



# Hernando County Fire & Emergency Services



## Station Location Study

## Purpose of Study

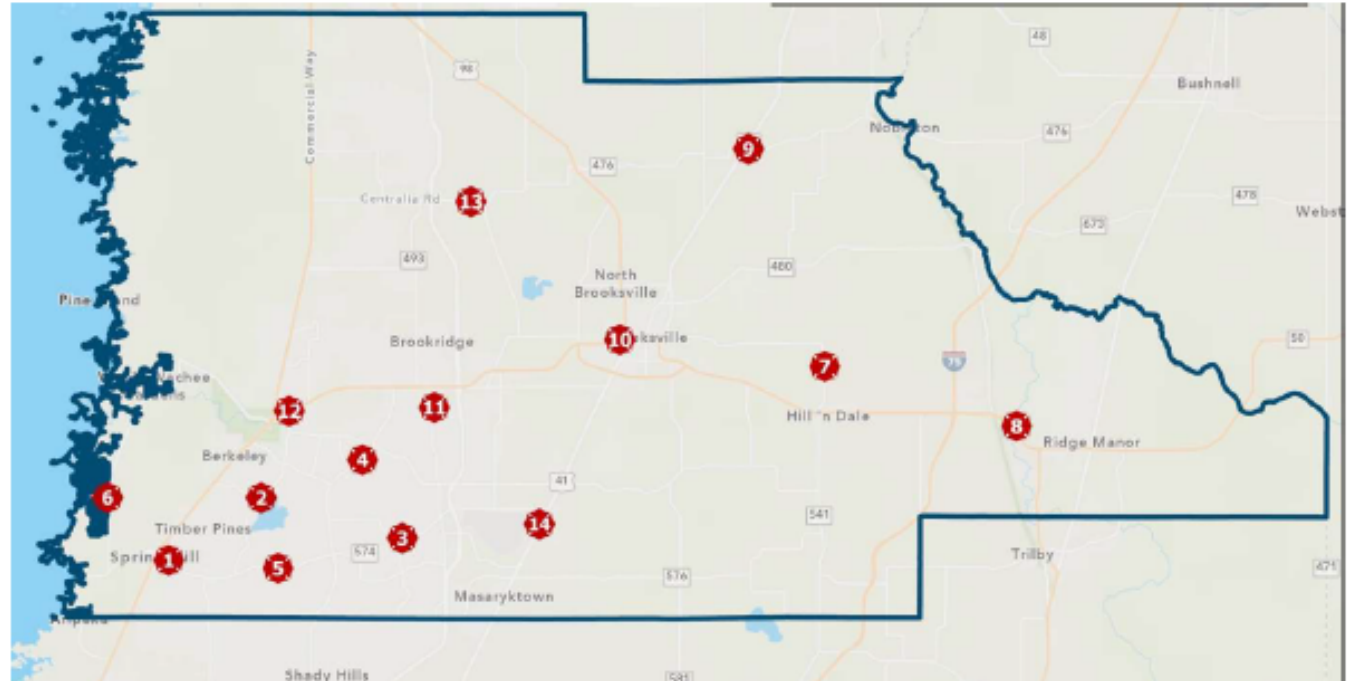
---

Emergency Services Consulting International (ESCI) was contracted by Hernando County, Florida in December 2021 to produce a Station Location Study for Hernando County Fire and Emergency Services (HCFES). The purpose of the study was:

1. Evaluate where the organization is today.
2. Identify future service delivery needs.
3. Provide recommendations and strategies to address future needs.

## Current Conditions

- 14 Fire Stations (13 HCFES and 1 City of Brooksville)
- Provides fire, rescue, EMS, technical rescue, and hazardous materials response
- 38,271 Incidents in 2021 (71.5% EMS)
- 2/2Y ISO Rating



# Current Fire Stations



HCFES Station	Age <sup>1</sup>	Rated Condition <sup>2</sup>	Daily Minimum Staffing <sup>3</sup>
Fire Station 1	28 Years	Good	5
Fire Station 2	46 Years	Marginal	8
Fire Station 3	15 Years	Good	5
Fire Station 4	3 Years <sup>4</sup>	Good	7
Fire Station 5	0 Years	Excellent	9
Fire Station 6	0 Years	Excellent	3
Fire Station 7	29 Years	Fair	6
Fire Station 8	25 Years	Fair	5
Fire Station 9	18 Years	Fair	3
Fire Station 10	24 Years <sup>5</sup>	Good	2
Fire Station 11	25 Years	Good	6
Fire Station 12	31 Years	Fair	5
Fire Station 13	31 Years	Good	3
Fire Station 14	25 Years	Good	5

<sup>1</sup>Age calculated from 2022

<sup>2</sup>Rated condition based on I

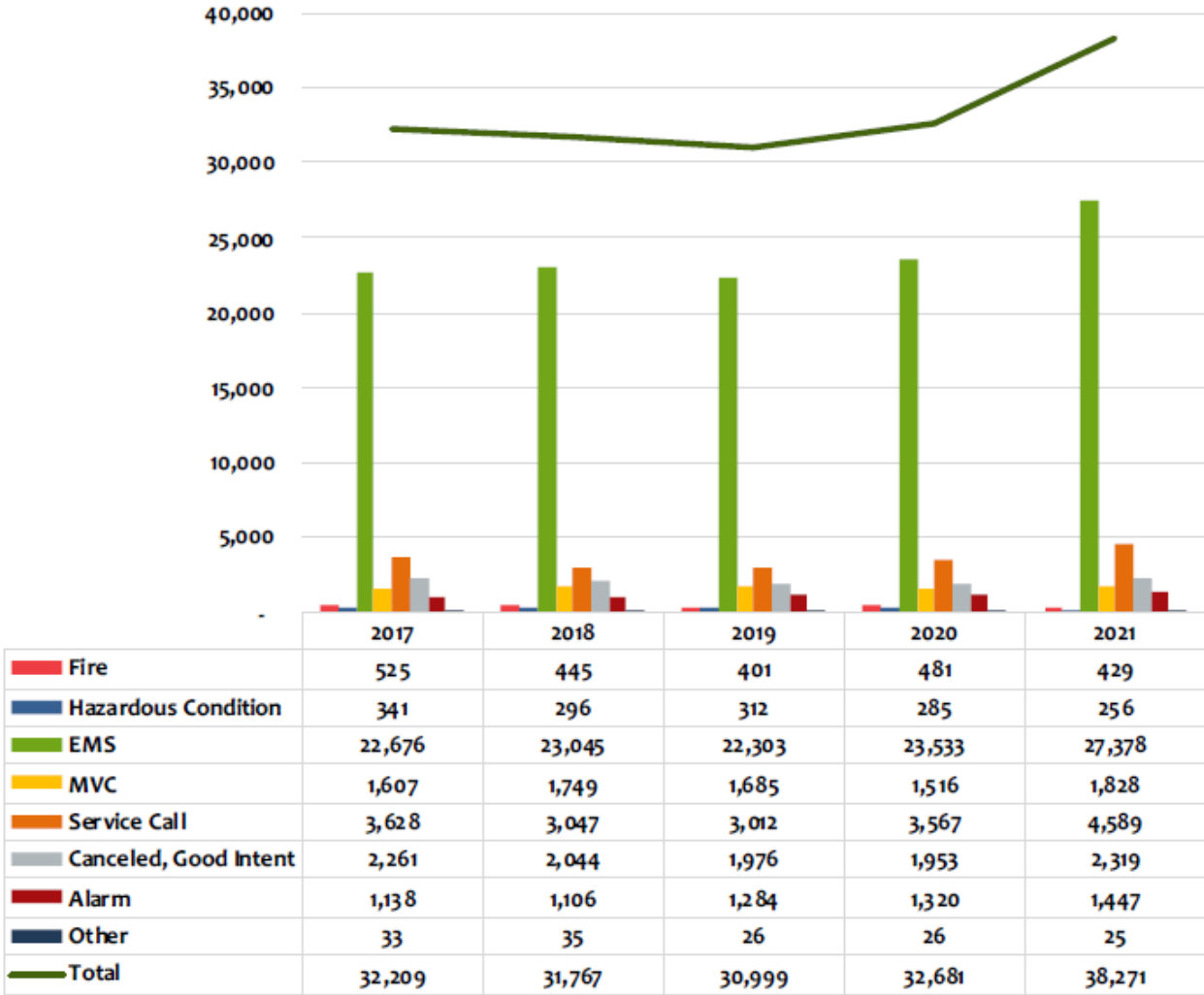
<sup>3</sup>HCFES personnel only

<sup>4</sup>Station 4 age based on remodel year

<sup>5</sup>Station 10 age based on remodel year

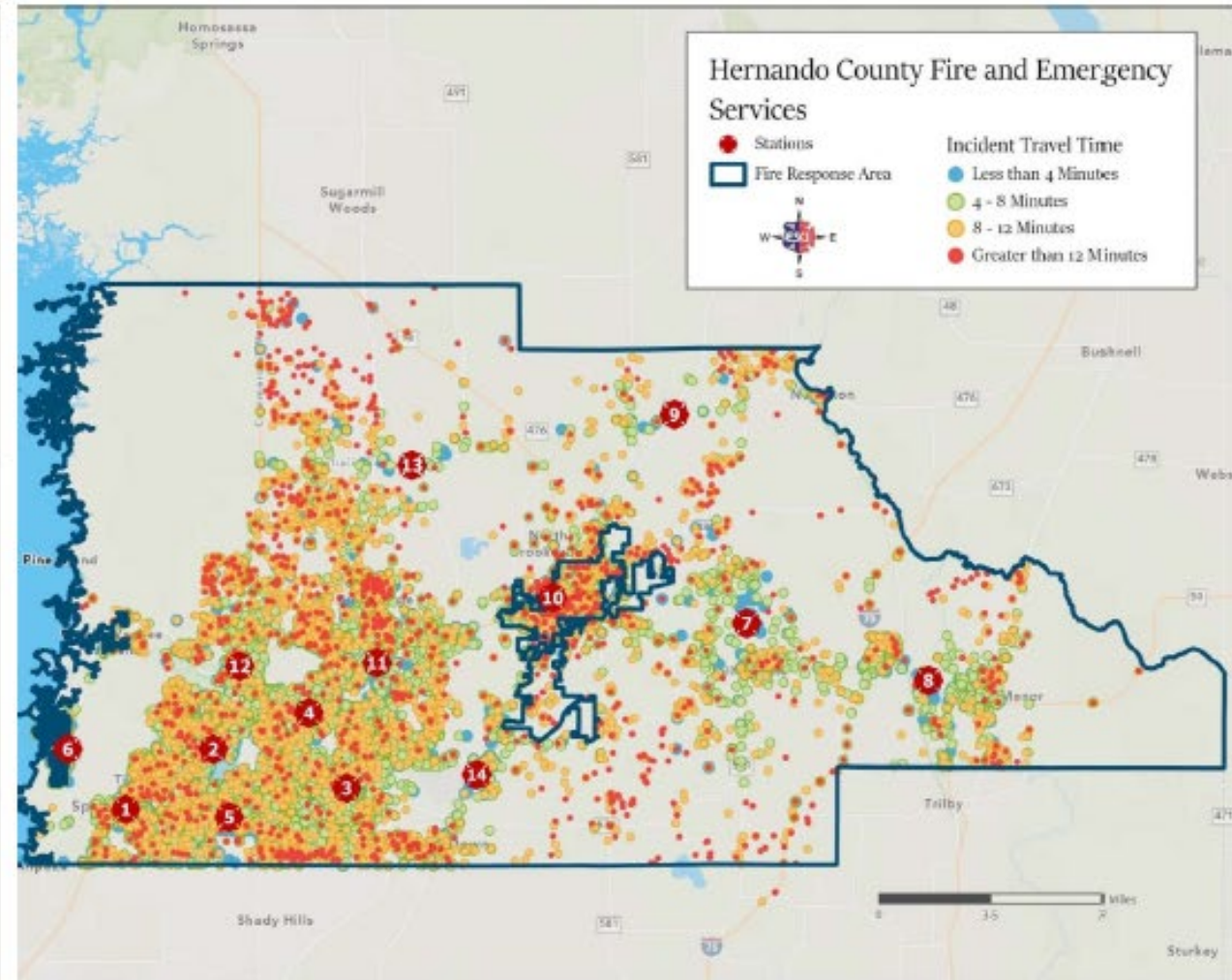
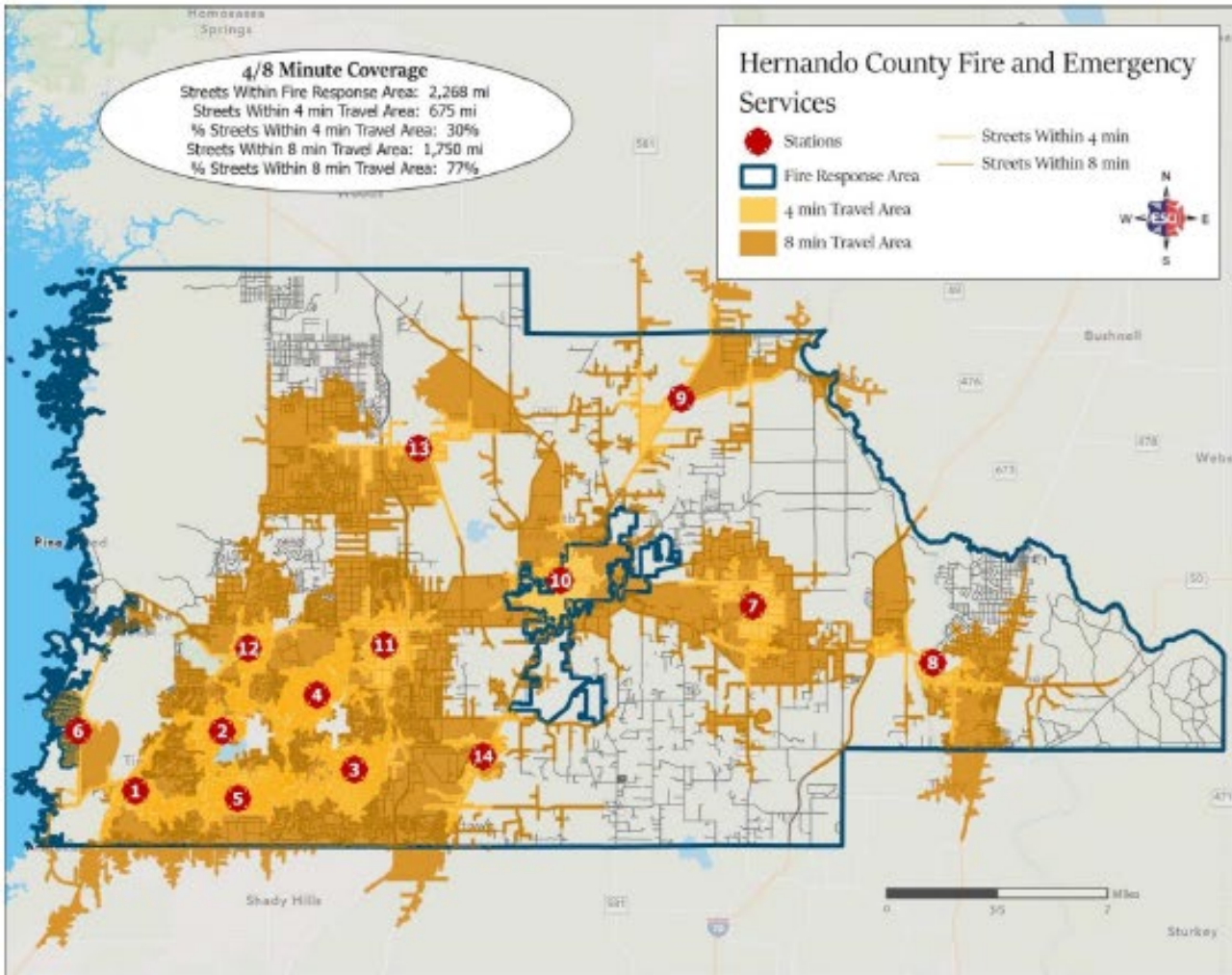


# Service Delivery



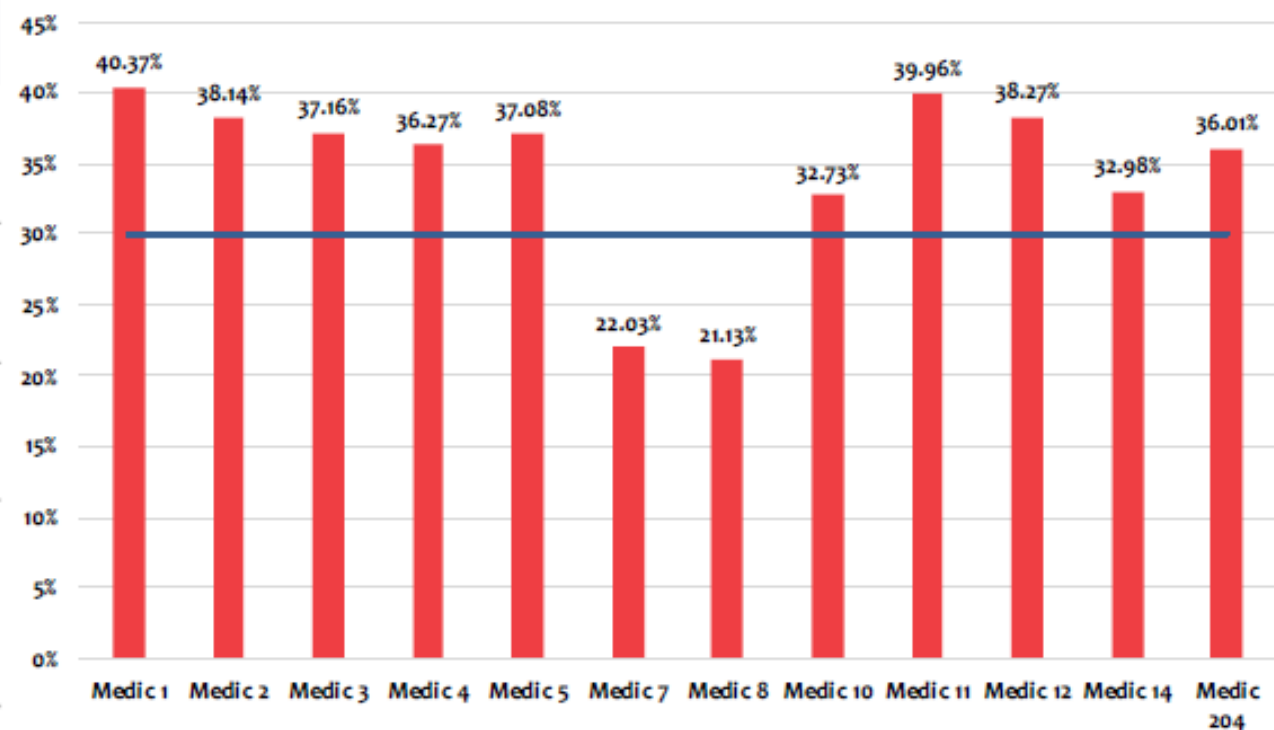


# Travel Time

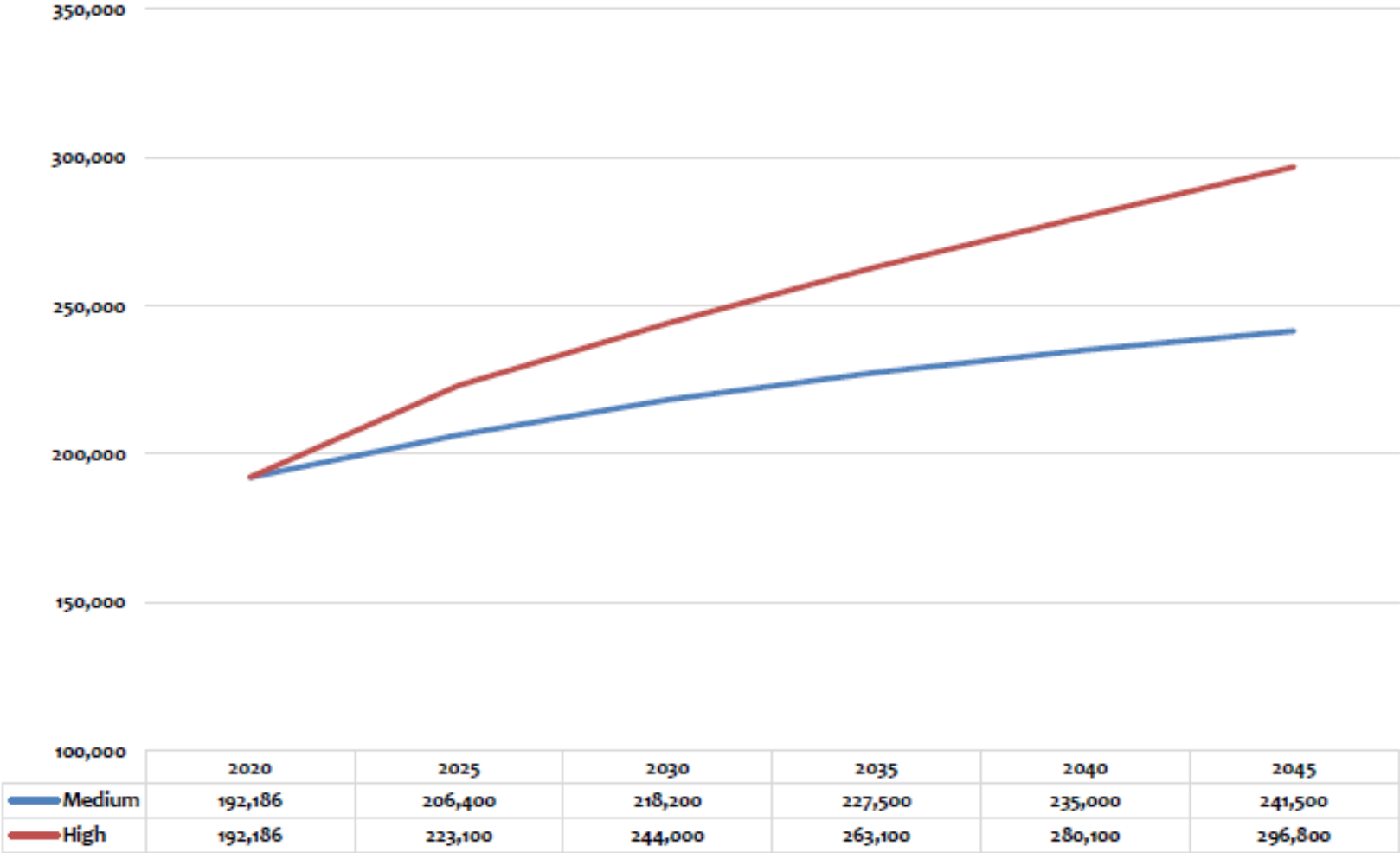


# Unit Hour Utilization (UHU)

Factor	Indication	Description
16%-24%	Ideal Commitment Range	Personnel can maintain training requirements and physical fitness and can consistently achieve response time benchmarks. Units are available to the community more than 75% of the day.
25%	System Stress	Community availability and unit sustainability are not questioned. First-due units are responding to their assigned community 75% of the time, and response benchmarks are rarely missed.
26%-29%	Evaluation Range	The community served will experience delayed incident responses. Just under 30% of the day, first-due ambulances are unavailable; thus, neighboring responders will likely exceed goals.
30%	"Line in the Sand"	Not Sustainable: Commitment Threshold—community has less than a 70% chance of timely emergency service and immediate relief is vital. Personnel assigned to units at or exceeding 30% may show signs of fatigue and burnout and may be at increased risk of errors. Required training and physical fitness sessions are not consistently completed.

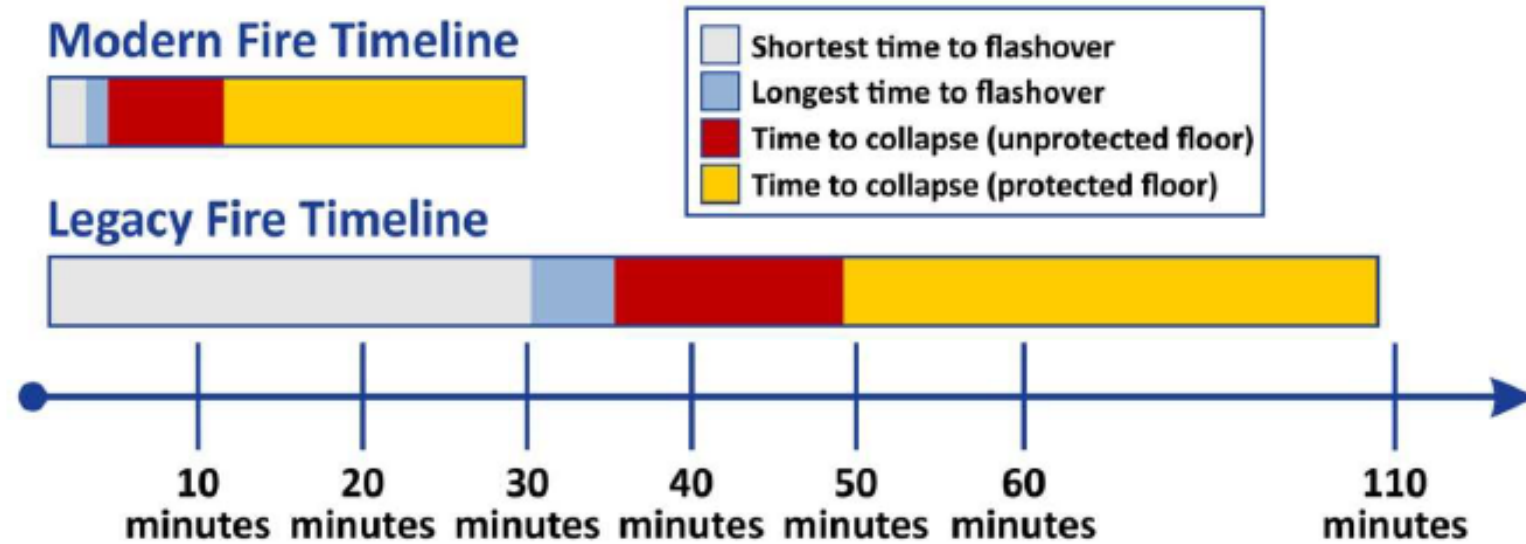


# Census-Based Population Growth Projections



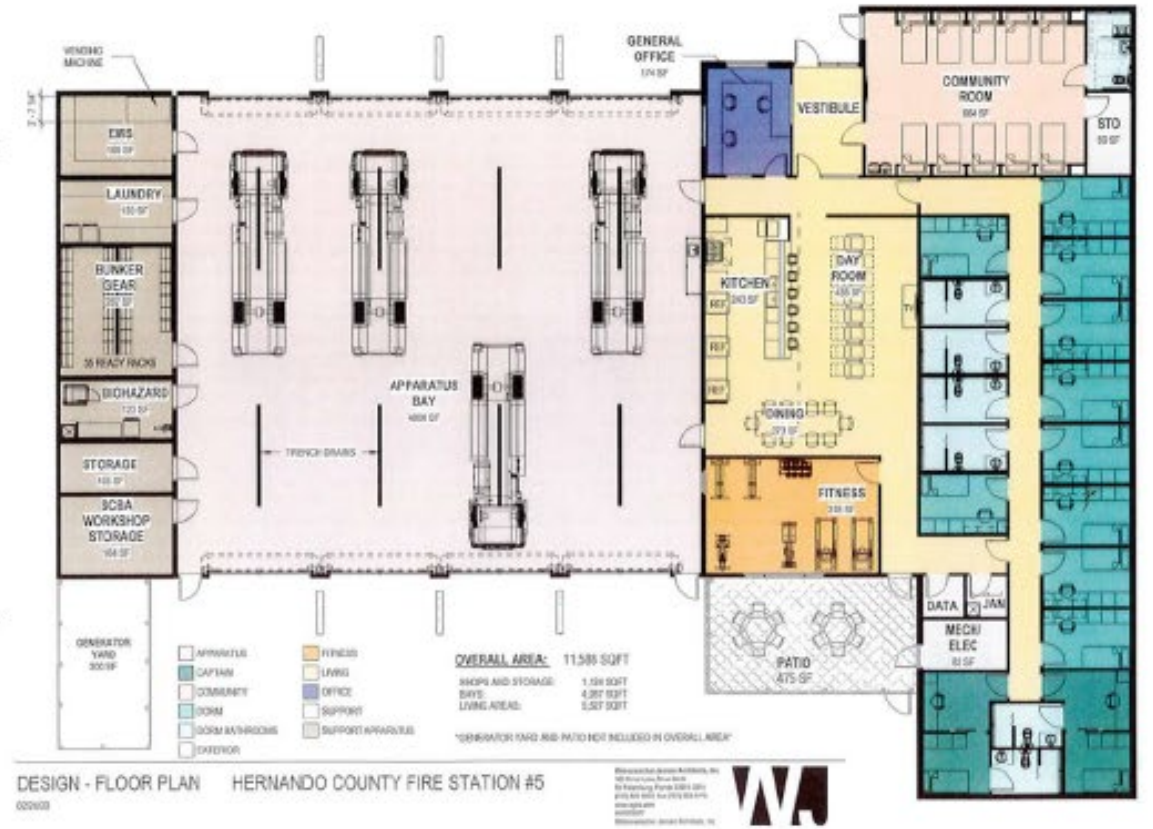
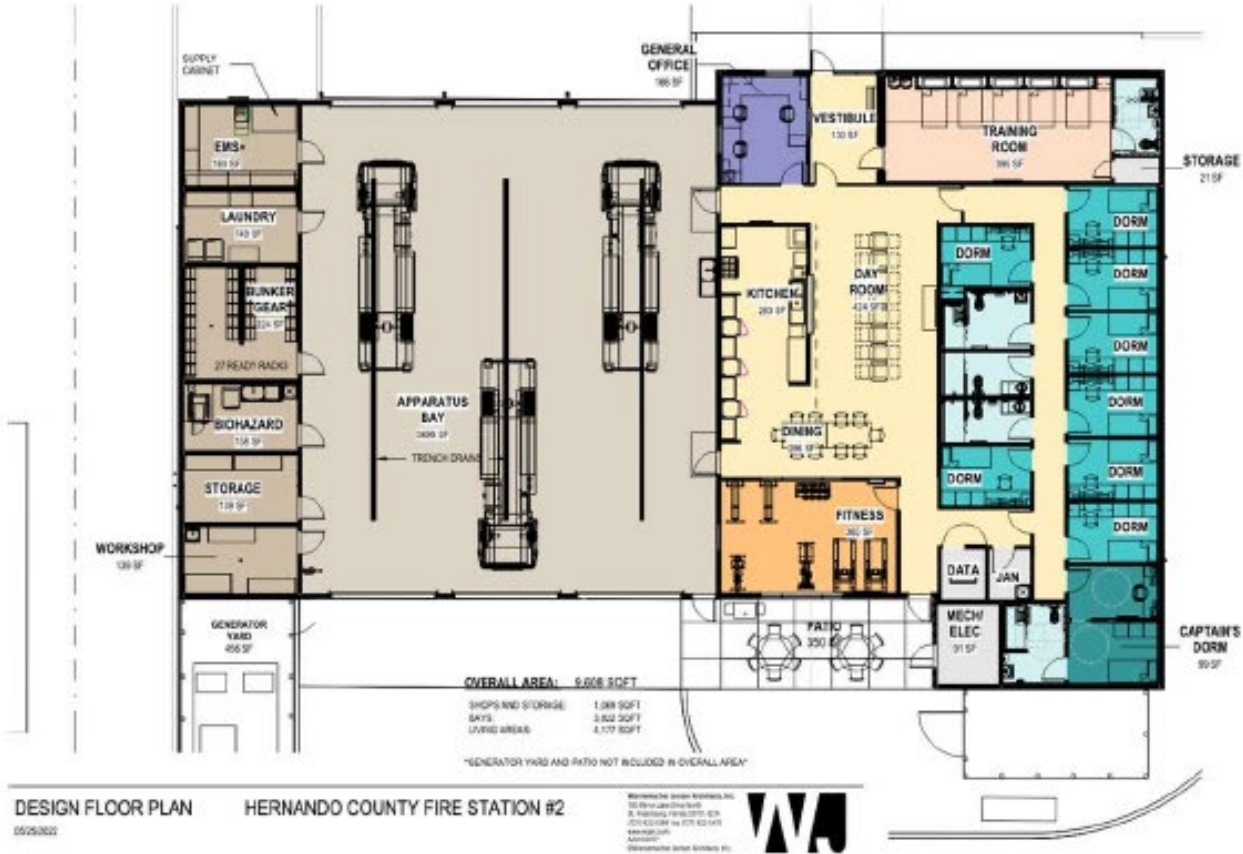


# Fire Growth and Response Time

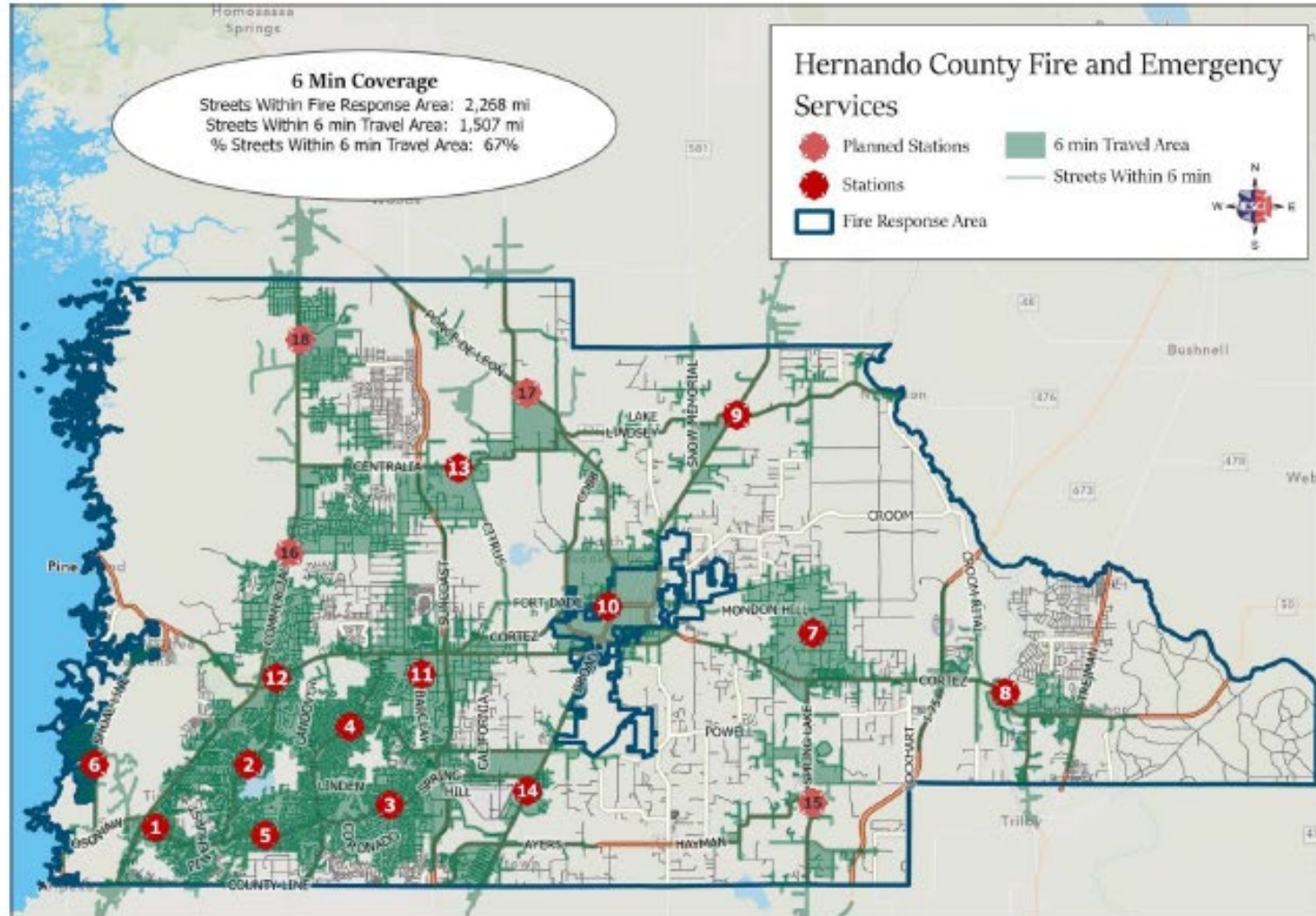


Flame Spread	Rate Per 1,000 Fires		Average Dollar Loss
	Civilian Deaths	Civilian Injuries	
Confined fire or fire spread confined to origin	0.4	11.1	\$1,200
Confined to room of origin, including confined fire and fire confined to object	1.8	23.8	\$4,000
Spread beyond the room of origin but confined to floor of origin	16.2	76.3	\$35,000
Spread beyond the floor of origin	24.6	55.0	\$65,900

# Fire Station Designs



# Future Fire Stations





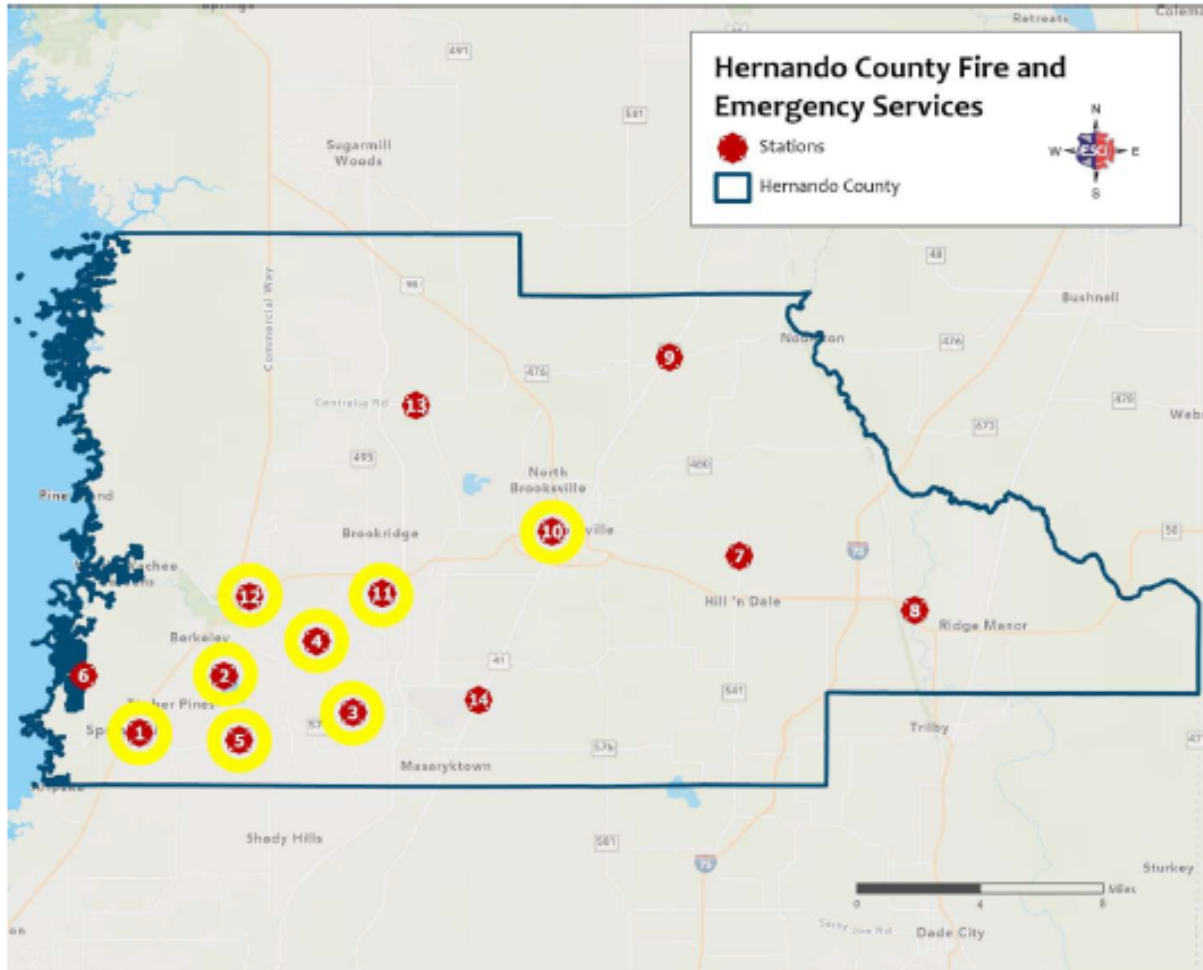
## Short-Range Recommendations & Strategies

---

- Recommendation 1-A: Response Performance Objective
- Recommendation 1-B: Divide the County into Performance Areas
- Recommendation 1-C: Ensure Hurricane Protection is Adequate at All Stations
- Recommendation 1-D: Hire an Administrative Assistant/ Data Analyst
- Recommendation 1-F: Utilize Closest Unit Dispatch with the City of Brooksville
- Recommendation 1-H: Develop a Plan for ARFF
- Recommendation 1-I: Determine Ways to Reduce Components of Total Response Time
- Recommendation 1-J: CAD Upgrades



# Recommendation 1-E: Add Peak Time Medic Units



Unit	2021 Original	2022 Theoretical	2023 Theoretical	2024 Theoretical	2025 Theoretical	% Change
M1	40.37%	35.93%	35.12%	34.53%	34.12%	-15.48%
M2	38.14%	33.59%	32.66%	31.95%	31.41%	-17.65%
M3	37.16%	32.56%	31.58%	30.81%	30.22%	-18.68%
M4	36.27%	31.63%	30.60%	29.78%	29.14%	-19.66%
M5	37.08%	32.48%	31.49%	30.72%	30.12%	-18.77%
M10	32.73%	27.91%	26.70%	25.69%	24.83%	-24.14%
M11	39.96%	35.50%	34.67%	34.06%	33.62%	-15.87%
M12	38.27%	33.73%	32.81%	32.10%	31.57%	-17.51%
M14 <sup>1</sup>	32.98%	28.17%	26.97%	25.97%	25.14%	-23.77%
M204	36.01%	31.35%	30.31%	29.48%	28.82%	-19.97%
M205	N/A	32.28%	31.29%	30.51%	29.90%	N/A
M211	N/A	32.28%	31.29%	30.51%	29.90%	N/A
M203	N/A	N/A	31.29%	30.51%	29.90%	N/A
M202	N/A	N/A	N/A	30.51%	29.90%	N/A
M210	N/A	N/A	N/A	N/A	29.90%	N/A

<sup>1</sup> 2021 original UHU for M14 is based on 10 hours, 8:00 to 6:00 pm, instead of 12 hours

Fiscal Year	Start Date	Number of Units	Suggested Location
FY2022-2023	October 1, 2022	2	Station 5 and 11
FY2023-2024	October 1, 2023	1	Station 3
FY2024-2025	October 1, 2024	1	Station 2
FY2025-2026	October 1, 2025	1	Station 10

## Mid-Range Recommendations & Strategies

---

- Recommendation 2-A: Relocate Units to Station 17 and Provide Staffing
- Recommendation 2-B: Staff an Additional Ladder Truck
- Recommendation 2-C: Utilize Fire Lieutenants
- Recommendation 2-D: Construct Reserve Unit Storage
- Recommendation 2-F: Create a Staffing Officer Position
- Recommendation 2-G: Add Additional Training Officer
- Recommendation 2-H: Add Additional Fire Inspector

# Long-Range Recommendations & Strategies

---

- Recommendation 3-A: Staff a Ladder Truck in the Southeastern part of the County
- Recommendation 3-B: Staff a Ladder Truck at either Fire Station 16, 17, or 18
- Recommendation 3-C: Redistribute Battalion Assignments
- Recommendation 3-D: Ensure Adequate Reserve Fleet
- Recommendation 3-E: Add Additional Training Officer
- Recommendation 3-F: Add Additional Fire Inspector
- Recommendation 3-G: Implementation of Community Paramedicine Program

# HCFES Recommendation

---

- Review the Funding Sources (EMS MSTU, FIRE MSBU) for HCFES to be adequate as expansion of the Department happens along with growth in the County.
- Review the EMS Billing Rates to be adequate for the service provided.
- Hire Architect to Design site at Station 15 at site to open new station.
- Hire Architect to Design new station 16, including finalization of land to acquire.
- Upon Decision to add new station and fund new FF positions for the staffing of the Fire Station; apply for SAFER Grant to assist in cost for first two years.
- Add Peak Time Paramedic Unit(s) annually to minimize utilization rate.





## Station Location Study

---

# QUESTIONS and CLARIFICATIONS

---