which Shawnee County Emergency Management has prepared as a Hazard Identification and Vulnerability Assessment. The major findings are summarized below. The assessment was developed from historical data of events that have occurred and specifically examines:

1. Probability (frequency) of event
2. Magnitude of event
3. Expected warning time before event
4. Expected duration of event

For planning purposes, the critical analysis that must be undertaken is an assessment of the consequences of each hazard including the potential area of impact, population exposed to impact, duration of the hazard and the economic consequences.

Three levels of risk have been identified: High, Moderate and Low.

High – High probability of occurrence: at least 50 percent or more of the population at risk from hazard; significant physical impacts to buildings and infrastructure; major loss or potential loss of functionality to all essential facilities (hospital, police, fire, EOC and shelters).

Moderate – Less than 50 percent of population at risk from hazard; moderate physical impacts to buildings and infrastructure; moderate potential for loss of functionality to essential facilities.

Low – low probability of occurrence or low threat to population; minor physical impacts.

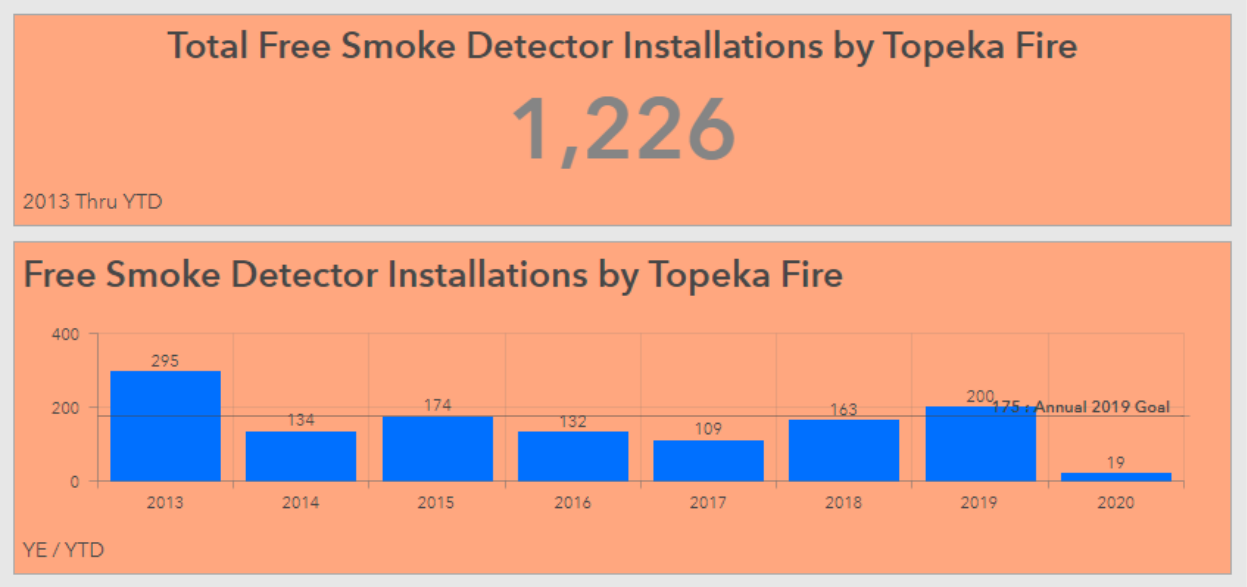
Hazard	Probability	x .45	Magnitude	x .30	Duration	x .15	Warning Time	x .1	totals	
Flood	3.9	1.755	4	1.2	3.9	0.585	1	0.1	3.64	High
Winter Storm	3.8	1.71	4	1.2	4	0.6	1	0.1	3.61	High
Lightning	4	1.8	3	0.9	2	0.3	4	0.4	3.4	High
Civil Disorder	4	1.8	2	0.6	3	0.45	3	0.3	3.15	High
Windstorm	4	1.8	2	0.6	2	0.3	4	0.4	3.1	High
Tornado	3	1.35	3.8	1.14	1	0.15	4	0.4	3.04	High
Extreme Temperatures	4	1.8	2	0.6	3.6	0.54	1	0.1	3.04	High
Terrorism/Agri-terrrorism	2	0.9	3.7	1.11	3	0.45	4	0.4	2.86	Moderate
Dam/Levee Failure	2	0.9	3	0.9	4	0.6	3	0.3	2.7	Moderate
Hazardous Materials	2	0.9	3	0.9	3	0.45	4	0.4	2.65	Moderate
Wildfire	3.5	1.575	1	0.3	2	0.3	4	0.4	2.575	Moderate
Utility Infrastructure Failure	2	0.9	3	0.9	3	0.45	3	0.3	2.55	Moderate
Major Disease Outbreak	2	0.9	3	0.9	3.7	0.555	1	0.1	2.455	Moderate
Hailstorm	3	1.35	1	0.3	2	0.3	4	0.4	2.35	Moderate
Earthquake	2	0.9	2	0.6	3	0.45	4	0.4	2.35	Moderate
Drought	2	0.9	2	0.6	3.8	0.57	1	0.1	2.17	Moderate
Land Subsidence	1	0.45	2	0.6	3.4	0.51	3	0.3	1.86	Low
Agricultural Infestation	2	0.9	1	0.3	3.5	0.525	1	0.1	1.825	Low
Expansive Soils	2	0.9	1	0.3	3	0.45	1	0.1	1.75	Low
Soil Erosion/Dust	2	0.9	1	0.3	2	0.3	1	0.1	1.6	Low
Landslide	1	0.45	1	0.3	3	0.45	3	0.3	1.5	Low
Radiological	1	0.45	1	0.3	1	0.15	4	0.4	1.3	Low

Community Risk

Topeka fire department has identified several risk to the community that it can work to eliminate or lessen significantly with involvement outside of our formal programs.

1. **Canvassing neighborhoods after a significant fire**: After a significant structure fire or a fire that ends with injuries or fatality, fire crews will canvass the houses in the adjoining blocks and offer information on our smoke detector program.

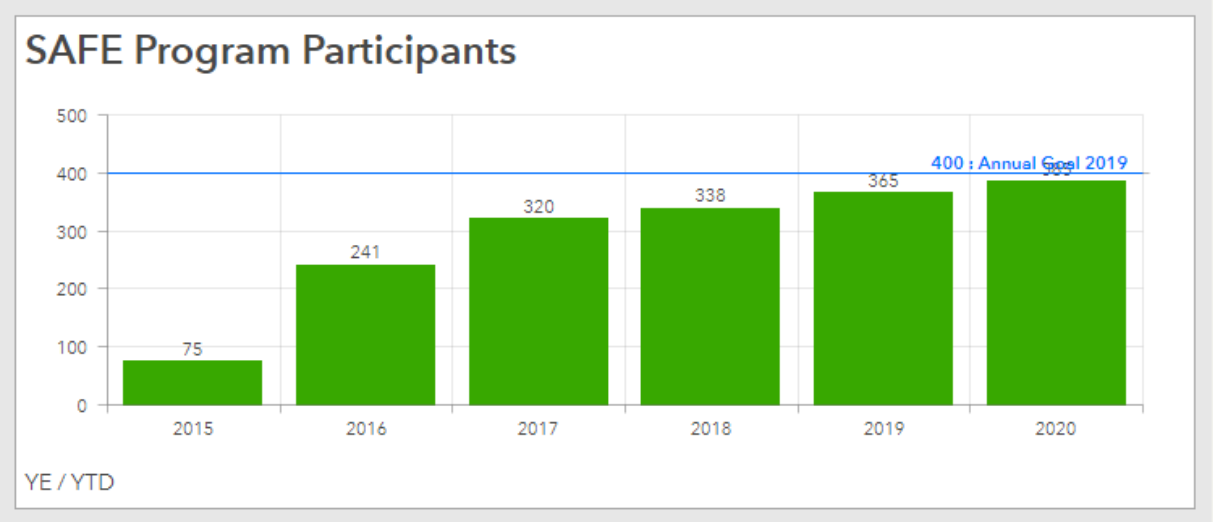
2. **Smoke detector program**: Topeka Fire Department's smoke alarm program is sponsored by the American Red Cross. This program provides free lifesaving benefits to the citizens of our community. The program offers the installation of free smoke alarms for private homes. The smoke alarms are installed by Topeka firefighters, which also provide education and general safety information. Citizens can apply for a free smoke alarm online or at the administrative office.



3. **Hands only CPR**: Topeka fire department takes every opportunity to teach people to save lives with hands only CPR.

4. **Stop the bleed**: Stop the Bleed is a national awareness campaign and call-to-action. Stop the Bleed is intended to cultivate grassroots efforts that encourage bystanders to become trained, equipped, and empowered to help in a bleeding emergency before professional help arrives.

5. **Special Assistance in Fire Emergencies (SAFE)**: Initiated in 2015, this program is designed to identify and assist the special needs of citizens that would require special assistance during an emergency situation. Citizen's with disabilities register for this program by providing the Topeka fire department with basic information such as name, address, contact information and the type of special assistance that might be needed. Once the information is gathered and processed it is added to the 911 dispatch center database. This information is then relayed to the responding department personnel in the event of an emergency situation.



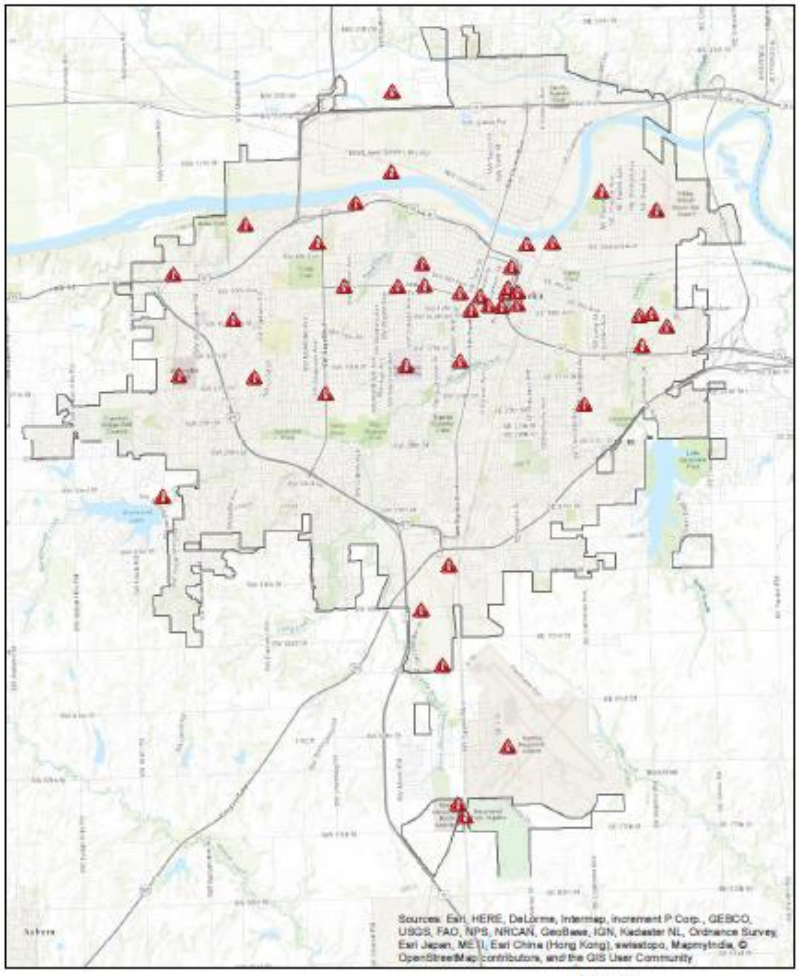
6. **Team Up To Clean Up**: The Topeka Team Up to Clean Up initiative is an effort developed in May of 2018 by city staff, which uses specific guidelines in working with area neighborhoods. Selecting neighborhoods for this initiative is based on the city's 2017 Neighborhood Health Map findings and concentrates on neighborhood areas considered to be Intensive Care. The second necessity in selecting a neighborhood for the initiative is the active participation from the neighborhood's Neighborhood Improvement Association (NIA). The activities that occur in the neighborhoods undergoing this work requires a massive team effort, including the collaborative participation from NIA's, residents, volunteers from partnering agencies, and city departments. Donated services, tools and resources also come from a variety of other area organizations.

7. **Company level pre-fire plans**: Fire crews are task with contacting and pre-fire planning businesses within their districts and recording the information. The information recorded is entered into the Shawnee County Emergency Dispatch Center's CAD system to be used in case of an emergency as well as determine a hazard class for future response determination.

Target Hazards

Other target hazards around the city include three major hospitals along with their outreach clinics, two adult and one juvenile correction facility, one college campus and five high schools along with numerous secondary schools, the state capital building with several others that house state offices and many industrial locations such as Target Distribution, Bimbo Bakery, Frito Lay, Hills Pet Nutrition, Mars Chocolate, Reeser's Fine Foods, Payless Shoe Source, Blue Cross and Blue Shield and Burlington Northern Santa Fe to name a few.

Topeka Fire Department's Major Hazards



Response Risk

Suppression

Goals of Suppression

TFD is committed to meeting the goals of NFPA 1710 by providing the first arriving unit on scene of a fire alarm in 240 seconds (4 minutes) travel time 90% of the time and an Effective Response Force (ERF) on scene within 480 seconds (8 minutes) 90% of the time.

Total Response Time Sequence

There are two steps in the fire department total response time sequence. Each of the two steps, after receipt of alarm are defined below:

1. Turnout time: The time from when units acknowledge notification of the emergency to the beginning point of response time.

Turnout time may be managed to some degree by improving the method of communications between the dispatch center and the fire station so the time required to handle the alarm information is reduced.

2. Travel time: The time that begins when units are en route to the emergency incident and ends when units arrive on the scene.

Travel time is effected by many factors including time of day, weather conditions, road construction and location of companies when dispatched.

Travel time is one of the most manageable segments of time in the entire sequence. This is the amount of time that it takes for a piece of fire apparatus or an ambulance to travel from a fire station to an incident scene (wheel start to wheel stop). Travel time can be managed by selecting strategic fire station locations based on the amount of time that it takes to travel from the fire station along the most efficient travel route to the incident scene.

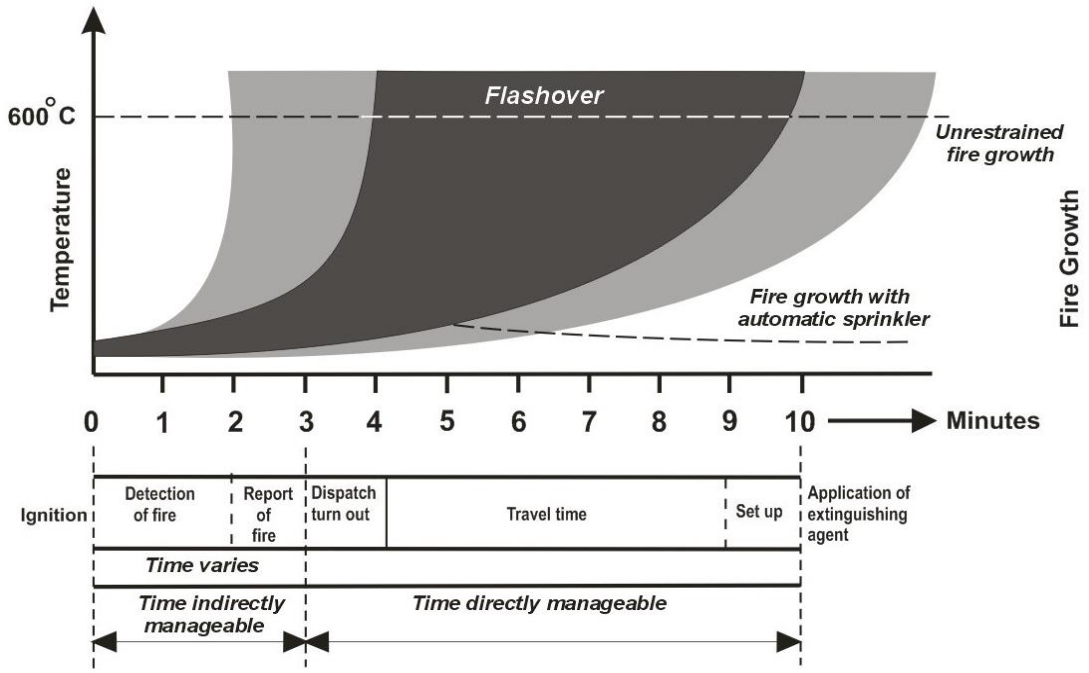
4. Total Response Time: Total Response time is simply the combination of the two times described above measuring the time from when the unit acknowledges the call to when the apparatus arrives on scene.

The Importance of Time

Time is the critical element when an emergency is reported. Fire growth can expand at a rate of many times its volume per minute. Time is the critical factor for the rescue of occupants and the application of extinguishing agents to minimize loss.

The time segment between fire ignition and the start of fire suppression has a direct relationship to fire loss. The delivery of emergency medical services is also time critical. Survival rates for some types of medical emergencies are dependent on rapid intervention by trained emergency medical personnel. In most cases, the sooner trained fire or emergency medical rescue personnel arrive, the greater the chance for survival and conservation of property.

Flashover Regardless of the speed of growth or length of burn time, all fires go through the same
stages of growth. One particular stage emerges as very significant because it marks a critical change in conditions. It is called *flashover.* Measuring the time to flashover is a function of time and temperature. Fire growth occurs exponentially; that is, fire doubles itself every second of free burn that is allowed. This can be plotted on what is known as the time and temperature curve (figure 4).



This diagram illustrates fire growth over time and the sequence of events that may occur from ignition to suppression. Depending on the size of the room, contents of the room, and available oxygen, flashover can occur in less than 2 or more than 10 minutes. Flashover occurs most frequently between 4 and 10 minutes.

There are a number of factors that determine when flashover may occur. These include the type of fuel, the arrangement of the fuels in the room, room size, and so on. Because these factors vary, the exact time to flashover cannot be predicted. Flashover can typically occur from less than 4 to beyond 10 minutes after free burning starts. A post flashover fire burns hotter and moves faster, compounding the search and rescue problems in the remainder of the structure at the same time that more firefighters are needed for fire attack.

There are a number of critical time frames that the fire department can manage, as well as some it cannot, that impact success. The time from ignition to discovery to reporting of a fire is indirectly manageable. This time period can be managed through requiring the use of automatic detection and/or suppression systems and automatic reporting to the public safety answering point (PSAP). In a perfect world, all structures would be equipped with automatic detection and/or suppression systems. One factor that has helped to manage this segment of time is the increasing use of automatic smoke detectors in residential occupancies. What is lacking, however, is the automatic reporting to the public safety answering point.

Key Performance Indicators

Low Risk – Small fires that can effectively be extinguished by a one unit response that includes trash fire, vehicle fires and grass fires.

Effective Response Force – The department has defined the effective response force for a low risk suppression event to include three personnel arriving on one pumper apparatus.

(Low Risk) Fire Suppression - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:44	0:00:01	0:00:01	0:02:18
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:21	0:02:37	0:02:34	0:02:49
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:06:25	0:07:35	0:06:40	0:06:23
		Rural				
	Travel Time ERF **Concentration**	Urban	0:06:25	0:08:00	0:06:45	0:06:17
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:08:16	0:10:03	0:09:35	0:09:42
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:07:46	0:10:06	0:08:36	0:08:00
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Moderate Risk – Structure fires that require a full alarm response to mitigate such as residential structure fires or fires in mobile property used as a residence.

Effective Response Force - The department has defined an effective response force for a moderate risk suppression event to include seventeen personnel arriving with three pumper apparatus with a minimum of three personnel each, two truck companies with a minimum of three personnel each and two chief officers.

(Moderate Risk) Fire Suppression - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:45	0:00:01	0:00:16	0:02:11
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:59	0:02:52	0:03:02	0:03:00
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:08:13	0:08:51	0:08:45	0:07:22
		Rural				
	Travel Time ERF **Concentration**	Urban	0:10:43	0:07:40	0:14:59	0:08:37
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:11:53	0:12:59	0:12:12	0:09:49
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:12:04	0:10:06	0:17:34	0:09:08
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

High Risk – Fires that require a full alarm response at a minimum and occur in high risk buildings defined by NFIR's codes and include target hazards throughout the city.

Effective Response Force - The department has defined an effective response force for a moderate risk suppression event to include seventeen personnel arriving with three pumper apparatus with a minimum of three personnel each, two truck companies with a minimum of three personnel each and two chief officers.

(High Risk) Fire Suppression - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:01	0:00:01	0:00:01	0:01:39
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:37	0:02:34	0:02:36	0:02:29
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:06:46	0:05:21	0:13:33	0:05:27
		Rural				
	Travel Time ERF **Concentration**	Urban	0:17:27	0:05:34	0:12:02	0:27:37
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:57	0:07:29	0:29:11	0:08:23
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:19:48	0:07:30	0:14:34	0:29:37
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

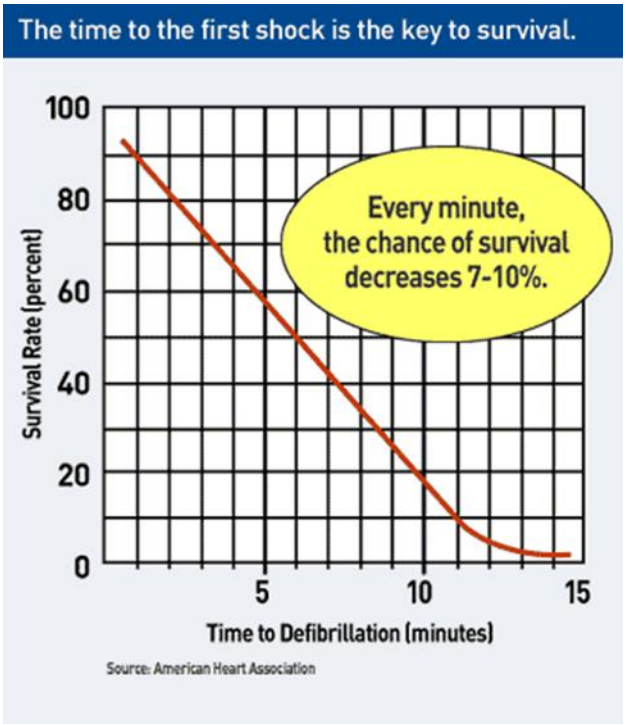
Emergency Medical Services

Goals for Emergency Medical Services

TFD is committed to meeting the goals set forth in NFPA 1710 which states that the department will provide a first responder with an AED on scene within 240 seconds (4 minutes) travel time 90% of the time.

The Importance of Time

The delivery of emergency medical services (EMS) by first responders is also time critical for many types of injuries and events. If a person has a heart attack and cardiopulmonary resuscitation (CPR) is started within four minutes, the victim's chances of leaving the hospital alive are almost four times greater than if the victim did not receive CPR until after four minutes. Figure 5 shows the survival rate for heart attack victims when CPR is available.



Key Performance Indicators

Low Risk – Calls for service that can effectively be handled by the response of one apparatus with a minimum of three EMT's.

Effective Response Force - The department has defined the effective response force for a low risk EMS event to include three personnel arriving on one apparatus.

(Low Risk) EMS - 90th Percentile Times - Baseline Performance			2019-2017	2019	2018	2017
Alarm Handling	Pick-up to Dispatch	Urban	0:01:13	0:00:00	0:00:00	0:01:58
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:22	0:02:19	0:02:27	0:02:20
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:06:06	0:06:12	0:06:06	0:05:58
		Rural				
	Travel Time ERF **Concentration**	Urban	0:06:06	0:06:12	0:06:06	0:05:58
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:08:23	0:07:59	0:08:06	0:08:57
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:07:48	0:07:52	0:07:56	0:07:33
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Moderate Risk – Calls for service that would require the response of three apparatus to effectively mitigate the situation. These would typically be motor vehicle accidents, motor vehicle accidents involving pedestrians and trapped or entangle persons.

Effective Response Force - The department has defined an effective response force for a moderate risk EMS event to include seven personnel arriving with one pumper apparatus with a minimum of three personnel, one truck companies with a minimum of three personnel and one chief officer.

(Moderate Risk) EMS - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:41	0:00:00	0:00:00	0:03:04
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:39	0:02:36	0:02:39	0:02:41
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:06:19	0:06:45	0:06:23	0:05:59
		Rural				
	Travel Time ERF **Concentration**	Urban	0:06:36	0:06:34	0:07:28	0:07:10
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:12	0:08:33	0:08:43	0:10:34
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:07:56	0:08:23	0:09:54	0:07:31
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

High Risk – Calls for service that require full alarm response at a minimum with the addition of specialty resources. These types of call may include mass casualty or specialty rescues.

Effective Response Force – The department has defined an effective response force for a high risk EMS event to include seventeen personnel arriving with three pumper apparatus with a minimum of three personnel each, two truck companies with a minimum of three personnel each and two chief officers.

(High Risk) EMS - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:00:00		0:00:00	
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:13		0:02:13	
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:08:46		0:08:46	
		Rural				
	Travel Time ERF **Concentration**	Urban				
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:22:15		0:22:15	
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban				
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Rescue Response

Goal of Rescue Response

The department's goal for Rescue response is set by NFPA 1710.

Key Performance Indicators

Low Risk – Calls that can be effectively mitigated by the response of one apparatus. These calls may include removal from stalled elevator or locked in/out calls.

Effective Response Force – The department has defined the effective response force for a low risk Rescue event to include three personnel arriving on one apparatus.

(Low Risk) Rescue - 90th Percentile Times - Baseline Performance			2019-2017	2019	2018	2017
Alarm Handling	Pick-up to Dispatch	Urban	0:02:32	0:02:10	0:01:32	0:02:44
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:20	0:02:05	0:02:23	0:02:20
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:05:59	0:05:58	0:09:37	0:05:23
		Rural				
	Travel Time ERF **Concentration**	Urban	0:05:57	0:05:58	0:09:37	0:04:51
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:15	0:09:14	0:12:29	0:08:24
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:07:58	0:08:08	0:12:28	0:06:34
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Moderate Risk - Calls for service that would require the response of three apparatus to effectively mitigate the situation. These would typically be motor vehicle accidents, motor vehicle accidents involving pedestrians and trapped or entangle persons.

Effective Response Force - The department has defined an effective response force for a moderate risk Rescue event to include seven personnel arriving with one pumper apparatus with a minimum of three personnel, one truck companies with a minimum of three personnel and one chief officer.

(Moderate Risk) Rescue - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:58	0:00:01	0:00:00	0:03:14
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:55	0:02:51	0:02:55	0:02:48
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:09:16	0:54:30	0:07:36	0:03:49
		Rural				
	Travel Time ERF **Concentration**	Urban	0:08:48	0:02:52	0:00:00	0:11:17
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:53	0:57:08	0:08:57	0:08:12
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:11:17	0:04:46	0:00:05	0:13:30
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

High Risk – Calls for service that would require a specialty rescue team in addition to a full alarm assignment. These types of calls would include confined space rescues, trench rescues and high angle rescues.

Effective Response Force - The department has defined an effective response force for a high risk Rescue event to include seventeen personnel arriving with three pumper apparatus with a minimum of three personnel each, two truck companies with a minimum of three personnel each and two chief officers.

(High Risk) Rescue - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban				
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban				
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban				
		Rural				
	Travel Time ERF **Concentration**	Urban				
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban				
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban				
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Hazardous Materials Response

Goal of Hazardous Material Response

The department's goal is to meet all requirements of NFPA 1710

Key Performance Indicators

Low Risk – Calls for service that can be effectively handled by the response of one apparatus staffed with 3 personnel trained to the Hazmat Operations level. These calls may include CO alarms, natural gas leak or small gasoline spills.

Effective Response Force - The department has defined the effective response force for a low risk Hazmat event to include three personnel arriving on one apparatus.

(Low Risk) HazMat - 90th Percentile Times - Baseline Performance			2019-2017	2019	2018	2017
Alarm Handling	Pick-up to Dispatch	Urban	0:01:51	0:00:01	0:00:01	0:02:59
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:52	0:03:09	0:02:39	0:02:58
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:06:44	0:07:42	0:07:10	0:05:23
		Rural				
	Travel Time ERF **Concentration**	Urban	0:06:43	0:07:23	0:07:34	0:05:15
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:52	0:11:17	0:09:30	0:09:47
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:08:38	0:09:57	0:09:21	0:07:28
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Moderate Risk – Calls for service that would require the response of the hazmat team consisting of 3 apparatus. These calls may include chemical spills or leaks and investigating hazardous conditions.

Effective Response Force - The department has defined an effective response force for a moderate risk Hazmat event to include seven personnel arriving with one pumper apparatus with a minimum of three personnel, one truck companies with a minimum of three personnel and one chief officer.

(Moderate Risk) HazMat - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:01:43	0:00:00	0:00:00	0:03:23
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:02:45	0:02:36	0:02:31	0:03:01
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:08:01	0:06:52	0:08:09	0:09:01
		Rural				
	Travel Time ERF **Concentration**	Urban	0:07:52	0:07:29	0:11:06	0:07:25
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:09:54	0:09:21	0:10:07	0:10:55
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban	0:13:14	0:09:13	0:15:17	0:12:20
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

High Risk – Calls for service that would require the response of the hazmat team in addition to a full alarm response. These types of call ay include accidents involving tankers on the roadways, train derailment or aircraft emergencies.

Effective Response Force - The department has defined an effective response force for a high risk Hazmat event to include seventeen personnel arriving with three pumper apparatus with a minimum of three personnel each, two truck companies with a minimum of three personnel each and two chief officers.

(High Risk) HazMat - 90th Percentile Times - Baseline Performance			**2019-2017**	**2019**	**2018**	**2017**
Alarm Handling	Pick-up to Dispatch	Urban	0:07:08		0:07:08	
		Rural				
Turnout Time	Turnout Time 1st Unit	Urban	0:22:04		0:22:04	
		Rural				
Travel Time	Travel Time 1st Unit **Distribution**	Urban	0:12:26		0:12:26	
		Rural				
	Travel Time ERF **Concentration**	Urban				
		Rural				
Total Response Time	Total Response Time 1st Unit on Scene **Distribution**	Urban	0:15:05		0:41:38	
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				
	Total Response Time ERF **Concentration**	Urban				
			n=XXX	n=XXX	n=XXX	n=XXX
		Rural				

Reliability

The ability of the department to respond to calls for service in a timely manner as expected by the citizens of Topeka. The department looks at the number of incidents that a 1st due unit is unavailable to respond to calls for service within its response zone.

Assessment of Call Timing and Concurrent Calls

Concurrency is the number of time multiple calls occur in a stations territory that requires another apparatus to respond to the emergency. The following chart shows the total number of calls handled by each station, the number of calls the 1st due unit responded to and the number of calls where other stations were required to respond outside their territory. This gives a percentage of reliability that a 1st due unit was able to respond to calls within their territory.

% of Calls Handled by 1st Due Station

STATION	Calls for Service	1st Due Responded	Responded from Other Stations	Other Station %	1st Due Reliability
Station 1	1,444	1,099	345	23.89%	76.11%
Station 2	926	693	233	25.16%	74.84%
Station 3	1,584	890	694	43.81%	56.19%
Station 4	2,099	1,510	589	28.06%	71.94%
Station 5	2,739	2,014	725	26.47%	73.53%
Station 6	817	694	123	15.06%	84.94%
Station 7	3,298	2,492	806	24.44%	75.56%
Station 8	2,694	2,067	627	23.27%	76.73%
Station 9	2,034	1,738	296	14.55%	85.45%
Station 10	2,691	2,305	386	14.34%	85.66%
Station 11	661	561	100	15.13%	84.87%
Station 12	1,951	1,420	531	27.22%	72.78%

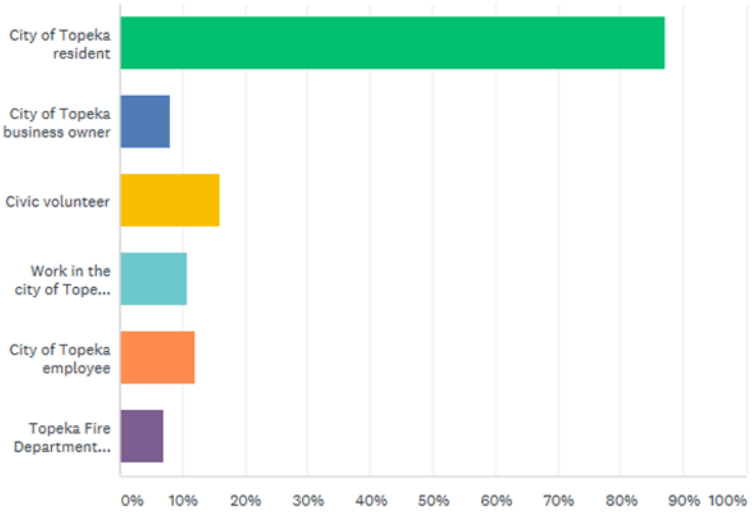
Community Expectations

Community Survey Results

The department conducted a community wide survey over the course of 3 months that resulted in the following conclusions.

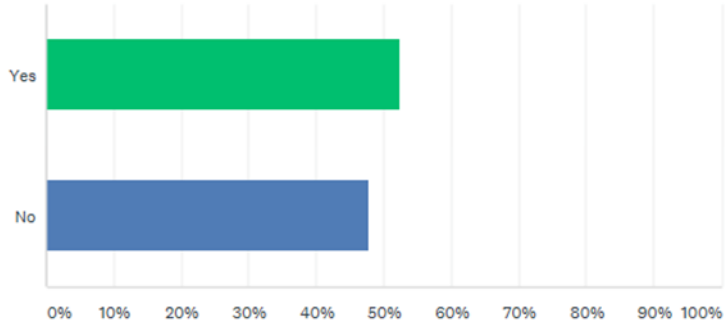
Respondents

Respondents were primarily citizens of Topeka with a mix of backgrounds.



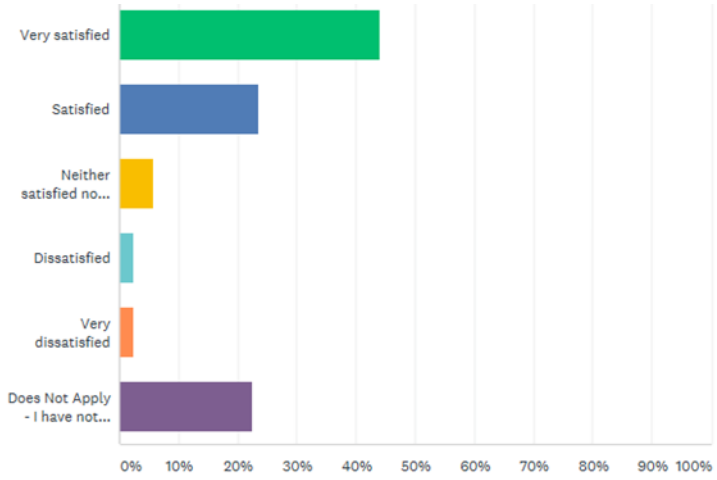
Previously received service

Those participating were evenly split between having previously received service from TFD and never having received service.



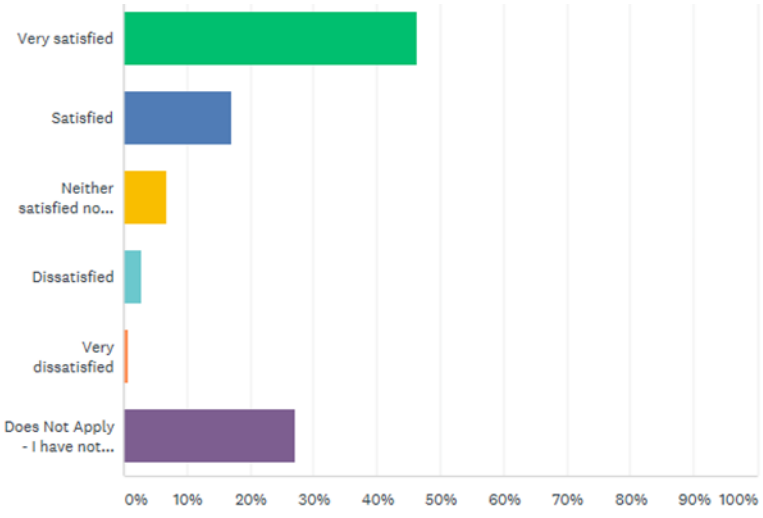
Quality of Service

A majority of those responding indicated, 67%, indicated being satisfied or very satisfied with the quality of service provided by the department.



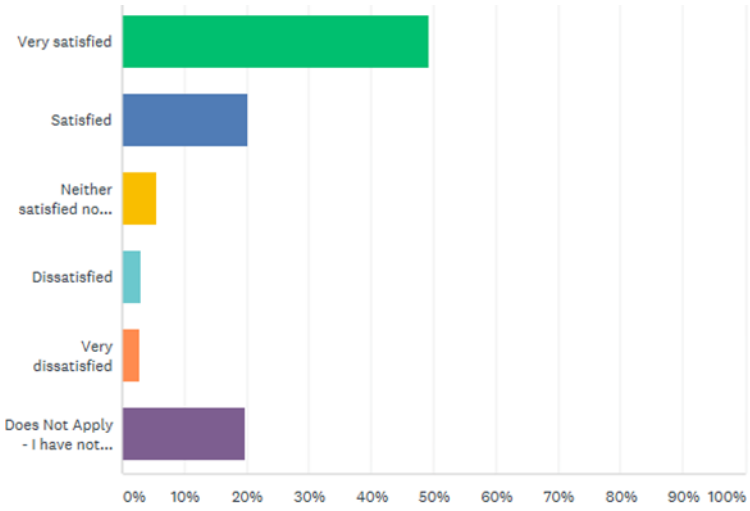
Promptness of Emergency Response

A majority of those responding, 63%, were satisfied or very satisfied with the promptness of response from the department.



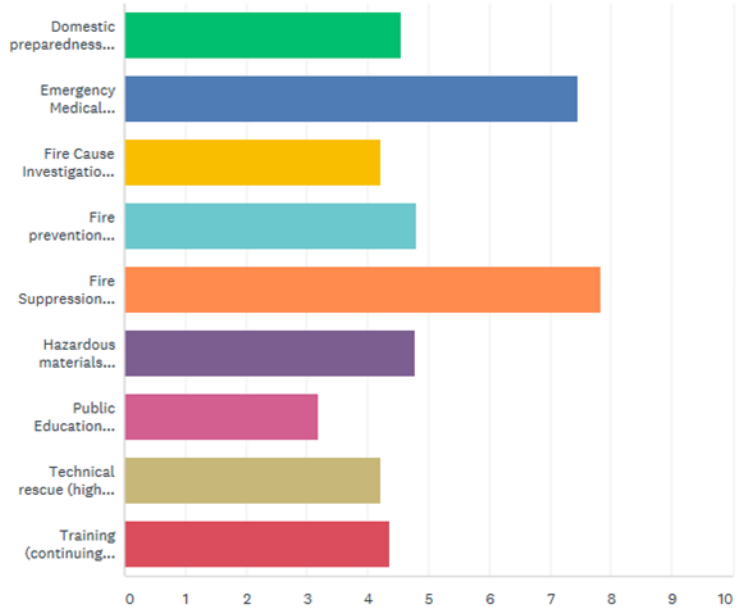
Professionalism of the department

Nearly 70% of those responding were satisfied or very satisfied with the professionalism of the department.



Priority of Services

Fire suppression and emergency medical services were the top priorities of those responding while all other services shared an equal priority.



Service Expectations

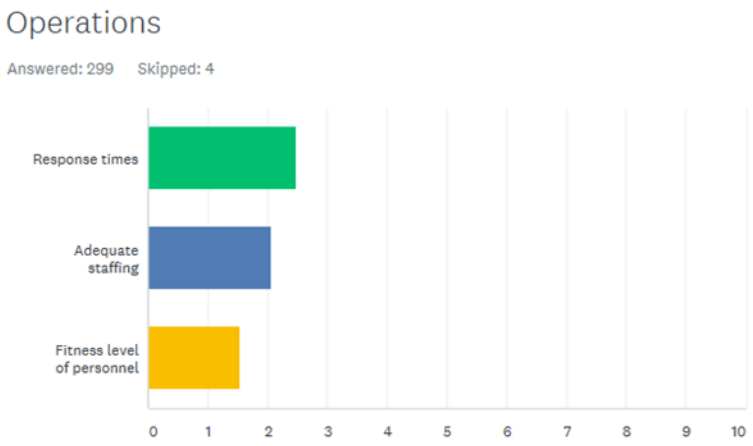
The top five prioritized by a number one answer from respondents is listed below.

1. Respond quickly and timely to emergencies. 66.34%
2. Have well prepared and trained professionals responding to all emergencies. 64.36%
3. Have enough fire stations to cover all areas within an appropriate timeframe. 53.14%
4. Put fires out safely. 51.82
5. Have adequate and up to date equipment to do the job. 50.83

Division Priorities

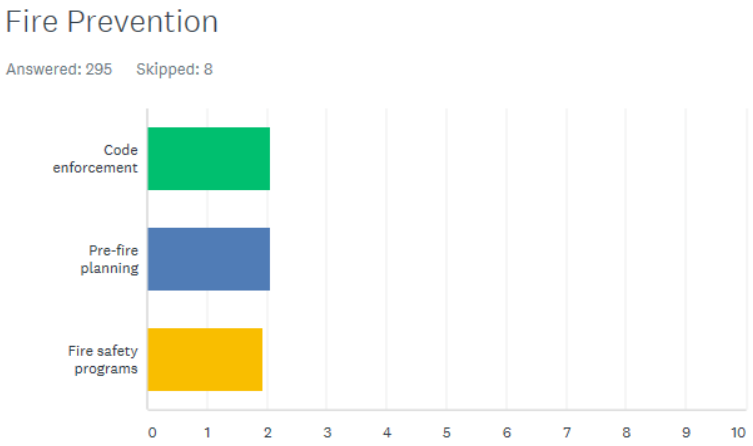
Operations

Respondents rated responses times as the number one priority for operations.



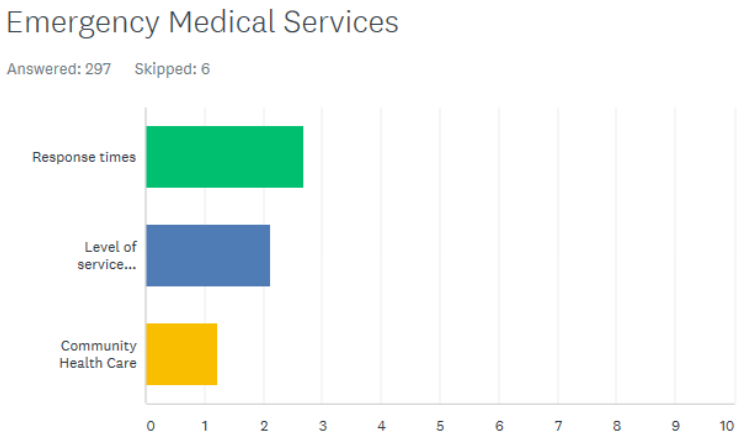
Fire Prevention

Respondents rated all aspects of Fire Prevention equally.



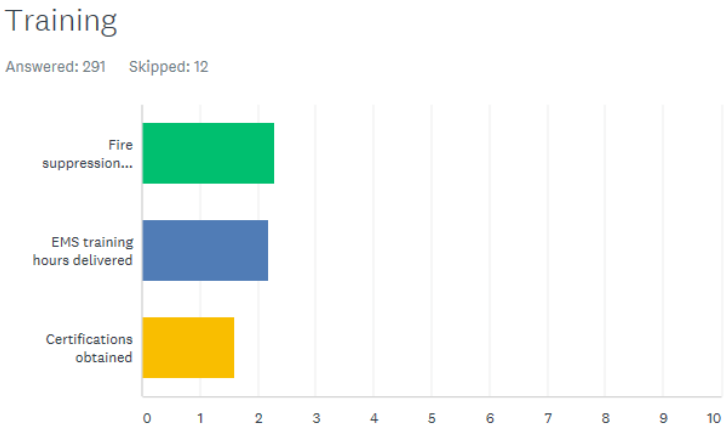
Emergency Medical Services

Respondents rated response times as the number one priority for emergency medical responses.



Training

Respondents rated fire suppression and emergency medical training as nearly equal.



Public Education

Those responding identified school age children as those most important in programs delivered.