



LEXINGTON



Strategic Growth Plan for the Lexington Fire Department

*Chief Jason Wells, Lexington Fire Department
Social Services and Public Safety Committee Meeting
August 26, 2025*





Purpose & Methodology Overview



Our approach focuses on equity, readiness, and alignment with Center for Public Safety Excellence (CPSE) accreditation standards and the Imagine Lexington 2045 urban development plan.

Objective

Align future fire station placement with service demand and community risk



Data Sources

2022—2024 incident data, ERF Benchmarks, 2020 Social Vulnerability Index (SVI)



Methodology

CFAI 3-Axis Risk Model (Probability, Consequence, Impact)





Key Definitions

These foundational terms form the basis of our methodology:

ERF (Effective Response Force)

Personnel and apparatus required on scene to effectively manage an incident

Benchmark Response Time

Complete timeline from 911 call (alarm) to full ERF assembly on scene

SVI (Social Vulnerability Index)

CDC metric used to assess how severely emergencies may affect specific areas

CFAI 3-Axis Risk Model

- Probability: Frequency of emergency occurrences
- Consequence: Population vulnerability factors
- Impact: How effectively we meet ERF benchmarks





Risk Scoring Methodology



Scoring Components (0-10 scale)

- **Probability:** EMS Medium and Fire High Risk incidents (2022—2024)
- **Consequence:** 2020 CDC SVI (income, housing, disability, transportation)
- **Impact:** ERF arrival times exceeding 13-minute benchmark (2022—2024)

ERF Requirements:

- EMS: 6 personnel for Medium Risk
- Fire: 17 personnel for High Risk



Composite Scoring

Heron's Formula provides balanced risk scores for Fire High Risk and EMS Medium Risk. These scores are averaged to produce a composite score that guides fire station placement decisions



Urban Expansion Weighting

Tracts located within Lexington's designated urban expansion area receive additional prioritization weight, ensuring our resource allocation aligns with both current needs and anticipated growth patterns



RISK	
Probability of occurrence	10
Consequence to community	10
Impact on Fire Department	8
SCORE	106.770783



Incident Types Analyzed



EMS Medium Risk

- Cardiac arrests, respiratory issues, overdoses, serious traumas
- Requires EC unit and first responder (Engine or Ladder Company)
- Timely ERF is critical for survival



Fire High Risk

- Confirmed structure fires (residential, commercial, industrial)
- Requires 17 personnel for firefighting, rescue, ventilation, command
- Delayed ERF increases danger to lives and property

These incident types were selected based on their resource-intensive nature, high frequency, and significant consequences for life safety and property protection.





EMS Medium Risk Assessment

Future Concern: Several tracts near the proposed expansion areas currently show moderate EMS risk and may escalate as development continues.

29

**High-Risk
Tracts**

35% of total census tracts

27

**Moderate-Risk
Tracts**

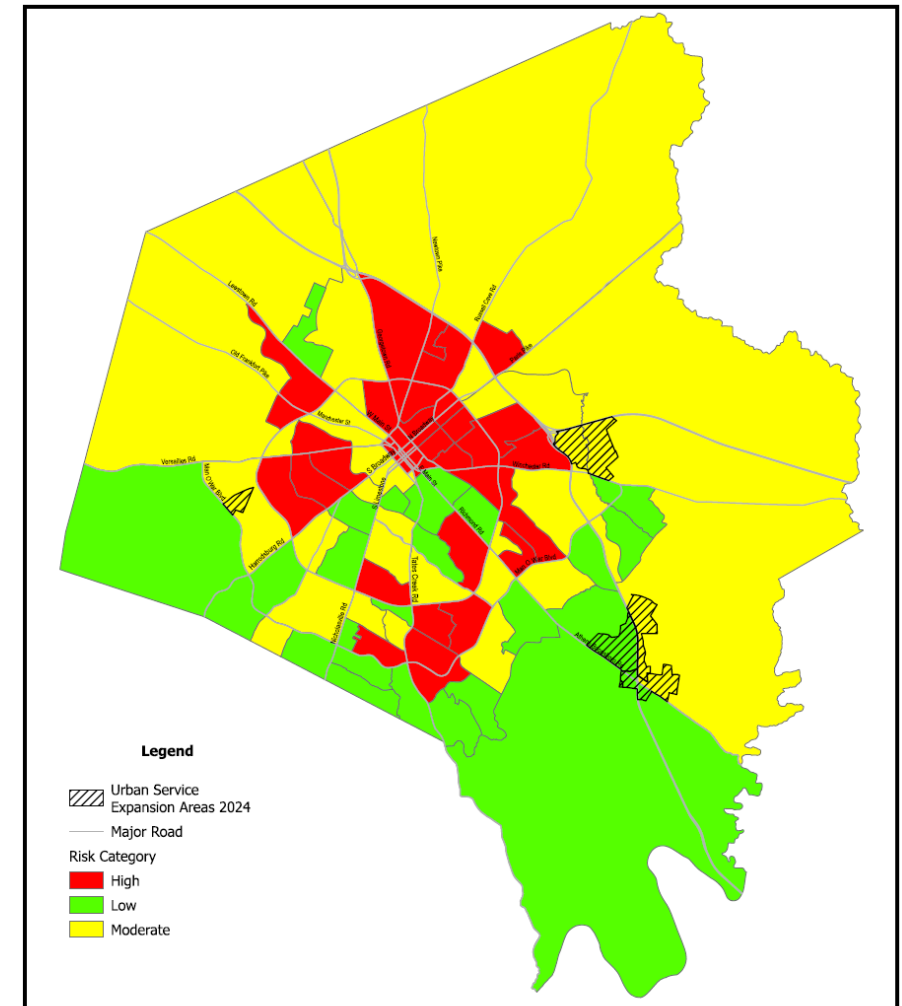
33% of total census tracts

26

**Low-Risk
Tracts**

32% of total census tracts

Risk scores range from 4.89 to 73.48, with highest scores concentrated in central Lexington.



Fayette County
Census Tracts
EMS - Medium
Scoring Map





Fire High Risk Assessment

Future Concern: Moderate/high-risk tracts near urban boundaries indicate potential service gaps as the city expands.

33

High-Risk
Tracts

40% of total census tracts

23

Moderate-Risk
Tracts

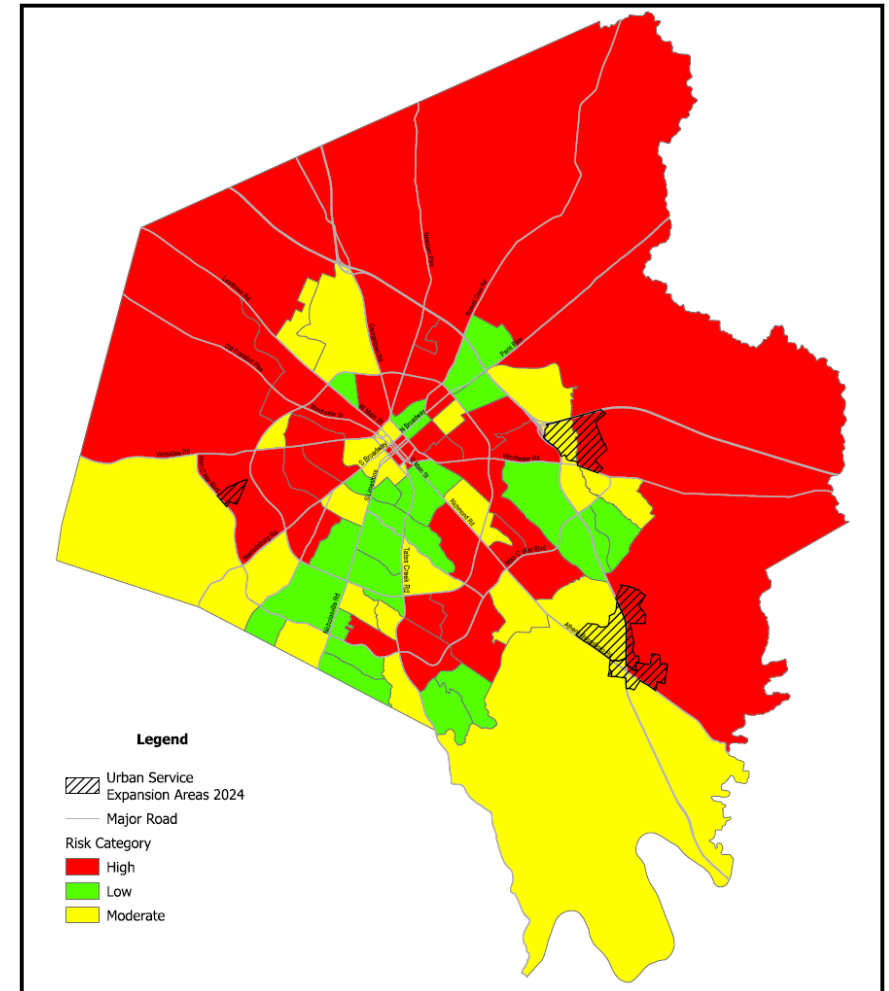
28% of total census tracts

26

Low-Risk
Tracts

32% of total census tracts

Risk scores range from 4.89 to 106.77, with highest concentrations in central, northeast, and southeast Lexington.



Fayette County
Census Tracts
Fire Suppression - High
Scoring Map





Composite Risk Assessment

Future Concern: Moderate-Risk tracts near Polo Club Boulevard, Man o' War Boulevard, and Versailles Road show potential for escalation as development continues. These areas are projected to experience significant residential and mixed-use growth under the Imagine Lexington 2045 Plan, which could substantially increase service demands and risk levels.

28

High-Risk
Tracts

34% of total census tracts

27

Moderate-Risk
Tracts

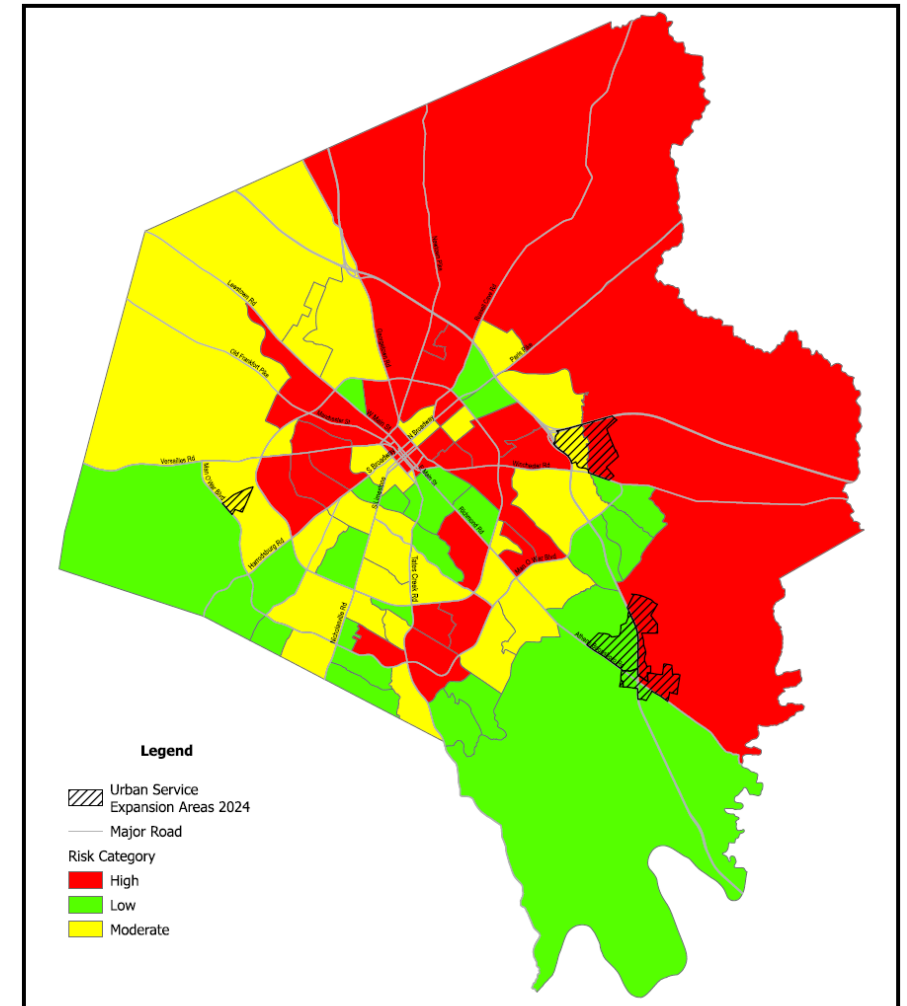
33% of total census tracts

27

Low-Risk
Tracts

33% of total census tracts

Risk scores range from 4.89 to 90.13, with the highest concentrations in central and eastern Lexington.



LEXINGTON

Fayette County
Census Tracts
Composite
Scoring Map





Recommended Fire Station Locations

1

Station 25: Winchester Road & Polo Club Boulevard (District 6)

Positioned in the eastern corridor, this location serves a large high-risk area overlapping with planned urban expansion. It addresses growing residential demand and existing ERF gaps in the northeast quadrant.

2

Station 26: Richmond Road & Athens-Boonesboro (District 7)

Strategically located in the southeastern part of the county, this station enhances coverage for a corridor with rapidly expanding residential and commercial developments. It falls squarely within a high-risk tract and is included in the urban services expansion area, providing critical support for both current service demands and anticipated growth patterns.

3

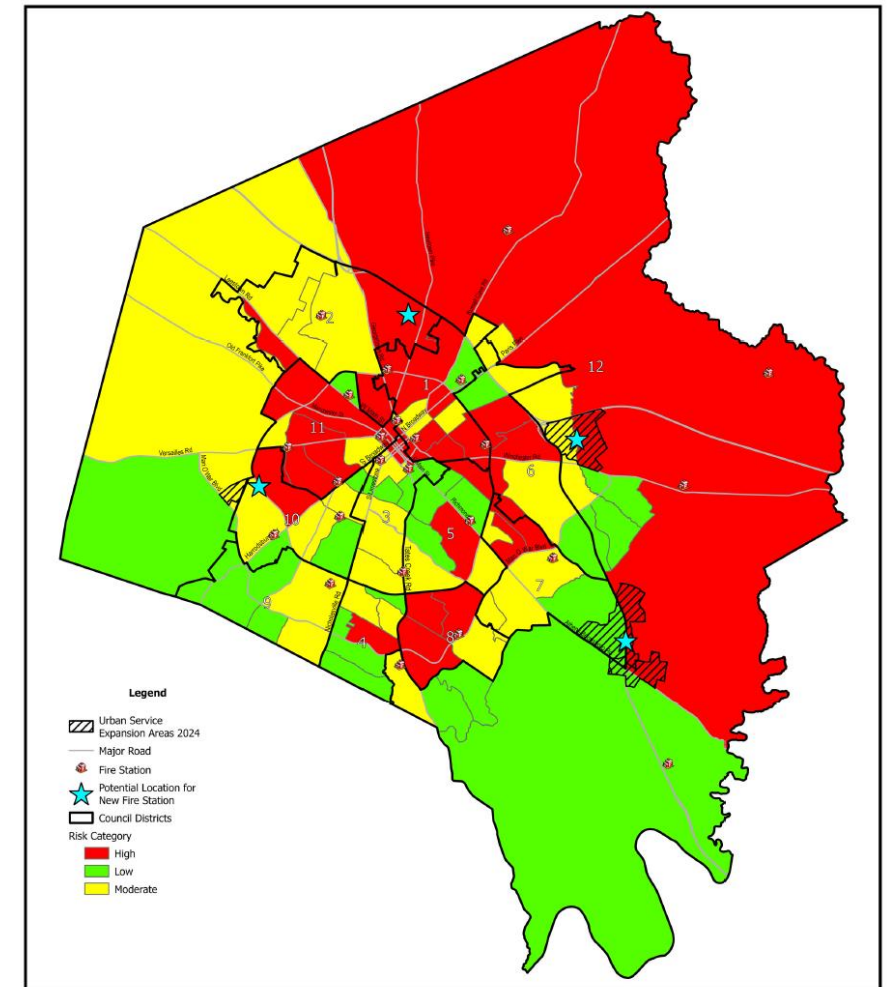
Station 27: Man o' War Boulevard & Parkers Mill Rd (District 10)

Located on the western side of the city near the Parkers Mill corridor, this site addresses both ERF gaps and bordering high-risk tracts. Although not the far southwest corner, it still supports expansion toward the west and fills a critical service void.

4

Station 28: Newtown Pike & I-75 (District 12)

This northeastern site provides vital coverage to a high-risk tract near I-75 and Newtown Pike. It offers strong interstate access and supports anticipated growth in both industrial and residential sectors in the area.



Fayette County
Census Tracts
Composite
Scoring Map





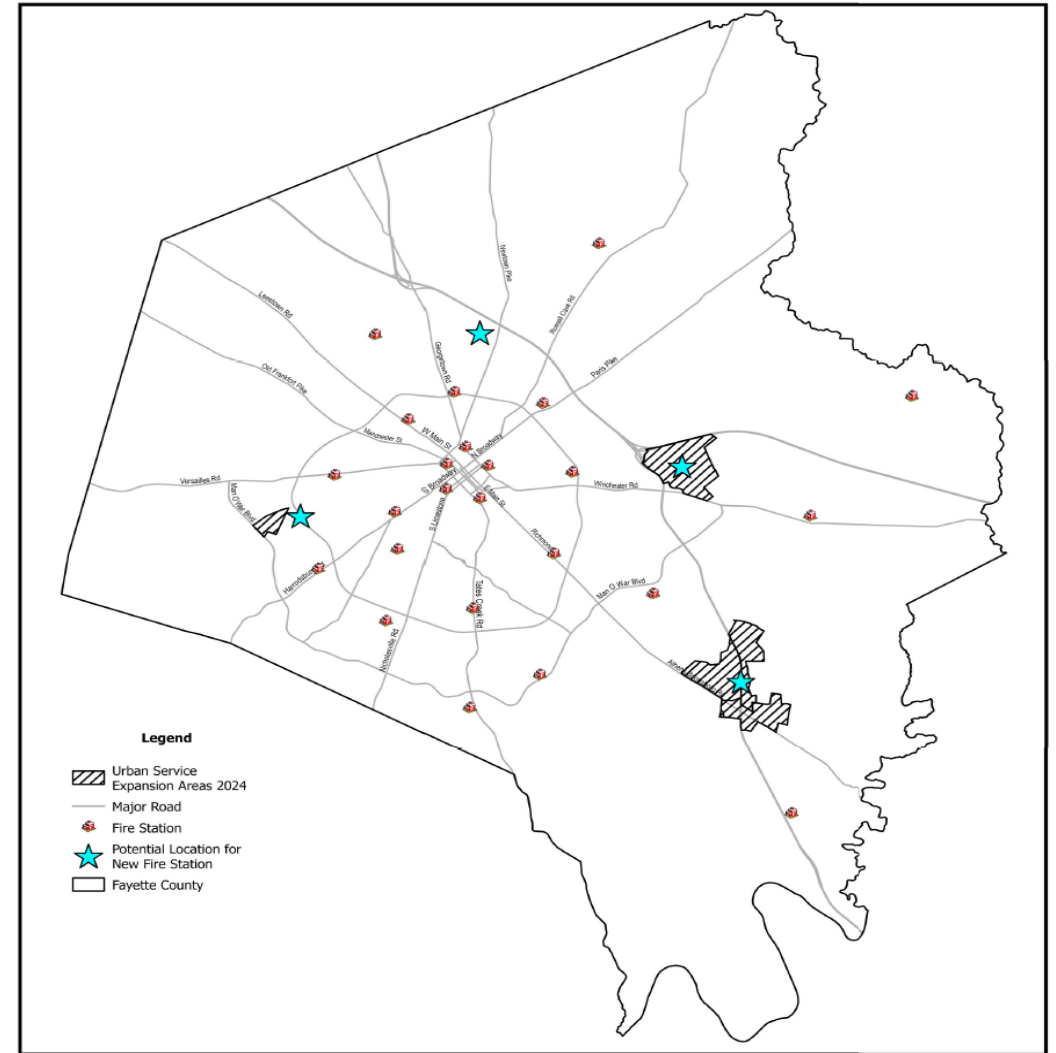
Recommended Fire Station Locations

25 Winchester Rd & Polo Club Blvd

26 Richmond Rd/Athens-Boonesboro

27 Man o' War Blvd & Parkers Mill Rd

28 Newtown Pike & I-75 Corridor



Fayette County
Potential Locations
for New Fire Stations Map



0 1 2 4 6 8 Miles





Station-by-Station Apparatus & Staffing Overview

1

Station 25: Winchester Road & Polo Club Boulevard

District 6 | Northeast Lexington

Apparatus: Emergency Care Unit, Fire Engine, Ladder Truck

Personnel: 45 FTE

Serves high-risk neighborhoods with growing multi-story housing developments. The ladder truck is critical for vertical access and reducing response times.

2

Station 26: Richmond Road & Athens-Boonesboro

District 7 | Southeast Lexington

Apparatus: Emergency Care Unit, Fire Engine, Ladder Truck, Command (District Chief)

Personnel: 48 FTE *(includes District Chief)*

Serves a rapidly growing area with limited nearby fire stations. The District Chief provides on-scene leadership and enhances command efficiency across the district.

3

Station 27: Man o' War & Parkers Mill Road

District 10 | Western Lexington

Apparatus: Emergency Care Unit, Fire Engine, Ladder Truck

Personnel: 45 FTE

Addresses high call volumes in dense residential and mixed-use areas. Essential for protecting multi-family housing and vulnerable populations.

4


Station 28: Newtown Pike & I-75 Corridor

District 12 | North Lexington

Apparatus: Emergency Care Unit, Fire Engine, Ladder Truck

Personnel: 45 FTE

Serves a diverse area with growing industrial, residential, and commercial development. Apparatus selection ensures coverage for multi-story structures and high-traffic corridors.

 Our apparatus recommendations align with NFPA 1710 and CFAI standards, ensuring efficient deployment of resources to protect life and property across all emergency types..





Transitioning to Implementation

A Six-Year Roadmap for Fire Service Excellence in Lexington





Strategic Budget Priorities & Implementation Plan (FY26–FY31)

Capital Projects ¹

Near-Term (FY26-27):

- Fire Academy design & construction (\$42M)
- Records Management Software (\$350K)
- Annual fleet and equipment replacement:
 - Heavy & Light Fleet
 - EMS Equipment
 - Turnout Gear/Personal Protective Equipment (PPE)

Mid-Term (FY28-29):

- Multipurpose Storage Facility (\$800K)
- Station 25 (\$15M)

Long-Term (FY30-31):

- Administration Annex (\$30M)
- Station 26 (\$15M)
- Fleet Maintenance Facility (\$4.5M)

Personnel & Staffing Growth

Near-Term (FY26-27):

- Overdose Prevention staff addition and reclassification
- 13 Firefighters for EC14
- PPE Technician
- Behavioral Health Clinician
- PIO (Public Information Officer)
- Clerks to support various programs

Mid-Term (FY28-29):

- 45 Positions for Station 25
- Community Paramedicine expansion

Long-Term (FY30-31):

- 48 Positions for Station 26 (includes District Chief)

Action Plan

Near-Term (FY26-27):

- Complete Training Academy design
- Request Training Academy construction funding
- Pursue grant opportunities for personnel
- Request Station 25 Apparatus Funding

Mid-Term (FY28-29):

- Station 25 design, construction, and apparatus
- Begin Station 26 design
- Continue data analysis of deployment trends for all programs including Community Paramedicine

Long-Term (FY30-31):

- Open Station 26 with full staffing
- Construct Administration Annex
- Plan Fleet Maintenance Facility
- Continue to scale the Paramedicine Program





Final Thoughts & Direction



Thoughtful Planning

Proactive planning is essential to keep pace with Lexington's evolving public safety needs.



Strategic Investments

Targeted investments in personnel, facilities, and community programs secure our future.



Data-Driven Decisions

Our comprehensive strategies enable informed, evidence-based choices for optimal resource allocation.



Questions?



LEXINGTON

