



City of Hanford Fire Department

Master and Comprehensive Spending Plan 2022-2035



*Prepared for the Hanford Fire Department
Prepared by Mike Kraus Leadership
February 14, 2022*

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Introduction

The Hanford Fire Department Master Plan is a long-range planning document. It serves as a blueprint for long-range goals, supporting the visionary policy established in the City of Hanford 2035 General Plan. This document is the third in a series of three planning documents for the City of Hanford Fire Department. All three documents, “Community Risk Assessment/Standards of Response Coverage,” “Strategic Plan,” and “Master Plan,” are companion documents which build upon and support each other with short-, mid-, and long-term assessments and opportunities for improvement. This process is referred to as the Planning Continuum.

Included in this Master Plan are public safety policies established by the City’s comprehensive 2035 General Plan, as specified to the fire department. These include, but are not limited to, projected facilities, apparatus, and personnel needed to provide adequate fire and life safety protection for the citizens, as the land area and population of Hanford expand into the sphere of influence and planning area.

Additionally, industry standard and best practice benchmarks are included for reference, as well as recommended replacement schedules and estimated costs for Capital Improvement Projects. The intent being, to allow appointed and elected-officials adequate time to secure funding for these projects, with the goal of said projects being realized prior to the anticipated need.

It is critical, if this document is to continue to be of value, that it be referenced, reviewed, and adjusted as necessary, in accordance with the updating of the other fire department planning documents, and certainly with any update of the City of Hanford General Plan. It should be

considered a dynamic tool to assist the fire department and the appointed and elected officials of Hanford, as they strive to improve the fire and life safety element of our community. As this document is updated, the City of Hanford Fire Department, after saving the original, is hereby given express permission to remove all markings and references to “Mike Kraus Leadership.”

Executive Summary

The Fire Department Master Plan is the third in a series of documents (Community Risk Assessment/Standards of Response Coverage, Strategic Plan, Master Plan), referred to as the Planning Continuum. Based upon the City of Hanford 2035 General Plan and its goals and policies, it is a road map for the next 14 years of projected Fire Department growth. The intent of the document is to educate and assist appointed and elected officials as they evaluate community needs and prioritize limited funding.

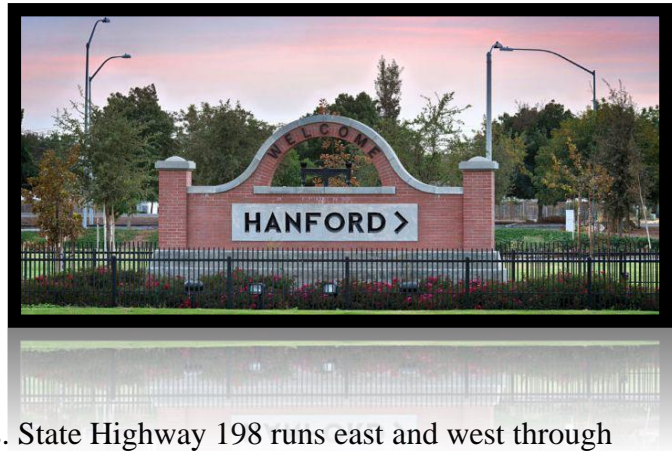
These projected needs are tied to fire service industry standards and best practices referenced to the “Community Risk Assessment/Standards of Response Coverage” and 5 year “Strategic Plan” documents. The following is a summary of projected needs supported by Hanford General Plan goals and policy through the year 2035:

- 1. Improve/increase Community Risk Reduction efforts by adding an assistant fire marshal, 3 fire inspectors, and an administrative assistant.*
- 2. Improve emergency response times by building and staffing 2 additional fire stations.*
- 3. Improve ability to assemble necessary numbers of fire personnel on the scene of an emergency to mitigate critical tasks. Increase the ratio of firefighters to population.*
- 4. Improve shift/administrative oversight and support by adding 3 additional chief officers.*
- 5. Improve training and operational readiness by adding 1 training officer and building a practical training facility.*
- 6. Expand functional administrative office space.*

7. *Improve emergency response apparatus and staff fleet by purchasing necessary fire engines, trucks, utility, and staff vehicles.*

Our City

Hanford, California (36 degrees 19'39"N 119 degrees 38'44"W), is located in the northeastern part of Kings County, approximately 30 miles to the southwest of the City of Fresno. It is about equal distant from the Sierra Nevada and the Coast Ranges. State Highway 198 runs east and west through Hanford and State Highway 43 runs north and south along the easterly boundary of the city. Presently, the city limits of Hanford covers 17.4 square miles. The ultimate growth boundary, which is based on the city's 2035 General Plan, includes the incorporated city and its sphere-of-influence and encompasses approximately 30 square miles. The General Plan also projects a population of 90,000 citizens.



Hanford is a California General Law City. Policy is established by a council/weak mayor form of government, with five council members elected by district to four-year terms. The mayor is selected by the Council on an annual basis. A manager oversees the daily responsibilities of the City.

Our Fire Department

Fire and life safety services for the City of Hanford are provided by the Hanford Fire Department (HFD). The HFD is a professional organization consisting of 35 full time and 2 part time employees. Services include community risk reduction and emergency response. It was formed in 1891 by Council resolution due to several large and destructive downtown fires. The HFD has a rich history of dedicated service to its citizens.



Mission Statement

“The mission of the Hanford Fire Department is to deliver effective, professional fire prevention and emergency response.”

Diversity Statement

“The Hanford Fire Department is an organization set to represent our community. Members of the department come from many socio-economic, ethnic, and cultural backgrounds. Our common thread is our passion to serve in whatever capacity is needed. Diversity provides perspective, experience, and understanding which only enhances the fire service and the people of Hanford.”

Core Values

“Compassion, Integrity, Accountability, Teamwork, Family, Respect”

Vision Statement

“The Hanford Fire Department strives to advance public safety through metrics, self-assessment and industry advancements. The men and women of the Hanford Fire Department will remain proactive and in control of our future. We accept the challenges that will come with the same discipline and integrity of our forebears.”

Capital Facilities:

Fire Station 1

Located: 350 W. Grangeville Blvd.

Built: 1990

Houses: Fire Administration/Engine

Anticipated Replacement: 2040



Fire Station 2

Located: 10553 Houston Ave.

Built: 1989

Houses: Truck

Anticipated Replacement: 2039



Fire Station 3

Located: 1070 S. 12th St.

Built: 2019

Houses: Engine

Anticipated Replacement: 2069



Capital Apparatus:

Engine 41

Manufacturer/Model:

Year: 2014

Anticipated Replacement: 2034

Projected Cost: \$1,000,000



Truck 42

Manufacturer/Model: Pierce

Year: 2019

Anticipated Replacement: 2039

Projected Cost: \$2,000,000



Engine 43

Manufacturer/Model:

Year: 2015

Anticipated Replacement: 2035

Projected Cost: \$1,000,000



Patrol 42

Manufacturer/Model:

Year: 2012

Anticipated Replacement: 2032

Projected Cost: \$500,000



Patrol 43

Manufacturer/Model:

Year: 2018

Anticipated Replacement: 2038

Projected Cost: \$600,000



Reserve Engine 1

Manufacture/Model: Pierce Saber

Year: 2004

Anticipated Replacement: 2024

Projected Cost: \$750,000



Capital Equipment:

Emergency Breathing Apparatus Platform

Manufacturer: Scott

Year: 2015

Anticipated Replacement: 2030

Projected Cost: \$1,000,000



City of Hanford 2035 General Plan

The following information has been extracted from the City of Hanford 2035 General Plan, as it pertains to the City of Hanford Fire Department.

Projection

“After reviewing historical growth rates and projected growth trends, the Citizens Advisory Committee determined that the General Plan Update would assume Hanford’s average annual population growth rate should be roughly 2.1%, which would result in a projected population of 90,000 persons in the year 2035.”

Note: Calculating a growth rate of 2.1% from the year 2021 would result in a population projection of approximately 79,000 in the year 2035. Additionally, the 2020 census data states that the 10-year growth rate between the last two surveys was only 9.6%. It appears highly unlikely that the original projection of 90,000 will be reached by 2035. As a result, for purposes of this Fire Department Master Plan, an adjusted annual increase of 1.6% will be utilized, resulting in a 2035 projected population of 75,000.

(Mike Kraus Leadership)

Policy

Fire Protection and Emergency Services Goals

Goal P10: Prevention of loss of life and property from fire or other disaster.

Goal P11: Functional public buildings to house fire and emergency services personnel and equipment.

Policy P50 Fire Master Plan

Prepare and periodically update a Fire Master Plan to plan for new growth identified in the land use element.

Policy P51 Fire Station Locations

Provide for five City fire station locations within the 2035 Growth Boundary on the General Plan Land Use Map.

Policy P52 Impact Fees for Fire Facilities

Require developers to contribute impact fees to fund the cost of providing fire facilities needed to support new population growth and development.

Policy P53 Fire Protection Personnel

Provide adequate fire suppression personnel and staff at each fire station to meet increased demands from population growth.

Policy P54 Provision of Fire Protection Equipment

Provide for fire protection vehicles and safety equipment to meet increased demands from population growth.

Policy P55 Water Supply to Meet Fire Demand

Provide adequate water supply and fire flow throughout the Hanford water system to meet fire demand during times of peak domestic water demand.

Policy P56 Emergency Transport Services

Support the expansion of emergency transport services at locations within the Planning Area that can most effectively improve service.

Policy P57 Automatic Aid Agreement

Maintain automatic aid agreements with Kings County Fire Department.

Policy P58 Mutual Aid Agreements

Maintain mutual aid agreements with other local and regional agencies.

Policy P59 Fire and Building Codes

Continue to enforce the California Fire Code, California Building Code, and Hanford Municipal Code to mitigate threats to safety and property.

Policy P60 Sprinklers for Commercial Buildings

Require that new commercial and industrial buildings less than 5,000 square feet that are outside of a 2-mile response distance include fire suppression sprinkler systems.

Policy P61 Emergency Preparedness

Continue to upgrade preparedness strategies and techniques so as to be prepared when natural or manmade disaster occurs.

Policy P62 Fire Protection Education Programs

Continue to provide public education programs to raise awareness of potential fire and safety threats.

Emergency Preparedness Goals

Goal H1: Reduced impacts to human life, property, the local economy, and the environment resulting from natural hazards, human-trade hazards, and noise.

Goal H2: High quality emergency services to protect life and property.

Policy H1 Kings County Multi-jurisdictional Hazard Mitigation Plan

Integrate the mitigation measures of the Kings County Multi-jurisdictional Hazard Mitigation Plan where relevant and applicable.

Policy H2 Update to the Multi-jurisdictional Hazard Mitigation Plan

Collaborate with the Kings County Office of Emergency Management in the development of updates to the Kings County Multi-jurisdictional Hazard Mitigation Plan.

Policy H3 Disaster Preparedness

Lead in the preparation for natural and man-made disasters by taking a proactive approach.

Policy H4 Emergency Preparedness Plan

Update and implement the Emergency Preparedness Plan annually to respond to changes in land use, population, and incorporated boundaries, including evacuation routes, locations of critical facilities, peak load water supply requirements, minimum road widths and turning radii, and identification of risks.

Policy H5 City Hall as the Emergency Operations Center

Maintain City Hall as the Emergency Operations Center (EOC) in Hanford.

Policy H6 Disaster Preparedness Information

Educate the public about disaster preparedness by providing information on supplies, training, evacuation routes, communication systems and shelter locations.

Policy H7 Disaster Preparedness for Special Needs Populations

Identify and develop communication systems, evacuation methods, shelter locations and other services for special needs populations.

Policy H8 Provide for Adequate Levels of Service

Evaluate safety service limitations on an annual basis to provide for adequate levels of service.

Policy H9 Water Facilities in Emergencies

Ensure that public and private water facilities have adequate capacity to supply emergency needs.

Policy H10 Emergency Routes

Continue to collaborate with Kings County Office of Emergency Management to establish and maintain an Emergency Operations Plan that includes identification of Hanford's emergency evacuation routes and operational needs for first responders.

Policy H11 Emergency Response Facilities

Establish the capability to relocate critical emergency response facilities such as fire, police, and essential services facilities, if needed.

Policy H12 Quantify Emergency Preparedness Levels

Develop a procedure to quantify community emergency preparedness levels.

Policy H13 Volunteer Programs for Disaster Preparedness

Encourage City employees through a volunteer program to obtain training in disaster preparedness and basic first aid skills.

Natural Hazards Goal

Goal H3: Reduced risk to public health and safety and disruption of social, economic, and environmental welfare resulting from natural hazards.

Policy H15 Building Codes and Standards for Earthquakes

Maintain and enforce current buildings codes and standards to reduce the potential for structural failure caused by ground shaking and other geologic hazards.

Policy H18 Extreme Heat Emergency Plan

Support the maintenance and implementation of the Kings County Extreme Heat Emergency Plan to support vulnerable populations during times of extreme heat.

Policy H19 Cooling Centers

Periodically evaluate the effectiveness of existing cooling centers and determine the need for additional cooling centers as population increases.

Policy H20 New Development Requirements for Flood Protection

Require new development to provide onsite drainage or contribute towards their fair share cost of off-site drainage facilities to handle surface runoff.

Policy H24 Warming Centers

Periodically evaluate the effectiveness of warming center and determine the need for additional warming center as population increases.

Manmade Hazards Goals

Goal H4: Quality fire protection services throughout the City of Hanford.

Goal H5: Protection from the harmful effects of hazardous materials.

Goal H6: Avoidance of properties contaminated by toxic or hazardous materials.

Policy H27 Fire Code

Ensure that all new buildings are constructed to current Fire Code Standards.

Policy H28 Weed Abatement

Continue with an intensive weed abatement program to minimize fire hazards near urban uses.

Policy H29 Household Hazardous Materials

Coordinate with other public agencies to educate consumers about the proper household use and disposal of hazardous materials.

Policy H30 Industrial Hazardous Materials

Require industrial uses that rely extensively on the use of hazardous materials to adopt an acceptable use, storage, disposal, and emergency response program that has been approved by appropriate agencies.

Fire Service Industry Standards and Best Practices

Fire service industry standards and best practices are not laws or mandates. The final decisions as to what level of fire and life safety services are provided to the community are determined by the elected officials of each entity. These decisions are based upon public expectations, available funding, and what level of acceptable risk the policy makers are willing to assume. It is also important to understand the benefits of continually improving the local delivery system. Benefits include, but are not limited to, protecting the health and welfare of the citizens and the vital job and tax producing businesses from fire and other hazards, resulting in a more vibrant and economically successful community.

Below are Industry Standards and Best Practices as applied to the 2022 Community Risk Assessment/Standards of Response Coverage, 2022-2026 Fire Department Strategic Plan, and this 2022-2035 Fire Department Master Plan:

National Fire Protection Association (NFPA)

NFPA Standard 1221:

911 Calls Answered within 15 Seconds

911 Calls Processed with 64 Seconds

NFPA Standard 1710:

4-0 Staffing on Engine/Truck

4 Minute Travel Time for First Unit (Urban/Suburban)

8 Minute Travel Time for Effective Response Force (Urban/Suburban)

<https://www.iaff.org/wp>

[content/uploads/Departments/Fire_EMS_Department/30541_Summary_Sheet_NFPA_1710_standard.pdf](https://www.iaff.org/wp-content/uploads/Departments/Fire_EMS_Department/30541_Summary_Sheet_NFPA_1710_standard.pdf)

NFPA Firefighter to Population Ratio: Average of .87 to 1.32 Firefighters per 1,000 population in communities over 25,000 (2018 Survey)

<https://www.nfpa.org/-/media/files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/osfdprofile.pdf>

Insurance Services Organization (ISO)

ISO Fire Service Rating Schedule (FSRS):

No building farther than 1.5 miles from Engine Company

No Building farther than 2.5 miles from Truck Company

Aerial device required for any combination of 5: 3 story buildings or buildings requiring 3,500 GPM or more

<https://www.isomitigation.com/ppc/fsrs/items-considered-in-the-fsrs/>

California State Fire Code (OSFM)

Certain State mandated building inspections shall be completed on an annual and biennial basis.

Status of these inspections must be presented to local elected officials annually.

[https://osfm.fire.ca.gov/media/7652/sfm-regulated-occupancies-march-2011-final .pdf](https://osfm.fire.ca.gov/media/7652/sfm-regulated-occupancies-march-2011-final.pdf)

Performance Measures

Performance Measures are evaluation tools showing the organization how it is performing in relation to its mission, as well as applicable industry standards and best practices. Below are the performance measures presently utilized by the Hanford Fire Department, taken from the most current policy and procedures manual.

On an annual basis, complete 100% of State Mandated fire inspections

On an annual basis, complete Fire Education Programs at 90% of all elementary schools

On an annual basis, maintain a 3-week turnaround time for 90% of all Plan Checks

On an annual basis, determine the origin and cause of 90% of all fires

Maintain a Total Response Time of 6 minutes and 19 seconds for the first arriving unit at 90% of all emergency medical calls

Maintain a Total Response Time of 6 minutes and 39 seconds for the first arriving unit at 90% of all fire-rescue calls

Maintain a Total Response Time of 10 minutes and 39 seconds for the arrival of an Effective Response Force at 90% of all structure fires

On an annual basis, complete all Mandated Training for 95% of safety personnel Projected Fire Department Growth Through 2035

Comprehensive Spending Plan

Projected Significant Improvements Through 2035

(Years in **Green** are itemized in the 2022-2027 Strategic Plan)

2023

1. Improve Shift support and oversight. Hire 1 additional Battalion Chief.
2. Begin completing all State Mandated inspections. Hire 1 full time Fire Inspector.
(Possible offset from inspection fees)
 - Purchase sedan
3. Improve inspection fee billing. Hire one full time civilian CRR Administrative Assistant.
4. Improve emergency apparatus fleet. Purchase used Truck/Quint for reserve status.

2024

1. Continue completing all State Mandated inspections. Hire 1 additional full time civilian Fire Inspector. (Possible offset from inspection fees)
 - Purchase sedan
2. Improve emergency apparatus fleet. Purchase 2 new engines. (1 for Engine 42, 1 for future Station Engine 44)
3. Design Station 4.

2025

1. Begin improving response times, effective response force, and firefighter to population ratio. Hire 3 Captains, 3 Engineers, and 3 Firefighters

2. Build Station 4.

2026

1. Begin Improving Training program. Hire 1 Captain.
 - Purchase 1 4x4 Utility Pickup
2. Continue improving emergency apparatus fleet. Hire 1 civilian Mechanic.
3. Improve CRR Division. Consider sharing plan checking position with Building Department.
4. Open Station 4.
 - Purchase 1 4x4 utility pickup

2027

1. Continue improving Fire Suppression Division support and oversight. Hire 1 Deputy Chief.
 - Purchase 1 4x4 utility pickup
2. Continue improving Fire Suppression Division support. Hire 1 civilian Administrative Assistant.
3. Improve Emergency Preparedness. Hire 1 full time Assistant Fire Marshal/Emergency Preparedness officer. (Possible offset from grant funding)
 - Purchase 1 sedan
4. Design Station 5, including fire station and training facility.

2028

1. Improve Administration Division and reduce Battalion Chief overtime. Hire 1 Administrative Battalion Chief/Shift Command Relief.
 - Purchase 1 4x4 utility pickup
2. Hire 1 full time civilian Fire Inspector. (Possible offset with inspection fees)
 - Purchase 1 sedan

Achieve annual completion of State mandated inspections.

3. Build Station 5, including fire station and training facility.

2029

1. Continue improving response time, effective response force, and firefighter to population ratio. Hire 3 Captains, 3 Engineers, and 3 Firefighters.

2030

1. Open Station 5 and training facility.
 - Purchase 1 4x4 utility pickup
2. Replace SCBA platform.

Achieve Hanford 2035 General Plan 5th Fire Station.

Achieve Improving Response Times.

Achieve Effective Response Force of 16.

2031

1. Continue improving firefighter to population ratio. Hire 3 Firefighters for Truck 42.

2032

1. Continue improving firefighter to population ratio. Hire 3 Firefighters for Engine 41.

2033

1. Continue improving firefighter to population ratio. Hire 3 Firefighters for Engine 43.

2034

1. Continue improving firefighter to population ratio. Hire 3 Firefighters for Engine 44.

2035

1. Continue improving firefighter to population ratio. Hire 3 Firefighters for Engine 45.

Achieve 4-0 staffing.

2036

1. Hire 3 Captains, 3 Engineers, 6 Firefighters for Engine 42. Move Truck 42 to Station 1 as Truck 41 (Task Force Station).

Achieve firefighter to population ratio.

Projected Budget Impacts Through 2035

(Years in **Green** are itemized in the 2022-2027 Strategic Plan)

Year	Personnel	Vehicles	Facilities	Benchmarks
2023	1 Battalion Chief (Begin Shift BC Program) (Fire Suppression Division) @ \$200,000 1 Fire Inspector (Mandated Inspections) (Community Risk Reduction Division) @ \$100,000 (Fee Offset?) 1 Administrative Assistant (Community Risk Reduction Division) @ \$87,000 \$387,000 Recurring	1 Sedan @ \$50,000 1 Used Truck/Quint (Reserve) @ \$500,000		60,000 <u>population</u> .50 FF's per 1,000
2024	1 Fire Inspector (Mandated Inspections) @ \$100,000 (Fee Offset?) \$487,000 Recurring	1 Sedan @ \$50,000 2 Engines @ \$1, 700,000	Design Station 4 @ \$500,000	
2025	3 Captains, 3 Engineers, 3 Firefighters (E4) \$1,200,000 \$1,687,000 Recurring	1 4x4 Pickup @ \$80,000	Build Station 4 @ \$5,000,000	
2026	1 Captain (Training Officer) @ \$141,000 1 Mechanic @ \$95,000 1 Plan Checker (Share with Building Department) @\$100,000 \$2,023,000 Recurring	1 4x4 Pickup @ \$80,000	Open Station 4	

Year	Personnel	Vehicles	Facilities	Benchmarks
2027	1 Deputy Fire Chief (Fire Suppression Division) @ \$230,000 1 Administrative Assistant (Fire Suppression Division) @ \$87,000 1 Assistant Fire Marshal/Emergency Preparedness Officer (Community Risk Reduction Division) @ \$110,000 \$2,450,000 Recurring	1 Sedan @ \$50,000 1 Sedan @ \$50,000	Design Station 5 with Training Grounds @ \$1,000,000	
2028	1 Battalion Chief (Administrative/Shift Relief) @ \$203,000 1 Fire Inspector (Mandated Inspections) @ \$100,000 (Fee Offset?) \$2,753,000 Recurring	1 4x4 Pickup @ \$80,000 1 Sedan @ \$50,000	Build Station 5 with Training Grounds @ \$10,000,000	Achieve Completion of All Annual State Mandated Fire Inspections
2029	3 Captains, 3 Engineers, 3 Firefighters (E5) \$1,200,000 \$3,953,000 Recurring	1 Engine @ \$1,000,000		67,000 <u>population</u> .75 FF's per 1,000
2030		1 4x4 Pickup @ \$80,000	Open Station 5 with Training Grounds	Achieve Hanford 2035 General Plan 5th Fire Station Achieve Improving Response Times Achieve Effective Response Force of 16
2031	3 Firefighters \$360,000 \$4,313,000 Recurring			4th FF on Truck 42
2032	3 Firefighters \$360,000 \$4,673,000 Recurring			4th FF on Engine 41

Year	Personnel	Vehicles	Facilities	Benchmarks
2033	3 Firefighters \$360,000 \$5,033,000 Recurring			4th FF on Engine 43
2034	3 Firefighters \$360,000 \$5,393,000 Recurring			4th FF on Engine 44
2035	3 Firefighters \$360,000 \$5,753,000 Recurring	1 Engine @ \$1,000,000		4th FF on Engine 45
2036	3 Captains, 3 Engineers, 6 Firefighters \$1,600,000 (Staff Engine 42/move Truck 42 to Truck 41 to create a Task Force Station 1) \$7,353,000 Recurring			<u>75,000 population</u> Achieve 4-0 Staffing Achieve 1 FF per 1,000
Total	\$7,353,000 Recurring	\$4,800,000	\$16,500,000	