Shared Services/Consolidation Feasibility Study for Fire and EMS Services

Boroughs of Haddonfield,
Haddon Heights, and Barrington
New Jersey

November 2023

FINAL REPORT

Borough of Haddonfield
242 Kings Highway East
Haddonfield, New
Jersey 08033

Submitted by:

MANITOU INCORPORATED

www.manitouinc.com

FINAL REPORT

Shared Services/Consolidation Feasibility Study for Fire and EMS Services

Prepared by

Manitou Inc – Because Some Things Aren't Simple

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November 2023

1. Acknowledgments

Many individuals provided Manitou, Inc. assistance in conducting this report. This is important to mention as a report of this nature requires cooperation of all those involved. We are grateful for the assistance and cooperation from the Borough officials and fire and EMS chiefs who were gracious with their time and assisted in collection of records.

Study Committee

Haddonfield Borough
Colleen Bianco Bezich, Mayor
Sharon McCullough, Borough Administrator

Haddon Heights Borough
Zachary Houck, Mayor
Christopher Morgan, Council President

Barrington Borough
Patti Harris, Mayor
Kyle Hanson, Council President

We would like to thank the agency heads who provided much data for the report and spent considerable time explaining their operations to the consulting team.

Louis Frontino, Chief Haddonfield Fire and EMS Chief
Jospeh Hales, Jr., Fire Chief of Haddon Heights and Barrington
Kate Bowen, Chief Barrington Ambulance

Lastly, we would like to thank Camden County Emergency Communications and Chief Eric Hoban for providing data on incidents and response times used in the report.

We also wish to specially recognize Louise Salvatore for her role in facilitating meetings and collecting numerous background information requests.

We would also like to recognize the staff and consultants who produced this report.

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2. Contents

3. Executive Summary

The Boroughs of Haddonfield, Haddon Heights, and Barrington wanted an evaluation of the feasibility of shared services for fire and emergency medical services in their communities. The Boroughs applied for and received a Local Efficiency Achievement Program (LEAP) grant from the State's Department of Community Affairs to study opportunities for shared services in fire and emergency medical services (EMS).

As is consistent with regional and national trends, attracting volunteers for fire and emergency service provision is increasingly challenging. While EMS has relied on paid staffing for years, more recently each municipality has increased reliance on either full-time or part-time fire staff or paying stipends to existing volunteers in the face of declining participation.

Fire services are facing declining volunteer participation, as both fire departments admit that they have difficulty supplying volunteers, particularly during the day.

All services face increasing difficulty in retaining workers in an increasingly competitive marketplace. The reliance on part-time personnel and volunteers incentivized by stipends are indicators that the volunteer-based service delivery is under threat.

The Boroughs of Barrington and Haddon Heights merged their fire departments effective January 1, 2023. This resulted in one engine company staffed with 3 personnel during daytime hours Monday through Friday.

Haddonfield Fire has experimented with a stipend program whereby volunteer members standby in the station during evening hours. This program is an incentive program and the participating volunteers are not employees. The Department also admits that daytime staffing is also a challenge.

It is important to recognize that the existing fire and EMS service providers are effectively regionalized, with fire services dependent on mutual aid to provide sufficient staff for interior firefighting through the County's mutual aid plan. With regard to EMS, one provider serves multiple jurisdictions on a first-response basis, and both providers routinely give and receive mutual need as necessary to provide coverage.

This reliance for outside aid is long-standing and all three communities depend upon neighboring agencies that staff with 24-hour paid crews for structural fire responses. Even with modest hiring, the three municipalities will be unable to produce sufficient staffing for interior fire suppression according to national standards. Federal OSHA requirements call for four interior-

certified personnel on scene to begin interior firefighting operations, meaning that even with the existing 3-person staffing on duty, additional help would be needed.

The National Fire Protection Association's Standard 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*, which reflects predominantly volunteer fire services, calls for between 10 and 15 personnel to respond on a reported structure fire depending on whether the service area is considered suburban or urban. Neither Department can consistently produce these staffing levels without outside aid.

Response times to incident of all types are in the range of 5.9 to 8.4 minutes using 2022 data. We would expect these to improve in Barrington and Haddon Heights with the implementation of a policy that allows for immediate response of apparatus.

Opportunities to Reduce Numbers of Stations

The combination of a street network and irregular municipal boundary make reducing the number of fire and EMS facilities difficult. Existing EMS providers are also housed at or adjacent to two of these existing locations. We explored the feasibility of locating a single consolidated fire or fire/EMS station to serve the three jurisdictions. For conceptual feasibility purposes, we examined two potential single station locations – near Kings Highway and Chews Landing Road, and near Highland Avenue and Third Avenue.

The best location (Kings Highway and Chews Landing Road) in terms of covering the land area was practically unlikely as it would be in a solidly residential area. Given zoning and land acquisition requirements, we do not view this option as feasible. Further, moving to this location would result in increased response times to the extreme eastern end of Haddonfield, which includes much of the historic downtown area.

With regard to EMS, Barrington Ambulance has agreements with other municipalities that would likely be threatened with an increase to response times that would result from moving to the East.

As a consequence, we recommend that the Haddonfield station continue to be in service. A consolidation of fire stations in Barrington and Haddon Heights could be feasible, potentially reducing the number of fire stations in the communities from three to two.

Between what are now two fire agencies and two ambulance services, both fire services are led by part-time Chiefs drawing only a stipend, and only Barrington Ambulance has a full-time Chief acting as administrator.

We believe that a merger of fire services across the three municipalities could offer some efficiencies in service. However, the real issue in fire services is one of minimizing cost increases – not reducing funding. Existing funding levels are barely maintaining viable service, and we view paying volunteers to cover shifts as a stop-gap measure and not a long-term plan. Given levels of activity and volunteer participation, there is an excess of fire apparatus within the

three communities. This fleet could be managed centrally, allowing for reduction of capital costs in the longer term.

Similarly, the Barrington Ambulance has a strong management capability in place, and is already managing service delivery for three communities. Expanding their service to include Haddonfield could offer benefits for scheduling, resource management, and efficiency.

As our analysis indicates, there is potential for further efficiencies to be gained by considering shared services with bordering communities that were not a part of this study. The key opportunity is to integrate a staffed fire company into service across a larger area that would permit more equitable sharing of costs while improving consistency of service. A key consideration is that use of paid crew will reduce the amount of time taken for volunteers to respond from home to the station and staff fire apparatus. This reduction in turnout time can offset modest increases in travel time.

Any fiscally feasible path forward will continue to include volunteers as a critical component of service delivery. The continued recruitment and retention of volunteers should remain a priority.

4. Background and Community Profiles

4.1. Project Background

Purpose. The purpose of the study was to conduct a feasibility study for the development of a shared service(s)/expansion of shared service(s) or consolidation or resources between the Boroughs of Barrington, Haddonfield, and Haddon Heights.

Key Issues. The project team addressed key issues related to an evaluation of each department's services including service demand, specialized services, improved efficiency, effectiveness, productivity, funding and budget.

Scope of Work. The study focused primarily on the shortages of volunteer firefighters and their participation, the potential creation of a paid department(s) and/or stipend programs, the sharing of personnel, apparatus, and fire stations.

Evaluation. The project team was tasked with evaluating the organization and operations of each fire and EMS agency with regards to the development of shared service options, and suggesting an implementation strategy. The evaluation was to determine the potential to achieve the following benefits for the boroughs:

- Increased efficiency
- Reduced Costs
- Improved effectiveness
- Cost avoidance
- Streamlining purchasing
- Standardization
- Consolidation/disbursement of supplies
- Potentially reduce ISO rating
- Improved training opportunities
- Improved customer service
- Eliminate duplication of services
- Enhanced service

Stakeholders. As part of its work, the project team consulted with the following stakeholders:

- Elected officials
- Borough administrators
- Fire chiefs and staff
- EMS managers
- Fire prevention staff

Cooperative Strategies. In conjunction with their analysis, the project team addressed the following cooperative strategies:

- Shared service arrangement or expansion of shared service arrangement between two or more municipalities for fire services.
- Shared service arrangement or expansion of shared service arrangement between two or more municipalities for EMS services.
- Consolidation of two or more of the municipal fire departments.
- Consolidation of two or more of the municipal EMS services.

4.2. Barrington

Community. The Borough of Barrington is approximately 1.6 square miles and according to the U.S. Census Bureau has a population of 7,036 residents. The Borough's density of 4,475; a relatively high density of residents per square mile. Incorporated in 1917, the Borough was formed from portions of the now-defunct Centre Township. Portions of the borough were taken on March 24, 1926, to form Lawnside. The borough borders the municipalities of Bellmawr, Haddon Heights, Haddonfield/Tavistock, Lawnside, Magnolia, and Runnemede.

Table 4.1: Barrington Population Trends, 1970-2020

Census	Population	% ±
1970	8,409	—
1980	7,418	-11.8%
1990	6,774	-8.7%
2000	7,050	4.1%
2010	6,983	-1.0%
2020	7,075	1.3%
2022 (est.)	7,036	-0/6%

Demographics. The median age is 38.2 years of age. Seventy-four percent of the population is between the ages of 19 and 64 years of age. The Borough's population is divided evenly between the sexes with females making up 50.9 of the population. More than 90 percent of residents are white, with the balance being Asian, Hispanic, or other ethnicity. Three percent of the population is foreign-born. Eighty-six percent of the population are high school graduates and 25.8 percent hold a bachelor's degree of higher. Fifteen percent of the population under the age of 65 have a disability.

Housing. It was reported the Borough had 3,164 households of which 3,082 are occupied. Approximately 1,869 housing units are owner occupied with a median value of $111,200. Roughly 1,218 of owner-occupied homes are with a mortgage with another 551 are without a mortgage. The remaining 1,159 housing units are renter occupied. There are 136 vacant housing units.

Income. Roughly 70 percent of the population age 16 or over are in the labor force. For the year 2021 the median household income was $73,380 and the per capita income was $39,791. The poverty level was eight percent of the total population.

Economy. The largest industries are health care and social assistance (1,043 people), professional, scientific, and technical services (420 people), and educational services (393 people). The highest paying industries are construction ($78,059), professional, scientific, and technical services ($71,087), and transportation and warehousing, and utilities ($64,960).

Governance. The borough's governing body consists of a mayor/council form of government with all positions elected at large on a partisan basis. The mayor is elected directly by the voters to a four-year term of office. The council is comprised of six members elected to serve three-year terms.

Tax Rate. The Borough's tax rate was $1.306 for the year 2023.

Transportation. Within the Borough there are roughly 25 miles of roadways. The New Jersey Turnpike is the busiest and most prominent highway that traverses the Borough. The highway passes through for the community and connects Bellmawr on the west with Lawnside in the east. Other major roads that pass through the borough include Interstate 295, which passes through briefly, with Exit 29 connecting the expressway with U.S. Route 30 and Route 41.

Budget. The Borough's operating budget includes funding for fire and emergency medical services. The below figure provides a summary of the total municipal budget for fiscal year 2023 as well as the total operating funds for the two services. It is important to note that capital improvement expenditures are not included in the figure.

Table 4.2: Barrington Borough Fire/EMS Budget, Fiscal Year 2023

Total Borough Operating Budget	Fire Dept.		EMS		Combined	
	Total	% of Bor. Budget	Total	% of Bor. Budget	Total	% of Bor. Budget
$10,226,497	$120,200	1.2%	$115,000	1.1%	$235,200	2.3%

As can be seen, the total appropriations for the two services amounts to roughly two percent of the Borough's total operating budget.

ISO Rating.: No PPC report was on file for review and evaluation.

4.3. Haddonfield

Community. The Borough of Haddonfield is comprised of 2.84 square miles of which 2.80 is land. The Borough's population is 12,514 and has a density of approximately 4,470. In 1875, the Borough seceded from Haddon Township and in 1894 became an independent incorporated municipality. The Borough is bordered by the communities of Haddon Township, Audubon, Haddon Heights, Barrington, Lawnside, and Cherry Hill.

Table 4.3: Haddonfield Population Trends, 1970-2020

Census	Population	% ±
1970	13,118	—
1980	12,337	-6.0%
1990	11,628	-5.7%
2000	11,669	0.4%
2010	11,596	-0.7%
2020	12,550	8.3%
2022 (est.)	12,514	-0.3%

Demographics. The median age is 40.7 years of age. Fifty-three percent of the population is between the ages of 19 and 64 years of age. The Borough's population is divided evenly between the sexes with females making up 50.3 of the population. More than 90 percent of residents are white, with the balance being Hispanic, Black, or other ethnicity. Four percent are foreign-born. Ninety-eight percent of the population are high school graduates and 79.1 percent hold a bachelor's degree of higher. Three percent of the population under the age of 65 have a disability.

Housing. There are 4,482 housing units in the Borough of which 4,274 are occupied. The U.S. Census reported the Borough had 4,274 households with approximately 82.7 percent of units being owner occupied. The median value of homes is $558,300. Roughly 60.7 percent of owner-occupied homes are with a mortgage. The remaining 40 percent of housing units are renter occupied.

Income. Roughly 70 percent of the population age 16 or over are in the labor force. For the year 2021 the median household income was $159,323 and the per capita income was $83,195. The poverty level was two percent of the total population.

Economy. The largest industries in Haddonfield are health care and social assistance (995 people), professional, scientific, and technical services (887 people), and educational services (834 people), and the highest paying industries are management of companies and enterprises ($230,500), manufacturing ($136,017), and finance and insurance ($132,000).

Governance. Haddonfield Borough is governed by a commission form of government and is comprised of three commissioners. The commissioners are elected for a concurrent four-year term. Each commissioner is assigned to oversee one of the three departments within the Borough and the commissioners select a mayor and may select a deputy mayor.

Tax Rate. The Borough's tax rate for the year 2023 was $0.552.

Transportation. There are a total of 46.74 miles of roadways. Route 41 passes through the center of the Borough intersecting Route 561 at the center of Haddonfield's main business district with Interstate 295 being adjacent to the southern tip. The New Jersey Turnpike briefly cross through the Borough. The Port Authority Transit Corporation (PATCO) rail line station links the Borough to Philadelphia, Pennsylvania, in the west and to the eastern terminus in Lindenwold, New Jersey,

Municipal Budget. The Borough's operating budget includes funding for fire and emergency medical services. Table 4.4 provides a summary of the total municipal budget for fiscal year 2023 as well as the total operating funds for the two services. It is important to note that capital improvement expenditures are not included in the table.

Table 4.4: Haddonfield Borough Fire/EMS Budget, Fiscal Year 2023

Total Borough Operating Budget	Fire Dept.		EMS		Combined	
	Total	% of Bor. Budget	Total	% of Bor. Budget	Total	% of Bor. Budget
$21,813,543	$205,500	< 1%	$710,000	3.3%	$915,500	4.3%

ISO Rating. As of 2015, the Borough holds a Public Protection Classification rating of Class 4. The rating is comprised of a review of the capabilities of the Borough's fire department, the municipal water supply, and the Camdem County emergency communications center. The following provides a breakdown of each category's individual standing:

Table 4.5: Haddonfield ISO Rating

Category	Credit Points Available	Credit Points Earned	% of Credit	Subclassification
Fire Department	50	30.45	60	4
Water Supply	40	23.43	58	5
Emergency Communications	10	6.65	66	4
	100	60.06		

4.4. Haddon Heights

Community. The total land area is 1.57 square miles and has a population of 7,484. The population density is 4,766 persons. The Borough was incorporated in 1904 from portions of the now-defunct Centre Township and parts of Haddon Township. The borough borders the municipalities of Haddonfield, Barrington, Audubon, Mt Ephraim, and Bellmawr,

Table 4.6: Haddon Heights Population Trends, 1970-2020

Census	Population	% ±
1970	9,365	—
1980	8,361	−10.7%
1990	7,860	−6.0%
2000	7,547	−4.0%
2010	7,473	−1.0%
2020	7,495	0.30%
2022 (est.)	7,484	-0.1%

Demographics. The median age is 42.1 years of age. Fifty-Six percent of the population is between the ages of 19 and 64 years of age. The Borough's population is divided evenly between the sexes with females making up 49.6 of the population. More than 90 percent of residents are white, with the balance being Hispanic, Black or other ethnicity. Less that three percent of the population is foreign-born. Ninety-six percent of the population are high school graduates and 52.1 percent hold a bachelor's degree of higher. Roughly five percent of the population under the age of 65 have a disability.

Housing. The Borough has a total of 3,136 housing units. There are 3,137 households of which 3,093 are occupied. Approximately 78.1 percent of housing units are owner occupied with a median value of $298,400. Roughly 1,438 of owner-occupied homes are with a mortgage with another 596 are without a mortgage. The 667 housing units are renter occupied. There are 97 vacant housing units.

Income. Roughly 70 percent of the population age 16 or over are in the labor force. For the year 2021 the median household income was $104,744 and the per capita income was $54,046. The poverty level was four percent of the total population.

Economy. The largest industries are educational services (658 people), professional, scientific, and technical services (480 people), and health care and social assistance (458 people). The highest paying industries are finance and insurance ($95,086), real estate rental and leasing ($84,716), and wholesale trade ($83,419).

Governance. The governing body is comprised of a mayor and a borough council. All positions are elected at-large on a partisan basis. A mayor is elected directly by the voters to a four-year term of office. The borough council has six members elected to serve three-year terms on a staggered basis.

Tax Rate. The Borough's tax rate for the year 2023 was $0.752.

Transportation. There are a total of 30 miles of roadways within the Borough. Interstate 295 follows the southern border of the borough. Route 168 straddles the community's western border while Route 41 follows the eastern border.

Municipal Budget. The Borough's operating budget includes funding for fire and emergency medical services. Table 4.7 provides a summary of the total municipal budget for fiscal year 2023 as well as the total operating funds for the two services. It is important to note that capital improvement expenditures are not included in the table.

Table 4.7: Haddon Heights Borough Fire/EMS Budget, Fiscal Year 2023

Total Borough Operating Budget	Fire Dept.		EMS		Combined	
	Total	% of Bor. Budget	Total	% of Bor. Budget	Total	% of Bor. Budget
$11,224,718	$214,238	1.9%	$25,000	<1.0%	$239,238	2.1%

ISO Rating. As of 2021, the Borough holds a Public Protection Classification rating of Class 3. The rating is comprised of a review of the capabilities of the Borough's fire department, the municipal water supply, and the Camdem County emergency communications center. The following provides a breakdown of each category's individual standing (Table 4.8)

Table 4.8: Haddon Heights ISO Rating

Category	Credit Points Available	Credit Points Earned	% of Credit	Subclassification
Fire Department	50.0	31.97	64%	4
Water Supply	40.0	38.96	97%	1
Emergency Communications	10.0	7.99	79%	3
Community Risk Reduction	5.50	3.75	68%	4
	105.50	75.98		

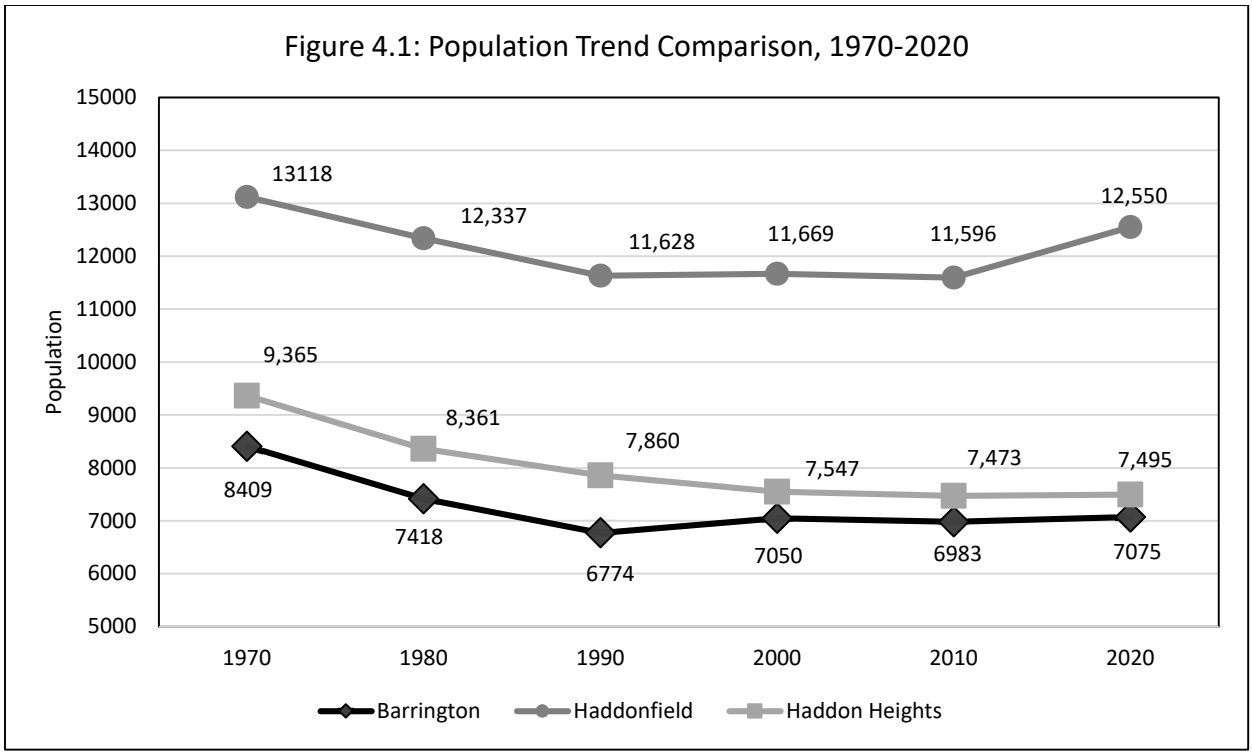
Figure 4.1: Population Trend Comparison, 1970-2020
Population
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
13118
12,337
11,628
11,669
11,596
12,550
9,365
8,361
7,860
7,547
7,473
7,495
8409
7418
6774
7050
6983
7075
1970
1980
1990
2000
2010
2020
Barrington
Haddonfield
Haddon Heights

Table 4.9: Comparison of Boroughs

Community	Community/Demographics					Housing					Taxes	Budget			
	Population	Square. MI.	Density	Medium Age	Med. Income	# of Units	Occupied.	Owner Occ.	Median Value	Vacant	Rate	Borough	Fire Service	EMS	% of Budget
Barrington	7,036	1.6	4,397	38.2	$73,000	3,164	3,082	1,869	$111K	136	4.523	$11,224,719	$115,000	$235,200	2.0%
Haddonfield	12,514	2.84	4,470	40.7	$159,323	4,482	4,274	3,534	$558K	NR*	3.163	$21,813,543	$205,500	$710,000	4.2%
Haddon Heights	7,484	1.57	4,766	42.1	$104,744	3,136	3,093	2,412	$298K	97	3.395	$11,224,718	$214,238	$25,000	2.1%

* Not reported

5. Historic Fire/EMS Delivery System

5.1. Haddonfield Fire Department

Organization. Fire protection is provided by the Haddon Fire Company No. 1, an all-volunteer organization with a roster of 38 members, of which 19 are residents of the Borough. The company is designated as Company 14 under the Camden County system of fire departments. At the start of the study, the Department's roster indicated some 38 members, however, some of them were not actively providing service.

Of these members of Haddonfield Fire Co. No. 1, we understand approximately 15 individuals are currently active volunteer firefighters. Fewer than 10 of these volunteer during daytime hours, and 5 members are stipend members only -- meaning they will only respond during overnight hours. The Chief also resigned as the report was being finalized.

History. For over 250 years the Haddon Fire Company has served the citizens of Haddonfield. The company has its roots as far back as the colonial era prior to the American Revolution. The company was formed in 1764 when 26 men being the chief owners of property and heads of families in the village, met in the Friends Meeting House to form the Friendship Fire Company of Haddonfield. The Friendship Fire Company operated until 1811 when the company was reorganized as the Fire Company of Haddonfield. The reorganization was primarily due to a lapse in attention and membership. By 1851 the company went by the name of the Haddonfield Fire Department. In January 1887, the company was reorganized again under its present name.

Governance. Ordinance 2010-06 establishes the governance of the company. Specific areas addressed include:

- Company mission statement
- Levels of authority
- Appointment and duties of officers
- Volunteer member:
  - qualifications
  - performance
  - discipline
- Other employees
- Mutual aid
- Annual report
- Financial reports
- Applicable laws

Services Provided. Services provided includes fire suppression, physical rescue including vehicle extrication, and response to hazardous material spills and leaks. Fire suppression includes responses to fires in structures, vehicle, and brush and woods fires.

Outside Aid. For the foreseeable future, the Department receives automatic aid from the bordering Westmont and Barrington-Haddon Heights Fire Departments between the hours of 6 am and 6 pm on a 24-hour basis including weekends. Both departments are a combination career and volunteer department organization. The county dispatch center automatically dispatches additional fire units for confirmed working fires. The additional resources are subject to respond from anywhere in Camden County with nearby Cherry Hill and Lawnside Fire Departments providing most of the assistance due to their proximity to the Haddonfield community border.

Facilities. The Haddonfield firehouse is located near the center of the Borough at 15 North Haddon Avenue. The site is historical being originally occupied by the Friends Meeting House built in 1760. The original structure was torn down in 1852 and replaced in 1854 by a wood frame building that served as the Borough Hall, Police Station, Jail, and Fire House. In June 1953 the company moved into the current firehouse which is owned and maintained by the Borough.

The firehouse has become a landmark for the community and its location is ideally suited for response deployment for most parts of the Borough as well as exposure to the citizenry and potential recruitment of future volunteer firefighters.

The two-story firehouse is of architectural style in keeping with the community's heritage and ties to its colonial era founding. The first floor is comprised of five apparatus bays that house two fire engines, an aerial ladder truck, ambulances, and support vehicles. The floor also houses offices, a ready room and kitchen, and storage and ancillary rooms. The second floor houses an office and conference room, auditorium with stage and an adjacent kitchen, men and women's lavatories and a small bedroom.

The facility is lacking in many ways with regards to its capability to house personnel and apparatus. The fire company and the services it provides has changed dramatically since the house's opening in 1953. Engines and ladder trucks commonly placed in service today are larger making it difficult or expensive to specify apparatus that clear the firehouse's cramped doors and bay.

Apparatus and Equipment. The company's primary fire apparatus includes two engines, one of which is designated as an engine-squad. The engine-squad is a multi-purpose apparatus, which in addition to its firefighting capabilities, is equipped with rescue equipment for extricating victims of motor vehicle accidents and similar type of physical rescues. In addition, the company operates a ladder truck equipped with a 100-foot ladder. The apparatus is classified as a standard aerial ladder truck and is not equipped with a pump, water tank or hose.

Table 5.1: Haddonfield Fire Apparatus

Engine	Make	Year	Pump Cap. (gpm)	Tank Cap. (gl.)	Status
E-14	Pierce	2017	1,750	500	Frontline
SD-14*	Pierce	2007	1,500	500	Frontline
Ladder	**Make**	**Year**	**Pump Cap. (gpm)**	**Aerial**	**Status**
L-14	Seagrave	1995	N/A	100 ft.	Frontline

* Engine designated as an engine-squad equipped for vehicle extrication and similar rescue equipment.

Budget. Based on the department's questionnaire, the total department budget for 2023 was $204,500.

Certification and Training. The Fire Department recorded they regularly hold training for members at the station and periodically attend outside drills. Officers and members hold certifications for firefighter, officer, driver/operator, and basic hazardous materials awareness and operations.

Table 5.2: Haddonfield Fire Company Training, 2018-2022

Year	# of Members Who Attended Training for the Year	Classes			Hours		
		Total Classes Attended	Average Attendance Per Member		Total Hours Attended	Average Hours Attended Per Member	
			Yr.	Month		Yr.	Month
2018	53	1,045	19.71	1.64	2,818	53.16	4.43
2019	50	980	19.6	1.63	2,202	44.04	3.67
2020*	43	406	9.4	.78	582	13.53	1.12
2021*	51	881	17.27	1.43	2,298	45.05	3.75
2022	41	446	10.87	.90	1,349	32.90	2.74
Average	47.6	751.6	15.37	1.26	1,849.8	37.73	3.14

* Reduction in classes attended and hours attended reduce due primarily to COVID pandemic.

5.1.1. Haddonfield Emergency Medical Service

Organization. The Borough serves as the primary provider of ambulance service within the Borough of Haddonfield. The service includes Basic Life Support (BLS) service and is staffed by a combination of fulltime and part-time Emergency Medical Technicians. The staffing is comprised of eight fulltime and thirteen part-time EMTs. Services are provided by one ambulance that is staffed by paid employees of the Borough of Haddonfield.

History. The Haddonfield Ambulance Association was formed in 1938**,** when Haddonfield Mayor G. Barrett Glover, who was also American Legion Post 38 Commander, appointed a committee of three Legionnaires, to make an "exhaustive study of other towns" ways and means of providing ambulance service. By 1960 the Haddonfield Ambulance Association was responding to approximately 400 calls per year. Up to this time the ambulance was operated primarily by the members of Haddon Fire Company with a few supplemental non-fire company volunteers. For decades, coverage is provided by Borough employees. Today, the service maintains two ambulances consisting of a frontline unit and a second ambulance which serves as a reserve.

Governance. The Haddon Fire Company No. 1 is an independent non-profit corporation. It is governed by a board of directors compromised of a president, vice-president, treasurer, secretary, and trustees. The Haddonfield Fire Chief serves as the day-to-day operations officer for the EMS personnel.

Services Provided. The ambulance service provides a BLS-level benchmark of responding to 90 percent of calls within a 4.5-minute travel time. The travel time is defined as the duration from

the time the ambulance begins travel to the time it arrives on the scene. The timeframe does not include total reflex time of emergency call processing, dispatch, nor turnout time per NFPA 1710; the standard the ambulance service recognizes as its standards of cover policy. Further, the recognized standard stipulates that 4-minutes, or 240 seconds, as the accepted response time benchmark for BLS service.

Facilities. The service is housed at the Haddonfield fire station located at 15 North Haddon Avenue.

Apparatus and Equipment. Apparatus includes one in-service ambulance and one spare that is used when the other is being serviced or during incidents or events requiring more than one ambulance.

Table 5.3: Haddonfield Ambulance Vehicles

Unit	Unit Type	Station #	Year
BLS-14	Ambulance	14-1*	2017
BLS-14A	Ambulance	14-1*	2023

* Haddonfield Fire station

Funding and Budget. The Borough pays salaries and benefits for all staff. The Borough's EMS salary expenditures for the fiscal year 2023 was $710,500. In addition, the HAA provides additional funding including the purchasing of ambulance supplies, employee uniforms, and equipment.

5.2. Haddon Heights-Barrington Fire Department

Historically, the Boroughs of Barrington and Haddon Heights have provided fire and emergency medical services independently from one another. However, in recent years the two communities have each experienced a reduction in the number of citizens willing and able to serve as volunteer firefighters or emergency medical technicians. For a period, the Barrington Ambulance Association has provided services to both Boroughs whereas fire protection was provided by two separate and independent volunteer companies. During the launching of the project, it was disclosed the two communities had come to an agreement whereby the two departments would be combined to form the Haddon Heights-Barrington Fire Department. HH-BFD. The consolidation was made through a joint shared service agreement.

Organization. Beginning in January of 2023 the HH-BFD was formed through the consolidation of the fire departments of the Boroughs of Barrington and Haddon Heights. The intent of the consolidation was to improve the level of fire and rescue services for both communities. This would include a sharing of fulltime and volunteer personnel, facilities, and apparatus and equipment. The department continues to utilize the stations and equipment of the two volunteer fire stations. Department staffing includes the following:

Fire Chief	1	Captain	5	Fire Police	3
Assistant Fire Chief	1	Lieutenant	2		
Training Officer	1	Structural Firefighter	44		

The consolidation included the creation of an on-duty duty crew consisting of an officer and two firefighters. The crew are on duty Monday through Friday between the hours of 6 a.m. and 6 p.m. During the remaining hours of the week officers and firefighters from both volunteer companies respond with their respective apparatus.

History. The Haddon Heights Fire Department was incorporated in 1904 followed by the Barrington Fire Company in 1907. During the 1930s the Barrington company added the services of a rescue squad to their fleet. Over time, this service developed into Barrington Ambulance Association. In 1966 the fire company dedicated the opening of the current fire station.

Governance. The HH-BFD is managed through shared services agreement between the Boroughs of Haddon Heights and Barrington. In addition, each volunteer fire company remains an independent non-profit corporation. The companies are governed by a board of directors compromised of a president, vice-president, treasurer, secretary, and trustees.

Services Provided. The HH-BFD provides services including fire suppression, rescue, and basic hazardous materials response. Firefighting duties include responses to fires involving structures, vehicles, and brush.

Facilities. The department operates from two existing stations. One station is located in Barrington at 205 Second Avenue. The Station is single story with six bays for housing fire and rescue apparatus and is owned by the Borough of Barrington. The station shares a party wall with the Barrington Ambulance Association. The daytime on-duty crew uses the station as their primary bass during duty hours. The other station is located in Haddon Heights at 608 Rear Station Avenue. The station is one story and has six apparatus bays for housing fire and rescue apparatus.

Apparatus and Equipment. The company's primary fire apparatus includes four engines, one of which is designated as a squad and in addition to its firefighting capabilities is equipped with rescue equipment for extricating victims of motor vehicle accidents and similar type of physical rescues. In addition, the company operates a ladder truck equipped with a 100-foot ladder. The apparatus is classified as a standard aerial ladder truck and is not equipped with a pump, water tank or hose.

Table 5.4: HH-BFD Fire Apparatus

Engine	Make	Year	Pump Cap. (gpm)	Tank Cap. (gl.)	Status
2	Seagrave	1999	1500	500	Frontline
2A	Pierce	1988	1500	500	Frontline
SQT2	Pierce	2009	1500	500	Frontline
SQD 2	Ferrara	2022	1500	500	Frontline

Ladder	Make	Year	Pump Cap. (gpm)	Aerial	Status
TL2	Pierce	2016	N/A	95'	Out of Service

Funding and Budget. Based on the department's completed questionnaire, the department is funded as part of the operating budget of the two participating municipalities. The budget consists of a total of $322,900.

Table 5.5: HH-BFD 2023 Budget

Salaries			
Fulltime Salaries	Part-time Salaries	Operating	Total
$175,000	$61,900	$86,000	$322,900

Training. Prior to January 2023, each department conducted their own training. Since then, the consolidated department conducts joint training session. The table below provides an overview of each department's training through 2022.

Table 5.6: Barrington and Haddon Heights Training, Average Hrs. Per Member: 2018-2022

	Training Hours		Members Participating in Training		
	Total Training Hours	Average Per Year	Total Members	Average Hrs. per Member	Average Hrs. Per Year
Barrington	4017	803	56	71.73	14
Haddon Heights	5129	1,026	44	116.57	23

5.2.1. Emergency Medical Service

The Barrington Ambulance Association (BAA) provides Basic Life Support-level ambulance service to the Boroughs of Barrington and Haddon Heights, and more recently the bordering community of Runnemede located on the western border of Barrington.

Organization. The Barrington Ambulance Association is a non-profit organization comprised of six fulltime and 10 part-time EMTs. There are no volunteer members that augment the paid staff. Management includes a chief and assistant chief who oversee the remaining 14 positions.

History. Sometime around 1936, members of the Barrington Fire Company were interested in what was originally a rescue squad; and as time went on, this developed into Barrington Ambulance Association. The organization started with a second-hand ambulance that was housed in a private garage and has developed into a group of very highly trained individuals with four completely outfitted ambulance and around the clock paid staff. The Barrington Ambulance Association was originally a function of the volunteers of the Barrington Fire Department.

In 1952, the ambulance association spun off as a separate organization and was incorporated. The service was all volunteer until 2003, when paid EMTs were hired to augment the volunteers due to the increasing emergency call volume. The service continued as mainly volunteer until 2010, when the service became primarily a fulltime paid operation. The first paid Chief of the Ambulance was in 2019. Barrington Borough now pays part of the salary costs for the Chief.

Prior to 2013, the Borough of Haddon Heights was served by the Haddon Heights Emergency Medical Services, Inc. The corporation was dissolved the following year at which time the Borough began to receive emergency medical services from the Barrington Ambulance Association.

Governance. The Association is governed by a constitution, bylaws, and procedures. The constitution identifies the Association's governing body comprised of executive officers including a president, vice president, secretary, treasurer, financial secretary, sergeant at arms, and four trustees. In addition, there are three line officers consisting of a captain and two lieutenants. The bylaws and procedures identify membership classifications, oath of office, committees and other administrative and operational matters.

Services Provided. Services include BLS emergency transport services only. The BAA does not provide non-emergency transport services. The service's standard of cover includes a 4.78-minute travel time for 100 percent of its emergency calls. The benchmark is based on the average travel time for the 2,234 calls handle in 2022.

Facilities. Ambulances and crews are housed at 201 Second Avenue, adjacent to the Barrington fire station located in the Borough of Barrington. The station consists of two bays with offices and day quarters for ambulance crews.

Apparatus and Equipment. The service's fleet includes three ambulances and one staff vehicle.

Table 5.7: Barrington EMS Vehicle Inventory

Unit #	Unit Type	Year	Station #
945	Ambulance	2007	9
946	Ambulance	2016*	9
947	Ambulance	2010	9
N/A	Staff SUV	2005	9

* Remount existing module onto new chassis.

Funding and Budget. From the completed questionnaire, funding is derived from billing for services, a fund drive, and grants applied for by BAA. Additional is provided through municipal contributions.

Table 5.8: Barrington EMS Municipal Funding Contributions

	Municipal				Other
	Barrington	Haddon Heights	Total	Total	Total
Percent	16.75%	8.98%	2.99%	28.72%	71.28
Amount	$140,000	$25,000	$75,000	$240,000	$595,569

Expansion of Services. Given the potential increase in call volume over the coming years and its strain on current EMS services, future agreements with bordering communities should be

weighed with regards to the current customer base and the ability of the BAA to sustain the current level and quality of service. It would be wise that before any additional bordering communities are added to the organization's service base, a detailed review should be conducted to determine the projected level of service demand and cost-benefit of adding an additional community to the BAA service area. The review would address the following questions:

- Will the BAA be able to sustain its current stated service delivery benchmark arrival time of no greater than 4.78 minutes for 100 percent of emergency calls for the existing primary service area of coverage that includes the Barrington and Haddon Heights communities. Expanding primary services to other communities may potentially lessen the availability of an ambulance to timely respond to calls within the current primary service area?

- Will the demographics of the bordering community for which services are proposed to be expanded to create an increase in emergency responses, thus reducing the availability of an ambulance to quickly respond to calls in the primary service area of Barrington and Haddon Heights?

- Will the extension to other communities pay for itself, or will the expansion of services be a detriment to the current users of the service in the form of reduced availability and increased response times? Will the expansion eventually increase the cost for services for the municipalities and their citizens that are currently under contract with the BAA?

- How will the expansion to additional bordering communities potentially impact the BAA with regards to mutual aid? Will the increase cause the BAA to increase the frequency of requesting mutual aid from bordering services and if so, how will this affect the overall regional mutual aid system.

Prior to any agreement, a cost-benefit analysis should be conducted to determine the projected increase in call volume and corresponding return in billing for services. The analysis should identify the projected revenue in conjunction with the cost for services including salaries and benefits of additional personnel, operating costs such as facilities, supplies, fuel, insurance, etc., and capital expenditures including the purchase of additional ambulances.

Unit Hour Utilization. UHU is a ratio that is used to determine an ambulance's productivity. Most often, the method of determining a transport unit's UHU is dividing the number of transports in a 24-hour period by the number of hours the unit is in service for the same period of time. Transport agencies responding solely to emergency calls typically target a lower unit hour utilization (between 0.30 and 0.50 UHU) to ensure that a sufficient number of units remain available to respond to emergency calls. Prior to any future expansion, the BAA should conduct a UHU analysis of the current service area and determine what impact adding additional communities will have on the current communities being serviced.

5.3. Outside Aid

The two fire departments and two EMS agencies are part of the Camden County Mutual Aid Agreement that is managed through the Camden County Fire Coordinator. The coordinator

oversees the development and implementation of the plan which includes identifying qualified officers and other members of the emergency services into a group of specialists that can be drawn upon when needed. State mutual aid legislation is used to establish the plan's framework and organization.

The mutual aid plan is detailed and includes an inventory of apparatus and equipment, individual municipal agreements and response criteria and resource deployment matrixes for initial and greater alarms, and procedures for updating the above information into the Camden County Communications Center's computer-aided dispatch system. The focus of the mutual aid is for responses requiring multiply units such as reported structure fires or other incidents requiring the staffing and equipment of more than one or two apparatus.

Fire Service. The Barrington-Haddon Heights Fire Department and the Haddonfield Fire Department regularly utilize mutual aid between each other and surrounding fire departments. As part of the county mutual aid agreement, the departments are subject to receive mutual aid for responses requiring multiple units such as building fires. In these cases, the mutual aid plan utilizes a "task force" assignment that includes units from the primary responding department as well as bordering fire departments. The level and type of task force is based on the type of incident, the building occupancy or hazard and other factors such as the level of threat to occupants and potential exposures. Non-structure related fires such as those involving vehicles or brush may not necessitate a task force assignment or other forms of mutual aid.

Examples of a multi-unit task force responses include dwelling or commercial building fires, motor vehicle accidents with multiple patients, and hazardous material spills or explosions. The following provides an example of a mutual aid task force assignment for the dispatch of a reported dwelling fire in the Borough of Haddonfield:

Table 5.9: Example of Mutual Aid Multi-Unit Assignment

Incident Type: Dwelling Fire	Haddonfield	Other
1st Alarm (Initial Assign.)	E-14, SD-14, L -14, BLS-14	SQ-15, SD-27-2, E-2, L-1324
Declared Working Fire		SD-13 QT1
All Hands Working		R-29, RH-13, CFM, EM-17
2nd Alarm		SD-16 SD-3 L-18
3rd Alarm		E-1132, E-19, QT-7, Field Comm

E – Engine
SD – Engine with additional squad-type rescue equipment
BLS – Basic Life Support Ambulance
SQ – Engine equipped with elevated stream
L – Ladder truck
QT -

As can been seen, the initial 1st alarm assignment for a single-family dwelling consists of five engines, two ladder trucks and one ambulance, half of which are from bordering departments. It is important to note that a review of response data indicates that much of the day time the Haddonfield company may be only able to respond with one apparatus, usually an engine.

Currently, due to a daytime reduced response force, for the foreseeable future, the Haddonfield department has requested an automatic response from the bordering Westmont Fire Company, a combination career and volunteer organization, between the hours of 6 a.m. and 6 p.m. In

addition, the Barrington-Haddon Heights department is also subject to respond automatically to Haddonfield.

Emergency Medical Services. The EMS services are an integral part of the county mutual aid plan. Due to the nature and frequency of medical-related responses, it is not uncommon for an EMS agency such as Barrington or Haddonfield to request or provide mutual aid from a bordering service. On many days, the volume of responses necessitates the Barrington and Haddonfield ambulance services to request or aid a bordering service. The county communications center routinely dispatches bordering systems to assist a primary EMS service during peak demand times.

6. Barrington / Haddon Heights Fire Consolidation

6.1 Legislative Timeline

The concept of a Barrington-Haddon Heights shared fire service agreement predates the formalized agreement by at least 18 years. The timeline below presents some of the notable moments preceding the Barrington-Haddon Heights partnership.

2005: Edcon Associates advises Barrington to seek a shared service agreement, and Haddon Heights is specifically identified as a shared service partner.

2019: Lafferty Consulting endorses the recommendation of Edcon Associates that Barrington merge with Haddon Heights.

2021: As an informal fire service practice, Barrington and Haddon Heights shared career firefighter personnel so as to fulfill New Jersey regulations requiring that three firefighters staff an engine. Haddon Heights expressed a desire to codify this arrangement at the advice of its legal counsel. This informal practice was not codified, and so the practice of sharing career firefighters ended.

September 2022: Chief James P. Smith of the Ocean City Fire Department presented an analysis regarding Barrington's personnel, equipment, response times, and current policies to the Barrington mayor and council. Smith ultimately recommended to move forward with a formal shared service agreement with Haddon Heights. Subsequently, Barrington Council Member Hanson met with Fire Chief Baus, Assistant Chief Preen, and Firefighter Yates, and they were instructed to devise how a shared service agreement would work logistically with Haddon Heights.

October 2022: A Barrington public hearing was held to discuss a shared fire service agreement with Haddon Heights. The vast majority of public comments were supportive of partnering with Haddon Heights. As a result, the Barrington Council instructed Fire Chief Baus to meet with Heights' fire personnel to discuss the operational aspects of an agreement. County Fire Marshal Joseph P. Hales, who also served as Heights' Assistant Chief, oversaw the negotiations. The week following this public hearing, both Barrington and Haddon Heights restarted a ride along agreement in an effort to increase familiarity with each municipality's personnel and apparatus.

November 2022: The Barrington Council voted 5 to 1 to eliminate the Fire Chief Baus' per diem ($14,000 annually). The decision to do so was based upon the Barrington's intent to enter into an agreement with Haddon Heights. Chief Baus declined to comment on this, but did express support for combining Barrington and Heights personnel to improve engine staffing during the day.

December 2022: Retiring Haddon Heights Chief Michael Kinky conveyed his support for a merger, which he proclaimed having been a proponent of such a merger since becoming Chief in 2016. Officers from both fire departments met to discuss preliminary stipulations with the public safety council directors from Barrington and Heights.

January 5, 2023: A shared service fire agreement between Barrington and Haddon Heights is formalized. It is a one-year agreement. Joseph P. Hales from the Haddon Heights Department was installed as chief.

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Timeline Source: *The Retrospect*. Accessed 9/16/23, from https://www.theretrospect.com/.

6.2 Organizational Analysis

The shared service agreement altered the operational aspects of the Barrington-Haddon Heights fire service. Per an interview with Chief Hales, a three-firefighter squad operates weekdays from 6am to 4pm, Monday through Friday. This squad operates from the Barrington Station given its more central location among the two municipalities. A part-time firefighter fills in three days a week during the day shift. Approximately 10 volunteers serve as the part-time firefighter pool. By consolidating and sharing resources, Barrington-Haddon Heights can meet New Jersey regulations that an engine deployed have at least three firefighters for its dayshift during weekdays without relying on volunteers.

Volunteers from the two municipalities cover fire calls on Saturdays, Sundays, and during the 14 hours not covered by the career squad during the day. Volunteer firefighters operate from the Haddon Heights station. Note that paid fire personnel will attend to the Heights station and equipment needs. There are approximately 35 total active volunteers between Barrington and Haddon Heights post-consolidation.

6.3 Fiscal Analysis

From a fiscal perspective, shared service agreements produce significant cost savings for municipalities already spending a substantial portion of their budgets on a given service (i.e., in excess of 10 percent). In this case, you have municipalities that are largely reliant on donated labor, that being volunteer firefighters. The volunteer firefighters are supplemented by a minimal number of paid personnel. Therefore, Barrington and Haddon Heights do not benefit significantly from cost savings resulting from their shared service agreement. This is evidenced by their respective "salaries and wages" figures earmarked in their budgets under the line-item "Fire."

Table 6.1: Fire Salaries and Wages Appropriations, 2020-2023

	Haddon Heights	Barrington
2023	$174,538	$120,200
2022	$157,900	$116,007
2021	$197,471	$116,007
2020	$121,000	$105,300

The benefit, however, for Barrington and Haddon Heights is cost avoidance. Prior to their shared service agreement, both municipalities would have had to hire additional personnel to guarantee daytime coverage that is not reliant on volunteers. Day time coverage via volunteer firefighters is problematic given that volunteers, by and large, must tend to their professions during the day,

thereby rendering most unavailable for service. Regardless of the future needs of the Barrington-Haddon Heights fire department, sharing personnel affords the residents adequate daytime coverage with minimal additional costs.

Sharing further mitigates future financial liabilities should Barrington and Heights hire additional career personnel to more effectively cover the overnight and weekend hours. To illustrate this tangibly, we examine full-time firefighter salary costs per the Haddon Heights collective bargaining agreement (CBA) with the International Association of Fire Fighters Local #3249. The CBA covers January 1, 2022 through December 31, 2024. Per the CBA, a firefighter hired in 2024, in their first year of service, will earn a base salary of $51,212. By sharing resources, the cost per municipality would be half that figure assuming an equal distribution. In essence, the cost avoidance amount for Barrington and Heights would be $25,606.

Fiscally, a shared service agreement is not a panacea for all service delivery cost issues. What it does offer Barrington and Haddon Heights is the ability to spread current and future financial liabilities over two tax bases rather than one.

7. Standards and Industry Practices

7.1. Supporting Methodology

Fire Protection Benchmarks. Historically, most municipal fire departments are designed around the need to rapidly respond to fires within the built environment. Almost as soon as the creation of the first municipal fire department, it became clear that an efficient force of firefighters and equipment must be mustered and organized to effectively control fires before lives were lost and property destroyed.

Over many years research and experience began to identify fires behavior in homes, factories, and the wide range of other structures commonly found in most cities and towns. An understanding began to be developed that identified fire's behavior during the early and latter stages of its development, the effects of this development on human survivability and the destruction of the structure and its contents. As part of this research fire protection administrators have developed fire department response benchmarks that can increase the likelihood of an occupant surviving a fire while minimizing property loss. The following provides an overview of fire behavior and how fire departments should be measured with regards to controlling losses within their community.

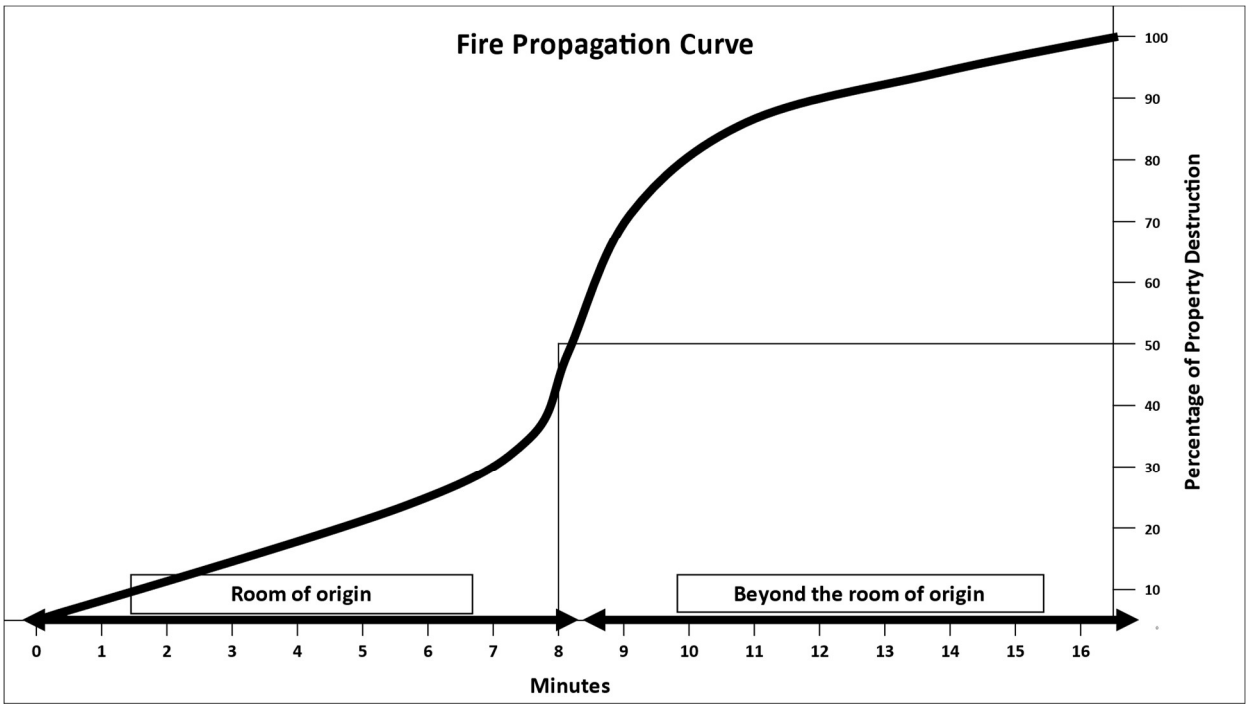
Fire Behavior. There are many factors that come to play with regards to reducing the potential of life and property loss due to fires within buildings including homes, commercial establishments, industrial complexes. A fire's behavior within the built environment, the effects of time and temperature, and the level and type of suppression forces at play, all contribute to control of fire in the built environment.

Structure Fire Propagation Curve. Most fires in or on buildings begin small in nature which if unchecked will progress to the point of causing significant if not total destruction of a home or business. In Figure 7.1, the line, which combines temperature rise and time, represents a rate of fire propagation in an un-sprinklered room and roughly corresponds to the percentage of property destruction. At approximately 4-8 minutes into the fire sequence, the hypothetical room of origin flashes over. Extension outside the room begins at that point.

The goal of the fire department is to arrive prior to the point of flashover. The amount of time it takes for the fire to be detected, someone calls 911, and fire units are dispatched and travel to the scene, all play a major role in control the fire before flashover; the moment that occupants in the room of origin or nearby will not survive.

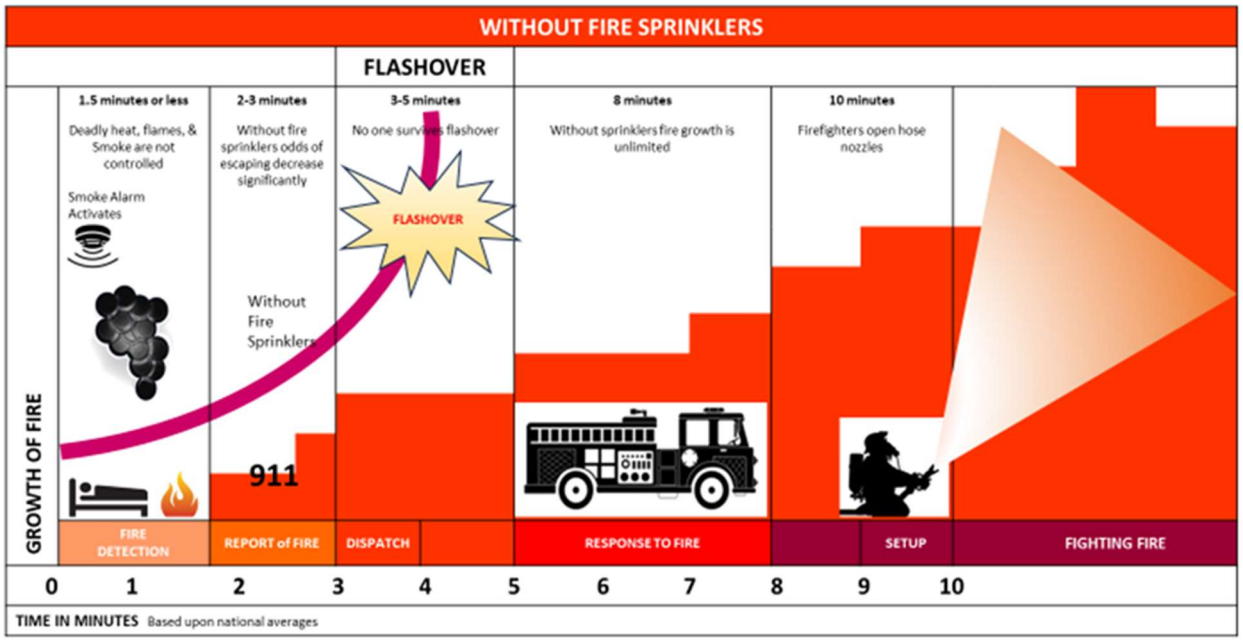
To further illustrate a fire's propagation, we can review the next figure. As can be seen, in a single-family home the fire progresses to the point of flashover while the fire department is notified and responds. Early warning by means of a smoke alarm alerts the occupants of the fire and thus increases their chances of survival. Firefighters arrive to begin reduce the fire's severity through manual fire suppression confining it to the structure of origin while reducing the likelihood of flames extending to neighboring homes.

Figure 7.1: Structure Fire Propagation Curve



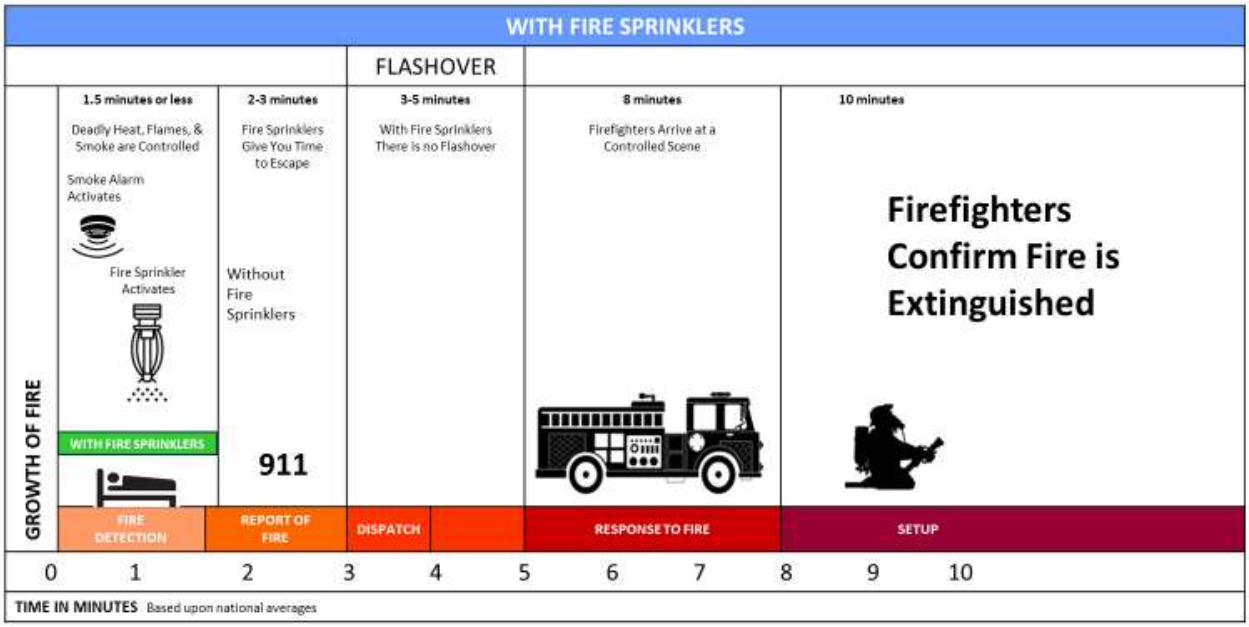
An early, aggressive, and offensive primary interior attack on a working fire, where feasible, is usually the most effective strategy to reduce loss of lives and property damage. It becomes apparent that the number of fire stations and their strategic location of firefighters and equipment become a critical player in reducing fire losses.

Figure 7.2: Fire Propagation Within a Single-Family Dwelling



In contrast, the next figure illustrates the value of fire sprinklers systems. As can be seen, the fire is mitigated well before the arrival of the fire department, increasing the occupant's survivability while reducing damage to the structure and contents by the byproducts of fire and water damage from firefighting activities.

Figure 7.3: Fire Propagation Within a Single-Family Dwelling Equipped with Fire Sprinklers



Fire Department Response Force. The fire department should have in place a sufficient number of resources commensurate to the severity of fire in the community they serve. The number of fire stations and their assigned personnel and equipment play a critical role in developing an effective response force. In larger communities with paid firefighters a sufficient number of resources may be on a state readiness in the event of the outbreak of a fire or other emergency. On the other hand, smaller communities often must rely on the local citizenry to dedicate and give their time to serve as volunteer firefighters.

Regardless, a fire will not know the difference between a paid or career firefighter. Fire departments, paid or career, must be able to muster a sufficient number of officers and firefighters to safely remove any trapped or unconscious occupants while simultaneously extinguish the fire and reduce property loss.

A scenario that is generally accepted by many in the fire protection field is the containment of a fire within a single-family dwelling. The scenario identifies the number of officers and firefighters to contain a fire within a 2,000 square foot frame dwelling of two stories in height and with no basement or immediate exposures. Figure 7.4 better illustrates the scenario.

Figure 7.4: NFPA Single-Family Dwelling Scenario

Staffing Needed. Multiple functions on the fire ground must be carried out simultaneously. Primarily, this includes rescuing any trapped occupants and securing and getting water on the fire. At the same time support functions must be carried out in order to expedite and safely carryout the operation. As can be seen in Figure 7.5, a total of 15 firefighters must be available to respond immediately to a reported structure fire. The figure illustrates the many numbers of functions that must be carried out concurrently. These functions include operating engines and ladder trucks, hose crews, rescue and ventilation teams, and a rapid intervention rescue team on standby in the event of a lost or injured firefighter.

Minimum Staffing for Single-Family Structure Fire		
Function	**Staffing**	
Incident Commander	1	
Pump Operator	2	
Primary Fire Attack Line	2	
Backup Fire Attack Line	2	
Support for Multiple Functions	2	
Search and Rescue	2	
Ventilation	2	
Aerial Ladder Operation	1	
Initial Rapid Intervention Crew	2	
Total	15	

The above methodology, or similar versions, serve as the basis for the deployment criteria for the following structural fire protection recommended practices as applied by the Insurance Services Office (ISO) and as recommended by the National Fire Protection Association (NFPA).

7.2. ISO

The Insurance Services Office (ISO) is a subsidiary of the Verisk Analytics; a for profit company providing data and research on behalf of the property and casualty insurance industry. The most recognized service provided by ISO is its Public Protection Classification (PPC) program. In some shape or form, the program, and its predecessors for over 100 years has been used to grade a municipality's ability to prevention and mitigate its fire risks. The program assesses the severity of a community's fire risks and scores the effectiveness of the fire department and other municipal agencies to prevent and control fires in buildings and other fixed properties. Practically every city and town in the United States is graded by ISO on a 5–10-year basis.

The PPC program includes an onsite assessment of a community that in turn are used to classify a community for fire insurance purposes. An ISO Field Representative will conduct the PPC survey while apply ISO's *Fire Suppression Rating Schedule* (FSRS); the companion document of the PPC program. A community's classification is based on a scale of 1-10 with Class 1 being optimum fire protection and Class 10 being no recognized public fire protection. Most community in the U.S. are classified somewhere between a Class 3 and Class 7. The incentive is for communities to maintain adequate public fire protection that is commensurate with their level of risks.

From 1980 through 2012 ISO applied the 1980 edition of the FSRS. The edition included a maximum of 100 credit points divided amongst the following categories:

Category	Maximum Points Available
Emergency Communications	10.0
Fire Department	50.0
Water Supply	40.0
Total	100.0

In 2013 ISO adopted the current FSRS that, along with the three above listed categories, now includes a fourth category that addresses the community fire prevention and mitigation activities.

Category	Maximum Points Available
Emergency Communications	10.0
Fire Department	50.0
Water Supply	40.0
Community Risk Reduction	5.50
Total	105.5

In addition to the additional category, the current edition includes revised credit points and terminology.

Given its many benefits to the community and the individual property owner, it is not uncommon for local municipal officials to misinterpret or misapply the PPC program. Very often, some fire chiefs or elected officials may feel compelled to achieve the best rating possible. Though noble with good intentions, a local community should always conduct a cost-benefit analysis before expanding and investing in more fire protection for the community.

The FSRS is divided into four major areas that the Field Representative reviews during the onsite survey. Certain items within each area are assessed against the FSRS's criteria with an appropriate level of credit being awarded. Upon completion of the grading, a summary report is submitted to the community's administrator, fire chief, water authority management, and 911 emergency communications director. The report includes credit information for every item reviewed and the community's final score.

Early during the study, the project team requested a copy of the latest PPC report for each of the three Boroughs. This request was submitted to the ISO Processing Center in nearby Mt. Laurel, New Jersey. The team received a copy of the most recent Haddon Heights 2021 report and an older report for Haddonfield that was submitted prior to the revised 2013 FSRS. The latter report is dated reflecting older methodology and credit criteria. No PPC report was available for the Borough of Barrington. A summary of each Borough's PPC rating is provided in Section 5 of this report.

7.3. National Fire Protection Association

Founded in 1896 by representatives of the stock insurance industry, the National Fire Protection Association (NFPA) is a non-profit association that publishes codes, standards, and best practices related to fire protection and life safety. The association's documents are developed by more than 250 technical committees. The first standard published by NFPA related to the design and installation of fire sprinkler systems in commercial and industrial buildings. In 1904, NFPA's membership had expanded beyond the insurance industry to many other organizations and individuals devoted to fire protection.

The organization have developed a wide range of criteria that address almost every aspect of public fire protection and emergency services. Two standards, NFPA 1710 and 1720 can be used as guidelines for measuring the performance of fire, rescue, and emergency medical services. It is important to note the association's standards are often refenced as guides when determining the kind and levels of services provided. However, under the standards of governance, the standards may not be enforceable unless a governing body officially adopts them as such. Advocates often cite potential liability if the governing body does not abide by the standards, whether officially adopted or not. Often this view is shortsighted as there are now over 300 NFPA standards, many of which directly apply to the advocates who may not meet all that would be required of them.

NFPA 1710. *The Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. The standard is designed for measuring the performance of career fire departments that utilize full-time or full-time-equivalent (FTE) station-based personnel immediately available to comprise at least 50 percent of an initial full alarm assignment.

As a recommended practice, the application of the standard would not apply when measuring the performance of any of the fire or EMS agencies that are within the scope of this study. The exception may be applied to the delivery of EMS in the Borough of Haddonfield where the Haddonfield Fire Chief issued a memorandum officially recognizing 1710 for benchmarking of EMS services. The following provides an overview of the expected performance for the delivery of EMS:

Table 7.1: NFPA 1710 EMS Response Benchmarks*

911 Call Taking	Dispatch Processing	Turnout Time	BLS Travel time	ALS Travel Time
Not more than 15 seconds 95% of calls/40 seconds 99% percent of calls received.	Not more than 64 seconds 90% of calls/106 seconds 95% of calls.	1-minute (60 seconds)	4-minutes (240 seconds)	8-minutes (480 seconds) _

* All of the above criteria must meet a performance criteria of 90%.

NFPA 1720. *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.* The standard is designed to provide minimum requirements for volunteer and combination fire departments. The standard defines a volunteer department as one that is comprised of 85 percent or greater by volunteer members.

The Haddonfield Fire Chief, in the referenced memorandum, recognizes the response and arrival time benchmarks of NFPA 1720 as those used by the Haddonfield Fire Company. The below figure provides an overview of the standard's response criteria. It is important to note the criteria is based on a low-hazard occupancy such as a 2,000 square foot two-story, single-family home without basement or immediate exposures. Though similar, much of the Borough's dwellings have basements and significant exposure to neighboring homes and other structures.

Table 7.2: NFPA 1720 Minimum Initial Structure Fire Response Criteria*

Demand Zone[a]	Demographics	Minimum Staff to Respond[b]	Response Time[c]	Meeting Objective
Urban Area	>1000 people/mi^2	15	9	90
Suburban Aera	500–1000 people/mi^2	10	10	80
Rural Area	<500 people/mi^2	6	14	80
Remote Area	Travel distance ≥ 8 mi	4	d.	90
Special Risks	f.	e.	f.	90

* For structural fire response for a low-hazard occupancy such as a 2000 ft2 two-story, single-family home without basement or exposures.
a. The jurisdiction can have more than one demand zone.
b Minimum staffing includes members responding from the AHJ's department and automatic aid.
c Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.
d. Directly dependent on travel distance.
e. Determined by AHJ based on risk
f. Determined by the AHJ.

7.4. New Jersey State EMS Standards

Emergency medical services in New Jersey operate cohesively within a two-tiered system, consisting of Basic Life Support (BLS) Ambulances and mobile intensive care units, each fulfilling distinct yet interrelated roles in the provision of pre-hospital care. BLS Ambulances, manned by Emergency Medical Technicians (EMTs), primarily focus on providing essential life-saving interventions and transporting patients requiring urgent medical attention. They are the initial responders, tasked with stabilizing patients through basic intervention techniques and rapid conveyance to medical facilities.

Conversely, MICUs, spearheaded by paramedics, are specialized entities equipped to provide Advanced Life Support (ALS) to patients with life-threatening conditions, offering a higher level of care, including advanced airway management, intravenous access, and medication administration. The interface between these two tiers is marked by meticulous coordination and collaboration, ensuring seamless transitions and the swift escalation of care when required. BLS Ambulances often initiate the response, and if the situation necessitates advanced interventions, MICUs are summoned to administer advanced care and interventions. The synergy between BLS and MICUs is pivotal, bolstered by the stringent regulations and oversight by the New Jersey Department of Health Office of Emergency Medical Services, ensuring optimal patient outcomes by delivering timely, tiered, and proficient medical response across the diverse landscapes of New Jersey.

Regulations pertaining to the provision of Emergency Medical Services (EMS) in New Jersey are primarily overseen by the New Jersey Department of Health, Office of Emergency Medical Services. They enforce the standards and regulations aimed at ensuring quality emergency medical care to the citizens of New Jersey. The regulations are multifaceted, covering diverse areas such as ambulance service standards, equipment requirements, staffing and qualification requirements for EMS personnel, and operational protocols for responding to emergency situations.

Under New Jersey Administrative Code (N.J.A.C.) 8:40-1 through 4, 6 and 7 (https://www.nj.gov/health/ems/documents/reg-enforcement/njac840r.pdf) apply to basic life support ambulance services. These are the minimum standards for the operation of an ambulance in the state of New Jersey. All EMT's who are currently certified are compliant with N.J.A.C 8:40A-1.2 (https://www.nj.gov/health/ems/documents/reg-enforcement/njac840ar.pdf), which are the minimum requirements for certification at the EMT basic level with the State of New Jersey. In addition the ambulance services meets the minimum requirements for ambulance service under N.J.A.C. 10:50 (https://www.nj.gov/humanservices/providers/rulefees/regs/NJAC%2010_50%20Transportation%20Services%20Manual.pdf), which allows them to bill Medicaid, as well as the Medicare Benefit Policy Manual Chapter 10 - Ambulance Services (https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/bp102c10.pdf). Haddonfield qualifies for payment under Title XVIII of the Social Security Act §1861 (https://www.ssa.gov/OP_Home/ssact/title18/1861.htm), Title XVIII of the Social Security Act §1861(s)(7) (https://www.ssa.gov/OP_Home/ssact/title18/1861.htm) which allows them to bill the Centers for Medicare and Medicaid Services (CMS) for ambulance service. Emergency services provided by Haddonfield are compliant with Title XVIII of the Social Security Act §1861(v)(1)(K)(ii) under 42 CFR §410.40 (https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410).

The New Jersey ambulance regulations, overseen by the New Jersey Department of Health, Office of Emergency Medical Services, are devised to ensure the provision of high-quality emergency medical care to the state's residents. These comprehensive regulations encompass stringent standards for ambulance services, prescribing meticulous requirements for vehicle equipment, the medical supplies that must be on board, and the operational procedures to be followed during emergency responses. They also stipulate the necessary qualifications and certifications for emergency medical personnel, ensuring that they are aptly trained and competent to deliver critical care during emergencies. These rigorous regulations are integral to maintaining a high standard of emergency medical services in New Jersey, contributing to public health and safety.

The critical significance of MICUs stands out prominently in the multifaceted domain of emergency medical services in New Jersey, contributing substantially to the mitigation of medical exigencies and reducing mortality rates across the state. In New Jersey, the oversight of MICUs is under the regulation of the New Jersey Department of Health Office of Emergency Medical Services (OEMS). In New Jersey all advanced life support (paramedic) level care is provided through hospitals. N.J.A.C. 8:41-1 through 9 and 12 (https://www.nj.gov/health/ems/documents/reg-enforcement/njac841r.pdf) are the regulations that apply to paramedic level care, referred to as mobile intensive care units. Virtua Health provides service to the operating area for Haddonfield and provides advanced life support on request of the community. Not every response in the Boroughs generates a response by paramedics. Major trauma that would require transport to Cooper hospital; heart attacks that would require catheterization; strokes; serious asthma attacks or exacerbations of COPD;

patients in congestive heart failure; cardiac arrests; are all examples of patients that would require an MICU response.

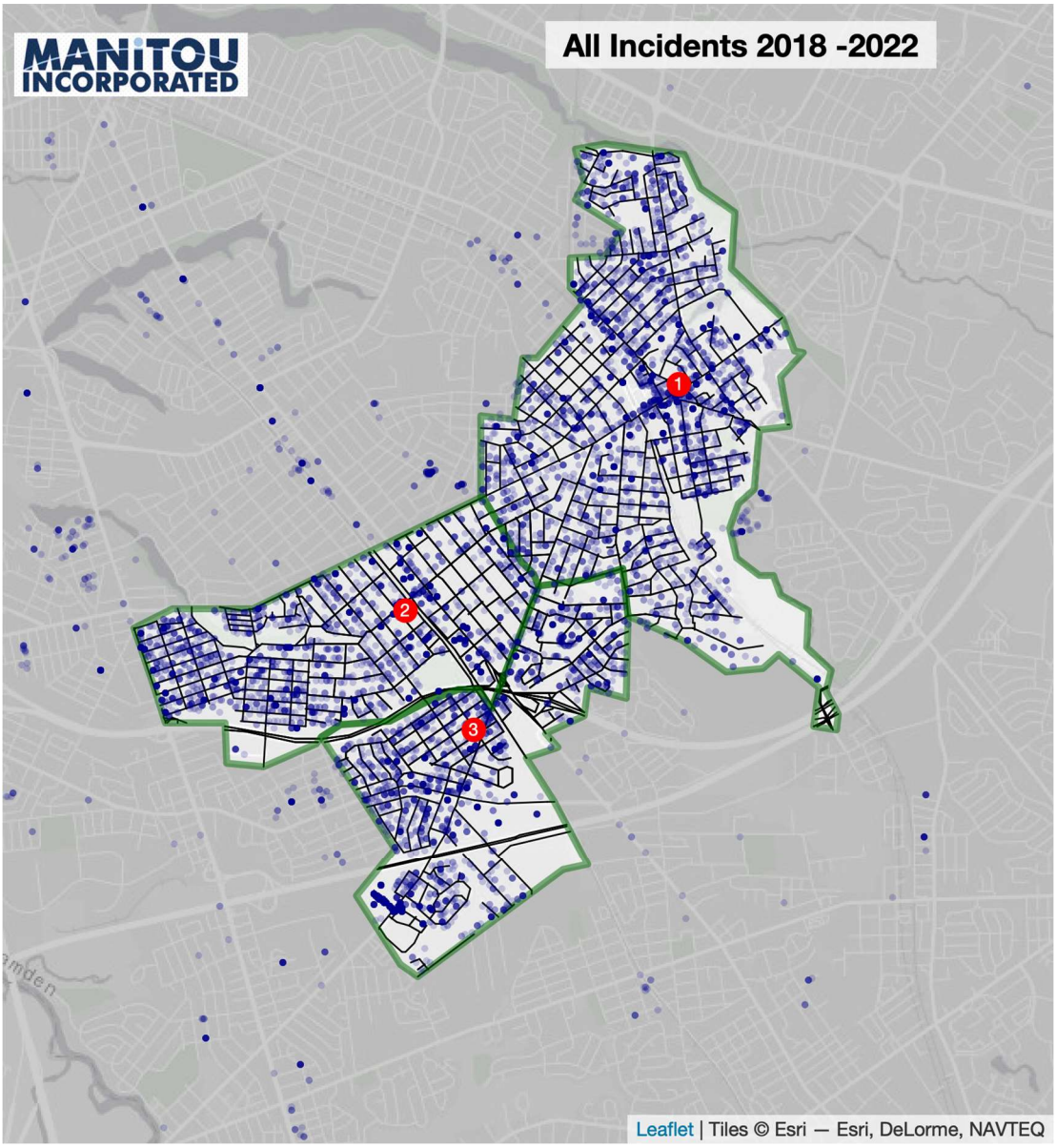
In this intricate and vital framework of healthcare provision in New Jersey, the centrality of MICUs in delivering advanced life support is incontrovertible. The success of the system of care is incumbent upon the response and provision of care by Haddonfield and Barrington Ambulance in conjunction with the paramedics from Virtua Health.

8. Demand for Service

Demand for service represents the incidents that occur within the three communities. Each incident results in one or more unit responses – movements of emergency vehicles and mobilization of personnel to answer the calls for service as relayed to the communications center. In addition to calls for service originating within the three municipalities.

In this chapter we will characterize the demand for service, looking separately at fire and EMS incidents. For this analysis we geocoded all incidents relying on data from the Camden County 9-1-1 Communications Center. Figure 8.1 shows the distribution of incidents from 2018-2022 on a single map.

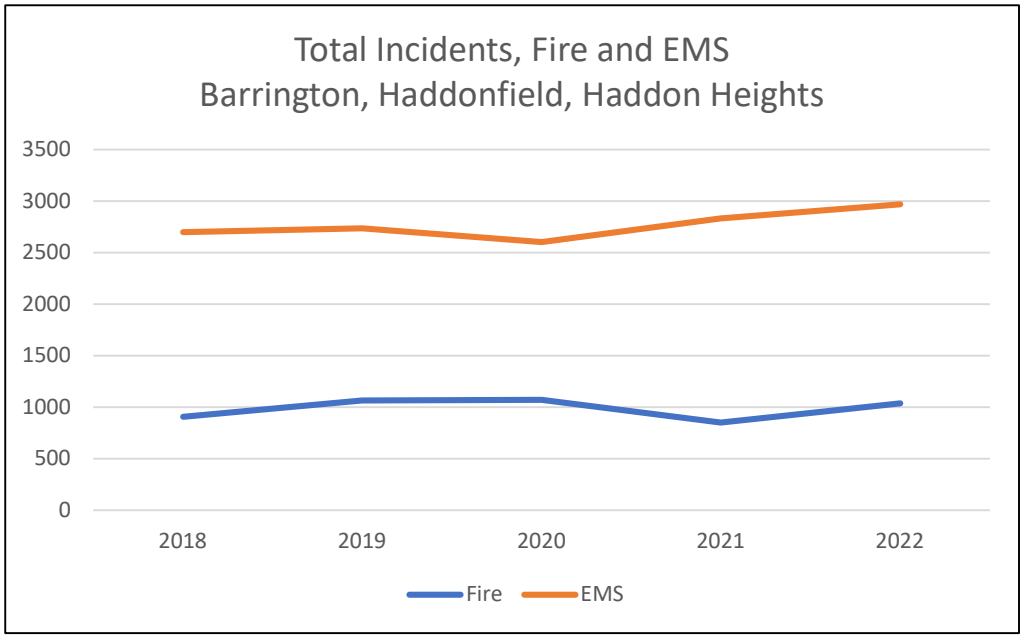
Figure 8.1 Geographic Distribution of All Incidents 2018-2022



The map shows that incidents are widely distributed across the service area. Mutual aid responses are also shown, where units from within the study area responded to outside areas.

Total fire and EMS incidents are shown in Figure 8.2. Overall incidents are dominated by EMS, and we see a return to growth in demand following a covid-related decline in number of incidents.

Figure 8.2 Total Fire and EMS Incidents 2018-2022



The number of EMS incidents is much larger than the number of fire incidents, following national patterns. EMS agencies routinely respond outside their jurisdictions for assistance, although Barrington Ambulance contractually covers Haddon Heights and, more recently Runnemede as part of its primary response area.

Data provided by Camden County Dispatch did not include mutual aid responses, which form a significant workload for fire and EMS units within the three boroughs, but we are concerned primarily with demand for service within the Boroughs of Haddonfield, Haddon Heights, and Barrington. We will distinguish between inclusive and in-district numbers within this chapter.

We customarily rely on agency records for hard data on member participation, unit activity, and incidents, but we had difficulty obtaining some of this information for 2022, as the records systems software in use across the County was changed to another vendor in August, and 2022 records were split across two systems. In addition, queries and reporting capabilities are not standard across departments, which required manual counts and labor intensive conversion of records to produce some data used in this report.

Although our analyses generally stop at the end of 2022, further changes occurred that will affect how incidents are attributed. Haddon Heights and Barrington began joint operations in January 1, 2023, which will effectively merge the then-separate data systems into a single collection of records and alter traditional mutual aid patterns within the three Boroughs.

8.1 Fire and fire-related incidents

We next examine incidents by type for each Borough. These incident counts reflect incident types as reported to Camden County dispatch. They do not necessarily reflect what was actually found once on scene. We removed some administrative, non-emergency incident types from this display.

Haddonfield Fire Incidents

Haddonfield had 508 total incidents in 2022(Table 8.1). This was an increase from 468 in 2021. Of these incidents, two were described by the Department as "working fires." In Table 8.2 we list detailed incident types. The most common type of incident was responses to automatic alarm systems, followed by investigations of various types of reported natural gas leaks. This summary only includes in-Borough responses.

Table 8.1.: Overall Fire Demand Haddonfield (Excludes Mutual Aid/with Mutual Aid)

Borough	2018	2019	2020	2021	2022
Haddonfield	412	491	469	416	454
Haddonfield with Mutual Aid	451	530	497	468	508

Table 8.2: Haddonfield Incidents by Type

		2018	2019	2020	2021	2022
ALARM SYSTEM	Haddonfield	159	186	137	147	159
INVEST/AP/AL/HEAT	Haddonfield	26	37	37	49	52
INCIDENTAL	Haddonfield	48	42	42	34	45
NAT GAS RELEASE	Haddonfield	35	33	38	30	23
INVEST CO DETECTOR	Haddonfield	22	33	18	19	16
EMS ASSIST	Haddonfield	11	6	14	12	15
DWELLING	Haddonfield	12	6	18	19	10
WIRES DOWN	Haddonfield	6	5	19	1	10
M.V.A	Haddonfield	18	9	11	12	9

UNCONSCIOUS	Haddonfield	0	1	1	2	9
DEWATERING	Haddonfield	8	19	1	1	8
EXTERIOR FUMES	Haddonfield	1	3	0	4	8
HIWAY HAZARD	Haddonfield	6	7	4	4	7
TREE LIMB DOWN	Haddonfield	4	17	39	6	6
BRUSH	Haddonfield	4	4	15	7	6
ANIMAL RESCUE	Haddonfield	8	6	4	6	6
MED EMERGENCY	Haddonfield	1	4	0	2	6
BUILDING	Haddonfield	5	6	3	9	5
RESCUE	Haddonfield	6	3	4	5	5
ADMIN/NOTIFY	Haddonfield	6	16	11	5	4
WIRES/BURNING	Haddonfield	2	4	15	1	4
FALL VICTIM	Haddonfield	3	2	2	2	4
HAZMAT INSPECTIONS	Haddonfield	0	7	7	5	4
RESPIRATORY EMERG	Haddonfield	0	0	1	0	4
CVA	Haddonfield	0	0	0	1	4
MISC	Haddonfield	3	6	3	5	2
INTERIOR FUMES	Haddonfield	1	5	3	4	2
TRASH/RUBBISH	Haddonfield	3	3	1	1	2
SEIZURES	Haddonfield	1	0	0	1	2
BLEEDING	Haddonfield	0	1	1	1	2
COVER	Haddonfield	0	2	2	2	2
INSPECTIONS	Haddonfield	0	1	1	0	2
PED MVA	Haddonfield	0	0	1	1	2
HAZMAT INVEST	Haddonfield	0	0	0	0	2
CARDIAC ARREST	Haddonfield	2	5	3	5	1
PROPANE GRILL	Haddonfield	2	0	2	1	1
BURN VICTIM	Haddonfield	1	1	0	1	1
VEHICLE	Haddonfield	0	2	2	1	1
SHED/OUTER BLDG	Haddonfield	0	0	1	0	1
RAILROAD INCIDENT	Haddonfield	0	0	0	0	1
TEST F&A	Haddonfield	0	0	0	0	1
APARTMENT	Haddonfield	4	1	1	3	0
CARDIAC EMERGENCY	Haddonfield	1	0	1	1	0
FIRE POLICE	Haddonfield	1	0	0	0	0
SPARKING OUTLET	Haddonfield	1	0	1	0	0
WIRES/OCC VEHL	Haddonfield	1	1	0	0	0
OCC VEHL IN WATER	Haddonfield	0	3	0	0	0
MED ALARM	Haddonfield	0	1	2	0	0
COMMUNITY SERVICE	Haddonfield	0	1	0	0	0
FRACTURE	Haddonfield	0	1	0	0	0

STAND BY	Haddonfield	0	1	0	0	0
ALLERGIC	Haddonfield	0	0	1	1	0
APPARATUS ACCIDENT	Haddonfield	0	0	1	0	0
TELEPHONE CALL	Haddonfield	0	0	1	0	0
ALARM	Haddonfield	0	0	0	1	0
DIABETIC	Haddonfield	0	0	0	1	0
INVESTIGATE	Haddonfield	0	0	0	1	0
OVERDOSE	Haddonfield	0	0	0	1	0
RESCUE POOL/POND	Haddonfield	0	0	0	1	0

Haddon Heights Fire Incidents

Within Haddon Heights, total incidents are shown in Table 8.3. These incidents are shown with and without mutual aid.

Table 8.3: Overall Fire Demand Haddon Heights (Excludes Mutual Aid/with Mutual Aid)

Borough	2018	2019	2020	2021	2022
Incidents	280	288	349	242	337
Incidents incl. Mutual Aid	689	871	878	712	462

We next show detailed incidents within Haddon Heights Borough. Automatic alarms are again the most common, but motor vehicle accidents are second most common, followed by various medical assistance calls for service. This summary only includes in-Borough responses.

Table 8.4: Haddon Heights Fire Incidents by Type

	Borough	2018	2019	202	2021	2022
ALARM SYSTEM	Haddon Heights	42	37	54	51	59
M.V.A	Haddon Heights	50	44	29	31	44
INCIDENTAL	Haddon Heights	36	29	18	20	27
MED EMERGENCY	Haddon Heights	2	4	0	2	23
EMS ASSIST	Haddon Heights	18	9	17	15	19
NAT GAS RELEASE	Haddon Heights	19	8	18	25	18
INVEST/AP/AL/HEAT	Haddon Heights	13	20	22	17	17
RESPIRATORY EMERG	Haddon Heights	0	1	0	1	15
INVEST CO DETECTOR	Haddon Heights	10	20	15	14	11
CARDIAC EMERGENCY	Haddon Heights	1	1	1	0	11
DEWATERING	Haddon Heights	1	13	4	0	8
VEHICLE	Haddon Heights	9	1	6	5	7

EXTERIOR FUMES	Haddon Heights	4	1	2	4	7
PED MVA	Haddon Heights	2	0	1	1	6
FALL VICTIM	Haddon Heights	0	2	1	4	6
BRUSH	Haddon Heights	2	1	7	6	5
UNCONSCIOUS	Haddon Heights	1	2	1	2	5
WIRES DOWN	Haddon Heights	6	3	21	1	4
DWELLING	Haddon Heights	11	9	10	6	4
MISC	Haddon Heights	5	6	0	3	4
HIWAY HAZARD	Haddon Heights	9	11	7	1	3
RESCUE	Haddon Heights	4	6	1	3	3
ADMIN/NOTIFY	Haddon Heights	2	5	3	3	3
WIRES/BURNING	Haddon Heights	5	3	11	4	2
MED ALARM	Haddon Heights	0	1	0	0	2
BLEEDING	Haddon Heights	0	0	1	0	2
SEIZURES	Haddon Heights	0	0	0	0	2
TREE LIMB DOWN	Haddon Heights	18	16	80	3	1
TRASH/RUBBISH	Haddon Heights	1	0	4	0	1
FIRE POLICE	Haddon Heights	2	3	0	0	1
ANIMAL RESCUE	Haddon Heights	2	0	1	1	1
INTERIOR FUMES	Haddon Heights	2	0	1	1	1
OVERDOSE	Haddon Heights	1	0	0	0	1
BUILDING	Haddon Heights	0	3	5	3	1
CARDIAC ARREST	Haddon Heights	0	5	1	4	1
CVA	Haddon Heights	0	1	0	0	1
PSYCH EMERGENCY	Haddon Heights	0	0	2	0	1
COMMUNITY SERVICE	Haddon Heights	0	0	0	1	1
PROPANE GRILL	Haddon Heights	0	0	0	1	1
ABDOMINAL PAIN	Haddon Heights	0	0	0	0	1
SHED/OUTER BLDG	Haddon Heights	0	0	0	0	1
HAZ MAT	Haddon Heights	1	0	0	1	0
SICK PERSON	Haddon Heights	1	0	0	0	0
OCC VEHL IN WATER	Haddon Heights	0	4	1	0	0
APARTMENT	Haddon Heights	0	2	0	2	0
COVER	Haddon Heights	0	2	0	0	0
HIGH RISE	Haddon Heights	0	1	0	0	0
INSPECTIONS	Haddon Heights	0	1	0	0	0
WIRES/OCC VEHL	Haddon Heights	0	1	0	0	0
APPARATUS ACCIDENT	Haddon Heights	0	0	1	1	0
RESPIRATORY ARREST	Haddon Heights	0	0	0	2	0
FRACTURE	Haddon Heights	0	0	0	1	0

Barrington Fire Incidents

Barrington also supplied their total count of fire incidents, showing that they responded to a high of 444 incidents in 2018, and this was reduced to 248 in 2021. Estimated 2022 responses were 287. The Barrington Fire Department changed policy to stop responding to most EMS calls, which resulted in a decline in overall incidents. This was done to reduce the workload on volunteers, who provided service exclusively when career staff were not working their weekday schedule.

Table 8.5: Barrington Fire Incidents (Without Mutual Aid/ Includes Mutual Aid)

Year	2018	2019	2020	2021	2022 *
Incidents	213	286	253	194	247
Incidents incl. Mutual Aid	444	437	346	248	287

* Based on extrapolating part-year data.

Reviewing Barrington's detailed calls for service, alarm systems and EMS assists were the most common incident types, followed by various investigations (Table 8.6). This summary only includes in-Borough responses.

Table 8.6: Barrington Fire Incidents by Type

DESCPT	Borough	2018	2019	2020	2021	2022
ALARM SYSTEM	Barrington	40	52	48	41	52
EMS ASSIST	Barrington	23	24	39	33	38
INVEST/AP/AL/HEAT	Barrington	28	21	17	20	35
NAT GAS RELEASE	Barrington	16	10	14	13	17
INCIDENTAL	Barrington	15	18	9	12	15
INVEST CO DETECTOR	Barrington	6	14	11	4	12
M.V.A	Barrington	14	20	12	10	10
MISC	Barrington	6	6	3	7	8
DEWATERING	Barrington	3	16	2	0	6
ADMIN/NOTIFY	Barrington	8	7	7	10	5
DWELLING	Barrington	4	8	8	7	5
RESCUE	Barrington	1	2	3	0	5
APARTMENT	Barrington	6	10	5	2	4
HIWAY HAZARD	Barrington	8	5	1	5	4
HAZMAT INSPECTIONS	Barrington	0	6	3	1	4
WIRES DOWN	Barrington	3	5	12	1	3
WIRES/BURNING	Barrington	1	2	7	0	3
TREE LIMB DOWN	Barrington	10	9	29	3	2
INTERIOR FUMES	Barrington	1	4	1	5	2
VEHICLE	Barrington	3	3	3	1	2

TRASH/RUBBISH	Barrington	0	0	0	1	2
INSPECTIONS	Barrington	1	5	2	2	1
BRUSH	Barrington	2	4	3	3	1
FIRE POLICE	Barrington	3	2	0	2	1
UNCONSCIOUS	Barrington	1	3	3	3	1
EXTERIOR FUMES	Barrington	1	2	0	2	1
COMMUNITY SERVICE	Barrington	1	1	0	0	1
FALL VICTIM	Barrington	1	1	0	0	1
ANIMAL RESCUE	Barrington	0	2	1	0	1
SHED/OUTER BLDG	Barrington	0	1	0	0	1
MED EMERGENCY	Barrington	0	0	1	0	1
INVESTIGATE	Barrington	0	0	0	1	1
PROPANE GRILL	Barrington	0	0	0	0	1
PSYCH EMERGENCY	Barrington	0	0	0	0	1
BUILDING	Barrington	3	6	2	3	0
COVER	Barrington	2	2	1	2	0
PED MVA	Barrington	1	0	2	0	0
CARDIAC ARREST	Barrington	1	1	1	0	0
OCC VEHL IN WATER	Barrington	0	10	0	0	0
BURN VICTIM	Barrington	0	1	2	0	0
BLEEDING	Barrington	0	1	0	0	0
RESCUE POOL/POND	Barrington	0	1	0	0	0
RESPIRATORY ARREST	Barrington	0	1	0	0	0
RESPIRATORY EMERG	Barrington	0	0	1	0	0

8.2 EMS Incidents

EMS demand is shown in this section. We show EMS incidents within the three Boroughs using Camden County dispatch data. We begin with overall EMS demand. Table 8.7 shows total EMS incidents originating within the study area. As a single Borough, Haddonfield has the highest number of incidents. However, Haddon Heights and Barrington have more incidents when combined, and are served by a single agency.

Table 8.7: EMS Demand (Not Including Mutual Aid)

Borough	2018	2019	2020	2021	2022
Haddonfield	887	951	864	1074	1102
Barrington	954	986	996	983	932
Haddon Heights	858	800	744	774	936

We next present demand by incident type.

Haddonfield Ambulance

The most common incident type for Haddonfield Ambulance was "medical emergency," followed by falls. respiratory emergencies, cardiac, and "unconscious" incidents.

Table 8.8: EMS Incidents by Type, Haddonfield

DESCPT	Borough	2018	2019	2020	2021	2022
MED EMERGENCY	Haddonfield	181	214	130	164	188
FALL VICTIM	Haddonfield	184	195	129	133	164
UNCONSCIOUS	Haddonfield	59	60	73	77	59
CARDIAC EMERGENCY	Haddonfield	50	73	53	52	52
RESPIRATORY EMERG	Haddonfield	58	51	54	50	67
PSYCH EMERGENCY	Haddonfield	46	42	65	45	45
M.V.A	Haddonfield	40	31	29	31	33
BLEEDING	Haddonfield	38	33	27	33	22
SEIZURES	Haddonfield	18	17	11	21	32
ABDOMINAL PAIN	Haddonfield	14	25	17	12	30
CVA	Haddonfield	24	28	28	28	29
MED ALARM	Haddonfield	14	21	28	24	19
SICK PERSON	Haddonfield	8	20	4	10	0
FRACTURE	Haddonfield	10	9	3	4	11
ALLERGIC	Haddonfield	7	9	8	8	6
ASSAULT	Haddonfield	4	3	6	9	3
CARDIAC ARREST	Haddonfield	6	6	4	9	5
PED MVA	Haddonfield	4	7	6	7	9
DIABETIC	Haddonfield	6	5	5	7	3
OVERDOSE	Haddonfield	6	7	2	4	6
FALL/TRAUMA	Haddonfield	1	0	1	2	1
MATERNITY	Haddonfield	1	0	0	0	0
RESPIRATORY ARREST	Haddonfield	1	0	0	0	0
WIRES/OCC VEHL	Haddonfield	1	1	0	0	0
BURN VICTIM	Haddonfield	0	1	0	1	1

Barrington Ambulance Association

The Barrington Ambulance Association provides service to both Barrington and Haddon Heights. We present the incidents by Borough, as reported to Camden County dispatch, below.

Barrington

Medical incidents are shown according to most frequent type in Table 8.9. The most common incident types were "medical emergency" and victims of falls, followed by respiratory emergencies and cardiac events.

Table 8.9: EMS Events by Type, Barrington Borough

DESCPT	Borough	2018	2019	2020	2021	2022
MED EMERGENCY	Barrington	230	211	228	269	261
FALL VICTIM	Barrington	133	130	110	122	125
RESPIRATORY EMERG	Barrington	80	85	103	106	95
CARDIAC EMERGENCY	Barrington	79	77	102	102	88
PSYCH EMERGENCY	Barrington	79	61	70	72	72
UNCONSCIOUS	Barrington	57	65	74	67	55
M.V.A	Barrington	27	45	21	25	18
BLEEDING	Barrington	35	36	40	23	34
ABDOMINAL PAIN	Barrington	30	23	36	36	33
CVA	Barrington	17	17	23	13	26
SEIZURES	Barrington	13	14	9	11	21
MED ALARM	Barrington	14	18	15	12	19
SICK PERSON	Barrington	17	19	17	11	0
DIABETIC	Barrington	14	4	2	8	6
CARDIAC ARREST	Barrington	13	11	11	8	6
OVERDOSE	Barrington	11	13	11	6	4
ASSAULT	Barrington	11	1	8	4	5
ALLERGIC	Barrington	2	7	0	3	8
FRACTURE	Barrington	6	0	3	1	3
PED MVA	Barrington	2	2	4	0	6
EMS ASSIST	Barrington	3	2	4	2	4
MATERNITY	Barrington	4	1	3	1	2
BURN VICTIM	Barrington	1	1	3	0	0
ALLERGIC/MINOR	Barrington	1	0	0	1	0
RESPIRATORY ARREST	Barrington	1	1	1	1	0
OCC VEHL IN WATER	Barrington	0	8	0	0	0
SEIZURE/NOT ACTIVE	Barrington	0	2	1	1	0
HEMORRHAGE	Barrington	0	1	0	0	0
STABBING	Barrington	0	1	0	0	1

Haddon Heights

Table 8.10 shows EMS unit responses for incidents located within Haddon Heights Borough. The most common types were similar, but “unconscious” persons was fourth most common, ahead of respiratory emergencies.

Table 8.10: EMS Events by Type, Haddon Heights Borough

DESCPT	Borough	2018	2019	2020	2021	2022
MED EMERGENCY	Haddon Heights	159	156	149	167	234
FALL VICTIM	Haddon Heights	129	140	113	123	160
CARDIAC EMERGENCY	Haddon Heights	85	85	72	76	84
UNCONSCIOUS	Haddon Heights	44	47	42	55	77
PSYCH EMERGENCY	Haddon Heights	76	48	56	58	64
RESPIRATORY EMERG	Haddon Heights	70	58	57	61	70
M.V.A	Haddon Heights	65	59	39	43	65
MED ALARM	Haddon Heights	22	24	40	26	41
ABDOMINAL PAIN	Haddon Heights	18	16	16	27	34
CVA	Haddon Heights	29	31	18	21	22
BLEEDING	Haddon Heights	24	25	23	17	21
SEIZURES	Haddon Heights	17	10	15	16	16
CARDIAC ARREST	Haddon Heights	11	6	8	9	5
OVERDOSE	Haddon Heights	11	10	6	0	11
SICK PERSON	Haddon Heights	11	10	11	1	0
ASSAULT	Haddon Heights	7	1	10	1	3
DIABETIC	Haddon Heights	7	7	7	6	4
PED MVA	Haddon Heights	5	0	1	1	7
ALLERGIC	Haddon Heights	1	1	4	3	6
FRACTURE	Haddon Heights	4	4	3	5	4
EMS ASSIST	Haddon Heights	1	3	2	4	3
RESPIRATORY ARREST	Haddon Heights	1	0	0	3	0
SEIZURE/NOT ACTIVE	Haddon Heights	2	1	2	1	0
MATERNITY	Haddon Heights	1	1	1	0	1
STABBING	Haddon Heights	0	1	0	0	0
OCC VEHL IN WATER	Haddon Heights	0	0	1	0	0
GUN SHOT	Haddon Heights	0	0	0	1	0

8.3 Temporal Distribution of Incidents

The temporal distribution of incidents is important to understanding demand for service. We categorized incidents by both time of day and day of week. For time of day, we used three categories: daytime (0700-1500), evening (1500-2300); and night (2300-0700).

We examined fire and EMS incidents separately.

Fire Incidents

Figure 8.2 shows fire incidents by time of day in each of the three Boroughs. All exhibit similar patterns of the highest demand being daytimes, with a small decrease in the evenings, and a steep decline in the overnight hours. The pattern remains consistent across the years 2018-2022.

Day of week for fire incidents is shown in Figure 8.3. A clear pattern does not emerge, and what were "busy" days in earlier years of the display appear to moderate toward a more consistent demand by 2022.

EMS Incidents

EMS calls by time of day show a different pattern. Days and evening hours are nearly equal in terms of overall EMS demand, but the declining pattern of day, evening night remains (Figure 8.4).

In terms of day of week, EMS demand fluctuates, with consistent busiest day on an annual basis by Borough (Figure 8.5).

Conclusions

Overall demand for service is moderate for EMS, and relatively low for fire-related incidents. Due to administrative policy changes, overall fire demand is steady to decreasing. Automatic alarms are a leading component of overall fire demand.

Days and evenings are busiest periods of demand, particularly for fire. These analyses do not include out-of-Borough demands, which are important for service planning, particularly for Barrington Ambulance.

Figure 8.2: Fire Demand by Time of Day

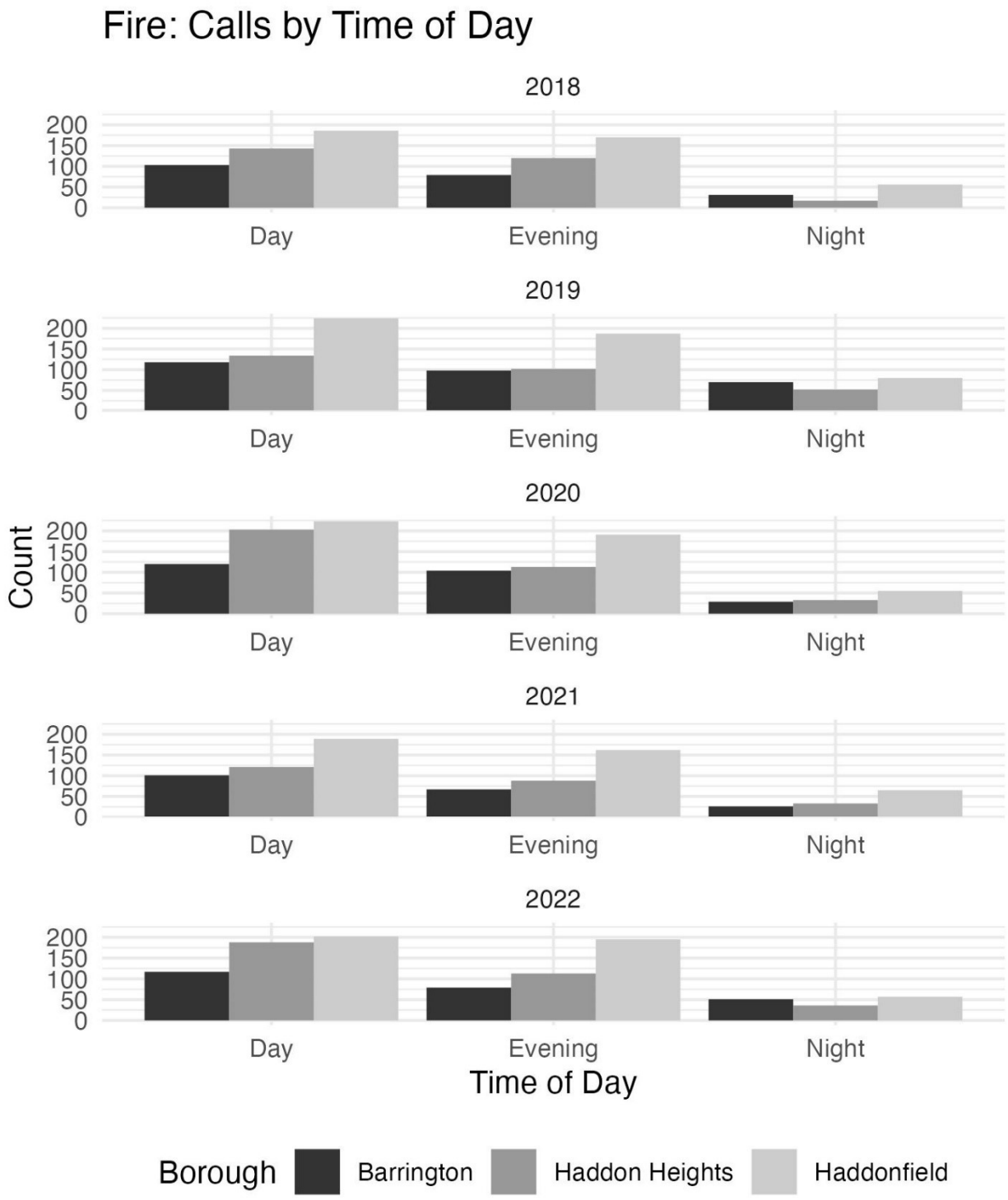


Figure 8.3: Fire Demand by Day of Week

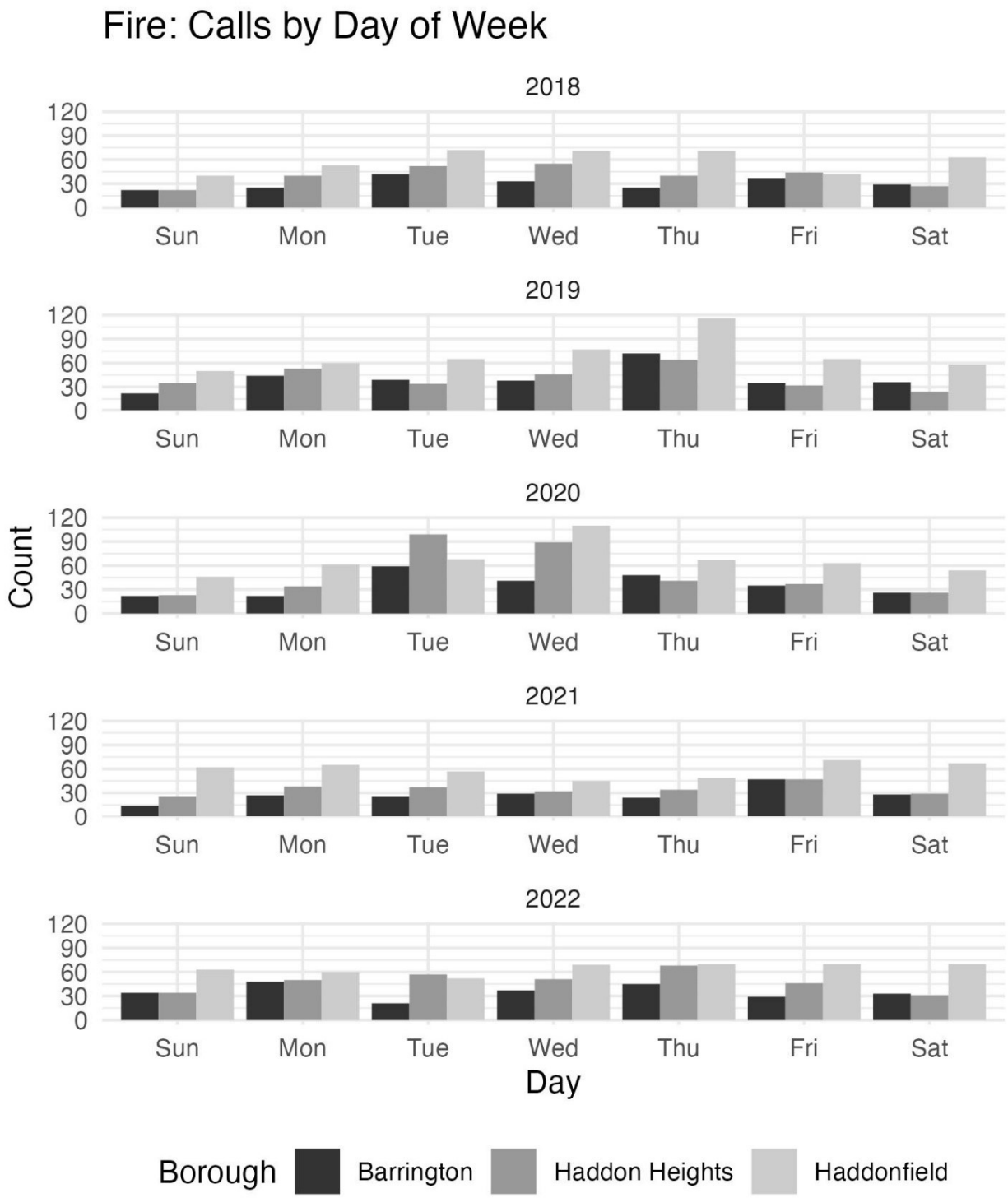


Figure 8.4: EMS Demand by Time of Day

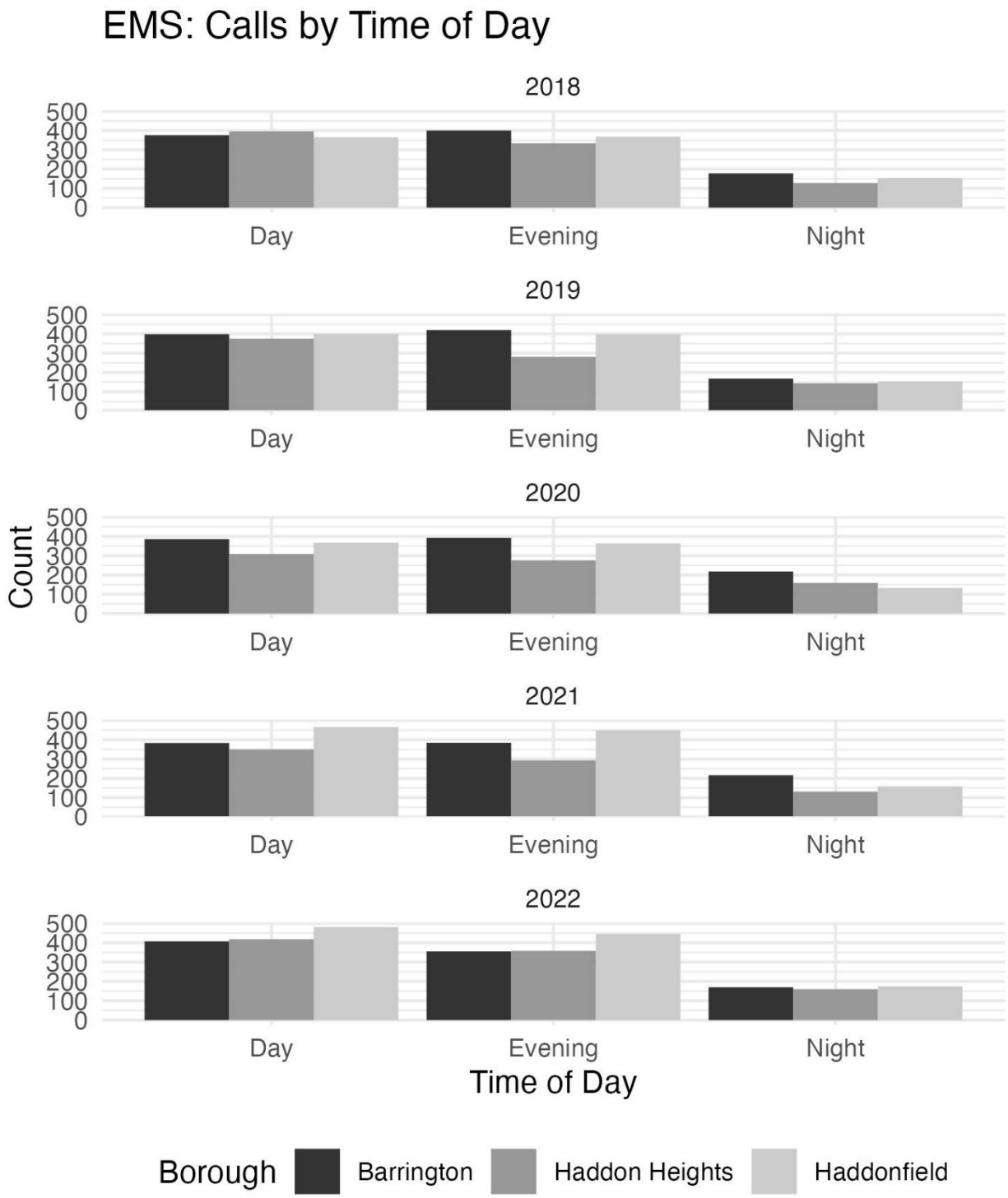
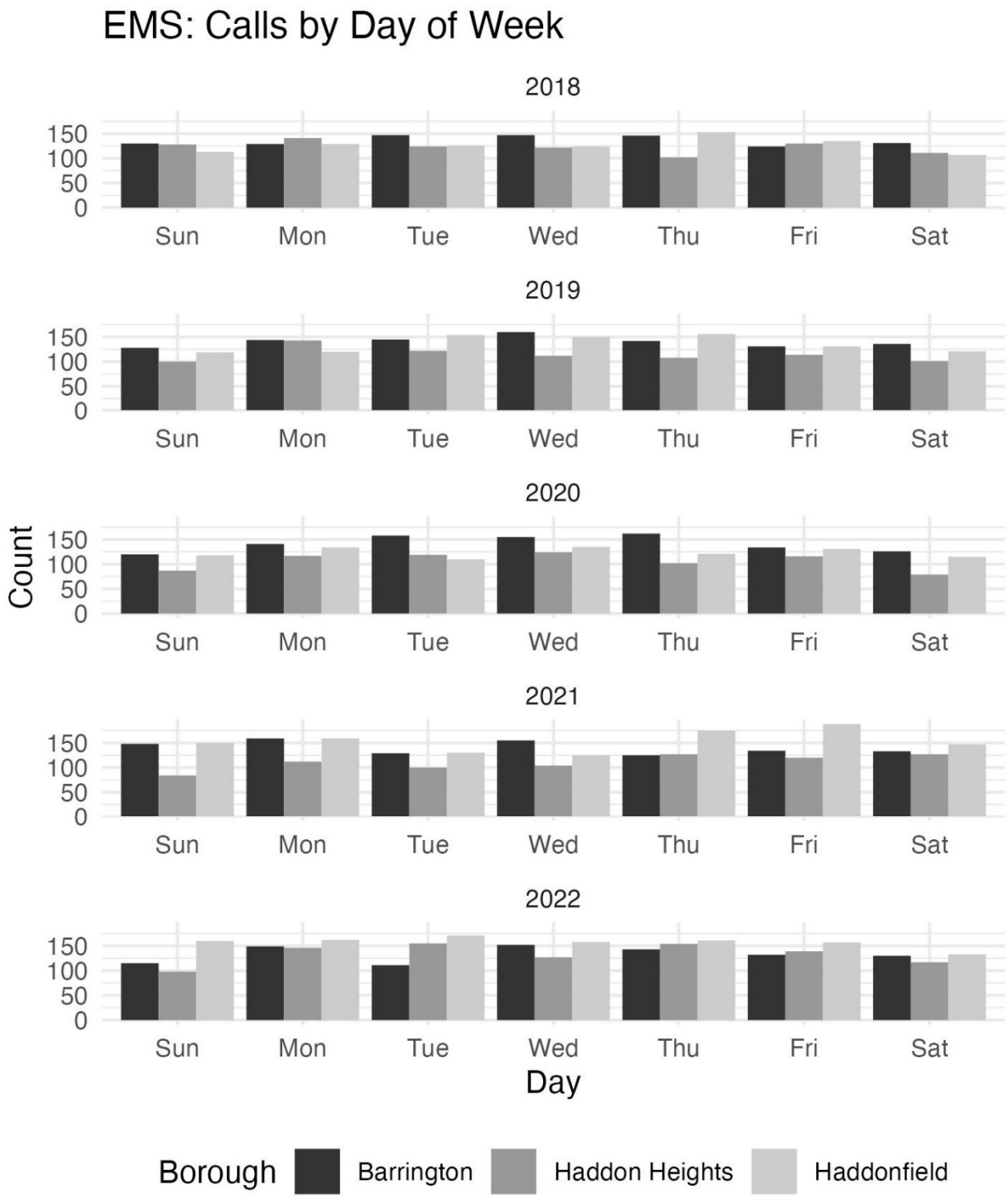


Figure 8.5: EMS Demand by Day of Week

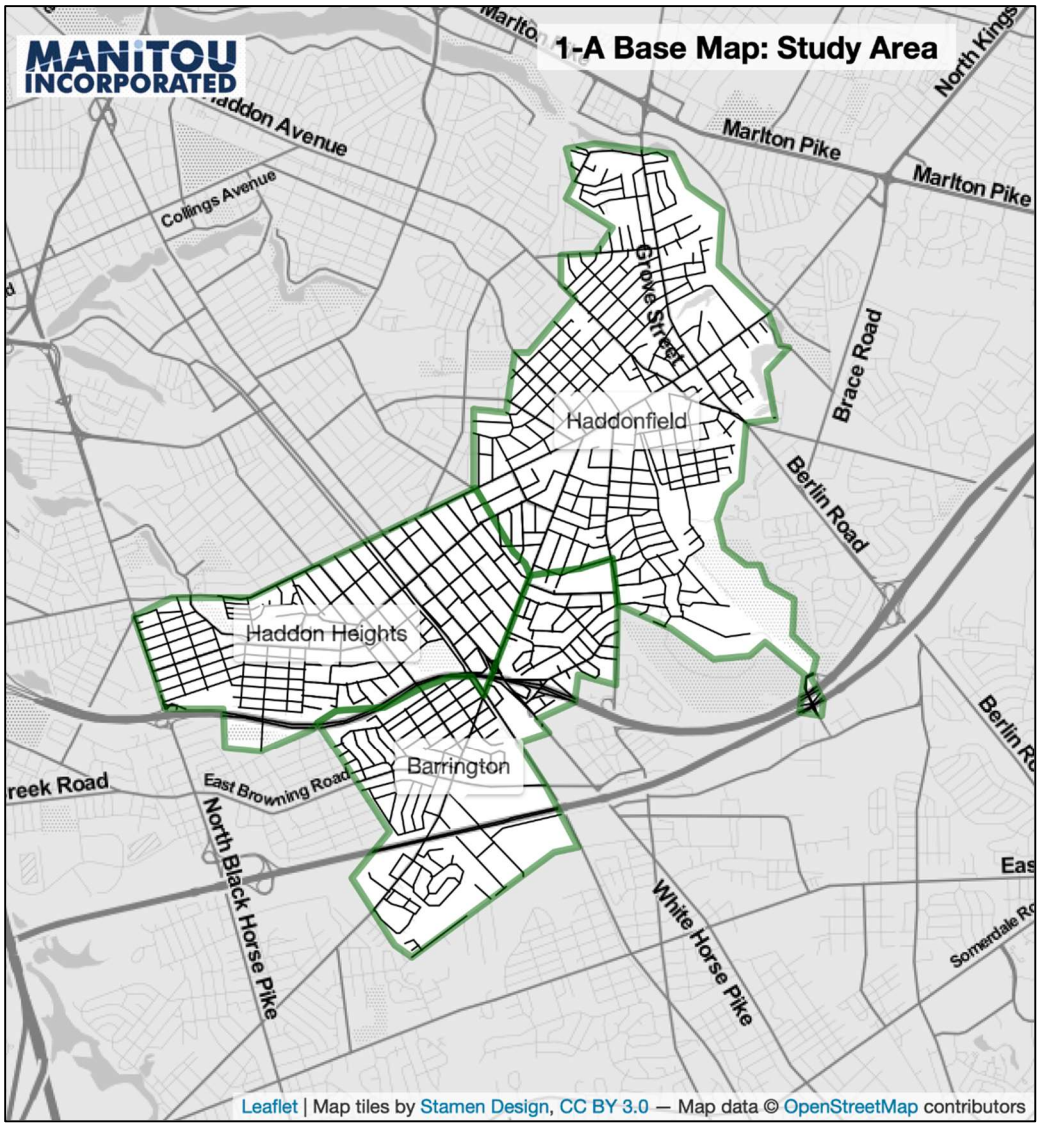


9. Deployment Analysis

This chapter discusses deployment analysis – the distribution of personnel and equipment and their ability to provide service to the community. This chapter complements the demand analysis by examining how the existing stations and units can meet the demands for service discussed in the previous chapter.

The three Boroughs are shown in Figure 9.1. The borough boundaries are irregular, with corresponding street network characterized by a non-rectilinear street grid and historic thoroughfares branching out from town centers, this street network limits the ability of emergency apparatus to travel quickly. Additionally, the traditional centers are generally subject to traffic congestion. This is particularly the case in Haddonfield, which has narrow streets and considerable traffic and pedestrian activity.

Figure 9.1: The Three-Borough Study Area



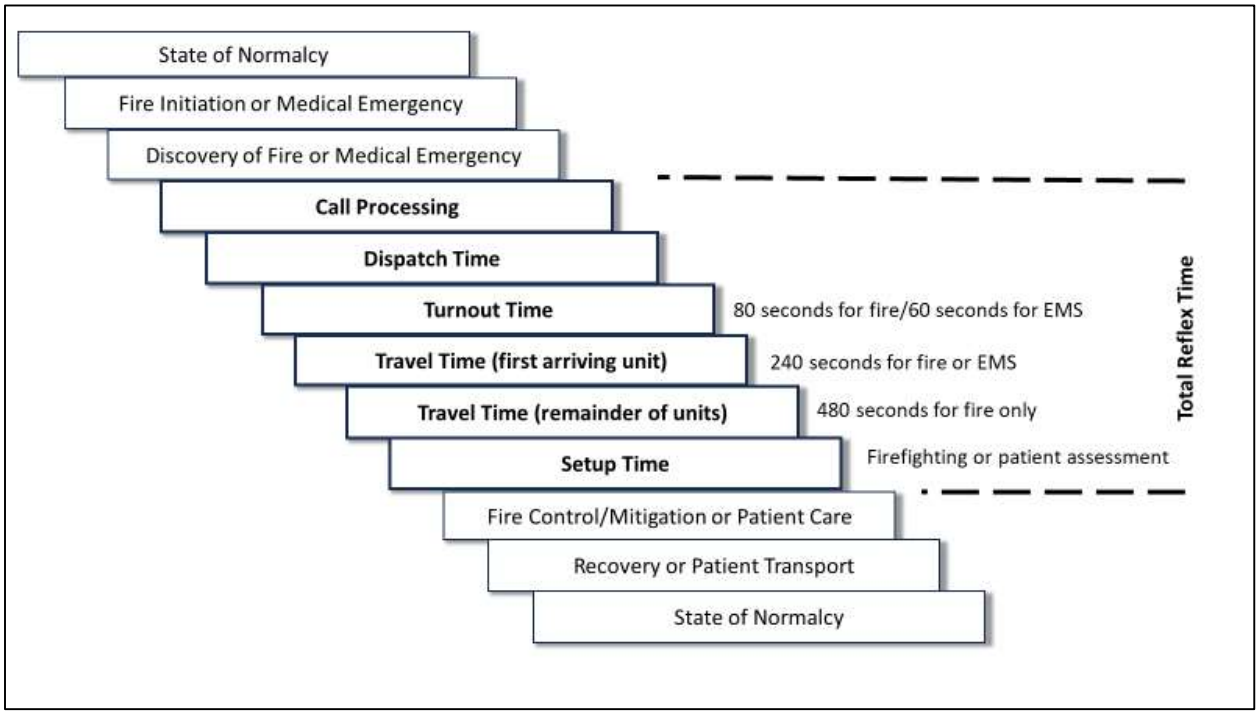
The fire apparatus response time to the scene of an emergency incident is an essential determining factor to the magnitude of the fire or medical emergency that the fire department must handle upon arrival. The theory is the shorter the response time, the smaller the fire that must be extinguished. The principal response time standards are developed by the National Fire Protection Association (NFPA).

It is important to bear in mind that response time standards are not binding on units of government, unless they are adopted as policy. They are, however, a standard by which service levels can be compared across communities.

Before delving into the details of response time standards, it is worthwhile to illustrate the components of fire service response time. While we typically think of the time to drive from the fire station to an incident, the reality is more complex (Figure 9.2). The goal of the fire service is to minimize the time taken by this entire sequence of steps. The steps shown in bold are generally under the control of fire services.

If we assume, as we do in this analysis, that minimizing "FD travel time" is the goal of fire station location, we seek to minimize travel time to incidents. Irrespective of the other steps, this is one area that is within the fire service's control.

Figure 9.2: Fire/EMS Department Response Time Components



The National Fire Protection Association (NFPA) is an industry association that develops and publishes fire protection related standards and codes for usage and adoption by local and other government entities. Their standards and codes are developed through a process approved by the American National Standards Institute. The association was formed in 1896 by a group of New England insurance firms whose intent was to standardize the then-new fire sprinkler systems.

The association develops its standards and codes through a consensus-based process utilized by national-level technical committees, whose memberships consist of end users, subject matter experts, manufacturers, and representatives of adopting bodies, such as local government. Standards are published and subject for adoption by government and private industry and subject to revision on an evolving three to five year cycle.

The other principal standard is the Insurance Services Office's Fire Suppression Rating Schedule. That schedule, described previously, suggests engine company coverage within 1.5 miles of built-up areas, and ladder company coverage within 2.5 miles. For purposes of this analysis, we will focus on drive time, rather than distances.

Maps shown in this chapter portray estimated drive-times. That is only one component of total response time. Minimally, response time includes the time from alerting of the affected fire station(s) to arrival on scene. These times include components of turnout and drive-time. Additional response time components include the time to set up and begin operations on scene.

For our purpose, we will deal with drive time, as that is the component of time that is dependent on facility locations based on distance and the street network. It should be remembered that not all stations are staffed, meaning that turnout time is considerably shorter for staffed stations than for stations reliant on volunteers coming from home or work to staff apparatus.

We begin by showing the 4-minute drivetime from the existing three stations in service. It should be remembered, that as of January 1 2023, the Barrington station (3) is staffed with paid firefighters during weekdays, while it and the Haddon Heights station is in service on a 24-hour basis staffed by volunteers.

The 4-minute drive time corresponds with NFPA's first-due standard for career or mostly-career fire services. This standard applies also to fire-based emergency medical services. The 4-minute standard should be met for 90 percent of incidents. NFPA 1720, for volunteer or mostly volunteer departments, is considerably less demanding, but more difficult to measure.

While the entirety of Barrington is covered within a 4-minute drive from its station, parts of western Haddon Heights, northern Haddonfield, and south and western Haddonfield are outside this coverage area. Given Haddonfield's street network, its current station is very well positioned. The volunteers in Haddon Heights-Barrington continue to operate jointly from the Haddon Heights station, providing primary coverage on nights and weekends.

The 4-minute coverage corresponds to Figure 9.3 shows 4-minute drive time from Barrington's staffed station and Haddonfield. Keep in mind that the daytime-only paid staffing of this station, meaning that they would have a lower turnout time and be able to cover a larger distance than the unstaffed Haddonfield station.

Figure 9.3: 4-Minute Drive Time from Existing Stations

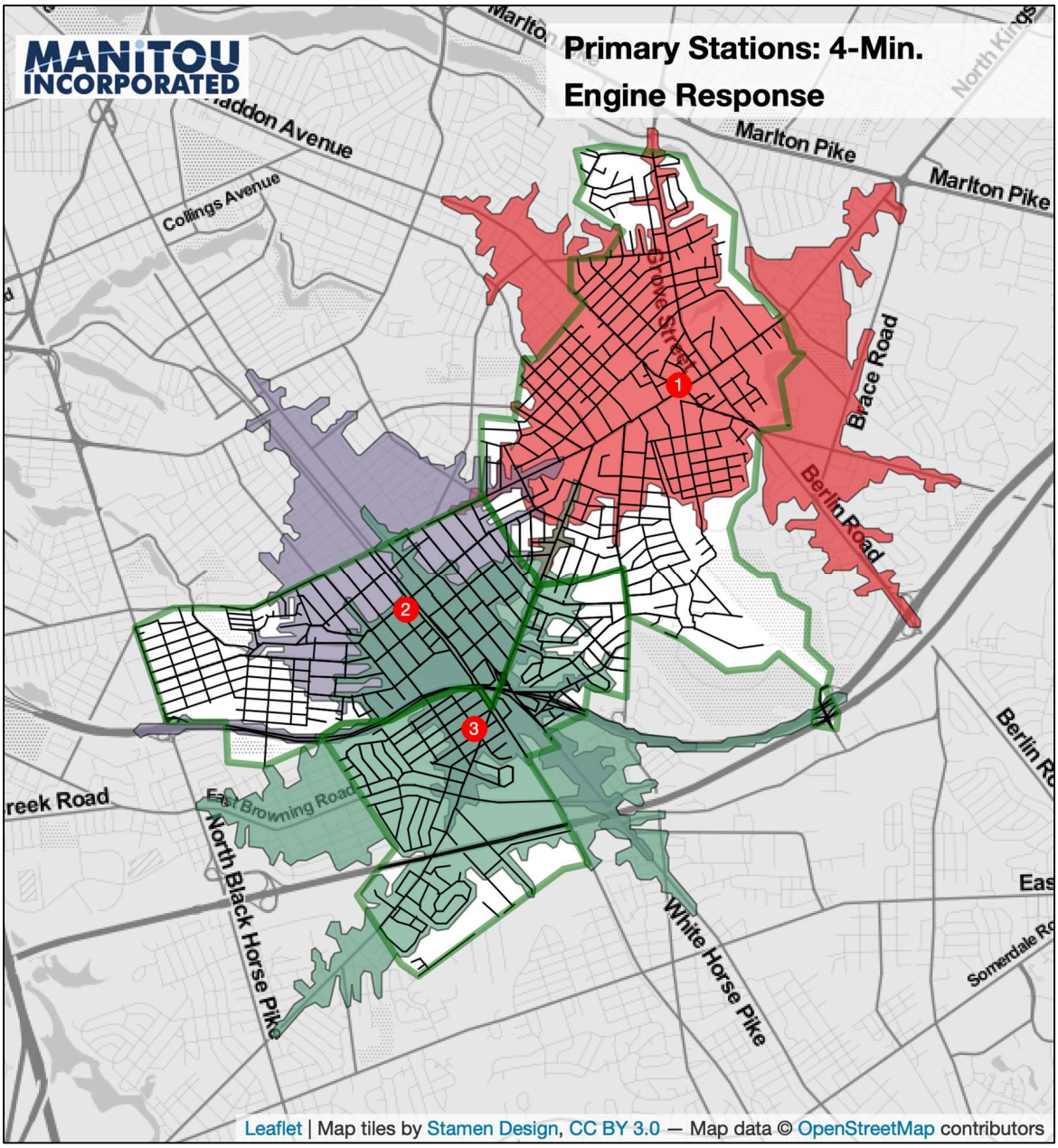
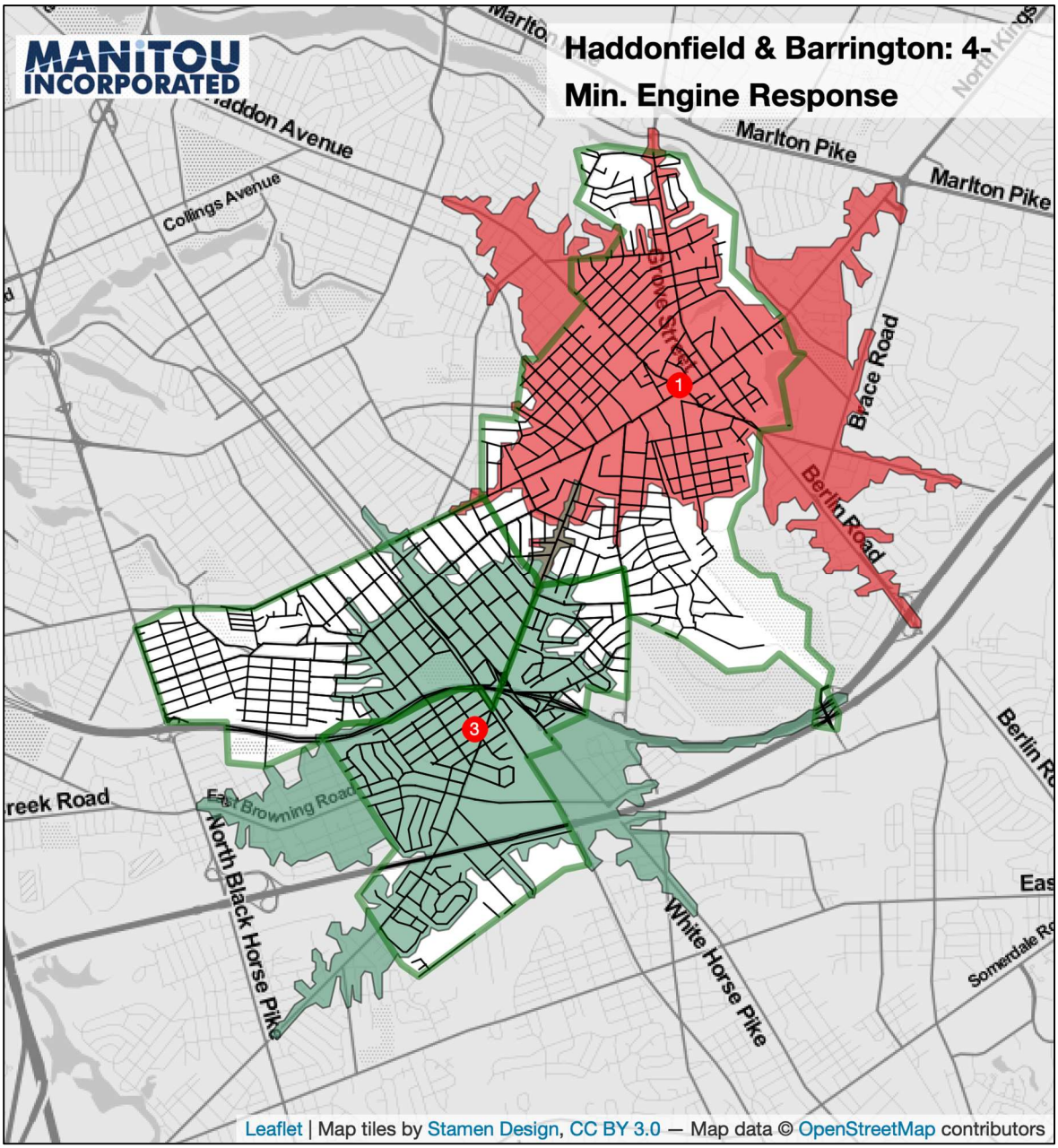


Figure 9.4: 4-Minute Drive Time Daytime Weekday Scenario

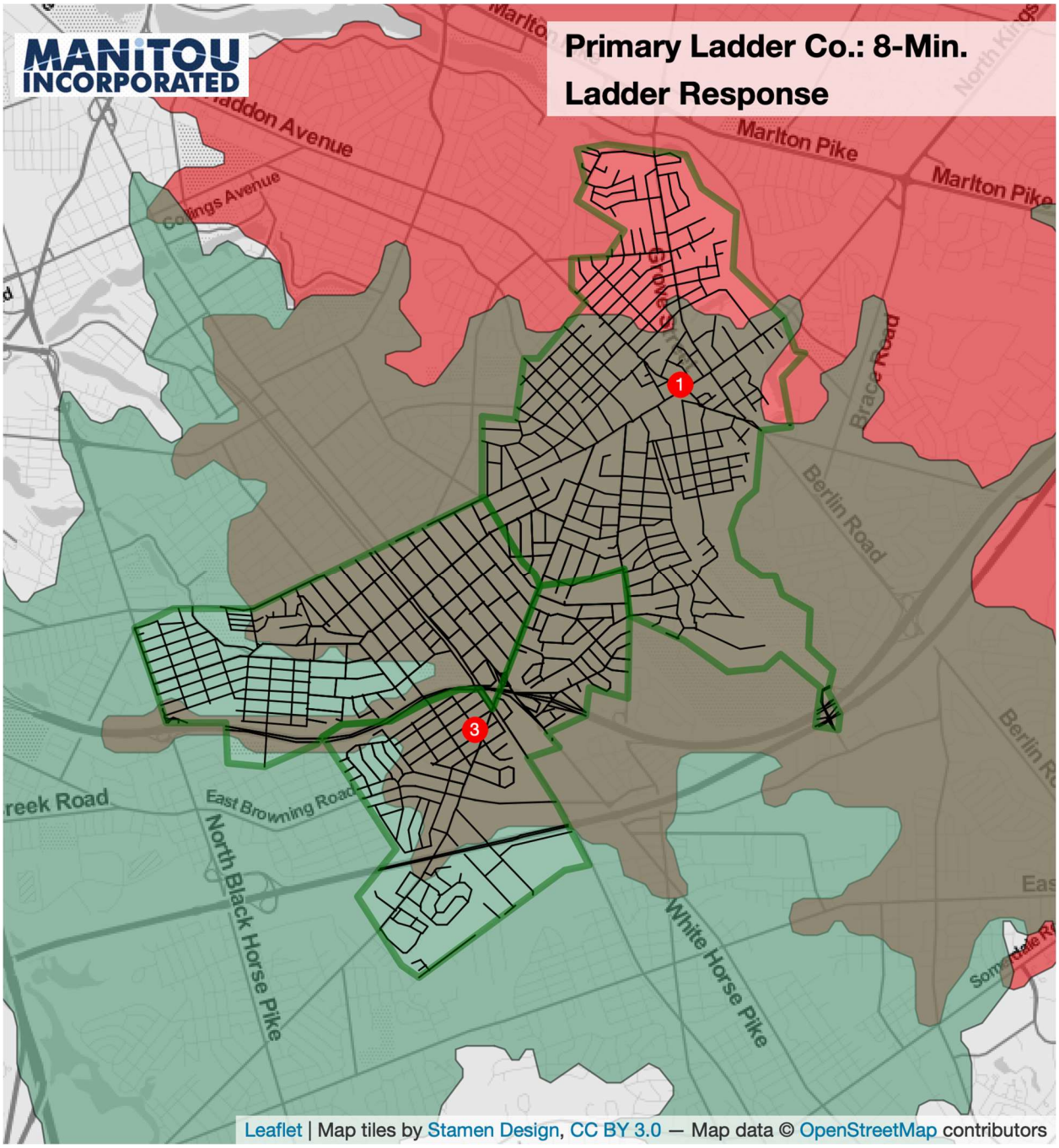


This same coverage would apply for ambulance response, as both Haddonfield and Barrington employ paid crews to cover their ambulances and their units respond with minimal turnout time. The Haddonfield ambulance operates from the Haddonfield fire station while the Barrington ambulance facility is directly adjacent to the Barrington fire station.

We next examine ladder company coverage. According to NFPA standards 1710 and 1720, ladder companies as part of the initial response should be on scene within 8-9 minutes of travel time. Figure 8.5 illustrates ladder company coverage showing apparatus at Haddonfield and

Barrington stations.[1] This figure shows that the entirety of the service area is covered by both ladder companies. Viewing the overlap area (shaded darkest) we see that Haddonfield's ladder can reach much of Barrington and Haddon Heights within 8 minutes.

Figure 9.5: Ladder Company 8-Minute Drive Time



[1] The ladder apparatus at Barrington station is not staffed, and is not currently in service. We understand that discussions are underway concerning the long-term status of this equipment.

9.1 Bordering station coverage analyses

We then examined the ability of bordering stations to cover the three Boroughs. These analyses were not done with regard to specific arrangements in place, but to show the potential ability for coverage. Through the Camden County Mutual Aid plan, multi-jurisdiction response is an accepted practice for providing coverage for significant events, and many of these stations do provide service to the three Boroughs in the event of a reported structural response.

In Figure 9.6, 4-minute drive time coverage from existing Barrington, Haddon Heights, and Haddonfield stations (see Table 8.1) is supplemented by the nearest surrounding stations. We can see that neighboring stations make some impact on engine company coverage. Again, the reader is reminded that those stations that are staffed with a crew will have shorter turnout times, meaning faster travel times overall when compared to volunteer-staffed stations.

Table 9.1: Neighboring Departments

Key	Primary	Community	Adress	Services*		
1	Haddonfield Fire Company	Haddonfield	15 N Haddon Ave, Haddonfield, NJ 08033	Eng.	Lad.	Amb.
2	Haddon Heights Fire Station	Haddon Heights	608 Station Ave, Haddon Heights, NJ 08035	Eng.		
3	Barrington Fire Station	Barrington	2nd Ave &, Haines Ave, Barrington, NJ 08007	Eng.	Lad.	Amb.
	Bordering					
A	Cherry Hill FS 2	Cherry Hill	805 Marlton Pike W, Cherry Hill, NJ 08002		Lad.	
B	Cherry Hill FS 6	Cherry Hill	1501 Burnt Mill Road	Eng.		Amb.
C	Westmont Fire Company	Westmont/Had. Township	120 Haddon Ave, Haddon Township, NJ 08108	Eng.	Lad.	Amb.
D	Audubon Fire Department	Audubon	221 W Merchant St, Audubon, NJ 08106	Eng.	Lad.	
E	Lawnside Borough Fire Co.	Lawnside	4 Douglas Ave STE 3, Lawnside, NJ 08045	Eng.		
F	Mt Ephraim Fire Dept.	Mt Ephraim	200 Bell Rd, Mt Ephraim, NJ 08059	Eng.		
G	Bellmawr Fire & Rescue	Bellmawr	29 Lewis Ave, Bellmawr, NJ 08031	Eng.	Lad.	Amb.
H	Magnolia Fire Company	Magnolia	116 Evesham Ave W, Magnolia, NJ 08049	Eng.	Lad.	

* Eng. = Engine, Lad. = Ladder Truck, Amb. = Ambulance

Figure 9.7 performs the same analysis, looking at Ladder Company coverage. In this map, we use 8-minute drive time, corresponding to requirements of NFPA 1710. We see that neighboring fire companies can provide 8-minute drive time ladder coverage for almost all of the service area.

Figure 9.8 shows 4-minute drive time ambulance coverage from the Barrington and Haddonfield stations. Ambulance coverage from surrounding communities is shown in Figure 8.9. To maintain the level of service, ambulance response must come from within the three Boroughs.

Figure 9.6: Primary and bordering 4-minute drive-time coverage

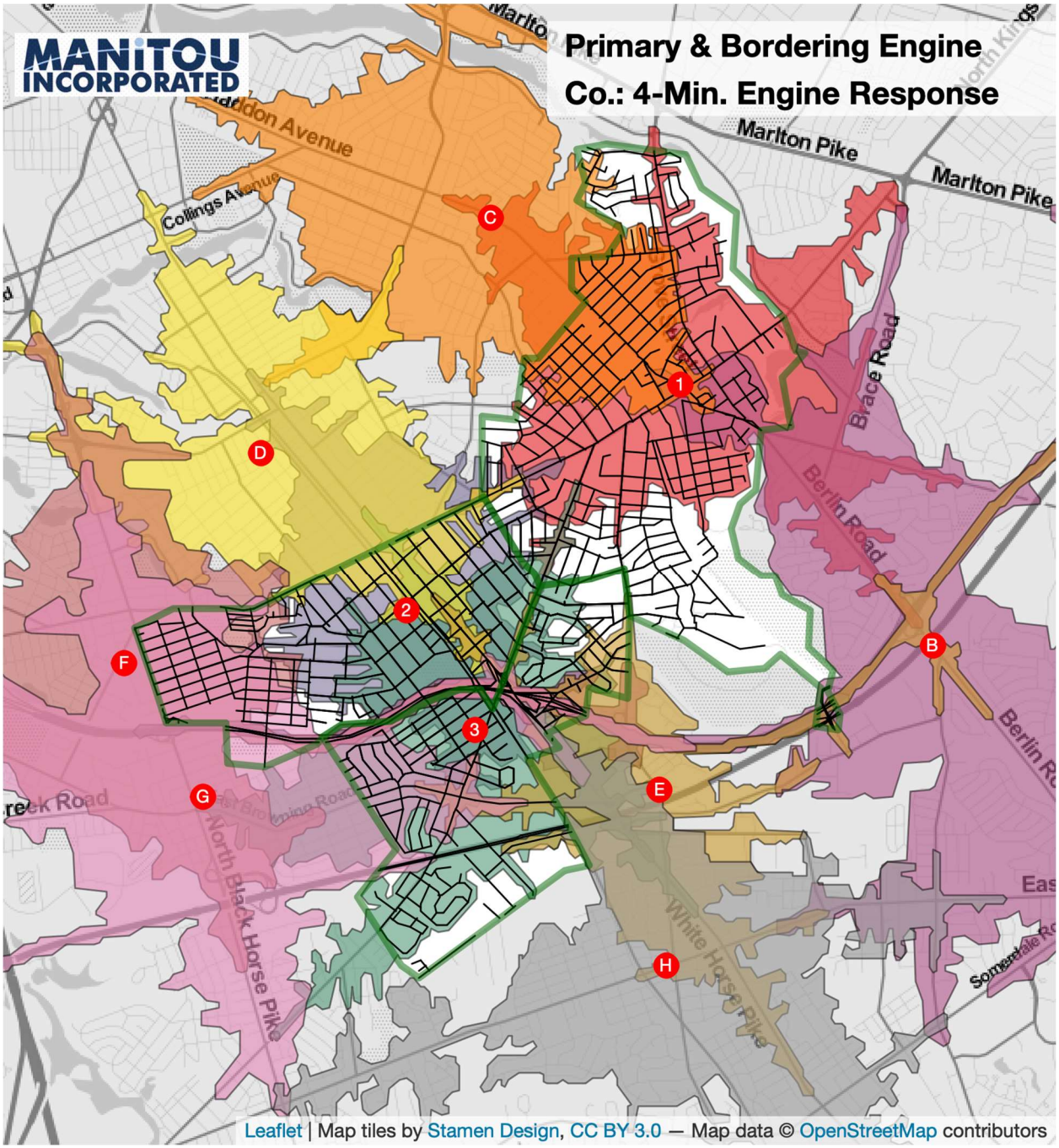


Figure 9.7: Ladder Company 8-Minute Coverage (Neighboring Stations)

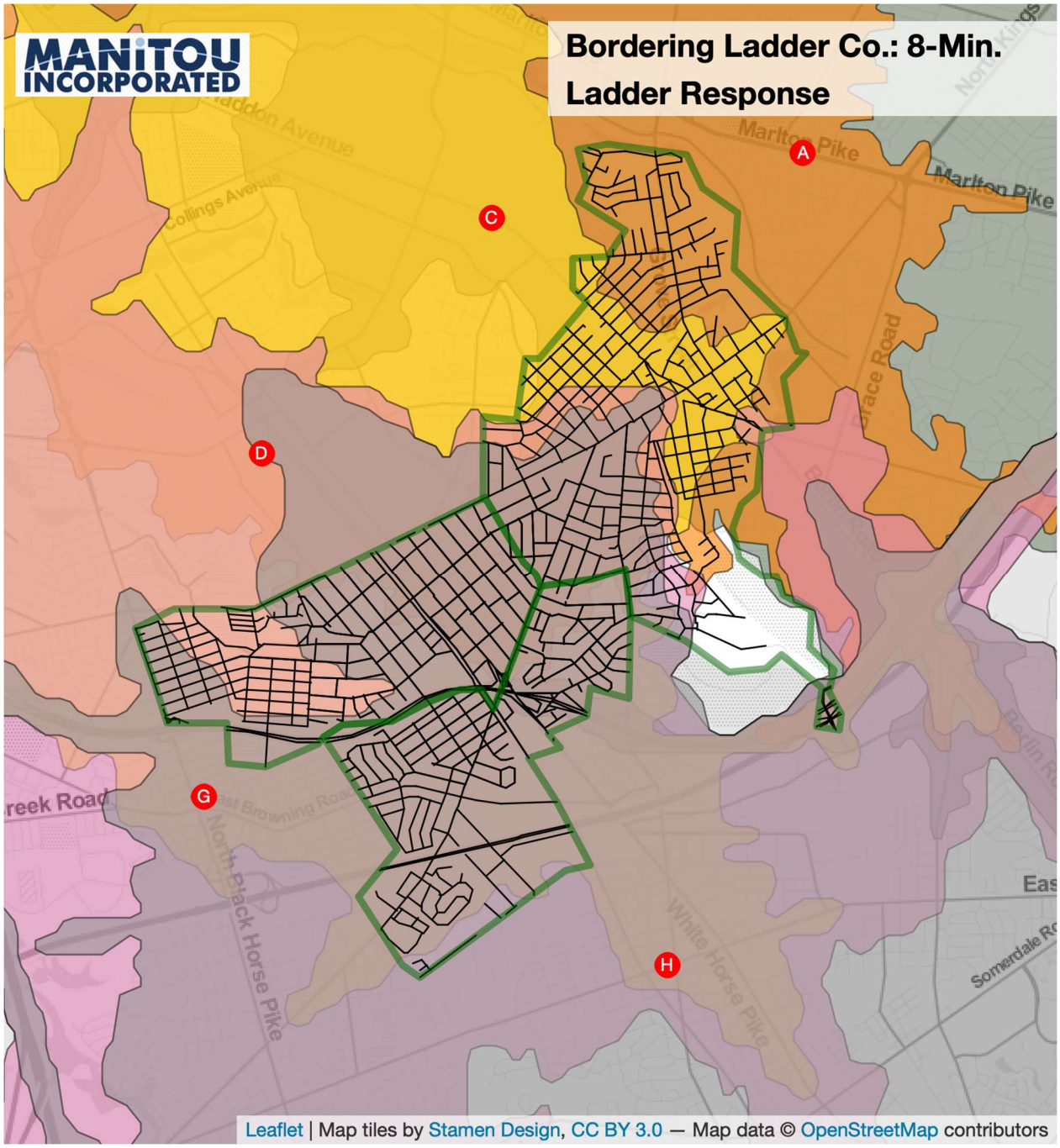


Figure 9.8: 4-Minute Drive Time Ambulance Coverage

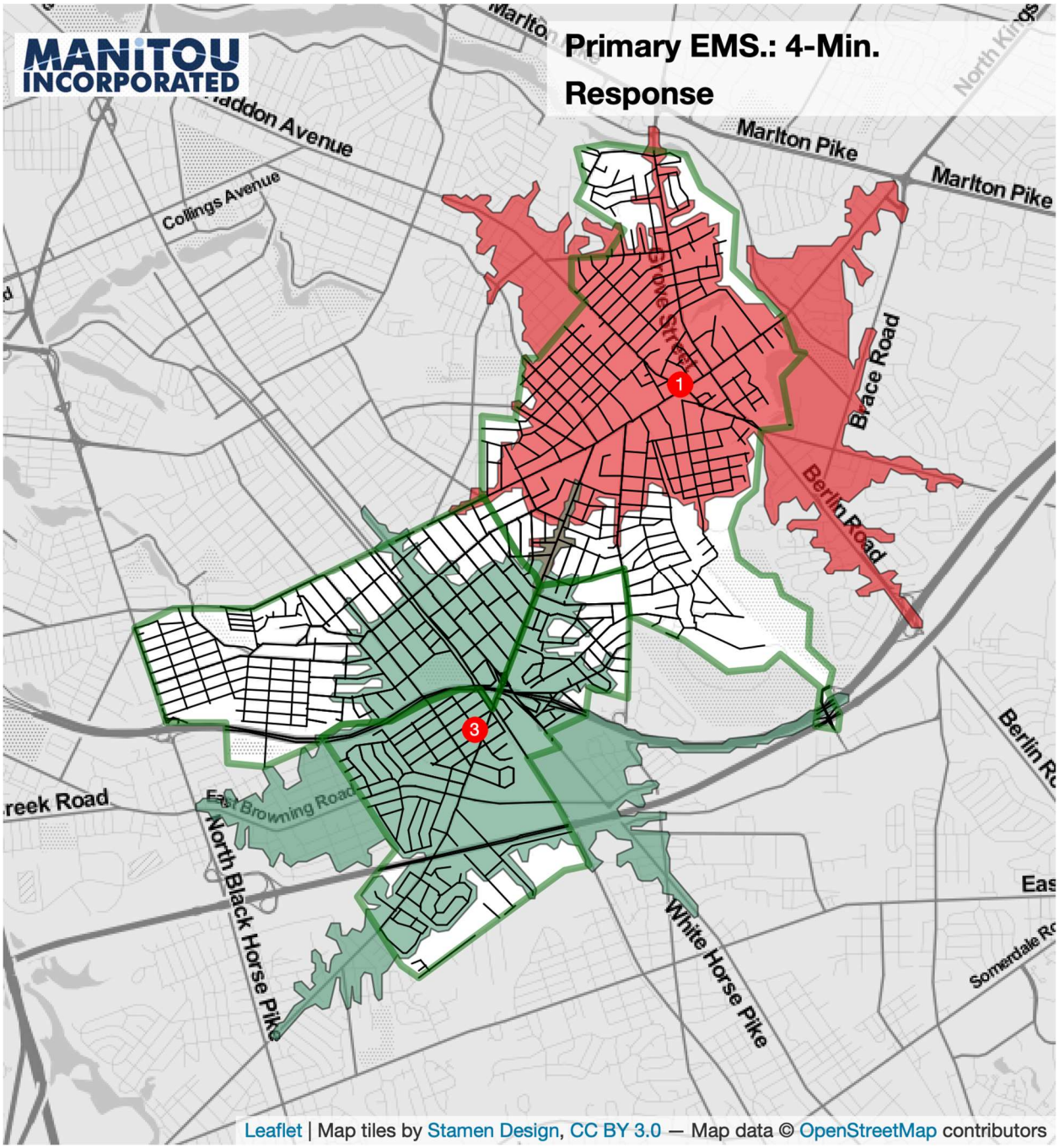
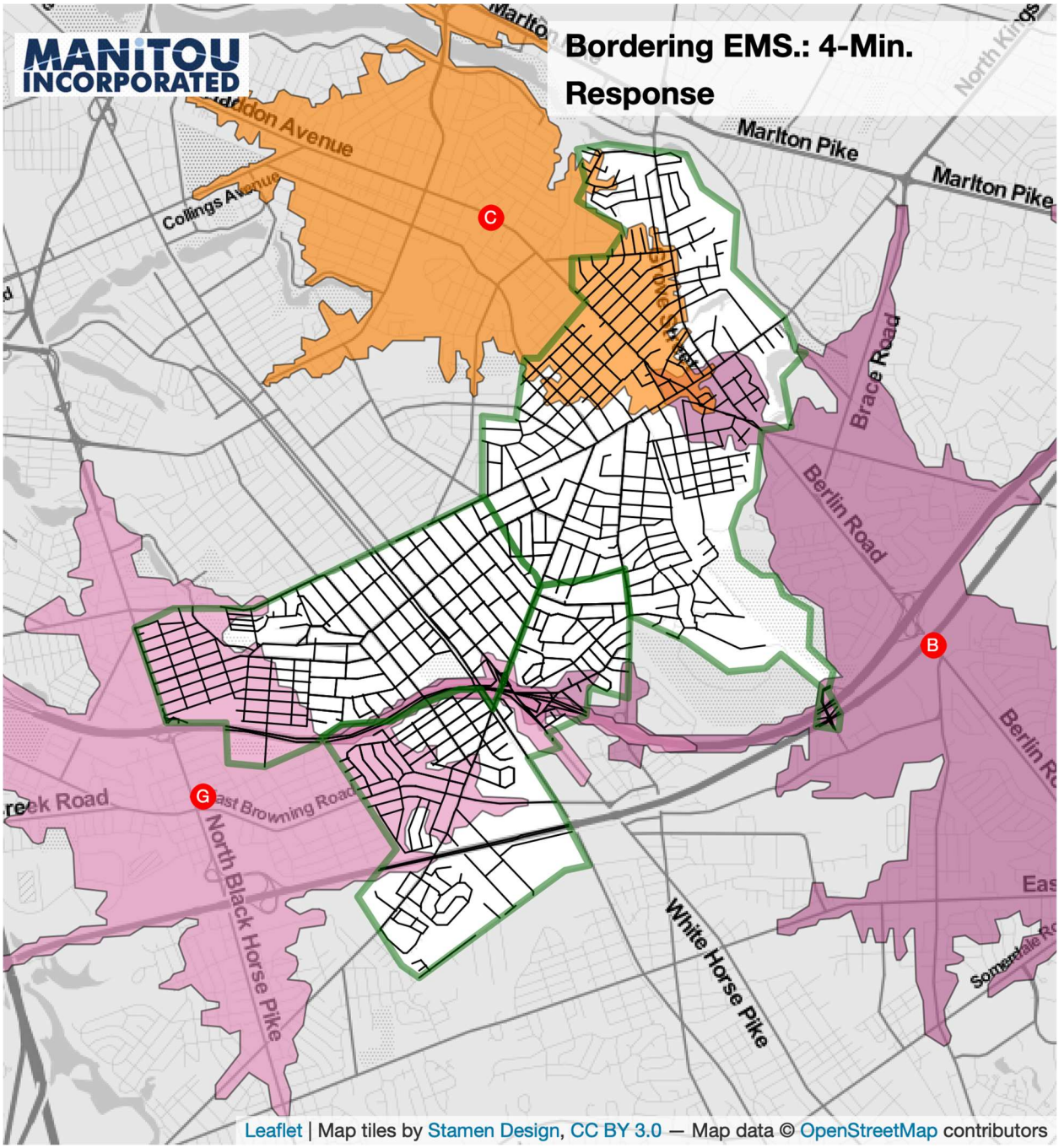


Figure 9.9: Bordering Ambulance Coverage



9.2 Unit Responses

In the previous chapter, we discussed incidents. Each incident must be served by emergency response units – apparatus and equipment. A single incident can result in multiple unit responses. The data in this section come from a combination of Camden County dispatch records (limited) and internal records which should be viewed as definitive. The totals below were drawn from the fire departments' individual data systems. The 2022 was part-year data and we included best available information.

Fire

We tabulated unit responses for major front-line units (we did not include Chief officers or utility or support vehicles. These data show that the busiest fire units are making less than 250 responses annually, with many much lower.

Ladder companies in particular appear to be very lightly utilized, with Barrington's Tower 91 and Haddonfield's Ladder 14 making about 50 annual responses combined in their busiest years of activity.

Table 9.2: Barrington Unit Responses

Unit/Year	***2018***	***2019***	***2020***	***2021***	***2022(01/01 to 7/19)***
Squad 91	142	98	33	31	11
Engine 91	31	27	41	62	66
Tower 91	20	25	6	12	3
Utility 91	12	71	14	10	13
Battalion 91	56	11	67	43	36
Station 91	154	174	163	78	42

Table 9.3: Haddonfield Unit responses

Unit/Year	***2018***	***2019***	***2020***	***2021***	***2022(01/01 to 9/6)***
E14	275	290	246	242	194
L14	30	29	25	31	22
SD14	65	72	56	59	50

Table 9.4: Haddon Heights Unit Responses

Unit/Year	***2018***	***2019***	***2020***	***2021***	***2022(01/01 to 9/6)***
E213	95	148	136	155	
SQ21	180	273	246	199	

EMS

EMS unit responses are much higher. Reflecting their higher underlying demand for service. The Barrington Ambulance responses include all responses, not just those within the study area. Some of the units shown are part-time units staffed based on pre-assigned schedule.

Table 9.5: Barrington Ambulance Total Responses by Unit 2018-2022

Unit	2018	2019	2020	2021	2022	2023 1/1—9/30
BLS9	538	399	718	246	2,408	2,018
BLS9A	1,007	859	924	1,303	29	159
BLS9B	520	666	196	347		1
Other		7	39			
Total Responses	2,065	1,931	1,877	1,896	2,437	2,178 (2,723 estimated year end)

Table 9.6: Haddonfield Ambulance Responses

Unit	2021	2022
A14	1,444	1,401

9.3 Response Times

Using data from the Camden County dispatch, we calculated the turnout time and response time (dispatch to on scene) for each department and summarized across incident types. By looking at incident types, we can see some patterns of increase in some categories. The lack of variation in turnout times between evening and nights is indicative of additional inquiry.

Table 9.7: Turnout and Response Time by Time of Day (Median values)

		Turnout					Response				
Time of Day	Borough	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Day	Barrington	0.1	0.9	1.5	1.6	1.8	6.1	6.4	6.3	6.7	6.6
Evening	Barrington	1.1	1.1	0.8	1.4	1.6	6.3	6.4	6.2	7.0	7.1
Night	Barrington	1.7	0.1	1.4	1.7	2.4	6.6	7.1	7.6	7.9	7.9
Day	Haddon Hgts.	1.4	1.7	1.9	1.8	1.7	6.0	5.6	5.7	6.0	5.9
Evening	Haddon Hgts.	1.2	1.0	1.1	1.5	1.8	6.3	6.8	6.4	7.0	7.4
Night	Haddon Hgts.	1.6	0.2	1.3	1.3	2.3	6.9	7.6	7.9	8.3	7.5
Day	Haddonfield	1.7	1.7	1.6	1.4	1.2	6.4	6.4	6.7	7.2	7.3
Evening	Haddonfield	2.0	1.7	1.5	1.4	1.2	6.7	6.6	6.6	6.9	7.3
Night	Haddonfield	2.4	2.2	3.0	1.8	1.6	8.0	7.5	7.4	8.2	8.4

9.4 Volunteer Response Capabilities

The number of volunteer firefighters responding to dispatched calls play a critical role in the mitigation of fires and other emergencies. The following provides a brief overview of volunteer response for the years 2018-2022. The analysis includes the volunteer's response by time of day, and the lowest staffing in daytimes.

Haddonfield. The average number of volunteers responding to alarms has fluctuated around 5 personnel since 2018. These data are self-reported, and do not necessarily reflect the timeliness or operational status of personnel.

Table 9.8: Haddonfield Fire Staffing 2018-2022

Time of Day	2018	2019	2020	2021	2022
Day	5	4	6	4	5
Evening	6	5	5	6	6
Night	5	5	5	5	5
Annual Avg.	5.3	4.6	5.8	5.0	5.4

We were unable to obtain summary staffing data from Barrington and Haddon Heights.

9.5 Feasibility of a Single Station Fire/EMS Station

When the question of consolidation of services arises, one of the apparent considerations is the potential ability to consolidate fire/EMS stations. As a conceptual exercise, we modeled two locations for the suitability for serving the three Boroughs form a single site.

We selected two locations and developed maps to show 2, 4, 6, and 8-minute drive times from this potential facility. We should emphasize that we did not conduct any detailed site analysis or review of planning steps necessary for such a move. Nor did we evaluate issues of ownership of existing facilities.

The two sites evaluated were as follows:

- King Highway and Chews Landing Road
- Highland Avenue and Third Avenue

The reader is reminded that these maps show only drive time, not total response times. If initial response from a single facility came from a staffed unit, turnout times for Haddonfield would be lowered for fire incidents.

The maps showing such a scenario are shown in Figures 9.10 and 9.11.

We can see in Figure 9.10 that a site at Highland and Third Avenues can not serve significant portions of Haddonfield in less than an 8-minute drive. Drive-times for Barrington and Haddon Heights would also increase by 2 minutes or more. Figure 9.11 repeats this with a site near Kings Highway and Chews Landing Road. While this site does better with regard to coverage, it is still unsuitable in our opinion.

In addition to the evident concerns over impact on drive-times to emergencies, there are practical impediments a well. Land acquisition for a new facility that would be sized to accommodate fire and potentially fire and EMS vehicles and crews would be challenging. Locating a fire station in the midst of a residential neighborhood is always difficult and unpopular.

Finally, EMS provision for Barrington is contractually linked to serving neighboring municipalities. Moving the ambulance services away from them is again unlikely to be supported.

Based on the foregoing analysis, we *do not* see any feasibility to consolidate to a single facility.

Figure 9.10: Single Station Feasibility Option

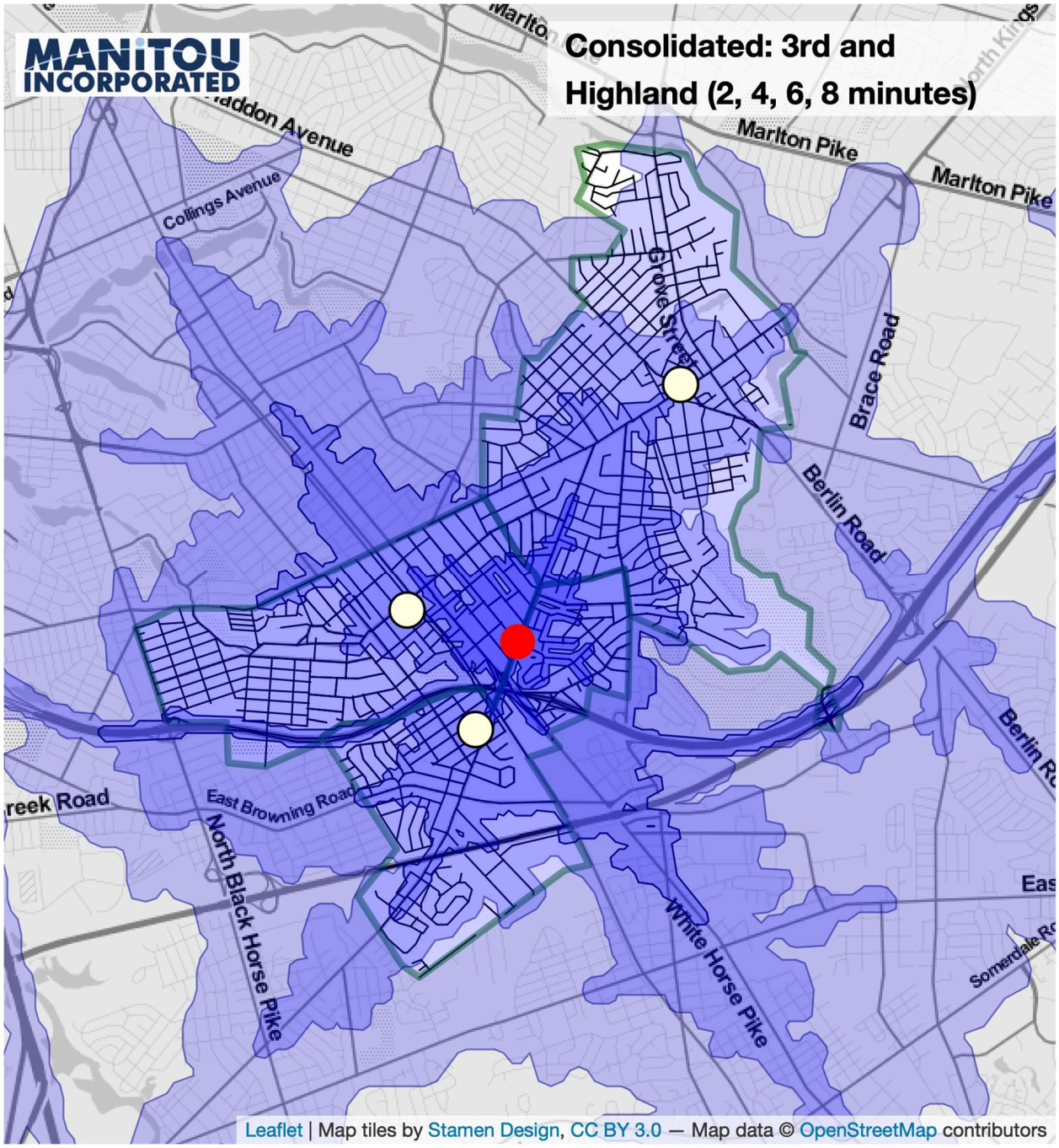
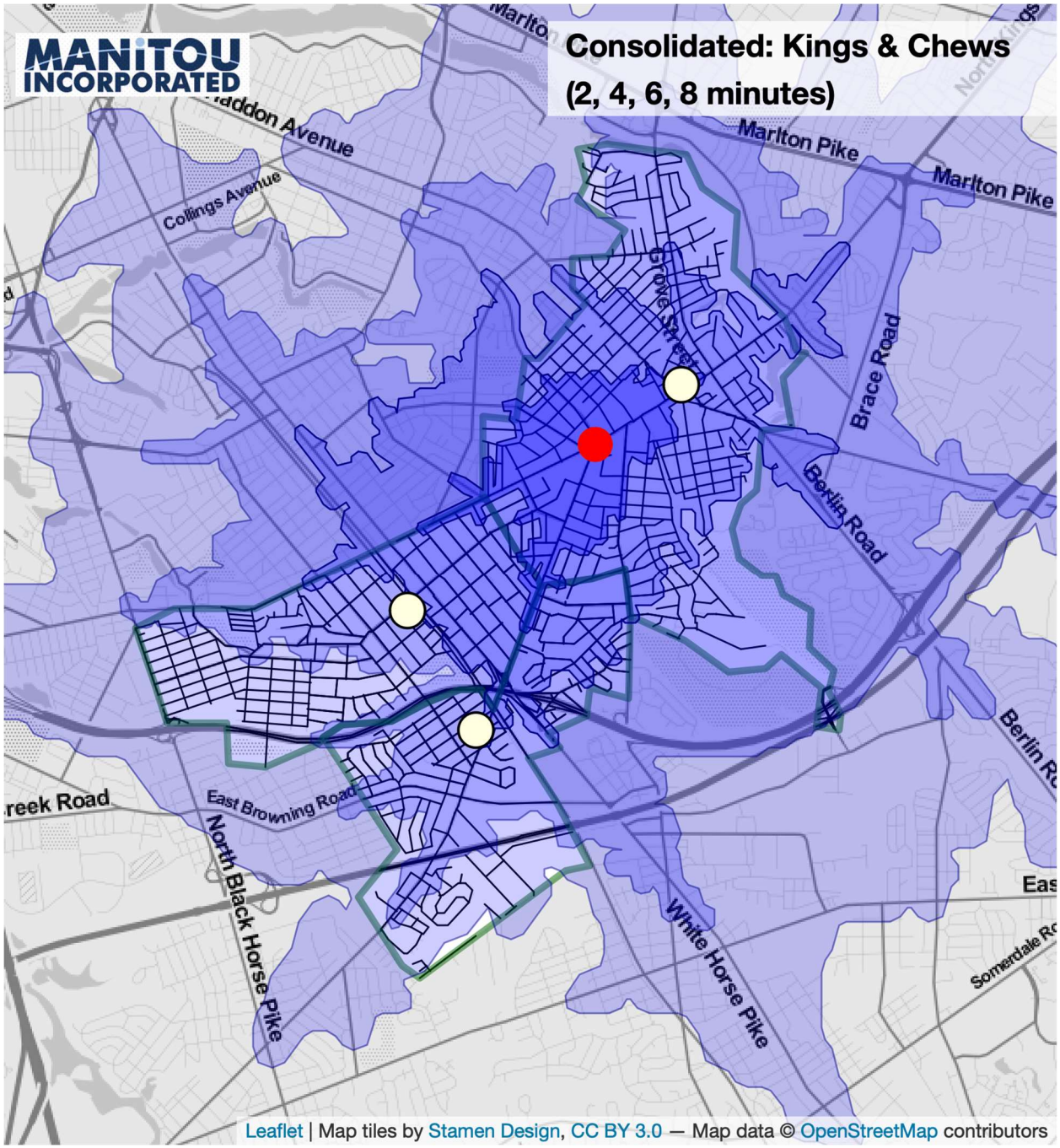


Figure 9.11: Single Station Feasibility Option 2



10. Community Impacts

10.1. Dispatch and Response Policies

Current dispatch policies utilize a preassigned response capability matrix for the most common types of fire and emergency scenarios within Camden County. The system is tiered with additional resources being deployed as an incident escalates beyond the initial assignment. Each fire or emergency scenario is assigned a predetermined level of resources and is scalable based on conditions upon command staff's initial size up and operations. The scenarios are listed within the Camden County Communications Center's Computer Aided Dispatch system with resource assignments for the initial response, or 1st alarm through a 3rd alarm assignment. The below provides an example of resource deployment for a reported fire in a single-family dwelling:

Single Family Dwelling Structure Fire Assignment

Alarm	Engines	Ladders	Ambulance	Other
1st (Initial Response)	4	1	1	
Confirmed Working Fire	1	1		
All Hands Operating				Air unit
2nd	2	1		Field Command Unit
3rd	2	1		

County-Wide Mutual Aid Agreement. The above protocols are reflective of a county-wide fire and emergency medical services mutual aid plan. The purpose of the plan is to establish a countywide action plan for interaction of several fire departments and/or agencies to handle large scale or unusual incidents beyond the capabilities of a local jurisdiction.

It is the Camden County Fire Coordinator who holds the responsibility to oversee and the development and implementation of the plan. Each fire department in conjunction with the county coordinator is responsible with establishing a hierarchy of alarm assignments up to a 3rd alarm. Completed or revised assignment scenarios, or box alarm cards, are subsequently entered into the communications center's computer aided dispatch system.

As part of the county mutual aid plan, the county coordinator or their deputy(s) are subject to respond to greater alarm fires and emergencies for the purpose of assisting in incident management support. During major emergencies, the county fire coordinator may direct the movement of specialized equipment throughout the county to ensure adequate fire protection. This may include movement of specialized taskforces and strike teams per established guidelines for movement in or out of the county:

- Large Diameter Hose Strike Team
- Regional Taskforces
- Marine Taskforces and Strike Teams
- Foam Taskforces and Strike Teams
- Water Tender Strike Teams
- Fire Police Strike Teams

Community Impacts. As indicated, Camden County fire and emergency medical services is provided with a robust dispatch and mutual aid plan. The plan is constantly being revised to reflect changing needs of individual fire departments and ambulance services. There are no foreseen community impacts if there were to be any modifications to the delivery of fire or emergency medical services in any of the three boroughs under this study. Any changes to assignment scenarios would be submitted to the county fire coordinator and communications center for recording and updating of the computer aided dispatch system.

10.2 Financial Obligations

The operating budgets of the three municipalities were analyzed over a four-year period (2020-2023). Key trends include:

- Haddonfield appropriates less than one percent of its operating budgets to fire services. Haddon Heights and Barrington appropriate less than two percent.
- EMS spending as a percentage of total appropriations is higher relative to fire services for Haddonfield, averaging 3.5 percent from 2020 to 2023. Barrington spends roughly one percent, while Haddon Heights spends less than one-quarter of one percent.
- For 2023, Haddonfield's municipal debt service is equal to 11 percent of its total appropriations. This is offset by a cash surplus of over $3 million. From 2020 through 2023, Haddonfield's debt service to total appropriations ratio has averaged 9.7.
- Barrington's 2023 municipal debt service is equal to 17 percent of total appropriations. This figure mirrors its four-year average. Cash surpluses are equal to nearly $1.5 million for 2023.
- Haddon Heights' ($605,000) realized cash surplus for 2023 is smaller relative to Haddonfield and Barrington. However, its municipal debt service to appropriations ratio (debt service figure divided by appropriations) is significantly less than the other two municipalities (3.6 percent). This borough's figure has decreased steadily from the upper bound range of 9.4 in 2020.

Table 10.1: Borough Financial Obligations, 2020-2023

	2020	2021	2022	2023
Haddonfield				
Total Appropriations	$19,049,032	$19,386,411	$20,335,043	$21,813,543
Fire Appropriations	$105,050	$104,035	$224,200	$205,500
Percent of Total	0.5	0.5	1.1	0.9
EMS Appropriations	$695,000	$718,500	$708,500	$710,000
Percent of Total	3.6	3.7	3.5	3.25
Municipal Debt Service	$1,711,000	$1,836,835	$1,914,963	$2,498,200
Surplus – Cash Realized	$2,414,695 (’19)	$2,804,253 (’20)	$2,874,921 (’21)	$3,113,000 (’22)
Note: Fire appropriation figures do not include the fire official and hydrant servicing costs.				
Haddon Heights				
Total Appropriations	$8,742,545	$9,163,417	$9,985,661	$11,224,719
Fire Appropriations	$160,700	$166,900	$197,600	$214,238
Percent of Total	1.8	1.8	2.0	1.9
EMS Appropriations	$0	$25,000	$25,000	$25,000
Percent of Total	0	0.3	0.25	0.2
Municipal Debt Service	$819,610	$799,660	$719,642	$403,992
Surplus – Cash Realized	$540,000 (’19)	$470,000 (’20)	$725,000 (’21)	$605,000 (’22)
Barrington				
Total Appropriations	$9,170,265	$9,239,795	$9,159,589	$10,226,497
Fire Appropriations	$105,300	$116,007	$116,007	$120,200
Percent of Total	1.1	1.3	1.3	1.2
EMS Appropriations	$70,000	$75,000	$75,000	$115,000
Percent of Total	0.8	0.8	0.8	1.1
Municipal Debt Service	$1,821,481	$1,171,424	$1,662,586	$1,742,853
Surplus – Cash Realized	$930,000 (’19)	$1,179,733 (’20)	$917,175 (’21)	$1,475,000 (22’)

10.3. Fee Structures

Barrington Ambulance Association. Transport fees for association includes a base rate of $950 and includes a mileage fee of $17 per miles. A refusal fee of $200 is charged that is not typically covered by patient insurance. The association does not charge additional fees for supplies, oxygen, etc.

Borough of Haddonfield. The Borough of Haddonfield uses a similar fee structure including a base rate of $700 and a mileage fee of $15 per mile. Haddonfield charges $150 for a refused transport. In addition, a patient is subject to be charged for medical and related supplies.

The Haddonfield fee schedule was recently revised.

Table 10.2: Current EMS Fee Structure Summary

	Transport Base Fee	Mileage	Refuse Transport	Supplies/ Other
Barrington	$950	$17	$200	yes
Haddonfield	$700	$15	$150	$100

For uniformity, any form of shared services or contract for services may require a consolidation of fee schedules.

11. Implementation Plan

11.1. Service Delivery Options and Recommendations

The desire to contain costs while improving the level of service has led some municipalities to develop intergovernmental agreements for providing fire, rescue, and emergency medical services. The collective oversight can benefit a large area and its citizens by pooling resources together to form an efficient and effective response force while eliminating duplication of services. When such agreements are made, provisions must be made for funding, decision making, and overall administrative control.

In contrast, maintaining local control of services while sustaining longstanding practices and local customs play an important role in municipal services. In the case of fire protection, the three boroughs of this study all have volunteer fire companies that have played an integral role in the communities they serve; often far beyond their core mission of fire and rescue services. Likewise, for generations, the ambulance associations have been operated by volunteer support of the citizenry. These volunteer organizations have equally served as major players in the cultural, social, and political fabric of the three boroughs.

Considering the pros and cons of sustaining current practices, adopting alternative approaches, or a combination of both, the project team offers the following service delivery options for consideration.

Option 1: Maintain Current Services

The three Boroughs maintains the current fire and EMS delivery systems. The two fire service agencies would continue to provide services in their current form. Automatic or mutual aid would remain in its current form with the Haddon Heights-Barrington and Westmont fire departments being subject to providing initial response into Haddonfield during the day.

Haddonfield EMS would remain as is with staffing and resources would remain under the management of the Borough. Likewise, the Barrington Ambulance Association would continue to service as the primary EMS provider for the Boroughs of Barrington and Haddon Heights. During periods of high call volume, the respective services would continue the policy of relying on bordering services to provide mutual aid.

Fulltime Paid Staffing. Paid staffing would remain in its current form as illustrated below:

Figure 11.1: Option 1 – Staffing Model

	Haddonfield Engine	Haddonfield Ambulance	Barrington Engine	Barrington Ambulance	Total
Firefighter			3		3
EMT		2		2 + 2	4

Additional ambulance staffed during peak demand time.

The workweek for Haddon Heights/Barrington paid firefighters would remain Monday-Friday from 6 a.m. and 4 p.m.

Part-time Paid Staffing. In the Haddon Heights-Barrington Fire Department utilize a cadre of 10-15 part-time firefighters. The primary purpose of the staff is to retain constant staffing of three firefighters on duty during the hours of 6 a.m. and 4 p.m. Part-time members fill-in when one or more of the fulltime staff are absent due to vacation, illness, or other forms of approved leave in addition to working a regularly scheduled work cycle.

Cost. For the year 2023, the tri-borough's total municipal contributions for fire and emergency medical services consisted of $1,504,938. If the current services are maintained, the Borough of Haddonfield would need to consider whether the current stipend program for volunteer firefighters should be retained. If so, the Borough would need to appropriate an additional $164,250 in fire department budget.

Considerations.

Adequate Fire Response Force. The challenge of maintaining an adequate response force for structural fire protection, most prominently to structural and other fixed properties, will most likely remain at a substandard level. Fire and rescue incidents requiring multiple units, particularly with Haddonfield, will continue to rely on bordering fire departments to fill the gap through the county-wide mutual aid taskforce system.

Completion of Shared Service Agreement. The shared fire protection service agreement between the Boroughs of Barrington and Haddon Heights that went into effect January 1, 2023 should continue to be completed. This would include merging of the two paid services into a single work force including compensation, benefits, and labor agreements. In addition, the revision of formal organization, administrative, and operational policies and procedures should be completed.

Option 2: Consolidate All Borough Fire and EMS Services into a Single Agency

A single freestanding municipal agency would be formed between the three boroughs that would provide emergency medical ambulance service, fire protection, and rescue services.

Governance. The agency would be governed according to State law with one town providing the service.

The current joint Haddon Heights/Barrington Fire Department, the Haddonfield Fire Department, and the Haddonfield and Barrington Ambulance Associations would be consolidated into one agency providing service to three boroughs.

Administration. The agency could be administered through a single department head who has full managerial and operational oversight of personnel and resources.

Fulltime Fire/EMS Chief. In addition to the above shift and staffing models, the option would include a fulltime fire chief or similar administrative position to oversee the agency's administrative and policy responsibilities. Additional administrative and support positions may be added pending changing service complexities and levels.

Fulltime Paid Staffing. Two shift and staffing models may be considered:

a. Dual role position of firefighter/EMT. The dual role positions provide optimum service by utilizing the same staff for firefighting and EMS duties. This can allow for more flexibility and is adaptable based on availability and call volume. Disadvantages may be higher hourly rate, benefit costs, and an increase in the number of employees within a recognized bargaining unit..

b. Separate positions of firefighter and EMTs. Under their current separate positions, firefighters and ambulance personnel would continue to provide their current services.

Based on current call volume, demand for EMS services, and the limited daytime response by volunteer members, a combined force of firefighter and EMTs that can handle the bulk of emergency calls, particularly during the daytime hours, can be justified. Based on this experience, the following figure illustrates the minimum staffing needed to ensure the majority of EMS calls can be covered as well as relieving the volunteer force the burden of being available during the weekdays to respond to minor fires and other emergencies that often require only a 1-2 engine response such as vehicle and grass fires.

Figure 11.2: Option 2 – Minimum Staffing Needed

Hadd. Engine	Hadd. Amb. 24/7	Hadd. Amb. Daytime	HH/Bar. Engine	HH/Bar. Amb. 24/7	HH/Bar. Amb. Daytime	Total
						14

The figure shows the Haddonfield and Barrington stations would each house a single engine staffed with three firefighters, an ambulance providing 24-hour coverage, and an additional ambulance to augment the other during peak demand times such as during business hours Monday through Friday.

Workweek. Various shift models were considered. The models take into consideration optimum coverage for basic fire and EMS coverage, particularly during peak call volume demand times and the ability of volunteer firefighters to assimilate an effective response force. We believe that for the time being and within reason, the volunteer force can provide an adequate response force during most evening and weekend hours.

Considering the above factors, three workweek options are provided. The options are scaled with a combination of coverage using fulltime and part-time personnel holding the certification and training of firefighter, EMT or a combination of both.

A. Fire suppression and EMS coverage would be provided by crossed trained firefighter/EMTs or separate firefighters and EMTs. Each station would have a single 3-person engine staffed during the daytime Monday through Friday with volunteer force providing coverage during the evenings and weekends. Each station would also house two 2-person ambulances, one providing 24/7 service and the other staffed only during the peak demand times of the work week.

Figure 11.3: Workweek Option A

Hadd. Engine Daytime*	Hadd. Amb. 24/7	Hadd. Amb. Daytime	HH/Bar. Engine Daytime*	HH/Bar. Amb. 24/7	HH/Bar. Amb. Daytime	Coverage	Total FTEs
						4– 24/7 10–Daytime Only	14

* Volunteers to staff firefighting apparatus during afterhours and weekends.

B. Similar to Option A, fire suppression and EMS coverage would be provided by crossed trained firefighter/EMTs or separate firefighters and EMTs. Each station would have each a single 3-person engine staffed 24/7 Monday through Friday with volunteer force providing coverage during the weekends. Each station would also house two 2-person ambulances, one providing 24/7 service and the other staffed only during the peak demand times of the work week.

Figure 11.4: Workweek Option B

Hadd. Engine 24/7 M-F*	Hadd. Amb. 24/7	Hadd. Amb. Daytime	Bar. /HH Engine 24/7 M-F*	Bar. /HH Amb. 24/7	Bar. /HH Amb. Daytime	Coverage	Total FTEs
						6-24/7 M-F 4– 24/7 M-S 4–Daytime Only	14

* Volunteers to staff firefighting apparatus during weekends.

C. Fire suppression and EMS coverage would be provided by crossed trained firefighter/EMTs or separate firefighters and EMTs. Each station would have each a single 3-person engine staffed 24/7 during all days of the week with volunteer force augmenting the paid force during incidents requiring a greater amount of staffing equipment. Each station would also house two 2-person ambulances, one providing 24/7 service and the other staffed only during the peak demand times of the work week.

Figure 11.5: Workweek Option C

Hadd. Engine 24/7*	Hadd. Amb. 24/7	Hadd. Amb. Daytime	Bar. /HH Engine 24/7*	Bar. /HH Amb. 24/7	Bar. /HH Amb. Daytime	Coverage	Total FTEs
						10–24/7 M-S 4–Daytime Only	14

* Volunteers would augment paid firefighters during incidents requiring greater staffing and/or equipment.

Part-Time Paid Staffing. The current practice of using part-time firefighter staff would be retained and whose work schedule would be based on the work schedule of fulltime personnel. A pool of parttime staff would be assembled similar to the current practice referenced in Option 1.

Volunteer Force. The volunteer force could be retained for augmenting the paid staff during multi-unit responses and providing all or a portion of coverage during evenings and weekends. Stipends for in-station coverage and annual service awards would be retained, if not expanded to all members of the current three volunteer fire companies. If in-station stipends are continued a degree of efficiency would be made whereby both the Haddonfield and Barrington stations would retain a minimum of a three-member duty crew during hours not covered by paid staff.

Currently, the volunteer fire companies are operating independently from one another. Ideally, these limited resources could be pooled together as one response force for the whole three-borough response area. A challenge to this idea is the longstanding independence and heritage of the individual companies. A solution to this dilemma may be some form of continued

recognition and identity of the individual companies under the auspices of one fire department organization.

Cost

The cost of various alternatives identified in this report are estimated in this section. These estimates are presumed to be shared by the three municipalities. For purposes of this analysis we assume an equal division of costs. We begin by estimating the costs of prospective employees.

It should be emphasized that these are estimates based on credible service alternatives and existing compensation patterns. Costs are estimated based upon mid-range seniority and usage of sick leave. In an organization of this size, a single employee experiencing an unanticipated long-term leave can significantly impact the need for part-time coverage.

Per Firefighter Full-Time Costs

Salary
Salaries are based on the current Collective Bargaining Agreement (CBA) between Haddon Heights and the International Association of Fire Fighters Local #3249. In 2024, a first-year firefighter will earn a base salary of $51,212.

Health Benefits
Beyond salary and wage costs, health benefits and employer pension liability costs are estimated. A monthly billing statement from the South New Jersey Regional Employee Benefits Fund (Haddonfield Borough) was used to estimate annual healthcare costs per full-time fire and EMS employee hired. Health benefit premiums were limited to employee plus spouse only. Currently, 17 employees fall into this category for health insurance not including dental and prescription drug benefits. The Aetna Patriot V $5 Plan has 11 employees with a $20,251 monthly premium. This $20,251 multiplied by 12 gives us $243,012. The Aetna Patriot X $10 Plan has four employee plus spouse members. Monthly premiums equal $8,320, which multiplied by 12 equals $99,840. The Aetna Premier $2 Plan has two members. Monthly premiums equal $3,928, which prorated over 12 months equals $47,136. If we take the yearly premiums for all three plans, add them together ($390,792) and divide by the total number of employees in all three plans (n=17), we are given a figure of $22,940. For dental, again using employee plus spouse benefit premiums, the total monthly premium for 47 members is $3,995. This multiplied by 12 gives us $47,940, which divided among 47 employees equals a yearly premium of $1,020. Finally, for prescription drug benefits, monthly premiums for six employee plus spouse members equal $5,088, which prorated over 12 months equals $61,056. This yields a per employee annual cost of $10,176. Total healthcare estimates per employee equal $34,136.

Pension
New Jersey Police and Firemen's Retirement System (PFRS) employer contribution rates due in April 2023 equal 36.51 percent of salaries. If we multiply $51,212 by 36.51 percent, we are given an employer contribution of $18,698.

Finally, employer Social Security and Medicare costs equal $3,918.

Total Cost per Firefighter position

When taking into account salary, health benefits, pension, and SS/Medicare costs, the first-year cost of a full-time firefighter in 2024 would be approximately: **$107,964**. Note that if health benefits were employee only with no spouse, then this total figure would decrease by $15,122. If health benefits were family plans, then the overall estimate would increase by $4,033.

Per EMS Employee Full-Time Costs

In estimating full-time EMS costs, we use Haddonfield's 2023 EMS Salary and Wage Ordinance. Based on this, the baseline salary for 2024 is $58,212. For health benefits, we use the same estimates from the firefighter estimate ($34,136). Regarding employer pension costs, the current New Jersey Public Employees' Retirement System (PERS) employer contribution rate is 17.11 percent. This gives us a per EMS employee (emergency medical technician) yearly pension cost of $9,960. Finally, adding 4,453 for Social Security and Medicare costs, the total estimated cost for full-time EMS employee in 2024 is **$106,762**. Similar to the firefighter estimates, if health benefits were employee only with no spouse, then this total figure would decrease by $15,122. If health benefits were family plans, then the overall estimate would increase by $4,033.

Ten-Year Per Firefighter Cost Projections

In projecting firefighter costs 10 years longitudinally, the current Haddon Heights CBA with the Local #3249 was again utilized. Contractual yearly raises, in addition to 2 percent salary step increases, provide a 10-year salary estimate of $96,107.

In terms of employer pension costs, PFRS employer contribution rates have increased 11.37 percentage points from fiscal year 2011 to 2021, from 25.14 percent to 36.51. If we assume a similar increase over the next ten years, contribution rates would equal 47.88 percent, which would cost a municipality $46,016 based on a $96,107 firefighter (non-officer) annual salary. With regard to health insurance costs, we project10 years forward based upon the Consumer Price Index (CPI) over the previous 10 years. From 2014-2023, the average CPI was 2.72 percent. If we take the employee plus spouse healthcare cost estimates of $34,136, and project a 2.72 percent increase compounded annually over 10 years, we arrive at a figure of $43,461. Finally, employer costs for Social Security and Medicare are projected to be $7,352. Total 10-year costs per firefighter are estimated to be **$192,937** (79 percent increase from year one).

Ten-Year Per EMS Cost Projections

According to Haddonfield's EMS Salary and Wage Ordinance, the 10-year salary for an EMS employee is $85,157. In terms of employer pension costs, PERS employer contribution rates have increased 5.9 percentage points nominally from fiscal year 2011 to 2021, from 11.21 percent to 17.11. This roughly half the rate of the police and fire pension system. If we assume a

similar increase over the next ten years, contribution rates would be 23.01 percent. This would cost a municipality $19,595. Health insurance costs would mirror firefighter projections -- $43,461. Social Security and Medicare costs are projected to be $7,516. Therefore, the total estimate per EMS employee is **$154,728** (45 percent increase from year one).

Models A1 Through C2 Costs[2]

The current and 10-year firefighter and EMS costs are used as multipliers to estimate total personnel costs for staffing models A1, through C2., in addition to part-time and overtime costs. We assume all shift coverage by part-time personnel. We account for only overtime that is structurally built into a 56-hour work week.

Part-time firefighter and EMS rates were calculated using their respective year one and year 10 salaries.

-Firefighter and firefighter/EMS part-time rate = $51,212/52 weeks/40 hours = $24.62
-EMS part-time rate = $58,212/52 weeks/40 hours = $27.99
-Overtime rates are the part-time rates multiplied by 1.5.

For 10-year projected part-time rates, firefighter and EMS salaries at year 10 were used.
-Firefighter and firefighter/EMS 10-year part-time rate = $96,107/52 weeks/40 hours =$46.20
-EMS 10-year part-time rate = $85,157/52 weeks/40 hours = $40.94
-Ten-year overtime rates are multiplied by 1.5.

Each model was costed out, utilizing dual-role cross-trained firefighter/EMS, and also by utilizing separate personnel for firefighting and EMS, as is currently done. Each model maintains 24/7 EMS coverage, and varies according to the hours of staffed fire coverage provided, and composition of the workforce.

Option 2 A1 (Dual-role Firefighter/EMS)

Model A1 requires 22 full-time firefighter/EMS employees and 9,380 part-time hours. This model provides daytime-only fire coverage from two stations, and 24-hour EMS coverage including peak-hour units.

Table 11.1: Cost of Option 2 A1

Year/Item	2024	2033
Full-time labor	$2,375,186	$4,245,186
Part-time labor	$253,260	$433,356
Overtime	$23,044	$43,243
Total	$2,651,490	$4,721,785

[2] *Operating Costs for Models A1 through C2*
In terms of annual operating costs, we estimate $50,000 annually per station ($100,000 total). Using our CPI estimate for personnel costs of 2.72 percent, operating costs are projected over 10 years to be $65,391 per station ($130,782 total).

The cost of Option A1 split among the three municipalities is shown in Table 11.2. The total estimate cost is $2.65 million, and would grow to $4.7 million in 2033.Individual borough costs would start at $917,163 and rise to $1.6 million in 10 years.

Table 11.2: Division of Costs, Option 2 A1

	Model A1		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$883,830 ($1,573,928)	$33,333 ($43,594)	$917,163 ($1,617,522)
Haddon Heights	$883,830 ($1,573,928)	$33,333 ($43,594)	$917,163 ($1,617,522)
Haddonfield	$883,830 ($1,573,928)	$33,333 ($43,594)	$917,163 ($1,617,522)
Total	$2,651,490 ($4,721,785)	$100,000 ($130,782)	$2,751,490 ($4,852,567)

Note: Figures may not reconcile due to rounding.

Option A2: Separate Firefighters and EMS Employees

Option A2 provides daytime fire coverage and 24-hour EMS, but utilizes separate fire and EMS staff, as is current practice. Model A2 requires 6 full-time firefighters,16 full-time EMS, and 9,380 part-time hours. EMS employees staffing the 24-hour ambulances would be assigned to a 56-hour shift, resulting in 3 hours of overtime per week.

Table 11.3: Cost of Option 2 A2

Year/Item	2024	2033
Full-time labor	$647,778 (firefighters) + $1,708,192 (EMS) = $2,355,970	$1,157,622 (firefighters) + $2,475,648 (EMS) = $3,633,270
Part-time labor	$262,546 (Higher part-time rate used)	$433,356 (Higher rate used)
Overtime	$26,202 (Four 24-hour EMS receive three hours per week at EMS rates).	$38,320
Total	$2,644,718	$4,104,946

Table 11.4: Division of Costs, Option 2 A2

	Model A2		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$881,573 ($1,368,315)	$33,333 ($43,594)	$914,906 ($1,411,909)
Haddon Heights	$881,573 ($1,368,315)	$33,333 ($43,594)	$914,906 ($1,411,909)
Haddonfield	$881,573 ($1,368,315)	$33,333 ($43,594)	$914,906 ($1,411,909)
Total	$2,644,718 ($4,104,946)	$100,000 ($130,782)	$2,744,718 ($4,235,728)

Dividing the total cost among the three boroughs shows an initial cost of $914,906, increasing to an estimated $1.41 million in 2033.

Option B1: Dual-role Firefighters and EMS Employees

Option B provides for 24-hour fire coverage Monday-Friday and 24/7 EMS coverage as indicated in previous alternatives. Given the 24-hour fire staffing (Monday-Friday) additional structural overtime would be incurred as reflected in the estimates.

Model B1 requires 34 full-time firefighter/EMS employees and 8,640 part-time hours.

Table 11.5: Cost of Option 2 B1

Year/Item	2024	2033
Full-time labor	$3,670,742	$6,559,858
Part-time labor	$212,717	$399,168
Overtime	$23,044 (Four Firefighter/EMS [3 per 24-hour ambulance] receive three hours of OT per week at firefighter time and a half hourly rate).	$43,243
Total	$3,906,503	$7,002,269

Table 11.6: Division of Costs, Option 2 B1

	Model B1		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$1,302,168 ($2,334,090)	$33,333 ($43,594)	$1,335,501 ($2,377,684)
Haddon Heights	$1,302,168 ($2,334,090)	$33,333 ($43,594)	$1,335,501 ($2,377,684)
Haddonfield	$1,302,168 ($2,334,090)	$33,333 ($43,594)	$1,335,501 ($2,377,684)
Total	$3,906,503 ($7,002,269)	$100,000 ($130,782)	$4,006,503 ($7,133,051)

Costs begin at $3.9 million, and rise to $7 million by 2033. Per-borough costs would begin at $1.3 million and increase to 2.4 million over the same period.

Option B2: Separate Firefighters and EMS Employees

In model B2 we utilize separate fire and EMS personnel. Model B2 requires 18 full-time firefighters, 16 full-time EMTs, and 8,640 part-time hours.

Total costs for this option are $3.9 million, and rise to $6.4 million by 2033. Per-borough contributions would be $1.4 million initially, and grow to $2.2 million by 2033.

Table 11.7: Cost of Option 2 B2

Year/Item	2024	2033
Full-time labor	$1,943,334 (firefighters) + $1,708,192 = $3,651,526	$3,472,866 (firefighters) + $2,475,648 (EMTs) = $5,948,514
Part-time labor	$241,834 (Higher part-time rate used)	$399,168 (Higher part-time rate used)
Overtime	$26,202 (Four Firefighter/EMTs [3 per 24-hour ambulance] receive three hours of OT per week at EMS time and a half hourly rate).	$38,320
Total	$3,919,562	$6,386,002

Table 11.8: Division of Costs, Option 2 B2

	Model B2		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$1,306,521 ($2,128,667)	$33,333 ($43,594)	$1,339,854 ($2,172,261)
Haddon Heights	$1,306,521 ($2,128,667)	$33,333 ($43,594)	$1,339,854 ($2,172,261)
Haddonfield	$1,306,521 ($2,128,667)	$33,333 ($43,594)	$1,339,854 ($2,172,261)
Total	$3,919,562 ($6,386,002)	$100,000 ($130,782)	$4,019,562 ($6,516,784)

Option C1:Dual-role Firefighter/EMTs

Option C calls for 24/7 fire coverage plus the same EMS coverage of a 24-hour ambulance in each station and a peak-hour unit in both stations.

Option C1 relies on cross-trained Firefighter/EMTs. Model C1 requires 34 Firefighter/EMTs and 8,540 part-time hours. The cost for 24-hour fire and EMS coverage delivered by dual-role, cross-trained firefighter/EMTs is $4.1 million, rising to $7.3 million by 2033.

Table 11.9: Cost of Option 2 C1

Year/Item	2024	2033
Full-time labor	$3,670,742	$6,559,858
Part-time labor	$210,255	$394,548
Overtime	$172,832 (Thirty firefighter/EMTs receive 3 hours per week).	$324,324
Total	$4,053,829	$7,278,730

The total cost split over the three boroughs is $1.4 million in 2024, and is estimated at $2.5 million by 2033.

Table 11.10: Division of Costs, Option 2 C1

	Model C1		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$1,351,276 ($2,426,243)	$33,333 ($43,594)	$1,384,609 ($2,469,837)
Haddon Heights	$1,351,276 ($2,426,243)	$33,333 ($43,594)	$1,384,609 ($2,469,837)
Haddonfield	$1,351,276 ($2,426,243)	$33,333 ($43,594)	$1,384,609 ($2,469,837)
Total	$4,053,829 ($7,278,730)	$100,000 ($130,782)	$4,153,829 ($7,409,512)

Option C2: Separate Firefighters and EMS Employees

Model C2, which continues to rely on separate firefighter and EMS personnel for 24-hour seven-day fire and EMS coverage requires 18 full-time firefighters, 16 full-time EMTs, and 8,540 part time hours (3,420 firefighter hours and 5,120 EMS hours).

Personnel costs total $4 million in 2024, and reach $6.5 million by 2033. Total costs split among three boroughs would average $1.34 million initially and grow to $2.2 million in 2033.

Table 11.12: Cost of Option 2 C1

Year/Item	2024	2033
Full-time labor	$1,943,334 (firefighters) + $1,708,192 (EMTs) = $3,651,526	$3,472,866 (firefighters) + $2,475,648 (EMTs) = $5,948,514
Part-time labor	$227,509	$359,301
Overtime	$129,901 (Eighteen firefighters receive 3 hours per week at $36.93 rate plus four 24-hour EMTs receive 3 hours per week at $41.99 rate)	$233,214
Total	$4,008,936	$6,541,029

Table 11.13: Division of Costs, Option 2 C2

	Model C1		
	Personnel (10 Year)	Operational (10 Year)	Total (10 Year)
Barrington	$1,336,312 ($2,180,343)	$33,333 ($43,594)	$1,369,645 ($2,223,937)
Haddon Heights	$1,336,312 ($2,180,343)	$33,333 ($43,594)	$1,369,645 ($2,223,937)
Haddonfield	$1,336,312 ($2,180,343)	$33,333 ($43,594)	$1,369,645 ($2,223,937)
Total	$4,008,936 ($6,541,029)	$100,000 ($130,782)	$4,108,936 ($6,671,811)

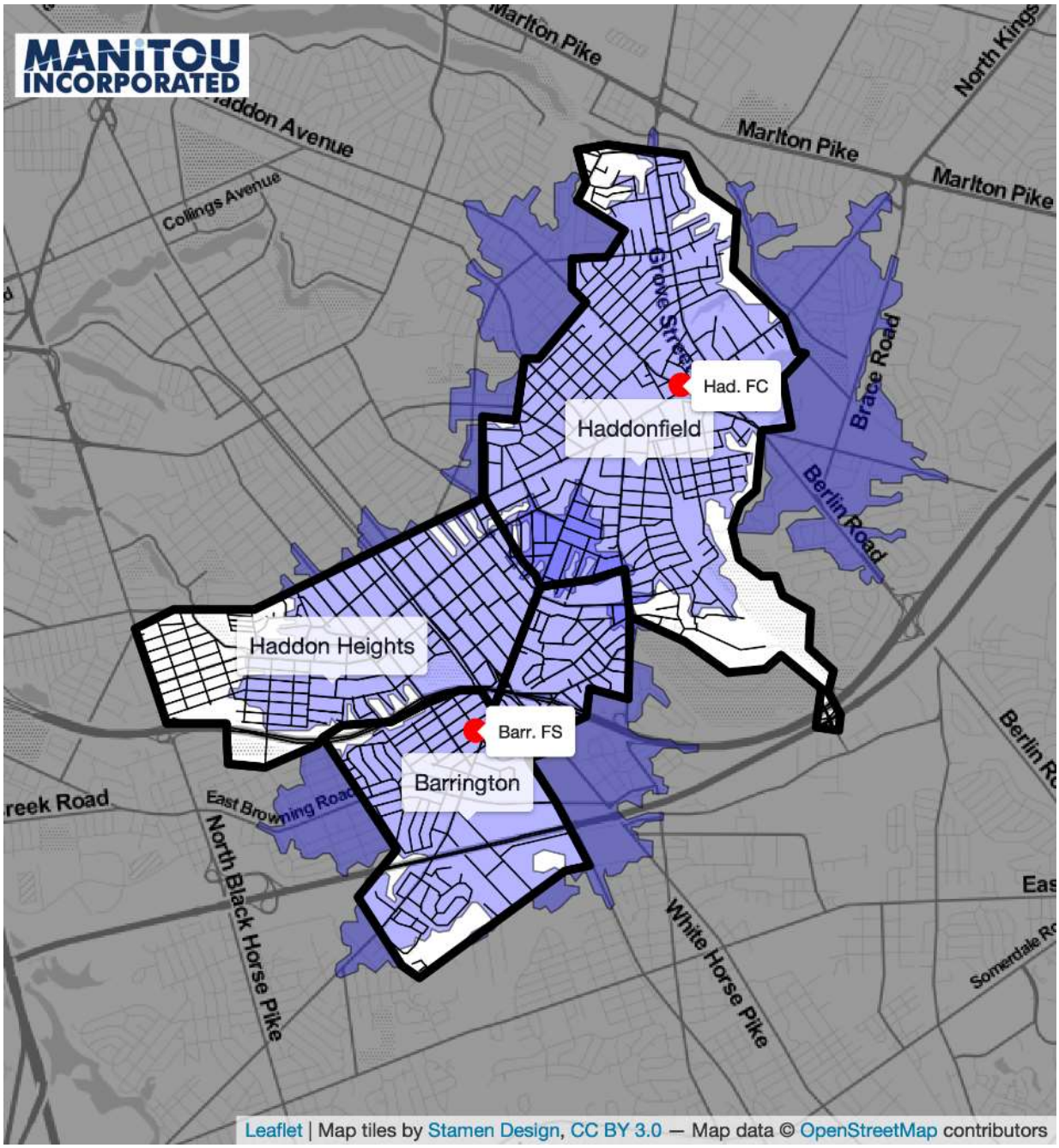
Supervision

A full-time Fire/EMS Chief or administrator is recommended as part of Models A1-C2. These costs are not included. However, this position would likely command $175,000 in salary and benefits in 2024 and $300,000 in 2033.

Facilities. A minimum of two stations is necessary. It is recommended that initially the current Haddonfield and Barrington stations be used. This is due to currently both stations house EMS personnel and have greater flexibility in the storage of fire apparatus and ambulances.[3] In the future, improved coverage could be gained by relocating or consolidating the Barrington fire and EMS station and Haddon Heights Fire Station complex to a more strategic location. The following figure illustrates the amount of coverage when providing services from the Barrington and Haddonfield stations.

[3] We understand that the Barrington Station is used by paid staff, while all volunteers are operating from the Haddon Heights station. We see this as a local judgment and this plan does not require any immediate change in these arrangements.

Figure 11.5: Option 2 – Three-Borough Coverage from Haddonfield and Barrington Stations



The two above listed fire stations would serve as the primary stations for the housing of paid personnel and in-service fire apparatus and ambulances. In addition, the Haddon Heights fire station could continue to be used for the storage of reserve or spare apparatus and equipment and serve as the headquarters and meeting place of the Haddon Heights Volunteer Fire Company.

Resources. Fire apparatus may be pooled for greater efficiency. Potential savings may be generated with the reduction of the number of engines, ladder trucks, and other vehicles needed.

It is recommended that at a minimum, two in-service engines, one aerial ladder truck, and two in-service ambulances be housed between the two stations. Reserve apparatus would consist of one engine and 1-2 ambulances.

As mentioned, the minimum dispatch for a reported structure fire or similar multi-unit response requires a minimum of two engine apparatus and one ladder truck. In the event of this type of response, the two staffed engines would respond to the incident with the aerial truck being driven by members of the volunteer force.

Table 11.14: Option 2 – Minimum Station and Equipment Configuration

Station	Engine		Ladder Truck		Ambulance	
	In-Service	Reserve	In-Service	Reserve	In-Service	Reserve
Haddonfield	2	1	1		1	1
Barrington	2			1	1-3	1
Total	4	1	2		2-4	2

Benefits. Many benefits may be obtained with a single agency operation. They include:

Governance and Administration. Accountability can be gained through the appointment of a single fulltime Fire/EMS Chief that is answerable to Borough government.

Optimum Shared Service. Greater efficiency due to consolidated policies and procedures. Improved budgetary process and cost saving when purchasing of equipment, supplies, and funding capital expenditures. Fee schedules would be consolidated for continuity of billing and collections.

Flexibility. Greater flexibility and use of personnel, facilities, and resources. Potential rightsizing of resources such as the number of fire apparatus and equipment.

Versatility. Paid staffing, fire apparatus and ambulances may be interchanged based upon evolving needs and criteria. Cross-trained paid firefighter/EMTs provide greater response capability and use of personnel. Likewise, a single volunteer force provides for increase response capability for all areas of the combined three-borough service area.

Deployment. Services can be improved by providing daytime paid members ready to respond from two locations within three-borough service area. During periods of high demand for EMS, firefighter/EMTs assigned to one of the 3-member firefighting crews could be used to place a third (or fourth) ambulance into service. During these instances, volunteers, as part of the stipend program, could be altered to standby at the designated station until the paid crew is back in service.

Capital Costs. Providing suitable facilities for a 24-hour habitation may incur capital costs for renovation of the existing firehouses. These would include code-compliant sleeping facilities and likely expansion of locker room and bathrooms. Savings in capital costs may be gained through a rightsizing of the fleet of fire apparatus, ambulances, and support vehicles. The number needed of these vehicles may be reduced with any surplus being sold or a reduction through attrition. Further benefits may be gained through the reduced cost for maintaining only two stations as

well as the potential economies of scale whereby cost per unit for equipment and supplies may produce savings.

ISO Grading. By being formally recognized as a single fire protection area, the three-borough shared fire services may present improvements in future insurance premiums for commercial and industrial complexes with potential savings for owners of dwellings and similar residential properties as well.

Considerations. Under Option 2, several policy and political issues must be resolved prior to implementation.

Primary Governance. Which borough would serve as primary supervisor over the fire chief and paid members. Which borough would provide administrative services to the single agency with regards to personnel management, financial management and budget, facility and equipment repair and upkeep, etc.

Increased Expenditures. The option will increase of upwards to 70-75 percent above the current total expenditures for fire and emergency medical services.

Prioritization. Given current budget constraints and obligations, the need to control costs may overshadow the essentiality for an able and ready fire and EMS response force capable of providing their services in the most effective and efficient manner.

Autonomy. The desire to maintain local autonomy from any combination of municipal government, fire and/or emergency medical service, or the citizenry at large, may overshadow the practicality of a single fire and EMS agency. EMS is provided through the Barrington Ambulance Association; a private corporation. The association provides contract services to the boroughs of Barrington, Haddon Heights, and bordering Runnemede. The Barrington municipal government does not have direct governance over the corporation, its operations or budget. An arrangement would have to be made whereby the current service would legally consolidate with the tri-borough agency.

Legacy Systems. Related to the above, the longstanding legacy of the three borough's volunteer fire companies and ambulance associations with their long-standing heritage and traditions may demonstrate a resistance to forming a single unified fire and EMS agency under the administration and direction of a single paid fire chief. The resistance could also encompass a sizable portion of the citizenry.

Labor Polices. Federal and state labor laws may cause higher than acceptable salaries, working conditions, and benefits that may not be desirable by the municipal government. Nor the expansion of labor contracts may be undesirable due to the added labor costs and potentially adverse management/labor relations.

Perceived Service Delivery. Governing bodies may perceive the option as being overly costly and unnecessary given the acceptance by the public of the current method of delivering fire and EMS services.

Option 3: The Borough of Haddonfield Contracts for Services with Bordering Municipalities

The third option divided into two sub-options that would call for the Borough of Haddonfield contracting for fire and/or EMS services with one or more bordering municipalities. Current services between the Boroughs of Barrington and Haddon Heights would remain in their current form with fire protection being provided by the current shared service agreement and EMS being provided by the Barrington Ambulance Association.

a. Fire and Rescue Services Only. The Borough of Haddonfield would contract for services with one or more bordering municipalities for the delivery of all aspects of fire and rescue services including structure and non-structure fire suppression, rescue services including vehicle extrication and other forms of physical rescue, and special operations including rope rescue and initial hazardous materials response. The contracting municipality would serve as the Borough's primary fire and rescue service provider.

b. Fire, Rescue and EMS. Like the above option, the Borough would contract for services with one or more bordering municipalities for the delivery of fire and rescue services as listed above as well as emergency medical services.

As part of both sub-options, the Haddon Volunteer Fire Company would remain in force and during fires and other emergency responses would serve to augment the primary fire and rescue service provider. The Borough would retain the current fire station and retaining its use for the volunteers and apparatus and equipment. If necessary, the station would also serve as the primary fire and/or EMS provider's assigned crew's living quarters and housing of their apparatus and vehicles.

Careful consideration should be given when entering contract agreements with bordering municipalities. The scope of services should be carefully weighed with regards to the level and type of services to be provided and performance benchmarking and annual reporting just to name a few. Equally, administrative details such as fees and charges should be carefully reviewed.

Cost. Contracting for services by and large is more cost effective than consolidation or shared service efforts that require hiring additional personnel, in addition to funding future capital expenditures.

Potential Benefits

Assurance and Continuity. The Borough of Haddonfield will have an increased assurance that adequate personnel and resources will be available to respond to fire and rescue incidents. There can be an increased level of continuity of response capability.

Volunteer Retention. The Haddon Volunteer Fire Company will retain its standing as a viable public service.

Cost Effective. Compared to other options, contracting for services with a bordering municipality may produce the simplest and most cost-effective approach to ensuring the Haddonfield community receives the most optimum service possible.

Reduced Administrative Oversight. Contract service can reduce the need for administrative oversight and burden by transferring much of the operational and personnel management to the providing municipality.

Considerations

Haddonfield Volunteer Force. Careful consideration should be given to the continued support of the volunteer fire company. The fire company, and its dedicated cadre of volunteers, has long been the primary force in providing fire and rescue services to the Haddonfield community. Any form of contracted service must be heavily weighted with the support and morale of the volunteer firefighters as they would serve as the stopgap for initial response during times when the primary service provider is committed to other emergency calls.

Haddon Heights-Barrington Volunteer Force. As with the Haddonfield volunteer company, members of the combined Haddon Heights and Barrington volunteer fire companies would need to be closely monitored with regards to their ability to remain a viable response force. Recently the two companies have been pooled as one response force. In the coming years the Boroughs should pay close attention to the response capability to ensure there is an acceptable number of volunteer members available to respond to emergencies.

Contract Termination. With any contract for services there presents a level of risk the providing municipality may choose to not renew the agreement at the end of the performance period. Under these circumstances the Borough could be faced with a dilemma of sustaining acceptable levels of service.

Increase of Paid Personnel. Under this option, a long-term consideration should be given to the potential need for additional staffing for the Haddon Heights- Barrington Fire Department and the Barrington Ambulance Association. Primarily, this would be due to an increase call volume or a further reduction in the number of volunteers available to respond to fires and other emergencies.

Option 4: Bid Out EMS Services and Maintain Current Fire Protection

It is not uncommon for municipalities to bid for services including contracting with private companies for the delivery of emergency medical services. If well managed, contracting for these services may improve the quality of service while controlling or reducing overall costs. Bidding for services should be considered for these potential benefits, particularly for municipalities like Haddonfield who serve as the primary EMS provider. By bidding for these services, the municipality reduces its direct management and oversight of administration, budget and expenditures, billing, personnel management and labor issues, benefits, operational costs and capital outlays.

In contrast, the boroughs of Barrington, Haddon Heights, and Runnemede receive emergency medical services through individual contracts with the Barrington Ambulance Association. Currently, total contributions between the three boroughs amounts to upwards of 30 percent of the service's total operating budget. For the municipalities, not much can be gained through of emergency medical services. The service is currently provided via a private entity and in essence already being contracted out. However, the Borough of Haddonfield could contract for services with the Barrington Ambulance Association. If this were the case, the association in all probability would have to place in service an additional 24/7 ambulance at the Haddonfield fire station.

Benefits

- Potentially, the Borough of Haddonfield could experience reduced EMS operating costs through contracting for services.

- Given the current accepted level of service and associated municipal expenditures, there are no recognized benefits for the Boroughs of Barrington and Haddon Heights to terminate current contract for services with the Barrington Ambulance Association.

Considerations

- Quality of service and patient care should be paramount considering the contracting EMS with third party providers.

11.2. Timeline

An implementation timeline is provided for each of the four options. Implementation strategies for each option includes milestones for short-term, intermediate, and long-term. The following provides timelines for each milestone.

Short-Term: 6-12 months
Intermediate: 12-24 months
Long-Term: 3-5 years

Option 1: Maintain Current Services

- No timeline is necessary due to the maintaining of current methods of service delivery.

Option 2: Consolidate All Borough Fire and EMS Services into a Single Agency

Short-Term:
- Determine political consensus on proposed option.
- Initiate public input for the creation of a tri-borough shared service agreement.
- Verify options for legally merging of municipal and private corporate entities into one public agency.
- Determine costs for consolidation, funding sources and level of shared costs, administrative oversight, policies and procedures, etc.
- Enact ordinances and implement shared services agreements.

Intermediate:
- Appoint fulltime fire/EMS chief/administrator.
- Merge current personnel into a single workforce under the direction of the newly appointed fire chief.
  - Maintain separate fire and EMS forces.
- Develop and implement revised administrative, operational and personnel policies.
- Negotiate revisions to existing labor agreements.
- Where necessary, reassign personnel and resources for uniform coverage in the Haddonfield and Barrington fire stations.

Long-Term:
- Staffing option a:
  - Recruit firefighter/EMTs for cross staffing of fire apparatus and ambulances.
- Staffing option b:
  - Recruit separate firefighters and EMTs.

Option 3: The Borough of Haddonfield Contracts for Services (Fire, EMS, or Both) with Bordering Municipalities

Short-Term:

- Municipal officials identity bordering municipalities amenable to provide fire and EMS services to the Borough of Haddonfield.
- Develop draft contract to include terms and period of performance.
- Award contract for services.
- Reorganize fire and EMS and supporting policies to reflect updated roles and responsibilities.

Long-Term:

- On an annual basis, the borough conducts performance reviews per identified benchmarks identified in the contract.

11.3. Financial Implications

The volunteer fire service is a widespread feature of small municipalities throughout New Jersey. A confluence of socio-demographic factors has, however, changed this tradition. A once viable service delivery option has become less effective given an ever-diminishing pool of volunteers resulting, in part, from changes in generational mores and occupational aspects that negatively impact volunteer turnout. This has significant financial implications for Haddonfield, Haddon Heights, and Barrington given that these three municipalities have leaned on the use of donated labor to provide an essential public service.

Providing quality services, while simultaneously taking into account financial limitations, is a priority of local governments. Haddonfield, Haddon Heights, and Barrington are no exception. However, the fact that New Jersey has the highest property tax rates in the United States makes the issue more complicated. This makes raising revenues through tax increases difficult even if the increases are modest. Therefore, the financial implications of the four options presented are discussed.

Option one, maintaining current services, has a high degree of financial feasibility. The three municipalities can continue to provide services as they have been, without dedicating any new resources to fire or EMS with the exception of the Borough of Haddonfield assuming the cost of the volunteer firefighter stipend program. However, this is an untenable situation in the long term, the consequences of which would likely have a deleterious impact on service quality.

Option two, a tri-municipal consolidation of fire and EMS into one agency, is less financially feasible compared to option one. However, this option does provide an organizational infrastructure to provide quality fire and EMS services well into the future. It is also beneficial financially in terms of cost avoidance. In other words, even though all three municipalities would be required to inject additional resources into the consolidated agency, those financial commitments would be less burdensome because they would be spread over three tax bases rather than one. Cost savings from consolidation efforts can only be realized when significant resources are already being spent on a given service. These cost savings usually result from the elimination of human resource redundancies.

Option three, Haddonfield contracts for services, has a high degree of financial feasibility. Contracting is an appealing service delivery model for local fire departments. Assuming a municipality does not object to ceding control over service delivery, contracting for services provides the advantage of simplicity. A noteworthy example of contracting for fire services is of Glen Ridge, New Jersey, a municipality that is small geographically (1.3 square miles) and has a population of 7,800. For the past 32 years, Glen Ridge has been paying neighboring Montclair (population 38,500) for the use of its 76 full-time firefighters. Under the terms of the most recent agreement, which was approved in September 2022, Glen Ridge will pay Montclair $850,000 in 2023. The entire contract is for 10 years, and each successive year Montclair will be paid an additional $60,000 annually, topping out at $1.4 million in 2032. The cost for Montclair to provide fire services to Glen Ridge are approximately $120,000 a year. It is a mutually beneficial arrangement seeing as though Montclair is subsidized by Glen Ridge, which offsets its total costs. On the other hand, Glen Ridge is provided quality services for only a fraction of the cost it would be to maintain its own fire department. Consider that Montclair is roughly five times larger than Glen Ridge in terms of both population (38,500 v. 7,800) and land area (6.25 square miles v. 1.3). Let us further consider that if Montclair has 76 full-time firefighters, Glen Ridge would need roughly one-fifth of that to field a career fire department – or approximately 15 firefighters. Using the firefighter estimates presented earlier, the all-inclusive costs of 15 firefighters for Glen Ridge would equal $1,564,740. This does not factor in additional capital costs and debt servicing for apparatus and brick and mortar needs.

Option four, bidding out for EMS services, would have high financial feasibility from Haddonfield's perspective given that the municipality dedicated $700,000 for salaries and wages for EMS services. If only a fraction of these $700,000 in appropriations were used to secure a bid, this would result in a cost savings. This coupled with Haddonfield's billing collection difficulties makes bidding out a viable financial option.

11.4. Funding Sources

There exists an assortment of funding sources that may be available to local government to offset the cost of providing fire and emergency medical services. Annual operating budgets and capital improvement programs may be augmented by a variety of alternative funding sources that are may be considered.

The following provides a brief list funding sources published by the U.S. Fire Administration, an office of the Federal Emergency Management Agency and other sources. The list has been modified to include potential funding sources that are applicable to high-density urban communities. The funding sources are in addition to those that commonly known such as property or sales tax. Some sources may not coincide with what is allowed under state constitution, statutes, or other forms of municipal revenue regulations.

U.S. Government Grants

Department of Homeland Security (DHS)

- Assistance to Firefighters Grants (AFG) Act grant program. The program provides financial assistance directly to fire departments and nonaffiliated EMS organizations to enhance their capabilities with respect to fire and fire-related hazards. Its primary goal is to help fire departments and nonaffiliated EMS organizations meet their firefighting and emergency-response needs. AFG seeks to support organizations that lack the tools and resources necessary to more effectively protect the life and safety of the public and their emergency-response personnel with respect to fire and all other hazards.

- Staffing for Adequate Fire and Emergency Response (SAFER) Act grant program. The SAFER program provides financial assistance to help municipalities to fund the hiring of firefighters. The goal is to assist communities with fire department staffing and deployment capabilities so they may respond to emergencies whenever they occur, assuring their communities have adequate protection from fire and fire-related hazards. The program support activities in two categories: 1) hiring of firefighters, and 2) recruitment and retention of volunteer firefighters. Eligibility includes municipalities served by volunteer and combination fire departments, career fire departments, fire districts, Statewide or local volunteer firefighter interests organizations.

Department of Housing and Urban Development (HUD)

- Community Development Block Grant (CDBG) program. The program is a flexible program that provides communities with resources to address a wide range of unique community development needs. The CDBG program provides annual grants on a formula basis to States and local governments.

State of New Jersey Grants

- American Rescue Plan Firefighter Grant (ARPFFG). The program is a competitive grant that supports local and regional fire department firefighters by ensuring that they have proper fire protection, cleaning, and sanitization equipment. Ensuring that firefighters are properly protected against the combined threats of the COVID-19 virus and the strain of emergency fire requests is vital given the current stress on communities confronting the pandemic. Access to funding to purchase the appropriate gear, clothing, and equipment is critical for mental and physical health, particularly for those fire departments with limited operating budgets and large numbers of volunteers. Assisting local and regional fire departments in purchasing gear, clothing, and equipment helps address these equity considerations, meeting the needs of communities that have been placed under substantial stress throughout the pandemic. The Firefighter Grant will allocate funds to allow departments to make these needed purchases.

New Jersey American Water Grant

- Volunteer Firefighter and Emergency Responder grant program. Grants of up to $2,500 to New Jersey volunteer fire departments and EMS providers within the funding source's service area to purchase training materials and equipment. Funding is intended to support purchases of communications equipment, personal protective gear, water handling equipment, firefighting and emergency responder tools, as well as training, and related

activities and materials used to support community fire protection. Specific fire training classes, including the cost of training manuals and student workbooks, may also be requested

Subscription Service

- Fire Protection. Subscription services for fire protection may be offered to residents or property owners outside of an incorporated city or town or organized fire district. A contract is set for a specified period of time and the fees based on a cost-per-square-foot or risk-based formula.

- Emergency Medical Services. A number of jurisdictions are implementing EMS subscription programs as an alternative to directly charging users of ambulance-transportation services. An EMS subscription program is a voluntary membership program that is designed to help protect families and businesses financially in the event of a medical emergency while also helping an EMS provider recover at least some of the cost expended in the provision of critical services such as EMS.

  There are two basic types of subscription service. The first is a flat yearly fee charged per household, which covers all charges for any EMS service provided. The second variation is a small annual fee that covers only those expenses not paid by medical insurance. The user signs up for the program and authorizes the EMS provider to file reimbursement claims directly with the user's health insurer when services are provided. With a subscription plan to the local EMS provider, the user would not be charged for uncovered expense. Nonsubscribers would be sent a bill for the remaining balance. It is difficult to anticipate how many people will actually subscribe to an EMS subscription program, but experience has shown that about 15 percent of households can be expected to participate.

Billing for Services

- Fire and Rescue Services. Fire departments may charge fees to insurance companies to raise revenue to support services. Typically, automobile insurance policies provide coverage for medical expenses and ambulance transportation, but not for fire- or police-response services. These fees try to recoup the cost of providing non-compensated prehospital medical treatment and rescue activities.

- EMS. Billing insurance for patient care and ambulance transportation allows the department to tap a consistent revenue stream to support EMS operations. Medicare is the largest single payer for ambulance services in the United States. There are lengthy and specific requirements to qualify for reimbursement found in Medicare regulations. Navigating these rules is challenging, but absolutely essential to a successful billing program. Many third-party insurers also use Medicare rates and guidelines as the foundation for their own reimbursement standards.

Municipal Taxes and Fees

- Utility-User Tax. A utility tax is a charge on the use of public utilities such as telephone, cell phone, cable television, gas and electric services, municipal water, wastewater, and garbage collection. The utility tax applies to both businesses and homeowners. Taxes are collected by

the utility as part of its regular billing procedure and then remitted to the city. A utility-user tax may be imposed as a special tax, earmarked for a specific purpose, or a general tax to be used for a variety of municipal needs. Proceeds from the utility-user tax are used to fund local government services. The tax pays for law enforcement, fire protection, EMS, maintenance of city parks and streets, youth programs, and other general-fund services. Laws may include exemptions for seniors and low-income residents.

- Fire Flow Tax. The fire flow tax is a type of property tax that is assessed to properties based on a computed fire flow requirement, typically using an Insurance Services Office (ISO) formula for fire flow. The tax can be used to cover the cost of fire protection and other emergency service functions. The fire flow tax amount is determined by calculating the risk factor of a property based on a specific formula. An advantage of the fire flow tax is that it can generate significant revenue and the charge computation can be computerized and done automatically. A fire flow tax can also be used to incentivize fixed fire protection systems, such as residential fire sprinklers.

- Inspection Fees. Inspection fees have long been used by fire departments to provide funding for fire prevention. Fee schedules vary among jurisdictions. Inspection fees may be based upon the type of inspection conducted (initial or reinspection), the occupancy (educational, industrial, residential, etc.), and the size of the building. Many departments charge a flat fee for initial inspections with additional fees for each subsequent reinspection. Additional fees may be charged when special hazards are present, such as hazardous materials storage areas.

- Facility Rentals. Volunteer fire departments often rent out meeting space for private functions. Some departments intentionally design new stations to include meeting space that is not only useful to the department, but also serves as a community facility. Departments can rent out a dining hall or large room for dances, parties, exercise classes, weddings, and other gatherings. Some of these organizations provide catering upon request. The fire department needs to ensure that they have adequate liability insurance for hosting these types of events.

- Benefit-Assessment Districts. Benefit assessments are a common financing tool. Assessments are charges on real property or businesses levied to pay for facilities or services within a predetermined area according to the benefit resulting from the improvements. Typically, citizens or local governments will establish a special district for the purpose of levying an assessment to finance capital improvements or provide local services. There are two types of assessment districts: Special-Purpose Districts and Benefit-Assessment Districts.

  - Special-Purpose Districts. Special-purpose districts, sometimes referred to as special-district government, are defined by the U.S. Census Bureau as limited purpose governmental units that exist as separate corporate entities that have fiscal and administrative independence from general-purpose governments such as county, city, or township governments. Fiscal independence means that the special district may determine its own budget, levy taxes, collect charges for services, and issue debt without review from another local government. Administrative independence comes from the fact that members of the governing board are elected by the people of the district. Special-purpose districts provide a specific service to residents that are not provided by the

general-purpose government. Examples of special-purpose districts include fire protection districts, ambulance service districts, county hospital districts, and county health-care and mental health-care districts.

- Benefit-Assessment Districts. A county, city, or borough government may form a benefit-assessment district within its boundaries by ordinance. Formation of the district is done to address a deficiency in infrastructure or service delivery which falls short of community standards in terms of public safety, health, or welfare. Unlike special-purpose districts, a benefit-assessment district does not have a separate governing board, rather the municipal government manages the implementation of services funded through the district. This is because a benefit-assessment district is a funding mechanism, not an implementing authority.

12. Appendix: Insurance Services Office Coverage Maps

The Insurance Services Office's Fire Suppression Rating Schedule suggests 1.5 mile response distances for engine companies and 2.5 miles for ladder companies. The maps in this section show those distances based on the existing stations.

The existing three stations provide good coverage based on ISO criteria for engine companies. Even if one of the Haddon Heights or Barrington stations were to close, the impact would not be limited (Figure A1).

The ladder company coverage distance of 2.5 miles is shown in Figure A2. With both ladder companies in service, the vast majority of all there Boroughs is covered. However, if only the Haddonfield ladder is in service, we see that roughly half of both Haddon Heights and Barrington lie outside the 2.5 mile distance. If one ladder were located at Barrington, a significant fraction of eastern Haddonfield would lie beyond this travel distance.

Next, we examine the ability of neighboring fire companies to service the study area. Figure A3 shows 1.5 mile travel distance. We can see in this map that outside companies do not provide sufficient coverage of the study area. When we look at ladder coverage (Figure A4), we see that the 2.5 mile distance effectively covers all but a portion of southern Haddonfield south and west of Bellevue Avenue into northeastern Barrington Borough.

Figure A1: 1.5 Mile Engine Coverage

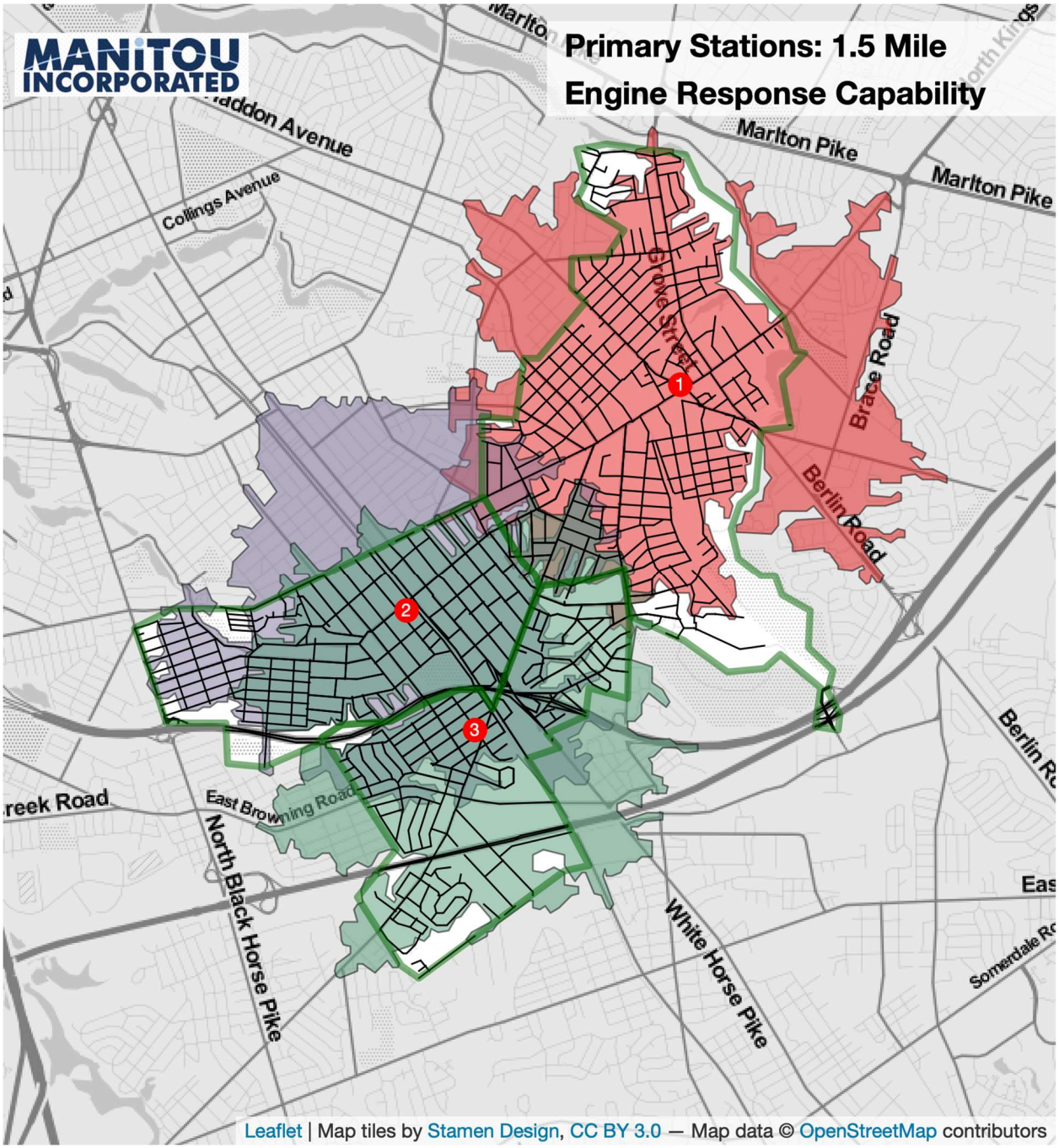


Figure A2: 2.5 Mile Ladder Coverage

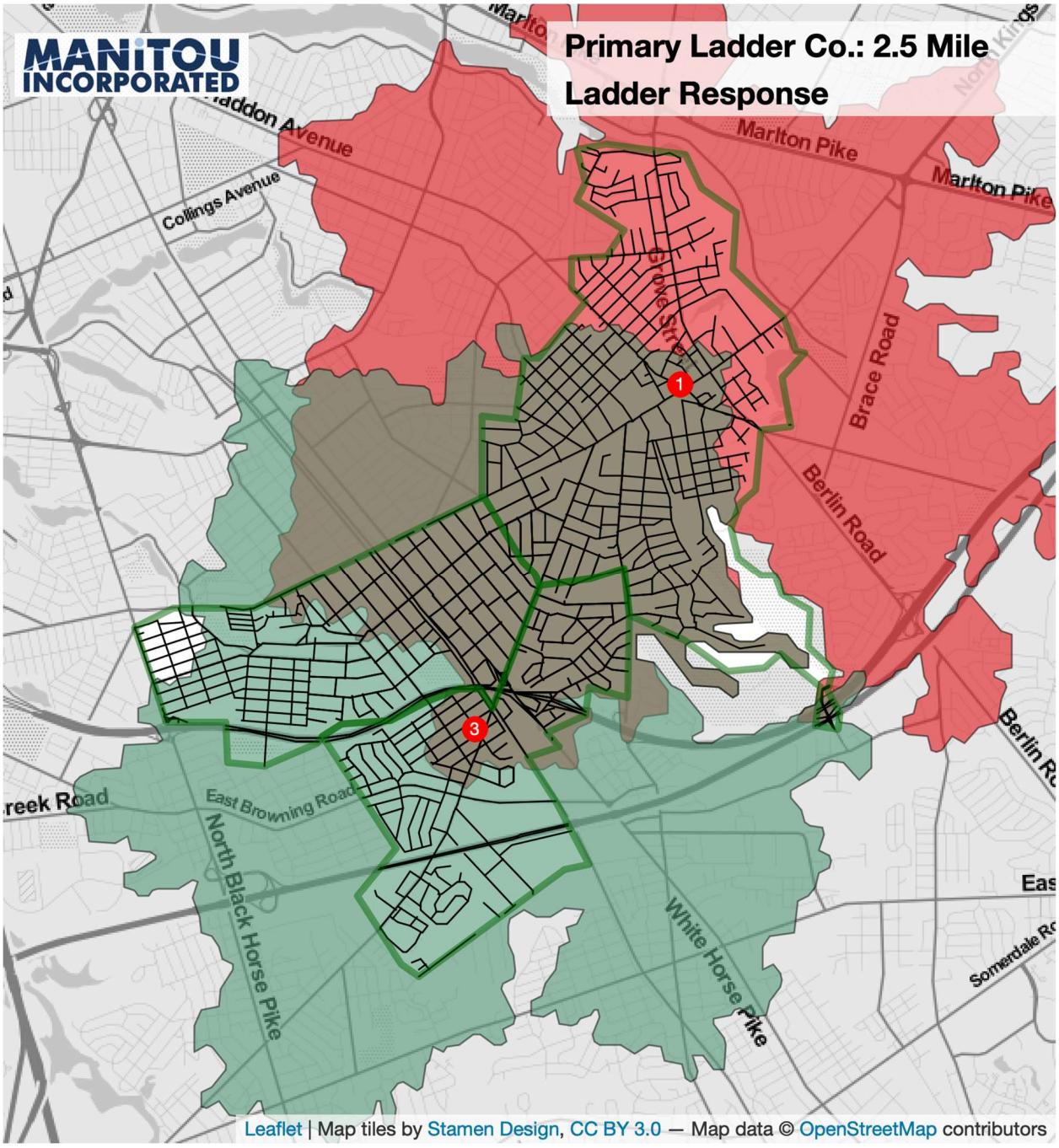


Figure A3: Bordering Engine 1.5 Mile Coverage

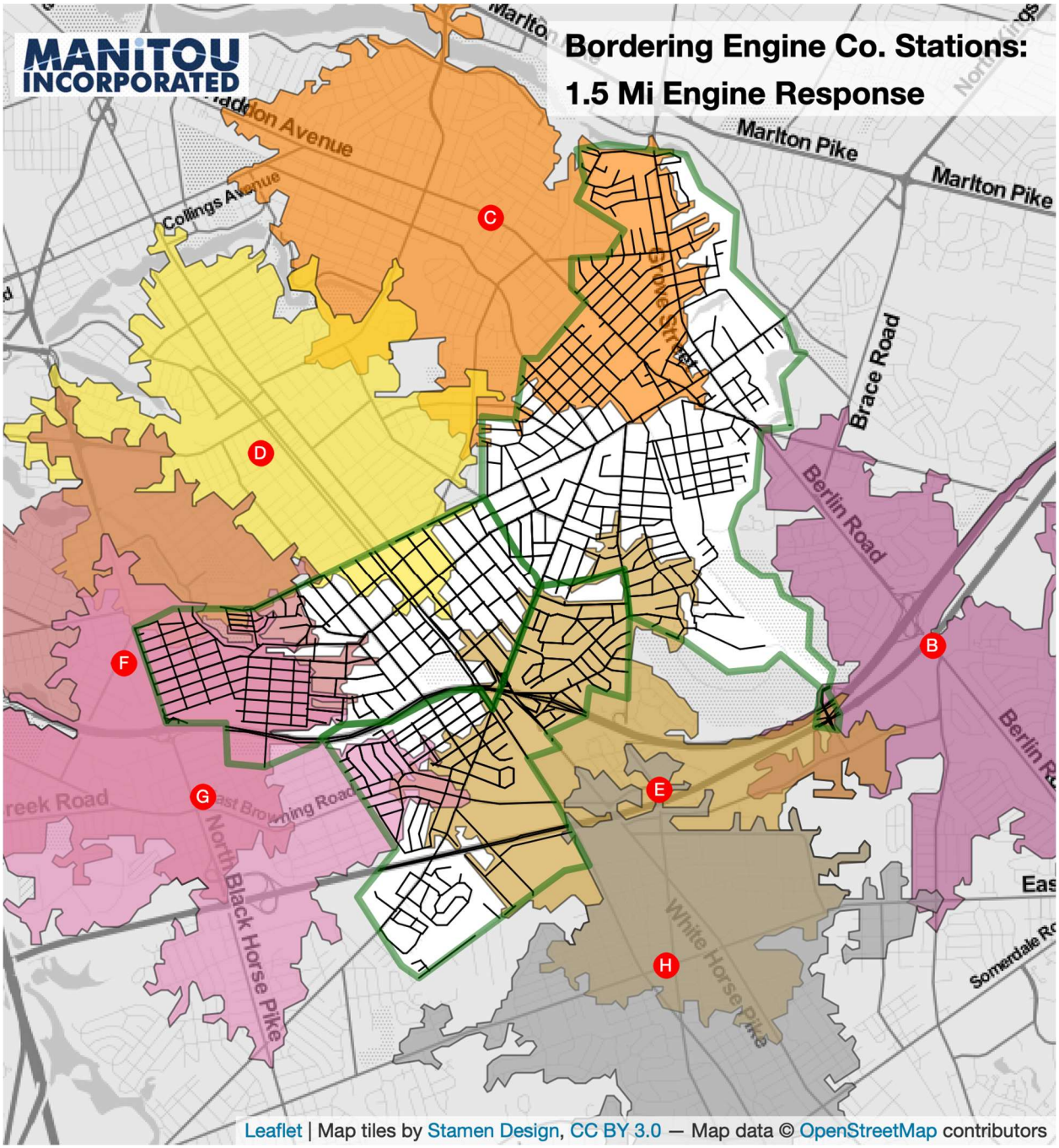


Figure A4: Bordering Ladder Company 2.5 Mile Coverage