

BEACON, NEW YORK

A COMPREHENSIVE MULTI-LEVEL
OPERATIONAL ANALYSIS OF FIRE SERVICES FOR THE
CITY OF BEACON

FINAL REPORT
SEPTEMBER 2010

The logo consists of a central diamond shape surrounded by four squares, forming a larger diamond-like arrangement. The shapes are light purple.

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I. EXECUTIVE SUMMARY

The Beacon Fire Department (BFD) and its volunteer fire companies have a long history. Traditionally, volunteer participation has been strong and the Department has been perceived as an effective emergency response agency by its members, and others. In recent years, the capability of the Fire Department has deteriorated. Organizational, administrative, leadership, communication, and morale problems have plagued the Fire Department. The reduction in the number of volunteers and the lack of a shared vision for the future of the Department have affected the capacity of the Fire Department to serve the public. Moreover, there are insufficient initial attack personnel available in the case of a major emergency or serious building fire, which compromises the safety of volunteer and career (full-time paid) personnel. The City of Beacon must take prompt action to end, and reverse, the deterioration of the fire and rescue system in the City.

The primary purpose of this study is to identify approaches for strengthening the effectiveness of the BFD. This report, while critical at some points, is intended to promote a plan to improve the organization, safety of personnel, operations, deployment, and management of the Department. The primary focus of the study is the future of the Department. The problems and difficulties identified in this study have evolved over a long period of time and have not been caused by any individual, or group of individuals. In fact, some of the conditions which have had an effect on the Fire Department are not within the complete control of the City or the Fire Department. Some of the conflict surrounding the Fire Department may be the result of the personal style of individuals. However, there has been a failure of Department officials to actively identify solutions to problems and implement needed changes.

There has been confusion and conflict between the leadership of the BFD and appointed and elected City officials. While differing views among elected and appointed official are to be expected, the level of disagreement is high and the relationship between the Fire Department leadership and the City has deteriorated, resulting in very limited communication. There is no shared understanding of the fire protection needs of the City. Officials have conflicting views about a number of issues including:

- ▶ the performance of administrative functions

- ▶ the level of support required to provide fire services
- ▶ the number of personnel and fire stations
- ▶ the safety of fire and rescue operations
- ▶ the cost of services
- ▶ the most appropriate approach to managing volunteer personnel and increasing the number of volunteers

It is essential to strengthen the capability of the current combination Fire Department. Our observation is that the City does not have sufficient capability to increase the resources devoted to the Fire Department. The recommendations in this report may be viewed as radical, but it is our opinion that drastic and prompt action is necessary to prevent the Fire Department from further deterioration.

During the course of interviews, it became apparent that many members of the Fire Department believe that it is dysfunctional. Many members of the Department cite the decrease in the number of volunteers and the aging of the volunteer component as critical issues. However, there is no systematic process to recruit, train, and retain volunteers. Firefighters identify a range of concerns, such as the lack of communication within the Department, the lack of community spirit and morale, and the lack of vision for the future of the Department as critical elements requiring action.

Fire Department and City personnel interviewed for this study gave freely of their time and answered questions openly. Personnel have served in the Fire Department for many years and clearly understand the history of the Fire Department, as well as its current shortcomings and weaknesses. Many of those interviewed were discouraged, but at the same time vocalized changes that are required to rescue the Department from the current set of circumstances. Volunteer and career personnel within the Department have the skill and knowledge to strengthen the Department, with appropriate leadership.

There are 34 major recommendations in this report; many of the recommendations may be relatively easy to implement. However, the primary recommendations will require discussion and careful consideration. The principal recommendations in the report include:

- The City of Beacon's Mayor and City Council should make a strong statement in support of the volunteer Fire Department. The statement should recognize the commitment of volunteers and serve as part of a mission statement for the Fire Department.
- The Mayor and City Council should direct the City Administrator and the Fire Advisory Board to develop a plan which, when implemented, will result in improvements in the Fire Department.
- The City of Beacon should adopt a new organizational model for the Fire Department. Two alternative leadership models should be considered: *Alternative #1 - Full-Time Fire Chief Model* and *Alternative #2 - Fire Administrator/Volunteer Fire Chief Model*. The Fire Chief, or the Fire Administrator, should report to the City Administrator. An extensive search should be undertaken to recruit candidates for a full-time Fire Chief, or Fire Administrator. The person employed, except for a short interim period, should be from outside the Fire Department. It is our recommendation that the City establish a full-time Fire Chief position; however, the Fire Administrator/Volunteer Fire Chief leadership model is a viable option.
- The Fire Chief, or the Fire Administrator, should establish a volunteer recruitment and retention committee composed of volunteers and members of the career department. The committee should define the scope of the program and participate in the implementation of the program. The Fire Chief or the Fire Administrator should make the development and implementation of the volunteer recruitment program a priority.
- The Fire Department should develop and implement a plan to improve its initial response capability.
- The current three fire station configuration should remain operational, until a new station is constructed. A plan should be developed which, in the long-term, results in the consolidation of companies and career personnel in one fire station. A three-phase plan should be adopted to merge career personnel into one operational unit. Full-time, career

personnel should operate as one organizational unit, which will require an expanded role for volunteers. Deployment changes should occur prior to the construction of a new station.

The report is organized into several chapters. This *Executive Summary* presents a context for the report and summarizes several major recommendations. Chapter II, *Findings and Recommendations*, provides a detailed list of the findings, conclusions, and recommendations made by the consultants. Chapter III, *Background and Demand for Services*, outlines the emergency response needs of the City. Chapter IV, *Organization and Leadership of the Beacon Fire Department*, describes the emergency response system and the organization and management structure of the Fire Department. Chapter V, *Measuring Performance Capability*, describes emerging standards and measures of response capability. Chapter VI, *Fire Station Location, Deployment, and Staffing*, presents computer mapping, and discusses station location and short-term and long term deployment of Fire Department resources. Chapter VII, *Recruitment and Retention, Training, Standard Operating Guidelines, and Administrative Practices*, addresses the need for an aggressive recruitment and retention program, the development of standard operating guidelines, and the necessity for accomplishing administrative work. Chapter VIII, *Implementation of Recommendations*, describes a process for implementing the major recommendations presented in the report.

II. FINDINGS AND RECOMMENDATIONS

The findings and recommendations in this report relate to many topics, including the Department's organization and structure, deployment of resources, volunteer and career staffing, recruitment and retention of volunteers, types of emergency services provided, department guidelines and standards, apparatus, and training of personnel. The most critical issues faced by the Fire Department are concerned with its organization, management, and deployment of personnel.

STUDY FINDINGS

The fire and rescue system in the City of Beacon requires revitalization. The current management system does not contribute to the Fire Department's ability to serve the needs of the City. The fire and rescue service will continue to change in many ways, and the Beacon Fire Department must be responsive to change. The primary findings of the study are organized into several broad categories.

FIREFIGHTER SAFETY AND RESPONSE FINDINGS

- The Fire Department's initial response to major incidents is insufficient; there are not enough responders and, as a result, the safety of volunteers and career personnel is compromised.
- The active volunteer component of the Fire Department is dangerously small.
- The Fire Department lacks a comprehensive automatic mutual aid system needed to support its operations.

ORGANIZATION AND DEPLOYMENT FINDINGS

- The current organizational structure and the chain of command in the Fire Department are no longer appropriate for the Fire Department.
- The Fire Chief functions as an operational commander, an incident commander, and a manager at major incidents.
- The reporting relationships within the Department are not clear.

- The Fire Lieutenant position is removed from many daily operations of the Fire Department. The Lieutenant serves, in effect, as the City's Development Director.
- The Fire Lieutenant often serves as the conduit for communications between the City administration and the Fire Department.
- The Fire Lieutenant is technically the supervisor of the career firefighting personnel, but does not supervise volunteer personnel. The Lieutenant has limited time to devote to supervisory duties.

ADMINISTRATIVE, LEADERSHIP AND MANAGEMENT FINDINGS

- The communication between the City administration (elected and appointed officials) and the Fire Chief is poor. The lack of communication directly affects the operation of the Fire Department.
- The Fire Chief does not perform all of the administrative functions required to operate the Fire Department. The administrative tasks and functions have grown beyond the capacity of a volunteer fire chief to manage effectively.
- The communication within the Fire Department, among fire companies, and between volunteers and career personnel lacks clarity.
- The elected leadership of the City is concerned about the accountability of the Fire Department.
- There is a common belief among volunteers that the Department requires leadership, administrative, and operational change.
- The Fire Department lacks modern standard operating procedures (SOPs) and Standard Operating Guidelines (SOGs).
- The Fire Department does not have a published capital plan for the replacement of major equipment and apparatus.
- The Fire Department does not have a method by which rank-and-file personnel may participate in solving problems

- The Fire Department does not have a system to report its activities and achievements.

TRAINING AND VOLUNTEER RECRUITMENT AND RETENTION FINDINGS

- The Fire Department has a career firefighter who serves as a training officer and a volunteer who serves as the municipal training officer.
- The Fire Department does not have an integrated training program which responds to the needs of the Fire Department.
- The municipal training officer and the career training officer conduct sound training programs, but are hampered by the lack of a training needs assessment and policy direction.
- The Fire Department does not have a systematic volunteer recruitment program.
- The Fire Department does not have standards for promotion of officers. There is no career ladder in the Department.

FIRE STATION LOCATION AND DEPLOYMENT FINDINGS

- The current three fire station response model no longer meets the needs of the City. The geographic size of the City and the road network support the concept of delivering services from one fire station.
- The three fire station configuration requires alteration, but this alteration must be accomplished in the context of a more comprehensive deployment/station relocation plan.
- The deployment of career personnel, one to each station, requires reconsideration.
- The Beacon Volunteer Ambulance Corps and the Beacon Fire Department have established an effective working relationship which is mutually supportive. The current joint, or tiered, response system is effective.

RECOMMENDATIONS

The primary recommendations presented in this report are concerned with establishing new organizational relationships and making improvements to the

current service delivery system. Several principal recommendations will influence the success of the effort to improve the Fire Department. The need to restructure the leadership roles in the Fire Department should be the primary concern of members of the Fire Department and the City administration. The City Administrator should appoint a Fire Chief, or a strong Fire Administrator, to direct the operations of the Fire Department. The Department should be reorganized and serious consideration should be given to merging volunteer fire companies into one organization, if revitalization is not deemed feasible. The Fire Advisory Board should play an active role in assisting the City administration in implementing recommendations, and monitoring success within the Fire Department.

The recommendations are organized into broad categories. A number of factors should be considered when assessing recommendations. Critical factors include the safety of firefighters, the safety of the public, the effectiveness of operations, sensitivity to costs, and the interdependence of fire and rescue agencies.

LEADERSHIP RECOMMENDATIONS

- The Mayor and City Council of the City of Beacon should make a strong statement of support for the volunteer Fire Department. The statement should recognize the commitment of volunteers.
- The leadership of the fire companies should recognize that a number of changes are necessary in the Fire Department. These changes will appear dramatic, but are essential to prevent a deterioration of the Fire Department.
- The Mayor and City Council should direct the City Administrator and the Fire Advisory Board to develop a plan which, when implemented, will result in improvements in the Fire Department.
- The role of the Fire Chief should be altered to reflect the current needs of the Fire Department. Two alternative leadership models should be considered: *Alternative #1 - Full-Time Fire Chief Model* and *Alternative #2 - Fire Administrator/Volunteer Fire Chief Model*.
- The Fire Administrator position may be considered a transitional position; the Fire Administrator position could eventually become the full-time Fire Chief position.

- The full-time Fire Chief, or Fire Administrator, should be employed after an extensive search. Except for a brief interim period, the person employed in the position should be from outside the Fire Department.
- The qualifications for the full-time Fire Chief, or the Fire Administrator, should include fire and emergency management experience as a volunteer or career command officer and experience with financial management and labor relations. Strong human relations and communication skills should be an essential qualification for the position.
- The City should develop a schedule to achieve changes in the Fire Department. The Fire Advisory Board should help define the schedule.
- The proposed full-time Fire Chief, or the Fire Administrator, should be paid a competitive salary.
- The new Fire Chief, or Fire Administrator, should be expected to meet specific performance goals and objectives.
- The Fire Chief, or the Fire Administrator, should develop a formal process for communicating about Fire Department activities with the City Administrator, Mayor, and City Council.
- The Fire Department should implement a system to encourage internal communication by periodic meetings and other mechanisms.

INITIAL RESPONSE IMPROVEMENT RECOMMENDATIONS

- The Fire Department should immediately improve its initial response capability to improve firefighter safety and strengthen response.
- The initial response capability improvement process requires the Fire Department to identify target hazards and develop a comprehensive preplanning program. The target hazard program and preplanning effort may be accomplished by company or response area.
- The Fire Department should develop, along with the preplanning effort, a comprehensive automatic mutual aid program.

- The Fire Department should continue to provide first responder emergency medical services. The current response system, which jointly deploys Beacon Volunteer Ambulance Corps and Beacon Fire Department units, should be continued.

ORGANIZATION RECOMMENDATIONS

- The Fire Department should be reorganized. The organization model selected is a function of the decision to create a full-time Fire Chief or Fire Administrator position.
- The new Fire Chief, or Fire Administrator, should carefully review the capabilities of each volunteer fire company and work with company officers to determine whether the fire companies should be merged into one fire company.
- The Fire Advisory Board should continue to assist the City Administrator in evaluating the capability and the responsiveness of the Fire Department.
- The role of the Fire Lieutenant position should be redefined. The Lieutenant could be reassigned to the Fire Department to serve in a management role under the Fire Chief, or Fire Administrator.

FIRE STATION LOCATION AND DEPLOYMENT RECOMMENDATIONS

The number and location of fire stations are directly related to staffing and the deployment of personnel. Several station locations are possible.

- The Fire Department should eventually operate with one fire station.
- The construction of a fire station should be part of a long-term plan for the Fire Department.
- The current three fire station configuration should remain operational until a new station is constructed. A plan should be developed which results in the consolidation of companies and career personnel in one fire station. The fire station consolidation plan should consist of the following phases:
 - ▶ Phase 1 - No change in station operations; one career firefighter, or more, is deployed to each station.

- ▶ Phase 2 - Station operations change; career personnel are all deployed to one station. Three fire stations remain open and operational policies link volunteer and career response. In Phase 2, volunteers are trained to drive apparatus and volunteers respond from each station.
- ▶ Phase 3 - A new consolidated station becomes operational and volunteer and career personnel operate from the station.

APPARATUS RECOMMENDATIONS

- The apparatus fleet should be altered with the consolidation of resources in one fire station.
- The apparatus fleet should be composed of a ladder with pump capability (quint apparatus), two engines, and one rescue.
- The City and the Fire Department should consider replacing the tower-ladder with a quint apparatus (aerial apparatus with pump capability).

TRAINING AND VOLUNTEER RECRUITMENT RECOMMENDATIONS

- The Fire Chief, or the Fire Administrator, should instruct the municipal training officer to evaluate the training level and the methods by which training is organized in the Fire Department by conducting a training needs assessment,
- Once a needs assessment is completed, the municipal training officer should be authorized to develop and organize training programs for firefighters and fire officers.
- The Fire Chief, or the Fire Administrator, should establish a recruitment and retention committee composed of volunteers and members of the career department. The committee should develop a recruitment program and participate in the implementation of the program. The committee should examine national models for recruitment and retention and identify specific action steps for the Fire Department to take.
- The Fire Chief, or the Fire Administrator, should make the development and implementation of the volunteer recruitment program a principal goal.

III. BACKGROUND AND DEMAND FOR SERVICES

FIRE AND EMERGENCY SERVICES IN THE CITY OF BEACON

The Beacon Fire Department is a combination fire department, built around the concept of having a small group of full-time (career) firefighters, who support a large group of volunteer firefighters. The Fire Department has three fire companies: Beacon Engine Company No. 1, Lewis Tompkins Hose Company No. 1, and W. H. Mase Hook & Ladder Company No.1. Exhibits 1 to 5 provide a profile of the membership of the Fire Department. The data for these exhibits were provided by the BFD.

The Fire Department employs 13 career firefighters and reports 67 volunteer members. Fifty-six of the volunteers are firefighters and 11 are fire-police. Based on interviews, discussions, and meetings with volunteer personnel, there are approximately 25 active volunteers. The average age of the volunteer firefighters in Beacon is 40.5, including three junior firefighters and 11 fire-police volunteers. The average age of the volunteer group is 36, if the fire-police volunteers are removed from the average. The average age of career personnel is 42.5. The distribution of volunteer firefighter and career firefighter ages is shown below.

EXHIBIT 1
AGE OF VOLUNTEER AND CAREER PERSONNEL*

AGE RANGE	VOLUNTEER PERSONNEL	CAREER PERSONNEL
Over 70	3	
60-69	1	
50-59	8	2
40-49	13	8
30-39	5	1
20-29	20	2
Under 20	6	
Total	56	13

* Does not include Fire-Police.

The number of responses by each volunteer in 2009 ranged from 254 responses to zero responses. In 2009, there were 52 volunteer members; four of

those members did not respond to any calls for service. Several new members have been added to the department since 2009. Exhibit 2 shows the number of responses made by volunteers. There were 740 runs, not including EMS runs, in 2009; on average, each volunteer responded to 61 runs. In the first six months of 2010, there were 473 runs, not including EMS runs; the average volunteer responded to 22 runs. Thirteen volunteers did not respond to any runs in the first six months of 2010. These data do not include the fire-police volunteers.

EXHIBIT 2
RESPONSES BY VOLUNTEERS

NUMBER OF RESPONSES	RESPONSES BY VOLUNTEERS IN 2009	RESPONSES BY VOLUNTEERS IN 2010
More than 250	2	
150-249	1	
100-149	6	1
80-99	8	0
60-79	4	4
40-59	8	3
20-39	9	12
Less than 20	14	32
Total	52	52

* Does not include junior firefighters.

The number of volunteers has decreased since 2001. The Department has added some personnel, and lost some personnel during the last several years. Over the last 10 years, there has been a net reduction of about 15 members, or 18 percent.

EXHIBIT 3
VOLUNTEER MEMBERSHIP - 2001 TO 2010

YEAR	NUMBER OF MEMBERS	MEMBERS ADDED	MEMBERS DEACTIVATED	DIFFERENCE
2001	82	8	14	-6
2002	76	8	9	-1
2003	75	8	13	-5
2004	70	15	12	3
2005	73	12	8	4
2006	77	8	16	-7
2007	70	6	12	-6
2008	64	5	11	-6
2009	58	3	3	0
2010	67	9	0	9

The Fire Department reported nine major fire incidents during the first six months of 2010. Exhibit 4 shows the responses to these incidents made by paid and volunteer personnel. Two incidents were mutual aid incidents. There was an average of 16.78 responders to each incident, including fire-police volunteers; on average, approximately 15 firefighters responded to each major incident; however, no time frame for response is shown. It appears that the initial attack is typically composed of six or seven firefighters.

EXHIBIT 4
RESPONSE OF PERSONNEL TO SERIOUS FIRE INCIDENTS - JANUARY TO JUNE 2010

OFFICERS	VOLUNTEERS				PAID PERSONNEL	
	INTERIOR FIREFIGHTERS	EXTERIOR FIREFIGHTERS	JUNIOR FIREFIGHTERS	FIRE-POLICE	FIREFIGHTERS	TOTAL
6	4	0	0	2	3	15
5	5	1	0	1	3	15
8	10	0	2	3	6	29
4	6	0	1	1	3	15
2	2	1	0	1	1	7*
9	9	1	1	2	3	25
3	2	1	0	2	3	11
2	3	1	0	2	2	10*
8	5	1	3	3	4	24
5.22	5.11	0.67	0.78	1.89	3.11	16.78

*Mutual aid response.

Volunteer response varies by time of day. The strongest volunteer response generally occurs between 8:00 a.m. and 8:00 p.m. daily. Exhibit 5 displays the response of volunteers to non-EMS responses from January 1 to June 30, 2010.

EXHIBIT 5
VOLUNTEER RESPONSE BY TIME OF DAY

TIME OF DAY	TOTAL RUNS	AVERAGE VOLUNTEER RESPONSE
0:00- 0:59	9	3.14
1:00- 1:59	3	0
2:00- 2:59	2	1.00
3:00- 3:59	1	0
4:00- 4:59	4	3.00
5:00- 5:59	8	2.50
6:00- 6:59	7	0.75
7:00- 7:59	18	2.16
8:00- 8:59	21	1.64
9:00- 9:59	24	2.79
10:00- 10:59	30	4.36
11:00- 11:59	26	4.89
12:00- 12:59	37	4.04
13:00- 13:59	33	4.58
14:00- 14:59	28	4.47
15:00- 15:59	36	5.27
16:00- 16:59	36	5.36
17:00- 17:59	22	6.66
18:00- 18:59	38	6.87
19:00- 19:59	32	4.96
20:00- 20:59	26	6.38
21:00- 21:59	12	7.9
22:00- 22:59	11	5.27
23:00- 23:59	9	1.75
	473	3.74

The Fire Department operates from three fire stations, and has a budget of \$1,538,849 (2010). The career personnel are deployed with one firefighter at each station. Historically, personnel were employed to drive apparatus to the scene of an incident. Exhibit 6 describes the three fire stations and the apparatus at each station.

EXHIBIT 6
FIRE STATIONS AND APPARATUS

FIRE STATION	BUILDING DESCRIPTION	APPARATUS DESIGNATION	APPARATUS DESCRIPTION
Beacon Engine Company No. 1 57 East Main Street	Built in 1889, the building is cramped for apparatus space. Crew quarters and a small meeting room (day room) is on the first floor. A meeting hall is on the second floor, and a social room is in the basement. Although old, the building is maintained in a serviceable condition. Parking is in a lot across the street from the building. There is no visible capacity for expansion.	Engine 33-11	2004 American LaFrance Eagle 2,000 gpm pump 750-gallon water tank
Mase Hook & Ladder Company No. 1 425 Main Street	Built in 1911, the building barely contains the Department's aerial vehicle. Crew quarters are on the ground floor. The second floor includes a kitchen and fitness area. The third floor has a large meeting room which is no longer in use. It was reported that the building was rehabilitated in 1972. Parking for personnel is at the rear of the building, which blocks the exit path of the aerial vehicle.	Tower Ladder 33-45	2005 American LaFrance/LTI 100-foot midship mounted aerial
Lewis Tompkins Hose Company No. 1 13 South Avenue	Built in 1982, the building is the newest and largest station. The ground floor houses the apparatus, crew quarters, day room, and social area. The bottom floor houses a spacious meeting room. There is parking on the side and at the back of the building.	Engine 33-12 Engine 33-13 Engine 33-55	1993 Sutphen Engine 1,750 gpm pump 500-gallon water tank 1986 Pierce Arrow 1,750 gpm pump 500-gallon water tank 2006 Pierce Lance Heavy Duty Rescue

DEMAND FOR SERVICES AND EMERGENCY RESPONSES

Exhibit 7 shows responses by the BFD. The Department can be expected to respond to approximately 1,700 calls for service annually. There has been an increase of 6.7 percent in calls for service since 2005. Exhibit 8 graphically displays the calls, by month, for the last five years. Each year is shown as a different colored line; the five-year average is shown as a thick black line.

EXHIBIT 7
FIRE DEPARTMENT RESPONSES BY YEAR AND MONTH - 2005 THROUGH 2009

YEAR	2005	2006	2007	2008	2009	AVERAGE
January	152	106	128	160	157	140.6
February	117	119	111	171	117	127.0
March	132	120	130	136	141	131.8
April	152	124	233	127	141	155.4
May	135	146	119	148	155	140.6
June	104	117	133	153	147	130.8
July	122	127	125	138	146	131.6
August	136	113	151	139	155	138.8
September	126	135	138	156	131	137.2
October	191	111	111	169	155	147.4
November	120	124	105	134	127	122.0
December	117	143	152	158	139	141.8
Total Runs	1,604	1,485	1,636	1,789	1,711	1,645.0
Percent Change		-7.4%	10.2%	9.4%	-4.4%	6.7%

EXHIBIT 8
FIRE DEPARTMENT RESPONSES BY MONTH - 2005 THROUGH 2009

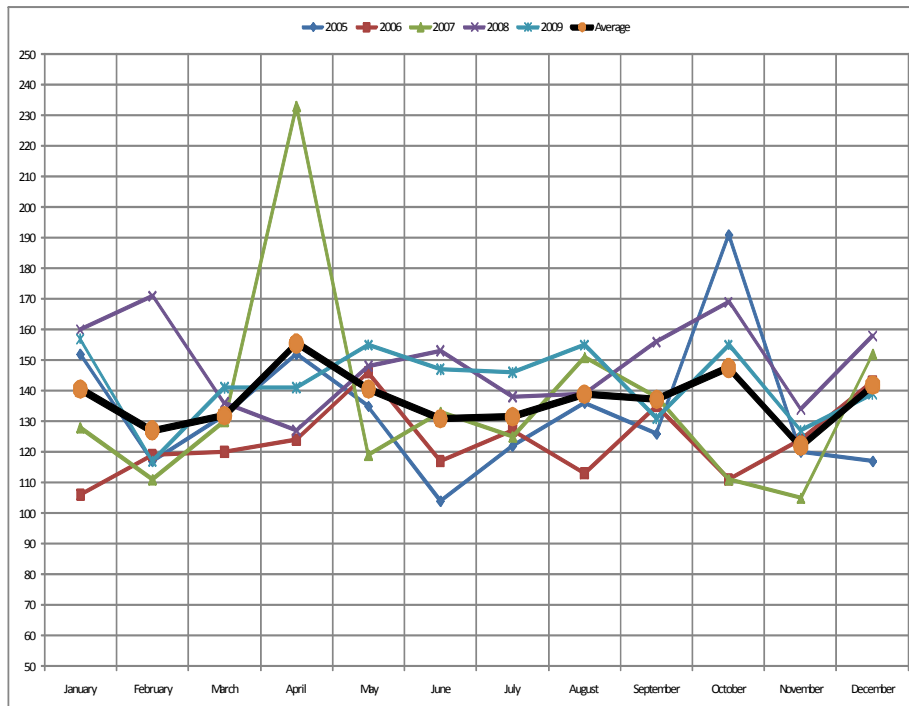


Exhibit 9 shows the number of calls for service during the last five years, by type of call. The data indicate that 3.9 percent of the calls are fire calls, 63.7 percent of calls are for emergency medical service, and 32.4 percent are for other types of calls.

EXHIBIT 9
FIRE DEPARTMENT RESPONSES BY TYPE - 2005 THROUGH 2009

RUNS BY TYPE OF CALL	2005	2006	2007	2008	2009	AVERAGE	PERCENT OF CALLS
<i>Fire Calls</i>							
Structure Fires	34	27	46	38	44	37.8	2.3%
Other Fires	24	37	26	23	23	26.6	1.6%
Total Fires	58	64	72	61	67	64.4	3.9%
<i>EMS & Rescue Calls</i>							
EMS Support Runs	998	951	909	973	968	959.8	58.3%
Other Rescue	89	67	90	93	100	87.8	5.3%
Total EMS & Rescue	1,087	1,018	999	1,066	1,068	1047.6	63.7%
<i>Other Calls</i>							
Overpressures	6	2	1	9	7	5.0	0.3%
Service Runs	94	47	226	305	270	188.4	11.5%
Hazardous Condition	109	121	77	86	66	91.8	5.6%
False Alarms	250	233	261	262	233	247.8	15.1%
Total Other	459	403	565	662	576	533.0	32.4%
Total Calls	1,604	1,485	1,636	1,789	1,711	1,645.0	100.0%

The data collected relating to Fire Department staffing and deployment suggest several broad conclusions.

- The number of calls for service appears to have increased, but on a modest scale.
- The number of volunteers shows a slow steady decline.
- The number of total responses by volunteers, on average, appears somewhat low.
- The number of firefighters responding to major fire incidents appears relatively large, but the time frame of response is unclear.

- The initial number of personnel available and responding to a major incident may be low.
- The fire stations are old and the apparatus fleet appears in generally good condition.

IV. ORGANIZATION AND LEADERSHIP OF THE BEACON FIRE DEPARTMENT

ORGANIZATION OF THE FIRE DEPARTMENT

CURRENT ORGANIZATION

The BFD organization structure has not changed for a significant period of time. The basic framework was in place prior to the creation of the current City form of government in Beacon. The current organization structure provides for the election of the volunteer Fire Chief by each of the three fire companies. The Chief is responsible for management of the Department and oversight of emergency operations. The Fire Lieutenant, the only career officer, is technically responsible for supervision of the full-time personnel, but most of his time is devoted to overseeing the City's Building Department. The Fire Chief is accountable to the fire companies for his or her performance and to the City Administrator, as a department head. The Fire Lieutenant, similar to the Fire Chief, has two supervisors. The Lieutenant reports to the Fire Chief in his role as a fire officer, but also reports to the City Administrator in his role as the manager of the Building Department.

The Fire Chief supervises the career personnel on the scene of an emergency, but not on a daily basis. However, it appears that the Fire Chief instructs career personnel to perform certain duties, which may conflict with the instructions of the Fire Lieutenant. It is important to note that the supervision of the full-time personnel is somewhat difficult since, for most of each shift, one firefighter is deployed at each of the three stations.

The current organization does not meet the needs of a modern fire department. There is a lack of clear lines of authority and the accountability for actions is fragmented. The Department requires an organization with clear lines of authority, so that the leadership of the Department may be held accountable for decision-making.

The City has created a Fire Advisory Board to assist the City administration in working with the Fire Department. While the Board is advisory in nature, the composition of the Board brings credibility to its actions. Several Board members have extensive experience in the BFD as a volunteer or as a career employee and/or with the management of organizations. The Board was clearly established because of the general belief that there were underlying problems in the Fire Department. The

Board is composed of five members appointed by the Mayor for three-year terms of office. The responsibilities are set forth in the language creating the Board.

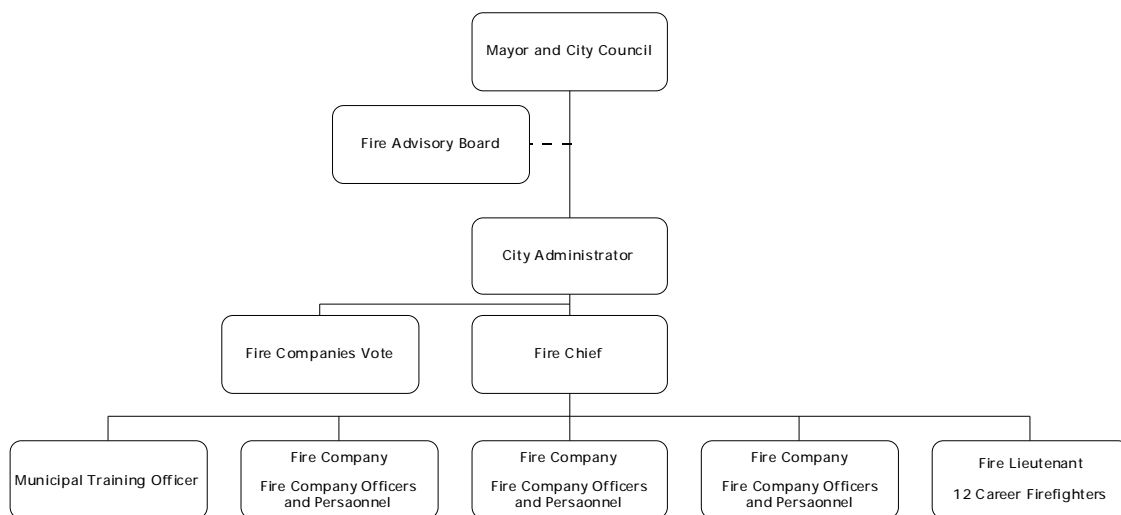
The Fire Advisory Board is charged with advising and making relevant policy and planning recommendations to the Mayor, City Council, City Administrator, and fire department chiefs and officers on fire department-related issues. The board also oversees the implementation of the fire department's 21st Century Report. . . . At least three of the members shall have substantial firematic background.

In summary, the organization of the Fire Department has several deficiencies:

- The Department lacks clear lines of authority.
- The Department's organization is fragmented and does not encourage accountability for actions.
- The Department's organization is not appropriate for the City.

Exhibit 10 illustrates the current organizational relationships within the Fire Department.

EXHIBIT 10
CURRENT ORGANIZATION OF THE FIRE DEPARTMENT



ROLE OF THE VOLUNTEER FIRE CHIEF

The Beacon Fire Department is under the direction of a volunteer Fire Chief, who is responsible for the management and operations of the Fire Department. As we understand it, the volunteer companies select the Fire Chief primarily on the basis of the capability of the individual to manage and oversee fire and rescue operations. The current conflict between the Fire Department and the City administration is concerned with the completion of administrative tasks and communication of important information. The incumbent Fire Chief focuses his efforts on firefighting and emergency response issues, not on internal management and administrative issues.

It is our view that the Beacon Fire Chief should focus on the following issues:

- ▶ managing and administering the Fire Department
- ▶ managing relations between fire companies and career personnel
- ▶ assessing the ability of officers and firefighters to appropriately respond to emergencies
- ▶ responding to emergency incidents
- ▶ planning for emergency response and the future of the Fire Department
- ▶ working with adjacent fire departments to develop an unified automatic aid program
- ▶ communicating with elected and appointed officials
- ▶ overseeing and personally encouraging the development of a volunteer recruitment program

The responsibilities outlined for the Fire Chief are a function of the changing nature of the fire service in the City of Beacon. In addition, the administrative demands on the Fire Chief have grown in response to new State-wide policies and emerging standards and best practices. The City should address the administrative demands on the Fire Chief and consider alternatives. Two alternatives seem appropriate: employ a full-time fire chief; or, employ a full-time administrator (with all the responsibilities of a chief, except emergency response) and a volunteer fire chief. These options are shown below.

Alternative #1, the Full-Time Fire Chief Model, requires the City to appoint a Fire Chief to oversee all operations of the Fire Department.

The Fire Chief should:

- ▶ Report directly to the City Administrator and be subject to the evaluation of the City Administrator.
- ▶ Direct and manage, either directly or through clearly designated supervisors, the operations of the career firefighters.
- ▶ Direct the operations of the volunteer fire companies through the fire company command structure.
- ▶ Oversee the development of SOPs and SOGs.
- ▶ Oversee training policies and priorities.
- ▶ Oversee, directly or through subordinates, all emergency operations.
- ▶ Oversee all administrative affairs of the Department.
- ▶ Work with the City Council and the Fire Advisory Board.
- ▶ Direct and oversee the volunteer recruitment and retention program.

Alternative #2, the Fire Administrator/Volunteer Fire Chief Model, requires City to appoint a Fire Administrator to oversee all operations of the Fire Department, except emergency operations. The volunteer Fire Chief would be responsible for the command of fire and rescue operations. The Fire Administrator would not have a role in the command structure of emergency operations. The Fire Chief would continue to be a volunteer. The Fire Administrator would be responsible for all administrative operations of the Fire Department and management of resources and personnel.

The Fire Administrator should:

- ▶ Report directly to the City Administrator and be subject to the evaluation of the City Administrator.
- ▶ Manage Fire Department finances, purchasing, and administrative functions.
- ▶ Develop and manage the Fire Department capital plan.
- ▶ Supervise full-time employees of the Fire Department, when personnel are not committed to an emergency operation.
- ▶ Direct and oversee all administrative affairs of the Department.
- ▶ Work with the City Council and the Fire Advisory Board.
- ▶ Direct and oversee the volunteer recruitment and retention program.

The success of the Fire Administrator model depends on the development of a sound working relationship between the Fire Chief and the Fire Administrator. The

Fire Administrator position may be considered a transitional position; the Fire Administrator position could eventually become the full-time Fire Chief position.

RECOMMENDATION 1: *The Beacon Fire Department should employ a full-time Fire Chief, or a Fire Administrator.*

RECOMMENDATION 2: *The decision to employ a full-time Fire Chief, or a Fire Administrator, should be made as soon as possible, ideally within the next two months.*

The needs of the Fire Department are critical at this time; the City should create the position of full-time Fire Chief or Fire Administrator within three months, and employ a qualified individual as soon as possible. This requires that the City make a decision regarding the employment of a full-time Fire Chief, or a Fire Administrator, as soon as possible.

PROPOSED ORGANIZATION OF THE FIRE DEPARTMENT

The creation of the full-time Fire Chief position, or the Fire Administrator position, will require the reorganization of the Fire Department. Under the reorganization, the command structure must be clear and reporting relationships must be defined. The organization model selected will depend on the decision to create a full-time Fire Chief or Fire Administrator position.

- The full-time Fire Chief should report to the City Administrator. The Fire Chief should oversee:
 - ▶ The fire companies
 - ▶ The training officer (career and volunteer)
 - ▶ The Fire Lieutenant
 - ▶ The full-time personnel and volunteer personnel
 - ▶ The response to emergency incidents
 - ▶ The recruitment and retention of volunteers
 - ▶ The budget development and administration process

- The Fire Administrator should report to the City Administrator. The Fire administrator should oversee:

- ▶ The volunteer Fire Chief, for administrative matters
- ▶ The fire companies, for administrative matters
- ▶ The training officer, for planning and administrative matters
- ▶ The Fire Lieutenant
- ▶ The recruitment and retention of volunteers
- ▶ The budget development and administration process

The *Full-Time Fire Chief Model (Alternative #1)* and the *Fire Administrator/Volunteer Fire Chief Model (Alternative #2)* are two viable options to consider. It is important to note that the position of Fire Administrator could be a transitional position. The full-time Fire Chief position is the more desirable of the two alternatives.

RECOMMENDATION 3: The Beacon Fire Department should reorganize.

In addition to the creation of a full-time Fire Chief or Fire Administrator position, the City should reassign the Fire Lieutenant to work in the Fire Department on a full-time basis. This reassignment might be difficult to achieve in the short-term, since the Lieutenant is serving as a City department head. The Lieutenant position could serve a valuable role as a supervisor in the Department and assist the new Chief in carrying out the day-to-day business of the Fire Department. The Lieutenant should work days, to provide continuity of supervision for each shift of full-time firefighters.

The Lieutenant should assist with functions such as supervision, coordinating the training committee and the committee developing SOGs and SOPs, serving as the fire marshal, and generally supporting the administrative functions of the Fire Department.

RECOMMENDATION 4: The Fire Lieutenant should be assigned to work in the Fire Department on a full-time basis.

One of the most sensitive issues in this study is the future of the Fire companies. Beacon Engine Company No. 1, Lewis Tompkins Hose Company No. 1, and W. H. Mase Hook & Ladder Company No.1 have long histories and have been the backbone of the Fire Department for many years. The Fire Department is organized around the fire company concept and is fully dependent on the cooperation and

support of the individual fire companies. The companies also select the Fire Chief. During the course of interviews and discussions with volunteers, a number of volunteers focused on the tradition of the companies and expressed concern that the historic names of the fire companies may be lost.

It is apparent that history and tradition are a large part of the fire service in the City. The consultants believe that history and pride of purpose for a fire company are important motivating factors. However, the Fire Department is faced with the issue of viability of the fire companies. To be effective, each company must have a sound organization with skilled officers and a sufficient number of volunteer personnel.

It is essential that the strength and future of the fire companies be discussed within the Department, since the BFD depends on the success of each company. The leadership of each fire company, the Fire Chief, the Fire Advisory Board, and City officials should meet to discuss the health of the fire companies and the steps necessary to improve their viability. If there is concern about the continuing viability, serious consideration should be given to creating one unified volunteer organization and redesigning the company organizational structure. A fire company should review its operations by examining:

- ▶ the total number of active volunteers within the company
- ▶ the number of trained interior firefighters within the company
- ▶ the number of responses made by each volunteer within the company
- ▶ the experience and training of fire officers within the company

***RECOMMENDATION 5:** The leadership of the fire companies, the Fire Chief, and the Fire Advisory Board should discuss the viability of the fire companies.*

RECRUITMENT AND SELECTION OF A FULL-TIME FIRE CHIEF OR FIRE ADMINISTRATOR

The selection of a Fire Chief, or a Fire Administrator, should be accomplished using an open competitive recruitment process. The City should be able to demonstrate to the public and to the volunteer and career members of the Fire Department that the City is seeking the best possible candidate.

The recruitment process should be designed to encourage applicants from a variety of fire and rescue organizations. The Fire Advisory Board should work with the City Administrator in the recruitment and selection process. The Fire Advisory Board should be charged with the responsibility for working with the City Administrator and assisting in the interview and selection process. The recruitment and selection process is likely to take five to six months.

***RECOMMENDATION 6:** The selection of a Fire Chief, or Fire Administrator, should be accomplished using an open competitive recruitment process.*

***RECOMMENDATION 7:** The Fire Advisory Board should be charged with the responsibility to assist the City Administrator with the recruitment and selection a Fire Chief, or Fire Administrator.*

The recruitment and selection process should include several tasks.

- ▶ The City Administrator and the Fire Advisory Board should develop the qualifications for the position.
- ▶ The City Administrator and the Fire Advisory Board should develop both a job description for the position and an advertisement.
- ▶ The advertisement should be brief, state the general functions of the position, the qualifications, and the approximate salary. The advertisement should be designed for placement on the internet and in professional journals and publications.
- ▶ The Fire Advisory Board and the City Administrator should review résumés.
- ▶ The Fire Advisory Board and the City Administrator should conduct interviews.
- ▶ The City should conduct background reviews of the top candidates.
- ▶ The City Administrator should negotiate a contract with the most desirable candidate.

A reasonable time line for recruiting the full-time Fire Chief, or Fire Administrator, is shown in the following exhibit. Once the position is approved, it will take approximately five to six months before the position is filled and the person is on the job.

EXHIBIT 11
RECRUITMENT TIME LINE

TASK	APPROXIMATE TIME LINE
Fire Advisory Board and City Administrator meet to organize the recruitment process.	Week 1
Qualifications for the position and job description developed.	Week 4
Job advertisement developed and placed.	Weeks 4 to 5
Résumés are collected; outreach work is conducted.	Weeks 4 to 10
Résumés screened.	Weeks 8 to 10
Interviews of desirable candidates.	Weeks 12 to 14
Return visit by candidates for additional interviews and tour of facilities. Background reviews conducted.	Weeks 15 to 16
Fire Advisory Board and City Administrator identify and recommend one or more candidates for selection.	Weeks 16 to 17
Contract negotiated with appropriate candidate.	Weeks 18 to 20
New Fire Chief or Fire Administrator employment begins.	Weeks 24 to 26

The qualifications for the full-time Fire Chief, or the Fire Administrator, are generally very similar. However, the roles of the Fire Chief and the Fire Administrator are substantially different. The candidate for the position of Fire Chief, or Fire Administrator, should be well versed in the operations and management of a fire and rescue agency. The qualifications for either position should include fire and emergency management experience as a volunteer or career command officer and experience with financial management and labor relations. Strong human relations and communication skills should be an essential qualification for the position. Exhibit 12 outlines the desirable qualifications for the positions of Fire Chief and Fire Administrator. A detailed job description for the position of Fire Chief is presented at the end of this chapter.

EXHIBIT 12
DESIRABLE QUALIFICATIONS FOR FIRE CHIEF OR FIRE ADMINISTRATOR

<i>Experience</i>	<ul style="list-style-type: none"> Extensive experience in fire, rescue and emergency medical services Five or more years of supervisory experience (company officer) Five or more years of command experience (chief officer) Experience as a volunteer Experience managing personnel and resources Experience as an incident commander and manager of large emergency incidents
<i>Education & Training</i>	<ul style="list-style-type: none"> Extensive fire and rescue training Management and leadership training Incident management training Graduate of the National Fire Academy, or similar training regimen
<i>Knowledge</i>	<ul style="list-style-type: none"> Modern fire and rescue practices and philosophies Firefighter safety practices and procedures Labor relations and contract administration, grievance processes Strategic planning Business management practices Volunteer recruitment and retention programs and practices
<i>Skills & Abilities</i>	<ul style="list-style-type: none"> Ability to manage major fire and emergency incidents Ability to communicate effectively and clearly orally and in writing Ability to work with elected and appointed officials Ability to prepare and manage operating and capital budgets Ability to lead and supervise employees and volunteers

Opinions and views within the Fire Department are very strong; thus, a person employed as the new Fire Chief, or Fire Administrator, should not currently work for the Fire Department. If necessary, the City could employ a Fire Chief or Fire Administrator on an interim basis. Any person employed for an interim period should serve a relatively short time, no more than six months.

The City should enter into a contact with the new Fire Chief, or Fire Administrator. The contract period should be negotiated, but it is important to realize that the contract should be sufficiently long to enable the achievement of reasonable goals and objectives. A three-year contract should be anticipated. The proposed full-time Fire Chief, or Fire Administrator, should be paid a competitive salary and the City should anticipate that a strong candidate will seek other benefits. The City should anticipate that the Fire Chief, or Fire Administrator, will seek a salary of more than \$100,000 annually.

RECOMMENDATION 8: *The City should enter into an employment contract with the new Fire Chief, or Fire Administrator.*

RECOMMENDATION 9: *The new Fire Chief, or Fire Administrator, should be paid a competitive salary.*

RECOMMENDATION 10: *The City and the new Fire Chief, or Fire Administrator, should negotiate reasonable performance goals.*

The new Fire Chief, or Fire Administrator, should work with the Fire Advisory Board and the City administration to develop a plan for implementing change in the Fire Department. The new Fire Chief, or Fire Administrator, will require time to assess the condition of the Fire Department, meet personnel and discuss problems and concerns with members of the Fire Department. The new Fire Chief, or Fire Administrator, should be encouraged to be creative and propose new methods of operation.

Part of the change process should include the development of a formal process for communicating about Fire Department activities with the City Administrator, Mayor, and City Council. The Fire Chief, or Fire Administrator, should communicate openly with officials to build the credibility of the Fire Department.

RECOMMENDATION 11: *The new Fire Chief, or Fire Administrator, should make a systematic effort to communicate with City officials.*

Exhibit 13 presents a draft job description for the position of full-time Fire Chief.

EXHIBIT 13

FIRE CHIEF JOB DESCRIPTION

DEFINITION

Responsible for the direction of a volunteer fire department with a career component, the provision of emergency services and the protection of life and property; other related work, as required.

ESSENTIAL FUNCTIONS

The essential functions or duties listed below are illustrations of the type of work that is performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Responsible for directing emergency response functions, including incident command; establishes policies; assumes command of firefighters and firefighting resources and operations at fire and emergency incidents; oversees the fire and emergency response functions of the department; ensures that equipment and facilities are maintained.

Works with volunteer fire companies to strengthen and unify operations.

Organizes volunteer and career firefighters into a unified emergency response agency.

Prepares, presents, and defends the Fire Department budget; monitors and oversees expenditures.

Responsible for department volunteer and career personnel management; assists with contract negotiations; maintains labor-management relations; monitors the performance of personnel; initiates disciplinary actions.

Establishes department policies, rules and procedures; establishes goals and objectives for the department and personnel; develops and/or approves standard operating procedures; consults with City officials in developing policies for the protection of life and property.

Oversees the development and implementation of volunteer recruitment practices and development of specific recruitment programs specifically designed for the City.

Responsible for firefighter related administrative practices.

Performs similar or related work as required, directed, or situation dictates.

SUPERVISION

Works under the administrative and policy direction of the City Administrator; responsible for all management and administrative functions of the department, in conformance with applicable provisions of laws and professional standards; responsible duties require considerable initiative and judgment, particularly in emergency situations which do not fall clearly within established practices or precedents.

SUPERVISORY RESPONSIBILITIES

Supervises approximately 13 full-time employees and approximately 70 volunteers.

WORK ENVIRONMENT

Most work is performed in office conditions; some work is performed at emergency scenes and firefighting operations under varying weather conditions, and under conditions which may involve considerable personal danger with exposure to extreme heat, fuel spills, fumes or toxic substances; the employee is on call to respond to emergencies.

The employee operates standard office equipment, motor vehicles, medical equipment, and radio equipment.

The employee has ongoing contact with other City departments, government agencies, vendors, and the general public.

The employee has access to department-related confidential information, including personnel records, bid documents, collective bargaining negotiations, legal proceedings, criminal investigations and records, and confidential information pertaining to citizens.

Errors could result in personal injury, injury to others, damage to buildings or equipment, delay or loss of services, monetary loss and legal repercussions.

RECOMMENDED MINIMUM QUALIFICATIONS

EDUCATION AND EXPERIENCE

Advanced training in fire science and operation and management of fire departments; Associate's Degree or Bachelor's Degree in fire science or a related field desirable; specialized training in command principles; ten years of progressively responsible experience in firefighting and planning for emergencies, the organization of automatic aid, volunteer recruitment and retention efforts, prevention and inspection work, including five years in a command position; or an equivalent combination of education and experience.

ADDITIONAL REQUIREMENTS

Valid Motor Vehicle Operator's License

Graduation from the National Fire Academy, or similar training, desirable

KNOWLEDGE, ABILITY AND SKILL

Thorough knowledge of modern firefighting principles, equipment and techniques; thorough knowledge of the principles and practices of emergency services and hazardous materials, including ICS and NIMS; thorough knowledge of volunteer fire and rescue organizations; thorough knowledge of assessing emergency and fire risks; knowledge of life safety and building codes, and fire inspection practices and procedures; knowledge of municipal financial and budgetary procedures.

Ability to plan, assign, direct and review the work of volunteers and career personnel and direct operations of firefighters and equipment under emergency conditions; ability to establish and maintain effective and harmonious working relationships with volunteer and career personnel; ability to manage and control emergency situations; ability to communicate clearly and concisely in writing and orally and speak publicly on behalf of the City in crisis situations; ability to develop and maintain budgets and financial controls; ability to persuade citizens and public officials to support programs and policies.

Strong interpersonal skills; personnel management skills; planning skills; organization skills; written and oral communication skills.

PHYSICAL REQUIREMENTS

Minimal physical effort is required to perform administrative duties. The employee is frequently required to stand, walk, sit, speak and hear and use hands to operate equipment. Moderate to strenuous physical effort is required when responding to emergencies or conducting inspections. Vision requirements include the ability to read and analyze documents, use a computer and operate motor vehicles and other equipment.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.

V. MEASURING PERFORMANCE CAPABILITY

MEASURING RESPONSE CAPABILITY

Fire, rescue and emergency medical services have evolved in response to a number of emerging benchmarks and standards. These measures are concerned with the nature and safety of emergency response. The National Fire Protection Association (NFPA) has established several benchmarks, or standards, for measuring fire and rescue response. NFPA Standard 1720 applies to predominantly volunteer departments; NFPA Standard 1710 applies to career departments. In the City of Beacon, NFPA 1720 is applicable because the Fire Departments is predominantly staffed by volunteer personnel. There are a number of emerging standards and industry practices which have developed for emergency medical service providers.

NATIONAL FIRE PROTECTION STANDARD 1720

NFPA Standard 1720 is a performance standard, concerned with both the number of personnel who respond to an incident and the time it takes to respond to an incident. Exhibit 14 displays the performance standards for volunteer departments. NFPA Standard 1720 states that the City should identify the minimum staffing required to ensure that sufficient numbers of personnel are available to allow safe operations at an emergency scene. The exhibit presents the staffing and response time requirements from NFPA Standard 1720.

EXHIBIT 14
NFPA 1720 PERFORMANCE STANDARD
STAFFING & RESPONSE TIME STANDARDS FOR VOLUNTEER FIRE DEPARTMENTS

DEMAND ZONE	POPULATION PER SQ. MI.	NO. OF PERSONNEL	TIME IN MINUTES	PERCENTAGE OF TIME
Urban	>1,000	15	9	90%
Suburban	500 to 1,000	10	10	90%
Rural	<500	6	14	80%
Remote	travel distance >8 miles	4	-	90%

Source: NFPA 1720

NFPA Standard 1720 indicates that a City with a population density of less than 500 residents per square mile should be able deliver six firefighters to the scene of a fire within 14 minutes. In a City with a population density of 500 to 1,000

persons per square mile, the fire department should be able to deliver 10 personnel within 10 minutes.

Assuming an estimated population of 16,000, the City has a population density of approximately 3,333 persons per square mile (16,000 population divided by 4.8 square miles). The objective of the fire service in Beacon, given the Department's current configuration and NFPA Standard 1720, would be to deliver 15 personnel at the scene of an incident within nine minutes, 90 percent of the time. As we understand it, the BFD may not be able to achieve the response objective set forth in NFPA Standard 1720. The Fire Department reported nine major fire incidents during the first six months of 2010. Exhibit 4 in this report displays the responses to these incidents by paid and volunteer personnel. Two incidents were mutual aid incidents. There was an average of 16.78 responders to each incident, including Fire-Police, or an average of approximately 15 firefighters responding to each of these major incidents; however, no time frame for response is shown. The response data include responses from full-time personnel.

The Beacon Fire Department is able to rapidly deploy three full-time firefighters to an incident, but it is not clear to the consultants that a strong team of volunteer initial responders is available. The response time and staffing standard provided in NFPA 1720 also states that, upon arrival of the required number of personnel at the scene of an incident, a fire department should have the capability to safely begin initial attack within two minutes, 90 percent of the time. (See NFPA Standard 1720.)

The benchmarks or standards by which emergency medical performance is measured include the commonly applied Eisenberg Model and the American Heart Association's *Statement on Chain of Survival*. The commonly accepted benchmark for the delivery of ALS to the scene of a life-threatening incident requires the delivery of ALS within eight minutes and 59 seconds. This response is measured from the receipt of a call to arrival at the scene of an incident.

EISENBERG MODEL

Survivability for a non-breathing person is a function of application of CPR, defibrillation, and advanced life support. Models exist to predict survivability. One commonly applied model is the Eisenberg model, which estimates the probability of survival based on a system's ability to deliver the critical services in a timely manner. The model predicts that one-third of all non-breathing and/or cardiac arrest patients

may die immediately, and that the remaining individuals' probability of survival decreases by up to 5.5 percent for each subsequent minute; however, the decrease can be slowed by the application of various procedures (CPR, defibrillation, ACLS).

AMERICAN HEART ASSOCIATION

The American Heart Association, in its *Statement on Chain of Survival*, describes a sequence of events which must occur rapidly to allow a person to survive a sudden cardiac arrest. The chain of survival includes recognition of early warning signs, activation of the emergency medical system, basic cardiopulmonary resuscitation, defibrillation, intubation and intravenous administration of medications. Early defibrillation is identified as a critical link in the chain of survival. A sudden cardiac arrest victim who is not defibrillated within eight to 10 minutes has a very limited chance of survival.

NATIONAL FIRE PROTECTION STANDARD 1710

The response time benchmarks for substantially career fire departments are found in NFPA Standard 1710. The standard presents response time measures and staffing goals and also stipulates that these response time performance objectives should be achieved in at least 90 percent of the incidents. In summary, the response time standards are:

Fire Suppression Incident - Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and/or eight minutes (480 seconds) or less for the deployment of a full first-alarm assignment at a fire suppression incident.

Emergency Medical Incident - Four minutes (240 seconds) or less for the arrival of a unit with first responder (or higher) level capability at an emergency medical incident. Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.

Note: These response time performance objectives should be achieved at least 90 percent of the time.

These NFPA Standard 1710 time lines do not include dispatch and turn-out time. One additional minute is allowed for dispatch and one minute is added for turn-out time, for a total of two minutes. It should be noted that turn-out time is less when a fire department responds to an

emergency medical services incident, since personnel are not required to put on turn-out gear.

INSURANCE SERVICES OFFICE (ISO)

ISO has established some general station location standards, based on road travel distances. The ISO Fire Suppression Rating Schedule states in item #560, Distribution of Companies: *The built-upon area of the City should have a first-due engine company within 1.5 miles and a ladder-service company within 2.5 miles.*

The Beacon Fire Department does not have publically stated response benchmarks or goals. It is our view that specific response goals should be adopted by the Fire Department to develop a measure of success and provide a benchmark for improvement. Benchmarks should relate to providing fire and emergency medical service response.

The Beacon Volunteer Ambulance Corps and the Beacon Fire Department have developed an effective working relationship. In accordance with defined protocols, the Fire Department responds to assist and support the Ambulance Corps. The Fire Department, with its ability to deploy one to three full-time personnel rapidly, has the capability to provide essential first responder services and support the emergency medical system in the City of Beacon. Participation in the EMS response system by the Fire Department will contribute to meeting EMS benchmarks. The joint, or tiered, response system should be continued.

RECOMMENDATION 12: *The Beacon Fire Department should adopt emergency response benchmarks for fire and emergency medical response.*

RECOMMENDATION 13: *The Beacon Fire Department should adopt emergency response benchmarks set forth in NFPA 1720.*

RECOMMENDATION 14: *The Beacon Fire Department should continue to respond to emergency medical calls for service. Responses should be limited to life-threatening calls for service and other calls, based on agreements with emergency medical service providers.*

It should be noted that these benchmarks are goals to be achieved in the long-term; it is likely that such benchmarks will be difficult to achieve.

FIREFIGHTER SAFETY PRACTICES

The emerging benchmarks and standards discussed above must also be considered in the context of the safety of emergency response personnel. A number of important firefighter safety requirements should be considered.

- ▶ The *requirement* for a minimum of four equipped personnel to be present before entry in a structure fire incident.
- ▶ The *requirement* for a rapid intervention team (RIT) to be present for safety reasons at working structure fires.
- ▶ The *requirement* for a qualified incident commander and a qualified safety officer to be present at working incidents.

These benchmarks, standards, and recommended practices provide a framework for measuring a fire department's capability.

RECOMMENDATION 15: *The Beacon Fire Department should design a response system which follows sound safety practices.*

It is important to note that developing a comprehensive automatic mutual aid system will help the Fire Department achieve response benchmarks and support a safe and effective response system. One part of the plan to improve firefighter safety and strengthen response requires the Department to identify target hazards and develop a comprehensive preplanning program. The target hazard program and preplanning effort may be accomplished by company or response area. The preplanning effort will allow the Fire Department to develop a comprehensive automatic mutual aid program.

RECOMMENDATION 16: *The Beacon Fire Department should identify target hazards and develop a comprehensive preplanning program.*

RECOMMENDATION 17: *The Beacon Fire Department should develop and implement a comprehensive automatic mutual aid program.*

The development of the automatic mutual aid program will require Fire Department officials to enter into a discussion with surrounding fire departments and develop a mutually supportive response system.

The Fire Department does not have a systematic process for providing information to City elected and appointed officials. Information about the Fire Department should be systematically and routinely provided to the City Administrator, Mayor, and City Council. A quarterly reporting system should be developed. Quarterly reports should restate response goals and should measure the achievement of response goals that have been adopted. Reports should contain, at a minimum, data such as the number and type of calls for service and response time measured from dispatch to on-scene time. The BFD should indicate the number of volunteers responding to major incidents, and the time those volunteers arrive at the scene of an incident. Other information regarding the Fire Department, including information on the volunteer recruitment program, should be shared with officials.

***RECOMMENDATION 18:** The Beacon Fire Department should develop quarterly reports to inform City officials about Fire Department activity. Reports should present data on responses and other related information.*

VI. FIRE STATION LOCATION, DEPLOYMENT, AND STAFFING

Fire station location, staffing, and deployment are interrelated. The number of fire stations affects the number and deployment of personnel and the amount and type of apparatus. The consultants conducted a computer mapping analysis of the response capability of the BFD to assess fire station location. The computer analysis required the consultants to review maps of the City, examine transportation networks, conduct site visits to the stations, and review data. The computer mapping analysis allows an evaluation of the current fire and emergency response and deployment system.

MAPPING METHODOLOGY

Response coverage provided by the three existing fire stations in Beacon was analyzed using the consultant's computer mapping capabilities. The model analyzes the travel distances that can be attained by fire units leaving fire stations and responding throughout the City within a given time, assuming defined average response speeds. The color-coded maps presented in this report are designed to illustrate the response from each station.

The mapping methodology consists of the following steps:

- ▶ Prepare a digitized base map representation of the Beacon street and highway network.
- ▶ Locate the fire stations to be analyzed with respect to that network.
- ▶ Assign appropriate road speeds to reflect reasonable response expectations.
- ▶ Generate a map indicating travel time from the emergency response stations in time increments to the borders of the community.

The street network is based on TIGER files from the United States Census Bureau. The resulting digitized street network was used in the computer mapping analysis to determine travel times to various points in the City from the emergency response stations. In order to do this, the longitude and latitude of the fire station location was established and inserted on the digitized street network and speed assignments were made. The TIGER files from the United States Census Bureau report data from the 2000 census.

Response time maps were developed for this report. Thirteen maps displaying travel time, or response time, were developed. Three maps illustrate BFD current response coverage from three stations. Ten additional maps, displayed in the Appendix of this report, are designed to evaluate the location of a possible new fire station. With 4.8 square miles of land area, and a well defined road network, the City could be serviced with one fire station.

The maps indicate the streets covered in one-minute increments. The development of the travel time maps required the assignment of an average travel speed to roadways. The maps presented in this report have incorporated an average speed of 22 miles per hour for roadways in the City. The speed is based on the consultants' review of road conditions, discussions with members of the Fire Department, and the consultants' experience with emergency response situations. It is quite possible that at some times of the day, or year, these speeds may be exceeded, or not reached, because of weather, traffic, or other conditions. The speeds are used in the emergency response model solely for planning purposes. The objective is to provide a reasonable graphical representation of time-based response coverage from different emergency response locations within City of Beacon.

The travel time maps only depict over-the-road travel, or running times. Two minutes for notification, dispatch, and turn-out time should be added to these times for an estimate of total response time. This will provide a conservative estimate of response capability. Benchmarks and standards generally allow one minute or less for dispatching and one minute or less for turn-out time. For example, a four-minute travel time response represents only part of the response time to an incident. It is necessary to add two minutes to the travel time to establish the total response time. The three maps show the current response capability of the Fire Department. The maps are listed in Exhibit 15.

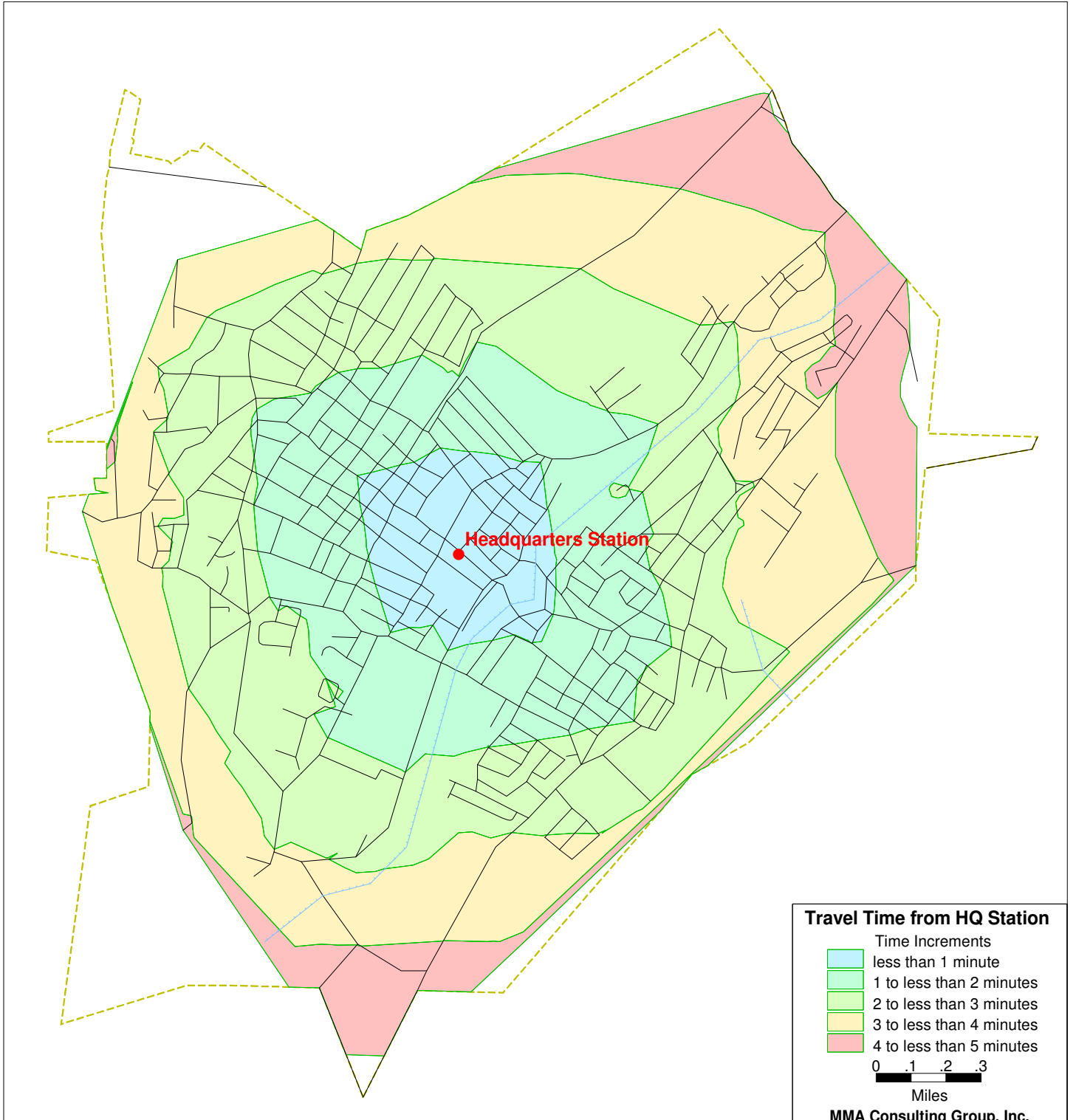
EXHIBIT 15
LIST OF MAPS

TRAVEL TIME MAPS

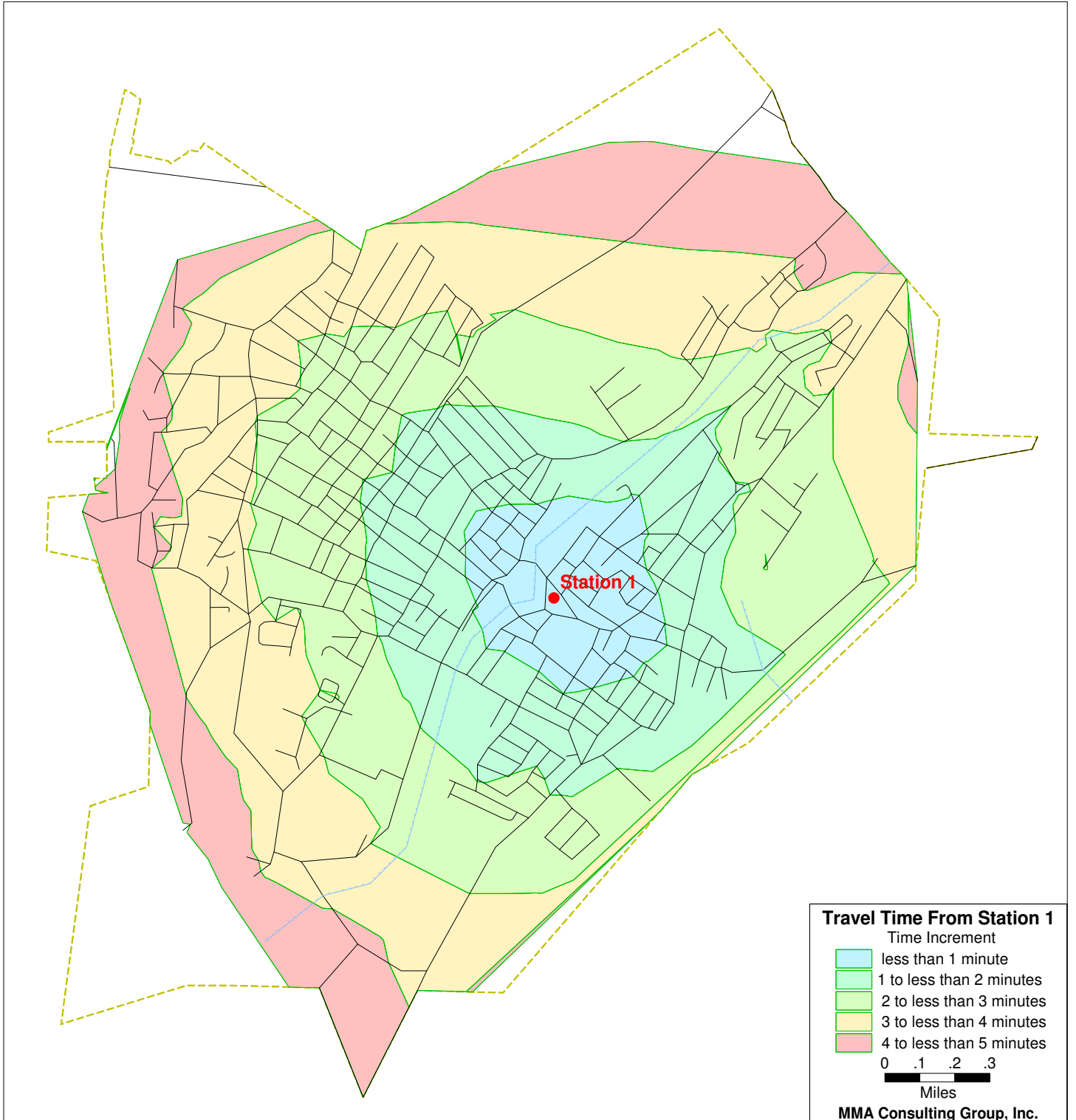
- Map 1 Travel Time from Headquarters
- Map 2 Travel Time from Station #1
- Map 3 Travel Time from Station #2

Maps 1, 2, and 3 illustrate that a substantial part of the City can be reached from any of the existing stations within four minutes travel time. The maps demonstrate that the City could operate effectively with one appropriately located fire station. The maps show that, given the measures and emerging standards discussed previously in this report, one fire station is sufficient for providing fire and rescue services in the City. Three maps displaying the current response from each fire station are presented on the following pages.

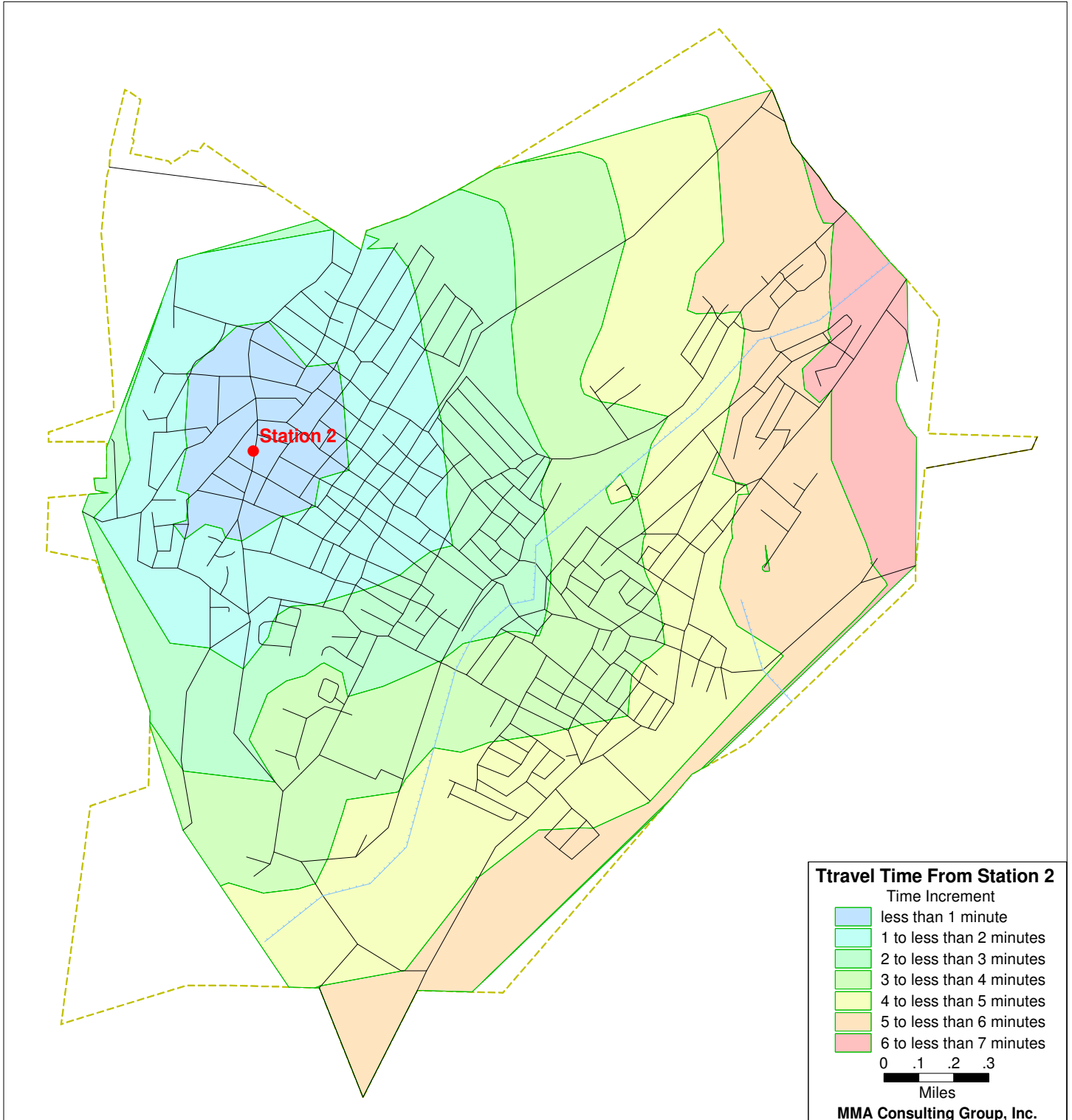
MAP 1



MAP 2



MAP 3



PROPOSED FIRE STATION LOCATIONS

The City of Beacon employed Mitchell Associates Architects in 2006 to evaluate fire station space needs and review possible fire station sites. The possible fire station sites reviewed are shown in Exhibit 16.

EXHIBIT 16
POSSIBLE FIRE STATION SITES REVIEWED IN 2006

SITE #	SITE LOCATION	COMMENT
1	South Avenue Park	City owned site
2	The Elks Club	Privately owned site
3	Sargent School access road, west side	Site owned by school district; steep slope
4	Sargent School access road, east side	Site owned by school district; steep slope
5	Former Ski Lodge	Site no longer available
6	Left of and adjacent to Madam Brett area	Privately owned site
7	Memorial Park	May be deed restrictions and political opposition to use of site
8	Chemprene	Privately owned site
9	Adjacent to City Hall	City owned site, development potential may be limited due to slopes
10	North Cedar Street	Site no longer available
11	Old DMV site on Main Street	Small site, not owned by City
12	Bradley Dye Works	Site no longer available
13	578 Main Street	Privately owned site
14	Liberty, East Main & Spring Streets	Site only usable as a replacement for Engine #1

Several of these sites are no longer available. The small geographic size of the City and the relatively good traffic pattern indicate that the City has a number of reasonable opportunities to have one well-located fire station. In the Appendix to this report, the proposed fire station locations are displayed on computer maps. The

report reviewed the condition of the existing fire stations, future space needs under alternative scenarios, and possible sites for fire stations; ten of the sites reviewed are currently available. The report contains a description of each site, its advantages and disadvantages. The Mitchell Associates Architects report stated that:

For a new building, housing all firematic functions, the required area varied from just under 2 acres for a 3 story building with adequate parking spaces to just under 3 acres for a 1 story building with 100 parking spaces and recreation/expansion space.

MMA Consulting Group, Inc., recommends that the Beacon Fire Department should, in the long-term, operate from one new fire station. The fire station should be designed to reflect all the needs of the Fire Department.

RECOMMENDATION 19: *The Beacon Fire Department should develop a long-term plan to operate from one fire station.*

DEPLOYMENT OF RESOURCES

It will be a number of years before the BFD can operate from one fire station. Nevertheless, the Fire Department should begin to take a number of actions, in the short-term, to ensure that an effective long-term plan is developed. From a firefighter safety perspective, the deployment of one firefighter to each fire station is not a sound practice. The current practice of deploying one firefighter to each station resulted from the historic role of full-time personnel. The Department originally created full-time positions to serve as drivers or chauffeurs. Over time, this model has changed. The deployment of one firefighter to each station should be reconsidered.

A stronger initial response would be achieved if full-time personnel were responding from one fire station. A larger initial response crew is more effective and safer. In theory, the BFD could immediately assign personnel to one station and deploy them as a crew. This deployment approach is not feasible at this time for several reasons. First, the deployment of all full-time personnel to one station does not ensure that sufficient apparatus is available at a major incident. Apparatus from other stations is required. Currently, as a result of the history of full-time personnel assigned to the role of driver, there are no volunteers trained and capable of driving Department apparatus.

A new staffing deployment model should be considered. The current three fire station configuration should remain operational until a new station is constructed. A plan should be developed which results in the merger of companies and career personnel in one fire station. The fire station consolidation plan should consist of three phases. Phase 1 of the plan does not require any immediate change in operations. One firefighter would continue to be deployed from each fire station. At the same time, the Fire Department would begin the process of training volunteer personnel to drive and operate apparatus. The Department must train sufficient personnel to ensure that enough personnel are available in an emergency.

Phase 2 of this deployment plan requires redeploying full-time personnel to one fire station to operate as a team. Volunteers would continue to operate from the three stations, but some volunteers would have the responsibility to drive apparatus. This deployment plan requires the development of standard operating guidelines and a clear command structure.

Phase 3 of the plan assumes that a new fire station is constructed which will accommodate volunteer and full-time career personnel. The implementation of this phase of the plan will result in a smaller apparatus fleet.

RECOMMENDATION 20: *The Beacon Fire Department should integrate its volunteer and career staffing plan with the long-term objective of operating from one fire station.*

RECOMMENDATION 21: *The Beacon Fire Department should consider developing a three-phase plan for integrating Department operations.*

- *Phase 1 - No change in station operations, one or more career firefighters are deployed to each station.*
- *Phase 2 - Station operations change with the deployment of all career personnel to one station. Three fire stations should remain open. Volunteer and career response should be coordinated. Volunteers must be trained to drive apparatus and respond from each station.*
- *Phase 3 - A new consolidated station becomes operational and volunteer and career personnel operate from the station.*

The reduction in the number of fire stations and the consolidation of resources results in the revaluation of the number and type of fire apparatus required by the Department. The Department currently operates one aerial ladder, three pumpers, and a heavy rescue. The apparatus fleet should be altered with the consolidation of resources to one fire station. The apparatus fleet should be composed of a ladder with pump capability (quint apparatus), two engines, and one heavy rescue. Career personnel would be assigned to respond on the quint. Volunteers would be assigned to operate the two engines and the heavy rescue.

EXHIBIT 17
CURRENT AND PROPOSED APPARATUS FLEET

CURRENT APPARATUS FLEET	PROPOSED APPARATUS FLEET	COMMENT
3 pumpers	2 pumpers	Reduction of one unit
1 tower-ladder (aerial)	1 aerial	Aerial should be a quint apparatus
1 heavy rescue	1 heavy rescue	

There are several classes of vehicles in the fleets of the fire companies, including pumpers, aerials, heavy rescues, rescue pumpers, and utility vehicles. The goal of the pumper replacement program is to replace the apparatus in a systematic manner. The useful life of a pumper is likely to be longer in volunteer departments with low call volume, as opposed to a volunteer department with a high call volume. The BFD should establish replacement goals for its fleet of apparatus.

EXHIBIT 18
APPARATUS FLEET - REPLACEMENT GOALS

APPARATUS TYPE	REPLACEMENT GOALS
Pumper - First due	First due pumper should not be more than 10 years old
Pumper -Second due	Second due engine should not be more than 20 years old
Aerial - (Quint)	Aerial should not be more than 24 years old
Heavy rescue	Heavy rescue should not be more than 20 years old

Under these response goals, the City should purchase a new pumper every 10 years.

An apparatus replacement plan should consider:

- ▶ the specific needs of the City and the fire protection area covered by a fire department
- ▶ years of service of an apparatus
- ▶ cost of replacement
- ▶ cost of maintenance
- ▶ technology used in a unit in relation to more modern technology
- ▶ safety features of replacement units
- ▶ usage of apparatus
- ▶ changes in equipment standards

The Fire Department has support vehicles for various functions, and owns a variety of trucks and other vehicles. The National Association of Fleet Managers (NAFM) recommends replacement of cars, vans, and trucks in accordance with the following general schedule.

EXHIBIT 19
NAFM REPLACEMENT STANDARDS

VEHICLE TYPE	NAFM AGE STANDARD	NAFM MILEAGE STANDARD
Sedan	5.5 years	88,000 miles
Van	7.5 years	88,000 miles
Pick-up Truck	7.5 years	92,000 miles

These standards provide some guidance for the replacement of sedans, vans, and pick-up trucks. The Fire Department should develop detailed records on each vehicle to identify the cost of operating a unit, including repair costs. This information will support the implementation of a formal replacement plan.

***RECOMMENDATION 22:** The Beacon Fire Department, as it consolidates career personnel into one station and establishes a one fire station configuration, should operate with an apparatus fleet composed of an*

aerial (quint), two pumpers, and one heavy rescue. This is a reduction of one pumper.

RECOMMENDATION 23: *The Beacon Fire Department should adopt a series of goals which govern the replacement of apparatus.*

The consolidation of full-time career personnel into one fire station will require the City to consider the replacement of the current aerial with a quint apparatus (an aerial apparatus with pump capability). The current aerial, tower-ladder, is an American LaFrance/LTI apparatus purchased in 2005. Normally, we would anticipate the life of the apparatus to be 20 to 24 years. The redeployment model recommendation results in the need for a quint apparatus as full-time personnel are organized into one response unit. It is recommended that the full-time personnel respond on one fire apparatus, the proposed quint apparatus. A quint has both aerial and pump capability. However, with three personnel responding on the unit, the apparatus can only be used as a ladder or a pumper, not both. Operationally, the personnel driving the quint could position the apparatus in a location in which it could be used as an aerial, if necessary.

RECOMMENDATION 24: *The Beacon Fire Department and the City of Beacon should consider the replacement of the current aerial apparatus (tower-ladder) prior to the end of its useful life. The replacement should be synchronized with the redeployment of personnel.*

RECOMMENDATION 25: *The Beacon Fire Department should develop an apparatus and equipment replacement plan. The plan should include apparatus, vehicles, and equipment which is valued at more than \$25,000 or \$30,000.*

VII. RECRUITMENT AND RETENTION, TRAINING, STANDARD OPERATING GUIDELINES AND ADMINISTRATIVE PRACTICES

RECRUITMENT OF VOLUNTEERS

Volunteers are essential to the operation of the Fire Department. The BFD has been designed as a volunteer Fire Department which is supported by a small group of full-time personnel. The full-time career personnel serve as apparatus drivers and first responders and represent a critical part of the initial attack force of the Fire Department. The reduction in the number of the volunteers needs to be reversed in order to create a healthy fire department. City officials should clearly articulate that its policy is to support the Fire Department and the combination fire department model which has been successful in the City.

The expansion of a volunteer fire department is a difficult task, but several models are available. The City should develop a volunteer firefighter recruitment effort. The recruitment program should be aggressive and focus on outreach efforts to identify possible sources of volunteers. The City should seek information from the National Volunteer Fire Council, U. S. Fire Administration, and International Association of Fire Chiefs.

The new Fire Chief, or Fire Administrator, should be assigned the responsibility for organizing an aggressive recruitment effort. Part of this effort should be to retain existing volunteers. The Chief or Administrator should establish a committee composed of active volunteers and career personnel to help in the development of a viable recruitment and retention program. It is important to recognize that the recruitment of volunteers is the role of each member of the Fire Department and each fire company, not only the leadership of the Department. Moreover, the Department needs to appoint an officer with the specific responsibility to conduct the recruitment and retention program.

One of the primary missions of the Fire Chief, or the Fire Administrator, should be to improve volunteer recruitment and retention in order to strengthen the response of the Fire Department. The City Administrator should consider the ability of the Fire Chief, or the Fire Administrator, to develop and implement a program as one measure of assessing the performance of the Chief or the Administrator.

RECOMMENDATION 26: *City officials should make a strong statement to the public and to the members of the Fire Department that it will support the current combination Fire Department system which has been effective.*

RECOMMENDATION 27: *The new Fire Chief, or Fire Administrator, should make it a priority to develop and implement a program designed to recruit new volunteers and retain existing members.*

RECOMMENDATION 28: *The Department should establish a volunteer recruitment committee to help establish and implement a recruitment and retention program.*

RECOMMENDATION 29: *The City Administrator should measure the performance of the Fire Chief or Fire Administrator, in part, by the ability of the individual to establish an effective recruitment and retention program.*

TRAINING AND STANDARD OPERATING PROCEDURES (SOPs) OR STANDARD OPERATING GUIDELINES (SOGs)

The Fire Department has a municipal training officer, who is a volunteer, and a career firefighter who acts as the training officer for full-time personnel. While there appears to be some well developed and administered programs, it is not clear if these programs meet the needs of the Department. The training officers have not been provided with sufficient direction to develop the most effective program for the Department. A training program should be developed which reflects the needs of the Department. To accomplish the development of a comprehensive plan, it is necessary to conduct a training needs analysis.

The Department does not have a mandatory training policy which sets standards for fire officers and firefighters. Therefore, there is no assurance that personnel are appropriately trained to operate in a safe manner. Fire officer training and development should be an essential part of the Department's training policy. Officers should not be placed in command positions without necessary training.

It is important to note that a modestly successful recruitment effort will require a basic training and skills development program. In addition, a critical part

of the training process in any department is the development of an officer training program, which is essential in developing leadership and ensuring safety on the fire ground.

The career training officer and the municipal training officer should be authorized to work together to develop a training program for the Department. They should be assisted by a committee of career and volunteer personnel. The program should focus on essential skills development, officer training, and other critical skills needed in Beacon.

***RECOMMENDATION 30:** The municipal training officer and the career training officer should be authorized to organize a comprehensive training program. A training committee should be appointed to assist in this effort.*

The Department's standard operating procedures, or standard operating guidelines, require revision. Some policies, procedures and guidelines are contained in memoranda from the Fire Chief, but are not codified in an organized manner. Clear guidelines are essential for safe fire and rescue operations. Guidelines should be organized in a systematic manner and available to all personnel. A manual of Standard Operating Procedures, or Standard Operating Guidelines, should be prepared. The manual should be available in hard copy and on-line. All personnel should be fully trained in the application of the guidelines.

***RECOMMENDATION 31:** The Fire Department should develop a comprehensive manual of standard operating procedures and standard operating guidelines. The Fire Chief should appoint a committee to help draft the SOGs and SOPS.*

COMMUNICATION WITHIN THE FIRE DEPARTMENT

The Beacon Fire Department is a complex organization. There are three companies, and a group of paid personnel, who work shifts. It appears that communication within the organization is not effective. In addition, because of the personal commitments, volunteer personnel may not always be fully aware of what activities are occurring in the Fire Department. The Fire Department requires a systematic process for communicating information. While the program need not be overly complex, the communication process in the Department should include at

least one or two meetings annually for all Department members, regular meetings of officers, and special meetings, as required.

Volunteer and career members of the Fire Department should assist with information gathering and provide input during the decision-making process. This can be accomplished by encouraging open communication and using a committee process. Recommendations have been made in this report pertaining to the use of a committee process to develop a comprehensive training program and to develop standard operating guidelines.

***RECOMMENDATION 32:** The Fire Chief should develop a strong communication process within the Department.*

It appears that there is some tension in the relationship between career and volunteer personnel. This is normal; however, the Fire Chief and fire officers must make every effort to minimize potential conflict. Clear communication will help minimize strain between volunteers and paid personnel.

ADMINISTRATION OF THE FIRE DEPARTMENT

The Beacon Fire Department is a City agency which operates in accordance with the policies of the City. Proper financial, purchasing, and personnel management practices require attention to detail. There has been controversy about the need for office support personnel in the Fire Department. The current lack of office support personnel does not eliminate the need to perform administrative duties. The Department should employ part-time office staff; however, even without staff, the Fire Chief and officers should ensure that necessary administrative tasks are performed.

***RECOMMENDATION 33:** The leadership of the Fire Department should ensure that administrative tasks are completed promptly and in accordance with City policy.*

***RECOMMENDATION 34:** The Fire Department should employ part-time office staff.*

VIII. IMPLEMENTATION OF RECOMMENDATIONS

The current condition of the Fire Department requires the City to take immediate action. Delays by the City may result in a less effective fire department. Some of the Department's weaknesses cannot be solved in a short period of time, but there is a need to start the process as soon as possible. The City should develop a plan of action to implement the major recommendations in this report. Many of the recommendations are designed to be implemented over several years. The first step in the implementation process is to ensure that there is accountability for implementing recommendations.

ACCOUNTABILITY FOR IMPLEMENTATION OF RECOMMENDATIONS

The Mayor and the City Council have a critical role in the implementation of recommendations. The Mayor and Council have several important tasks to undertake.

- Review the report and assess findings and recommendations.
- Assign the responsibility for reviewing and assessing recommendations to an Implementation Committee composed of the Fire Advisory Board and the City Administrator. The Council may wish to appoint additional members to the Implementation Committee.
- Make a statement in support of the volunteer Fire Department and the need for improvement in the Fire Department. The committee should be responsible for developing short-term and long-term plans for improving Department operations.
- Review progress in the implementation of recommendations.

IMPLEMENTATION COMMITTEE (FIRE ADVISORY BOARD AND CITY ADMINISTRATOR)

The Implementation Committee (Fire Advisory Board and the City Administrator) and the Fire Chief should meet to evaluate recommendations. Prompt action on matters presented in the report will ensure that volunteer members of the Fire Department will realize the importance the City places on addressing Fire Department concerns. The primary issues that need immediate attention are described below.

Fire Chief or Fire Administrator - A determination should be made on which approach will be followed by the City. The employment of a full-time Fire Chief, or Fire Administrator, requires immediate attention.

Status of Fire Companies - The Fire Advisory Board and the City Administrator should meet with leaders of the fire companies to discuss the report. There is a critical need to discuss the viability of the fire companies.

Safety of Personnel - The Fire Advisory Board and the City Administrator should instruct the Fire Department to conduct a safety review of the Fire Department to make sure that firefighter safety practices are followed.

Recruitment and Retention - The Fire Advisory Board and the City Administrator should instruct the Fire Department to establish a recruitment and retention committee within the next 30 days. The committee should be charged with researching successful practices and developing short-term and long-term plans for the Department.

Report Circulation and Solicitation of Comments - The Fire Advisory Board and the City Administrator should circulate the report to volunteer and career members of the Fire Department. It is desirable to hold a meeting with members of the Fire Department to discuss the report.

The implementation of recommendations should be started as soon as possible. The City does not need to employ a full-time manager before the implementation process begins. It is possible to start the implementation of recommendations immediately, prior to the employment of a Fire Chief or Fire Administrator. Many of the recommendations require the coordination of several parties. The Fire Lieutenant should be assigned the responsibility to provide staff support to the Fire Advisory Board and the City Administrator. A recommendation has been made which suggests that the Lieutenant position should be reassigned to the Fire Department on a full-time basis. In the short-term, we recognize that this would be difficult to achieve, since the incumbent Lieutenant oversees the Building Department. It is suggested that, for the next three to six months, the Fire Lieutenant should be directed to devote half time to working with the Fire Advisory Board and assisting the Fire Chief with the implementation of recommendations. The Lieutenant should provide support to the volunteer Fire Chief.

The Lieutenant should:

- ▶ Assist the Fire Chief with management of the business functions of the Fire Department to eliminate any administrative backlog.
- ▶ Assist the Fire Chief with the establishment of the Volunteer Recruitment and Retention Committee.
- ▶ Assist the Fire Chief with the establishment of a committee to revise SOPs and SOGs.
- ▶ Work with the Fire Chief to assess the safety of operations and prepare a report regarding Department safety practices.
- ▶ Assist the Fire Chief in developing a target hazard program and expanding automatic aid.

Part of the role of the Lieutenant should be to assist the Fire Advisory Board with the recruitment process for the Fire Chief, or Fire Administrator.

Each fire officer has a responsibility to help implement the recommendations in this report. Fire officers must be responsible for the personnel under their direction, including the capability of personnel. Fire officers must assume leadership by participating in training programs, the development of SOPs/SOGs, and recruitment efforts.

PLAN OF ACTION

A series of action steps and a possible time line for accomplishing those tasks during the next several years is shown in Exhibit 20. The exhibit is organized into three categories: immediate actions, short-term actions, and long-term actions.

**EXHIBIT 20
ACTION STEPS**

IMMEDIATE ACTIONS	TIME LINE (MONTHS)	COMMENT
Mayor and Council review report.	1	
Circulate report.	1	
Establish the Implementation Committee.	1	Fire Advisory Board and City Administrator
Implementation Committee meets with fire companies.	1	Meet to review comments.

Fire Lieutenant assigned to assist the implementation committee.	1	
Conduct a safety review of operations.	1	
Evaluate the need for a full-time Fire Chief, or Fire Administrator.	2	
Begin the recruitment process.	2 to 6	Request review of qualifications, develop advertising approach, review of résumés, interviews, selection of candidate, and contract negotiation.
Establish the Recruitment and Retention Committee.	2	
Begin the process of a developing a comprehensive training plan.	2	Training is essential to strengthen the Department.
Begin the target hazard analysis.	3	Standard forms should be used.
Review résumés and interview candidates for the Fire Chief or Fire Administrator position.	4 to 5	

SHORT-TERM ACTIONS	TIME LINE (MONTHS)	COMMENT
Employ the Fire Chief, or Fire Administrator.	6	
Volunteer recruitment program becomes operational.	6	An important part of the improvement plan is to strengthen the volunteer component of the Department.
Work with individual fire companies to solve problems and address the future of the companies.	6 to 9	
Begin training volunteers to drive apparatus.	9 to 12	This is an important part of a long-term redeployment plan.
Initial draft of SOPs and SOGs prepared.	10 to 12	The SOG/SOP committee should prepare a draft for review by volunteers and career personnel.
Target hazard analysis completed.	10 to 12 months	
Automatic mutual aid system developed.	10+	This system is based on the target hazard analysis.

LONG-TERM ACTIONS	TIME LINE (MONTHS)	COMMENT
Consider replacement of the tower-ladder with a quint.	12 to 15	The town ladder should be replaced while it has significant value. Replacement should be linked to deployment of career personnel from one station.
Implement an automatic mutual aid plan.	12 to 15	
Continue training volunteers as drivers.	12 to 15	
Begin assigning volunteers to drive apparatus.	15 to 18	This is an important part of a long-term redeployment plan.
Consolidate full-time personnel into one station.	18 to 24	This is an important part of a long-term redeployment plan.
Begin the long-term planning for a consolidated fire station.	18 to 24	

PRIORITY OF RECOMMENDATIONS

On the following pages, the major recommendations are listed in the order they are presented in this report, along with assigned priorities and selected comments. The recommendations have been categorized as follows:

Priority 1: Recommendations which directly affect the safety of personnel or the public, or establish the framework for other recommendations. These recommendations should be addressed immediately.

Priority 2: Recommendations which should be implemented without delay, since they may bear directly on safety, productivity, cost and efficient operation of fire and rescue services in the City of Beacon.

Priority 3: Recommendations which are important to the efficient provision of fire and rescue services in the City of Beacon. These recommendations should be implemented as soon as reasonable and practical.

Priority 4: Recommendations which can contribute to the continued improvement of fire and rescue services in the City of Beacon. These recommendations should be implemented as soon as resources and operating conditions permit.

EXHIBIT 21
RECOMMENDATIONS

	RECOMMENDATION	PRIORITY	COMMENT
1	The Beacon Fire Department should employ a full-time Fire Chief, or a Fire Administrator.	1	
2	The decision to employ a full-time Fire Chief, or a Fire Administrator, should be made as soon as possible, ideally within the next two months.	1	
3	The Beacon Fire Department should reorganize.	2	
4	The Fire Lieutenant should be assigned to work in the Fire Department on a full-time basis.	3	The Lieutenant should be assigned to assist the Implementation Committee.
5	The leadership of the fire companies, the Fire Chief, and the Fire Advisory Board should discuss the viability of fire companies.	1	A realistic discussion of expectations is required.
6	The selection of a Fire Chief, or Fire Administrator, should be accomplished using an open competitive recruitment process.	1	No person from inside the Department should be employed in this role, unless it is for an interim period of not more than several months.
7	The Fire Advisory Board should be charged with the responsibility to assist the City Administrator with the recruitment and selection a Fire Chief, or Fire Administrator.	1	
8	The City should enter into an employment contract with the new Fire Chief, or Fire Administrator.	2	
9	The new Fire Chief, or Fire Administrator, should be paid a competitive salary.	2	The annual salary is expected to be more than \$100,000.
10	The City and the new Fire Chief, or Fire Administrator, should negotiate reasonable performance goals.	2	
11	The new Fire Chief, or Fire Administrator, should make a systematic effort to communicate with City officials.	1/2	Communication will resolve some conflicts and misunderstandings.
12	The Beacon Fire Department should adopt emergency response benchmarks for fire and emergency medical response.	2/3	
13	The Beacon Fire Department should adopt emergency response benchmarks set forth in NFPA 1720.	2/3	

14	The Beacon Fire Department should continue to respond to emergency medical calls for service. Responses should be limited to life-threatening calls for service and other calls, based on agreements with emergency medical providers.	1	The Department contributes to the EMS system.
15	The Beacon Fire Department should design a response system which follows sound safety practices.	1	
16	The Beacon Fire Department should identify target hazards and develop a comprehensive preplanning program.	2	
17	The Beacon Fire Department should develop and implement a comprehensive automatic mutual aid program.	2	
18	The Beacon Fire Department should develop quarterly reports to inform City officials about Fire Department activity. Reports should present data on responses and other related information.	3/4	
19	The Beacon Fire Department should develop a long-term plan to operate from one fire station.	4	A one-station response configuration is the most efficient for the City.
20	The Beacon Fire Department should integrate its volunteer and career staffing plan with the long-term objective of operating from one fire station.	4	A one-station response configuration is the most efficient for the City.
21	The Beacon Fire Department should consider developing a three-phase plan for integrating department operations. <ul style="list-style-type: none"> ▶ Phase 1 - No change in station operations; one career firefighter, or more, is deployed to each station. ▶ Phase 2 - Station operations change with the deployment of all career personnel to one station. Three fire stations remain open, and operational policies link volunteer and career response. Volunteers are trained to drive apparatus and volunteers respond from each station. ▶ Phase 3 - A new consolidated station becomes operational and volunteer and career personnel operate from the station. 	2/3	This plan requires careful organization.
22	The Beacon Fire Department, as it consolidates career personnel into one station and establishes a one fire station configuration, should operate with an apparatus fleet composed of an aerial (quint), two pumpers, and one heavy rescue. This is a reduction of one pumper.	2/3	

23	The Beacon Fire Department should adopt a series of goals which govern the replacement of apparatus.	3	
24	The Beacon Fire Department and the City of Beacon should consider the replacement of the current aerial apparatus (tower-ladder) prior to the end of its useful life. The replacement should be synchronized with the redeployment of personnel.	2	This requires careful consideration because of costs.
25	The Beacon Fire Department should develop an apparatus and equipment replacement plan. The plan should include apparatus, vehicles, and equipment which is valued at more than \$25,000 or \$30,000.	2	This is an essential part of the planning process.
26	City officials should make a strong statement to the public and to the members of the Fire Department that it will support the current combination Fire Department system which has been effective.	1	The importance of the volunteer system should not be overlooked.
27	The new Fire Chief, or the Fire Administrator, should make it a priority to develop and implement a program designed to recruit new volunteers and retain existing members.	2	
28	The Department should establish a volunteer recruitment committee to help establish and implement a recruitment and retention program.	1	
29	The City Administrator should measure the performance of the Fire Chief, or Fire Administrator, in part, by the ability of the individual to establish an effective recruitment and retention program.	2	
30	The municipal training officer and the career training officer should be authorized to organize a comprehensive training program. A training committee should be appointed to assist in this effort.	1/2	This is a complex assignment which is one of the underpinnings of a stronger Fire Department.
31	The Fire Department should develop a comprehensive manual of standard operating procedures and standard operating guidelines. The Fire Chief should appoint a committee to help draft the SOGs and SOPS.	3	
32	The Fire Chief should develop a strong communication process within the Department.	1	
33	The leadership of the Fire Department should ensure that administrative tasks are completed promptly and in accordance with City policy.	1	Administrative work is critical and should be accomplished promptly.
34	The Fire Department should employ part-time office staff.	2	Lack of office support does not mean administrative work should not be completed.

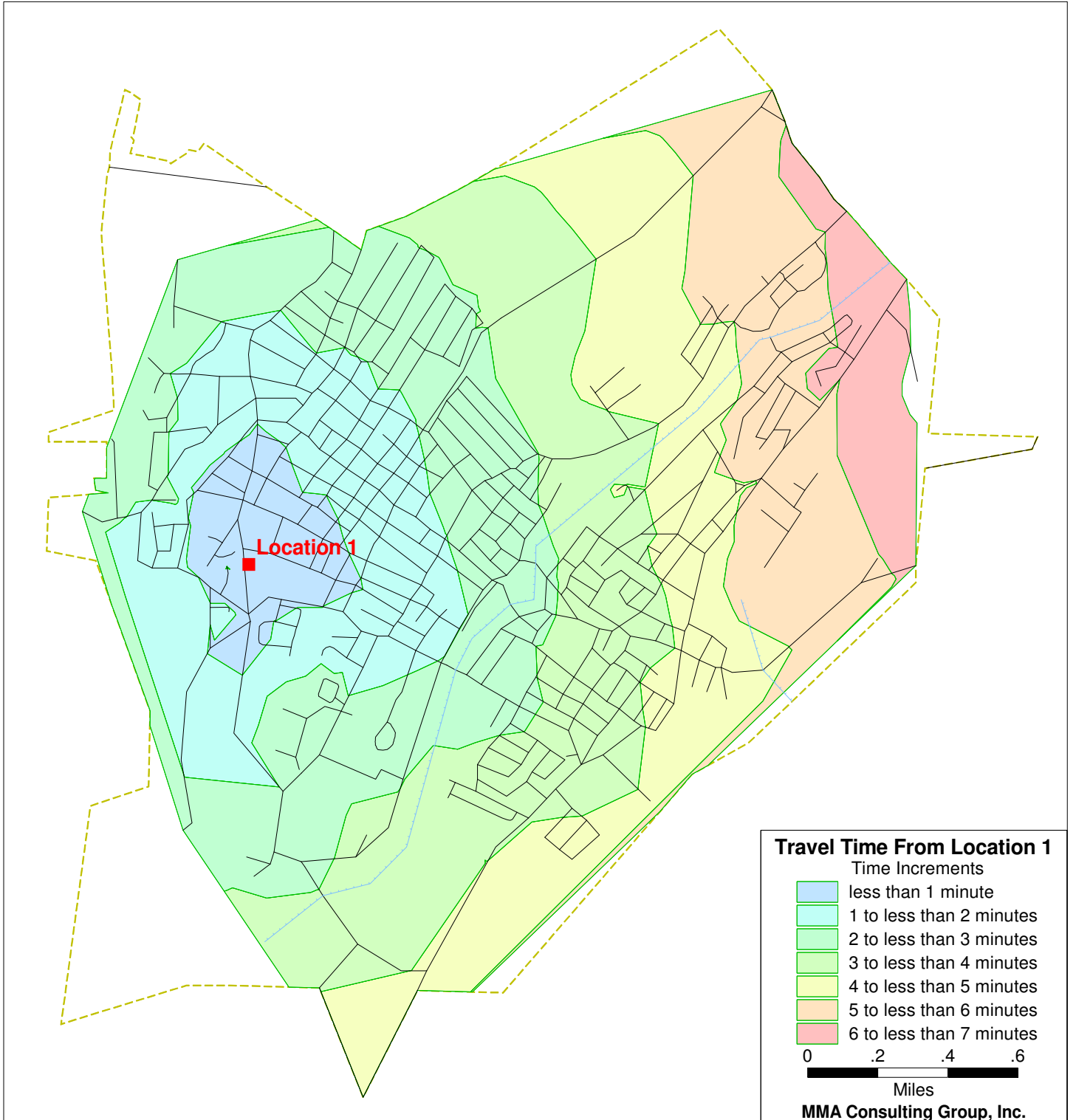
APPENDIX

This Appendix displays a series of travel time maps. The maps are based on the possible locations presented in a report prepared by Mitchell Associates Architects in 2006. The maps are identified by the original site number assigned in the report. Several sites are no longer available.

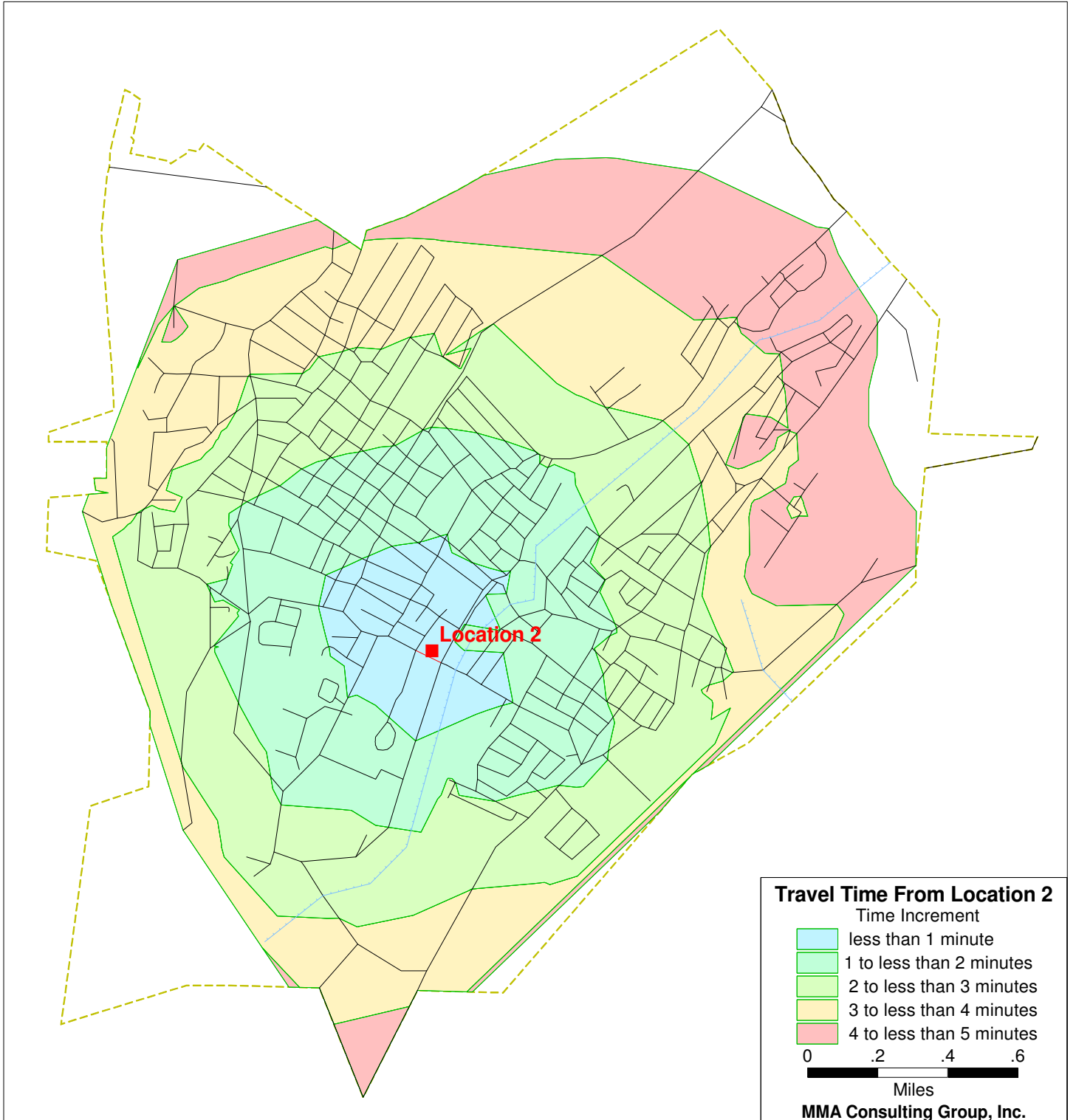
**POSSIBLE FIRE STATION SITES REVIEWED IN 2006
CURRENTLY AVAILABLE SITES**

MAP	SITE NUMBER	LOCATION
Map 4	1	1 South Avenue Park
Map 5	2	The Elks Club
Map 6	3	Sargent School access road, west side
Map 7	4	Sargent School access road, east side
Map 8	6	Left of and adjacent to Madam Brett area
Map 9	7	Memorial Park
Map 10	8	Chemprene
Map 11	9	Adjacent to City Hall
Map 12	11	Old DMV site on Main Street
Map 13	13	578 Main Street

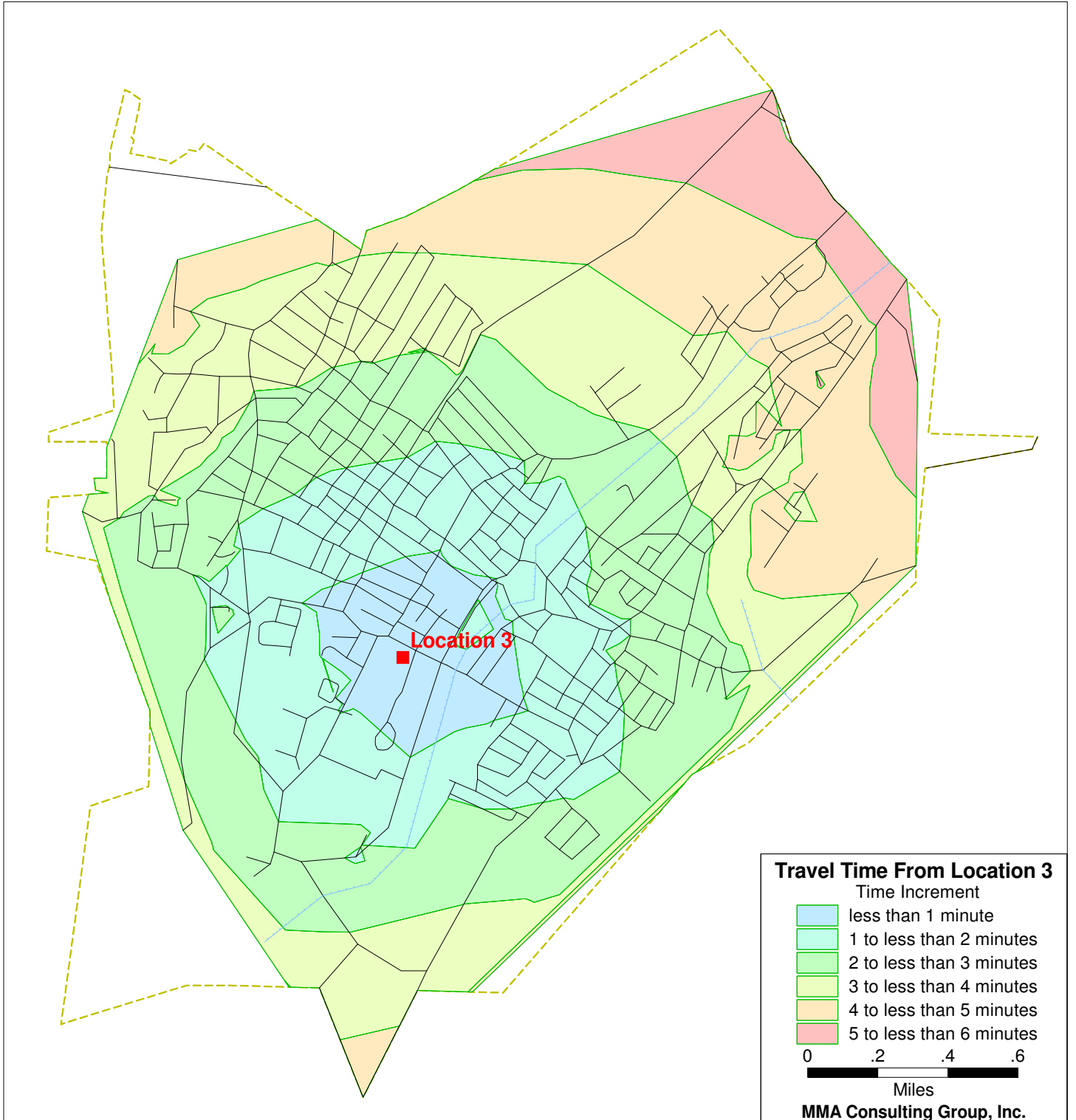
MAP 4



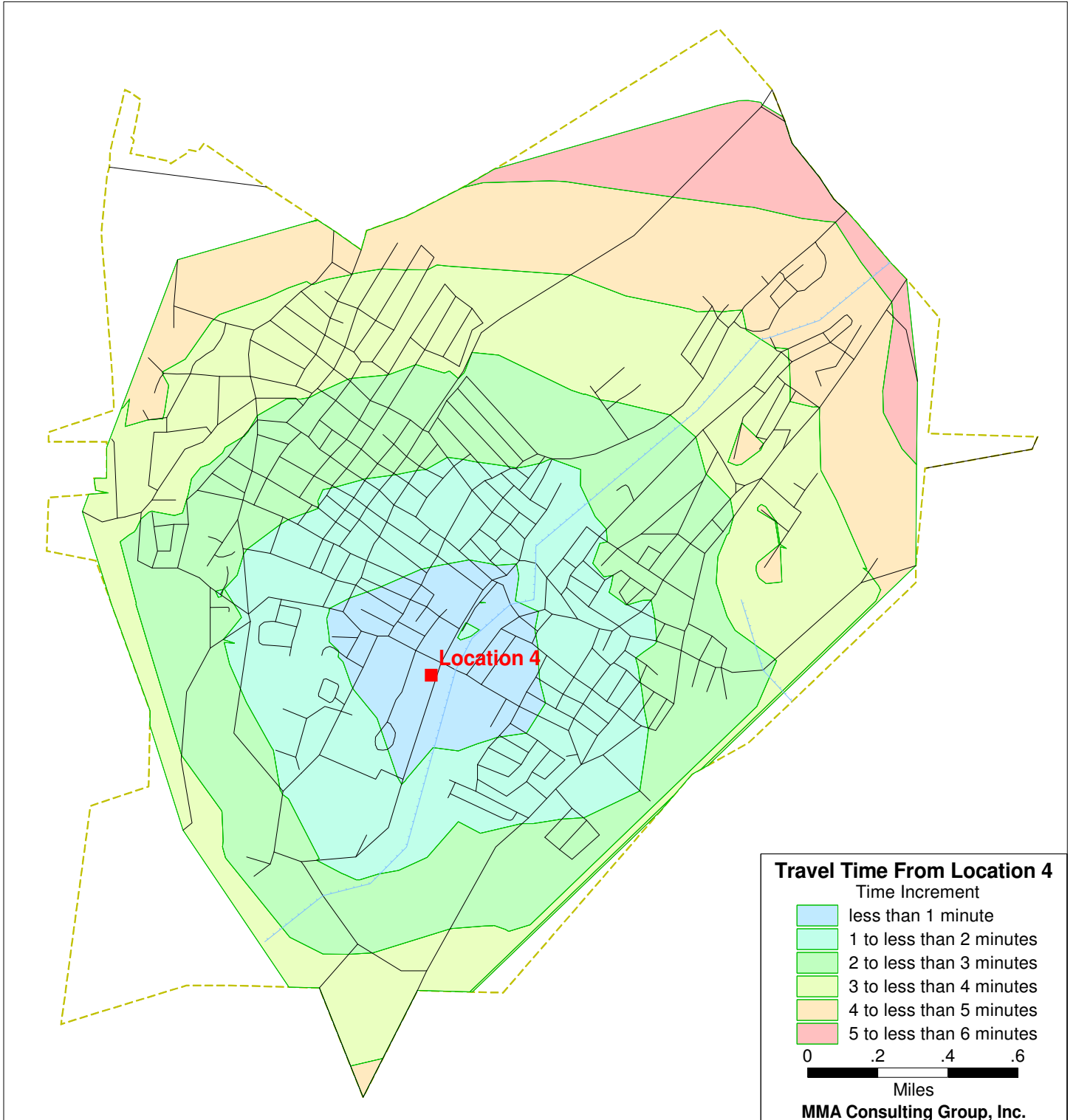
MAP 5



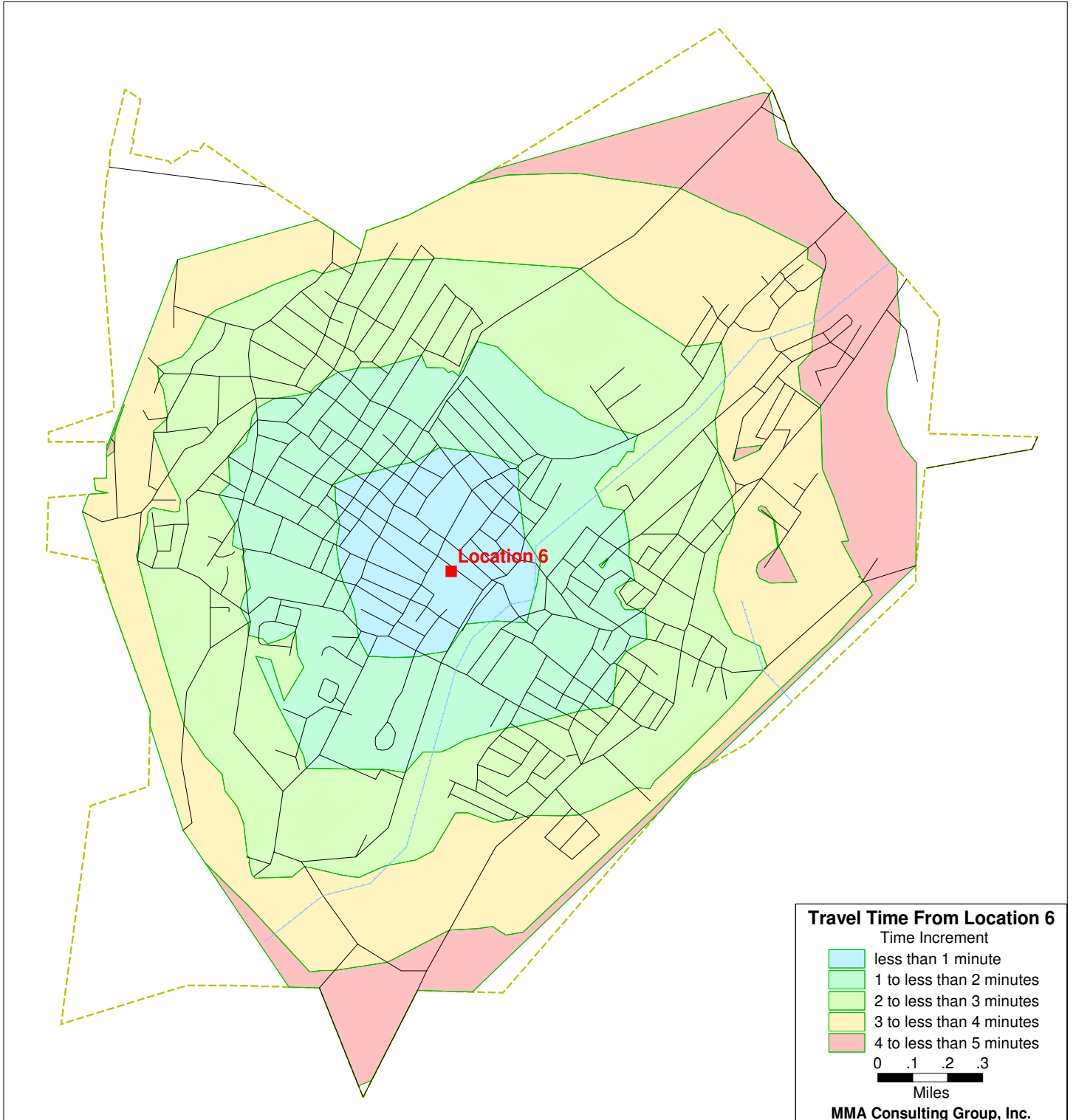
MAP 6



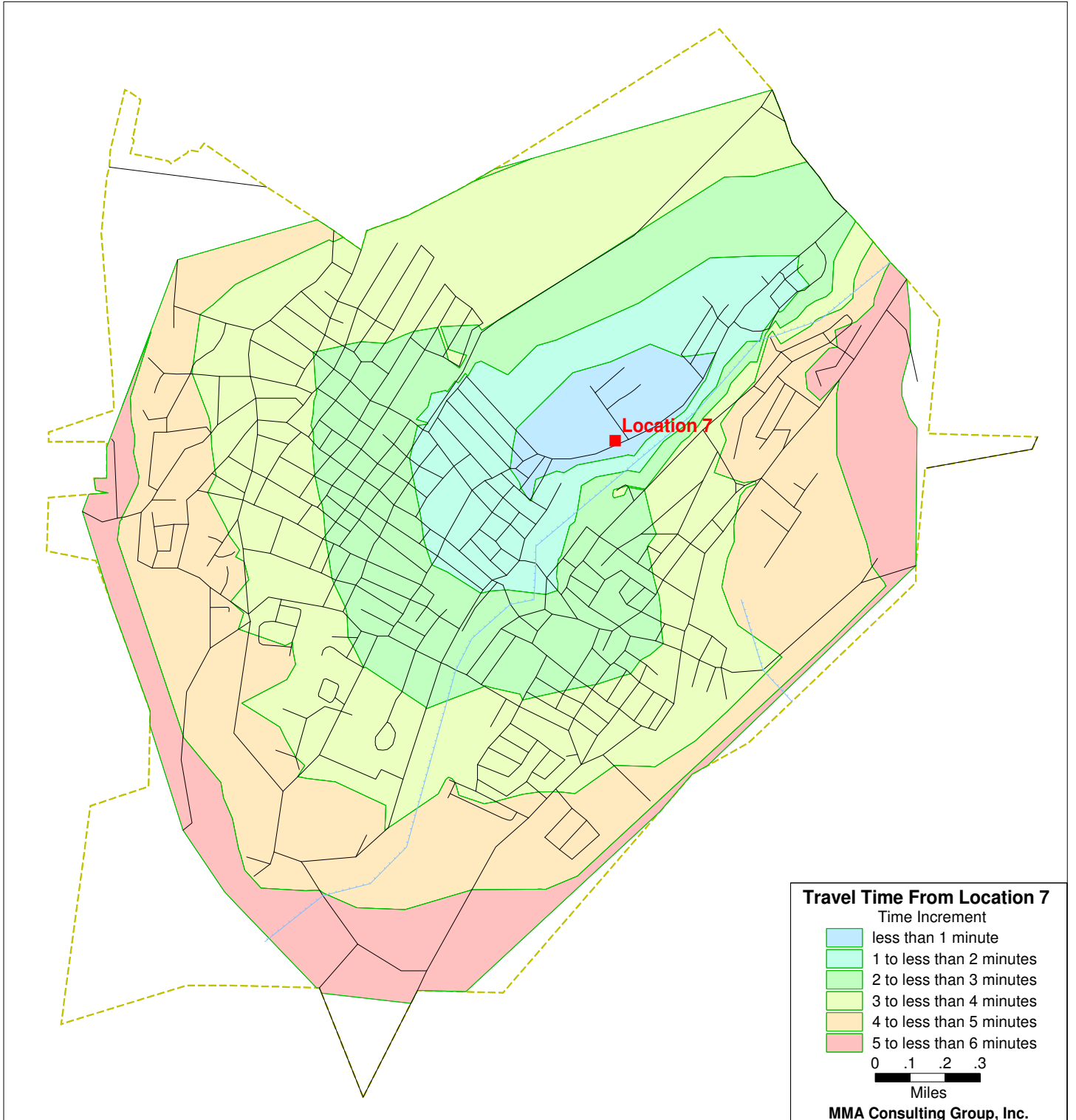
MAP 7



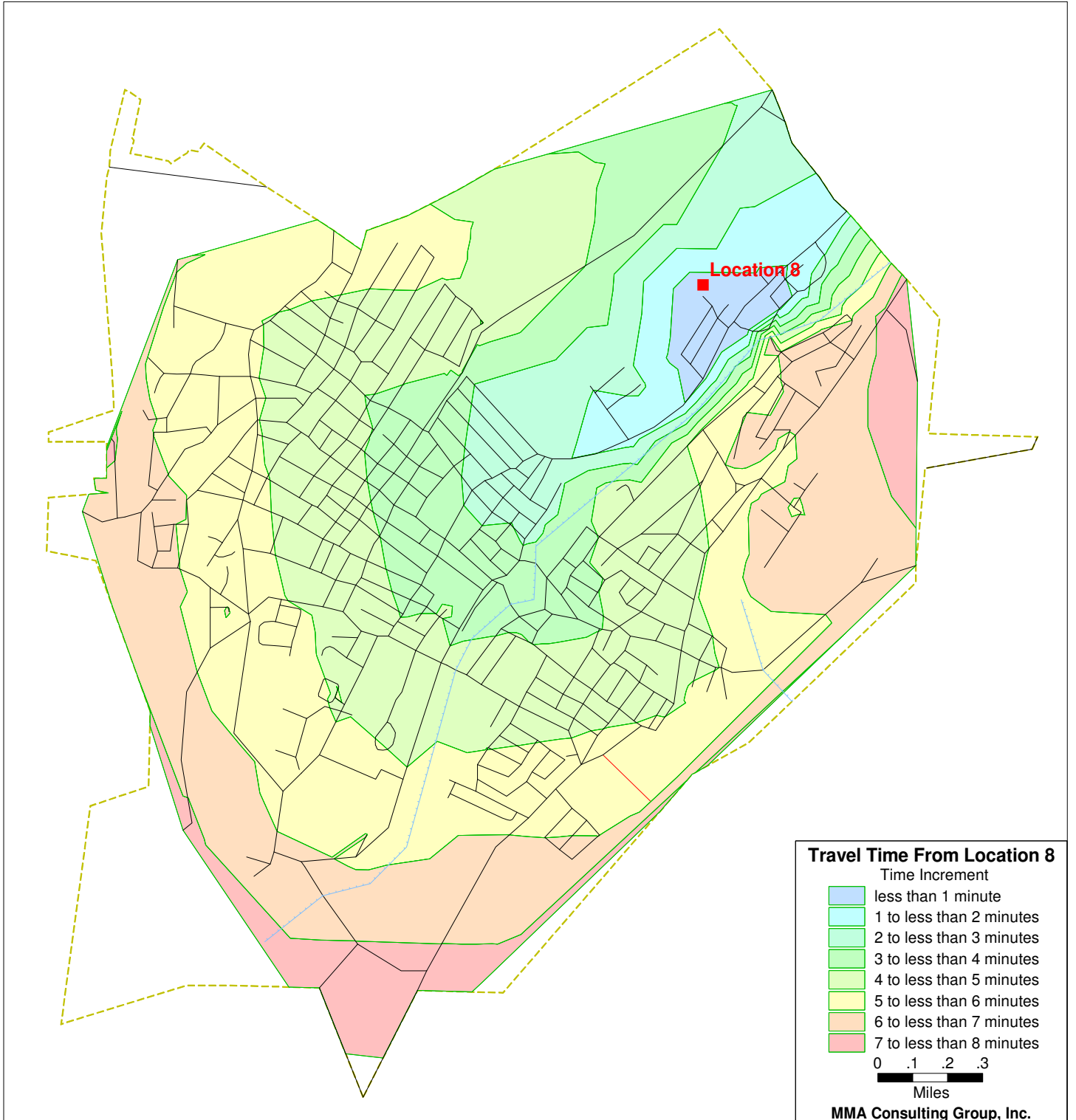
MAP 8



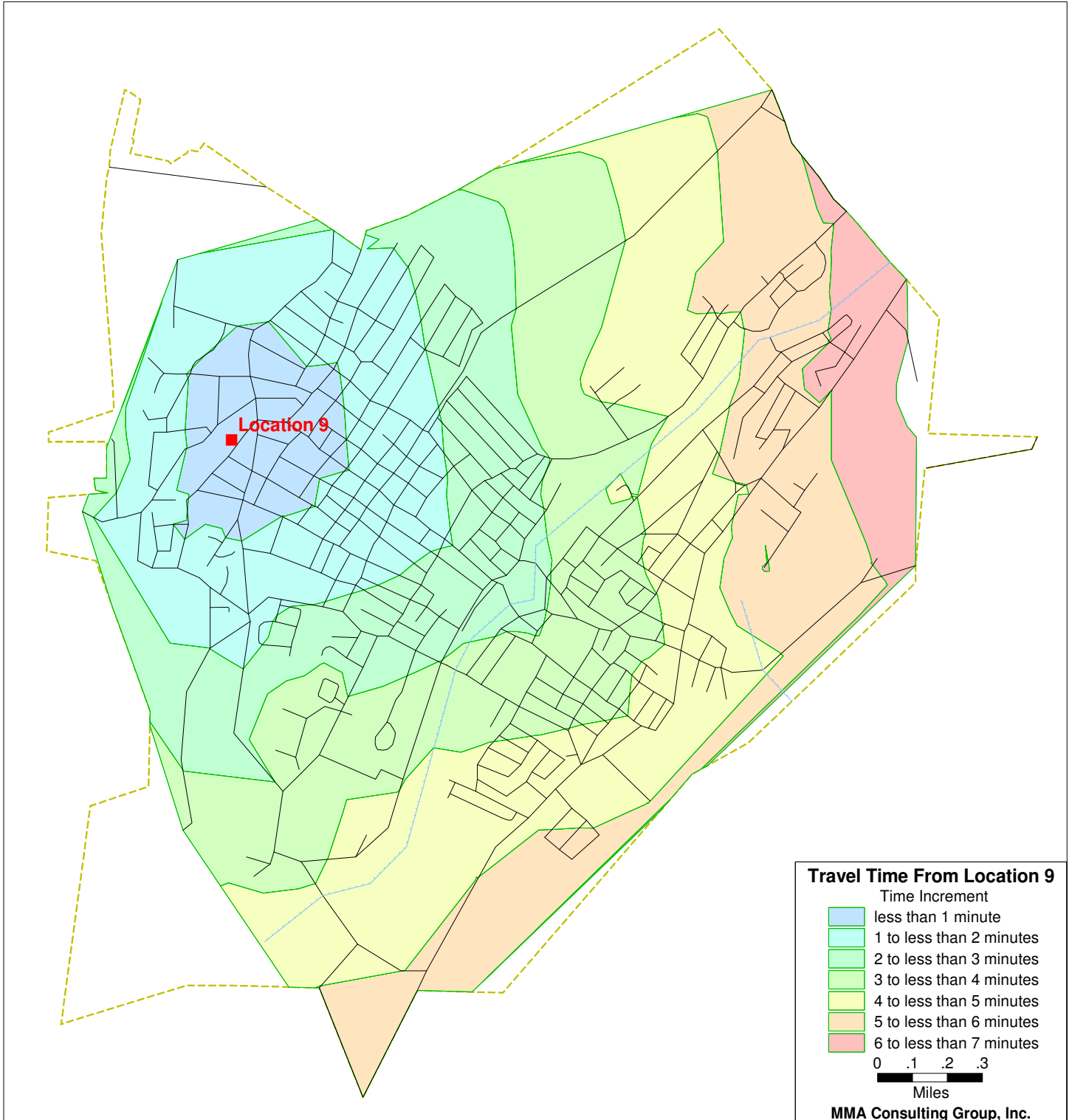
MAP 9



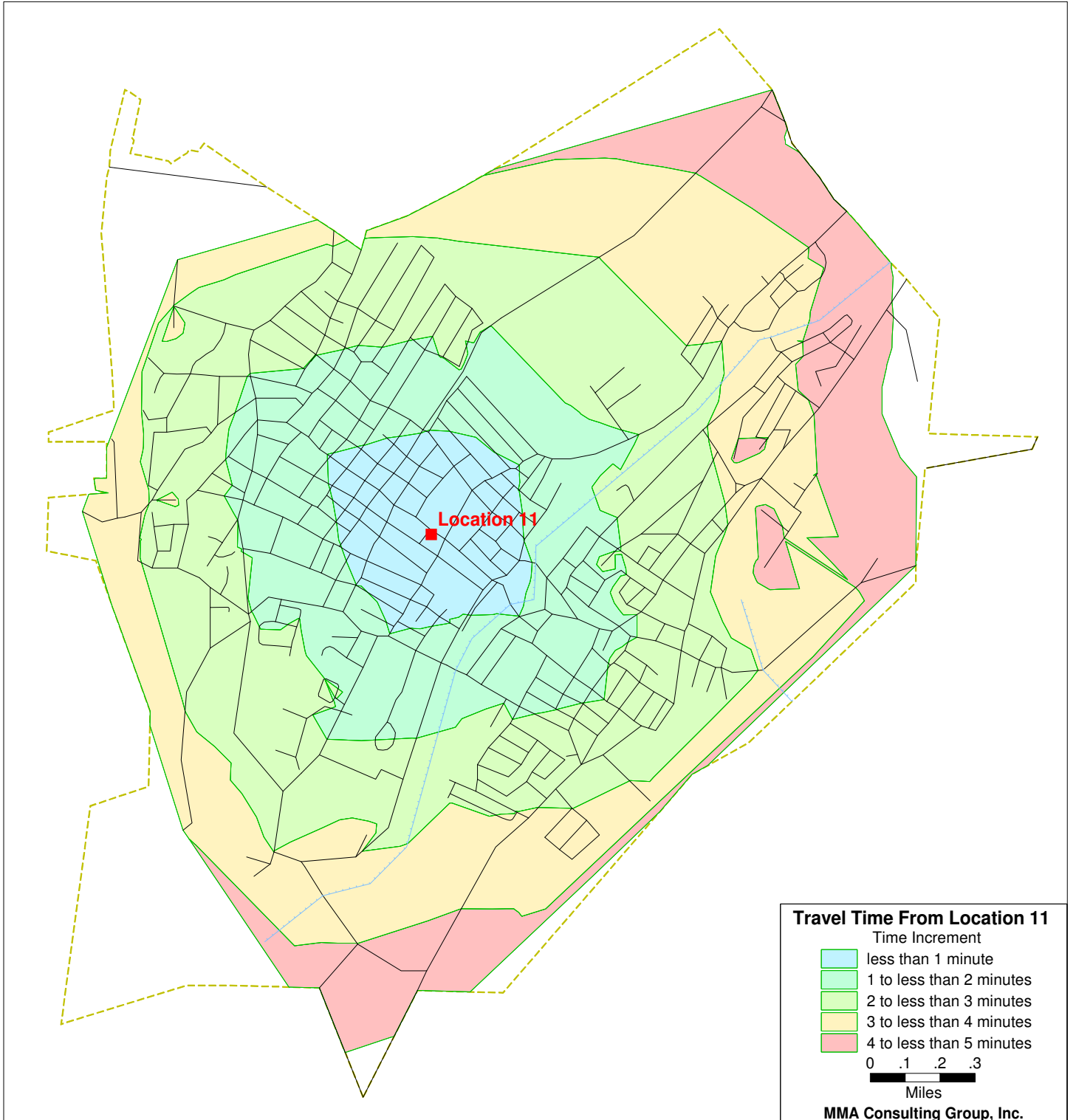
MAP 10



MAP 11



MAP 12



MAP 13

