



Unified Government Clerk's Office

Monica L Sparks
Unified Government Clerk

701 North 7th Street, Suite 323
Kansas City, Kansas 66101-3070

Phone: 913-573-5260

Fax: 913-573-5299

<http://www.wycokck.org>

NOTICE OF SPECIAL MEETING

To the Members of the Governing Body of the
Unified Government of Wyandotte County/Kansas City, Kansas:

You are hereby notified that a Special Meeting of the Unified Government of Wyandotte County/Kansas City, Kansas, is scheduled to be conducted in a hybrid format on Thursday, March 27, 2025, at 5:00 PM, for a presentation of the Kansas City Kansas Fire Department Master Plan from Fire Administration in the Commission Chambers of the Municipal Office Building, 701 N. 7th Street, Kansas City, Kansas. **A copy of the presentation is attached to this notice.**

The public will be able to observe or listen to the special session live on YouTube or UGTV, or through ZOOM; information is below. The public may also view the special session from the fifth-floor conference room of the Municipal Office Building, 701 N. 7th Street, Kansas City, Kansas.

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/89057676683>

Webinar ID: 890 5767 6683

Or One tap mobile:

+12532158782,81423989537# US (Tacoma)

+13462487799,81423989537# US (Houston)

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

+1 253 205 0468 US; +1 253 215 8782 US (Tacoma); +1 346 248 7799 US (Houston)

+1 669 444 9171 US; +1 669 900 9128 US (San Jose); +1 719 359 4580 US

+1 309 205 3325 US

+1 312 626 6799 US (Chicago)

+1 360 209 5623 US

+1 386 347 5053 US

+1 507 473 4847 US

+1 564 217 2000 US

+1 646 558 8656 US (New York)

+1 646 931 3860 US

+1 689 278 1000 US

+1 301 715 8592 US (Washington DC)

+1 305 224 1968 US

877 853 5257 US Toll-Free

888 475 4499 US Toll-Free

International numbers available:

<https://us02web.zoom.us/j/kdgvfnxZHT>

Dated this 25th day of March 2025.





MISSION STATEMENT

Prevent Harm

Survive and Thrive

Be Nice and Be Kind

PRESENTATION OVERVIEW

SECTION 1 - PREFACE AND INTRODUCTION

SECTION 2 – EXECUTIVE SUMMARY

SECTION 3 – FIRE STATIONS AND CONDITIONS

SECTION 4 – OPERATIONAL STAFFING

SECTION 5 – EMERGENCY MEDICAL SERVICES

SECTION 6 – APPARATUS REPLACEMENT PLAN

SECTION 1 - PREFACE AND PROJECT INTRODUCTION

INTRODUCTION TO THE MOA AND MASTER PLAN

MEMORANDUM OF AGREEMENT OVERVIEW

- AN AGREEMENT BETWEEN THE UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS, AND INTERNATIONAL ASSOCIATION OF FIREFIGHTERS LOCAL NO. 64, SET TO REDEFINE FIRE/EMS SERVICES STARTING JULY 1, 2022
- EFFECTIVE JULY 1, 2022: AIM TO DEVELOP A COMPREHENSIVE MASTER PLAN FOR FIRE/EMS SERVICE DELIVERY
- AUTHORITY DERIVED FROM MOA ARTICLE 35, EMPHASIZING THE COLLABORATIVE EFFORT FOR THIS CRITICAL MISSION

PURPOSE, GOALS, AND MASTER PLAN

MASTER PLAN AND COMMITTEE GOALS

- FORM A STRATEGIC PARTNERSHIP WITH IAFF LOCAL 64 AND FIRE ADMINISTRATION TO DEVELOP THE MASTER PLAN
- INTRODUCTION TO THE COMMITTEE'S PURPOSE: TO UNDERTAKE A COMPREHENSIVE ANALYSIS FOR FIRE/EMS SERVICES TO DEVELOP A TEN YEAR PLAN
- KEY FACTORS FOR PLAN DEVELOPMENT CONSIDERATION ARE STATION LOCATIONS, STAFFING, RESPONSE TIMES, COMMUNITY AND FIRE FIGHTER SAFETY ACCORDING TO NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 1710
- THE MASTER PLAN COMMITTEE, A JOINT UNION-MANAGEMENT INITIATIVE, IS TASKED WITH DEVELOPING RECOMMENDATIONS TO OPTIMIZE FIRE/EMS SERVICE DELIVERY. THIS INCLUDES EXAMINING VARIOUS REPORTS AND DATA TO INFORM THEIR DECISIONS

STAFFING REQUIREMENTS

ANALYSIS OF MINIMUM STAFFING AND SAFETY STANDARDS

MINIMUM STAFFING REQUIREMENTS FROM MEMORANDUM OF AGREEMENT (P. 54-55):

- AT LEAST 73 SUPPRESSION PERSONNEL PER SHIFT
- THREE SAFETY OFFICERS ON DUTY AT ALL TIMES
- STAFFING LEVELS FOR PUMPERS, AND LADDER TRUCKS
- MINIMUM NUMBER OF COMPANIES

STRATEGIC ANALYSIS TO BE DETERMINED ARE:

- DEPLOYMENT STRATEGIES
- REACH AND MAINTAIN REQUIREMENT IN NFPA 1710 STANDARDS FOR FIRE AND EMERGENCY SERVICES

SECTION 2 – EXECUTIVE SUMMARY

THE EXECUTIVE SUMMARY IS AN ANNOTATED VERSION OF THIS REPORT

- THE ANALOGY IS HIGH LEVEL HEADLINES VERSUS DETAILED INFORMATION
- THE EXECUTIVE SUMMARY IS FOUND ON PAGE 5 OF THE MASTER PLAN
- THE EXECUTIVE SUMMARY IS SEPARATE AND APART FROM THE PRESENTATION SUMMARY

SECTION 3 – FIRE STATIONS AND CONDITIONS

FIRE STATION LOCATIONS AND CONDITIONS: BACKGROUND DUTIES & RESPONSIBILITIES

- KCKFD PROTECTS 128 SQUARE MILES, SERVING OVER 153,345 RESIDENTS PLUS DAILY INFLUX OF WORKERS/VISITORS
- WYANDOTTE COUNTY HAS OVER 1,300 MILES OF FEDERAL AND STATE ROADWAYS, WHICH ACCOMMODATE MORE THAN 400,000 VEHICLES DAILY.
- KCKFD HAS ONE OF AMERICA'S LARGEST RAIL HUBS WITHIN OUR BORDERS, AND BURIED UNDERNEATH OUR SOIL ARE MILES OF PETROLEUM AND NATURAL GAS PIPELINES
- KCKFD HAS BEEN DESIGNED TO BE AN ALL HAZARDS DEPARTMENT CAPABLE OF HANDLING EVERY TYPE OF INCIDENT

FIRE STATION LOCATIONS AND CONDITIONS: BACKGROUND DUTIES & RESPONSIBILITIES

ENHANCING EFFICIENCY THROUGH STRATEGIC CONSOLIDATION

- MERGER OF FIRE STATION 16 AND 17 INTO A SINGLE NEW FACILITY, THEREBY SAVING MORE THAN \$12 MILLION IN CONSTRUCTION COSTS
- CONSOLIDATION ENHANCES THE GREATER TURNER COMMUNITY WITH UPDATED FACILITIES AND APPARATUS
- THE NEW HOME OF MEDIC 17, TRUCK 17, PUMPER 16, READY RESERVE 16, BRUSH TRUCK 16, BATTALION CHIEF 2, AND SAFETY OFFICER 2

FIRE STATION LOCATIONS AND CONDITIONS:

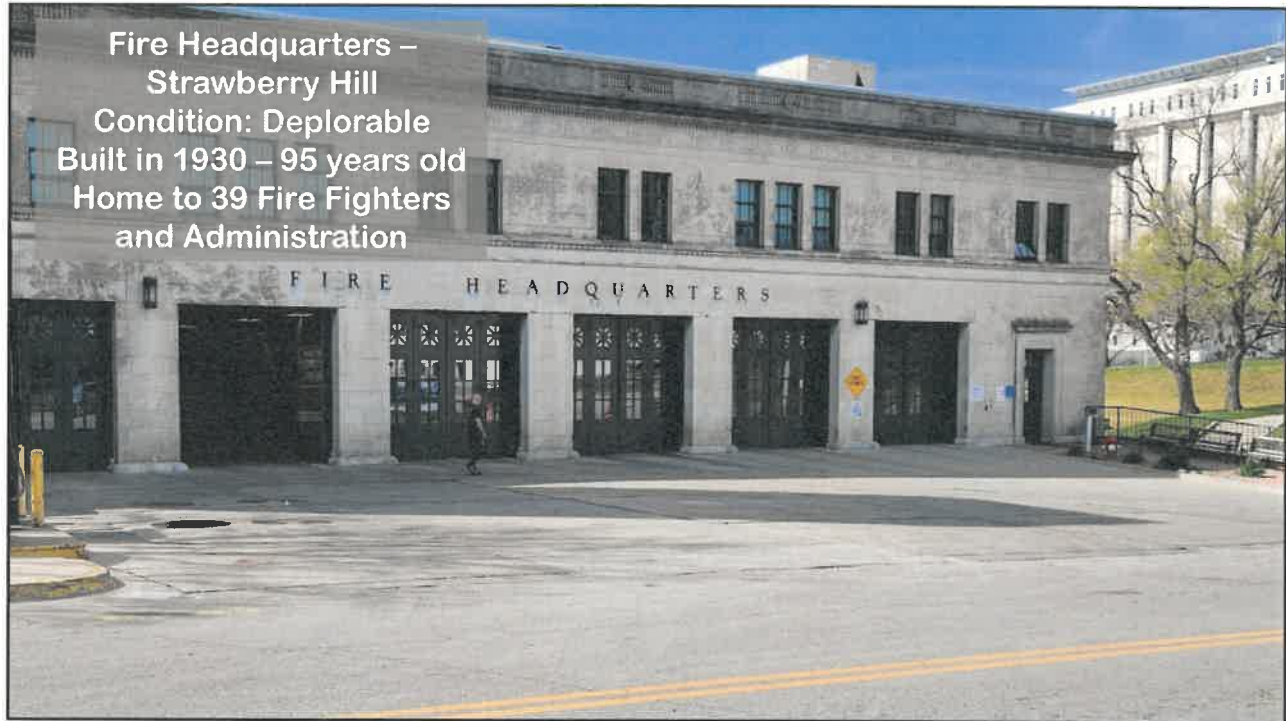
STRATEGIC GOALS FOR OPTIMIZING STATION LOCATIONS

- MEET NFPA STANDARD 1710; INSURANCE SERVICES OFFICE (ISO); AND NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST) FOR STATION LOCATION AND RESPONSE TIMES
- FOUR MINUTE RESPONSE TIME GOAL FOR ARRIVAL OF THE FIRST UNIT
- DECEMBER 11, 2023, REORGANIZATION FROM 19 TO 18 STATIONS TO IMPROVE EFFICIENCY AND SAVE COSTS
- SPECIFIC FOCUS ON ENSURING A SAFE, CLEAN, AND COMFORTABLE WORKPLACE FOR FIRE PERSONNEL

FIRE STATION LOCATIONS AND CONDITIONS:

OPTIMIZING RESPONSE TIMES

- TURNOUT TIME DURING THE DAY IS 80 SECONDS. THE NIGHT TURNOUT TIME IS 120 SECONDS FOR EMERGENCIES
- MAINTAIN A FOUR MINUTE TRAVEL TIME FOR FIRST RESPONDERS TO ANY EMERGENCY
- DETAILED RESPONSE TIME GOALS FOR SUBSEQUENT ARRIVING UNITS FOUND IN NFPA STANDARD 1710

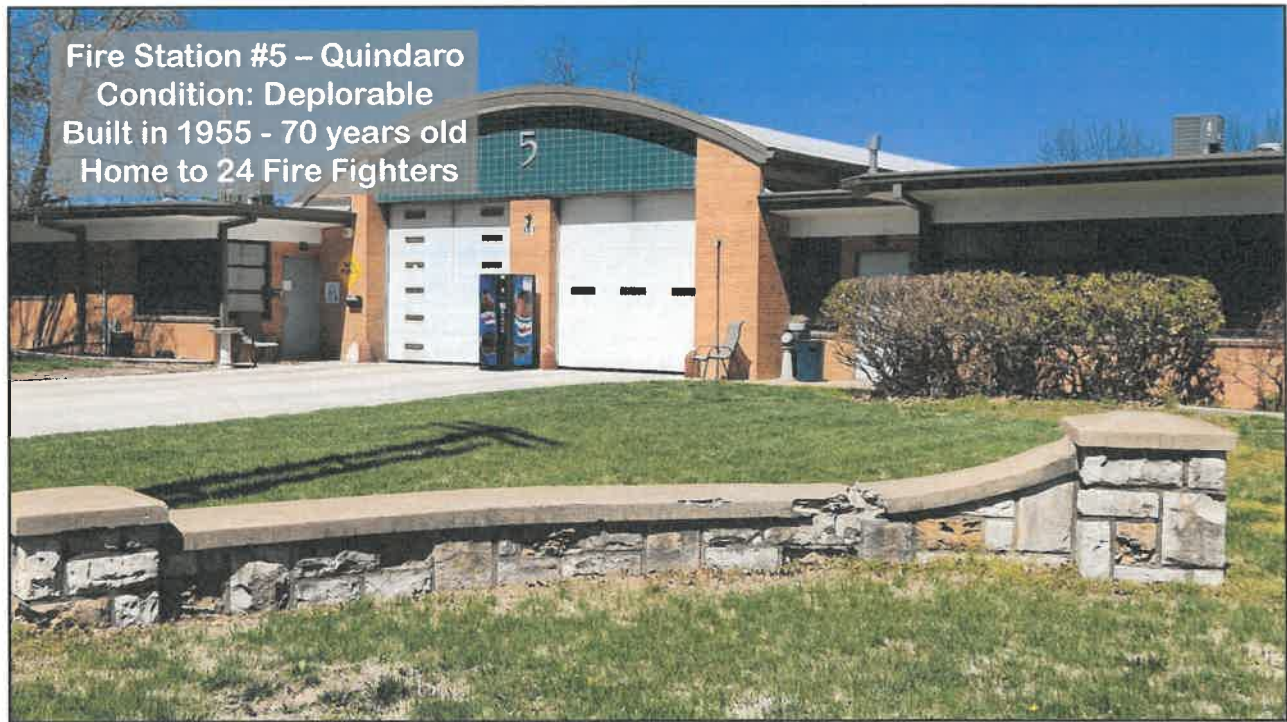


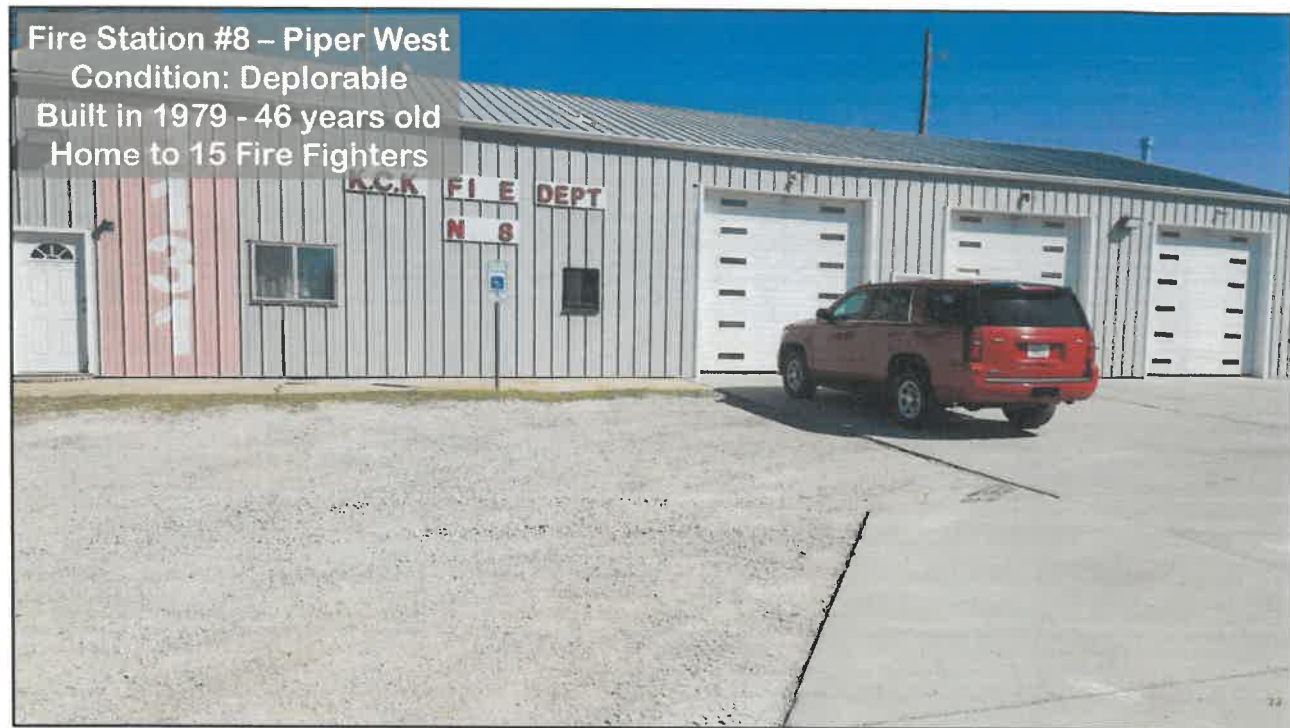
Fire Station #3 – Armourdale
Condition: Deplorable
Built in 1951 - 74 years old
Home to 24 Fire Fighters

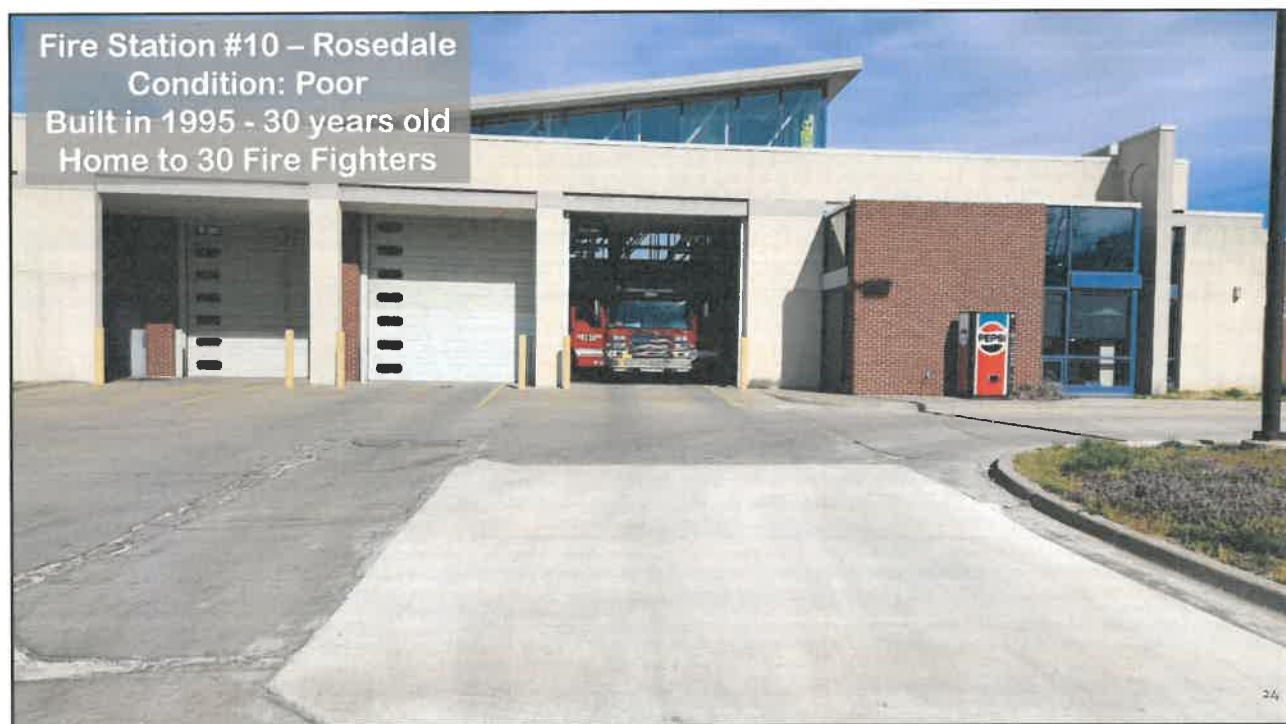


Fire Station #4 – Bethel
Condition: Deplorable
Built in 1957 - 68 years old
Home to 15 Fire Fighters

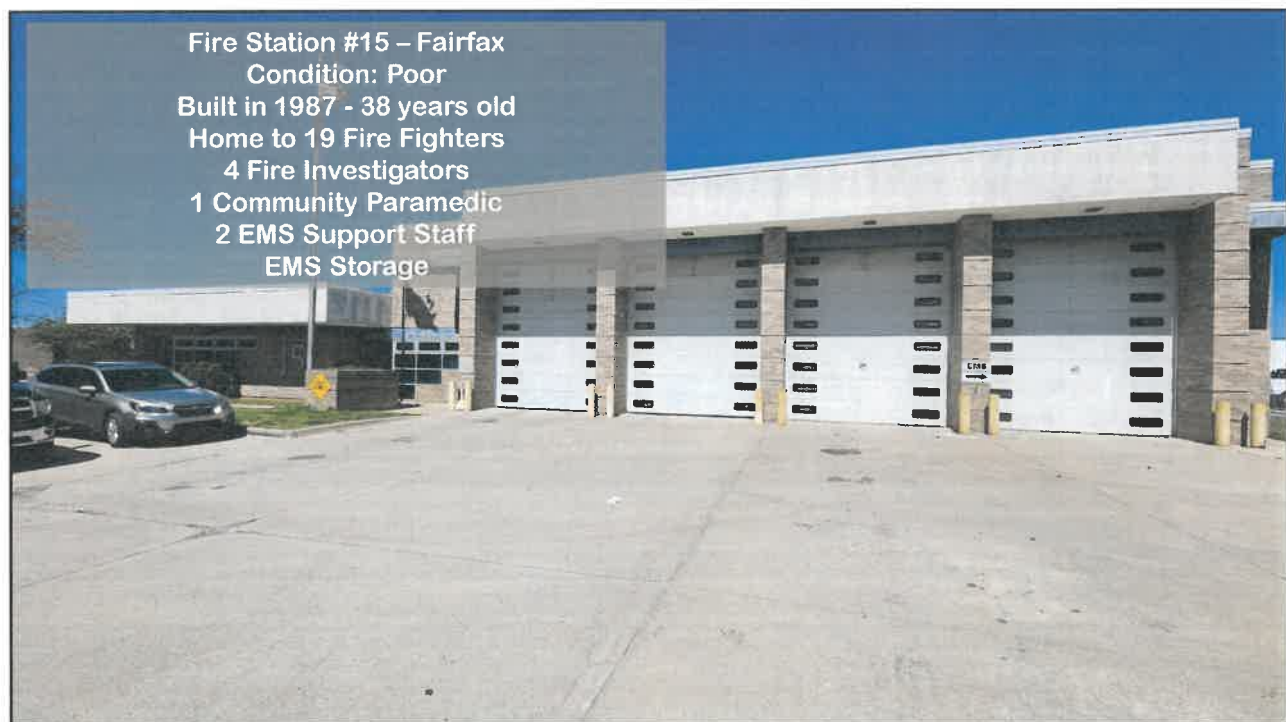


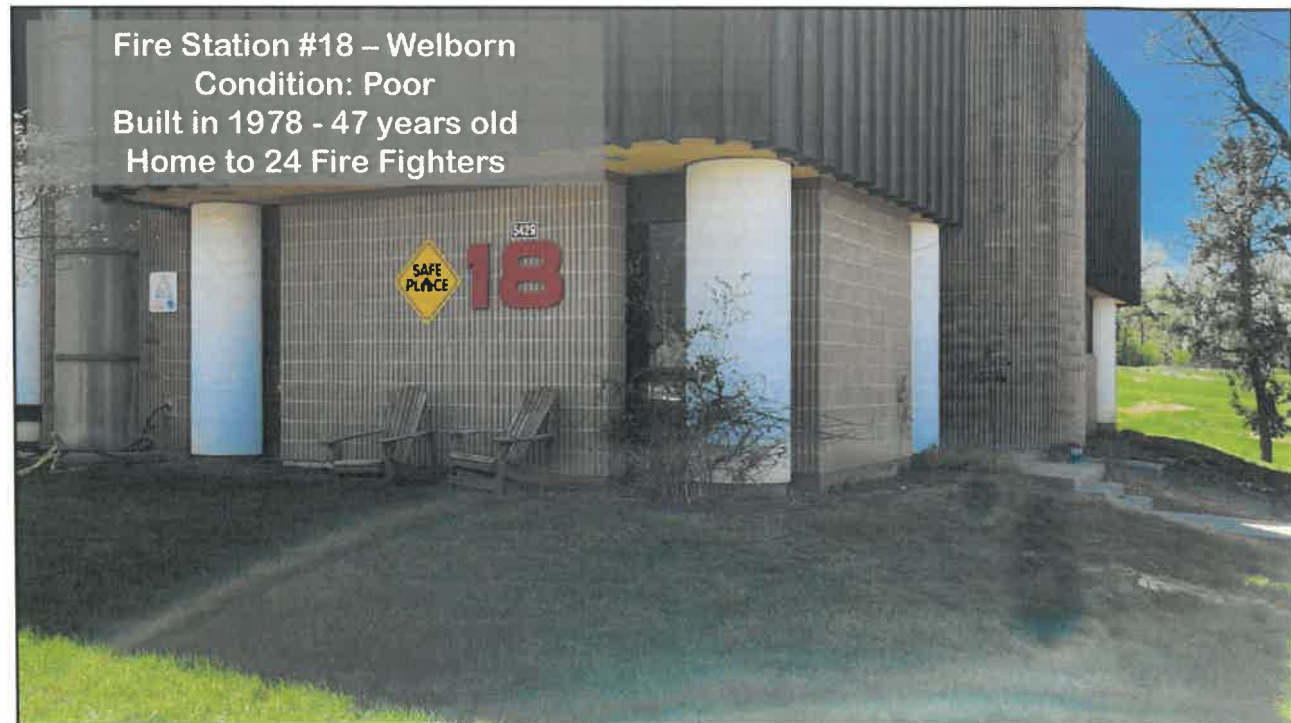
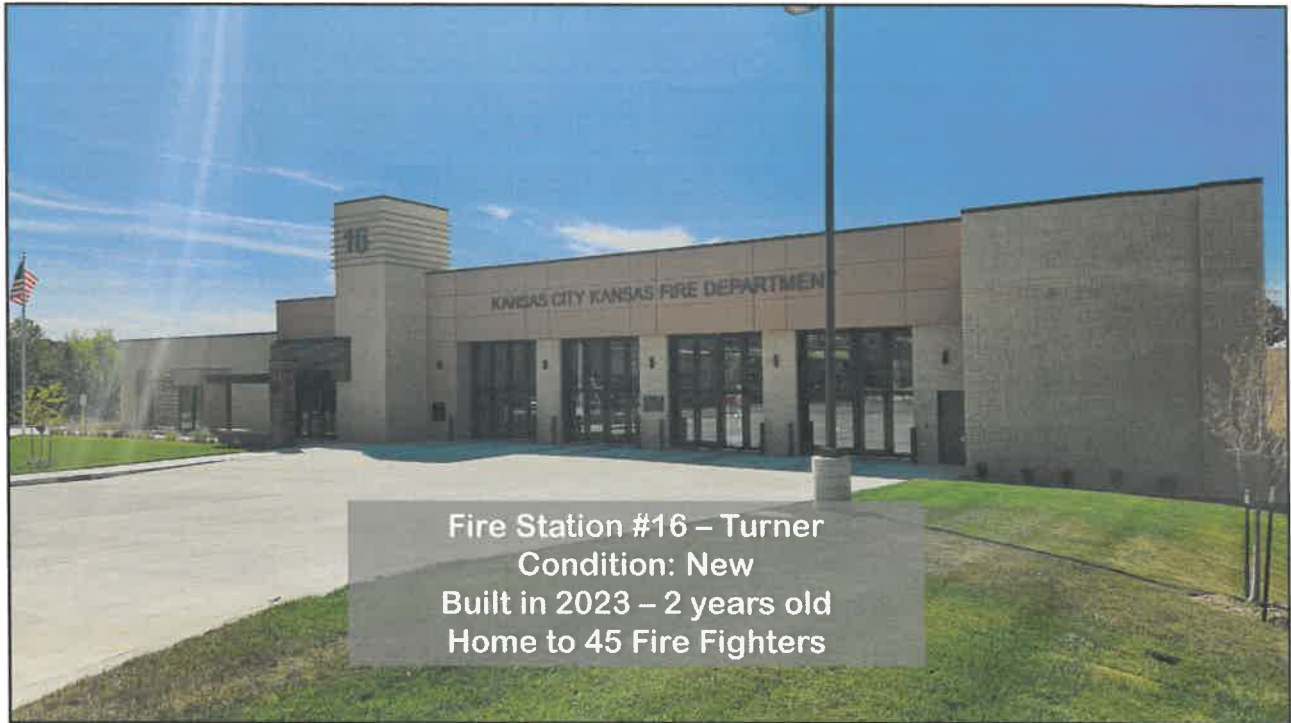


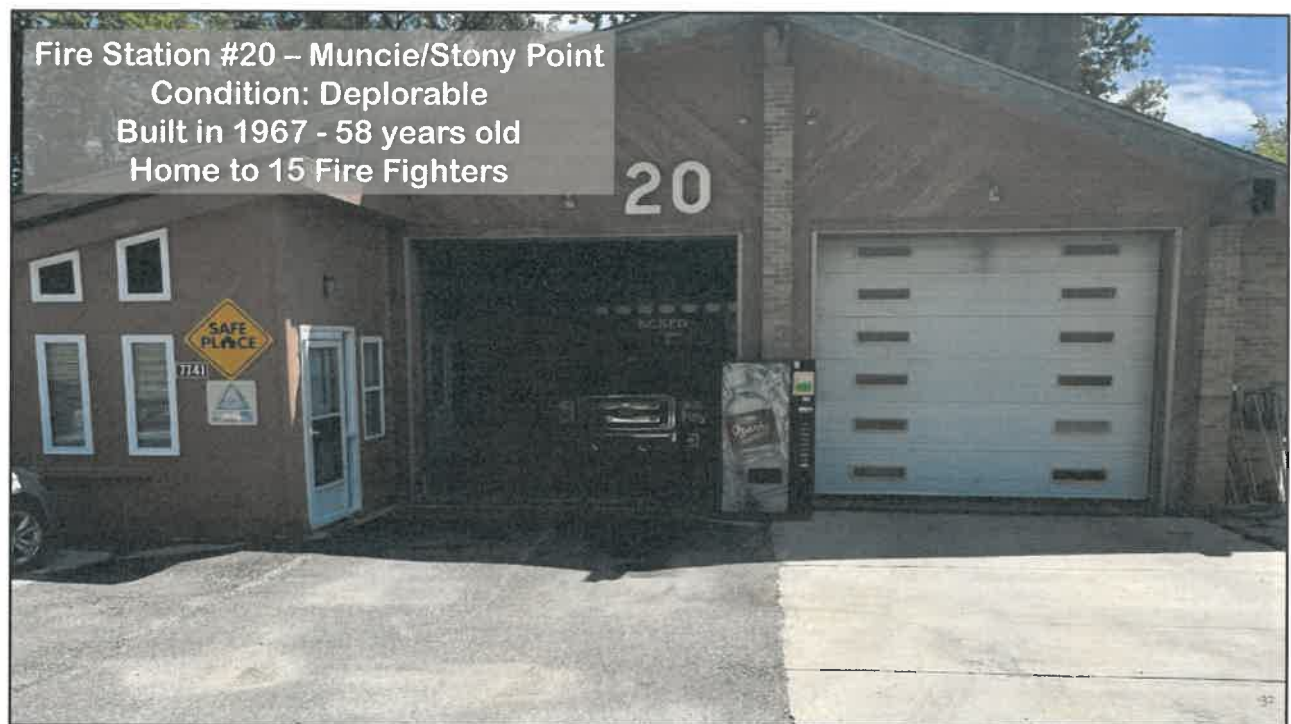












PHASE 1 – CRITICALLY NEEDED
INFRASTRUCTURE UPGRADES
START PHASE 1 AS SOON AS FUNDING ALLOWS

FIRE STATION 20 – MUNCIE (REPLACEMENT)

- THE CURRENT FACILITY AT STATION 20 IS BEYOND ITS OPERATIONAL LIFESPAN. A FULL REPLACEMENT IS NECESSARY TO ADDRESS INFRASTRUCTURE FAILURES, IMPROVE RESPONSE RELIABILITY, AND ENSURE THE SAFETY OF PERSONNEL AND THE COMMUNITY.

FIRE STATION 2 – MIDTOWN (RENOVATION)

- STATION 2 SERVES AS ONE OF THE HIGHEST CALL VOLUME AREAS IN THE CITY. RENOVATIONS WILL ENHANCE FIREFIGHTER ACCOMMODATIONS, ENSURE CODE COMPLIANCE, AND IMPROVE OPERATIONAL EFFICIENCY.

PHASE 2 – CRITICALLY NEEDED
INFRASTRUCTURE UPGRADES
START PHASE 2 AS SOON AS FUNDING ALLOWS

FIRE STATION 4 – BETHEL (REPLACEMENT)

- STATION 4 HAS SERVED THE COMMUNITY FOR DECADES, BUT THE CURRENT FACILITY IS OUTDATED AND NO LONGER MEETS THE DEMANDS OF MODERN FIRE AND EMS OPERATIONS. THE EXISTING STRUCTURE LACKS THE SPACE AND INFRASTRUCTURE TO EFFICIENTLY HOUSE PERSONNEL, EQUIPMENT, AND APPARATUS.
- A FULL REPLACEMENT WILL ENHANCE RESPONSE EFFICIENCY, ACCOMMODATE MODERN FIRE APPARATUS, AND SUPPORT THE GROWING NEEDS OF THE DISTRICT WHILE ENSURING LONG-TERM OPERATIONAL READINESS.

FIRE STATION 6 – VILLAGE WEST (RENOVATION)

- AS A KEY STATION SERVING AN EXPANDING COMMERCIAL AND ENTERTAINMENT DISTRICT, STATION 6 REQUIRES SIGNIFICANT UPGRADES. WITH NEW AND PROPOSED DEVELOPMENTS INCREASING DEMAND, RENOVATIONS WILL FOCUS ON IMPROVING FIREFIGHTER ACCOMMODATIONS, MODERNIZING ESSENTIAL SYSTEMS, AND ENSURING LONG-TERM OPERATIONAL READINESS.

PHASE 3 – CRITICALLY NEEDED INFRASTRUCTURE UPGRADES START PHASE 3 AS SOON AS FUNDING ALLOWS

FIRE STATION 8 – WEST PIPER (REPLACEMENT)

- ORIGINALLY BUILT AS OLD PIPER CITY HALL, STATION 8 BECAME PART OF KCKFD AFTER ANNEXATION. THE CURRENT MORTON BUILDING, REPURPOSED FOR FIRE SERVICE, LACKS THE INFRASTRUCTURE NEEDED FOR MODERN OPERATIONS.
- A FULL REPLACEMENT WILL PROVIDE A PURPOSE-BUILT FACILITY TO IMPROVE FIREFIGHTER ACCOMMODATIONS AND MEET THE EVOLVING NEEDS OF THIS GROWING DISTRICT.

FIRE STATION 9 – BETHANY PARK (RENOVATION)

- STATION 9 PLAYS A VITAL ROLE IN THE COMMUNITY AND REQUIRES TARGETED RENOVATIONS TO MAINTAIN SERVICE EFFECTIVENESS. UPGRADES WILL FOCUS ON STRUCTURAL IMPROVEMENTS, FIREFIGHTER WELL-BEING, AND OPERATIONAL FUNCTIONALITY.

SECTION 4 – OPERATIONAL STAFFING

CHALLENGES IN MODERN FIREFIGHTING BACKGROUND

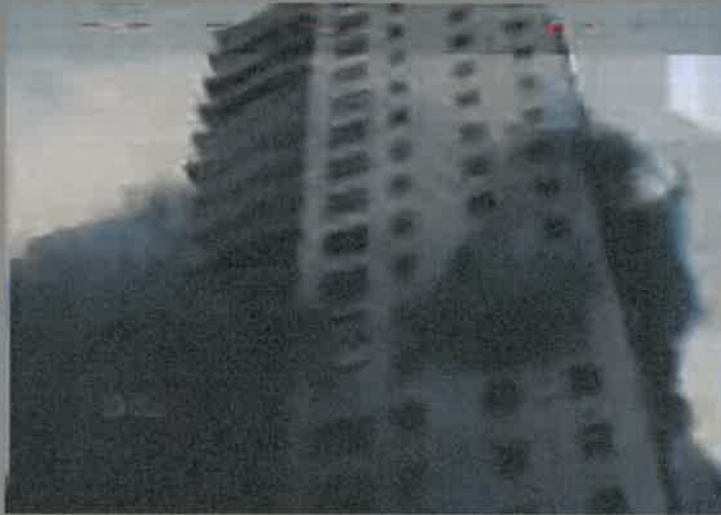
- FIREFIGHTING IS A DANGEROUS PROFESSION
- 2022: 96 FIRE FIGHTER LINE OF DUTY DEATHS*
- 2023: 89 FIRE FIGHTER LINE OF DUTY DEATHS*
- 80,000 SERIOUS FIRE FIGHTER INJURIES ANNUALLY IN THE U.S.
- THE FIRE AND EMERGENCY MEDICAL PROFESSION DEMANDS HIGH LEVELS OF PERSONAL INTEGRITY, TRAINING, EDUCATION, EXPERIENCE, AND COMMITMENT
- KCKFD MUST HAVE AND UPHOLD THE PUBLIC'S TRUST
- KCKFD MEMBERS FACE OVER 35,000 EMERGENCY INCIDENTS EACH YEAR

*National Fallen Firefighters Foundation (NFFF)

STAFFING STANDARDS AND CHALLENGES

- NFPA STANDARD 1710 RECOMMENDS MINIMUM STAFFING OF 4 FIRE FIGHTERS ON EACH PUMPER, LADDER TRUCK, AND RESCUES. FURTHERMORE, HAZARDOUS MATERIALS UNITS ARE RECOMMENDED BY NFPA TO BE STAFFED BY 6 FIRE FIGHTERS. QUINT FIRE APPARATUS MINIMUM STAFFING IS 8 FIRE FIGHTERS.
- CURRENT KCKFD STAFFING IS 3 FIRE FIGHTERS ON PUMPERS, 4 FIRE FIGHTERS ON LADDER TRUCKS AND RESCUES
- 1 LADDER TRUCK, 2 AMBULANCES, AND 2 HAZARDOUS MATERIALS UNITS ARE CROSS-STAFFED AT THE EXPENSE OF PLACING COMPANION COMPANIES OUT OF SERVICE
- DISCREPANCIES BETWEEN CURRENT STAFFING AND LEVELS RECOMMENDED IN NFPA STANDARD 1710 HIGHLIGHT THE NEED FOR INCREASED STAFFING

NIST FLASHOVER

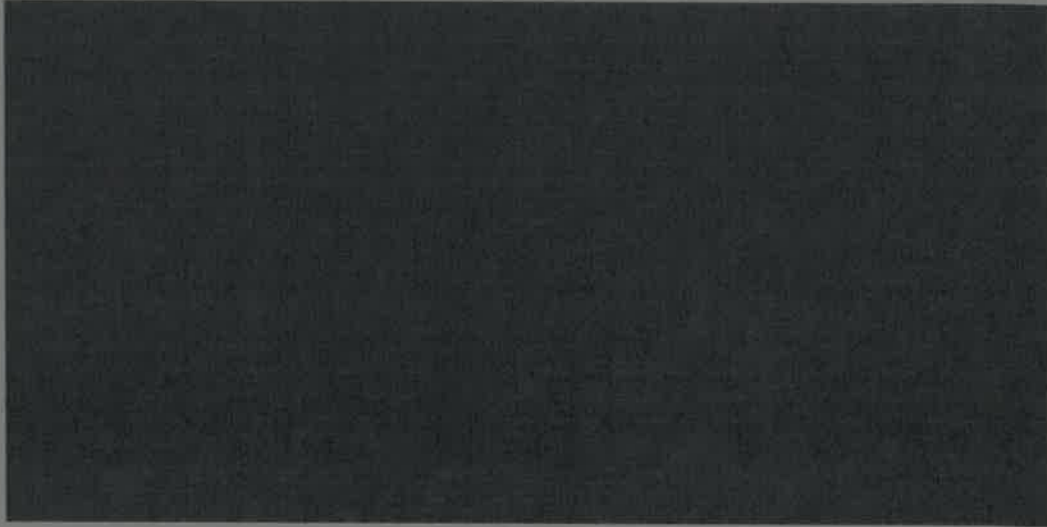


OPERATIONAL STAFFING

ENHANCING EFFICIENCY THROUGH IMPROVED STAFFING

- THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY'S (NIST) FIREGROUND FIELD EXPERIMENTS STUDY SHOWS SIGNIFICANT EFFICIENCY GAINS WITH 4 PERSON CREWS. TASKS ARE COMPLETED 25% FASTER, LEADING TO QUICKER FIRE EXTINGUISHMENT AND RESCUE
- 4 PERSON CREWS COMPLETED TASKS 7 MINUTES FASTER THAN 2 PERSON CREWS
- EFFICIENT STAFFING NOT ONLY SAVES LIVES BUT ALSO IMPROVES OVERALL CUSTOMER SERVICE

NIST FIRE STUDY: IMPACT OF CREW SIZE



KCKFD 2022 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2022.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 1			
Pumper 1	1953	96.0% (1874)	4.0% (79)
Pumper 5	1317	90.4% (1190)	9.6% (127)
Pumper 9	1804	93.6% (1688)	6.4% (116)
Pumper 11	2056	91.3% (1877)	8.7% (179)
Pumper 14	1465	91.0% (1333)	9.0% (132)
Pumper 15	57	86.0% (49)	14.0% (8)
Pumper 18	2146	90.6% (1944)	9.4% (362)
Total Battalion 1	10798	92.2% (9955)	9.3% (1003)

KCKFD 2023 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2023.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 1			
Pumper 1	2193	96.1% (2108)	3.9% (85)
Pumper 5	1207	91.5% (1104)	8.5% (103)
Pumper 9	1995	94.1% (1877)	5.9% (118)
Pumper 11	2107	90.6% (1908)	9.4% (199)
Pumper 14	1643	89.0% (1463)	11.0% (180)
Pumper 15	269	85.1% (229)	14.9% (40)
Pumper 18	1641	86.3% (1417)	13.7% (224)
Total Battalion 1	11055	91.4% (10106)	8.6% (949)

KCKFD 2022 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2022.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 2			
Pumper 3	543	86.0% (467)	14.0% (76)
Pumper 7	1281	80.2% (1028)	19.8% (253)
Pumper 10	908	71.6% (650)	28.4% (258)
Pumper 16	585	79.1% (463)	20.9% (122)
Pumper 17	754	75.9% (572)	24.1% (182)
Pumper 20	837	68.6% (574)	31.4% (263)
Total Battalion 2	4908	76.5% (3754)	23.5% 1154

KCKFD 2023 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2023.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 2			
Pumper 3	638	84.6% (540)	15.4% (98)
Pumper 7	1328	81.3% (1079)	18.7% (249)
Pumper 10	979	69.4% (679)	30.6% (300)
Pumper 16	626	74.4% (466)	25.6% (160)
Pumper 17/ Truck 17	720	67.6% (487)	32.4% (233)
Pumper 20	847	69.4% (588)	30.6% (259)
Total Battalion 2	5138	74.7% (3839)	25.3% (1299)

KCKFD 2022 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2022.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 3			
Quint 2	1453	79.8% (1159)	20.2% (294)
Pumper 4	990	79.9% (791)	20.1% (199)
Tower 6/Rescue 6	599	85.6% (513)	14.4% (86)
Pumper 8	540	51.3% (277)	48.7% (263)
Quint 12	867	77.4% (671)	22.6% (196)
Pumper 19	2000	88.2% (1764)	11.8% (236)
Total Battalion 3	5898	79.6% (4696)	20.4% (1202)

KCKFD 2023 RESPONSE REPORT CARD

Response District	Emergency calls when apparatus was first on scene for 2023.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 3			
Quint 2	1382	76.3% (1054)	23.7% (328)
Pumper 4	1017	80.7% (821)	19.3% (196)
Tower 6/Rescue 6	665	82.0% (545)	18.0% (120)
Pumper 8	480	45.4% (218)	54.6% (262)
Quint 12	874	72.8% (636)	27.2% (238)
Pumper 19	1926	83.9% (1615)	16.1% (311)
Total Battalion 3	6344	77.1% (4889)	22.9% (1455)

SECTION 5 – KCKFD EMERGENCY MEDICAL SERVICES

KCKFD EMERGENCY MEDICAL SERVICES

HISTORY OF KCKFD EMERGENCY MEDICAL SERVICES

- KCKFD WAS ONE OF THE FIRST ADVANCED LIFE SUPPORT AMBULANCE SERVICES IN THE NATION IN 1974
- INITIALLY PARTNERED WITH BASIC LIFE SUPPORT RESPONDERS AND PRIVATE AMBULANCE COMPANIES
- KCKFD EXITED AMBULANCE TRANSPORT SERVICE IN 1995
- KCKFD ASSUMED RESPONSIBILITY FOR ALL EMERGENCY MEDICAL SERVICES IN 2004

KCKFD EMERGENCY MEDICAL SERVICES

KCKFD EMS BY THE NUMBERS IN 2023

- OUT OF 36,144 INCIDENTS, 25,994 WERE EMS RESPONSES, ACCOUNTING FOR 71% OF THE TOTAL
- KCKFD PROVIDED 18,412 PATIENT TRANSPORTS TO DEFINITIVE CARE FACILITIES
- EMERGENCY MEDICAL SERVICES ARE CRITICAL FOR OUR COMMUNITY'S HEALTH AND WELLNESS

KCKFD EMERGENCY MEDICAL SERVICES

EMS BILLING AND REVENUE

- EMS OPERATIONS GENERATED APPROXIMATELY \$4.3 MILLION IN REVENUE IN 2022.
- TOTAL REVENUE WAS \$5.9 MILLION IN 2023 AND \$6.2 MILLION IN 2024
- BILLING CHALLENGES PERSIST WITH UNINSURED PATIENTS
- A LACK OF COLLECTION SERVICES PROHIBITS OUR ABILITY TO OBTAIN COST NEUTRAL SERVICE DELIVERY (SOFT BILLING)

KCKFD EMERGENCY MEDICAL SERVICES

CHALLENGES IN AMBULANCE AVAILABILITY

- AVERAGE AMBULANCE TRANSPORT CYCLE TIME OF 50 TO 90 MINUTES WHICH LIMITS AMBULANCE AVAILABILITY
- REDUCED AMBULANCE AVAILABILITY IMPACTS EMERGENCY RESPONSE DURING CRITICAL TIMES
- KCKFD OFTEN EXPERIENCES NO OR LIMITED AMBULANCE AVAILABILITY

KCKFD EMERGENCY MEDICAL SERVICES

ENHANCING EMS SAFETY AND EFFICIENCY

- EXISTING MANUAL PATIENT STRETCHERS POSE RISKS OF BACK INJURIES TO EMS PROVIDERS
- PATIENTS FACE RISKS OF FALLS AND INJURIES DURING MANUAL LIFTING RESULTING IN LIABILITY
- THE PLAN TO RETROFIT ALL AMBULANCES WITH STRYKER POWER-LOAD® SYSTEMS TO IMPROVE SAFETY AND REDUCE LIABILITY IS UNDERWAY AND SHOULD CONTINUE TO BE FUNDED
- IT COSTS APPROXIMATELY \$67,000 TO EQUIP AN AMBULANCE WITH A STRYKER POWER-LOAD® COT.



KCKFD EMERGENCY MEDICAL SERVICES

COMMUNITY PARAMEDICINE PROGRAM

- COMMUNITY PARAMEDICINE PROVIDES IN-HOME MEDICAL CARE REDUCING HOSPITAL VISITS
- FOCUSES ON NON-EMERGENCY CARE FOR THE UNHOUSED, ELDERLY, OR THOSE WITH LIMITED MOBILITY
- THIS PROGRAM DECREASES EMERGENCY CALLS AND REDUCES EMERGENCY MEDICAL SERVICES STRAIN
- INEVITABLY THIS PROGRAM MUST BE EXPANDED

SECTION 6 – APPARATUS REPLACEMENT PLAN

APPARATUS REPLACEMENT PLAN

- THE PRIMARY GOAL OF THE EMERGENCY VEHICLE FLEET IS TO ENSURE EFFECTIVE, EFFICIENT, AND SAFE RESPONSES
- THIS MASTER PLAN IS A “LIVING DOCUMENT” THAT MUST ADAPT TO THE EVER EVOLVING COMMUNITY NEEDS AND NFPA MINIMUM STANDARDS

APPARATUS REPLACEMENT PLAN

FRONT-LINE EMERGENCY RESPONSE FLEET

- **AMBULANCES:** 11 FRONTLINE AMBULANCES, 9 STAFFED AND 2 CROSS-STAFFED WITH MODEL YEARS FROM 2014 TO 2022. OUR AMBULANCES HANDLE THE MAJORITY OF OVER 36,000 CALLS EACH YEAR.
- **PUMPERS:** FIFTEEN FRONT-LINE PUMPERS, RANGING FROM 2006 - 2024, EQUIPPED TO PUMP 1,500 GALLONS OF WATER PER MINUTE, SERVE AS THE BACKBONE OF FIREFIGHTING EFFORTS
- **LADDER TRUCKS:** SEVEN LADDER TRUCKS WITH REACHES FROM 75 TO 107 FEET, EXTINGUISHING ROOFS ON FIRE, ESSENTIAL FOR RESCUE MISSIONS AND HIGH-RISE OPERATIONS, VARYING IN MODEL YEARS FROM 2011 - 2024

APPARATUS REPLACEMENT PLAN

SPECIALIZED FLEET VEHICLES AND SUPPORT UNITS

- **RESCUE UNITS:** TWO RESCUE COMPANIES, VITAL FOR ALL RESCUE EMERGENCIES, VENTILATING SMOKE AND GASES, AND RESOLVING BUILDING AND TRENCH COLLAPSES. OUR FLEET VARIES IN MODEL YEARS FROM 2020 AND 2024 (RESERVE UNITS ARE 2003 AND 2018)
- **HAZARDOUS MATERIAL UNITS:** PROTECTORS OF THE ENVIRONMENT (AIR, WATER, AND SOIL) FROM CHEMICAL SPILLS, GAS LEAKS, AND OTHER MANMADE HAZARDS. BOTH SPECIALIZED UNITS ARE MODEL YEAR 2024 (RESERVE UNITS ARE 2005 AND 2006)
- **BRUSH TRUCKS:** FIVE BRUSH TRUCKS, CRUCIAL FOR COMBATING WILDLAND FIRES IN RURAL AND OFF-ROAD AREAS. THESE VEHICLES' MODEL YEARS RANGE FROM 2003 TO 2006

APPARATUS REPLACEMENT PLAN

APPARATUS REPLACEMENT CRITERIA

- **SERVICE LIFE:** FRONT-LINE APPARATUS SERVE FOR APPROXIMATELY 10 - 15 YEARS BASED ON THEIR TYPE OF SERVICE. RESERVE STATUS STARTS AT 11 - 20 YEARS
- **VEHICLE CONDITION:** MILEAGE, ENGINE HOURS, VEHICLE AGE, WEAR, AND MAINTENANCE COSTS ARE USED TO DETERMINE DATE OF SURPLUS STATUS
- **OPERATIONAL EFFICIENCY:** ENSURE VEHICLES MEET CURRENT OPERATIONAL AND EFFICIENCY STANDARDS
- **SAFETY COMPLIANCE:** CONTINUOUSLY CHECK ADHERENCE TO NFPA MINIMUM STANDARDS

COMPREHENSIVE REPLACEMENT SCHEDULE

FIRE APPARATUS PROCUREMENT

1. TWO PUMPERS EVERY EVEN YEAR
2. ONE PUMPER EVERY ODD YEAR
3. ONE SPECIALIZED APPARATUS (LADDER TRUCK, RESCUE UNIT, HAZARDOUS MATERIALS UNIT, ETC.) PER YEAR
4. ONE BRUSH TRUCK PER YEAR
5. FOUR STAFF VEHICLES PER YEAR

AMBULANCE PROCUREMENT

1. TWO NEW AMBULANCES PER YEAR
2. ONE REMOUNT (CHASSIS REPLACEMENT ONLY) AMBULANCE PER YEAR

LONG-TERM REVIEW: CONTINUOUSLY EVALUATE FLEET NEEDS FOR FUTURE PLANNING

10 Year Ambulance Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Estimated Disposition
1	2014	3568	Reserve	182,680	10,870	Active	To be Sold 2027
		7754	Reserve	175,419	10,573	Active	To be Sold 2027
2	2015	6013	Reserve	257,942	33,702	Out	Sent to Remount in North Carolina 06/2024
		6060	20 - Muncie	238,875	11,887	Cross-Staffed	To be Sold 2029
3	2016	9792	Reserve	195,414	11,248	Wrecked	Getting bids for repair
		8713	4 - Bethel	147,376	7,570	Active	To be sold 2026
4	2017	2293	17 - Turner	134,392	6,601	Active	To be Sold 2028
5	2019	9057	Reserve	8,766	932	Active	In service 2024
		5276	Reserve	16,500	1,256	Active	In service 2024
		3237	12 - Piper	212,843	9,833	Active	Sent to Training 2025
		891	19 - Victory Hills	177,225	7,533	Active	To be sold 2027
6	2020	6082	16 - Welborn	146,410	7,491	Active	To be sold 2028
		7064	9 - Central	105,765	6,583	Active	To be sold 2029
		7055	7 - Argentine	88,924	5,721	Active	To be sold 2029
		7067	5 - Quindaro	42,286	3,445	Repair	Return to service Fall 2024
7	2022	9432	2 - Midtown	104,572	4,604	Active	To be sold 2026
		6256	3 - Armourdale	49,694	2,750	Active	To be sold 2028
8	2023					In Production	To be delivered 01-2025
9	2024					In Production	To be delivered 03-2025
10	2025						2 new/1 remount to be delivered Fall 2025
11	2026						2 new/1 remount to be delivered Spring of 2026
12	2027						2 new/1 remount to be delivered in 2027
13	2028						2 new/1 remount to be delivered in 2028
14	2029						2 new/1 remount to be delivered in 2029
15	2030						3 new/1 remount to be delivered in 2030
16	2031						3 new/1 remount to be delivered in 2031
17	2032						3 new/1 remount to be delivered in 2032
18	2033						3 new/1 remount to be delivered in 2033
19	2034						3 new/1 remount to be delivered in 2034
New to Five years of service or Under 150,000 miles							
Six to Ten years of service or 150,001 to 200,000 miles							
Eleven years or more of service or Over 200,000 miles							

10 Year Pumper Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2008	Reserve Pumper 5		150,031	27,090	Reserve	To Training 2025/Sell in 2028
2	2009	Reserve Pumper 3		150,294	17,116	Reserve	To Training 2026/Sell in 2029
3	2007	Reserve Pumper 4		69,637	7,572	Reserve	To Training 2026/Sell in 2028
4	2009	Reserve Pumper 1		126,169	12,615	Reserve	To Training 2027/Sell in 2028
5	2016	Reserve Pumper 2		70,851	7,712	Reserve	To Training 2028/Sell in 2029
		Pumper 5	Quindaro	60,518	6,744	Active	To Reserve 2025
		Pumper 11	Kensington Park	67,704	11,080	Active	To Reserve 2025
6	2018	Pumper 3	Armourdale	54,856	5,614	Active	To Reserve 2026
		Pumper 10	Rosedale	41,476	5,492	Active	To Reserve 2026
		Pumper 15	Fairfax	48,606	4,732	Active	To Reserve 2027
7	2019	Pumper 1	Strawberry Hill	46,077	5,261	Active	To Reserve 2028
8	2020	Pumper 9	Bethany Park	45,533	5,156	Active	To Reserve 2028
		Pumper 18	Welborn	58,976	5,444	Active	To Reserve 2029
		Pumper 19	Victory Hills	54,191	5,711	Active	To Reserve 2030
9	2021	Pumper 7	Argentine	32,001	3,120	Active	To Reserve 2030
10	2023	Pumper 20	Muncie	26,491	2,321	Active	To Reserve 2031
		Pumper 4	Bethel	12,618	780	Active	To Reserve 2032
		Pumper 8	Piper	9,790	610	Active	To Reserve 2032
		Pumper 16	Turner	10,441	725	Active	To Reserve 2033
		Pumper 14	Klamm Park	5,158	414	Active	To Reserve 2034
11	2021						2 to be delivered Fall 2025
12	2024						2 to be delivered Winter 2026
13	2025						2 to be delivered 2027
14	2026						2 to be delivered 2028
15	2028						2 to be delivered 2029
16	2029						1 to be delivered 2031
17	2030						2 to be delivered 2032
18	2031						1 to be delivered 2033
19	2032						2 to be delivered 2034
20	2033						1 to be delivered 2035
21	2034						2 to be delivered 2036
New to 10 years of service and under 50,000 miles							
11 to 15 years of service or 50,001 to 100,000 miles							
16 years of service or over 100,000 miles							

10 Year Specialized Apparatus Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Estimated Disposition
1	2005	Reserve Quint 3	Reserve	108,372	10,000	Reserve	
2	2006	Reserve Truck 1	Reserve	68,372	2,250	Reserve	
3	2006	Reserve Quint 1	Reserve	146,155	17,894	Reserve	
4	2007	Truck 6	Village View	77,234	7,000	Active	
5	2007	Quint 2	Midtown	27,400	4,154	Active	
6	2007	Truck 10	Armourdale	18,888	3,478	Active	
7	2007	Quint 13	Plover	43,208	4,666	Active	
8	2007	Truck 14	Village Park	22,343	2,407	Active	
9	2007	Truck 7	Argonne	67,108	2,208	Active	
10	2007	Truck 11	Turkey	3,906	433	Active	
11	2025		Ladder Truck				To be Delivered in 2025
12	2026		Ladder Truck				To be Delivered in 2026
13	2027		Ladder Truck				To be Delivered in 2027
14	2029		Ladder Truck				To be Delivered in 2029
15	2032		Ladder Truck				To be Delivered in 2032
16	2034		Ladder Truck				To be Delivered in 2034
17	2035		Ladder Truck				To be Delivered in 2035
Age 10 years to 15 years Age 15 years to 20 years Age 20 years to 25 years							

10 Year HazMat Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2005	Reserve HazMat 1		24,536	2,327	Reserve	To become Air Unit
2	2006	Reserve HazMat 2		26,549	2,511	Reserve	To become Command Unit
3	2023	HazMat 3	Armourdale	0	0	Active	
4	2024	HazMat 2	Midtown	0	0	Active	
New to 10 years of service 11 to 15 years of service 16 years of service or older							

10 Year Rescue Unit Replacement Plan

	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2003	Reserve Rescue 1		44,147	3,339	Reserve	To Training in 2031
2	2018	Rescue Support	Strawberry Hill	42,942	3,240	Active	
3	2020	Rescue 1	Strawberry Hill	19,543	1,527	Active	To Reserve in 2031
4	2024	Rescue 6	Village West	1,779	106	Active	To Reserve in 2036
5	2029						To be delivered 2031
6	2034						To be delivered 2036

New to 10 years of service

11 to 15 years of service

16 years of service or older

10 Year Brush Truck Replacement Cycle

	Year	Unit ID	Location	Mileage	Status	Disposition
1	2003	Brush 18	Welborn	26,854	Active	To Reserve 2030
2	2003	Brush 9	Central Ave	19,553	Active	To Reserve 2031
3	2005	Brush 8	Piper	39,761	Active	To Reserve 2033
4	2006	Brush 16	Turner	9,664	Active	To Reserve 2034
5	2006	Brush 12	Piper	14,155	Active	To Reserve 2035
6	2029					To Be Delivered 2030
7	2030					To Be Delivered 2031
8	2032					To Be Delivered 2033
9	2033					To Be Delivered 2034
10	2034					To Be Delivered 2035

New to 10 years of service

11 to 15 years of service

16 years of service and older

10 Year Boat Replacement Plan					
	Year	Unit ID	Location	Status	Disposition
1	2006	Inflatable		Reserve	For use in disaster deployment
2	2008	Boat 1	Strawberry Hill	Active	
3	2011	Inflatable		Reserve	For use in disaster deployment
4	2014	Boat 6	Village West	Active	
5	2017	Inflatable 6	Village West	Active	Stored on Rescue Unit
6	2021	Inflatable 1	Strawberry Hill	Active	Stored on Rescue Unit
7	2023	Boat 18	Welborn	Active	
8	2023	Boat 21	Strawberry Hill	Active	
New to 10 years of service					
11 to 15 years of service					
16 years of service and older					

SUMMARY

MASTER PLAN PATH FORWARD

- LABOR - MANAGEMENT MASTER PLAN PROGRESS MEETINGS SHOULD BE HELD
- ANNUAL PLAN EVALUATION TO IDENTIFY OUR SUCCESSES, BARRIERS, AND OPPORTUNITIES
- ONE ADDITIONAL YEAR SHOULD BE ADDED TO THE MASTER PLAN

MASTER PLAN PATH FORWARD

- MASTER PLAN APPROVAL BY UNIFIED GOVERNMENT CITY ADMINISTRATOR
- MASTER PLAN FUNDING BY CHIEF FINANCIAL OFFICER AND BUDGET DIRECTOR
- IMPLEMENT KCKFD MASTER PLAN AS DIRECTED
- ANNUAL REVIEW AND MASTER PLAN UPDATES

MASTER PLAN PATH SUMMARY

- TEN (10) YEAR PLAN
- PHASE 1 BUILD ONE NEW STATION 20 RENOVATE ONE STATION 2
- PHASE 2 BUILD ONE NEW STATION 4 RENOVATE ONE STATION 7
- PHASE 3 BUILD ONE NEW STATION 8 RENOVATE ONE STATION 9
- MAINTAIN FIRE APPARATUS, AMBULANCE, SPECIALTY VEHICLE PROCURE PLAN
- CONTINUE TO STAFF UNTIL NFPA STANDARD 1710 IS OBTAINED

SPECIAL THANK YOU TO:

- UG BOARD OF COMMISSIONERS
- MAYOR / CEO TYRONE GARNER AND STAFF
- COUNTY ADMINISTRATOR DAVID JOHNSTON AND STAFF
- IAFF LOCAL 64 LEADERSHIP
- FIRE ADMINISTRATION STAFF

THANK YOU!



QUESTIONS?

Kansas City Kansas
Fire Department
Master Plan
March 2025



Table of Contents

Section 1 - Preface and Project Introduction.....	3
Committee Purpose & Goal	3
The Start of the Collaborative Process	4
Section 2 Executive Summary	5
Capital Expenditures (fire stations).....	5
Apparatus and Equipment	6
Section 3 – Fire Stations and Conditions	6
The Strategic Goal for Fire Stations.....	7
The Kansas City Kansas Fire Stations Status.....	8
Fire Station Response Zones identified by concentric circles.....	12
Section 4 – Operational Staffing	13
Current staffing:	15
The NFPA Standard response highlights are as follows	16
Table 1 2022 NFPA Standard 1710 Report Card.....	17
Table 2 2023 NFPA Standard 1710 Report Card.....	18
Table 3 Fatalities and Injures	19
Section 5 – KCKFD Emergency Medical Services.....	20
Critical EMS Capital Equipment Needs.....	21
Priority EMS Capital Equipment needs	21
Emergency Paramedic Ambulances.....	21
Community Paramedic Program Expansion	22
Section 6 – Apparatus Replacement Plan.....	22
Fleet Composition	23
Ambulances.....	23
Table 4 Required Fleet Strength:.....	24
Table 5 Ten Year Ambulance Replacement Cycle	24
Pumpers.....	25
Table 6 Ten Year Pumper Replacement Cycle	26
Ladder Trucks	27
Table 7 Ten Year Specialized Apparatus Replacement Cycle	28
Rescues.....	29
Table 8 Ten Year Rescues.....	29
Hazardous Materials Response Units.....	29

Table 9 Ten Year Hazardous Materials.....	29
Brush Fire Trucks.....	30
Table 10 Ten Year Brush Fire Trucks.....	30
Rescue	31
Boats.....	31
Table 11 Ten Year Boats.....	31
Comprehensive Replacement Cost Schedule.....	31
Signature and Authorization.....	32

Appendix A: FACETS Study
Appendix B: NFPA Standard 1710
Appendix C: NIST Low Rise
Appendix D: NIST High Rise
Appendix E: CPSM/ICMA Study

Section 1 - Preface and Project Introduction

The 2019–2024 Memorandum of Agreement (MOA) between the Unified Government of Wyandotte County, Kansas City, Kansas and the International Association of Firefighters Local No. 64 went into effect July 1, 2022. By agreeing to this MOA, the Union and the Fire Department agreed to undertake the development of a comprehensive Master Plan to analyze Fire/EMS service delivery. The authority to meet and confer on this mission critical project is contained in the passage found in Article 35 on pages 54-55 of the MOA. The parties have regularly met to develop the content of this report.

In order for this long-range plan, a ten year projection, to be successfully implemented, the Kansas City Kansas Fire Department (KCKFD) will need funding and other related resources. In essence, the collaborative Master Plan will be subject to approval and funding by the Unified Government County Administrator. The authority to develop, produce, and publish the KCKFD Master Plan is listed below.

Committee Purpose & Goal

Article 35 – Minimum Manning

“The Department is in the process of undertaking a comprehensive Fire/EMS service analysis through a joint Union-Management process. Factors considered in the analysis and in the development of a comprehensive master plan for the Department include, but are not limited to the following: station locations including potential new stations and renovation and expansion and/or closure of existing stations, deployment of manpower and apparatus, response times, and safety of fire personnel and consideration of the NFPA 1710. The parties shall form a strategic planning committee and have appointed representatives to this committee to develop recommendations relevant to Fire/EMS service, including development of a Master Plan. The Master Plan shall evaluate and make recommendations regarding minimum manning requirements, including the requirements as identified in sub-paragraph (b) and (c) of this Article. The committee may consider any relevant documentation, reports or data including but not limited to the FACETS report and IAFF GIS report. The Master Plan recommendation shall be presented to the Commission. The parties are not required to reach consensus on all matters of the Master Plan and may present the Commission with alternative options on any individual or any multitude of issues. The parties’ recommendation or alternative recommendations shall be submitted to the Commission contemporaneously prior to the end of 2023. After presentation of the Master Plan recommendation to the Commission, the Unified Government Commission shall be permitted to change any of the minimum manning provisions within sub-paragraphs (b) and (c) of this Article. Until this occurs, the following minimum requirements shall be maintained.

b) The Department will not operate a fire suppression shift with less than 73 bargaining unit suppression personnel except in cases of emergency. In no event will the Department operate a fire suppression shift with less than 69 bargaining unit suppression personnel. The Department will utilize overtime to ensure that there will be at least 69 bargaining unit suppression personnel in emergency situations. "Emergency", for purposes of this section, shall include personnel absences due to unscheduled leaves. The Department will not operate less than twenty-two (22) companies during the term of this agreement.

c) Three safety officers shall be on duty at all times.

d) All fire suppression pumpers, will be staffed with a minimum of three (3) employees in order to be considered "in service" and available for use. All Fire Department aerials and quints will operate with four (4) employees except in cases of emergency at which time aerials and quints may operate with three (3) employees. "Emergency", for purposes of this section, shall include personnel absences due to unscheduled leaves.

e) The parties recognize that the Fire/EMS Service Analysis addresses contractual issues other than the manning issues identified in sub-paragraphs (b) through (d) above. If the recommendations of the strategic planning committee address contractual issues other than those identified in sub-paragraphs (b) through (d) above, negotiations over such issues shall be deemed to be reopened and the parties agree that they will meet and confer in good faith to attempt to arrive at an agreement over such issues."

The Start of the Collaborative Process

In October 2022, the Union-Management Team started meeting and conferring to develop a master plan. The only progress made was by Local 64 until July of 2023. As staffing changes have occurred, fruitful meetings have been held and progress has been made. The timeline for completion of this KCKFD Master Plan has been established as the first quarter of 2025. This will allow time for various reviews and approvals before presenting the final Master Plan to County Commissioners. The public delivery of this plan will be at a special session of the Unified Government Commission.

Accountability meetings will be conducted at Fire Headquarters with both groups present to express interests, concerns, and remove barriers to success. During the development of this joint document, the parties have agreed to meet twice per month (if possible) to produce the required report for the Unified Government. Once the report is submitted and ratified by the Unified Government County Administrator the focus will change to the implementation and revisions.

The Kansas City Kansas Fire Department Mission Statement is as follows:

1. Prevent Harm
2. Survive and Thrive
3. Be Nice and Be Kind

Our Mission Statement consists of only ten simple words, but they are powerful and they encompass the vision of what we are willing to do for our community and for our members.

Section 2 Executive Summary

The Kansas City Kansas Fire Department and International Association of Fire Fighters Local 64 appreciates the opportunity to develop and deliver this Master Plan to the County Administrator and Governing Body. This plan is broken down into three major categories. These categories are infrastructure (fire station replacements, renovations), personnel (operational staffing), and fire apparatus and equipment (pumpers, ladder trucks, ambulances, etc.).

Capital Expenditures (fire stations)

Fire Station Replacements (new building) in priority order

1. Fire Station 20 – Muncie
2. Fire Station 4 – Bethel
3. Fire Station 8 – West Piper

Fire Station Renovations in priority order

1. Fire Station 2 – Midtown
2. Fire Station 6 – Village West
3. Fire Station 9 – Bethany Park

Apparatus and Equipment

Fire Apparatus procurement

1. Two pumpers every even year
2. One pumper every odd year
3. One specialized apparatus (ladder truck, rescue unit, hazardous materials unit, ect.) per year
4. One brush truck per year
5. Two Staff vehicles per year

Ambulance procurement

1. Two new ambulances per year
2. One remount (chassis replacement only) ambulance per year

This Master Plan represents a “living document” that should be referred to and revised often, providing a strategic direction and path for many years to come. A tremendous number of hours of developmental time went into the preparation of this document. By preparing this document internally our Fire Department nuances were considered and incorporated above and beyond any effort that could be applied by an external consulting firm. The collaboration of labor and management has built a framework for organizational “buy-in” which should result in successful implementation and updates of this Master Plan.

It is with appreciation that we acknowledge the efforts of IAFF Local 64, County Administrator’s Office, Budget and Finance Department, Legal Department, Building and Logistics, Human Resources Department, and Fire Administration.

Section 3 – Fire Stations and Conditions

KCKFD currently operates 18 Fire Stations that protect approximately 128 square miles of area. We are responsible to protect 156,607¹ residents, and countless workers and visitors that swell our population every single day. Much of our industry in KCK employs workers from across the metropolitan area, and these commuters rely on our city streets and interstate highway system. Wyandotte County has over 1,300 miles of federal and state roadways, which accommodate more than 400,000 vehicles daily². We have one of America’s largest rail hubs within our borders, and buried underneath our soil are miles of petroleum and natural gas pipelines supplying the entire region with vital resources. Our Fire Department has been designed to be an

¹ US Census Bureau

² Kansas Department of Transportation (KDOT)

all hazards department capable of handling nearly every type of incident. This responsibility is great and challenging, requiring ample resources, such as equipment and personnel to meet the demands, but we are not unique. Many departments like us are continuously facing many of the same challenges and urban departments need to evolve to meet this responsibility.

Resulting from these shared challenges, multiple fire service organizations, City/County Government organizations, educational institutions, as well as research foundations have developed best practices to help shape this modernization of the American Fire Service. National standards reflect these organizations' inputs and allow for the dissemination of the information in a digestible format so that comparisons can be derived between our Department's current status and the minimum recommendations of the national standards.

The Strategic Goal for Fire Stations

The strategic goal of the fire station locations section is to ensure that the Kansas City Kansas Fire Department is able to meet our mission statement of protecting our community and providing a safe³, clean, and comfortable workplace for our employees. The standard of cover for KCKFD is to have a fire station strategically located to support a four-minute response time for the first arriving unit (fire/ambulance) to all parts of our community, staffed by four personnel 90% of the time.

It is noteworthy that on December 11, 2023, the Kansas City Kansas Fire Department reorganized from providing services from 19 fire stations to 18 fire stations. The original Fire Station 16 and original Fire Station 17 were subsequently decommissioned and merged into a single newly constructed station named **Fire Station 16**. Resulting from this merger of fire apparatus and crews into a single new structure, the City saved more than \$12,000,000⁴ in construction costs. To properly protect the Turner Community and the surrounding areas, both fire station crews have been reassigned to this new facility. Pumper 16, Truck 17, Medic 17, Battalion 2, Brush 16, and Ready Reserve Pumper 2 are the fire apparatus responding from this location.

The condition of each fire station was thoroughly surveyed years ago during the FACETS Study, and the updated current conditions are listed below. The FACETS Study pertaining to facility conditions is available in Appendix A of this document. The list below includes the age of the building and Fire Administration's recommendations. Additionally, this report lists the building addresses, the section of the City it is geographically located in, and the Commission District it serves.

³ Safe refers to both code compliant as well as free from harassment, discrimination, or hazing of any kind.

⁴ Estimate obtained from Unified Government Building and Logistics

All response vehicles are listed based on station assignment. When the term cross staffed is used, the indication is that one crew must staff two functional vehicles. This is a cost-effective process; however, this is not an efficient operational model. Operational staffing will be discussed in greater detail in Section 4 of this report. When an apparatus is listed as reserve it is an apparatus strategically placed in the event of a mechanical issue with another same type apparatus or in the event of a system outage where crews may temporarily activate the apparatus to meet a specific demand.

The Kansas City Kansas Fire Stations Status

Fire Station 1 / Fire Headquarters

Pumper 1
Rescue 1
Rescue Support 1
Fire Boat 1
Fire Boat 21
Shift Commander
Battalion 1/Safety 1
Fire Administration Office
Fire and EMS Training Office

Located at 815 N. 6th Street

Commission District 2
Strawberry Hill Community

Built in 1930

95 years old
Poor

Fire Station 2

Quint 2
Medic 2
Medic Supervisor
Haz Mat 2 (cross staffed by Quint 2)

Located at 6241 State Avenue

Commission District 8
Midtown

Built in 1979

46 years old
Poor

Fire Station 3

Pumper 3
Hazmat 3 (cross staffed by Pumper 3)
Medic 3

Located at 420 Kansas Avenue

Commission District 2
Armourdale Community

Built in 1951

74 years old
Deplorable

Fire Station 4

Pumper 4
Medic 4 (cross staffed by Pumper 4)

Located at 3044 N 82nd Street

Commission District 5
Bethel Community

Built in 1957

68 years old
Deplorable

Fire Station 5

Pumper 5
Medic 5

Located at 910 Quindaro Blvd

Commission District 1
Quindaro Bluffs Community

Built in 1955

70 years old
Deplorable

Fire Station 6

Rescue 6
Tower 6 (cross staffed by Rescue 6)
Battalion 3/Safety 3
Boat 6

Located at 9548 State Avenue

Commission District 7
Village West

Built in 2001

24 years old
Poor

Fire Station 7

Pumper 7
Truck 7
Medic 7

Located at 2717 Strong Avenue

Commission District 3
Argentine Community

Built in 1951

74 years old
Deplorable

Fire Station 8

Pumper 8
Tanker 8 (cross staffed by Pumper 8)
Brush 8 (cross staffed by Pumper 8)

Located at 3131 N. 123rd Street

Commission District 5
Piper West Community

Built in 1979

46 years old
Deplorable

Fire Station 9

Pumper 9
Medic 9
Brush 9 (cross staffed by Pumper 9)

Located at 1100 Central Avenue

Commission District 2
Bethany Park Community

Built in 1967

58 years old
Poor

Fire Station 10

Pumper 10
Truck 10
Air 10 (cross staffed by Truck 10)
Medic 10 (Reserve)

Located at 2210 W 36th Avenue

Commission District 3
Rosedale Community

Built in 1995

30 years old
Poor

Fire Station 11

Pumper 11

Located at 3100 State Avenue

Commission District 4
Kensington Park

Built in 1924

101 years old
Deplorable

Fire Station 12

Quint 12
Medic 12
Brush 12 (cross staffed by Quint 12)

Located at 2913 Hutton Road

Commission District 5
Piper East Community

Built in 2019

6 years old
Nearly New

Fire Station 14

Pumper 14
Truck 14

Located at 2615 N. 27th Street

Commission District 4
Klamm Park

Built in 1956

69 years old
Deplorable

Fire Station 15

Pumper 15
EMS Offices
EMS Logistics
Community Paramedic
The Fire Investigators Office

Located at 444 Kindleberger Rd. Built in 1987

Commission District 1
Fairfax Community

38 years old
Poor

Original Fire Station 16**Located at 1437 S 55th Street**

Commission District 6
Turner Community

Built in 1936

88 years old
Deplorable
Closed

Fire Station 16

Pumper 16
Truck 17
Medic 17
Battalion 2/Safety 2
Brush 16 (cross staffed by Pumper 16)
Ready Reserve Pumper 2

Located at 1900 S. 55th Street

Commission District 6
Turner Community

Built in 2023

2 years old
Nearly New

Fire Station 17**Located at 2416 S. 51st Street**

Commission District 6
Highland Crest Community

Built in 1952

72 years old
Deplorable
Closed

Fire Station 18

Pumper 18

Medic 18

Brush 18 (cross staffed by Pumper 18)

Boat 18 (cross staffed by Pumper 18)

Located at 5429 Leavenworth Rd. Built in 1978

Commission District 1

47 years old

Welborn Community

Poor

Fire Station 19

Pumper 19

Medic 19

Located at 1011 N. 80th Terrace Built in 1972

Commission District 8

53 years old

Victory Hills Community

Poor

Fire Station 20

Pumper 20

Medic 20 (cross staffed by Pumper 20)

Located at 7741 Kansas Avenue Built in 1967

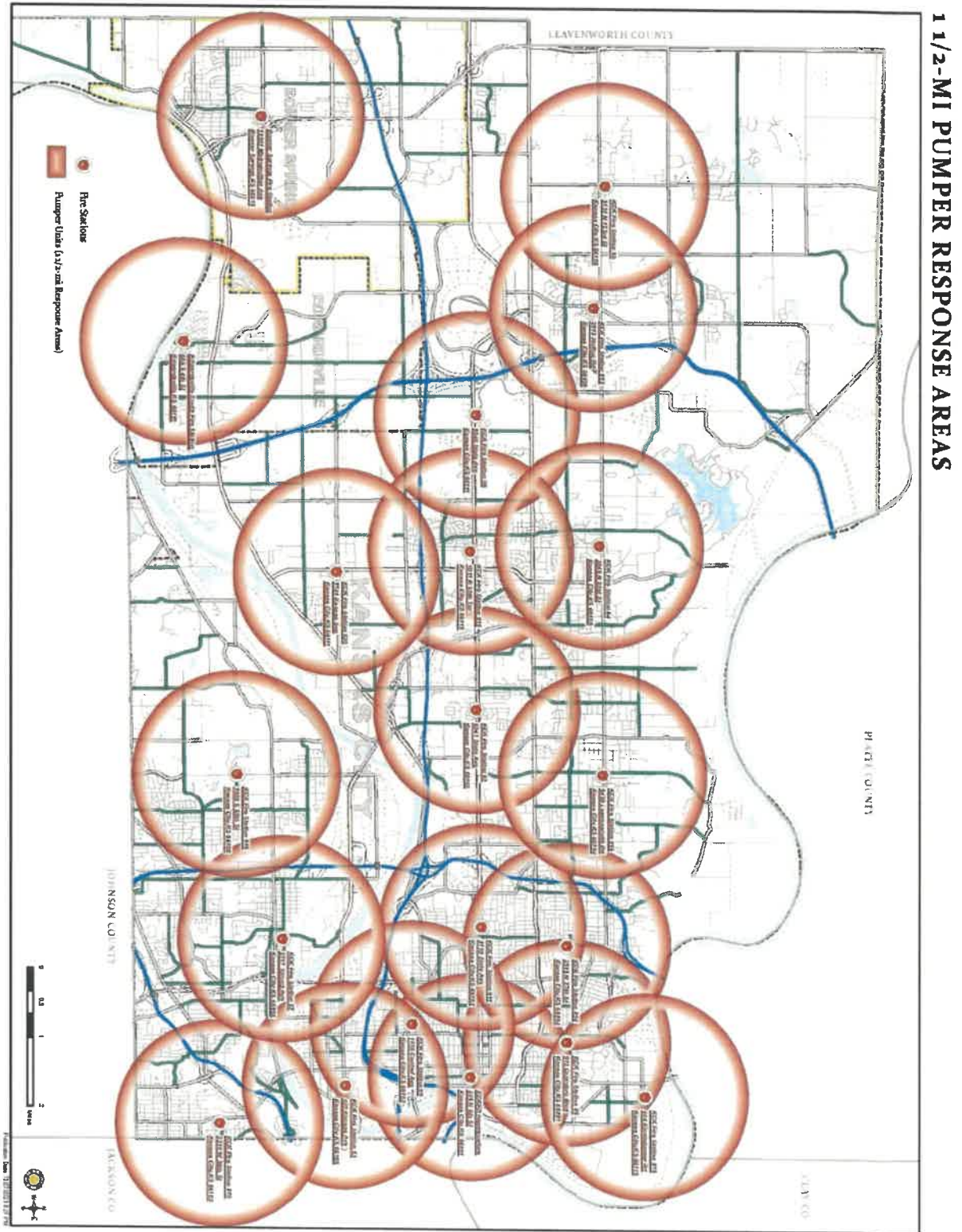
Commission District 6

58 years old

Muncie/Stony Point Community

Deplorable

Fire Station Response Zones identified by concentric circles



Section 4 – Operational Staffing

Firefighting is an inherently dangerous profession. Each year in the United States approximately 100 firefighters will die in the line-of-duty along with approximately 80,000 members being seriously, and at times, critically injured. It has been often said that firefighting requires the highest level of training, education, and experience, along with being the most demanding form of manual labor.

The KCKFD is expected to face and resolve over 35,000 unique emergency incidents each year. The basis of our responses are due to our aging community, increase in population, (residents and visitors), and higher rail and vehicle traffic volume.

In 2022, the KCKFD responded to 34,784 alarms, just under 100 requests for assistance each day. These responses resulted in eight fire deaths and twenty-two fire-related injuries to civilians, with 70 instances where firefighters were injured while protecting our community. In 2023, the KCKFD responded to 36,144 alarms an increase from the previous year. These responses resulted in seven fire deaths and eight fire-related injuries to civilians, with 74 instances where firefighters were injured while serving and protecting our community.

To be successful in restarting a cardiac arrest patient's heart, extinguishing a building fire, resolving a hazardous material release into the environment, or removing patients entrapped in an overturned vehicle, there is a minimum number of firefighters needed to perform each of these duties. The NFPA Standard 1710, becomes an effective starting point to ensure that our community has the adequate number of on-duty personnel to respond, each and every day. Four firefighter/EMT/Paramedics are recommended to be assigned to each pumper, truck, and rescue.

Operational staffing describes the best practice of fire/EMS minimum staffing requirements for typical building fire response. Fire Administration used the guidance developed by the National Fire Protection Association (NFPA), Standard 1710, (2020 edition) *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* (Appendix B). Couple the NFPA Standard 1710 with the National Institute of Standards and Technology (NIST), "Time to Task Completion" study data regarding fire deployment staffing data (Appendix C and Appendix D). These nationally recognized standards were framed to ensure that all response operations are efficient, effective, and provide for the safety of the Kansas City Kansas citizens, visitors, and our firefighters that answer the calls for help. NFPA has been providing fire protection standards since 1893 and is recognized as the consensus standards making agency. NIST was established in 1901 and has had an ever-increasing role in controlling fire promulgation and effective extinguishment of unwanted fires.

The firefighting profession is labor intensive and is a front end loaded business. Time will always be of the essence when responding to an emergency call for help. Manual firefighting requires a significant number of personnel to handle all of the simultaneous critical life safety functions. Hose lines are bulky and heavy to move and to place in the correct location in time to

have a successful impact. The requirement to conduct search and rescue for fire victims must be completed rapidly and under the most difficult of situations. Firefighters are deprived of senses during the search and rescue activities. Smoke takes away the ability to see. The air pack facepiece limits the ability to hear and speak and the bulky protective clothing and gloves removes the sense of touch, limiting the ability to understand the superheated temperatures that a room and content fire develops.

Although NFPA Standard 1710 does a remarkable job at identifying what minimum staffing levels are needed at a variety of incidents, there is very little information provided in Standard 1710 for the justification as to why staffing levels are assigned to certain hazards. The NIST Study⁶ collaborated with the International Association of Fire Fighters (IAFF) and the International Association of Fire Chiefs (IAFC) to complete this study. The NIST document serves as the justification to validate the numbers contained in NFPA Standard 1710. This study looked into the efficiency of different staffing models in regards to the time to completion of different fire ground tasks, necessary to successfully combat structure fires. Many of these fire ground tasks are required to be completed simultaneously or within short order of one another. The NIST study looked at these specific tasks and documented the amount of time they could be completed utilizing various staffing.

The results of this study can then be utilized to establish a base line of efficiency in determining station locations, minimum travel distances and number of personnel on an apparatus. The community is not safer by placing a fire station on every street corner if they are not staffed properly. There is little value in placing extra personnel on an apparatus if they cannot respond in a timely manner. The objective is a balance to determine an acceptable travel time, while allowing an apparatus staffed with sufficient personnel to accomplish emergency and fire ground tasks efficiently, effectively, and safely.

Response time is the expected travel time recognized by NFPA Standard 1710 and is referenced in the 90th percentile. The 90th percentile reflects the frequency that is expected to be met 90% of the time. A pumper should arrive on location in 240 seconds (4 minutes) with a crew of four firefighters. The expected travel time for all units assigned to the first alarm is eight minutes.

Although a majority of the responses are near the urban core, there is a considerable volume of calls in the south and west portions of our city. The goal is to establish equal protection throughout the community, while being fiscally responsible to the tax payers. This current response data has played a significant role in the Fire Administration's development of the overall Master Plan moving forward.

⁶ Robinson, B, et al: (2010), "Report on Residential Fire Ground Field Experiment" National Institute of Standards and Technology

The NFPA Standard 1710 outlines minimum staffing of fire apparatus, as follows:

Pumper Companies (Engine Companies) minimum staffing of 4 personnel, in areas of high call volume, geographic isolation, or increased density, this is recommended to be 5 personnel, and in areas increased tactical hazards, ultra-dense urban populations, or high hazard facilities, this is recommended to be 6 personnel.

Truck Companies (Aerial Companies) Minimum staffing of 4 personnel, in areas of high call volume, geographic isolation, or increased density, this is recommended to be 5 personnel, and in areas increased tactical hazards, ultra-dense urban populations, or high hazard facilities, this is recommended to be 6 personnel.

Tanker Companies (Mobile Water Supply companies) Minimum of 2 personnel

Medic Units (Ambulance) Minimum of 2 personnel

Current staffing:

1. Pumpers - minimum of 3 personnel
2. Ladder trucks - minimum of 4 personnel⁷
3. Rescues - minimum of 4 personnel
4. Medic Units - minimum of 2 personnel
5. Tankers, hazardous materials, boats, reserve medic units, and brush fire apparatus are all cross staffed.

The goal of adequate coverage throughout the City, while increasing the staffing model to meet the minimum requirements for NFPA Standard 1710 is a financial challenge. The financial obligation to create a model that meets or exceeds the minimum standards for our community is great. The goal of four firefighters on each pumper and ladder truck is a minimum presented in the national standard and is arguably not sufficient in areas of high-density populations, industrial parks, or structures involving multiple floors above grade or buildings with tens of thousands of square feet.

The minimum staffing numbers as well as response travel times identified in the NFPA Standard 1710 are justified, through the evaluation conducted by NIST. The intensive data collection and analysis shows how increasing staffing from two or three to a minimum of four increases the effectiveness of task completion by 25%. At face value this sounds like a linear interpretation, increasing staffing by 25% will likely result in a completion of tasks 25% faster. However, the major impact results from the understanding that this increase allows for simultaneous events to

⁷ Based on 2025 revenue neutral budget restrictions, minimum staffing of ladder trucks will be reduced to 3 personnel when necessary thus risking the safety to our community and firefighters.

take place resulting in fires to be extinguished and fire victims removed from the structure 25% faster utilizing the same number of firefighters on scene.

This experiment utilized fifteen firefighters total for all experiments, it simply adjusted for how many showed up on each apparatus. Fewer firefighters per apparatus resulted in more apparatus responding whereas more firefighters per apparatus resulted in less apparatus responding.

The collaboration between IAFC, IAFF, and NIST reveals that the efficiencies gained by placing four firefighters on an apparatus can result in life saving while limiting the duration of the hazard.

The four-person crews operating on a structure fire completed all the tasks on the fireground (on average) seven minutes faster—nearly 30%—than the two-person crews. The four-person crews completed the same number of fireground tasks (on average) 5.1 minutes faster—nearly 25%—than the three-person crews. On the residential structure fire, adding a fifth person to the crews did not decrease overall fireground task times. However, it should be noted that the benefit of five-person crews has been documented in other evaluations to be significant for medium and high-hazard structures, particularly in urban settings, and is recognized in industry standards.

The NFPA Standard response highlights are as follows:

- A. **Section 5.2.4.1 - Single-Family Dwelling:** the initial first alarm assignment capability is a response force of 17 members (with aerial device) arriving on location within eight (8) minutes from time of dispatch.
- B. **Section 5.2.4.2 – Open-Air Strip Mall Shopping Center:** the initial first alarm assignment capability is a response force of 28 members (with aerial device) arriving on location within eight (8) minutes from time of dispatch.
- C. **Section 5.2.4.3 – Multi-Family Occupancy (Apartments, Condominiums, Group Homes, Nursing Homes):** the initial first alarm assignment capability is a response force of 28 members (with aerial device) arriving on location within eight (8) minutes from time of dispatch.
- D. **Section 5.2.4.4. – High Rise Buildings (Five stories and higher):** the initial first alarm assignment capability is a response force of 43 members (with a building fire pump) arriving on location within eight (8) minutes from time of dispatch.

The following table identifies what percentage of responses are meeting the four-minute travel time, (from the time the apparatus goes in route or clicks in route on the computer dispatch system) to be the first arriving for each respective territory.

Table 1 2022 NFPA Standard 1710 Report Card

Response District	Emergency calls when apparatus was first on scene for 2022.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to meet Goal
Battalion 1			
Pumper 1	1953	96.0% (1874)	4.0% (79)
Pumper 5	1317	90.4% (1190)	9.6% (127)
Pumper 9	1804	93.6% (1688)	6.4% (116)
Pumper 11	2056	91.3% (1877)	8.7% (179)
Pumper 14	1465	91.0% (1333)	9.0% (132)
Pumper 15	57	86.0% (49)	14.0% (8)
Pumper 18	2146	90.6% (1944)	9.4% (362)
Total Battalion 1	10798	92.2% (9955)	9.3% (1003)
Battalion 2			
Pumper 3	543	86.0% (467)	14.0% (76)
Pumper 7	1281	80.2% (1028)	19.8% (253)
Pumper 10	908	71.6% (650)	28.4% (258)
Pumper 16	585	79.1% (463)	20.9% (122)
Pumper 17	754	75.9% (572)	24.1% (182)
Pumper 20	837	68.6% (574)	31.4% (263)
Total Battalion 2	4908	76.5% (3754)	23.5% 1154
Battalion 3			
Quint 2	1453	79.8% (1159)	20.2% (294)
Pumper 4	990	79.9% (791)	20.1% (199)
Tower 6	48	70.8% (34)	29.2% (14)
Pumper 8	540	51.3% (277)	48.7% (263)
Quint 12	867	77.4% (671)	22.6% (196)
Pumper 19	2000	88.2% (1764)	11.8% (236)
Total Battalion 3	5898	79.6% 4696	20.4% (1202)

Table 2 2023 NFPA Standard 1710 Report Card

Response District	Emergency calls when apparatus was first on scene for 2023.	Percentage of responses that were 240 sec or less travel time. Meeting goal	Percentage of responses that were over 240 seconds travel time. Failing to Meet Goal
Battalion 1			
Pumper 1	2193	96.1% (2108)	3.9% (85)
Pumper 5	1207	91.5% (1104)	8.5% (103)
Pumper 9	1995	94.1% (1877)	5.9% (118)
Pumper 11	2107	90.6% (1908)	9.4% (199)
Pumper 14	1643	89.0% (1463)	11.0% (180)
Pumper 15	269	85.1% (229)	14.9% (40)
Pumper 18	1641	86.3% (1417)	13.7% (224)
Total Battalion 1	11055	91.4% (10106)	8.6% (949)
Battalion 2			
Pumper 3	638	84.6% (540)	15.4% (98)
Pumper 7	1328	81.3% (1079)	18.7% (249)
Pumper 10	979	69.4% (679)	30.6% (300)
Pumper 16	626	74.4% (466)	25.6% (160)
Pumper 17/ Truck 17	720	67.6% (487)	32.4% (233)
Pumper 20	847	69.4% (588)	30.6% (259)
Total Battalion 2	5138	74.7% (3839)	25.3% (1299)
Battalion 3			
Quint 2	1382	76.3% (1054)	23.7% (328)
Pumper 4	1017	80.7% (821)	19.3% (196)
Tower 6	665	82.0% (545)	18.0% (120)
Pumper 8	480	45.4% (218)	54.6% (262)
Quint 12	874	72.8% (636)	27.2% (238)
Pumper 19	1926	83.9% (1615)	16.1% (311)
Total Battalion 3	6344	77.1% (4889)	22.9% (1455)

The past ten years of Kansas City Kansas fire deaths and fire injuries is offered in Table 7 to provide a historic picture.

Table 3 Fatalities and Injures

Calendar Year	Civilian Fatalities from Investigated Fires	Civilian Injuries from Investigated Fires	Firefighter Injuries from Investigated Fires
2024	5	23	6
2023	7	8	14
2022	8	22	14
2021	3	10	12
2020	0	10	3
2019	4	15	8
2018	3	17	15
2017	4	25	25
2016	2	16	12
2015	2	12	25
2014	2	14	8
Total	40	172	142

The 2020 edition of the NFPA *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* can be found in Appendix B in its entirety. In Appendix C is NIST Low Rise Fire Field Ground Experiments. Appendix D is High Rise Fire Field Ground Experiments.

Both Labor and Management support the consensus staffing standard developed by the NFPA and the results of staffing research studies published by the NIST. Each pumper company and truck company should be staffed by four members per unit. Currently, most Kansas City Kansas pumper companies are staffed with three members. Based on the financial position of the Unified Government, additional staffing requests will need to be reasonable and incrementally improved over time.

The Department has recently completed the development and implementation of the Low-Rise Fire Response Deployment Plan. This document sets into motion the ability to meet the minimum NFPA response requirements in an efficient, effective, and safe manner for both the citizens and our firefighters. Prior to this plan's implementation, training was completed to include classroom instruction and practical training.

Section 5 – KCKFD Emergency Medical Services

The Kansas City Kansas Fire Department (KCKFD) has a long-standing history of providing Emergency Medical Services (EMS) to our community, a commitment stretching back several decades. KCKFD notably launched the second Advanced Life Support (ALS) ambulance service in Kansas in 1974, known as K.A.R.E. (Kansas City KS Aid-Rescue-Emergency). This service, in collaboration with Basic Life Support (BLS) first responders and private ambulance companies, served Kansas City, KS, until 1995. In August of that year, KCKFD expanded its role to become the largest provider of ALS first response in Kansas, entering into a contract with a private company for all ambulance transports. This contract ended on July 1, 2004, when KCKFD resumed providing comprehensive ALS and BLS ambulance services as a Fire-Based EMS system.

The highest-use service of the KCKFD is the delivery of EMS. In 2022, we responded to 25,362 medical calls, accounting for 73% of all requests for assistance, which resulted in 17,691 patient transports to definitive care facilities. In 2023, EMS demand continued to rise, with KCKFD responding to 25,994 medical calls, 71% of all calls for assistance, leading to 18,412 patient transports. The KCKFD delivers advanced life support services with a minimum of a single certified paramedic on board our ambulances. Our modern-day ambulances are capable of providing a wide range of services that parallel the hospital emergency department (ED). Most people will take advantage of our ambulance service at some point in their life. As an example, the EMS Division of our Department assisted 21 unhoused people to warming shelters during the harshest point of Winter 2024.

The emergency medical services system has a billing mechanism that netted approximately \$4,300,000 in 2022 and \$5,900,000 in 2023. The accounts receivable continues to trend upward based on increased and aging population, increased service fees, and workload. The challenge of our EMS billing lies with patients without medical insurance, Medicare, or Medicaid. The EMS billing process helps to offset the cost of operating our system. The Department is looking at additional ways to expand our revenue stream (see Section 7).

A major factor in delivering emergency medical care is ambulance response cycle time. This measurement is from initial dispatch to the ambulance returning to service to respond to the next call. The typical ambulance transport cycle time for KCKFD is approximately 50 – 90 minutes. Our cycle time is directly correlated to hospital distances. Only 3 of 36 facilities that KCKFD transports patients to are within Wyandotte County. The impact of cycle times reduces the number of ambulances available for emergency responses. Typically, our City is reduced to one or no ambulances available for a period of time each day. When this critical stage is reached, the patient must tolerate an extended-on scene time, or we must rely on mutual aid. Based on our response workload and cycle time, this report recommends that the Unified Government authorize two additional emergency ambulances to be placed in service as soon as possible.

Critical EMS Capital Equipment Needs

Included below are some of the EMS capital equipment needs. The continued use of our current ambulance stretchers to lift patients places the Unified Government in a precarious liability position. The rationale behind this statement references lifting patients into the back of an ambulance which exposes our members to significant back injuries. The average patient weight is 200 pounds, the stretcher weight is 89 pounds and the lift height is four feet. Further, the current patient carrying system exposes our patients to the potential of being dropped from the stretcher. This situation exposes the Unified Government to unreasonable liability. The solution is to retrofit 12 ambulances with patient Stryker Power-LOAD® systems.

The ability to provide high quality, effective, and uninterrupted cardio-pulmonary resuscitation (CPR) during a cardiac arrest is critical to sustain life. The Zoll Autopulse® is a device that delivers CPR in the most effective way. This system is designed to deliver this life saving care well beyond the ability of a medical care provider. The KCKFD needs to replace our outdated Autopulse® machines.

Priority EMS Capital Equipment needs

1. Complete Stryker Power-LOAD® systems for all Medic Units
2. Update and replace Zoll Autopulse® equipment
3. Update and replace Zoll Monitor
4. Update Body Armor and Ballistic Helmets

Emergency Paramedic Ambulances

Our EMS system is struggling to keep pace with the needs of a growing community. As the population grows, the demand for emergency medical services increases, leading to longer response times, delayed care, and a higher risk of an adverse outcome.

Based on EMS call volume, a medic unit should be placed in service at Fire Station 1 (Strawberry Hill) when funding allows. The next medic unit to be placed in service at Fire Station 20 (Muncie) should occur when the new station goes operational. The construction of Fire Station 20 has been placed on an indefinite hold.

Community Paramedic Program Expansion

Community Paramedicine is a healthcare delivery model where paramedics provide non-emergency medical care to patients in their homes and/or community settings such as our unhoused population. Paramedics provide checkups, chronic disease management, and medication guidance for patients who encounter transportation or financial barriers to healthcare.

The Community Paramedic Program will alleviate the burden on hospital emergency departments and KCKFD medic units. By providing non-emergency medical care to patients in their homes or community settings, paramedics can prevent 9-1-1 emergency requests for assistance, avoiding hospitalizations, and emergency department visits. Because of the proven effectiveness of this program, expansion throughout the community is recommended.

Section 6 – Apparatus Replacement Plan

The emergency vehicle fleet is a cornerstone in ensuring the Kansas City Kansas Fire Department's readiness and capability to respond to all alarms effectively, efficiently, and safely. The primary goal is to safeguard the community by minimizing response times and maximizing the efficiency and safety of our emergency operations personnel. Our fleet, in turn, plays a pivotal role in preventing loss of life and mitigating property damage, in essence, preventing harm in our community.

The purpose of this section of our Master Plan is multifaceted. This section evaluates the current status and usage of each piece of equipment within our fleet. This assessment serves as a critical evaluation tool, guiding our decisions on whether a vehicle or piece of equipment should be replaced, refurbished, or deemed obsolete. Recognizing that each piece of apparatus in our fleet is integral to our operations, this plan pays special attention to their unique functions and roles. Multiple vehicles in our fleet are designed to serve more than one function, offering versatility in our response capabilities, and serves as a cost saving measure.

It is imperative to acknowledge that each fire department vehicle should be strategically chosen for its specific purpose. When initially purchased and placed into service, each item adhered to the latest versions of the appropriate National Fire Protection Association (NFPA) Standards or other recognized safety benchmarks. These Standards are not static; they evolve to reflect knowledge, technologies, and safety protocol changes. Therefore, our apparatus replacement plan is not only about maintaining efficiency, but about ensuring that our fleet remains compliant with these evolving standards.

This plan serves as a living document, outlining our commitment to maintaining a fleet that is robust and reliable. It is reflective of the latest in safety standards and operational readiness requirements. Through this plan we must ensure that our responders are equipped with the

necessary tools to serve our community effectively, while focused on both their safety and that of the citizens they are sworn to protect. Serious consideration should be given to electric powered vehicles of all types as this technology improves to include safety, cost, and runtime. Traffic preemption systems should be a consideration for all phases of government operations. This is an effective way to improve fire and EMS response times and safety for our members and the community by reducing or eliminating vehicular crashes.

Fleet Composition

Ambulances

Goal:

KCKFD has 11 front line ambulances with manufacturing dates ranging from 2017 to 2022. The Department has 6 reserve ambulances, with ages ranging from 2015 to 2017. The required medic fleet strength is 20 ambulances assigned as follows: 11 front line units, 8 reserve units, and 1 training unit. More than 35,000 calls for service are answered each year. These calls range from minor illnesses and injuries to advanced life saving measures along with transportation to medical facilities.

The delivery of emergency medical care to our community is viewed by our Department as a mission-critical priority program. In 2022, the Department responded to 34,784 alarms, including 25,362 emergency medical calls. In 2023, the call volume increased, with the Department responding to 36,144 alarms, including 25,994 emergency medical calls. This replacement plan is designed to operate a reliable and cost-effective emergency medical transportation service to definitive care. When the Department uses ambulances in front-line service that exceed 150,000 miles, maintenance costs become prohibitive. The ambulance replacement chart listed below is based on providing urban service, distance to and from the hospital, and the number of alarms answered each year.

Our ambulance fleet must provide for the safety of our members, as well as the comfort, and care of our patients. Finally, our ambulances must be the platform to deliver state of the art, evidenced-based emergency medical care for our citizens and visitors.

Table 4 Required Fleet Strength:

Front Line Service	11 Ambulances
Ready Reserve Service	8 Ambulances
EMT/Paramedic Training	+ 1 Ambulances
2025 Fleet Needs	20 Ambulances

Replacement Standards:	<u>Mileage</u>	<u>Status</u>
New to Five years of service	150k	Front Line Service
Six to Ten years of service	150k to 200k	Ready Reserve Service
Eleven years or more of service	Over 200k	Training Service (1 Ambulance)
Surplus Vehicles	Over 200k	Sell/Trade-in all others

Table 5 Ten Year Ambulance Replacement Cycle

10 Year Ambulance Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Estimated Disposition
1	2014	3568	Reserve	182,680	10,870	Active	To be Sold 2027
		7754	Reserve	175,419	10,573	Active	To be Sold 2027
2	2015	6812	Reserve	257,942	13,702	Out	Sent to Remount in North Carolina 08-2024
		4068	20 - Munroe	225,875	11,887	Cross-Staffed	To be Sold 2025
3	2016	9792	Reserve	195,414	11,248	Wrecked	Getting bids for repair
		8713	4 - Bethel	147,376	7,570	Active	To be sold 2026
4	2017	2293	17 - Turner	134,392	6,601	Active	To be Sold 2028
5	2019	9057	Reserve	8,766	932	Active	In service 2024
		5276	Reserve	16,500	1,256	Active	In service 2024
		3287	12 - Pipes	212,863	9,833	Active	Sent to Training 2026
		891	19 - Victory Hills	177,225	7,533	Active	To be sold 2027
6	2020	6082	18 - Welborn	146,410	7,491	Active	To be sold 2028
		7064	9 -Central	105,765	6,583	Active	To be sold 2029
		7055	7 - Argentine	88,924	5,721	Active	To be sold 2029
		7067	5 - Quindaro	42,286	3,445	Repair	Return to service Fall 2024
7	2022	9432	2 - Midtown	104,572	4,604	Active	To be sold 2026
		6256	3 -Armourdale	49,694	2,750	Active	To be sold 2028
8	2023					In Production	To be delivered 01-2025
9	2024					In Production	To be delivered 03-2025
10	2025						2 new/1 remount to be delivered Fall 2025
11	2026						2 new/1 remount to be delivered Spring of 2026
12	2027						2 new/1 remount to be delivered in 2027
13	2028						2 new/1 remount to be delivered in 2028
14	2029						2 new/1 remount to be delivered in 2029
15	2030						2 new/1 remount to be delivered in 2030
16	2031						3 new/1 remount to be delivered in 2031
17	2032						3 new/1 remount to be delivered in 2032
18	2033						3 new/1 remount to be delivered in 2033
19	2034						3 new/1 remount to be delivered in 2034
							3 new/1 remount to be delivered in 2035

New to Five years of service or Under 150,000 miles
Six to Ten years of service or 150,001 to 200,000 miles
Eleven years or more of service or Over 200,000 miles

Summary and Recommendations:

Based on the community's emergency medical care needs combined with the ability to operate a cost-effective ambulance fleet, the Department is requesting to stay on track with our proposed plan of 20 ambulances. The two used ambulances purchased in May of 2024, were requested to immediately shore up our failing front line emergency ambulance fleet. There are many days when our reserve ambulance fleet is still depleted. There are currently 17 ambulances available in our entire fleet.

Pumpers

Goal:

The Fire Department operates 15 front line pumpers, which are critical to our firefighting capabilities. These vehicles range in age from new to 8 years old. A pumper carries 500 to 1,000 gallons of water and has the ability to pump up to 1,500 gallons of water per minute to extinguish a burning structure. There are five reserve pumpers ranging in age from eight to 21 years old. An adequate fleet of pumping apparatus is essential to the effective day-to-day operations of the Fire Department.

Required Fleet Strength:

The current recommendation of the KCKFD is for pumpers to operate for 10 years as a front-line apparatus. This time frame ensures that the vehicles are reliable, efficient, and equipped with current technology. After 10 years of extreme use in an urban fire department, pumpers should be moved to the reserve fleet. The expected duration of service in the reserve fleet is an additional five years. This stage allows for continued utility of the apparatus while acknowledging its increased maintenance needs and decreased reliability compared to newer models. The goal is to have six pumpers in reserve. An additional two pumpers over 15 years old would be assigned to the training division for the continued education of new and current members.

Replacement Standard:

Two new pumpers have been purchased and are currently scheduled for delivery in May/June of 2025. Two more pumpers were ordered in 2024, with an estimated delivery date in December of 2026.

The replacement schedule and assigned location of these pumpers is contingent on the approval of the Fire Department's Master Plan. The table below will show the pumpers scheduled to be replaced, but the location of those pumpers will be in accordance with the proposed relocation of pumpers covered in the Master Plan.

Upon the delivery and placement of the new pumpers, the units that they replace will be moved to the reserve fleet. In 2025, after the delivery of the two new pumpers, we will have four of the six needed ready reserve pumpers required to maintain an adequate reserve fleet under the age of 15 years. The 2026 delivery will accomplish the goal of six ready reserve pumpers. Two pumpers will be identified as traffic blocking devices, which will protect our members and the motoring public, typically at incidents on the interstates. The oldest pumpers will then be assigned to the Training Division to meet their needs. The remaining replacement schedule will effectively maintain the goal for overall fleet strength of pumping apparatus.

Table 6 Ten Year Pumper Replacement Cycle

10 Year Pumper Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2003	Reserve Pumper 5		155,051	17,100	Reserve	To Training 2025/Sell in 2026
2	2004	Reserve Pumper 3		139,250	17,116	Reserve	To Training 2026/Sell in 2027
3	2007	Reserve Pumper 4		69,637	7,572	Reserve	To Training 2026/Sell in 2028
4	2009	Reserve Pumper 1		126,169	12,615	Reserve	To Training 2027/Sell in 2028
5	2016	Reserve Pumper 2		70,851	7,712	Reserve	To Training 2028/Sell in 2029
		Pumper 5	Quindaro	60,518	6,744	Active	To Reserve 2025
		Pumper 11	Kensington Park	67,704	11,080	Active	To Reserve 2025
6	2018	Pumper 3	Armourdale	54,856	5,614	Active	To Reserve 2026
		Pumper 10	Rosedale	41,476	5,492	Active	To Reserve 2026
		Pumper 15	Fairfax	48,605	4,732	Active	To Reserve 2027
7	2019	Pumper 1	Strawberry Hill	46,077	5,261	Active	To Reserve 2028
		Pumper 9	Bethany Park	46,533	5,196	Active	To Reserve 2028
8	2020	Pumper 18	Welborn	58,976	5,444	Active	To Reserve 2029
		Pumper 19	Victory Hills	54,191	5,711	Active	To Reserve 2030
9	2021	Pumper 7	Argentine	32,001	3,120	Active	To Reserve 2030
		Pumper 20	Muncie	26,491	2,321	Active	To Reserve 2031
10	2023	Pumper 4	Bethel	12,618	780	Active	To Reserve 2032
		Pumper 8	Piper	9,790	610	Active	To Reserve 2032
		Pumper 16	Turner	10,441	725	Active	To Reserve 2033
		Pumper 14	Klamm Park	5,168	414	Active	To Reserve 2034
11	2023						2 to be delivered Fall 2025
12	2024						2 to be delivered Winter 2026
13	2025						2 to be delivered 2027
14	2026						2 to be delivered 2028
15	2028						2 to be delivered 2030
16	2029						1 to be delivered 2031
17	2030						2 to be delivered 2032
18	2031						1 to be delivered 2033
19	2032						2 to be delivered 2034
20	2033						1 to be delivered 2035
21	2034						2 to be delivered 2036

New to 10 years of service and under 50,000 miles
11 to 15 years of service or 50,001 to 100,000 miles
16+ years of service or over 100,000 miles

Summary and Recommendations:

The goals for the total strength of our pumping apparatus fleet represent industry standards and best practices. The Department needs to maintain a front-line fleet of 15 pumpers. An additional six pumpers should be placed in ready reserve status to accommodate maintenance and repairs of the front-line fleet. Two pumpers will be assigned as traffic blockers. Two pumpers will be assigned to the training division for continuing education and development of Fire Department personnel. The implementation of this plan will ensure that the goals set forth by the Fire Department will be met today and well into the future.

Ladder Trucks

Goal:

The current recommendation of the KCKFD is for ladder trucks to operate for 15 years in front line service. Ladder trucks older than 15 years should be evaluated and placed in reserve status until the age of 20 years. At 20 years of age, all apparatus are recommended to be retired from the vehicle fleet.

Required Fleet Strength:

The ladder trucks replacement plan seeks to comply with NFPA standards by removing apparatus from front line service at 15 years and placing them in reserve status until the end of their 20-year life cycle. The goal of the Fire Department is to have seven (7) front line ladder trucks in service with four (4) apparatus in reserve. There will be an additional one (1) ladder truck near the end of its life cycle assigned to the training division.

Replacement Standard:

A new ladder truck is scheduled for delivery in June of 2025. A tractor drawn ladder truck is currently in the purchasing process, and will be slated for delivery near December of 2026. An aerial tower will be ordered in FY2026 with an expected delivery date in 2029.

This replacement plan accounts for the purchase of one (1) specialized apparatus per year. This includes ladder trucks, rescue units, hazardous materials units, mobile command units, mobile air supply units, and other specialized apparatus necessary to complete our mission.

Upon the delivery and placement of the new ladder trucks, the units that they will replace will move to the reserve fleet. In 2026, after the delivery of the tractor drawn ladder truck (ordered in 2024) that will be placed at Station 10 in Rosedale, we will have achieved our goal of four (4) apparatus in reserve with one (1) apparatus assigned to the Training Division. In 2029, with the delivery of the aerial platform ordered in 2026, Reserve Quint 2 will have reached over 20 years of service, and will be retired from the fleet, allowing us to maintain our goal of 12 aerial apparatus in the fleet (7 front line, 4 reserve, 1 training).

Table 7 Ten Year Specialized Apparatus Replacement Cycle

10 Year Specialized Apparatus Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Estimated Disposition
1	2008	Reserve Quint 2	Reserve	103,777	10,558	Reserve	
2	2011	Reserve Truck 1	Reserve	68,372	2,350	Reserve	
3	2011	Reserve Quint 1	Reserve	146,155	17,894	Reserve	
4	2014	Tower 6	Village West	77,234	7,081	Active	
5	2016	Quint 2	Midtown	43,408	4,153	Active	
6	2019	Truck 10	Rosedale	39,488	3,608	Active	
7	2019	Quint 12	Piper	45,708	4,686	Active	
8	2020	Truck 14	Klamm Park	22,361	2,640	Active	
9	2022	Truck 7	Argentine	67,166	2,208	Active	
10	2024	Truck 17	Turner	3,909	393	Active	
11	2023		Ladder Truck				To be Delivered in 2025
12	2024		Ladder Truck				To be Delivered in 2026
13	2025		Ladder Truck				To be Delivered in 2027
14	2027		Ladder Truck				To be Delivered in 2029
15	2030		Ladder Truck				To be Delivered in 2032
16	2032		Ladder Truck				To be Delivered in 2034
17	2033		Ladder Truck				To be Delivered in 2035

Age New to 15 years
Age 15 years to 20 years
Age 20 years to 25 years

Summary and Recommendations:

A replacement plan is necessary to ensure the Department continues to provide the necessary equipment required for all-hazards emergency response. Ladder trucks are highly specialized pieces of equipment that are essential to the Department's mission. Following the plan laid out in this document will provide the necessary front line and reserve apparatus. It is recommended that ladder trucks be replaced with the schedule above in order to provide safe, effective, and efficient emergency response.

Rescues

The Department has two rescue companies, essential for a wide range of emergency situations, including vehicle accidents, complex extrications, high angle rescue, confined space/trench, and building collapse rescues. Our two rescue units were manufactured in 2020 and 2024.

Table 8 Ten Year Rescues

10 Year Rescue Unit Replacement Plan							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2003	Reserve Rescue 1		44,147	3,339	Reserve	To Training in 2031
2	2018	Rescue Support	Strawberry Hill	42,942	3,240	Active	
3	2020	Rescue 1	Strawberry Hill	19,543	1,527	Active	To Reserve in 2031
4	2024	Rescue 6	Village West	1,779	106	Active	To Reserve in 2036
5	2029						To be delivered 2031
6	2034						To be delivered 2036

New to 10 years of service
11 to 15 years of service
16 years of service or older

Hazardous Materials Response Units

Our two specialized hazardous materials units were built in 2024. These units are specifically equipped for all hazardous materials spills and mitigation. Each vehicle is designed to respond to a variety of chemical releases as well as man-made and natural disasters. Our Hazardous Materials Units are tasked with protecting our citizens, the community, and the natural environment.

Table 9 Ten Year Hazardous Materials

10 Year HazMat Replacement Cycle							
	Year	Unit ID	Location	Mileage	Engine Hours	Status	Disposition
1	2005	Reserve HazMat 1		24,536	2,327	Reserve	To become Air Unit
2	2006	Reserve HazMat 2		26,549	2,511	Reserve	To become Command Unit
3	2023	HazMat 3	Armourdale	0	0	Active	
4	2024	HazMat 2	Midtown	0	0	Active	

New to 10 years of service
11 to 15 years of service
16 years of service or older

Brush Fire Trucks

KCKFD currently operates five brush fire trucks, with service dates ranging from 2003 to 2006. These units are crucial for responding to wildfires and incidents in rural or off-road areas. Often, the Department is called upon to protect forested lands as well as farmlands. A brush fire truck's agility allows it to access areas where full-size pumpers cannot. Brush fire trucks provide vital firefighting capabilities in diverse terrains that otherwise would not be accessible.

Table 10 Ten Year Brush Fire Trucks

10 Year Brush Truck Replacement Cycle						
	Year	Unit ID	Location	Mileage	Status	Disposition
1	2003	Brush 18	Welborn	26,854	Active	To Reserve 2030
2	2003	Brush 9	Central Ave	19,553	Active	To Reserve 2031
3	2005	Brush 8	Piper	39,761	Active	To Reserve 2033
4	2006	Brush 16	Turner	9,664	Active	To Reserve 2034
5	2006	Brush 12	Piper	14,155	Active	To Reserve 2035
6	2029					To Be Delivered 2030
7	2030					To Be Delivered 2031
8	2032					To Be Delivered 2033
9	2033					To Be Delivered 2034
10	2034					To Be Delivered 2035

New to 10 years of service
11 to 15 years of service
16 years of service and older

Rescue Boats

The Department has four hard hull boats and two inflatable boats in service. Additionally, we have two inflatable boats in reserve. The calls for service vary from assisting stranded boaters to search and rescue operations.

Table 11 Ten Year Boats

10 Year Boat Replacement Plan					
	Year	Unit ID	Location	Status	Disposition
1	2006	Inflatable		Reserve	For use in disaster deployment
2	2008	Boat 1	Strawberry Hill	Active	
3	2011	Inflatable		Reserve	For use in disaster deployment
4	2014	Boat 6	Village West	Active	
5	2017	Inflatable 6	Village West	Active	Stored on Rescue Unit
6	2021	Inflatable 1	Strawberry Hill	Active	Stored on Rescue Unit
7	2023	Boat 18	Welborn	Active	
8	2023	Boat 21	Strawberry Hill	Active	

New to 10 years of service
11 to 15 years of service
16 years of service and older

Comprehensive Replacement Schedule

Fire Apparatus procurement

1. Two pumpers every even year
2. One pumper every odd year
3. One specialized apparatus (ladder truck, rescue unit, hazardous materials unit, ect.) per year
4. One brush truck per year
5. Two Staff vehicles per year

Ambulance procurement

1. Two new ambulances per year
2. One remount (chassis replacement only) ambulance per year

Signature and Authorization

The Kansas City Kansas Fire Department Master Plan has been reviewed, accepted, and becomes the authorized direction of the Department as funding and time allows. There should be quarterly meetings between the Fire Department and IAFF Local 64 to discuss progress and remove barriers to success, if possible. In the January quarterly meeting, this committee should review and document the successes as well as add the next year to the plan, thereby keeping an updated Master Plan that is vital, supported, and relevant.

For the Unified Government:

County Administrator

Date

For the International Association of Fire Fighters–Local 64:

President

Date

For the Kansas City Kansas Fire Department:

Fire Chief

Date

Appendix A

FACETS Study pertaining to facility condition

Unabridged

Appendix B

National Fire Protection Association Standard 1710

Unabridged

Appendix C

National Institute of Standards and Technology

Report on Residential Fireground Field Experiments

Unabridged

Appendix D

National Institute of Standards and Technology

Report on High-Rise Fireground Field Experiments

Unabridged

Appendix E: CPSM/ICMA Study

End of report