TOWN OF AMHERSTBURG
SPECIAL COUNCIL MEETING
AGENDA
ELECTRONIC PARTICIPATION

Monday, July 13, 2020

5:00 PM

For information pertaining to this agenda or to arrange for any additional accessibility needs please contact Tammy Fowkes, Deputy Clerk at tfowkes@amherstburg.ca

Information will be gathered in accordance with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA). All comments and communications received will become part of the public record unless you expressly request the Town to remove it. If you want to learn more about why and how the Town collects your information, write to the Town Clerk's Office, 271 Sandwich Street South, Amherstburg, ON N9V 2A5 or call 519-736-0012.

Pages

1. CALL TO ORDER

2. ROLL CALL

3. DISCLOSURE OF PECUNIARY INTEREST & GENERAL NATURE THEREOF

4. REPORT - CAO's OFFICE

4.1 Fire Master Plan – Update 2020-2025 3

It is recommended that:

1. The report from the Fire Chief dated May 20, 2020 with the attached (Appendix “A”) Fire Master Plan – Update 2020 – 2025 **BE RECEIVED**;
2. The recommendations contained in the Fire Master Plan – Update 2020-2025 **BE APPROVED IN PRINCIPLE**; and,
3. The Fire Chief provide Council with specific implementation plans and budget requests through upcoming budget cycles for 2021-2025.

5. ADJOURNMENT

That Council rise and adjourn at p.m.

THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF THE CAO

MISSION STATEMENT: Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.

Author's Name: Bruce Montone	**Report Date: May 20, 2020**
Author's Phone: 519 736-6500 ext. 2241	**Date to Council: July 13, 2020**
Author's E-mail: bmontone@amherstburg.ca	**Resolution #: N/A**

To: **Mayor and Members of Town Council**

Subject: **Fire Master Plan – Update 2020-2025**

---

1. RECOMMENDATION:

It is recommended that:

1. The report from the Fire Chief dated May 20, 2020 with the attached (Appendix "A") Fire Master Plan – Update 2020 – 2025 **BE RECEIVED**;

2. The recommendations contained in the Fire Master Plan – Update 2020-2025 **BE APPROVED IN PRINCIPLE**.

3. The Fire Chief provide Council with specific implementation plans and budget requests through upcoming budget cycles for 2021-2025.

2. BACKGROUND:

Amherstburg Fire Department (AFD) is the Town of Amherstburg's "all hazards" emergency response organization and provides Town of Amherstburg residents, visitors and businesses with protection against loss of life, property and the environment. This includes the effects of fire, illness, accidents and other hazards through preparedness, prevention, public education and emergency response. An emphasis on Safety & Performance, Customer Service and Professionalism are reinforced.

In April 2017, the Town of Amherstburg through the Chief Administrative Officer directed the newly hired Fire Chief to review and update the 2007 Fire Master Plan (Plan). An update to the Plan was requested to provide strategic directions for the fire service that would take them into 2025 with a vision for an additional five (5) years.

Fire Master Plans are strategic planning documents that are generally developed approximately every ten years and are typically updated after the first five years of the plan.

The Town's current Plan was completed in 2007 by TL Powell and Associates, who were retained to develop a Fire Master Plan with clear direction respecting future needs, existing facilities, vehicles, equipment and services for the period 2007 to 2012. In 2007, Council approved the current Plan. This document has served the Town well and led to the eventual purchase of an Ariel device, replacement of aging equipment and addressed training needs.

The Plan was developed following amalgamation of municipalities and their three former fire departments (Malden, Anderdon and Amherstburg) in 1998. The project included a review of department operations, to set key objectives to standardize and reflect new local needs and circumstances.

The 2007 Plan directed the department and an established working committee to further consider the goals and report back to Council. The Master Fire Protection Plan Team was unable to establish if any report or follow-up was provided to council since 2009.

The 2007 Plan is now beyond its end of usefulness and the recommended Fire Master Plan (Appendix A) will update and build on that Plan and provide outlooks for the period 2020–2025, with a vision to 2030.

3. DISCUSSION:

The Plan update was requested by the CAO and is produced in partnership with multiple business partners and Town departments/divisions, external consulting and many members (42) of the Amherstburg Fire Department. The external consulting included most of a newly elected Council in 2019 and 3 public consultations, accompanied by an on-line survey.

The following scope was utilized to update the Plan:

- Conduct a current gap analysis on the risks identified;
- Determine the current effectiveness and efficiency of the department against the risks identified and present options to mitigate, respond and manage the risks;
- Evaluate the current and anticipated infrastructure and asset renewal challenges, and the station locations by measuring the risk and anticipated growth.
- Consult with the public regarding expectations and satisfaction of service.
- Matching the above with deployment standards to arrive at future facility, site, spatial and infrastructure requirements, asset renewal, and;
- Make recommendations to reflect accomplishments during the evaluation process, as well as short, intermediate and long term program objectives with an outlook to 2030.

There are two basic risks that are considered in the fire service, operational risk and organizational risk. Operational risk is the responsibility of the Fire Chief to determine

the risk associated with the varying aspects and responsibilities within the department. Operational risk, streams from the Fire Chief down, following the organizational chart. Organizational risk is the responsibility of the Municipal Council to determine. Consideration should include the disciplines, level of service, staffing, number of fire stations and business planning requests based on the risk assessment of the community as recommended by the Fire Chief.

There are many factors that are increasing the level of risk facing the community and the department, but several are especially important over the period of this Plan period. They include:

- Increasing stock of residential infrastructure due to rise in population together with construction materials and methods
- The stock of commercial, industrial and institutional facilities both occupied and unoccupied
- Increasing volumes of traffic on Town streets, roadways and highways
- Increasing density requirements in growth areas and vertical growth
- Climate change, emergency preparedness and business continuity planning

A process to conduct a current gap analysis on the risks identified assisted to determine the current effectiveness and efficiency of the department against the risks identified. In some cases options are presented where appropriate, to mitigate, respond to, and manage the risks.

4. RISK ANALYSIS:

If the Plan update is not utilized to prepare for the future, or if the Fire Service fails to anticipate or prepare for fundamental changes, they may lose valuable lead time and momentum to succeed. The fundamental elements of public services are customer expectations, employee morale, regulatory requirements, political pressures, and economic impacts, and they're always in flux.

Often public services achieve a level of success and then stall. Accidental success is risky. Succeeding without a plan is possible, and plenty of examples exist of public services that have achieved success without a plan.

Consequences of Not Planning

- Undervaluing your service
- Cost to operate becomes out of control
- Not being in control of what happens to your services
- Creating a burden for the taxpayer

Risks of Having No Up to Date Plan

- Leadership indifference
- Confusion among the staff

- Complacency of stakeholders and customers
- Short-term thinking
- Lack of unity
- Deeply entrenched traditional perspectives and approaches

5. FINANCIAL MATTERS:

If this Plan update, including the Community Risk Assessment, is approved in principle Administration will include recommendations in future budgets to support its implementation.

Recommendations in the Plan are specific to Fire Services; however, it is essential that the recommendations be considered in the context of the Town's overall operations and strategy. As such, recommendations related to capital asset renewals and new investment will be included under the Town's Asset Management Plan and processes. Recommendations related to technology initiatives and investment will be considered in the context of the Town's strategic priorities and limited resources. And recommendations related to reserves will be considered in the Town's reserves and funds strategy and aligned with corporate policy and related procedures.

6. CONSULTATIONS:

CAO – John Miceli
Director of Corporate Services – Cheryl Horrobin
Director of planning Development and Legislative Services - Mark Galvin
Director of Engineering and Public Works – Antonietta Giofu
Treasurer – J. Rousseau
GIS Coordinator/Business Analyst – A. Marra
Application and Network Analyst – Nick Renaud

7. CONCLUSION:

The updated Fire Master Plan will assist the fire service as it continues to provide what is best, for the residents they serve.

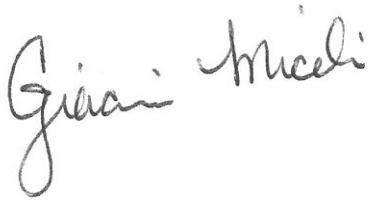
B. Montone,
Fire Chief

Report Approval Details

Document Title:	Fire Master Plan - UpDate 2020-2025.docx
Attachments:	- Appendix A-Updated Fire Master Plan - Efinal2.pdf
Final Approval Date:	Jul 6, 2020

This report and all of its attachments were approved and signed as outlined below:

Cheryl Horrobin



John Miceli

Paula Parker

MASTER FIRE PROTECTION PLAN

(Updated) 2020 – 2025

April, 2020

Table of Contents

APPENDICES

ACKNOWLEDGEMENTS

Town of Amherstburg Team

John Miceli	Chief Administrative Officer
Bruce Montone	Fire Chief
Lee Tome	Deputy Fire Chief
Paul Acton	Deputy Fire Chief
Ron Meloche	Assistant Deputy Fire Chief
Dan Monk	Administrative Assistant
Anthony Marra	GIS Coordinator
Nick Renaud	Application and Network Analyst
Justin Rousseau	Treasurer

Internal Fire Service Work Teams

Administration/SOP's

Jason Durocher
Ken Rose
Josh Mailloux
Grant Wood
BJ Wilder
Kristi Meloche

Apparatus, Equipment & Communications

Randy Wismer
Nick D'Amore
Brett Todman
Mike Haggarty
Mitch Topliffe
Jerry Ferguson
Mark Girard

Fire Prevention

Andrew Challans
Ben Palumbo
ADC Ron Meloche
Brad Renaud
Myles Robinson
Carter Beggs

Training

Andrew Challans
Tim Beneteau
Chris Capaldi
Bill Scott
Matt Haggarty
Ken Rivait

Suppression/Operations/Fire Rescue

Dave Mickle
Rick Wismer
Don Deslippe
Dave Bart
ADC Ron Meloche
John Coulter

Amherstburg Fire Department would like to thank all its internal partner departments and all external partners and stakeholders that have contributed to this Updated Fire Master Plan.

EXECUTIVE SUMMARY

Amherstburg Fire Department (AFD) is the Town of Amherstburg's "all hazards" emergency response organization. AFD provides Town of Amherstburg residents, visitors and businesses with protection against loss of life, property and the environment from the effects of fire, illness, accidents and all other hazards. Through preparedness, prevention, public education and emergency response the emphasis is on Safety & Performance, Customer Service and Professionalism.

The Town of Amherstburg's population has and will continue to grow slowly. Our aging population will increase the demand for some emergency services. Combined climate change, extreme weather events along with nuclear challenges presents an increasing need for AFD to continue to be proactive in terms of emergency planning and specialized training.

The Fire Master Plan is also designed to enable AFD when Training and Certification of all staff to applicable N.F.P.A. standards becomes mandatory. The certification process and commitment to continuous improvement, based on local needs and circumstances, will support AFD in achieving its objectives.

Fire Services along with support from Town Administration have undertaken this review and provide recommendations to update the Fire Protection Master Plan for the years 2020-2025, with an outlook to 2030. This review is necessitated in part because of the anticipated development within the next few years together with aging infrastructure, and as with any successful master plan there should be an ongoing review of the plan to keep it current and focused on the direction of the department. The Town and levels of service set by Council in 2017 is within Bylaw 2017- 67.

The previous Fire Master Plan was adopted in part by Council in 2007 and directed the department and an established working committee to further consider the goals and report back to Council. The Master Fire Protection Plan Team was unable to establish if any report or follow-up was provided to council since 2009. The 2007 Master Fire Plan is at its end of usefulness and a current review of the Fire Master Plan was requested by the Chief Administrative Officer. This update is produced in partnership with multiple other Town business partner departments, external consulting and members of the Amherstburg Fire Department.

The following scope was utilized to update the Master Fire Protection Plan:

- Conduct a current gap analysis on the risks identified;
- Determine the current effectiveness and efficiency of the department against the risks identified and present options to mitigate, respond and manage the risks;
- Evaluate the current and anticipated infrastructure and asset renewal challenges, and the station locations by measuring the risk and anticipated growth.
- Consult with the Public regarding Expectations and Satisfaction of Service.

- Matching the above with deployment standards to arrive at future facility, site, spatial and infrastructure requirements, asset renewal, and;
- Make recommendations to reflect accomplishments during the evaluation process, as well as short, intermediate and long term program objectives with an outlook to 2030.

There are two basic risks that are considered in the fire service, operational risk and organizational risk. Operational risk is the responsibility of the department to determine the risk associated with the varying aspects and responsibilities within the department. Operational risk, streams from the Fire Chief down, following the organizational chart. Organizational risk is the responsibility of Municipal Council to determine. Consideration should include the disciplines, level of service, staffing, number of fire stations and business planning requests based on the risk assessment of the community as recommended by the Fire Chief.

There are many factors that are increasing the level of risk facing the community and the department, but several are especially important over the period of this updated Master Fire Protection Plan period. They include:

- Increasing stock of residential infrastructure due to rise in population together with construction materials and methods
- The stock of commercial, industrial and institutional facilities both occupied and unoccupied
- Increasing volumes of traffic on Town streets, roadways and highways
- Increasing density requirements in growth areas and vertical growth
- Climate change, emergency preparedness and business continuity planning

There are several aspects of the current resources available to the department that requires continued monitoring for effectiveness and efficiencies. They include:

- The need to ensure that the communications systems utilized, are a major component of enhancing the life safety of responders/citizens, and reducing property loss, and that the communications infrastructure remains current to rapid technological change.
- Monitor and adjust staffing levels in all branches consistent with the service delivery targets and needs based on growth, intensification and balancing the needs with the business plan process annually.
- With major staff turnover in the past five years, a significant lack of operational experience exists due to approximately 50% of the complement, which are junior fire fighters.
- Ensure training, policies, standard operating guidelines are kept to current legislated, mandated and best practice standards to enhance safety and increase efficiency and effectiveness in the department.

- Apparatus must meet the strenuous conditions required to respond and mitigate incidents in a safe and timely fashion. Apparatus should be reviewed for condition on an ongoing basis and replacement scheduling should be formalized to ensure efficiencies and that it meets current standards and meets the needs of the department.
- Unique deployment challenges relative to services delivery throughout the town & on Boblo Island.
- Governance of the Department to meet the direction of Municipal Council through the establishing and regulating bylaw 2017-67.
- The provision of services consistent with the public expectation identified through public consultation.
- Significantly aging infrastructure, Stations 2 and 3 being more than 50 years old, and a high level of maintenance and operating costs, replacement is required soon.
- To ensure that changes, improvements and objectives reflect the challenges faced by the municipality and the department in 2020 thru 2025 and the enhancements regarding Safety in the Workplace and the recommendations of the oversite body, the Office of the Fire Marshal.
- Alternative Service Delivery considerations should be included in recent Provincial grant approvals ($200,000.00) for the MMAH Municipal Modernization Program

Public Consultation sessions were conducted during the month of August 2019. Although the attendance at these sessions was very low, an on-line survey was also advertised and we received 90 returns of the Survey. This sampling of our citizens thoughts provided us with confirmation of the directions recommended in this report.

The majority of respondents understand the type of response and services provided by the department, 20% have actually received services from us. Of the core services delivered, Fire Fighting, Medical Response and Motor vehicle rescue were the most important to respondents.

Response time was the most important factor to 96% of respondents.

Recent Collective Bargaining with the APFFA (Amherstburg Professional Fire fighters Association) has produced a 5 year collective agreement which will provide stable labour relations throughout the term of this Fire Master Plan Update.

SUMMARY OF RECOMMENDATIONS

R-01) It is recommended that the Establishing and Regulating By-Law 2017-67 be reviewed and amended to reflect restructuring of the Department as required by changes directed by council guided by the recommendations contained in this Fire Master Plan update including retirement age. The efforts focus on Rank Structure, Visual Identity, Span of Control, Division of Work, Cultural Changes, and Governance considerations.

R-02) It is recommended that regular liaison with various municipal, provincial, federal and private agencies or departments be undertaken by the Administration team.

R-03) It is recommended that the fire department management team work with the Human Resources Unit to implement a Succession Planning process that includes; The identification of critical positions, competency or position profiling, developing internal talent, an action plan and systematically monitoring of results.

R-04) It is recommended that additional formal affiliation with groups and organizations of the fire service industry be established for Fire Department officers.

R-05) It is recommended that a robust Records Management System be implemented that includes incident reporting, training, SOP's, maintenance records, fire prevention activities, attendance and performance measurement, and that it be integrated corporately and implemented.

R-06) It is recommended that sufficient reserve funding be established to provide resources for major expenditures i.e.; facilities, vehicles and equipment.

R-07) It is recommended that alternative Service Delivery considerations for the fire services should be included in recent Provincial grant approvals ($200,000.00) for the MMAH Municipal Modernization Program

R-08) It is recommended that a separate By-law be passed by Council to Authorize a formal Fire Protection Agreement with the Town of Essex. The Agreement should include the Services to be provided, the terms and conditions that do not bind Amherstburg should another emergency occur within the Town. Consideration of the Fees for such Services rendered and the Liability that may accrue to the Town of Amherstburg.

R-09) It is recommended that the Fire Department implement an updated 20 year replacement program approved by Municipal Council for all major apparatus and equipment, and that continued consideration be given to Multi-purpose vehicles i.e. Pumper/tankers and Rescue/Pumpers and Quints.

R-10) It is recommended that the Fire Department implement a Repair and Maintenance contract for services for all major apparatus and equipment.

R-11) It is recommended that a specific reserve fund referenced in Recommendation #6 be established to set aside the required capital to replace SCBA equipment in the near future.

R-12) It is recommended that detailed direction concerning maintenance responsibilities and routines for all apparatus and equipment be developed. These procedures should identify tasks, records and who is responsible.

R-13) It is recommended that each Tanker Truck be equipped with a Portable Water Tank.

R-14) It is recommended that a joint Technology Consultation Committee, consisting of AFD, Public Works, Facilities & Recreation Departments, Police, Finance and the Town of

Amherstburg IT department, should be established to review the status of the current communications systems and look at future needs.

R-15) It is recommended that the Town of Amherstburg and the City of Windsor formalize a fee for services agreement that sets out services to be provided, termination, policies, procedures, fee increases in the future, and an overall program.

R-16) It is recommended that the formulation of a written policy statement detailing fire prevention programs and activities be developed and implemented.

R-17) It is recommended that the department implement an inspection policy that reflects the program considerations, resource requirements and challenges. Further, establishes a schedule that sets the frequency of inspections which is achievable and appropriately suited to the risk profile of each occupancy type and resourced appropriately.

R-18) It is recommended that the chief of the fire department and such members as the chief designates, be appointed as inspectors under the provisions of the Building Code Act by way of a municipal by-law.

R-19) it is recommended that the fire department review and comment on building plans in conjunction with the Chief Building Official for those buildings specified in the Ontario Building Code and Act.

R-20) It is recommended that that the Fire Department utilizes a records/data management system compatible with the Building Department. The system must be user friendly, mobile and able to record notes, print records, and manage timelines.

R-21) It is recommended that a review of the Staffing levels be examined within the context of redeployment recommendations being made within this report.

R-22) It is recommended that Municipal Council consider supporting incentives or initiatives that would promote any future development to include automatic fire sprinklers and additional consideration be given to the requirement for fire alarm systems, where installed, to be directly connected to the WFRS Dispatch Centre or other independent monitoring companies. This promotion would significantly contribute to early Warning and Detection and managing any future resource requirements as well as reduce the trend of increasing fire losses, injuries and deaths.

R-23) It is recommended that an Option as outlined in this updated MFP report be developed, funded, including possible grants, and implemented.

R-24) It is recommended that, as an Initial phase, a single bay (20’X70’) pre-engineered building with basic heating, lighting, shower/washroom facilities be built to safely house a fire apparatus and provide a space for equipment and training for firefighters.

R-25) It is recommended an amendment to the Town’s Establishing and Regulating By-law be made to reflect the Boblo Island protection changes required by council.

R-26) It is recommended that all changes to protection on Boblo Island be communicated with Fire Underwriters Survey to re-evaluate dwelling protection grading for Properties.

R-27) it is recommended that a formalized Post Fire evaluation program be implemented for all responses not considered to be routine.

R-28) It is recommended to prepare individual water source cards for each water supply point and note them on a master map of the municipality. These water source cards could include the type of source (hydrant, stream, lake, cistern, etc.), point of access, flow

available and any particular problem details such as winter conditions that may make some sources unusable.

R-29) It is recommended that standardized hydrant connections be implemented across the municipality and installing night-bright colour rings will also help in spotting hydrants and then determining what the flow rates are.

R-30) It is recommended that the municipal profile and details of changes to water supply and Fire Department operations and equipment be provided to Fire Underwriters with the express purpose of having Dwelling Protection ratings and Fire Protection grading amended to reflect current capacity.

R-31) It is recommended that the municipal Water Master Plan review include details of changes to water supply and Fire Department operational needs for the express purpose of having Dwelling Protection ratings and Fire Protection grading reflect current capacity and future development needs.

R-32) It is recommended that a joint project that includes and Building Department and the Planning department be established to ensure an accurate building stock inventory and Critical Infrastructure be established and maintained.

R-33) It is recommended that a proper EOC be designed and situated to ensure a proper robust facility that aides in the management of emergencies that occur within the Town.

Below are the 33 Recommendations together with estimated costs of implementation stated in 2020 dollars along with comments/status of each.

Short Term Objectives (1 – 2 years)

Recommendations	Estimated Cost Impact 2020 +fwd.	Comments/Status
R-01) It is recommended that the Establishing and Regulating By-Law 2017-67 be reviewed and amended to reflect restructuring of the Department as required by changes directed by council guided by the recommendations contained in this Fire Master Plan update including retirement age. The efforts focus on Rank Structure, Visual Identity, Span of Control, Division of Work, Cultural Changes, and Governance considerations.	$0	To be brought forward in 2021
R-02) It is recommended that regular liaison with various municipal, provincial, federal and private agencies or departments be undertaken by the Administration team.	$0	Completed
R-04) It is recommended that additional formal affiliation with groups and organizations of the fire service industry be established for Fire Department officers.	$0	Completed
R-05) It is recommended that a robust Records Management System be implemented that includes incident reporting, training, SOP's, maintenance records, fire prevention activities, attendance and performance measurement, and that it be integrated corporately and implemented.	$0 $12,000/yr. already reflected in IT budget for annual costs	Implementation began 2015 and completed in 2019
R-06) It is recommended that sufficient reserve funding be established to provide resources for major expenditures i.e.; facilities, vehicles and equipment.	TBD in Budget deliberations	To be brought forward in Budget Asset Replacement Deficit Facilities-$7.0M PPE – $200K Vehicles up to 2032 $3.57M SCBA - $800K

R-07) It is recommended that alternative Service Delivery considerations for the fire services should be included in recent Provincial grant approvals ($200,000.00) for the MMAH Municipal Modernization Program	$200,000 Grant Money	Approved by MMAH
R-08) It is recommended that a separate By-law be passed by Council to Authorize a formal Fire Protection Agreement with the Town of Essex. The Agreement should include the Services to be provided, the terms and conditions that do not bind Amherstburg should another emergency occur within the Town. Consideration of the Fees for such Services rendered and the Liability that may accrue to the Town of Amherstburg.	$0	The Town of Essex should be approached to implement the recommendation
R-09) It is recommended that the Fire Department implement an updated 20 year replacement program approved by Municipal Council for all major apparatus and equipment, and that continued consideration be given to Multi-purpose vehicles i.e. Pumper/tankers and Rescue/Pumpers and Quints.	TBD in 2021 Budget deliberations	To be brought Forward in 2021 Budget
R-10) It is recommended that the Fire Department implement a Repair and Maintenance contract for services for all major apparatus and equipment.	$0	Work with procurement to implement standing offer
R-11) It is recommended that a specific reserve fund referenced in Recommendation #6 be established to set aside the required capital to replace SCBA equipment in the near future.	$800,000.00 liability 8 years forward	To Be Brought forward in 2021 Budget
R-12) It is recommended that detailed direction concerning maintenance responsibilities and routines for all apparatus and equipment be developed. These procedures should identify tasks, records and who is responsible.	$0	Completed

R-13) It is recommended that each Tanker Truck be equipped with a Portable Water Tank.	$0 Included as part of 2018 new vehicle purchases	Completed with purchase of 2018 Tanker/Pumper. Both Tankers now have PWT's.
R-14) It is recommended that a joint Technology Consultation Committee, consisting of AFD, Public Works, Facilities & Recreation Departments, Police, Finance and the Town of Amherstburg IT department, should be established to review the status of the current communications systems and look at future needs.	$0	
R-15) It is recommended that the Town of Amherstburg and the City of Windsor formalize a fee for services agreement that sets out services to be provided, termination, policies, procedures, fee increases in the future, and an overall program.	$0	Draft Agreement discussions are underway with the City of Windsor
R-16) It is recommended that the formulation of a written policy statement detailing fire prevention programs and activities be developed and implemented.	$0	
R-17) It is recommended that the department implement an inspection policy that reflects the program considerations, resource requirements and challenges. Further, establishes a schedule that sets the frequency of inspections which is achievable and appropriately suited to the risk profile of each occupancy type and resourced appropriately.	$0	
R-18) It is recommended that the chief of the fire department and such members as the chief designates, be appointed as inspectors under the provisions of, the Building Code Act by way of a municipal by-law.	$0	Indemnity Protection of Building code act
R-19) It is recommended that the fire department review and comment on building plans in conjunction with the chief building official for those	$0	Much Progress has be made to ensure consistent customer service and organizational awareness

buildings specified in the Ontario Building code and Act.		
R-22) It is recommended that Municipal Council consider supporting incentives or initiatives that would promote any future development to include automatic fire sprinklers and additional consideration be given to the requirement for fire alarm systems, where installed, to be directly connected to the WFRS Dispatch Centre or other independent monitoring companies. This promotion would significantly contribute to early Warning and Detection and managing any future resource requirements as well as reduce the trend of increasing fire losses, injuries and deaths.	$0	Policy direction should be given during the planning and development processes.
R-27) it is recommended that a Formalized Post Fire evaluation program be implemented for all responses not considered to be routine.	$0	Completed
R-31) It is recommended that the municipal Water Master Plan review include details of changes to water supply and Fire Department operational needs for the express purpose of having Dwelling Protection ratings and Fire Protection grading reflect current capacity and future development needs.	$0	Water Master Plan review process should Fire Department Operational Needs.
R-32) It is recommended that a joint project that includes and Building Department and the Planning department be established to ensure an accurate building stock inventory and Critical Infrastructure be established and maintained.	$10,000	Staffing and technology requirements.

Intermediate Term Objectives (3 - 5 years)

Recommendations	Estimated Cost Impact 2020 +fwd.	Comments/Status
R-03) It is recommended that the fire department management team work with the Human Resources Unit to implement a Succession Planning process that includes; The Identification of critical positions, competency or position profiling, developing internal talent, an action plan and systematically monitoring of results.	$0	Any staff development costs would be included in H.R. estimates
R-21) It is recommended that a review of the Staffing levels be examined within the context of redeployment recommendations being made within this report.	$0	Will be completed depending on station option chosen by council.
R-28) It is recommended to prepare individual water source cards for each water supply point and note them on a master map of the municipality. These water source cards could include the type of source (hydrant, stream, lake, cistern, etc.), point of access, flow available and any particular problem details such as winter conditions that may make some sources unusable.	$0	
R-29) It is recommended that standardized hydrant connections be implemented across the municipality and installing night-bright colour rings will also help in spotting hydrants and then determining what the flow rates are.	The cost for the night bright rings is 11K 116K to replace 58 hydrants to have standardized connections. Total: $127,000	Appropriate to fund within PWD budget
R-30) It is recommended that the municipal profile and details of changes to water supply and Fire Department operations and equipment be provided to Fire Underwriters with the express purpose of having Dwelling Protection ratings and Fire Protection grading amended to reflect current capacity.	$0	

Long Term Objectives (5 – 10 years)

Recommendations	Estimated Cost Impact 2020 +fwd.	Comments/Status
R-20) It is recommended that that the fire department utilizes a records/data management system compatible with the Building Department. The system must be user friendly, mobile and able to record notes, print records and manage timelines.	$0	Incorporate in current funded IT project
R-24) It is recommended that, as an Initial phase, a single bay (20'X70') pre-engineered building with basic heating, lighting, shower/washroom facilities be built to safely house a fire apparatus and provide a space for equipment and training for firefighters.	$ 625K	Based on progress of Phase 2 development of South Boblo Island
R-25) It is recommended an amendment to the Town's Establishing and Regulating By-law be made to reflect the Boblo Island protection changes required by council.	$0	To Be completed with implementation of Boblo Station
R-26) It is Recommended that all changes to protection on Boblo Island be communicated with Fire Underwriters Survey to re-evaluate dwelling protection grading for Properties.	$0	To Be completed with implementation of Boblo Station
R-23) It is recommended that an Option as outlined in this updated MFP report be developed, funded, including possible grants and implemented.	See Options section of report	
R-33) It is recommended that a proper EOC be designed and situated to ensure a proper robust facility that aides in the management of emergencies that occur within the Town.	$500 K	Consider in the construction of replacement Fire Station #2

Outlook to 2030 including a Review and Revision of the Fire Master Plan

The Community Risk Assessment along with the feedback from the working committees and the public (via the Public Consultation survey) has identified the following considerations as we look to 2030 and beyond.

PREVENTION, PUBLIC EDUCATION AND AWARENESS RESOURCES

- ✓ Additional Smoke Alarm, CO Alarm & Home Escape Planning Programing
- ✓ Enhance Children's School Programing
- ✓ Public Information Management
- ✓ Additional Compliance initiatives

ADMINISTRATION

- ✓ Use of Technology
- ✓ Collaboration with external and internal partners

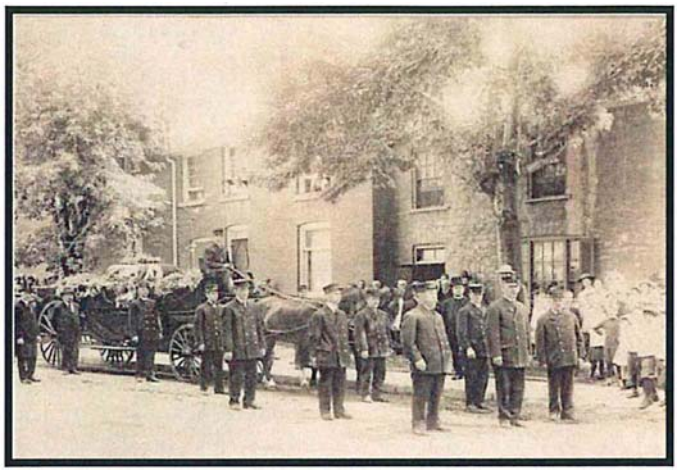
FIRE SUPPRESION

- ✓ Reserve Funding For Capital Asset replacement
- ✓ Facility and Asset Renewal initiatives
- ✓ Continuous Review of Deployment to ensure service level targets are achieved

INTRODUCTION

Background

History



Fire protection in the Town of Amherstburg has an extensive history beginning as far back as 1879. The original settlement had a group of citizens organized in a bucket brigade. Volunteer Fire Companies were eventually organized in the Town of Amherstburg. These competing fire companies tended to be divided along religious lines, both Catholic and Protestant.

This religious factionalism became quite serious and as a result there were several reorganizations of the fire companies. In 1879 the practice of using competing fire companies was finally dropped with the reorganization of the fire companies into one entity, the “Amherstburg Volunteer Fire Company" and much later in its history Amherstburg Fire Department. The Malden Fire Department was established in 1947 following a significant fire in the community, and the Anderdon Fire Department was established in 1948. Amalgamation of the three municipalities which included the three Fire Departments occurred on January 1, 1998.

Although the new Town of Amherstburg was formed in 1998, the fire services continued for the most part to operate as three separate and very distinct organizations.

Amherstburg is a town situated in the Southwest corner of Southern Ontario with 17 km. of Shoreline on the Detroit River at the mouth of Lake Erie in Essex County, Ontario, Canada. In 1796, Fort Malden was established here, becoming the heart of the settlement. Amherstburg played a prominent role in the war of 1812, the rebellion of 1837 and was a

landing place for the underground Railway for African Americans in the 1800's escaping the United States from Slavery. Fort Malden has been designated as a National Historic Site. Since 1998 the amalgamated Town has become home to approximately 22,000 residents. During most weekends population is elevated due to the municipality's key role as a Festival Centre for Essex County.

Currently, approximately 85 % of the population resides within the urban area of the municipality, which accounts for 15% of the total land mass.

Fire Protection is provided by a composite department comprised of 4 Non-union Staff 4 Career Firefighters and 60 Volunteer Personnel. The current complement of staff responds from three fire stations.

Fire and Rescue services carry life safety and property conservation measures from the provincial level of accountability to the Town through various pieces of legislation and policies, which are recognized in the fire service industry. Specifically, Section 2(1) of the Fire Protection and Prevention Act sets out the responsibility for a municipality to conduct a risk assessment of their jurisdiction identifying what fire protection services are necessary to mitigate those risks to an acceptable level. It is traditional to develop long range plans, to set out a critical path of development for a municipal fire service in response to the identified risks in their community. Fire Master Plans are developed in consultation with staff, the community and members of Council.

The goal of a fire department is to provide fire protection services through a range of programs designed to protect the lives and property of the inhabitants from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by man or nature; first to their municipality; second, to those municipalities requiring assistance through authorized emergency mutual aid activities; and third, to those municipalities which are provided fire protection by the fire department via authorized agreement.

Primary objectives of the fire department

In order to achieve the goal of the fire department, necessary funding must be in place and the following objectives met:

1) Identify and review the fire services requirements of the municipality.
2) Provide an administrative process consistent with the needs of the department.
3) Ensure that firefighting equipment and operating personnel are available within the municipality to provide adequate response to a citizen's call within a reasonable length of time.
4) Provide departmental training to an accepted standard which will ensure the continuous up grading of all personnel in the latest techniques of fire prevention, firefighting and control of emergency situations and to cooperate with other municipal departments with respect to management training and other programs.

5) Provide a maintenance program to ensure all fire protection apparatus, including allied equipment, is ready to respond to emergency calls.
6) Provide an effective fire prevention programs to:
   a) Ensure, through plan examination and inspection that required fire protective equipment is installed and maintained within buildings
   b) Reduce and/or eliminate fire hazards
   c) Ensure compliance with applicable municipal, provincial and federal fire prevention legislation, statutes, codes and regulations in respect to fire safety
7) Develop and maintain an effective public information system and educational programs, with particular emphasis on school fire safety programs; and commercial, industrial and institutional staff training.
8) Ensure in the event of a major catastrophe in the municipality, assistance to cope with the situation is available from outside departments and other agencies.
9) Develop and maintain a good working relationship with all federal, provincial and municipal departments, utilities and agencies, related to the protection of life and property.
10) Interact with other municipal departments respecting the aspects of fire on any given program.
11) Ensure these objectives are not in conflict with any other municipal department.

Adequate fire protection

Adequate fire protection is an intangible that is difficult to define. The basic objective of the fire service is the protection of life and property. It is difficult to determine the number of fires and suffering that have been prevented by fire department activities; however, experience has demonstrated that lack of fire suppression and fire prevention measures invites disastrous consequences. Likewise, the fact that most fires are suppressed with minimum losses and injuries does not indicate conclusively that an adequate level of fire department service has been provided. Again, experience shows that major fires and emergencies often arise from combinations of circumstances beyond the immediate control of fire department management, but which must be dealt with effectively to protect the public. The question of adequacy is addressed not only in day to day needs, but in major contingencies that can be anticipated and for future needs as well.

A definition of optimal protection is needed, not minimal protection which fails to meet contingencies and future needs and, not maximal protection which is often more expensive than a municipality can afford.

Reasonable costs

Fire, both as threat and reality, has costs beyond that of maintaining a fire department, including deaths, injuries, health care costs, property losses, lost tax revenues, fire insurance premiums, and providing in-house fire protection capabilities.

Acceptable risk

A certain level of fire loss must be accepted as tolerable simply because of limited resources of a community. Conditions that endanger the safety of citizens and fire fighters beyond an acceptable risk must be identified as targets for reduction.

Consideration of these matters helps to determine what functions and emphasis shall be assigned to the fire department, other municipal departments, and the private sector both now and in the future. Most importantly, consideration of these matters makes it clear that fire safety is a responsibility shared by the public and private sectors. Because the fire department cannot prevent all fire losses, formal obligations to have built-in fire protection fall on owners of certain kinds of buildings. Homeowners have an obligation to install smoke alarms and as private citizens, have an obligation to exercise prudence with regard to fire safety in their daily lives. But prudence also requires education in fire safety and the obligation to provide that education falls on the fire department. The fire department also has an obligation to see that requirements for built-in fire protection in both the public and private sectors are being met.

It is imperative that council and fire department management be concerned with the development and maintenance of reasonable standards of organization.

The provincial government has authority to delegate certain responsibilities to municipal governments. Those areas of responsibility delegated to municipal governments are addressed in the Municipal Act and The Fire protection and Prevention Act which include fire protection at the local level.

While fire protection at the local level is a municipal responsibility, no municipality is compelled to provide fire suppression services or establish a fire department in order to meet this obligation. Municipal councils, as representatives of their constituents, have the sole responsibility for determining whether or not to provide all-inclusive fire protection services, as well as the type and degree of protection. The majority of municipal councils consider this to be an essential service and have afforded their citizens with some form of fire suppression.

Options addressed in the Legislation are:

a) establish, operate, promote and regulate a fire department;
b) jointly manage and operate a fire department with one or more municipalities;
c) purchase fire protection;
d) at all times ensure delivery of mandatory services
e) any combination of a, b, & c.

Once a municipal council has accepted the responsibility to provide fire protection and has decided what level of service (adequacy) will be provided, fire protection must be organized in a manner that will prescribe the service delivery.

The courts can make distinctions between policy decisions and operational duties (decisions). Municipalities, and their agents, can be held liable for their operational action or non-action, and remedies can be sought through the courts. In contrast, policy decisions are discretionary and those that fall into disfavour can be corrected with political action.

In general terms, a policy decision can be illustrated in the case of a municipality that has made a commitment to establish and organize a fire department. Once the fire department has been created, its activities, including certain mandatory provisions of an establishing and regulating by-law can be considered to be operational.

It is therefore incumbent on a municipality to periodically review and evaluate the operational status of the fire department to ensure that all reasonable steps are being taken to provide the level of service determined by council.

Master fire plans, properly introduced, are a valuable tool in identifying management options for providing desired fire protection levels to a community. Ultimately, a good plan will lead to a more fire safe community.

The master plan, stripped to its essentials, presents the programs or projects, the costs, and the schedules for developing and maintaining the fire protection system that has been accepted and approved by council on behalf of the community, based on a price which the public can afford.

The master plan is intended to be directed toward, and used by, the agencies and people responsible for providing fire protection in the community: council; C.A.O.; fire chief; fire department.

The plan forms the basis for the fire protection budget, through identification and description of time-phased programs and projects to be implemented throughout the planning period; the funding required; assignment of authority and responsibility; the procedures for carrying out and updating the plan; as well as identifying the expected positive result.

Although the new Town of Amherstburg was formed in 1998, the fire services continued to operate as three separate and quite distinct organizations until a full organizational review process commenced in 2016, conducted by the Office of the Fire Marshal. The Fire Master Plan update is part of a Transition process of an Organizational Restructure. The comprehensive review process authored by the Office of the Fire Marshal was presented to Council at the regular meeting of Council held on April 11, 2016.

Ultimately it is Council who responds to community expectations, establishes community response times, and service standards and determines the resources that will be provided to the fire service. Important steps have been taken by the Amherstburg Fire Department over the past three years with improvements initiated to mitigate many of the organizational difficulties identified in the OFM report.

We must not lose sight of the fact that AFD is still in its formative post amalgamation stage of development. Considerable work has been done to respond to long standing operational differences to ensure that we can facilitate the ongoing transformation of AFD into one truly unified composite fire service that responds to the changing needs and circumstances of the Town of Amherstburg.

In April 2017, the Town of Amherstburg through the Chief Administrative Officer directed the newly hired Fire Chief to create a Fire Master Plan review of the 2007 Fire Master Plan conducted by TL Powell and Associates and update the Plan to provide strategic directions for the fire service that would take them into 2025 with a vision for an additional five (5) years. The 2007 Fire Master Plan was developed and impart, driven following an amalgamation of three former departments (Malden, Anderdon and Amherstburg) in 1998. The project included a review of Department Operations, to set key objectives to address service levels and reflect Local needs and circumstances. As a result, this version of the Fire Master Plan will update and build on that report and provide outlooks for the period 2020–2025, with a vision to 2030.

Project Scope

The following scope was considered in the development of this Updated Fire Master Plan:

- Review the 2007 Fire Master Plan and update and revise to create short, intermediate and long term objectives,
- Re-evaluate the current infrastructure and station locations to recommend future facility, site, spatial, infrastructure and asset renewal requirements based on Current Risk, Technology, Best Practices and projected community growth.
- Weigh the effectiveness and efficiency of the department Organizational Structure and make recommendations to manage and mitigate incidents, and change the culture of the Service.
- Make recommendations as to identified improvements and efficiencies required and an implementation strategy for the short, intermediate, long term objectives with a vision extending to 2030.

Methodology

A systematic approach was used to develop this updated Fire Master Plan by using current legislative requirements, provincial guidelines, fire service standards and best practice benchmarking using the following:

- The Fire Master Plan – 2007
- An Analyst Tool as part of Town GIS to create a Station Location Study
- The Fire Underwriters Survey - 2008
- The Town of Amherstburg Official Plan and development projections
- Fire Protection and Prevention Act R.S.O.
- Applicable N.F.P.A. Standards

- O.H.& S. act and Section 21 Guidelines
- County Fire Services Training Feasibility Study-2015
- Amherstburg Fire department Establishing and Regulating By-law 2017-67
- Town of Amherstburg Simplified Risk Assessment – 2018
- OFMEM Review of Fire Protection Services in the Town of Amherstburg-2016
- Council Report – MOL orders regarding Fire Services and Follow-up documents – July 2015

The Fire Master Plan – 2007- Recommendations were reviewed for progress updates and categorized into completed, in-progress, No Longer Applicable (NLA), pending and incomplete. A total re-examination of the document and background information was conducted to ensure that Status was identified and updated as required. The review concluded that there needs to be revisions in this 2019 version to reflect current needs and circumstances and new data with respect to changes in the Town of Amherstburg in the past 10 year period.

The Station Location Study – A station location study based on data Gathered by the Town of Amherstburg in combination with other best practices related studies conducted by other municipalities. In order to have a robust station location study as current fire response zones intersect one another for multiple apparatus, it was necessary to review existing station locations and review previous modelling on response capabilities throughout the Town.

The Fire Underwriters Survey – Fire Underwriters Survey is a national organization that represents more than 85% of the private sector property and casualty insurers in Canada. Fire Underwriters Survey provides data to program subscribers regarding public fire protection for fire insurance statistical and underwriting evaluation. It also advises municipalities if the desire to review the current levels of fire defense in the community and provide direction with recommendations where improvements will enable them to better deal with fire protection problems.

The Town of Amherstburg Official Plan – The Official Plan was a major component of this review as it sets out projected growth phases relating to land uses, arterial networking and major components of the Town. Development phasing will play a major role in the growth needs of AFD. Capital and operating business plan needs are established throughout this Fire Master Plan based on current assumptions of development growth.

Fire Protection and Prevention Act R.S.O. – This Provincial Legislation delineates the role of Municipalities and that of the Province in the Delivery of Fire Protection. It establishes minimum mandated services as well as establishes regulations under the act regarding minimum fire safety requirements e.g. (Ontario Fire Code), Reporting and other Powers and Duties.

Applicable N.F.P.A. standards – National Fire Protection Association is a North American trade association with some international members, that creates and maintains private, copyrighted Fire Protection standards and codes for usage and adoption by local governments.

O.H.& S. Act- And Section 21 Guidelines - The Occupational Health and Safety Act sets out the rights and duties of all parties in the workplace, as well as the procedures for dealing with workplace hazards and for enforcement as needed. Firefighter's Section 21 guidance notes are a form of assistance for workplace parties regarding health and safety issues. The notes serve as a useful resource for employers to consider in identifying hazards that are unique to fire services and determining how to protect workers and prevent injury and illness to workers in the fire service

County Fire Services –Training Feasibility Study 2015 – This study was commissioned in 2012 as a feasibility study to review the current and future needs of County Fire Services best practice training requirements by the County CAO's Committee. It resulted in a phased approach developed to suit the needs of all County fire departments, training programs and delivery processes.

Amherstburg Fire department Establishing and Regulating By-law 2017-67 – The Establishing and Regulating by-law is legislated under the Fire Protection and Prevention Act and was updated and passed by Council in 2017. The by-law sets out the mandated services and service levels, classification and task objectives of the mandated services. This is the fundamental principle of providing service delivery needs to the community.

Town of Amherstburg Simplified Risk Assessment – this report prepared by Fire service staff is a report legislated by the Fire Protection and Prevention Act. This report looks at a gap analysis and means to reduce or eliminate the gaps through the three lines of defense of the fire service – public education, codes and standards enforcement and response capabilities.

OFMEM Review of Fire Protection Services in the Town of Amherstburg-2016- In September of 2015 the Office of the Fire Marshal and Emergency Management was requested to undertake a review of the Town of Amherstburg fire protection services. The scope of the review addressed:

- The level of fire protection services.
- Risk assessment utilizing the OFMEM Fire Risk sub-model to identify high and extreme risk.
- Fire inspection practices and protocols.
- Public education program development and utilization.
- Fire investigations to assist in improving fire service delivery gaps.
- Ensuring current pre-plans are in place and identifying any gaps.

- Developing pre-plans for all high and extreme risk utilizing Integrated Risk management to enhance the health and safety for staff and residents/occupants.
- Interaction between various Town services.
- Compliance with the Emergency Management and Civil Protection Act.

Council Report – MOL orders regarding Fire Services and Follow-up documents – July 2015 - On June 23rd, 2015 the Ministry of Labour attended and issued 23 orders to comply. The orders to comply were issued to the Manager of Human Resources and Fire Chief for action and resolution. Administration prioritized and complied with ALL of the orders in a timely manner to mitigate further risks and liability.

PROCESS

The development of this updated fire master plan was guided by the Office of the Fire Marshal's "Optimizing Public Fire Safety" process. The process is comprised of ten steps, as follows:

STEP ONE: Establish Planning Context

The first requirement of this planning process was to review the previous 2007 Master Fire Plan. The purpose of this step is to identify the fire protection needs and goals of the community; assess the risk management work previous administrations have done to date; secure resources, commitment and CAO approval to develop a revision and update to the 2007master fire plan. This was completed by the internal Fire Management Team

STEP TWO: Establish Work Teams

Once approval/direction was received, the next step was to establish work teams comprised of representatives from the various related disciplines and areas of expertise to contribute to the development of the Fire Master Plan. This step included developing terms of reference for the work teams, establishing the roles and responsibilities of team members, defining the scope of the work, and developing a project plan that included a schedule, a list of deliverables and timelines. There were 32 members of the department who expressed interest in actively participating in the process. This is an exceptionally high percentage of participation.

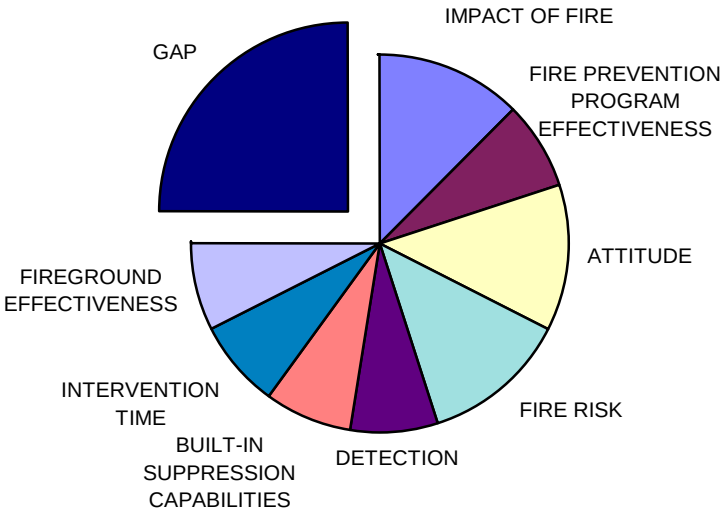
STEP THREE: Analyze Risk

Step three makes up the risk assessment phase of the Fire Master Plan 10-Step process. The purpose of this step was to identify and assess the current fire-related risks in the community. This process involved gathering data, identifying risks and hazards,

performing risk estimation and establishing risk priorities. The Team utilized a risk assessment guided by the main principles of the Ontario Fire Marshal's Comprehensive Fire Safety Effectiveness Model. This is consistent with the 2007 assessment conducted by TL Powell and Associates;

Fire Services Risk Assessment Process

A process that defined risk categories as well as identified risks within the response areas of the Town of Amherstburg was created. The process is intended to outline the current risks to the Town. The risk assessment includes evaluating the entire area of the Town (185.61 km2) while considering the population (22,000) and number of existing structures (7,943+).



This chart shows how the model can be applied to a typical fire department. The "gap" depicts the difference between the existing level of protection and the ideal.

In that document the following statements are made:

> *"The characteristics of your community affect the level of fire risk that needs to be protected against. Older buildings pose a different set of problems than newer buildings constructed to current construction codes. High-rise, commercial and industrial occupancies each present unique factors, which must be considered. Construction, occupancy type, water supply, exposure risks, furnishings and the risk, which the combination of these factors poses to the occupants, must be assessed. The presence of effective built-in suppression and/or protection measures can reduce the fire risk.*
>
> *Provincial Statistics over the past twenty years indicate that the majority of all structural fire deaths in Ontario occurred in single family, detached, residential occupancies.*
>
> *Every community should carefully assess its fire risk. The results of this risk assessment should be used as a basis for determining the level, type and amount of fire protection provided and should be a critical factor in the development of the community fire master plan."*

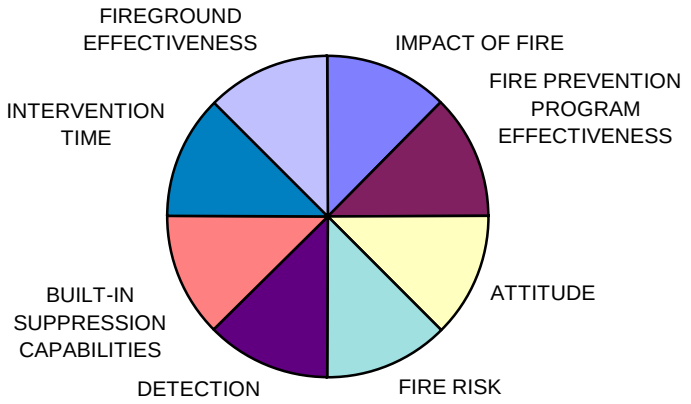
Fire Safety Effectiveness Considerations
For Fire Protection & Prevention in our Community

Every day, local elected leaders, managers and fire chiefs are faced with decisions relating to the provision of fire and other related emergency services for their community. Now, more than ever there are constant pressures of doing “more with less”. Many government officials are hard-pressed to justify any increase in expenditures unless they can be attributed directly to improved or expanded service delivery in the community. This effort has often been hampered by the lack of criteria by which a community can determine the level and quality of fire and other related emergency services it provides to its residents.

The provision of fire protection in Ontario is a municipal responsibility. The level and amount of fire protection provided is determined by the residents of the community through decisions made by and support provided by the local municipal council. Due to a wide variety of factors, the fire service finds itself in a period of change. Increased community expectations coupled with reduced financial resources are forcing all communities to critically assess their fire protection needs and to develop new and innovative ways of providing the most cost effective level of service. A refocus on fire protection priorities is providing progressive fire departments and communities throughout Ontario with an exciting opportunity to enhance community fire safety. There is more to providing fire protection than trucks, stations, firefighters and equipment.

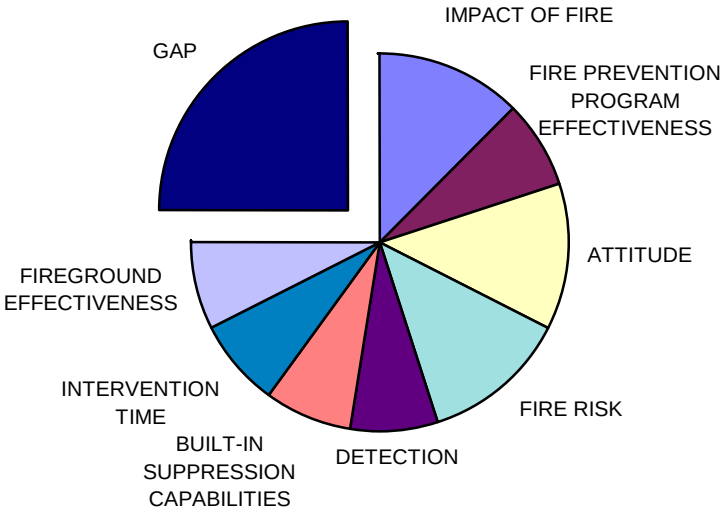
The Office of the Fire Marshal has developed the Comprehensive Fire Safety Effectiveness Model which can be used as a basis for evaluating fire safety effectiveness in your community. This model looks at community fire protection as the sum of eight key components, all of which impact on the fire safety of the community. Deficiencies in one of the components can be offset by enhancements in another component or components.

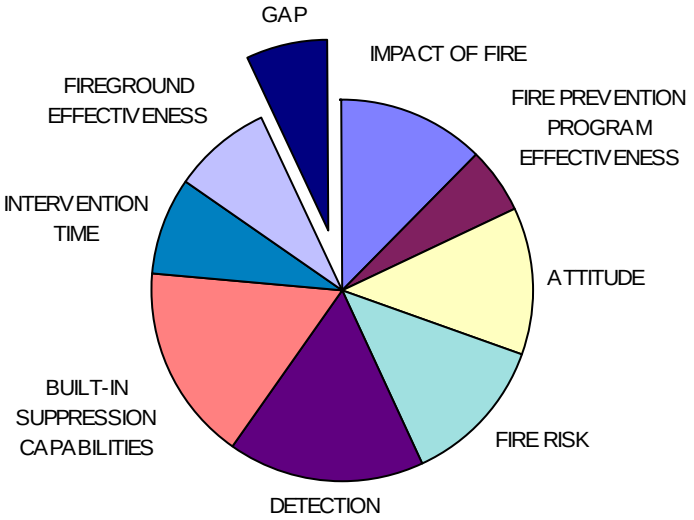
Today, hazard or risk assessment has expanded well beyond the fire problem in the community to include emergency medical incidents, hazardous materials incidents and many other emergency situations. Paradigms are being shifted to emphasize the concept of fire prevention and control systems as communities attempt to effectively reduce losses experienced. This document will include plans for human resources and program financial support as well as the many external influences that impact on the fire service.



This chart show each of the factors which make up the analysis model. Although the chart is divided equally, each factor will in reality contribute differently to the total level of protection provided to a community.

This chart shows how the analysis model can be applied to a typical fire department. The "gap" depicts the difference between the existing level of protection and the ideal.





This chart shows how the "gap" can be reduced by strengthening a number of factors in order to increase the overall level of protection provided to the community.

Application of this Fire Safety Effectiveness Model will enable Amherstburg to make informed choices by providing an objective and innovative approach to public fire protection - a new way of thinking.

1. Impact of Fire

The impact of fire in any community can be significant with far reaching consequences. Not only do fires result in deaths and personal injuries but they also cause substantial property and environmental loss. Often overlooked are factors such as the historical value of unique local properties as well as the potential for lost tax assessment. There are many communities in Ontario where the loss of a particular occupancy will have a serious impact on the local economy. Involvement in fire often has a negative psychological impact on those affected.

Every community should carefully assess the total impact of fire. This assessment should be used as a basis for a Plan that addresses all areas of community fire safety including fire prevention and life safety as well as the delivery of suppression and rescue services.

- Does our community have a property whose loss would result in a significant financial burden to the community?
- Does our community have a property whose loss would result in a significant impact of local employment?
- Does our community have a property which if involved in fire would pose a significant environment risk?
- Does the plan adequately consider the impact of a major fire?

2. Fire Prevention Program Effectiveness

Perhaps the most important component of and community's fire protection services is the effectiveness of its fire prevention programs. Legislation, regulations and standards pertaining to fire safety focus primarily on fire prevention. Enforcement of these codes is one of the most effective ways of reducing the loss of life and property due to fire. In addition, public fire safety education programs have the potential to substantially reduce the loss of life and property due to fire.

Every community should strive to provide an adequate, effective and efficient program directed toward fire prevention, life safety, risk reduction of hazards, the detection, reporting of fire and other emergencies, the provision of occupant safety and exiting and the provisions for first aid firefighting equipment.

- Does our community have a fire prevention and public education policy that adequately addresses:
  - Inspections?
  - Public education?
  - Code enforcement?
  - Investigation?
- Does our community provide inspections upon request?
- Does the fire department respond to complaints?

- Does your community's fire prevention program address public life safety in structures from pre-construction planning until demolition through application of the Building Code and Fire Code?

3. Public Attitude

North Americans tend to be more complacent about fires and the resulting losses than other parts of the industrialized world. Communities often accept the consequences of fire and provide community support. Comprehensive insurance packages are available to mitigate damages.

Communities need to assess the resident's attitudes toward fire to determine what role it plays in determining the extent of fire losses. Properly designed public fire safety education programs will significantly improve public attitudes toward the prevention of fire. This will result in lower fire losses.

Every community should assess public attitudes toward fire and life safety issues. This assessment should be used to develop and deliver public fire safety education programs to enhance community fire safety.

- Do the residents of our community demonstrate an interest in public fire safety?
- Is there a general awareness of fire safety in our community?
- Is there a sense of personal responsibility for one's own safety within the community?

A Public Consultation process and On-line Survey was utilized to gather information provided by the public and to assess the level of awareness and gaps to be addressed.

Full results are included as Appendix A – Final Results Online Survey

Although the attendance at these sessions was very low, an on-line survey was also advertised and we received 90 returns of the Survey. This sampling of our citizens thoughts provided us with confirmation of the directions recommended in this report.

The majority of Respondents understand the type of response and services provided by the department, 20% have actually received services from us. Of the core services delivered, Fire Fighting, Medical Response and Motor vehicle rescue were the most important to respondents.

Response time was the most important factor to 96% of respondents.

4. Fire Risk

The characteristics of our community affect the level of fire risk that needs to be protected against. Older buildings pose a different set of problems than newer buildings constructed to current construction codes. High rise, commercial and industrial occupancies each present unique factors which must be considered. Construction,

occupancy type, water supply, exposure risks, furnishings and the risk which the combination of these factors poses to the occupants must be assessed. The presence of effective built-in suppression and/or protection measures can reduce the fire risk.

36% of all structural fire alarms and 46% of all structural fire deaths in Ontario occur in single family, detached, residential occupancies.

Every community should carefully assess its fire risk. The results of this risk assessment should be used as a basis for determining the level, type and amount of fire protection provided and should be a critical factor in the development of the community fire master plan.

- Has our community assessed the fire risk?
- Does our community have a fire master plan which takes into account the results of our fire risk analysis?
- Has the fire department identified all the possible actions it could take to reduce the number of fire incidents that occur in the community?
- Does our community planning process consider the impact of new developments and industries on the fire department?

5. Detection Capabilities

The presence of early warning detection capabilities notifies occupants and allows them sufficient time to escape. It also allows for earlier notification of the fire department. Communities who encourage the widespread use of early warning detection systems have the potential of significantly reducing notification time, which, when coupled with effective fire department suppression, results in a corresponding reduction of loss of life, injuries and damage to property from fire.

Every community should develop and implement programs that promote the use of early warning detection systems in all occupancies. These programs should be a fire protection priority.

- Does your community have a program to ensure that all occupancies are provided with adequate early warning detection devices?
- Does our community have a program to ensure that residents are familiar with the importance and proper maintenance of early warning detection devices?
- Does our community promote the use of direct connect early warning detection devices in residential as well as commercial, industrial and assembly occupancies.

6. Built-In Suppression Capabilities

Traditionally, the use of built-in suppression has been limited to fixed fire protection systems associated with assembly, commercial, industrial and manufacturing occupancies. Application of this concept has been limited in the residential environment. These systems, particularly the use of automatic sprinkler systems play an important role in

minimizing the effects of fire by controlling its spread and growth. This enables the fire department to extinguish the fire more quickly and easily.

Although effective in newer buildings, it is often difficult if not impossible to provide for built-in suppression systems that effectively control fires in wall cavities and concealed spaces associated with certain older types of construction or reconstruction.

The use of built-in suppression systems should be a fire safety priority in all communities. Programs should be developed and delivered that promote the advantages of built-in suppression systems for residential, commercial, industrial and assembly occupancies.

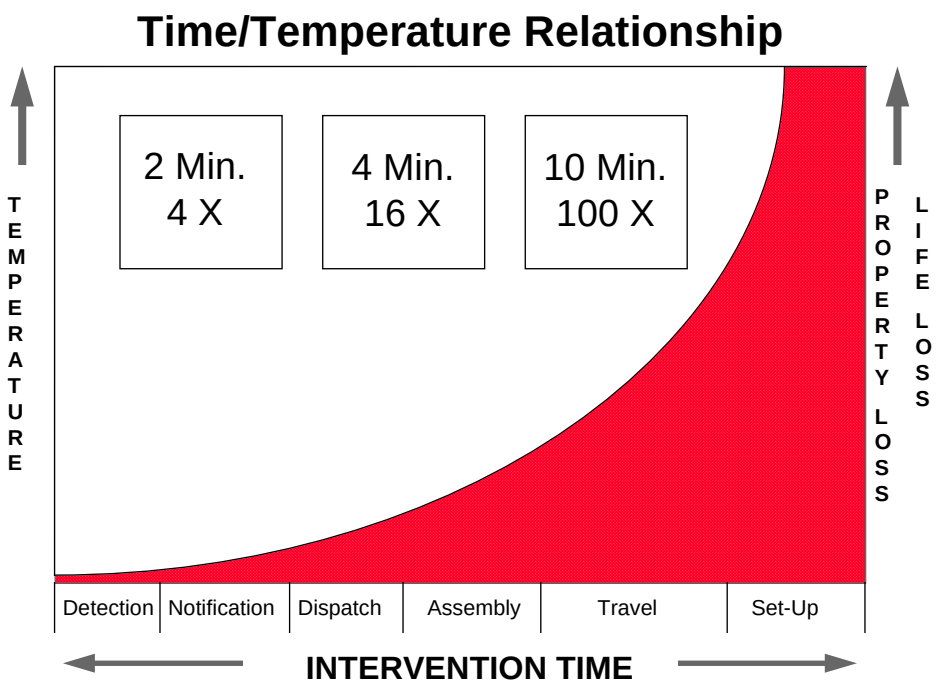
- Does our community promote the use of built-in suppression devices in all types of occupancies
  - Residential?
  - Commercial?
  - Industrial?
  - Assembly?
  - Institutional?
- Does our community consider built-in suppression devices and early warning detection as an alternative to traditional concepts of fire protection?

7. Intervention Time

This is the time from ignition until effective firefighting streams can be applied to the fire. There are many factors influencing this component of the model:

- The time required to detect the fire
- Notification time from the public
- Notification time to the firefighters
- Preparation time for the firefighters to arrive at and to leave the station
- The distance between the fire station and the response location
- The layout of the community
- Impediments such as weather, construction, traffic jams, lack of roads, etc.
- Set-up time

Fire department intervention time is crucial in determining the consequences of a fire in terms of deaths, injuries and loss of property and damage to the environment. Effective fire prevention and public education programs can reduce intervention time which will result in increased fire department effectiveness.



Every community should develop and implement a range of programs and initiatives that reduce intervention time. These programs and initiatives should address all aspects of intervention time from the time required to detect the fire to the set-up time of the fire department.

Are all occupancies in our community equipped with suitable smoke alarms and provided with fire emergency escape plans?

- Do all residents in our community know how to report a fire or other emergency?
- Does our community have a common fire emergency reporting number?
- Is the fire department dispatched by an appropriate dispatch facility?
- Does the community's fire master plan consider the different turn-out times for volunteer and/or full-time firefighters?
- Has the department instituted an appropriate fire department training and education program?
- Are all structures within the community clearly identified using an accepted numbering system?
- Has the department instituted a policy of having the closest fire department respond even though that fire department may be from another municipality?

8. Fire ground Effectiveness

The fire ground effectiveness of the fire department has a wide range of benefits for our community. Not only does the fire department's performance affect the degree of damage to the environment and property, it also has a direct relationship to personal injury and death from fire. Many factors influence the effectiveness of any fire department. Included in these factors are:

- Fire department organization
- Community support of fire department
- Firefighter availability

- Firefighter and fire officer training
- Adequate resources which are properly maintained
- Time effective response to emergency incidents

The fire department should strive to provide an adequate, effective and efficient fire suppression program designed to control/extinguish fires for the purpose of protecting people from injury, death or property loss.

- Does the fire department have a comprehensive training program and evaluation system for all positions?
- Does the fire department have a system to ensure that an adequate number of trained personnel respond to all emergencies within a reasonable time period?
- Is the fire department provided with adequate resources to safely and effectively handle the risks it will be called upon to mitigate?
- Does the fire department use standard operating guidelines to define expected fire department actions for the wide variety of situations it might encounter?
- Does the fire department have automatic response agreements to guarantee an adequate level of personnel at all times?

The answers to these questions in this document will provide us with some indication of the level of fire safety in our community; however this is only the start.

STEP FOUR: Evaluate Risks and Capabilities

Step four makes up the remainder of the risk assessment phase of the 10 Step process. The result of this step was the identification of any gaps that may exist between required community fire protection services and the services currently provided by the fire department serving our municipality. Part of the Capabilities portion involved consultation with Members of Council, the public, and our partners involved in services delivery.

STEP FIVE: Prepare Action Plan

This step involved the development of a range of options/solutions to address the gaps that were identified in Step Four. This process involves both determining and prioritizing those options. The action plan will list all of the options gathered including an evaluation of those options and takes into consideration their operational impacts. Included in the action plan is a status report that outlines where the community is in terms of addressing their current fire protection needs and the work completed as the process unfolded and were authorized through existing delegated authority. The purpose of this report is to receive direction from Municipal Council in selecting the options listed in the Action Plan.

STEP SIX: Develop Strategies to implement an updated Fire Master Plan

Step six involves developing strategies to implement the options that were selected based on the Action Plan. These strategies include a range of strategies based on the three lines of defense (public education, fire safety inspections and enforcement, and

emergency response). More than one strategy may be developed for each of the options taking into consideration differences in resource acquisition and/or timelines. The purpose of this step is to select an appropriate overall implementation strategy, to develop an updated Fire Master Plan document that includes the selected programs and response capabilities and to receive municipal council approval. Once council approval has been obtained for the updated Fire Master Plan, the next stage would then be to implement the plan.

STEP SEVEN: Implement updated Fire Master Plan

The purpose of this step is to put in place the mechanisms to operationalize and implement the updated Fire Master Plan as proposed to municipal council. These include developing the implementation schedule, a communications strategy, and a tracking system to monitor the implementation of the Plan based on projected timelines and deliverables outlined in the approved Plan.

STEP EIGHT: Monitor and Evaluate

This step addresses the need to monitor and evaluate the progress of the Plan's implementation and its effectiveness, on an ongoing basis. The purpose of this step is to ensure that the risks identified in the Plan are being satisfactorily addressed through evaluation of program effectiveness, program delivery and performance measures. It is also important to monitor and identify changing local needs and circumstances that may necessitate revisiting and/or revising the Plan.

STEP NINE: Benchmark

The purpose of this step is to evaluate performance based on comparison with comparable peer groups. This step also involves identification of best practices that may benefit Amherstburg's fire service.

STEP TEN: Revise

Revision of the updated Fire Master Plan is an ongoing process that will/may include a review of all the previous nine steps. This step takes into consideration changes, additions and modifications that may need to be made in order to keep pace with the changing needs and circumstances of the community. It may also provide an opportunity for the forward expansion of the updated Fire Master Plan (e.g. revision). Its purpose is to promote continuous improvement through changed processes and programs. This will ensure that the updated Fire Master Plan remains current, based on changing local needs and circumstances.

ACCOMPLISHMENTS

Background

The original Fire Master Plan was approved by Council in 2007, and set out goals and objectives through 48 recommendations. Since that original plan was adopted, several goals have been achieved, while others are still underway in different phases of completion. In addition, during Steps 1-6 of this process to create the updated version, many issues identified by the working committees were easily accomplished and implemented. Progress on both the original recommendations and these update issues is identified below.

The ability of AFD to accomplish these have would not have been possible without the collaboration of several other Town departments that AFD relies on for the service delivery needs of AFD. Another important aspect is the willingness of Town Council to support the ongoing commitment to the department. The following is an update on completed and underway goals that were targeted objectives.

2007 Fire Master Plan Recommendations

	Status Update **2007** **Fire Master Plan Recommendations**	COMPLETED IN PROGRESS NO LONGER APPLICABLE PENDING- NO DECISION INCOMPLETE
#	2007 Recommendation	Status Category
1	It is recommended that a temporary administrative support person be assigned to the Fire Department in 2007 and funding be provided in the 2008 budget process for a full time Fire Department Secretarial Position.	COMPLETED IN 2017
2	It is recommended that the Municipal Council continue to refer the issue of deployment of resources for fire protection to the Fire Chief.	COMPLETED
3	It is recommended that the full time Fire Fighters continue to be assigned duties that will benefit all of the residents of the Town of Amherstburg	COMPLETED IN 2016
4	It is recommended that the cost of providing fire protection, fire prevention and public education services in the Town be shared by all of the tax payers who benefit from the service.	COMPLETED
5	It is recommended that the following options be considered for the provision of fire protection on Boblo Island: a. Require all structures to be sprinkler protected in accordance with the applicable NFP A standard. In addition require that all sprinkler systems be equipped with flow alarms connected to a central station alarm centre. Where a wet pipe system is installed the central station alarm should also include a low temperature alarm for buildings that are used as summer residences only. b. Provide a fire station for the storage of a triple combination Pumper on the island. This will ensure that two Pumpers will be	IN PROGRESS IN PROGRESS

	available if one is responded with the volunteers from station 1. c. In view of the potential of occasional weather conditions preventing the Town from delivering fire suppression service on the Island. The Town requires that any future development on the Island have double the limiting distances specified under the Building Code for all future structures on the Island. d. All new and current property owners and their insurers to be advised by the Town that during certain weather conditions any structure on the island should be considered as unprotected with regards to fire department response.	INCOMPLETE COMPLETED
6	It is recommended that the False Alarm by-law be revisited to include the concept of refunding positive actions taken by property owners to reduce the number of False Alarms in their buildings.	COMPLETED **By-Law 2015-26**
7	It is recommended that a committee be struck consisting of Fire, Public Works, Facilities and Police Department to review the numbers and locations of accidents within the Town boundaries to see if any traffic calming or other measures may be put in place to reduce the number of incidents in the Town.	COMPLETED
8	It is recommended that a burning permit program be considered by the Town combined with a public education program to reduce the number of illegal burning incidents in the Town.	COMPLETED IN 2018
9	It is recommended that the Fire Department develop standard specifications for all types of emergency vehicles.	COMPLETED AND ONGOING
10	It is recommended that all vehicles be maintained in compliance with the new standard NFPA 1911. Maintenance programs and schedules should be developed once the standard is published.	COMPLETED IN 2016
11	It is recommended that a 23m (75ft.) aerial truck be purchased and housed at Station #1.	COMPLETED 2009
12	It is recommended that the Engines at Stations #2 and #3 be replaced. Engine 2 should be retained for reserve service. Engine 3 and Engine IA should be retired.	ON GOING 2018 REPLACEMENT PLAN

13	It is recommended that standard specifications be established for all tools (SCBA, foam, nozzles, hose, etc.).	ONGOING
14	It is recommended that the equipment compliment for each class of fire truck in the fleet be standardized. Equipment such as SCBA, hose, nozzles, appliances, tools, etc. should be standardized and specified for each new vehicle.	ONGOING
15	It is recommended that all SCBA should comply with the requirements of CSA Standard Z94.4-93 "Selection Use and Care of Respirators".	COMPLETED 2016
16	It is recommended that all vehicles be subjected to an annual safety inspection and tested annually by an independent contractor.	COMPLETED 2016
17	It is recommended that Tanker specifications meet NFP A and ULC standards and be based upon a conventional2 door chassis with an 11300 L (2500 gal.) tank with rear and side quick dumps. The vehicle should be equipped with a PTO 4000 lpm (840 gpm) pump, Class A foam system, 45 mm (1% in.) preconnects, hose bed, ground ladders, and storage compartments. The vehicle should have a porta-tank that has a capacity equal to the tank size. It should carry a portable pump (minimum size 2300 lpm (500 gpm)) and 10 m (30 ft.) of hard or soft suction for the pump and the portable pump.	NO LONGER APPLICABLE
18	It is recommended that Engine specifications meet NFP A and ULC standards and be based upon a 4 door chassis with a pump/rescue style body, The Engines should be configured to carry hydraulic rescue equipment to serve as a light Engine/Rescue vehicle with a minimum 2300 L (500 gal.) tank and a minimum 5000 lpm (1 050 gpm) pump with a front suction. The vehicle should be equipped with a CAFS or Class A foam system, pre-piped removable deluge, 45 mm (I% in.) and 65 mm (2 Y2 in.) pre-connects, hose bed, storage compartments, ground ladders and 10m (30ft.) of hard or soft suction.	NO LONGER APPLICABLE

19	It is recommended that Heavy Rescue specifications meet NFP A and ULC standards and be based upon a conventional 2 door chassis with a rescue style body. The vehicle should be equipped with a breathing air cascade and fill station, spare SCBA bottle storage, a generator and lighting system, sufficient compartments for the required rescue tools and a work space for incident command.	NO LONGER APPLICABLE
20	It is recommended that Aerial specifications meet NFP A and ULC standards and be based upon a 4 door chassis with a 23m (75ft.) ladder, minimum 2300 L. (500 gal.) tank and a minimum 5000 lpm (1050 gpm) pump with a front suction. The vehicle should be equipped with a CAFS or Class A foam system, pre-piped ladder deluge, 45 mm (1% in.) and 65 mm (2 Y2 in.) preconnects, hose bed, storage compartments, ground ladders and I 0 m (30 ft.) of hard or soft suction.	COMPLETED 2009
21	It is recommended that Thermal Imaging Cameras be provided for every Engine or Engine/Rescue and all personnel should be trained in their use.	COMPLETED
22	It is recommended that when the traffic congestion warrants it, a traffic light pre-emption system should be installed on the traffic lights in the Station #I response zone.	IN PROGRESS
23	It is recommended that existing Tankers be equipped with Porta-tanks and side dump valves.	COMPLETED
24	It is recommended that Engines be equipped with front or rear suctions.	NO LONGER APPLICABLE
25	It is recommended that the position of Fire Prevention and Public Education Officer be created in the Amherstburg Fire Department in the 2008 budget. a. It is further recommended that a job description based upon the Ontario Fire Service Standards for Fire Prevention Officers should be developed for the position. b. It is further recommended that the position should also require qualification as a Certified Building Official under the requirements of the Building Code.	COMPLETED 2016

26	It is recommended that a Fire Fighter inspection program be developed and implemented. The Station 2 Fire Fighters should be trained to meet the minimum qualifications set out in the Ontario Fire Service Standards for Fire Prevention Officers.	NO LONGER APPLICABLE
27	It is recommended that the involvement of the Fire Department in the Building Permit process continue.	COMPLETED
28	It is recommended that the department's fire prevention SOG's be updated.	COMPLETED
29	It is recommended that the volunteer Fire Fighters continue to participate in public education events. The volunteer Fire Fighters should receive training in the delivery of fire safety programs.	COMPLETED
30	It is recommended that A Fire Safety Plans Box Bylaw be drafted and presented to Council.	NO LONGER APPLICABLE
31	It is recommended that a pre-incident planning program be developed using NFP A 1620 "Recommended Practice for Pre-Incident Planning" as a template. All high life risk, institutional properties, large commercial properties, public assembly properties and industrial properties should be preplanned.	IN PROGRESS
32	It is recommended that Opportunities for fund raising be investigated with public service clubs and community organizations.	COMPLETED
33	It is recommended that a Home Fire Safety Program be developed and delivered by the volunteer firefighting crews.	IN PROGRESS
34	It is recommended that an evaluation/testing process for every training lesson be developed and implemented in the AFD and the appropriate records of the training be retained to meet the Ministry of Labour Section 21 Guideline.	COMPLETED 2017
35	It is recommended that all members of the Fire Department are canvassed when funding is made available for volunteers to attend the fire college for training courses.	COMPLETED

36	It is recommended that the Town explore the possibilities of a partnership with other adjacent Fire Departments for the construction of a suitable training tower and other facilities in a reasonably central location to all of the partners.	COMPLETED 2018
37	It is recommended that the Fire Chief request an independent signal strength study be completed on the radio system	NO LONGER APPLICABLE
38	It is recommended that the Town explore the possibilities of access to the Windsor CAD system for the Amherstburg Fire Chief and the Fire Department.	COMPLETED
39	It is recommended that printers be placed in the stations connected to the Windsor CAD system for response information.	COMPLETED
40	It is recommended that the Fire Chief conduct a survey of the volunteer members to establish a list of those who would be interested in being assigned a radio monitoring device.	NO LONGER APPLICABLE
41	It is recommended that Station #l not be considered for relocation unless it is within a block of the current location.	NO LONGER APPLICABLE
42	It is recommended that plans begin to finance the re construction of Station #3 (Malden) towards the end of the upcoming decade.	PENDING AND INCOMPLETE
43	It is recommended that fire hydrants should be installed on the rural water mains to provide fire protection to the properties that are along the roads where the water mains are located. Hydrants should be located at every intersection and strategically along the road based upon the location of buildings but in no case more than 300m from a building. In urban areas hydrants should be located on the street at intervals of not more than 150m and in commercial/industrial areas at intervals of not more than 115m.	PENDING AND INCOMPLETE
44	It is recommended that the funding of the capital project for the proposed fire hydrants be funded through a fire hydrant levy for those properties that would benefit from the additional fire hydrant coverage.	PENDING AND INCOMPLETE
45	It is recommended that a survey be conducted of the municipality to identify all static public and private water sources. A program should be instituted to install dry hydrants at all of these locations to facilitate water drafting by the fire department.	PENDING AND INCOMPLETE

46	It is recommended that a flow test and water pressure survey be conducted of the water main system. A program should be established to upgrade the water mains where the water supply is deficient.	PENDING AND INCOMPLETE
47	It is recommended that the fire hydrants be colour coded to indicate fire flow with a minimum residual pressure of 150 kPa. If the water main size is required to be shown, it should be stenciled on the hydrant.	COMPLETED
48	It is recommended that the Fire Department develop a water supply tanker shuttle program and have it evaluated by Fire Underwriters Survey.	NO LONGER APPLICABLE

2016 - OFMEM Review of Fire Protection Services in the Town of Amherstburg

	April, 2016 Office of the Fire Marshal	***Review of Municipal Fire Protection***	**(Feb 8, 2018)**
Priority Ranking (High, Medium, Low)	**Recommendation**	**Resolve**	**Status**
High	New Fire Chief and Restructuring	effective April 24/17	**On Going**
	Recommendation # 1		
High	The Municipal Council of Amherstburg shall ensure the annual review of the municipal fire risk assessment, and revision as required.	5 Consultation Committees established	Committees have been assigned tasks as per MFP template Information Gathering Underway Target **Completed Q4 2018**
	Recommendation # 2		
Medium	The Municipal Council of Amherstburg should consider using the OFMEM Fire Risk Sub-Model or other risk management processes as agreed to by council, to complete a comprehensive fire risk assessment.	Agreed	Has been provided to the Committee responsible **Completed**

	Recommendation #3		
Medium	The Municipal Council of Amherstburg should ensure the fire service establishing and regulating bylaw, including an organizational chart, is reviewed, updated and implemented.	Agreed	Draft for Council Consideration has been submitted to the Municipal Clerk for Review **Completion Q3 2017** **Bylaw 2017- 67 passed July 10, 2017** **Completed**
	Recommendation #4		
Medium	The Municipal Council of Amherstburg shall confirm their establishing and regulating bylaw meets the requirements of the Municipal Act, 2001.	Agreed	Included in draft submission **Completed**
	Recommendation # 5		
Medium	The Municipal Council of Amherstburg should ensure bylaws impacting the fire service are developed, reviewed, implemented and enforced based on the municipality's requirements. These bylaws should be regularly reviewed, and revised as required.	Agreed	**Completed 2017 review Q2** **False Alarm Bylaw 2015-26** **New E& R By-law 2017-67** **Fire Works Bylaw 2017-92** **Open Burning Bylaw 2018-01** **Completed**

	Recommendation #6		
Low	The Municipal Council of Amherstburg shall ensure that all agreements pertaining to the fire service are current, authorized by bylaw, carried out according to their terms and conditions, and meet the requirements of the Municipal Act, 2001.	Agreed	**Completed** **2017 Q1**
	Recommendation # 7		
Medium	The Municipal Council of Amherstburg should ensure that all positions have job descriptions which reflect current duties.	Agreed	Consultation Committee Assigned Task **Completed Q2 2018**
	Recommendation #8		
High	The Municipal Council of Amherstburg should ensure that all fire service personnel are trained and that competency is maintained in order to effectively, efficiently, and safely execute all responsibilities.	Agreed	New Training Officer Position approved by Council for 2017 Budget Recruitment Completed Completion Q3 2017 Position filled effective July 2, 2017 **Completed**

	Recommendation #9		
Medium	The Municipal Council of Amherstburg should ensure the development and implementation of a succession plan, guided by staff learning and development plans as well as formal performance reviews.	Agreed	AFD working with HR **2016 Performance reviews Completed**
	Recommendation # 10		
Medium	The Municipal Council of Amherstburg should ensure the creation and implementation of a workload management system which sets priorities based on fire and life safety risks.	Agreed	As part of the Risk Assessment update portion of the Master planning process Q4 2019
	Recommendation #11		
Medium	The Municipal Council of Amherstburg shall ensure the ongoing development, revision, implementation and maintenance of policies and operating guidelines, consistent with legislative requirements, industry standards and best practices, for all approved core services.	Agreed	New Fire Chief has implemented new Process All SOP's and Orders to be reviewed by Consultation Committees Completion Q2 2018 **Completed February 2018**

	Recommendation #12		
	The Municipal Council of Amherstburg, administration and fire service leaders should attend an OFMEM led session on legislative requirements, risk and liability management and best practices for the fire service.	Agreed	Conducted by OFMEM **Completed Q1 2016**
	Recommendation #13		
High	The Municipal Council of Amherstburg shall ensure compliance with Ontario Fire Service Section 21 Guidance Notes.	Agreed	**Completed Q2 2016**
	Recommendation #14		
Medium	The Municipal Council of Amherstburg shall ensure that fire service records management system and records retention practices meet the requirements of the Municipal Act, the municipal records retention bylaw and schedule.	Agreed	Working with Clerks Office as they Develop Municipal Policy **Q1 2019** New Records Management System (Auxilium implemented Feb1/2018

	Recommendation #15		
Medium	The Municipal Council of Amherstburg shall ensure an audit is conducted of all fire service records to confirm compliance with municipal bylaws, legislative requirements and the Fire Code.	Agreed	As per #14
	Recommendation #16		
Medium	The Municipal Council of Amherstburg shall ensure the development and implementation of public fire safety education programs based on a current fire risk assessment and analysis of fire investigation and response data.	Agreed	Assigned task to Consultation Committee Completion Q2 2018
	Recommendation #17		
Medium	The Municipal Council of Amherstburg shall ensure the development and implementation of a comprehensive carbon monoxide and smoke alarm program, including home fire escape planning.	Agreed	Assigned to Committee Q2 2018
	Recommendation #18		
Low	The Municipal Council of Amherstburg shall ensure consistent application of the enforcement options available under the FPPA and the Provincial Offences Act.	Agreed	Prevention Policy included in new E&R By-law 2017-67 **Completed**

	Recommendation #19		
	The Municipal Council of Amherstburg shall ensure that staff conducting Fire Code approvals is appointed as chief fire official for that purpose, according to the provisions set out in the Fire Code.	Agreed	**Completed** **Q4 2016**
	Recommendation #20		
	The Municipal Council of Amherstburg shall ensure compliance with all requirements for vulnerable occupancies as outlined in Fire Marshal directives and legislation.	Agreed	**Completed and in Compliance Q4 2016**
	Recommendation #21		
	The Municipal Council of Amherstburg shall ensure that all staff conducting fire investigations are delegated this authority by the fire chief, according to the provisions set out in the FPPA.	Agreed	**Completed**
	Recommendation #22		
Medium	The Municipal Council of Amherstburg shall ensure that municipal fire hydrants are inspected, maintained and tested, according to the provisions set out in the Fire Code.	Agreed	**Completed** **Q4 2016**

	Recommendation #23		
High	The Municipal Council of Amherstburg should ensure that an annual training and education program is developed and implemented to confirm that personnel are trained and that competency is maintained in order to effectively, efficiently, and safely execute all responsibilities.	Agreed	**Completed Q1 2016** New Annual Training Schedule established including attendance and completion requirements NFPA - FF 1 and 2 And Fire officer 1 Blue Card ICS ISO- Q4 2018
	Recommendation #24		
High	The Municipality of Amherstburg shall ensure that information, instruction and competent supervision are provided to the fire service to protect the health and safety of the worker as per the Occupational Health and Safety Act, 1990.	Agreed	On Line MOL Training Assigned Completion Q4 2017 **Completed**

	Recommendation #25		
High	The Municipal Council of Amherstburg should ensure proper issue, documenting, training, care, maintenance, inspection, storage and replacement of personal protective equipment.	Agreed	**Completed Q1 2016**
	Recommendation #26		
High	The Municipal Council of Amherstburg shall ensure all municipal requirements outlined in the Emergency Management and Civil Protection Act, 1990 are met.	Agreed	New Fire Chief appointed Primary CEMC New ERP drafted and out for Comment Completion Q4 2017 **Completed Sept. 25/17**
	Recommendation #27		
High	The Municipal Council of Amherstburg shall develop a timeline and tracking system for the implementation and course of action for each legislative requirement and recommendation contained in this report, in collaboration with the OFMEM.	Agreed	This Tracking Doc **Completed**

2020 Master Plan Working Committees

Issues identified and accomplished during 2018/19 MFP plan REVIEW and UPDATE;

Working Committee Tasks & Accomplishments During Development 2020 Master Fire Plan		
#	**Tasks**	**Accomplishments**
Administration Committee		
1	Review of Departmental Rules and Regulations Review	Submitted multiple changes to SOP 102 Department Rules and Regulations
2	Review of Departmental policies and procedures (SOP's, SOG'S)	Reviewed all SOP's and addressed any section that were out dated or needed revising
3	Review of Records Management needs and current reporting and evaluation of software solutions	Supported the implementation of a single records management system under Auxilium
4	Review of the Department Organizational Chart and all Roles and Responsibilities	Recommended changes to the current Organizational Chart.
5	Review of the Department Rank Structure	Reviewed the Department Rank Structure and identified issues relating to full time/part time structure.
Fire Suppression Committee		
6	Review of the Departmental Accountability and Entry Control Systems and SOP	Prepared and released a new Accountability SOP
7	Review of the Departmental Incident Command System and SOP	Prepared and released a new Incident Command SOP

Apparatus, Equipment, and Communications Committee		
8	Review of current fleet, and equipment	Equipment log built for all three stations. New equipment recommended for the department in both Ice Water Rescue and Extrication.
9	Inventory all equipment and supplies	All stations were inventoried
10	Specification for a new Rescue/Pumper Emergency Apparatus	New Rescue/Pumper Apparatus ordered upon the completion of this project. **In Service Dec.2018**
11	Specification for a new Tanker/Pumper Emergency Apparatus	New Tanker/Pumper Apparatus ordered upon the completion of this project. **In Service Nov.2018**
Training Committee		
12	Review of current Training Programs	Training program reviewed and findings presented to the Chief
13	Standardization of Training across the three stations	Training plan implemented to standardize firefighter 1, 2, and other training at each station.
14	Review of training standards and legislation	NFPA Training Standards reviewed and part of training plan implementation.
15	Creation of an Annual training guide	Upon completion of training program review, a yearly training schedule was created and is implemented.
16	Review and implement a risk management program for the training program	A risk management program has been implemented along with the training program. This program shall be utilized to ensure the safety of all personnel during training exercises.

17	Review specialized training programs	A specialized Ice Water Rescue team has been built to tackle specific training and emergency response to water based incidents.
18	Create a department succession plan	Succession plan training schedule designed and submitted to administration for review and implementation. Consideration of Span of control and standardization focus.
Fire Prevention Committee		
19	Develop a Community Risk Assessment	A Community risk assessment was created and completed by team leaders of the Fire Prevention Committee. This document reviews the municipality as a whole and the risks associated. Includes new legislative categories.
20	Review of current Open Burning Practices	Participated in the development of a New Open Burning By-law and implementation of a requisite Permit Program.

COMMUNITY RISK ASSESMENT

What is Risk Assessment?

Risk assessment is the process utilized to identify the Town of Amherstburg's fire protection and other emergency service needs by measuring the probability and consequence of an adverse effect to health, property, organization, environment, or community as a result of an event, activity or operation.

There are two basic risks associated with the fire service, operational risk and organizational risk. Operational risk is the responsibility of the Amherstburg Fire Department (AFD) to determine risks in the community and plan strategic, tactical and task oriented plans to mitigate incidents. Organizational risk is a function and responsibility of Council to determine the disciplines, level of service, staffing, stations and approval of the department business plan based on the overall risk assessment of the community as recommended by the Fire Chief.

It is the process of examining and analyzing the relevant factors that characterize the Town of Amherstburg and applying this information to identify potential risk scenarios using results based accountability and evidence based decision making. The assessment includes an analysis of the likelihood of these scenarios occurring and subsequent consequences. In essence, risk assessment attempts to answer the following questions:

- What could happen?
- When could it happen?
- Where could it happen?
- Who could it happen to?
- Why could it happen?
- How likely is it to happen?
- How bad would it be if it happened?
- What can be done to lessen or prevent any or all the above?

This information serves as the basis for formulating and prioritizing risk management decisions to reduce the likelihood of these incidents from occurring and to mitigate the impact of these incidents when they occur.

The Town of Amherstburg has a legislated responsibility under the Fire Protection and Prevention Act R.S.O. (FPPA) to provide public education with respect to fire safety and certain components of fire prevention. Conducting a community risk assessment is the first step towards compliance with these requirements and is intended to identify information required by a municipality to make informed decisions about the programs and activities necessary to effectively manage the community fire risk based upon local needs and circumstances.

The Office of the Fire Marshal and Emergency Management has two risk assessment tools; the Simplified Risk Assessment model as described above and until recently was an annual compliance document that is submitted to the Office of the Fire Marshal and Emergency Management. The second model is a more expansive Comprehensive Risk Assessment model described in Section 1.3 above that is one of seven components of the Comprehensive Fire Safety Effectiveness Model. The OFMEM has introduced an "Integrated Risk Management Tool". The tool is intended for municipal and fire service decision-makers to determine building risks by taking into account building characteristics and assist municipalities in fulfilling the responsibilities prescribed in Section 2 of the Fire Protection and Prevention Act, 1997 R.S.O.

It is important to note that the legislative requirements for risk assessment required by the Office of the Fire Marshal and Emergency Management relate only to fire related public education, fire prevention and fire protection and Carbon Monoxide regulations. It does not address the multiple services disciplines that the AFD deliver to the citizens of the Town of Amherstburg; therefore it would not be practical to base the updated Master Fire Protection Plan solely on this requirement. A Community risk assessment must be conducted for all services and services levels that AFD provides that include both those listed above and include but are not limited to:

- Hazardous Materials Response & Protection of the Environment at the Operations Level
- Vehicle Extrication and Rescue
- Land and Vessel Based Ice/Water Rescue
- Tiered Medical Response
- Elevator Rescue
- Public Assistance
- Fire Inspections
- Fire Code Enforcement
- By-law Enforcement
- Public Education
- Fire Investigations into Origin, Cause and Circumstances
- Provisions of the Propane Handling Act
- Community Emergency Preparedness
- Corporation of the Town of Amherstburg Business Continuity Planning

The Emergency Management and Civil Protection Act states: "in developing its emergency management program, every management program, every municipality shall identify and access the various hazards and risks to public safety that could give rise to emergencies and identify the facilities and other elements of the infrastructure that are at risk of being affected by emergencies."

Risk Analysis

A thorough review of the 2007 Fire Master Plan information, present levels of service and assumptions on growth and service delivery in the foreseeable future at this time, and has resulted in areas of risk that require a review to eliminate, control or manage the risk, based on the new services delivery hierarchy that Amherstburg Fire Department has implemented, namely “Three Lines of Defense” The first Line of Defense is Public Fire Safety Education, the Second Line of Defense is Strict Standards, Codes & Enforcement and the Third Line of defense is Maintaining an Effective Emergency Response.

Areas Reviewed for this Update;

Infrastructure

- Current Fire Stations, lifecycle analysis and locations
- Future Station locations
- Training Facilities
- Emergency Operations Centre location & back-up site

Apparatus/Equipment

- Aerials, pumpers, rescues, tankers and specialty apparatus
- Technical rescue equipment
- Equipment replacement
- Capital equipment purchase and replacement
- Maintenance and Record keeping

Communications

- Radio system components and infrastructure
- Computer Aided Dispatch system and contracted services
- Software and information technology systems (e.g. Mobile Workforce)
- GIS,
- GPS, AVL

Personnel

- Staffing and Organization in Administration, Operations, Fire Prevention, Public Education, &Operations
- Support Services
- Succession planning (leadership training and career development)
- Performance development plans (evaluations)
- Training

Administration & Organization

- Records Management

- Municipal Policy compliance
- Service Delivery and Standardization
- Response Protocols
- Business Planning
- Position Descriptions – Job Evaluation Plans
- Standard Operating Guidelines
- Occupation Health and Safety
- Legislative Requirements

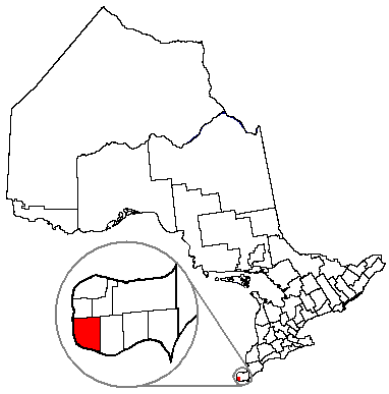
Given the projected increasing growth the Town will experience during the review period to 2030, AFD will need to evaluate this growth to maintain current levels of service and address the gaps in the areas of identified risks, regularly.

The following risks need to be considered by AFD and the Town of Amherstburg for action to be planned and implemented in the future as outlined. Some will require attention in the short term while others seek longer term solutions and phased approaches to help control or spread costs over a period of time.

Area Characteristics

The characteristics of the Town of Amherstburg are documented by collecting historical data, current data and growth forecasts by which risks are identified, defined and potential organizational and operational goals and objectives are established. The Town of Amherstburg is a Town of almost 22,000 residents.

Geography



Amherstburg is a town situated in the Southwest corner of Southern Ontario with 17 km. of Shoreline on the Detroit River at the mouth of Lake Erie in Essex County, Ontario, Canada the Town of Amherstburg is a lower tier municipality within the County of Essex.

The total land mass following amalgamation is 185.61 km2

Economy

Several large Residential developments are underway or proposed to begin in the next couple of years, including plans for intensification in the downtown core and approved growth corridors.

Demographic and Geographic Risks

Population

Ages of population	#	% of Total Population	Provincial Average % of Population
Age 0-4	1045	4.7	5.17
Age 5-14	2525	11.5	11.2
Age 15-19	1465	6.7	6.0
Age 20-24	1300	5.9	6.65
Age 25-44	4770	21.8	25.7
Age 45-54	3410	15.6	14.8
Age 55-64	3450	15.6	13.6
Age 65-74	2440	11.1	9.4
Age 75-84	1030	4.7	5.1
Age 85 and over	505	2.3	2.2
Median age of population	44.5		41.3
Total Population	21,940		13,448,494

Building Stock Profile

Occupancy Classification		# of Occupancies
Group A	Assembly (411,412,414,441,605,608)	65
Group B	Institutional (625,626)	3
Group C	Single family(301,302,303,304,309,311,313,314,322)	7123
	Multi-unit residential(332,333,334,335,336,340,341,365,370	454
	Hotel / Motel (450)	4
	Mobile Homes & Trailers	65
	Other(588,597)	6
Groups D & E	Commercial (400's minus 411,412,414,441,471,472)	138
Group F	Industrial (510,520,521,523,530,531,540,558,568,590,593)	68
Other occupancies not classified in OBC such as farm buildings.(210,211,220,221,222)		282
	Totals	8280
Total # of mixed occupancy buildings(303,304,471,472)	72	

Statistics

Statistics are a valuable measure of current and past risks and trends for the department and can be used to predict future trends, risks and conduct gap analysis to better determine methods to reduce the gaps and risks through evidence based decision making. The types of calls and resources needed to deal with those emergency responses provide the starting point. The following chart shows incident calls by response type class and covers the years 2015 – 2017. The data is classified in accordance with the reporting criteria to the Office of the Fire Marshal and Emergency Management in the following categories:

Fire Loss Profile

Comparison of Provincial (Ontario) and Local (Town of Amherstburg) Fire Loss Statistics by Occupancy/Property Classification

A review of the local and provincial fire loss statistics has confirmed residential properties as being the predominant community fire risk, based on occupancy, in regards to the total number of fire occurrences; and the greatest amount of dollar loss in property. Based on the fire loss statistics for the three-year period (2014-2016), residential occupancies contributed for:

48.85% of all fires in Ontario and **42.47%** of all fires in the Town of Amherstburg

- **81.06%** of all injuries in Ontario and **0%** of all injuries in the Town of Amherstburg
- **88.17%** of all fatalities in Ontario and **0%** of all fatalities in the Town of Amherstburg
- **53.03%** of all dollar loss in Ontario and 81.42**%** of all dollar loss in the Town of Amherstburg

PROPERTY CLASSIFICATION	**ONTARIO FIRE LOSSES 2014-2016 (%)**				**AMHERTSBURG FIRE LOSSES 2014-2016 (%)**			
	TOTAL FIRES	**INJURIES**	**FATAL**	**$ LOSS**	**TOTAL FIRES**	**INJURIES**	**FATAL**	**$ LOSS**
Assembly	309	23	0	26,596,917	1	0	0	400,000
Care & Detention	89	7	0	9,631,975	0	0	0	0
Residential	5217	647	67	374,897,397	8	0	0	540,000
Business & Personal Services	173	12	0	16,689,000	0	0	0	0
Mercantile	243	8	0	15,568,487	0	0	0	0
Industrial	532	49	2	304,953,772	0	0	0	0
Other/Not Class.	316	5	0	4,494,506	0	0	0	0

Vehicle Fires	2859	37	5	66,388,616	5	0	0	115,500
Outdoor	713	17	6	10,936,347	13	0	0	0
Classified under National Farm Building Code	184	9	0	31,849,026	0	0	0	0
2014 Total:	**10635**	**814**	**80**	**862,006,043**	**27**	**0**	**0**	**1,055,500**
Assembly	277	13	0	19,851,840	0	0	0	0
Care & Detention	83	22	0	17,000,234	0	0	0	0
Residential	5385	704	83	423,043,886	8	0	0	1,067,600
Business & Personal Services	166	8	0	11,069,201	0	0	0	0
Mercantile	228	11	0	56,122,119	1	0	0	80,000
Industrial	523	22	1	72,533,165	1	0	0	200,000
Other/Not Class.	369	6	1	7,936,765	1	0	0	1,000
Vehicle Fires	2942	42	7	56,523,657	2	0	0	16,000
Outdoor	769	22	2	7,132,480	4	0	0	0
Classified under National Farm Building Code	209	10	0	51,400,385	0	0	0	0
2015 Total:	**10951**	**860**	**94**	**722,613,732**	**17**	**0**	**0**	**1,364,600**
Assembly	252	7	0	22,728,955	0	0	0	0
Care & Detention	123	11	2	2,285,861	0	0	0	0
Residential	5243	592	81	435,838,996	15	0	0	2,239,030
Business & Personal Services	165	9	1	15,960,827	0	0	0	0
Mercantile	252	11	0	36,493,671	1	0	0	5,000
Industrial	548	29	1	90,827,730	0	0	0	0
Other/Not Class.	409	8	0	8,213,481	1	0	0	40,000

Vehicle Fires	2843	29	3	73,262,620	4	0	0	20,200
Outdoor	832	19	0	14,066,864	8	0	0	0
Classified under National Farm Building Code	177	8	0	42,117,250	0	0	0	0
2016 Total:	**10844**	**723**	**88**	**741,796,110**	**29**	**0**	**0**	**2,304,230**
TOTAL 2014-2016	**32430**	**2397**	**262**	**2,326,415,885**	**73**	**0**	**0**	**4,724,330**

As residential fires represent the greatest risk to the community, the Amherstburg Fire Services Fire Prevention, Service Delivery must focus on efforts to target this risk through initiatives such as: enhanced public education activities; appropriate inspection programs and the support of legislative changes to require the installation of residential sprinklers.

Amherstburg Residential Fire Losses

(Source, OFM Fire Loss Statistics 2014-2016)

RESIDENTIAL TYPE	TOTAL FIRES	INJURIES	FATALITIES	$ LOSS
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	
Multi-unit dwelling			0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	8		0	
2014 Total:	**8**		**0**	**$540,000**
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	

Multi-unit dwelling	2		0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	8		0	
2015 Total:	**10**		**0**	**$1,067,600**
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	
Multi-unit dwelling			0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	15		0	
2016 Total:	**15**		**0**	**2,239,030**
TOTAL 2014-2016	**33**		**0**	**3,846,630**

Municipal Fire Loss Profile

Municipal Fire Deaths and Injuries								
Occupancy Classification		2015		2016		2017		Total Deaths + Injuries
		Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	
Group A	Assembly	0	0	0	0	0	0	0
Group B	Institutional	0	0	0	0	0	0	0
Group C	Residential	0	0	0	0	0	1	1
Groups D & E	Commercial	0	0	0	0	0	1	1
Group F	Industrial	0	0	0	0	0	0	0
Mobile Homes & Trailers		0	0	0	0	0	0	0
Other		0	1	0	1	0	1	3
Total Deaths / Injuries		0	1	0	1	0	3	5

Municipal Property Dollar Loss

Occupancy Classification		2015		2016		2017		% of Total Dollar Loss (2015-2017)
		# of Fires	$	# of Fires	$	# of Fires	$	
Group A	Assembly	0	0	0	0	0	0	0
Group B	Institutional	0	0	0	0	0	0	0
Group C	Residential	7	1,232,100	16	2,279,030	7	448,000	60%
Groups D & E	Commercial	1	80,000	1	5,000	0	0	4%
Group F	Industrial	0	0	0	0	0	0	0
Mobile Homes & Trailers		0	0	0	0	1	1,000	2%
Other		5	52,500	4	20,200	8	648,500	34%
Total Dollar Loss			1,364,600		2,304,230		1,097,500	4,767,330

Comparison of the Community's Experience to other comparable communities

Amherstburg - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions No Loss	Burning (controlled)	CO False calls	False fire calls	Medical/ resuscitator call	Other response
410 *100%*	21 *5%*	9 *2%*	39 *10%*	37 *9%*	60 *15%*	105 *26%*	38 *9%*
Pre fire conditions/ no fire	Public Hazard	Rescue					
17 *4%*	29 *7%*	55 *13%*					

Essex - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions No Loss	Burning (controlled)	CO False calls	False fire calls	Medical/ resuscitator call	Other response
369 *100%*	31 *8%*	5 *1%*	22 *6%*	25 *7%*	67 *18%*	76 *21%*	38 *10%*
Pre fire conditions/ no fire	Public Hazard	Rescue					
36 *10%*	19 *5%*	50 *14%*					

LaSalle - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions No Loss	Burning (controlled)	CO False calls	False fire calls	Medical/ resuscitator call	Other response
359 *100%*	15 *4%*	14 *4%*	11 *3%*	41 *11%*	89 *25%*	52 *14%*	18 *5%*
Overpressure (no fire)	Pre fire conditions/ no fire	Public Hazard	Rescue				
1 *0%*	24 *7%*	33 *9%*	61 *17%*				

PROGRAMS & SERVICES

Introduction

The level of service, activities and responses provided by the Amherstburg Fire department for the community are designed, organized and operated in compliance with the Establishing and Regulating By-law, the Fire Protection and Prevention Act, 1997, the Emergency Management and Civil Protection Act, 1990, other legislation relative to the operation of a fire service, Council directions and the departments mission, goals and objectives. The key elements of evaluating the effectiveness and efficiencies of the department determine the ability to identify gaps and methods to eliminate or reduce risks.

The current Establishing and Regulating By-law 2017-67 was passed by Council and was amended to update the previous By-law and several Council directions into a more comprehensive document that reflects the current level of service and Council endorsed time/risk/density response criteria identified by NFPA 1720 for emergency responses. This By-law establishes the basic mandates of the department which includes:

- Administration
- Apparatus, Equipment & Communications
- Public Education
- Fire Prevention and Fire Code Enforcement
- Fire Suppression
- Technical Rescue
- Control of Hazardous Materials Incidents
- Extrication and Rescue
- Vessel Based Ice/Water Rescue
- Machinery Rescue
- Medical Tiered Response
- Assistance to the Public and partners
- Fire Cause and Determination
- Training

Details of the Establishing and Regulating By-law are contained in Appendix B - 2017 - 67 Establish and Regulate and were passed by Council.

Contained within the By-law, Section 3 - Employment, there is a provision for promoted officers to remain active until age 65 but firefighters must retire at the end of the month in which they turn 60. This was implemented at a time in the department's history when Officers did not don breathing apparatus and did not perform interior firefighting tasks. The modern fire service and the current operation of the department requires that Officers Lead Teams of Firefighters and enter for interior operations, including suppression, rescue and other demanding tasks with their assigned fire fighters. The Fire Protection and Prevention Act requires that career firefighters retire at age 60 due to these physical demands. These

physical demands place all fire suppression staff at significantly increased risk to cardiac arrest, many times greater than the average member of public. As a means of transitioning to the recommended retirement policy current promoted volunteer officers who perform suppression activities should be required to retire consistent with all firefighters over the next five years. This would temporally allow all volunteer officers to retire at age 65 but that a requirement for medical clearance be implemented for officers aged 60 thru 65 on an annual basis for a five year period.

Section 4 - Organization of the By-law sets out the divisions of the Department organization but fails to delineate rank nor Line and Staff authority. Span of control is not maintained in the suppression division and a visual chart depicting this is not attached to the By-law.

Rank Structure

The primary difference in the ranking structure between volunteers and career firefighters is the use of District Chiefs. This difference has recently been corrected during collective with the career firefighters. Career staff is now responsible for the entire town during their shift.

Best practices have departments striving for as much uniformity as possible in all areas of their operations; acting ranks, span of control for officers, division of work, and adhering to accepted practices within the ICS (Incident Command system) and standardizing responses to specific emergencies.

It is recommended that AFD should consider a best practice ranking structure for career and volunteer and establish a pre-determined complement of officers for each station, regardless of being career or volunteer. Written in-station responsibilities for the officers should be implemented. Incident Command training should reinforce the concept that the first officer on scene is the incident commander until relieved by a higher ranking officer or he/she transfers command to another officer on scene.

It is also recommended that AFD develop a job description for the District Chief's position and that specific sections pertain to the reporting structure, accountability requirements and authority amongst the ranks.

The promotion of positive relationships with all firefighters be included as part of an evaluation process for the Officers and be developed and that management / leadership training be made available to promote and support succession planning.

Organizational Culture

The decision to include a section on the organizational culture of the AFD was made due to the tension and dissension sometimes seen involving pre-amalgamation communities and Volunteer firefighter verses Career firefighter authority and contributions periodically within the organization.

It would appear that the tension stems from pre-amalgamation and the following perceived, and in some cases, real conflicts: Volunteer firefighters dedicating their time to fire services on behalf of their local community who feel that time requirements are becoming onerous. At the same time Career staff is not being given the acknowledgement of their contributions and advanced knowledge and training acquired as their career progresses. As well as the additional responsibilities placed on them for much of the activities of all and its impacts on the Corporation. In the opinion of several firefighters, the Town is not being served by one fire department, but rather by more than one department of which, one is staffed with career firefighters and the other with volunteers, where some firefighters are given preference and other firefighters are treated as "second class citizens" (whose inputs are neither requested or valued by the other).

It does no good to debate the existence of such issues, what is important to note is that, to many fire fighters, these issues matter. Moreover, these issues need to be addressed.

Our research of other amalgamated/Composite fire departments shows that many have successfully addressed such issues by promoting a "One Fire Department" approach, joint career / volunteer activities, and pro-active recognition and reward of achievements.

AFD should develop a strategic statement supporting a "One Fire Department" approach, including mission, vision and values that extend to both volunteer and career firefighter resources. It is further recommended that in conjunction with the Town's Human Resources Department, AFD should explore alternate means by which this may be implemented through a restructuring process.

R-01) It is recommended that the Establishing and Regulating By-Law 2017-67 be reviewed and amended to reflect restructuring of the Department as required by changes directed by council guided by the recommendations contained in this Fire Master Plan update including retirement age. The efforts focus on Rank Structure, Visual Identity, Span of Control, Division of Work, Cultural Changes, and Governance considerations.

Vision

The Vision of AFD is to be a dynamic organization recognized, respected and appreciated by the community as being on the leading edge of service provision.

Mission

The Mission and Mandate of the Amherstburg Fire department is to protect the lives, well-being and property of the people of Amherstburg through dedication to life safety, commitment to community service and preservation of the environment.

Values

The Values of AFD reflect leadership through team involvement focused on "PRESERVING OUR PAST – PROTECTING OUR FUTURE" by encompassing:

- Safety and Performance
- Customer Service
- Professionalism

ADMINISTRATION & ORGANIZATION

A fire department is only as strong as its leaders and the system and structure that govern the administration of the department. The Fire Chief with his officers is charged with ensuring that the organization runs smoothly and efficiently.

Regardless of size or complexity, every fire department will have similar functions, the only difference being the magnitude of these functions. The following excerpt from the National Fire Protection Association's (NFPA) Fire Protection Handbook perhaps summarizes the situation best.

"The fire service has many unique management needs. It requires: a distinct team spirit; a need for strong disciplinary influence for concerted and instant reaction on the fire ground; a high quality of leadership from its officers; continuous training; an extremely wide range of technical competence; a labour/employer relationship not comparable to that in other occupations; and an ability to deal with the public under both minor and major crisis situations."

Although it is somewhat difficult to determine if any of the above mentioned functions are more important than others, it is apparent that an administrative process must be in place before the department can operate efficiently.

A more comprehensive awareness and understanding of the municipal emergency and associated services can be realized through liaison with various municipal, provincial, federal and private agencies or departments. The benefits derived through these relationships are evident in areas such as emergency planning where the fire chief consults with groups such as: police, health, engineering, provincial and federal authorities and social services, utilities, etc.

R-02) It is recommended that regular liaison with various municipal, provincial, federal and private agencies or departments be undertaken by the Administration team.

AFD is comprised of six divisions; Administration, Operations, Training, Fire Prevention & Public Education, Apparatus Equipment & Communications and Community Emergency Management.

Administration division – Fire Chief, Deputy Fire Chief, and Assistant Deputy Fire Chief of Fire Prevention who also operates at incidents as an Incident Safety Officer to enhance the safety of firefighters, and an Administrative Assistant.

Operations division – 4 Career Firefighters who are District Chiefs, 1 Volunteer (Paid on Call) District Chiefs, 9 Volunteer (Paid on Call) Captains, and 50 Volunteer (Paid on Call) firefighters.

All staff is working out of 3 stations, staffing 3 pumpers, 1 Aerial apparatus 2 Tanker Trucks and three support vehicles. There are other pieces of specialty apparatus (Boats for Water Rescue) that are not staffed, but used on an as needed basis using on-duty personnel and paid on call fire fighters to respond with it.

Minimum staffing is 1 Career firefighter per shift per shift, and 60 Volunteer (Paid on Call) firefighters from all three stations. This level of staffing allows for a response to a residential structure fire and one other simultaneous single apparatus response. Or, at a large incident, such as a high rise fire which would require the entire staff.

Training division – consists of a fulltime Training Officer, District Chiefs, and 9 Station Captains who are assigned to each of the stations of firefighters. Their duties in addition to delivering training are also required to develop and deliver special programs.

Fire Prevention division – consists of an Assistant Deputy Chief who utilizes all staff to assist in program delivery.

Apparatus, Equipment and Communications division – No assigned staff however responsibilities are shared based on station staff assignment, and by the Assistant Deputy Fire Chief, and Deputy Fire Chief.

Radio Communications Services is delivered under a service arrangement with the City of Windsor, Fire and Rescue Services, Dispatch Centre and Kelcom Communications Inc. for Radio Infrastructure.

Community Emergency Management -The Fire Chief also has the role of Community Emergency Management Coordinator. The Emergency Management and Civil Protection Act require all municipalities in Ontario to have a designated CEMC and be appointed by by-law. Alternate CEMC’s include the Deputy and Assistant Deputy Chiefs.

The total complement of the department is 68 personnel.

Administrative development and succession training

All organizations, including fire departments, must have a system in place that will provide for the progression of fire department personnel through the ranks, from recruit to fire chief. The attitude of fire department officials should demonstrate the strong desire to develop and motivate personnel to assume responsibility throughout the department. This attitude must be reinforced and supported by municipal council.

While training and education is made available through the Ontario Fire College and many municipal fire departments to provide general knowledge of all fire department activities, modern technology and administrative changes may necessitate specific or specialized instruction and executive development for senior officers. The successful functioning of all municipal departments can be directly attributed to the administrative, managerial and inter-personal skills demonstrated by those persons who have been placed in positions of responsibility.

Provisions should be in place to provide for the enhancement of supervisory, managerial and administrative skills so that department officers and senior staff will be prepared to carry out functions (duties and responsibilities) at levels higher than their present rank determines, as well as maintaining and upgrading technical proficiency.

Succession planning will provide for a smooth transition when vacancies in senior staff positions are being filled while enabling the municipality to benefit from the valuable local experience of internal candidates for the position.

Recruitment, Selection, Retention and Promotion

Unlike in the 2007 Fire Master Plan, the future attrition plan is concerning. In the past few years, Approx. 30 fire fighters have been replaced with new staff. The Training of these new members is currently a major priority. Additionally Officers have retired and currently over the next 5 years, additional officers are expected to or can retire. A sustainable succession plan is needed. Most of the planning material is available but needs to be collated into a simple format for all positions in the department to enhance career path development both department developed and self-guided.

The department has developed an Officer Development Program based on NFPA Standard requirements that will enhance the skill level and abilities of the Officer complement in Operations.

The recruitment and selection process is realistic, credible and able to promote qualified individuals. The task is to continually re-evaluate the process. The development needs to extend beyond the Operations division to include all divisions in the department.

R-03) It is recommended that the fire department management team work with the Human Resources Unit to implement a Succession Planning process that includes; The identification of critical positions, competency or position profiling, developing internal talent, an action plan and systematically monitoring of results.

Standard Operating Procedures and Guidelines

The fire department's ability to respond to the needs of the community is only possible through operational plans. Every fire department should have a set of organizational directives (standard operating procedures) that establish a standard course

of action on the fire ground or for any other fire department activity, from the most simple to the most complex.

Standard operating procedures (SOPs) should be: written, official, and applied to all situations. SOPs should be developed for all fire department functions which generally include the following:

- Organization for fire suppression
- Personnel requirements
- Fire ground operations
- Non-emergency operations
- Fire prevention
- Fire investigation
- Communications
- Maintenance of fire department equipment
- Training
- Administrative processes

When plans and actions are structured around SOPs and the SOPs contain safety considerations, all operations will have a positive start.

The individual SOPs would then be integrated into the overall fire department operational and fire protection plans.

To date, 106 Corporate and AFD procedures have been developed and are reviewed and revised regularly. There are corporate programs that reflect legislative requirements and others that are in place to support corporate values and expectations of its employees in a positive human relations direction.

Standard Operating Procedures are developed by the team and guide both administrative and personnel behavior, and addresses emerging issues with an emphasis on health and safety. The SOPs are reviewed regularly and submitted to the Fire Chief for approval and implementation. SOPs give fundamental direction to all staff on the various aspects of job performance and expectations under certain conditions. All 106 SOPs have an enabling policy or reference attached that drives the SOP. In the past 3 years the Policies and SOPs have been transformed from paper to electronic, making for easy access for all staff to locate, review and acknowledge they have read and understand.

Use of Human Resources

Development and utilization of human resources is consistent with the established mission, vision and objectives.

Through a cooperative approach the management team along with H.R. has started developing performance appraisals that are job specific to the various jobs within the

department, because of the diversity of the job functions. All personnel have an appraisal conducted on a yearly basis.

Risk Management and Personnel Safety

There is a risk management program designed to protect the organization and personnel from unnecessary injuries or losses from accidents of liabilities. The fundamental principles are that the department will risk a life to save a life, take a calculated risk to save valuable property, and take no risk to save what is lost.

Three Joint Occupational Health and Safety Committees have been well established in AFD (1 per Station) and matters are dealt with in a timely fashion.

All Ontario Fire Service Advisory Committee, Section 21 Guidance Notes as approved by the Ministry of Labour are adhered to and SOGs developed based on the contents of the Guidance Notes.

Professional affiliation

The degree of professionalism projected by fire department officers may be enhanced through formal affiliation with groups and organizations established for the purpose of promoting and sharing common objectives.

R-04) It is recommended that additional formal affiliation with groups and organizations of the fire service industry be established for Fire Department officers.

Records and reports

Good records and reports should be maintained as an essential to effective and responsible management of the fire department. Daily and monthly, as well as annual reports are useful management tools for the fire chief.

Records and reports of emergency responses, fire prevention, training, tests and maintenance, attendance and other essential activities in the department, properly developed, will aid in planning future activity and policy as well as the assessment of performance.

An electronic filing and/or retrieval system must be in place in order that records can be easily accessed and utilized. The maintenance and compilation of some reporting forms are mandatory and they are essential as they form the basis for fire department records and subsequent reports.

Technological support

Unlike most other technologies with productivity-improving potential, the computer can directly affect three important cost areas:

- Administrative support
- Service planning
- Operations

Computers in the fire department

While the majority of computing applications in a municipality are dedicated to finance and administration, there has been significant growth in the use of computing in fire operations, including command, field operations, control, communications, fire prevention, allocation of staff and resources, service analysis and statistics.

Fire departments have become computerized by joining and expanding computer operations with local government. Data processing common to the municipality is extended to the fire department.

Typically, a fire department computerizes its operations in three stages. Like other managers, the fire chief must maintain good financial records and establish sound financial management procedures.

After computerizing its financial operation, the fire department usually implements management and information systems. The chief needs comprehensive data on the incidence and causes of fire in the community in order to develop and analyse fire protection programs and projects that directly attack specific problems. Manual data maintenance systems are slow to provide the fire administration with the information required for decision-making. Computerization can produce cost-efficient summaries and reports.

Computer operations can be expanded to support clerical and departmental functions, maintain statistics and generate company reports and records, monitor performance in training activities, apparatus use, inventory and maintenance, hydrant fire flow data and pre-planning data, etc.

The fire department can also computerize command and control operations, staffing requirements and resource management functions.

An appropriate database must be defined to reflect the needs of the department. Potential benefits, initial and operating and maintenance costs and the time needed to develop a precise system specification must be considered. Only beneficial, cost-efficient programs should be computerized.

Many fire administrators are unfamiliar with computer technology and are reluctant to undertake evaluations of computer hardware and software systems. Usually, a project team is formed to advise the chief of the following criteria:

- evaluation of computer hardware and software
- estimates of systems implementation and operating/maintenance costs

- development of systems specifications
- evaluations of responses to requests for proposals from suppliers
- guidance in system implementation
- guidance in conducting audit trails

R-05) It is recommended that a robust Records Management System be implemented that includes incident reporting, training, SOP's, maintenance records, fire prevention activities, attendance and performance measurement, and that it be integrated corporately and implemented.

Computerizing a fire department's operations can be a challenging and rewarding experience, but should only be initiated when the administrators are committed to the project. The project will not succeed without continuous support. The Working committee assigned to Administration, the Town IT department and Senior Administration have begun implementing a solution. The solution begins with a plan. An Information technology strategic plan has been drafted and presented to the Corporate Services Department of the Municipality and is attached as Appendix C - AFD IT Strategy.

Officers Meetings

In administering the department better understanding and improved communications will be established if officers' meetings are held at least quarterly. More frequent meetings of senior officers may be desirable. If junior officers are aware of plans and goals and afforded the opportunity of input, they will be more receptive and supportive of the administrative objectives.

Officer meetings are held regularly (1/4rly) to accomplish departmental and municipal objectives. Monthly meetings for District Chiefs and Career Staff are held as well.

Rules and Regulations

Rules and regulations, and standard operating procedures are needed to govern the operations of any organization. This is especially true in the fire service due to the hazardous nature of much of the activity, and the need for clear understanding of expected performance. Every fire department should have a set of rules and regulations which outline performance expectations for its members. The requirement is included in the Establishing and Regulating Bylaw 2017-67 and the rules and Regulations are contained within SOP # 102 attached as Appendix D - Rules and Regulations. These rules and regulations can be, and often are, supplemented by orders from the chief who may supplement or clarify the rules or change them for a special event or specific purpose. Rules and regulations, standard operating procedures and subsequent orders from the chief must be written and distributed in such a manner that all fire department members are properly made aware of them. The Administration Working Committee has assisted

with the review of all SOP's Notices and General Orders in 2017. They are distributed to staff through the newly implemented LMS (Auxilium) application.

The chief of the department is responsible to council for the proper administration and operation of the fire department and for the discipline of its members. It is therefore necessary for him/her to make such departmental rules and standard operating procedures as may be required for the care and protection of the property of the department, for the conduct of the members, and generally for the efficient and effective operation of the fire department, provided that such rules and procedures do not conflict with the provisions of any by-law of the municipality, or Provincial Legislation.

Fire Department Funding

The fire service is not profit oriented, and it has an obscure productivity pattern. It is a major consumer of tax dollars, uses costly equipment, is heavily dependent upon personnel and, at present, has no satisfactory means of measuring the effect of its operation relative to its cost. When council considers the provision of "adequate" fire protection and the "level" of service provided, the cost effectiveness of such service must also be provided.

In order to assure smooth operations, all costs must be realistically estimated and expenditures monitored on a regular basis. An effort must be made to develop a long range plan that will project capital replacement costs for items such as fire apparatus, fire stations, and other major equipment purchases.

Fire department administrators work closely with municipal finance officials when developing and administering the department budget.

Revenue

Fire departments are not normally considered producers of revenue; however, frequently they do generate income through agreements, contracts, sale of assets, provincial highway calls, inspections, lot levies, special grants, donations, letters and/or permits, special projects and other authorized fees for services, etc.

The Revenue obligations of the Department have recently been increased to reflect revenue potential of AFD services.

Reserve funding

A reserve fund is an excellent method for a municipality to provide resources to offset major capital expenditures such as the purchase or replacement of fire department facilities, vehicles and equipment. Reserve funds also alleviate the necessity of having to issue debentures or borrow for such purchases.

Currently a large deficit exists for the Replacement of major Capital Assets including:

- Station # 3 Malden – built in 1960s (Addition mid-90s) Approx. $2.5-$3.0 M

- Engine 3 – Required Replacement 2031 – $650,000
- Tanker 3 – Required Replacement 2000 – $500,000
- Support 3 (F250)– Required Replacement 2025 – $90,000
- 20 Firefighter PPE – Required Replacement (every 10 years) – $60,000

- Station # 2 Anderdon – built in 1960s (Addition 1974) Approx. $2.5-$3.0 M
  - Tanker 2 – Required Replacement 2038 – $500,000
  - Engine 2 – Required Replacement 2032 – $650,000
  - Support 2 (F250) – Required Replacement 2025 – $90,000
  - 24 Firefighter PPE – Required Replacement (Every 10 Years)– $72,000
- Station # 1 Amherstburg – built in 1993 (requires expensive repairs) Approx. $1.0 M
  - Engine 1 – Required Replacement 2038 - $650,000
  - Ladder 1 – Required Replacement 2029 – $1,300 000
  - Support 1 (Transit) – Required Replacement 2025 – $90,000
  - Command 2 (Grand Caravan) – Required Replacement 2024 – $60,000
  - Command 3 (1500 Pickup) – Required Replacement 2021 – $55,000
  - 23 Firefighter PPE – Required Replacement (every 10 Years)– $69,000
  - SCBA (Self Contained Breathing Apparatus)– 50 units and 150 cylinders - Cost to replace: $700,000 - $800,000

R-06) It is recommended that sufficient reserve funding be established to provide resources for major expenditures i.e.; facilities, vehicles and equipment.

Salaries and honorariums

When personnel are promoted from fire fighter to company officer and through successive ranks to fire chief, their duties and responsibilities increase accordingly with each position held. Wages or honorariums should reflect the added responsibilities with a predetermined salary scale. The current compensation agreement with paid on-call members does not reflect these added responsibilities for some ranks. The current

compensation agreement with Volunteer (Paid on Call) members during 2019 discussions now reflects these added responsibilities for the ranks.

Demand for municipal services

All municipalities today are faced with challenges more complex and demanding than at any time in the last hundred years. Municipalities have experienced unparalleled growth in demand for services such as planning, public safety, basic water and sewer facilities, education, transportation and roads, public records keeping, health and welfare services, expanded recreational and commercial services.

These demands come not only from the local community, but from provincial and federal agencies that expect local governments to implement their programs.

These services, more than ever before, must operate in a complex administrative and legal environment, adhering to regulations and mandates. These mandates are accompanied by complicated inter-governmental co-operation and support systems in the form of general and special grants funding. Of course, all support arrangements have expanded requirements for accounting, reporting and management.

Challenges in Services delivery are not unique to the Town of Amherstburg. Municipalities struggle with governance and funding challenges every day. The Provincial ministry of Municipal Affairs and Housing have created an incentive grant program (Municipal Modernization Program) to encourage Municipalities to consider program delivery alternatives including regionalizing some services.

R-07) It is recommended that alternative Service Delivery considerations for the fire services should be included in recent Provincial grant approvals ($200,000.00) for the MMAH Municipal Modernization Program

Appointment of the Fire Chief and Deputy Chief of the department

In every fire department, a fire chief & deputy chief should be appointed by council to administer services including fire prevention inspections, training, administration and operation of the fire department and carry out the duties of the positions outlined in the establishing and Regulating Bylaw.

Both positions have been appointed by By-law by Municipal Council. Attached as Appendix E - Bylaws to appoint the Fire Chief and Deputy Fire Chief.

Organizational structure

Once a municipal council has accepted the responsibility to provide fire protection services and has decided what level of service (adequacy) will be provided, fire protection must be organized in a manner that will prescribe the service delivery. An organizational structure must be in place for any fire department to ensure efficient operation. The foundation of any organization is a sound plan and system that provides both purpose and

direction to the organization. The key components of this plan are normally found in the various by-laws and policy statements passed by the local municipality aimed at providing a level of fire protection to the community.

Regarding by-laws, council should be reminded of Section 73 of the Municipal Act which states:

"It is the duty of the head of council, to be vigilant and active in causing the laws for the government of the municipality to be duly executed and obeyed".

A municipality is an organization comprised of several departments working together in a coordinated effort to achieve a common set of objectives.

Effective organization is based on accepted principles which include: work being divided amongst individuals and operating units according to a well arranged plan; as departments increase in size and become more complex, there will an increased need for coordination; and lines of authority must be established to ensure that each individual, operational unit or division knows and understands its relationship to the total organization.

The municipal council will establish overall fire protection policy, including the scope and level of the service, through a fire department establishing and regulating by-law. Fire department management should report to council through a municipal administrative process; executive or committee. The council must provide the necessary funding required providing personnel, apparatus and equipment, and facilities. The council should monitor the management of the department in its functions, but not interfere in day to day management.

The organizational structure will establish a format for effective fire department administration and operation relative to the provision of adequate fire protection. It will provide a concise picture of the chain of command in each direction for fire fighters, officers, fire chief and ultimately council.

An organization chart that illustrates the structure, Appendix F - Organizational Chart, has been developed for the Amherstburg Fire Department. The chart is, for the most part, self-explanatory.

Establishing and regulating by-law

Most fire departments in the Province of Ontario are established by local municipal governments. These local governments are responsible for providing adequate fire protection, and the framework within which that protection operates. In Ontario, this framework is defined in the fire department establishing and regulating by-law.

The fire department establishing and regulating by-law is a general statement of council's wishes respecting the provision of fire protection. The primary issues addressed in an establishing and regulating by-law should include; the necessary functions of the

department; details regarding the line and staff responsibilities of officers; method of appointment as a fire fighter; method of determining department promotions; method of establishing rules for members; authority to proceed beyond the municipal boundaries; and authority to enter onto property to effect necessary fire department operations. The specifics of fire protection and how the department will operate will be contained in approved policy statements and fire department standard operating procedures developed, as required, by the fire chief. Standard operating procedures will be discussed throughout this report.

The Establishing and Regulating By-law 2017-67 was passed by municipal council on July 10, 2017, and is included as Appendix B.

Formal Fire Protection Agreements

Written fire protection agreements which are properly executed and authorized by by-law are desirable as they avoid misunderstandings as to the terms and conditions of such undertakings, and should include specific provisions for all contracted services. In addition, such matters as defining the area to be protected, the number and types of fire trucks, equipment and personnel that will respond and the financial terms and renewal/termination provisions are most important elements of such undertakings. Agreements may be made where the services to be provided are acceptable to the receiving municipality. The response distance ideally should not exceed 8 km on roads which are normally open and passable at all times. In addition, the fire department offering such services should have sufficient apparatus, equipment and trained personnel to provide adequate fire protection for their own municipality as well as the contracted area.

In order to determine the type of agreement necessary, it is essential that the specific needs of the municipality be determined.

The municipal council purchasing fire protection must determine precisely what type and to what extent protection is required.

Amherstburg Town Council has authorized the provision of fire protection to the Colchester/Harrow area of the Town of Essex through the Emergency Fire Service Plan (Mutual Aid) Bylaw 1998-88. December 14, 1998.

Attached as Appendix G – Bylaw 1998-88

R-08) It is recommended that a separate By-law be passed by Council to Authorize a formal Fire Protection Agreement with the Town of Essex. The Agreement should include the Services to be provided, the terms and conditions that do not bind Amherstburg should another emergency occur within the Town. Consideration of the Fees for such Services rendered and the Liability that may accrue to the Town of Amherstburg.

County Emergency Fire Service Plan

An Emergency Fire Service Plan (Mutual Aid) has been established by agreement among participating municipalities which own and operate fire departments adequate for their general protection. Assistance is provided on a reciprocal aid basis (no costs involved) in the event of a fire or other emergency at which the home fire department is in attendance and the fire or emergency cannot be contained or controlled. If required, cover-up fire protection is provided for municipalities that respond to assist another participating municipality. Further assistance can also be provided for such things as hazardous materials incidents, rescue and extrication responses and natural disasters, etc. Municipalities wishing to participate in the Emergency Fire Services Plan and Program (Mutual Aid) must pass a by-law under Paragraph 25 of Section 210 of the Municipal Act, authorizing their fire department to respond to an Emergency Fire Service Plan (Mutual Aid) activation at the discretion of the chief of the department or designate and under the direction of the county, fire co-ordinator or designate.

Municipalities participating in the Emergency Fire Service Plan must meet the following criteria.

1. They must have passed a by-law to establish and regulate a fire department.
   Establishing and Regulating By-law 2017-67 was passed July 10, 2017.

2. They must have passed a by-law to appoint a fire chief of the department.
   The Fire chief was appointed by By-law 2017- 32 on April 24, 2017

3. The present chief must be confirmed by council as the chief of the fire department.
   The Fire chief was appointed by By-law 2017- 32 on April 24, 2017

4. They must have passed a by-law to authorize participation in the Emergency Fire Service Plan and Program.
   The Fire Department was authorized to participate in the Essex County Mutual Aid Program by By-Law 1998-88 December 14, 1998

5. The chief or designate must be authorized to attend meetings arranged by the fire co-ordinator
   The Fire Department was authorized to participate in the Essex County Mutual Aid Program by By-Law 1998-88 December 14, 1998

6. A fire department responding to a mutual aid request must meet minimum requirements of the Occupational Health and Safety Act as it pertains to fire departments. All Section 21 Guidelines of the OH&S act have been met.

7. They must own and operate adequate firefighting apparatus, equipment, etc. to enable their fire department to handle emergencies in their own municipality on a day to day basis. Amherstburg day to day emergencies have adequate resources.

8. They must have adequate staffing properly trained and verified by records. All Training records are in Place and recorded.

9. They must meet or exceed the apparatus and equipment standards established under the Emergency Fire Service Plan. All apparatus meet the design requirements of the Plan.

10. The department must be acceptable to the fire co-ordinator, the department to be their first response and the department that they will respond to on a first response basis. The Fire Coordinator has deemed the fire department as acceptable.

Personnel

Effective fire ground operations are highly dependent upon the individual and the collective capabilities of the companies responding to the incident. The apparatus assigned to a company basically defines the role which that company will be expected to assume in a fire fighting operation.

In order to operate effectively, each company must have skilled and trained personnel who can perform basic functions in a standard manner. Untrained, unskilled and/or understaffed crew cannot perform effectively, regardless of the apparatus and equipment provided.

The lack of adequately staffed fire attack teams may create serious delays in commencing operations at the scene of the fire or emergency, contributing to what is usually an already escalating crisis. Inadequate staffing would also have an impact on the safety of the fire fighters and on the efficiency of the operation.

Recall

Council must be conscious of full-time fire fighters responding as volunteers on their off duty hours. While they may be performing these duties voluntarily, the Fire Protection and Prevention Act states specifically: "The hours of duty of full-time fire fighters shall be free from fire department duties and calls."

As may be appreciated, where municipal councils rely upon full-time personnel to return on their off duty time, a sense of adequate staffing is falsely promoted since the next collective agreement may remove this provision for additional fire suppression personnel.

APPARATUS, EQUIPMENT & COMMUNICATIONS

Apparatus and equipment are the tools of the fire service. The efficiency of the fire department will be seriously diminished if those tools are inadequate, improperly maintained and/or used.

The type, capacities, capabilities and total number of apparatus will vary in accordance with the level of fire protection being provided by the municipality, the territory in which it is used, and legislative requirements.

The normal life expectancy for first line fire apparatus will vary from municipality to municipality. In general, a 10 to 15 year life expectancy is considered normal for first line pumpers. Smaller fire departments with infrequent alarms may operate fire apparatus up to 20 years with reasonable efficiency, although obsolescence will make the older apparatus less reliable even if it is mechanically functional. Older apparatus may be maintained as a reserve and/or stand-by unit as long as it is in good condition, but in almost no case should much reliance be placed on any apparatus that is more than 25 years of age.

Pumpers are the basic response apparatus of a fire department and are equipped with a fire pump, water tank and hose body. They are designed to transport fire fighters to the scene of a fire and provide necessary fire suppression equipment needed for fire control and extinguishment. The engine provides the motive power for the vehicle as well for the fire pump. The fire pump is used to draft water from static water sources or operate from water distribution systems, and can be utilized to provide large volumes of water at low pressure or smaller volumes at higher pressure. The vehicle may be obtained in a number of fire pump capacity sizes, ranging from 2000 to 7000 L/minute @ 1000 kPa. The minimum design specifications are contained in the Underwriters' Laboratories of Canada Standard ULC-S515. This type of vehicle is the primary tool in municipal fire control and extinguishment and it should be designed to meet the needs of the municipality, particularly with respect to fire pump and water tank capacities.

Tankers are primarily designed to transport large quantities of water to the scene of a fire to provide water supplies for firefighting. The tank truck is equipped with a relatively small fire pump (less than 2000 L/min Capacity), and a water tank of 4500 L Capacity or more. They are also equipped with hose and other ancillary equipment. The minimum design specifications are contained in the Underwriters' Laboratories of Canada Standard ULC-S515. Such vehicles are most important to the fire suppression facilities of a municipality where there are no water distribution systems or plentiful static sources of water. A key feature in the design of such units is a large (20 cm or greater) quick dump valve (may be jet assisted) that will enable the unit to discharge its load of water into a portable tank in an extremely short period of time so that the tanker can leave the fire scene to acquire additional water.

Pumper/tanker

The Amherstburg fire department is attempting to improve their initial attack capabilities by increasing the size of the water tanks on their pumpers. The development of powerful diesel engines, lightweight body fabrication and rugged chassis, which can carry extra weight has made this possible.

These increasingly larger, multi-purpose vehicles tend to suit their main function (pumper) better than others and although intended to be used primarily as pumpers, they are often equipped with larger tanks (up to 9000 litres) that enable them to be used as tankers.

When a municipality provides fire protection to an outlying area through long term agreement, provision of a pumper/tanker truck may be desirable since only one unit and crew would respond.

Light attack vehicles

Light attack vehicles are primarily designed to provide fast response of a crew of fire fighters to the scene of a fire may be equipped with a small quantity of water and a small Capacity portable pump. Such vehicles are suitable for small fires such as grass and brush fires, rubbish fires, and other nuisance type responses. They are meant to be used in addition to other fire trucks and not in lieu of. Their size and manoeuvrability are useful for narrow alleys, limited load bridges, and off-road work if equipped with four-wheel drive.

Elevating devices

Quintuple combination fire trucks are a combination of an aerial ladder truck, elevated platform truck and a triple combination fire truck. This type of vehicle is capable of carrying out the functions of rescue, pumping, and providing elevated streams of large litreage.

Such vehicles are most essential to the fire suppression facilities of municipalities where there are a number of high-rise buildings. Elevating platforms and water tower apparatus are primarily designed to provide access to upper storeys and roofs of buildings which are beyond the reach of ground ladders, so lifesaving and fire suppression operations may be carried out.

The truck can be equipped with an aerial ladder which ranges in length from 20 to 30 metres. In rescue operations, the ladder presents a continuous means of access to grade whereas an elevating platform apparatus allows approximately six persons to be lowered to grade at one time. The articulating boom affords desired manoeuvrability around overhanging obstructions: wires, signs, etc. Both units are equipped with master stream nozzles operable in either straight stream or variable fog position.

Water towers have proven to be very useful and have been widely accepted as an important type of apparatus in both large and small communities. Once the water tower has been positioned and stabilized, one fire fighter has full control of all operations of the

elevated master stream or boom ladder. Modern water towers have great flexibility and are designed to discharge from 2250 L to 4000 L/min or more, in varied patterns, and to move from the lowest position to the maximum height and to extend horizontally for best application of water.

Most aerial apparatus are designed to operate close to major buildings, being able to afford rescue, and to pump large volumes of water from elevated positions using large diameter fixing piping and/or hi-volume hose to supply the nozzle.

When a fire fighter is required to work at the top of aerial apparatus, provisions can be made for personnel protection including fixed air supply, voice communication to grade, water curtains, heat protective shields, spotlight, etc.

The minimum design specifications of such vehicles are contained in the Underwriters' Laboratories of Canada Standard ULC-S515.

Several right-sizing initiatives have been undertaken over the past year to exchange the Three Rescue Vehicles (one in each Station) with appropriate vehicles that meet the needs of Transporting Fire fighters and auxiliary equipment to an emergency scene.

R-09) It is recommended that the Fire Department implement an updated 20 year replacement program approved by Municipal Council for all major apparatus and equipment, and that continued consideration be given to Multi-purpose vehicles i.e. Pumper/tankers and Rescue/Pumpers and Quints.

Service and Maintenance

Service and Maintenance on apparatus and equipment is a costly but necessary undertaking to ensure the readiness of Vehicle and equipment often under adverse conditions. The Department in 2018 spent approximately $80K dollars on ongoing maintenance repairs and required certifications for all vehicles, tools and equipment. Ensuring that scheduled maintenance and unplanned repairs are done as efficiently as possible is an important consideration. Presently the department utilizes several area repair facilities. Some efficiency and effectiveness may be gained by securing performance contracts with selected agencies to ensure dollars are spent wisely.

R-10) It is recommended that the Fire Department implement a Repair and Maintenance contract for services for all major apparatus and equipment.

Self-contained breathing apparatus

Self-contained breathing apparatus (SCBA) is essential for fire fighters when performing firefighting or rescue operations in burning buildings or in areas with an oxygen deficiency, or an immediately dangerous to life or health (IDLH) environment and to do so

without self-contained breathing apparatus and reserve cylinders presents an unnecessary hazard to the fire fighters and reduces the efficiency of the firefighting operations.

NFPA 1981, Standard on Self-Contained Breathing Apparatus for Fire Fighters states that "all fire fighters exposed to hazardous atmospheres from fires and other emergencies, or where the potential for such exposure exists, shall be provided with self-contained breathing apparatus. Only SCBA approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH/MSHA) shall be considered to meet the provisions of the Standard."

In the Province of Ontario, the Ministry of Labour only accepts the use of positive pressure self-contained breathing apparatus for use in structural firefighting.

Without self-contained breathing apparatus in a burning building, fire fighters are no better off than the victims trapped by the fire.

In a recent NFPA study, one in ten fatalities suffered by fire fighters was due to inhaling smoke or toxic gases. More than half of the remaining fire fighters who died did so as a result of heart attacks, and inhalation of carbon monoxide is a significant contributing factor to heart attacks. Heart cell death can occur in less than ten minutes of unprotected exposure to fire products. Firefighters must understand how lethal fire produced atmospheres can be, even when most of the smoke seems to have dissipated.

The cost of replacement of this critical safety equipment is significant, $8,000-$10,000.00 each. The Department currently requires 50 Units in service along with 150 spare Air Cylinders. The cost to replace this equipment is approximately $800,000.00.

Significant expenditures identified for the future, require sound planning and reserve funding to lessen the impact on municipal budgets.

R-11) It is recommended that a specific reserve fund referenced in Recommendation #6 be established to set aside the required capital to replace SCBA equipment in the near future.

CSA Standard Z94.4

Fire departments using compressed air cylinders and self-contained breathing apparatus (respirators) should develop and implement a program for the care, maintenance and use of this equipment. The Canadian Standards Association Standard Z94.4 has been designed for the selection, care and use of respirators. Although not a mandatory regulation in the Province of Ontario at this time, it is recognized by many agencies, especially the fire service and the Ministry of Labour. The standard recognizes that there are instances where breathing apparatus will have to be worn to prevent injury, illness or even death. The standard's primary objective is to give detailed instruction in the

selection of the proper respirator and its uses and maintenance with strong emphasis on the implementation of a respiratory protection program.

Attention is directed to the following sections of the Canadian Standards Association Standard Z94.4:

3.2	Employer responsibility
3.3	Employee responsibility
4	Program administration
6.1.3	Positive pressure for fire fighters
8	Training
8.2	Instructors
8.3	Training of wearer
8.4	Training of supervisor
8.7	Fire service training records
9	Uses of respirators
9.3	Special use requirements for the fire service
10.3.4	Special inspection requirements for the fire services
10.3.5.2	Fire service inspection or service records
10.5.3	Rotation of cylinders and current use
10.5.3.2	Air changes

The Fire Department's Respiratory Protection program meets the requirements of the Z94.4 standard.

Maintenance programs

The maintenance of fire department apparatus and equipment at peak operating efficiency is a primary fire department responsibility. The safety of the public and fire department personnel, as well as firefighting efficiency, depends considerably upon the effectiveness of the maintenance program. When properly cared for, fire apparatus is expected to give years of reliable service. Each fire department needs a clearly established policy concerning maintenance responsibilities and routines to avoid possible equipment failures during operation.

Complete records should be maintained for every piece for apparatus and equipment, showing all repairs and service performed.

The Fire Department currently has SOP's in place regarding weekly station equipment, Hose testing and vehicle cleaning and minor maintenance including records.

R-12) It is recommended that detailed direction concerning maintenance responsibilities and routines for all apparatus and equipment be developed. These procedures should identify tasks, records and who is responsible.

Protective clothing

Hazardous conditions such as extreme heat, irritating and explosive atmospheres and unstable structures make it imperative that fire fighters be provided with good quality protective clothing to minimize the chance of injury or death and increase their rescue and fire suppression capability. All firefighters of the department have been provided with compliant personal protective equipment.

A budget reserve account has been established to ensure sufficient funds are available annually to ensure compliance with personal protective equipment.

Portable collapsible water tank

A portable water tank is an important supplementary piece of equipment used in conjunction with water tank trucks and triple combination fire trucks. The tank can be quickly set up at a fire scene where other water sources are not available. Water is dumped from the tank truck into the portable tank and drafted by the triple combination fire truck to provide the desired hose lines. Meanwhile, the tank truck can return to a source of water for an additional load. Where more than one tank truck is available, a shuttle service can be established. After the fire is extinguished overhaul can be carried out using the portable tank and a portable pump allowing the fire trucks to be readied for other possible fires.

The Department currently has two portable water tanks.

R-13) It is recommended that each Tanker Truck be equipped with a Portable Water Tank.

Communications

Current Status

The City of Windsor's Fire & Rescue Services, Dispatch Centre currently dispatches all Amherstburg Fire department calls for service under an agreement for fees for services. The costs are tied to population figures released annually by MPAC (Municipal Property Assessment Corporation). 2017 costs were $41,185.00 for all services including Call taking, dispatching of resources and paging of volunteers. A review of the existing capabilities both in human resources, technological advances and support, should be reviewed to ensure compliance with best practices from the Office of the Fire Marshal and Emergency Management, and the NFPA 1061 Standard for Professional Qualifications for Public Safety Tele-communicators. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems should also be referred to during this review as these documents are referenced in the best practices document from the Office of the Fire Marshal and Emergency Management. A needs analysis and review of communications system across the county of Essex has

begun by the county fire chiefs. It is believed that this review, including process reviews can be conducted internally with little requirements for budget funding.

The existing radio system and paging system used by Fire Services including infrastructure is owned and operated by Kelcom Communications and its use is purchased through a services agreement. The user hardware is owned and maintained by the Town of Amherstburg. Paging infrastructure is owned by Kelcom and Pagers are owned by the Town of Amherstburg. Current Pager hardware (Swiss Pagers) is no longer in production and parts for repairs are becoming scarce and more expensive. As part of the referenced review, paging hardware is to be included to determine future needs. Radio coverage continues to be something that requires regular attention and review. This is a health and safety issue for the first responders. In order to address these and other public safety issues, by the Town of Amherstburg, such as opportunities to optimize communications tower sites in order to provide ideal radio coverage and correct existing redundancy issues, a joint Emergency Services Technology Consultation Committee, consisting of AFD, Public Works, Facilities & Recreation Departments, Police, Finance and the Town of Amherstburg IT department, should be established to review the status of the current system and look at future needs. The intent of this committee is to update the overall communications strategy for the Town of Amherstburg from emergency services perspective. In 2017 the existing user hardware began being updated.

R-14) It is recommended that a joint Technology Consultation Committee, consisting of AFD, Public Works, Facilities & Recreation Departments, Police, Finance and the Town of Amherstburg IT department, should be established to review the status of the current communications systems and look at future needs.

The future of AFD Communications includes projects such as expanded simultaneous dispatching ambulance and fire vehicles to achieve better service to the public, extensive changes to the 9-1-1 infrastructure was updated by The City of Windsor in 2016-17that will move us to the next generation of features in 9-1-1 such as the ability to text emergencies to 9-1-1 as well as sharing information with the media and public using various forms of methods including the internet and twitter. Quality assurance within Communications Centers is something that requires policies, procedures and an overall program to be established and implemented. There is no formal agreement that sets out expectations for service delivery from the City of Windsor.

R-15) It is recommended that the Town of Amherstburg and the City of Windsor formalize a fee for services agreement that sets out services to be provided, termination, policies, procedures, fee increases in the future, and an overall program.

FIRE PREVENTION DIVISION

The prevention of fires is a primary function of fire departments and when this function is effectively performed, a significant reduction in the loss of life and property from fires will result.

Fire prevention is an integral part of overall fire protection. As part of the need for a positive change in the attitudes of the public towards fire safety, the fire service must actively pursue activities that decrease the incidence of uncontrolled fire.

Fire prevention policy statement:

While the fire department establishing and regulating by-law sets out the principal duties and responsibilities of personnel involved in fire prevention activities, it does not enunciate the policies of the department respecting same. The formulation of a written policy statement detailing fire prevention programs and activities will have the added benefit of reducing or eliminating concerns by members of the department and the public relative to fire prevention objectives.

The Fire Prevention division is divided into three intermingled disciplines; code enforcement/inspections, cause, origin and circumstances investigations, and public fire safety education. All of these are legislated by the Fire Protection and Prevention Act. The Amherstburg Fire Department has established the three lines of defense, a fundamental model to try and reduce loss of life and reduced property loss through; public education strict fire safety standards and enforcement, & effective emergency response.

Public Education

As stated, public education is the first line of defense and one which continues to grow in importance within AFD and the community. In 2009, AFD hired an Assistant Deputy responsible for Fire prevention activity. There are several aspects to this important portfolio including marketing of important safety information, developing school programs, media messaging for specific educational messaging, targeting specific areas or groups in the community on specific safety concepts and community awareness of important developments that have/or are occurring in the province or community. This position also has involvement as a public information officer during and post incidents of significant interest to the public. As the Town continues to increase in population and ethnic diversity there will be an increased demand and requirement for public education.

Inspections and Code Enforcement

The Fire Prevention division is responsible for community life safety issues concerning fire code inspections and enforcement of the Fire Code. Fire inspections of all types of occupancies in the municipality, with the intent of compliance with the Fire code, is crucial to the protection of persons and property from the hazards of fire. The reduction of risks from fire and other life safety hazards with detection and reporting through the inspection process is necessary for the creation of a fire safe community, occupant safety

and building preservation. Inspections also provide assurances that fire detection equipment in buildings meet current codes, standards.

Currently the Fire Prevention Branch is marginally capable of carrying out the legislated requirements of the Fire Protection and Prevention Act, for “complaint and request inspections”; there continues to be limited capability to conduct high-risk occupancies on a regular basis, based on the current work load of the branch. Development of an inspection policy and schedule that sets the frequency of inspections which is appropriately suited to the risk profile of each occupancy type should be an objective of the division. Annually, the number of required inspections has increased. It is anticipated that several recent legislated changes by the provincial government will further increase the work load on the division. New provincial legislation now requires carbon monoxide alarms in all residences and under the Fire Code it is the responsibility municipal fire service to ensure compliance. Also, changes to care facilities and the requirements for inspections and reviews, together with new development estimates, have further taxed the division.

R-16) It is recommended that the formulation of a written policy statement detailing fire prevention programs and activities be developed and implemented.

Analysis of AFD's Fire Prevention Division Frequency of Inspection

Ontario Fire Marshal Recommended Frequency of Inspection

TYPE OF OCCUPANCY	**FREQUENCY**
ASSEMBLY	
Schools & Churches	**Annually**
Nursery / Day Care facilities	**Annually prior to licensing**
Licensed premises	**Twice annually (once in December)**
Unlicensed premises	**Annually**
INSTITUTIONAL	
Hospitals	**Annually**
Nursing homes	**Annually**
Homes for Special Care	**Annually prior to licensing**
COMMERCIAL & BUSINESS	
In service mercantile	**Every other year**
Comprehensive mercantile	**Every third year**
Business/personal services	**Upon request/complaint**
INDUSTRIAL	
Factories / Complexes	**Annually**
Industrial malls	**Every other year**
RESIDENTIAL	
Apartments – 6 units or more	**Annually**
Single family duplexes and apartments up to 6 units	**Upon request or complaint**
Home inspection program	**Voluntary – every third year**
Boarding/lodging houses/B & B's	**Annually prior to licensing**
Hotels / motels	**Annually**

Above is the Office of the Ontario Fire Marshal recommended frequency of inspections for properties in the Province of Ontario. Below is how AFD compares to the OFM recommended frequency of inspection.

Amherstburg Frequency of Inspection Guideline

TYPE OF OCCUPANCY	**FREQUENCY**
ASSEMBLY	
Schools & Churches	**Schools every 2 years, churches upon request**
Nursery / Day Care facilities	**Annually prior to licensing, if not licensed, upon request**
Licensed premises	**Annually**
Unlicensed premises	**Annually**
INSTITUTIONAL	
Nursing homes	**Annually**
Homes for Special Care	**Annually prior to licensing**
COMMERCIAL & BUSINESS	
In service mercantile	**None**
Comprehensive mercantile	**Upon request/complaint**
Business/personal services	**Upon request/complaint**
INDUSTRIAL	
Factories / Complexes	**Upon request/complaint**
Industrial malls	**Upon request/complaint**
RESIDENTIAL	
Apartments – 7 Units or more	**Upon request/complaint**
Single family duplexes and apartments up to 6 units	**Upon request or complaint**
Home inspection program	**None (Program under development)**
Boarding/lodging houses/B & B's	**Annually prior to licensing**
Hotels / motels	**Every two to three years**

A comparison of the recommended frequency of inspections compared to what is actually being completed in Amherstburg illustrates a discrepancy in the time frame of inspections especially in the commercial and business, industrial, and residential occupancies.

Single Family Dwellings

At this time single family dwellings are only being inspected when there is a request or complaint from the public.

Duplexes – Two Unit Residential Buildings

The Town records currently show that there are almost 400 legal duplexes in the municipality. As of January 2018, few of these legal duplexes have been retrofitted and were compliant with the Ontario Fire Code at the time of inspection. Due to human resource restrictions AFD members are not presently able to complete retrofits on the remaining known legal duplexes. Moreover, the retrofits of duplexes were supposed to be completed by 1996. Presently, the inspections of duplexes have been limited to fire personnel only responding to a request or complaint from the public specific to an individual address. Note: the number of illegal duplexes (basement apartments and mixed occupancies) in the Town is not known but is estimated to be significant.

Three to six unit residential Buildings

These buildings currently are only being inspected at the time the Fire Prevention Division receives a complaint or request from the public.

Apartment Buildings 7 Units or More

Up to 2018, the Fire Prevention Division was able to identify 23 apartment buildings in this group. The Office of The Fire Marshal recommends these apartment buildings be inspected at least once per year. 80 percent of these buildings have not been inspected in more than three years.

Current State

Amherstburg and most municipalities in the province of Ontario have a majority of fire related injuries and deaths occurring in residences/homes.

A large percentage of the Town's population is comprised of seniors and children under the age of 14. These demographic groups have been identified as being at the "highest risk" from fire. Statistics from 2011 indicate there are 3,570 persons under the age of 14 (16 % of a population of 22,000) residing in the municipality of Amherstburg and there are 3,975 persons that are over the age of 65 (18% of the population). Therefore, 34% or 1/3 of the population has been identified as at high risk for fire injuries/deaths.

Building Stock in the Town of Amherstburg: There are approximately 8,280 buildings in the Town, excluding Single family dwellings there are 1,170 that require fire inspections at one time or another by the Fire Prevention Division. Approximately, 1,030 of these buildings are recommended by the Ontario Fire Marshal to be inspected annually. AFD receives about 75 complaints and requests annually that require inspections by the Legislation.

Very few properties are found to be compliant on the first inspection. In fact, approximately 74% of structures are found to be non-compliant on the first inspection. 33% of those require additional visits. Therefore, each building will generally require at least one follow up inspection to ensure compliance, practically halving the amounts of buildings that will actually be inspected annually because extra time is now being taken to re-inspect properties that have had previous fire code violations. Some structures may require numerous inspections such as but not limited to: hoarding occurrences. AFD policy is to pursue court action to ensure property owners will abide by their legal responsibilities in the future. Court action also facilitates that the inspected buildings meet the requirements of the Fire Code and other relevant legislation at the time of inspection/re-inspection.

Additionally, there are approximately 50-55 business license inspections which require staff attention.

Amherstburg has a large percentage of dwellings in the core area of the Town that are over 80 years of age. Older buildings often have a higher likelihood of instances of fire due to factors such as but not limited to: the type of construction used (i.e. open wall joist balloon frame construction versus platform construction) and poor maintenance of the structure (i.e. electrical wiring issues such as poorly maintained knob and tube wiring).

Many older commercial buildings have gone through numerous approved and non-approved renovations and/or occupancy use changes which has resulted in the structures not being compliant with current standards.

The demand for fire services is also affected by the weekend influx of people from outlying communities who travel into the town for tourist and recreational events that must submit safety plans for review and approvals.

Adding additional human resources to the Fire Prevention Division may also lead to increased revenues due to increased inspections (i.e. increased revenue generated from fines/fees).

In-service inspections

The recommended inspection policy should provide for the participation of all members of the department in fire prevention activities. Fire suppression personnel should be assigned to fire prevention activities during available hours.

An in-service inspection is a program where fire fighters do visual inspections for obvious fire hazards in commercial, industrial, institutional type occupancies and multi-family residential buildings.

This program will help to educate occupants in fire safety matters by pointing out obvious fire hazards and offering solutions or corrective measures. In addition, the program will

provide am improved public image of the fire department and create closer relationships with the citizens of the municipality.

Conclusions & Challenges

Currently, the level of service offered by AFD does not meet OFM guidelines nor does it meet the minimum legislated requirements of the Fire Protection and Prevention Act of Ontario.

Recent collective bargaining has included a provision that a Full-time Fire Prevention Officer be hired in January 2024 to assist in meeting the minimum legislated requirements of the Fire Protection and Prevention Act of Ontario and accomplish the additional recommendations of the Fire Prevention Division section of this report.

R-17) It is recommended that the department implement an inspection policy that reflects the program considerations, resource requirements and challenges. Further, establishes a schedule that sets the frequency of inspections which is achievable and appropriately suited to the risk profile of each occupancy type and resourced appropriately.

Plan review and approval

The Ontario Building Code requires certain facilities pertaining to fire-related matters including:

(a) Access for firefighting and fire fighting vehicles;

(b) Provisions for water supplies, hydrants, sprinkler, and standpipe systems;

(c) Provisions for fire walls, separations and closures to affect compartmentation; and

(d) Building components such as early detection and warning systems, elevator controls and emergency lighting for use of occupants and emergency personnel.

While it is understood that municipal building departments review all facets of building plans and specifications presented to them, the fire department and personnel particularly, are concerned with the construction and application of the Building Code as it relates to their involvement with the occupied building.

As the agency responsible for public safety from fire and the persons responding under emergency conditions, it is imperative that the fire department personnel have the opportunity to review and comment to the chief building official on certain buildings.

The provisions of the Ontario Building Code Act permit the fire chief and members designated as fire prevention personnel to be appointed by council as inspectors for fire-related matters in buildings under construction. Indemnity protection for staff involved in these activities is provided in 31 (1) of the Building Code Act.

With the advent of the Ontario Fire Code (as a companion document to the Ontario Building Code), dealing with the role of the chief fire official in the maintenance of fire safety facilities in buildings upon their completion, it would seem prudent then to have the fire department involved in the planning and installation of these facilities at the outset, under the jurisdiction of the Ontario Building Code.

Fire department personnel, only if appointed by council as inspectors under the Ontario Building Code, would enjoy the same immunity from legal liability as do building officials.

R-18) It is recommended that the chief of the fire department and such members as the chief designates, be appointed as inspectors under the provisions of the Building Code Act by way of a municipal by-law.

R-19) it is recommended that the fire department review and comment on building plans in conjunction with the Chief Building Official for those buildings specified in the Ontario Building Code and Act.

Consideration must be given to developing a new building stock data management program with auditing capabilities to communicate and connect with other Town departments. It is suggested that the Fire department utilize a records/data management system compatible with the Building department. The system must be user friendly, mobile and able to record notes, print records and manage timelines of the Assistant Deputy Chief. There is a legislative requirement to conduct a Hazard Identification Risk Analysis under the “Emergency Management and Civil Protection Act” and there is currently no obvious comprehensive building stock inventory in the Town of Amherstburg. The implementation of such a program would definitely lead to effectiveness and efficiencies in the division and greatly assist in the ability to reduce the gap identified above with regard to increased workloads. This will also enhance the requirements under Emergency Management and Civil Protection Act to meet preparedness obligations under the act.

R-20) It is recommended that that the Fire Department utilizes a records/data management system compatible with the Building Department. The system must be user friendly, mobile and able to record notes, print records, and manage timelines.

Origin and Cause

The Fire Protection and Prevention Act require the AFD to investigate and determine the origin and cause of all fires. Knowledge from determining origin and cause assist in targeting groups or causes to better educate the public on fire safety. Another purpose is to ensure fire code compliance, such as identifying if working smoke alarms were present and working. Most Fire Service Programs are developed to address the Local Fire Experience.

FIRE SUPPRESSION/OPERATIONS DIVISION

The basic organization and orientation of all fire departments is primarily directed towards fire suppression. While the fire service may place an emphasis on fire prevention, public education, risk reduction and hazard abatement, its ability to respond and control fires is an operational priority.

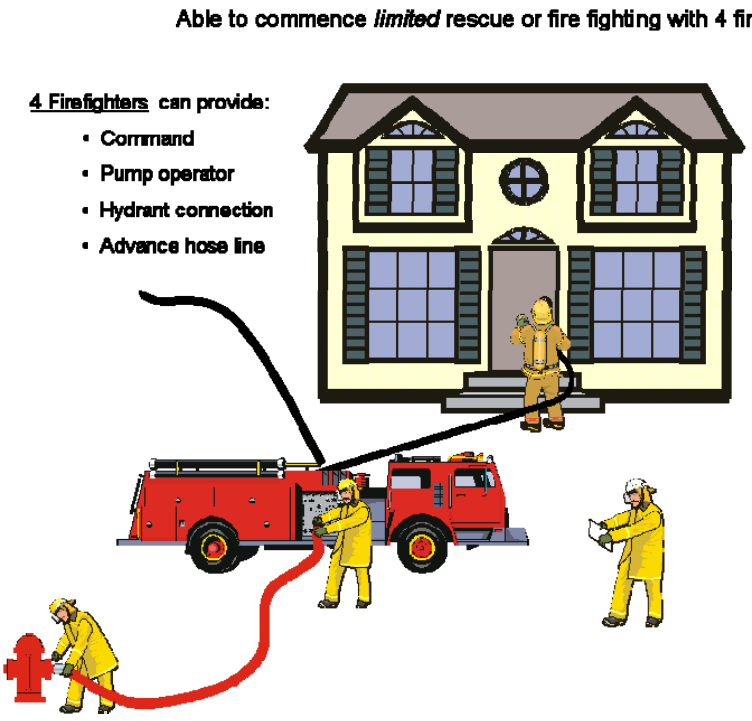
The ability to respond to the life safety and property protection needs of the local community is the common denominator in fire department operations.

The success of a firefighting operation depends on the ability of a fire department to effectively and efficiently use the available resources to protect life and property.

Staffing levels:

Today it is recognized that an understaffed fire department operates under a handicap at each emergency and the officer in charge must decide on which duties are to be postponed or left undone. Unfortunately the consequences can be life threatening.

Research conducted by various fire safety agencies i.e. National Fire Protection Association (NFPA), Federal Emergency Management Agency, Insurers' Advisory Organization (I.A.O.), International Town Management Association, NIST National Institute of Standards and Technology; related publications, educational institutions; and major individual fire department studies, indicate that optimum performance for the average single family dwelling fire is achieved through the use of crews comprised of four fire fighters including a direct supervisor (company officer).

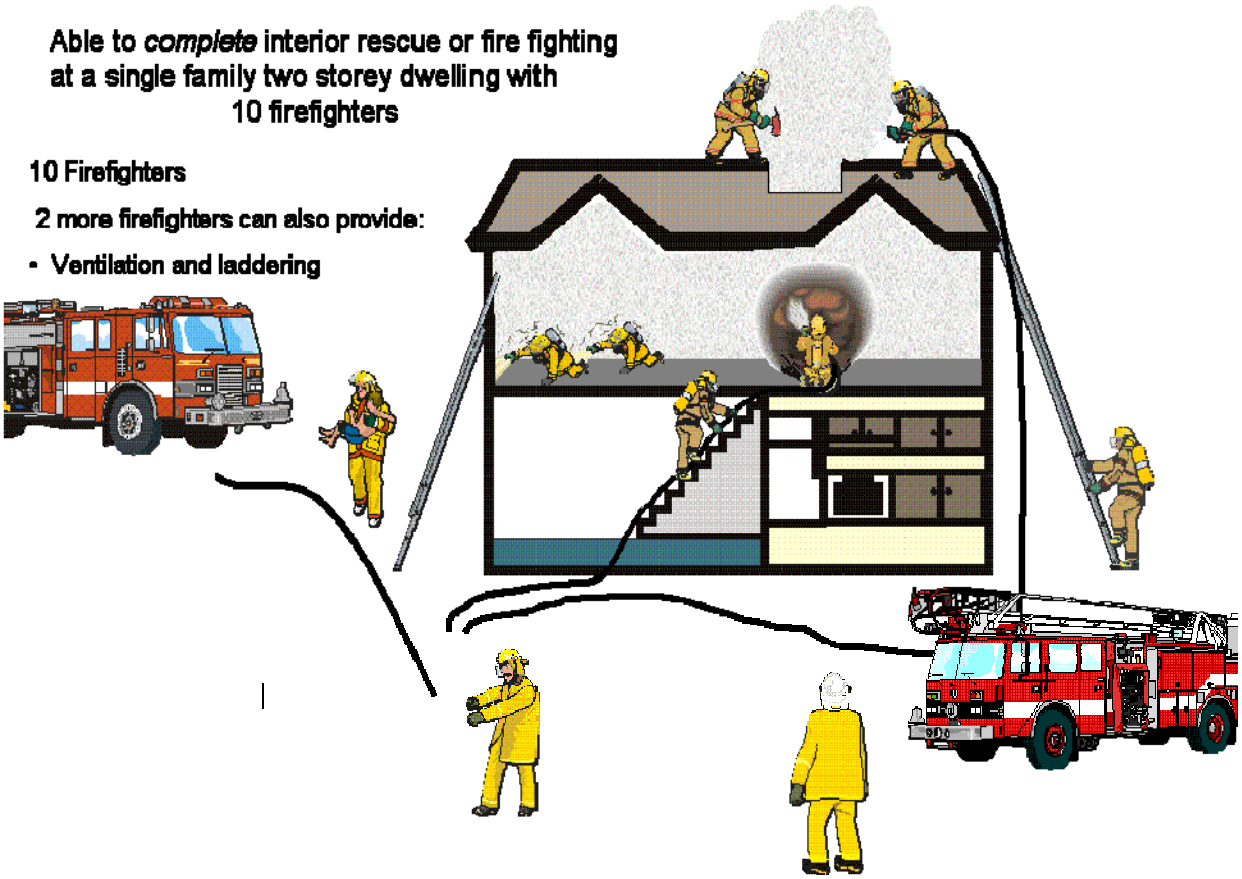


Responding with less than a crew of 4 reduces efficiency and would also have an adverse effect on the safety of the fire fighters.

Minimum levels of fire protection leave much to be desired by the property owner who suffers the loss and the fire department whose morale is often affected by its inability to successfully control and extinguish the average fire.

Ideally, a minimum 10 person response team should respond to a typical day-to-day fire. The number of fire fighters required may increase as the fire escalates.

A single family dwelling fire requires a minimum 2 vehicle response, whether it is 2 pumpers for urban response or a pumper and a tanker for rural response.



Two fire fighters are required to drive the responding apparatus. They must remain with their vehicles in order to supply water, operate the pumps, distribute equipment, provide assistance to the fire fighters with self-contained breathing apparatus and operate the radio equipment.

Four additional fire fighters are required to advance hose lines and attack the fire. Four other fire fighters are required for laddering, forcible entry, ventilation, rescue, connecting hose lines to fire hydrants or other water supply operations as well as advancing and attacking the fire with a third hose line. Two of the above mentioned fire fighters should be direct supervisors (company officers) and one as the Incident Commander.

Apparatus such as aerial devices, squads, rescue vehicles and water tank trucks must be sufficiently staffed to perform the tasks for which they respond.

The number of fire fighters responding with apparatus should be appropriate for the realized fire demand in order to form an "on scene" fire attack team.

Responses to occurrences for medical assistance, vehicle extrication, grass fires and/or other emergencies may require a lesser complement of fire fighters.

Fires in larger attached structures such as industrial, commercial or institutional occupancies, high rise, etc. will require additional personnel.

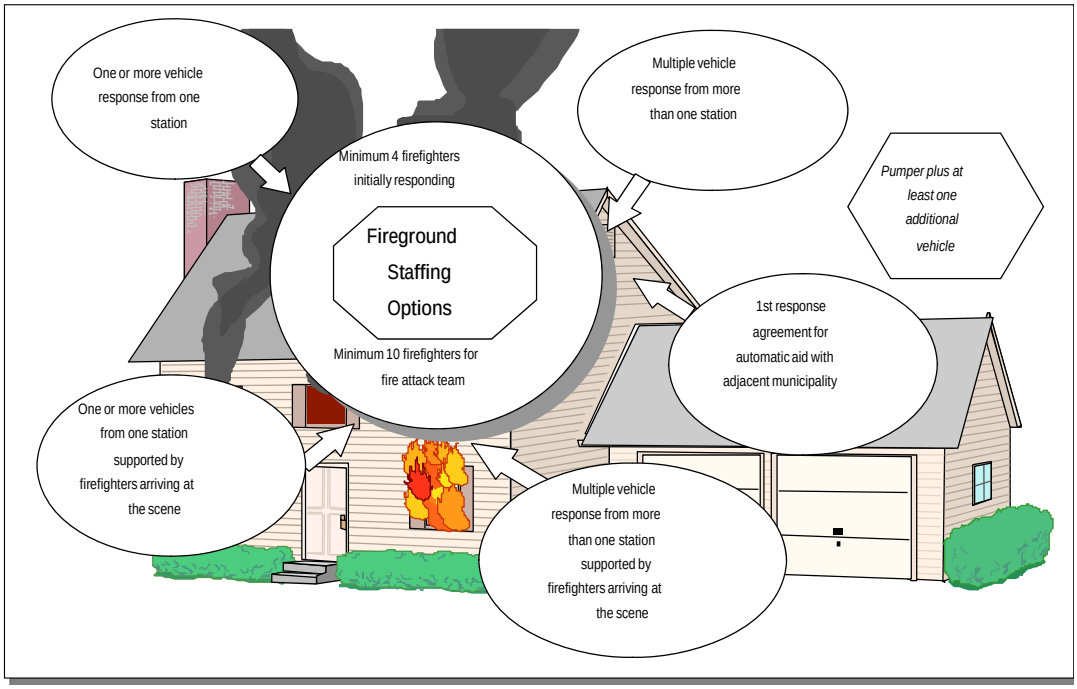
Assembling the "on scene" fire attack teams

Traditional methods of assembling "on scene" fire attack teams include the following:

a) Full-time fire fighters responding with apparatus,
b) Full-time fire fighters responding with apparatus supplemented by off duty full-time fire fighters who have been called back,
c) Full-time fire fighters responding with apparatus supplemented by volunteer fire fighters,
d) All volunteer fire fighters responding to the station and then on the apparatus to the scene,
e) Some volunteer fire fighters responding to the station and then on the apparatus to the scene while other volunteer fire fighters respond directly to the scene, and
f) Multiple vehicle and/or station response.

Any one or any combination of the above is normally considered satisfactory provided that the "on scene" fire attack team is operational within a "response time" accepted by the municipality.

The Ontario Office of the Fire Marshal has produced Public Fire Safety Guidelines, to provide information and a process for Municipal & Fire Officials to determine appropriate services and levels in accordance with local needs and circumstances.



PFSG 04-08-12

Response time

The question of adequate average response time is subject to too many variables to dictate an absolute time frame that all departments should comply with. There are, however, response times accepted by recognized organizations which can be used as guidelines when determining the "response time" to be accepted by the municipality.

I.A.O. [1] recommends from 2 minutes (severe hazards in large area buildings) to 7.5 minutes (very small buildings widely detached). NFPA recommends a maximum "response time" of 10 minutes to rural fires.

In the event of excessive "response time" consideration should be given to:

a) increasing the number of fire department personnel, including volunteer fire fighters and full time fire fighters,
b) responding additional apparatus,
c) providing additional fire stations,
d) improving the fire department emergency communications system.

[1]-I.A.O. response time means response travel time, i.e. after dispatch and turn out

Vehicle staffing is not standardized and is dependent on time of day and time of year throughout all response districts. It should be noted that our single Full-time staff since 2017 now respond to all calls in all response areas of the town, therefore providing a guaranteed response to incidents.

Since amalgamation in 1998, development within the town and risk has increased substantially:

- 2,484 new homes have been built most with light weight construction features,
- 1 new elder care facility
- several multi-residential buildings
- big box stores
- Libro Centre

Anticipated in the next five (5) years is the development of

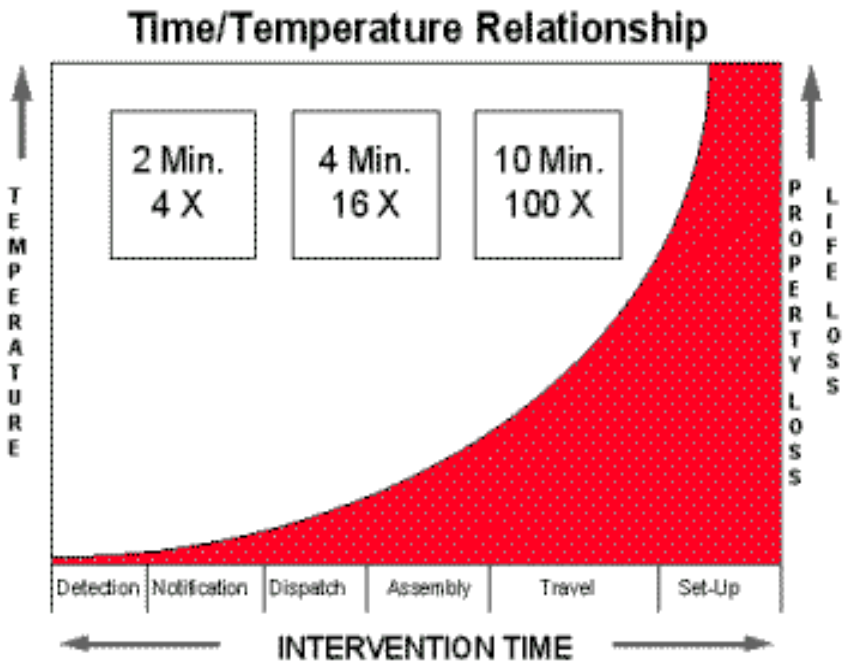
- 2 Hotels & 1 Condominium
- Waterfront re-development
- Additional residential development to Boblo Island
- Several hundred new residential properties including multi-residential
- New High School

Staffing Considerations should be made following a review of the "Results Impacts and Options" section of this report and based on an analysis of our Force of Attack situation.
Of the past three years of Priority-One calls, the average total number of firefighters that could be expected in totality of an alarm in each response district is12.

N.F.P.A. 1720 which is the Town of Amherstburg service level document indicates that: ***After assembling necessary resources at an emergency scene, the Fire department should have the capability to safely initiate the initial attack with Four (4) Firefighters within 2 minutes, 90 percent of the time.*** This has proved challenging at best, most of the time.

Risk vs. Response Standards

To effectively mitigate fires and emergencies, response time with appropriate staffing is critical. An exponential increase in loss of life and property is associated with increased response time as illustrated in the following:



Time/Temperature Relationship Graph

Ontario Fire Marshal PSFG 01-02-01
"Comprehensive Fire Safety Effectiveness Model"

AFD strives to meet NFPA 1720, (NPFA 1720 standard is the standard which Volunteer and small composite fire departments generally use as a guideline to the delivery system.)

Recent studies and articles from organizations such as the National Institute of Standards and Technology (NIST) and the National Fire Protection Association (NFPA) have identified the need to provide additional guidance to determine an effective fire ground response for buildings that are more complex and of a higher risk. This guide, in conjunction with an overall risk management program, will provide information for councils to make informed decisions in meeting their legislative responsibilities regarding the delivery of fire protection services.

The National Fire Protection Association standard 1720 Table 4.3.2. indicates:

Demand Zone	Demographics	Staffing & Response Time	Meets Objectives Percentage
Urban area	>1000 population /mi2	15 FF/9 min.	90%
Suburban area	500-1000 people/mi2	10FF/10 min.	80%
Rural area	<500 people/mi2	6FF/14 min.	80%
Special Risks	AHJ	AHJ	90%

Currently AFD has a minimum on-duty staffing level of 1 Career Fire fighter, and each station is additionally staffed with 20 Volunteer (Paid on Call) firefighters (total 60). When a station is called out (paged) an average (2017) of 12 Fire Fighters (including a District Chief) respond to support the lone on-duty firefighter.

A review of the past 3 years of calls indicates that in the Urban Demand Zone although response time is frequently within the 9 min. target, the staffing requirement of having 15 firefighters on scene is almost never achieved. The only time is when the incident occurs when Training takes place on a Thursday evening between 1830 & 2030 hours.

Consideration of remedies did involve considering changing the response assignment to two stations, however neither second station is within the proximity to achieve a 9 min response time. Second Stations are dispatched regularly on working fires but often manpower arrives later in the call.

Our ability to achieve both the Suburban and Rural Demand Zone targets are frequently met with some challenges during daytime hours 0800-1700 and some long weekends throughout the year.

Incidents involving occupancies larger than a single family residential structure such as a high-rise, commercial, industrial or institutional require a larger proportionate number of firefighters to mitigate the situation. This requires more firefighters and equipment which must travel further distances (from other stations) and increase response times to complete; evacuation, rescue, fire suppression and ventilation of a large structure. Historic events have required the commitment of on-duty staffing and the requirement to call out (Page) off-duty career staff and 2nd or 3rd station complements/and periodically mutual aid to assist with the emergency and/or provide coverage to the other areas of the Town. It should be recognized that incidents that involve rescue and suppression or mitigation tasks should be considered as two simultaneous incidents requiring adequate and additional staff for both incidents.

NFPA 1720 provides for full interior attack and rescue with aerial operations as required.

To determine the resources required to effectively handle an emergency at higher risk occupancies the OFM has developed the **Critical Fire Ground Task Matrix.**

The matrix table assigns a lower effective response level (LERL) and an upper effective response level to (UERL) to occupancies of varying risk. Use of the critical fire ground task matrix only identifies the resources required for response to a **single** incident.

It is essential that during any emergency, there be available, a tactical reserve of personnel and emergency vehicles to respond to a simultaneous emergency elsewhere within the municipality.

Adequate resources must be delivered in a timely manner to reduce the impact and severity of fires and other emergencies.

Fire ground Critical Tasks		Low Risk		Moderate Risk		High Risk		Extreme Risk	
		LERL	UERL	LERL	UERL	LERL	UERL	LERL	UERL
Incident Response (Note: Where zero or no number has been assigned, the task may be performed at the direction of the incident commander.)	Incident Command*	1	1	1	1	1	1	1	1
	Pump Operator	1	1	1	1	1	1	1	1
	Attack Line (Confine & Extinguish)	2	2	2	2	2	2	2	2
	Additional Pump Operator(s)	0	0	0	2	2	4	4	6
	Additional Attack Line (Confine & Extinguish) + Backup	0	0	0	4	4	8	8	12
	Search & Rescue	0	0	2	4	2	6	2	8
	Initial Rapid Intervention Team (RIT)	0	0	4	6	8	16	12	22
	Ventilation	0	2	2	2	2	4	2	8
	Water Supply – pressurized	0	1	1	1	1	1	1	2
	Water Supply – non-pressurized	0	3	1	4	2	6	4	8
	Forcible Entry Team	0	0	0	0	0	1	0	1
	Utilities	0	1	1	1	1	1	1	1
	Laddering (Ground Ladders)	0	2	0	2	0	4	0	6
	Laddering (Aerial or elevating device operator)	0	0	0	2	0	2	0	2
	Exposure Protection			0	4	2	6	2	6
	Incident Safety Officer			0	1	1	1	1	1
	Accountability			1	1	1	1	1	1
	Entry Control			0	2	1	4	1	4
	Rehabilitation			0	1	1	1	1	1
	Salvage			0	2	2	2	2	2
	Lighting					0	2	0	2
	Directing Occupants					0	4	0	4
	Scribe					1	1	1	1
	Sector Officers					1	4	1	4
	Air Management (air refilling station, etc.)							1	2
Other or Additional Response Considerations	Logistics Officer								
	Administrative and/or Finance Officer								
	Planning Officer								
	Evacuations (large scale)								
	Communications (dispatch)								
	Public Information Officer								
	Overhaul								
	Additional Firefighters								
Summary	Incident Response Range	**4**	**13**	**16**	**43**	**36**	**83**	**49**	**108**
	Total Fire Department Including External								
	Fire Call Incident Response Range (+,-,within)								

Notes: LERL = Lower Effective Response Level & UERL = Upper Effective Response Level, [together form the critical staffing range]

- This tool provides a range of staffing requirements only. Actual numbers may vary depending on the fire risk that exists in the municipality. Tasks performed on fire ground based on decisions made by Incident Commander.
- Planning moderate, high and extreme risk occupancies/locations will further validate staffing requirements to ensure the optimum level of protection for the municipality
- Simultaneous events will require further consideration due to additional personnel requirements beyond the scope of this matrix.

* Incident Command will assume responsibilities for the accountability and entry control tasks when no person has been assigned, or until a person has been assigned the task.

The current staffing level barely meets the lower effective response level for Low and moderate risk occupancies. The staffing levels result in AFD being unable to assemble adequate resources for an emergency occurring in high risk and extreme risk occupancies.

Any reductions contemplated would seriously impact the ability of AFD to assemble moderate and low risk required resources in an effective timely manner and will also impact reserve requirements for simultaneous calls for service, negatively affecting firefighter and public safety.

The NFPA Table of Effective Response indicates that first response times should be:

- 2 - 3.5 minutes is required for Institutional, Hospitals, and Nursing Homes
- 4 minute response times for Industrial Commercial
- 5- 6 min initial response time for residential occupancies

R-21) It is recommended that a review of the Staffing levels be examined within the context of redeployment recommendations being made within this report.

Recent Collective Bargaining with the APFFA (Amherstburg Professional Fire fighters Association) has produced a 5year collective agreement which will provide stable labour relations and associated costs throughout the term of this Fire Master Plan Update.

A set of critical factors together create an inventory of the tactical “vital signs” an incident commander (IC) uses to evaluate conditions, make decisions, and create safe and effective action.

A manager can deal with only a limited number of factors at one time. The IC cannot make an effective decision from 75 pieces of information; however, he should be able to deal with five or six critical factors. The inclination to deal with too many factors will soon overload the IC, resulting in chaos and confusion. Considering this natural limitation, the identification of the critical factors becomes even more crucial.

Developing that skill requires planning and practice ahead of time, then refinement by actually using the critical factor approach and putting prior information management experiences in the “bank.”

CRITICAL FIREGROUND FACTORS

The following is an inventory of the critical fireground factors.

BUILDING

- Size: area and height
- Interior arrangement/access (stairs, halls, lobbies, elevators)
- Construction type: ability to resist fire
- Age
- Condition: faults/weaknesses
- Value
- Compartmentation/separation
- Vertical: horizontal openings, channels, shafts
- Outside openings: doors, windows/degree of security
- Utility characteristics (hazards/controls)
- Concealed spaces/attic characteristics
- Exterior access
- Effect the fire has had on the structure (at this point)
- Time projection on the continuing fire effect on the building
- How much of the building is left to burn?

FIRE

- Size
- Extent (percent of structure involved)
- Location
- Stage (inception to flashover)
- Direction of travel (most dangerous)
- Avenue of travel
- Time of involvement
- Type and amount of material involved (contents/interior finish/structure/exterior finish/everything)
- Type, location, and amount of material left to burn
- Products of combustion liberation (smoke, heat, flame, fire, gas)
- Fire perimeter
- Fire area profile
- Accessibility to operate directly on the fire

OCCUPANCY

- Specific occupancy
- Type: group (business, mercantile public assembly, institutional, hazardous, storage, school)
- Value characteristics
- Fire load profile (size, location, nature)
- Status (open, closed, vacant, abandoned, under construction/destruction)

- Occupancy: associated characteristics/hazards
- Type, amount, arrangement of contents (based on occupancy)
- Time: as it affects occupancy use
- Property conservation profile/susceptibility of contents to damage/need for salvage
- Moral hazard (responsible/irresponsible owner-occupant maintenance and operation)

LIFE HAZARD

- Location of occupants (in relation to fire)
- Number of occupants
- Condition of occupants (by virtue of fire exposure)
- Incapacities of occupants
- Commitment required for search and rescue (firefighters, equipment, command)
- Fire control required for search and rescue
- EMS needs
- Time estimate of fire effect on victims
- Exposure/control of spectators
- Hazards to fire personnel
- Access rescue forces have to victims
- Characteristics of escape routes/avenues of escape (type, safety, fire conditions, and so on)

ARRANGEMENT

- Access, arrangement, and distance of external exposures
- Combustibility of exposures
- Access, arrangement, and nature of internal exposures
- Severity and urgency of exposures (fire effect)
- Value of exposures
- Most dangerous direction-avenue of spread
- Time estimate of fire effect on exposures (internal and external)
- Barriers or obstructions to operations
- Capability/limitation on apparatus movement and use
- Multiple buildings

ACTION

- What is the effect the current action is having?
- What things need to get done?
- What is the stage of operation (rescue/fire control/property conservation, customer stabilization)?
- What is the effect of the command function (established and working)?
- Is there an effective command organization?
- Has the IC forecasted effectively?
- Is there an effective plan?
- Tactical priority questions: Are victims okay? Is the fire out? Is loss stopped?
- What is the worst thing that can happen?
- Are operating positions/functions effective?
- Are there enough resources?
- Are the troops operating safely? Do you fear for their lives?

- Is there a safety plan/organization?
- What is the situation status (from under control to out of control)?

RESOURCES

- Staffing and equipment on scene/responding/in reserve
- Estimate of response time for personnel and equipment
- Condition of responders and equipment
- Capability and willingness of responders
- Capability of commanders
- Nature of command systems available to command
- Number, location, and capacity of hydrants
- Supplemental water sources
- Adequacy of water supply
- Built-in private fire protection

SPECIAL CIRCUMSTANCES

- Time of day/night
- Day of week
- Season
- Special hazards by virtue of holiday/special event
- Weather (wind, rain, heat, cold, humidity, visibility)
- Social unrest (riot, terrorism, and so on)

This hefty list serves as the tactical information foundation for size-up, decision making, and creating safe and standard action.

The Two Factors that impact deployment, and staffing assessments which ultimately influences the decision making and service delivery, is Resources and Special Circumstances.

RESOURCES

- Staffing and equipment on scene/responding/in reserve
- Estimate of response time for personnel and equipment
- Condition of responders and equipment
- Capability and willingness of responders
- Capability of commanders
- Nature of command systems available to command
- Number, location, and capacity of hydrants
- Supplemental water sources
- Adequacy of water supply
- Built-in private fire protection

SPECIAL CIRCUMSTANCES

- Time of day/night
- Day of week

- Season
- Special hazards by virtue of holiday/special event
- Weather (wind, rain, heat, cold, humidity, visibility)
- Social unrest (riot, terrorism, and so on)

The recommended review in R-21 above should ensure that recommended staffing meets at least the lower effective response level for emergencies occurring in high risk and extreme risk occupancies. Cost effective solutions should be a primary consideration.

The 2007 Fire Master Plan identified requirements of response in both the NFPA 1710 standard and the NFPA 1720 standard and encouraged the department to have a 8 minute road response to structure fires and alarms sounding, 90% of the time. In 2015 The Establishing and Regulating by-law was amended to a desired road response time that includes consideration of population density, critical tasks required, and continued the percentile (%) fractals. These were maintained in the more recent update to the By-law in 2017. That being 15 FF in 9 min. for Urban Density, 10 FF in 10 minutes for Suburban density and 6 FF in 14 Minutes for Rural density.

The Office of the Fire Marshal and Emergency Management (OFMEM) has developed an evaluation tool entitled, “Integrated Risk Management Tool” to assist municipalities in meeting their obligations as set out in Section 2 of the Fire Protection and Prevention Act, 1997 (FPPA). This evaluation system is part of an overall package of risk management tools designed to provide a systematic process for determining community risks, evaluating current fire service resource capabilities, identifying gaps, and developing options and recommendations designed for fire incidents for council consideration. The principles of this evaluation system build upon and enhance OFMEM risk management tools and other tools of recognized leaders in the North American fire service.

Municipalities are responsible for the establishment, funding and delivery of fire protection services in accordance with the obligations set out in Section 2 of the FPPA.

It is the expectation of the OFMEM that all municipalities have conducted a Community risk assessment to determine their own level of service. Amherstburg Fire department has completed this assessment most recently in 2018. Attached as Appendix H - 2018 Community Risk Assessment. Historically, guidelines for resource deployment have been based solely on the single-family dwelling. This guide, which includes a Critical Task Matrix, addresses the overall structural fire risk in a community and the need to plan for it, and takes a more comprehensive approach than previous OFMEM guidelines.

The FPPA and the requirements it created for municipalities have been in place since 1997. But the concepts and the value of matching level of service to risks in the

community pre-date the FPPA. In 1983, when Justice Webber prepared the “Report of the Public Inquiry into Fire Safety in High-rise Buildings,” he recognized that “to determine the level of fire department staffing, one must consider the history of fire in the community and the size of the responses which have been necessary, and the anticipated need to protect adjacent properties and rescue endangered persons. Consideration of the type of buildings and fire hazards which exist in the municipality is also necessary.” The following recommendation of Justice Webber is as relevant today as they were in 1983:

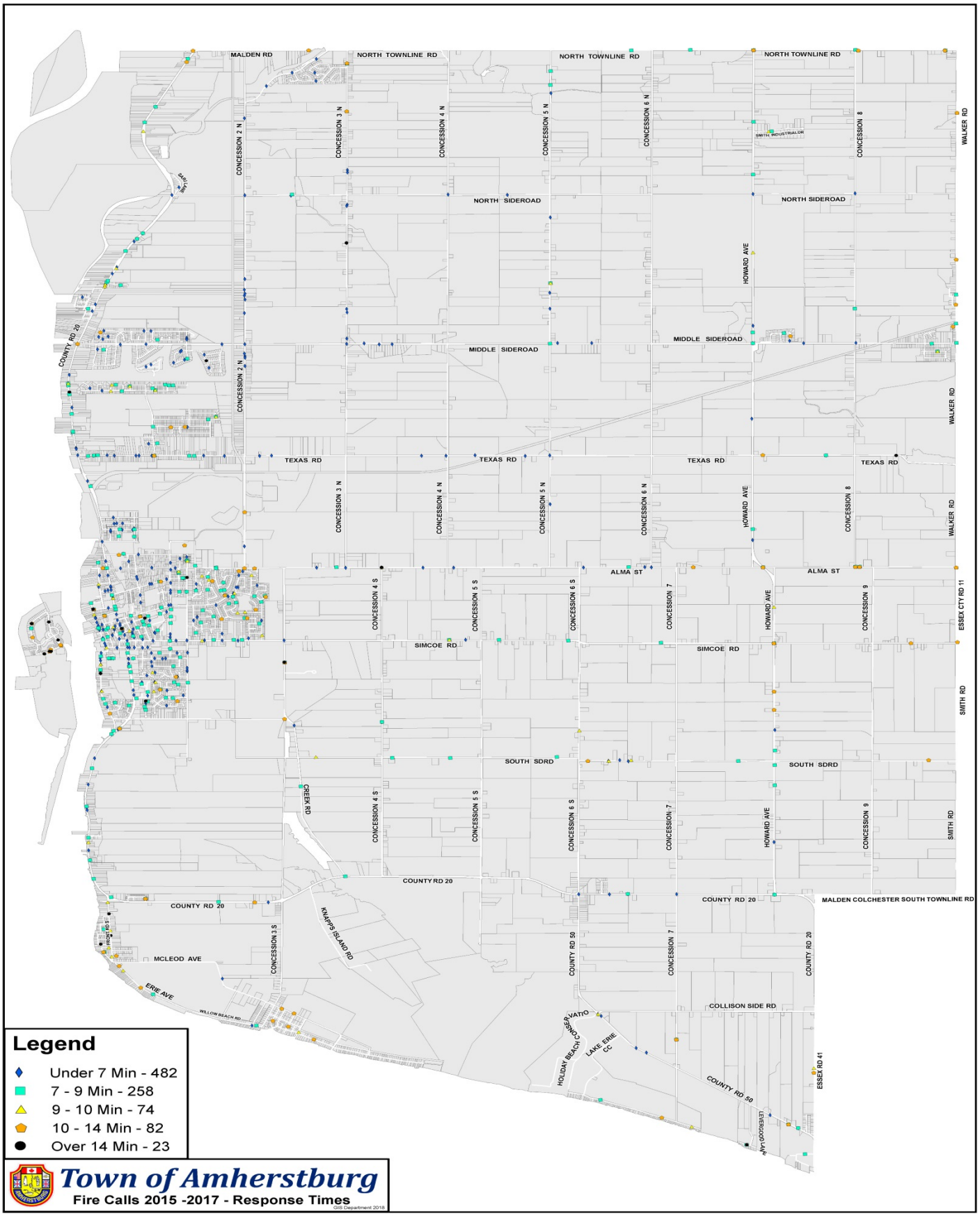
“There should be adequate fire protection for the citizens of Ontario commensurate with the needs of each municipality”

CURRENT STANDARDS OF RESPONSE

Incident Data and Criteria

A manual call by call review process was required to gather response data because of the inability of the current Computer Aided Dispatch (CAD) system to capture the response times as required. Staff used the following criteria to ensure adequate and sufficient data required to complete the response calculations;

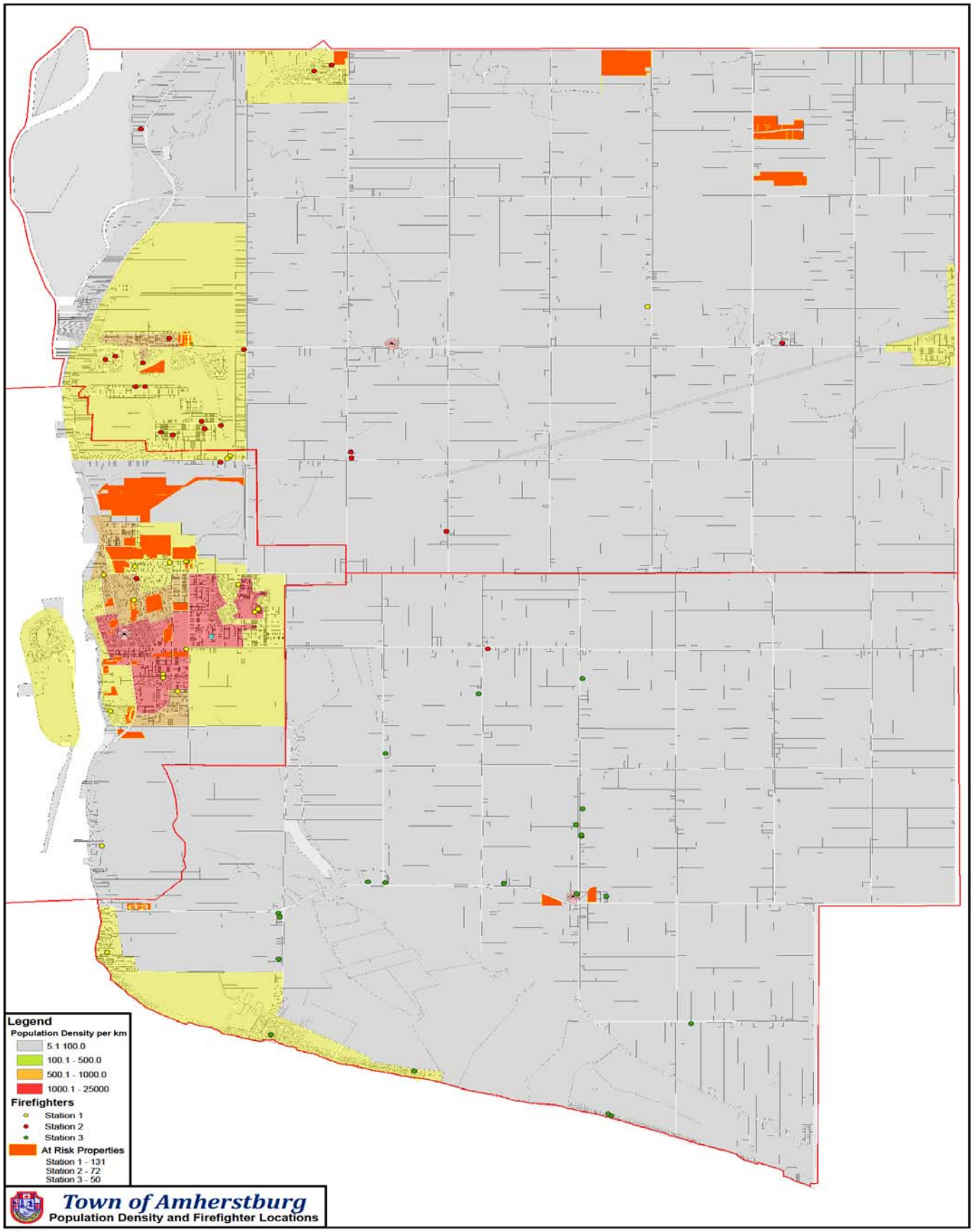
- AFD/OFM structural fire types (OFM Code 1) were used to identify which calls historically were responded to as a “level 1” response (the highest emergency priority) and a full three years of data was utilized. 2014-2016
- Data was filtered to exclude responses under 20 seconds and over 20 minutes. This ensures that no anomalies were included. The map shows the location of responses and illustrates by colour and shape the total first response time range achieved.


MALDEN RD
NORTH TOWNLINE RD
NORTH TOWNLINE RD
NORTH TOWNLINE RD
WALKER RD
CONCESSION 2 N
CONCESSION 3 N
CONCESSION 4 N
CONCESSION 5 N
CONCESSION 6 N
CONCESSION 8
SMITH INDUSTRIAL DR
NORTH SIDEROAD
NORTH SIDEROAD
HOWARD AVE
COUNTY RD 20
MIDDLE SIDEROAD
MIDDLE SIDEROAD
CONCESSION 2 N
WALKER RD
TEXAS RD
TEXAS RD
TEXAS RD
TEXAS RD
CONCESSION 3 N
CONCESSION 4 N
CONCESSION 5 N
CONCESSION 6 N
HOWARD AVE
CONCESSION 8
WALKER RD
ALMA ST
ALMA ST
CONCESSION 4 S
CONCESSION 5 S
CONCESSION 6 S
CONCESSION 7
HOWARD AVE
CONCESSION 9
ESSEX CTY RD 11
SIMCOE RD
SIMCOE RD
SMITH RD
SOUTH SDRD
SOUTH SDRD
CREEK RD
CONCESSION 4 S
CONCESSION 5 S
CONCESSION 6 S
CONCESSION 7
HOWARD AVE
CONCESSION 9
SMITH RD
COUNTY RD 20
COUNTY RD 20
COUNTY RD 20
MALDEN COLCHESTER SOUTH TOWNLINE RD
CONCESSION 3 S
KNAPPS ISLAND RD
COUNTY RD 50
CONCESSION 7
COUNTY RD 20
MCLEOD AVE
ERIE AVE
WILLOW BEACH RD
COLLISON SIDE RD
CONSERVATIO
HOLIDAY BEACH
LAKE ERIE CC
COUNTY RD 50
ESSEX RD 41
LESLIE LAN
Legend
Under 7 Min - 482
7 - 9 Min - 258
9 - 10 Min - 74
10 - 14 Min - 82
Over 14 Min - 23
Town of Amherstburg
Fire Calls 2015 -2017 - Response Times
GIS Department 2018

Fire Risk Map

The results of the Fire Risk Assessment show areas of the Town of Amherstburg defined by high, medium and low risk & Population Density per Sq/km. These rating have been determined by combining the five components of; risk, historic, economic, property and life. This map depicts the total “At Risk Properties” in the Town of Amherstburg.

Additional Considerations in the determination of Options is the location of where responding fire fighters live in relation to their assigned stations. This will have an impact on Turnout Time which contributes to total response time. This map also illustrates the Location of Current Fire Fighter Homes.


Legend
Population Density per km
5.1 100.0
100.1 - 500.0
500.1 - 1000.0
1000.1 - 25000
Firefighters
Station 1
Station 2
Station 3
At Risk Properties
Station 1 - 131
Station 2 - 72
Station 3 - 50
Town of Amherstburg
Population Density and Firefighter Locations

Managing the Fire Risk

The Ontario Fire Marshal asserts that there are "Three Lines of Defense" for successful public fire protection systems in the province. The three lines of defense are:

- **Effective Fire Prevention and Public Education Programs;**
- **Strict Codes and Standards & Enforcement;**
- **Effective Emergency Response.**

The public must be educated to both prevent fires and know the appropriate actions to take in event of a fire. Programs such as the smoke alarm and home escape planning are essential to protect residents.

Fire safety education extends to people responsible for new buildings or services and making alterations or additions to existing buildings or services. The purpose of this education is to ensure they are designed, installed and maintained to meet appropriate building and fire codes.

The first two lines of defense must be applied to ensure that all building components are correctly and safely installed and the residents know what action to take if an accidental fire occurs.

In spite of best efforts, accidental fires still occur and well-trained and equipped personnel must carry out effective emergency responses in the timeliest method.

R-22) It is recommended that Municipal Council consider supporting incentives or initiatives that would promote any future development to include automatic fire sprinklers and additional consideration be given to the requirement for fire alarm systems, where installed, to be directly connected to the WFRS Dispatch Centre or other independent monitoring companies. This promotion would significantly contribute to early Warning and Detection and managing any future resource requirements as well as reduce the trend of increasing fire losses, injuries and deaths.

Fire Station Data

The fire station serves as the heart of the fire service. As goes the station, the equipment and facilities contained therein, so goes the pulse, the morale and the performance of the persons making use of the facilities.

In a small village or town the location may not be as critical for response times and distances. However, in geographically larger municipalities response distances of under 8 km and response times of less than 5 minutes are desirable.

Currently The Town of Amherstburg is served by three (3) Fire Stations. Each constructed by the former Municipalities prior to Amalgamation 20 years ago in 1998. These stations were built and located to meet the needs of much smaller municipalities.

Station #3 in former Malden Twp. was built in the Early 1960's and Station #2 in former Anderdon Twp. were built in the early 1960's as well, with an additional vehicle bay added in 1974. Both buildings are approaching 55 years of age, and do not meet the needs of a modern fire service preparing for 2030 and beyond. In fact, the current vehicle bays will not accommodate modern Truck Chassis sizes and as a result significant building renovations are required before any additional vehicles are replaced as new vehicles will not fit into the bays.

Station #1 in Former Amherstburg village was built as part of the Municipal Complex (Town Hall) in 1993. It is 27 years old and has begun to show its age. Additionally the Fire station training area, Kitchen and other administrative areas have in recent years been converted to shared space with town hall operations limiting the fire departments use.

Fire stations are constructed to house fire fighting apparatus and accommodate the fire fighters staffing the apparatus. They should be located in reasonably convenient areas to give quick response to emergencies, having regard to the distances to be travelled, response times and whether it is an industrial, commercial or residential area to be protected. When volunteers are used for staffing, their availability and their access to the station should be considered as they are relied upon to bring apparatus and equipment to the emergency scene.

Provision should be made in fire stations to accommodate all firefighting apparatus assigned as well as to allow flexibility of operations, allowing apparatus to be assigned from one station to another as the development of areas proceeds or deployment changes are necessary. Also, space should be provided for living and training accommodations for the career fire fighters manning the station and/or for Volunteer Fire Fighter use in flexible ways to accommodate limited availability of staff to perform required duties and activities.

In the case of a headquarters fire station, in addition to the apparatus, living and training accommodation, space should be provided for the administrative, training, and fire prevention staff of the department.

Response distances up to 8 km may provide insurance savings to residents within the area protected from a fire station.

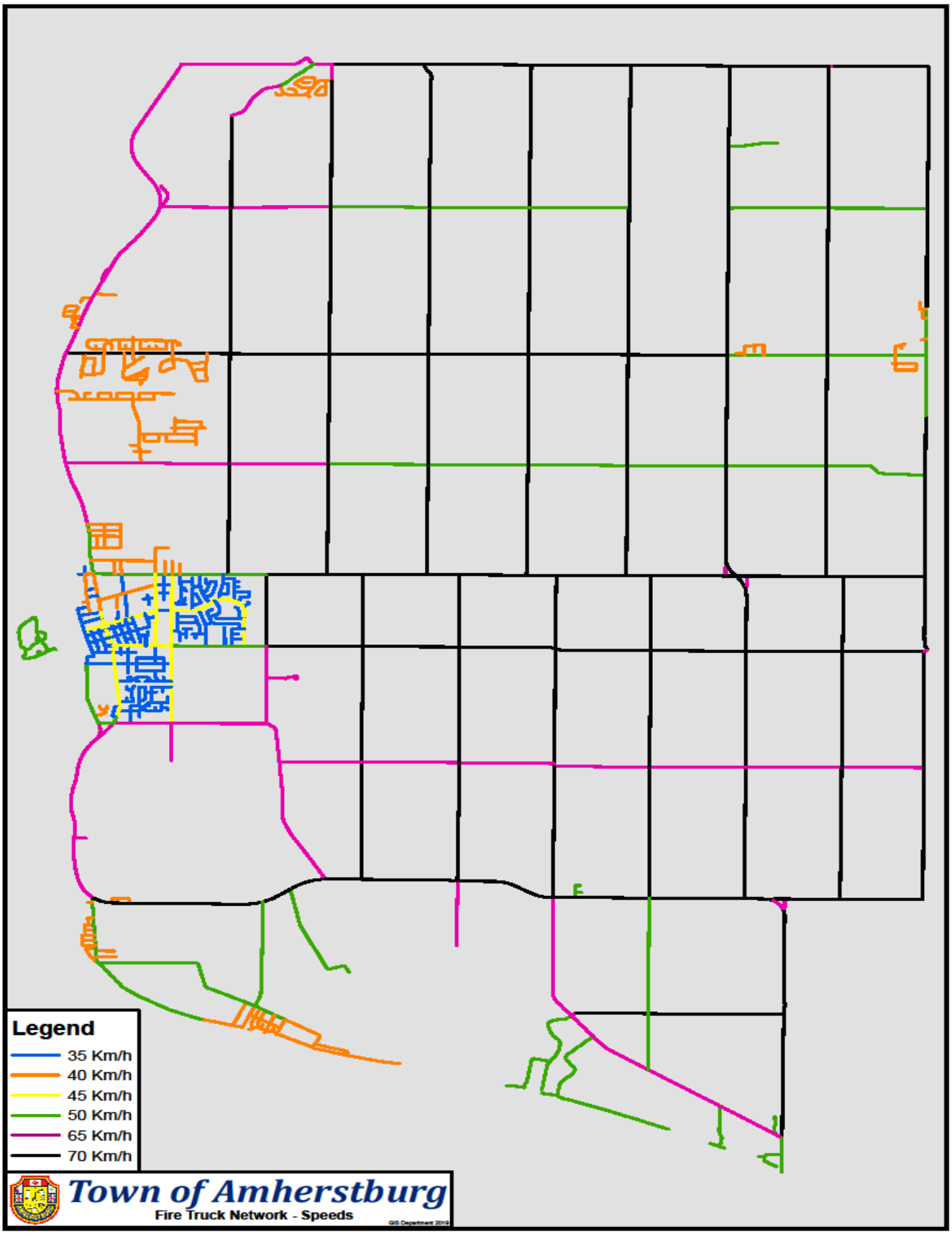
The location and physical design of fire stations, and their successful ongoing management, are prime determinants of a community's ability to respond to fires. Having the right type and number of fire stations, located in the right places enables the policy makers and appointed managers of a jurisdiction to house fire fighters, apparatus, and equipment in a rational way for maximum use of resources. Doing this successfully may be a key test of managerial ability (both inside and outside the fire

department) in a local government setting increasingly more marked by competition for scarce resources. Fire stations are a major capital expenditure and municipal improvement. The buildings are in use for many years. The size of the station should be compatible, not only with the present requirements, but for the future maximum anticipated number of personnel, apparatus and equipment.

For each of the three (3) fire stations, detailed data on the first response vehicles or fire apparatus in the station and a description of the number of responding staff for the stations are provided.

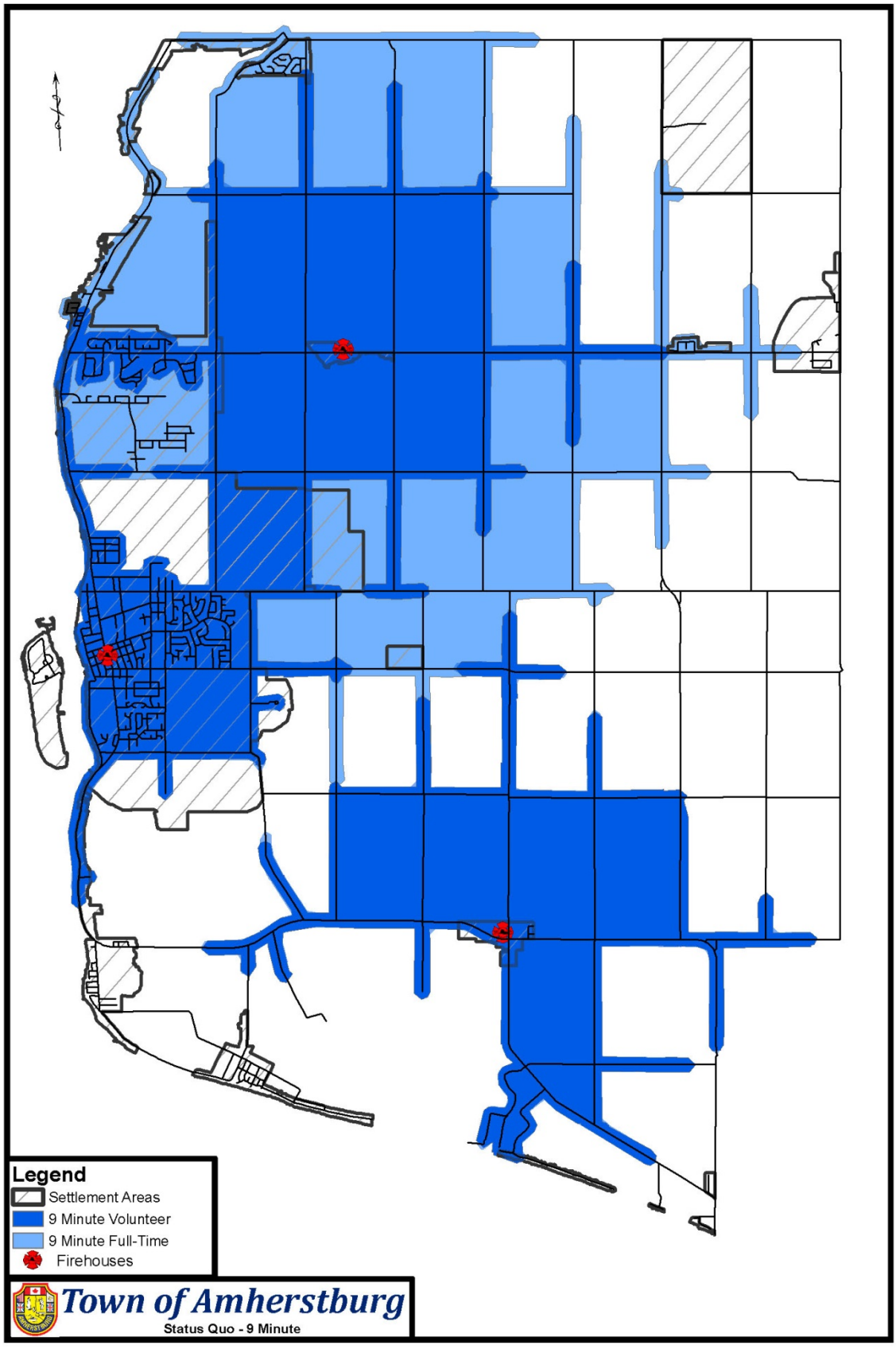
Station #	**Location (Address)**	**Major Apparatus Assigned**	**Staffing**	**Special Services**
1	271 Sandwich St. S	2009-75' Ladder 2018-Rescue pumper 2018 Support Unit	4 Non-Union Staff 20 Volunteer FF	Water Rescue Auto Extrication
2	3400 Middle Side Road	2018 Tanker pumper 2012 Pumper 2018 Support Unit	4 Career Firefighters 20 Volunteer FF	Water Rescue Auto Extrication
3	6744 Concession 6 south	2000-Tanker truck 2011- Pumper 2018 Support Unit	20 Volunteer FF	Auto extrication Water Shuttle Off-Road Services

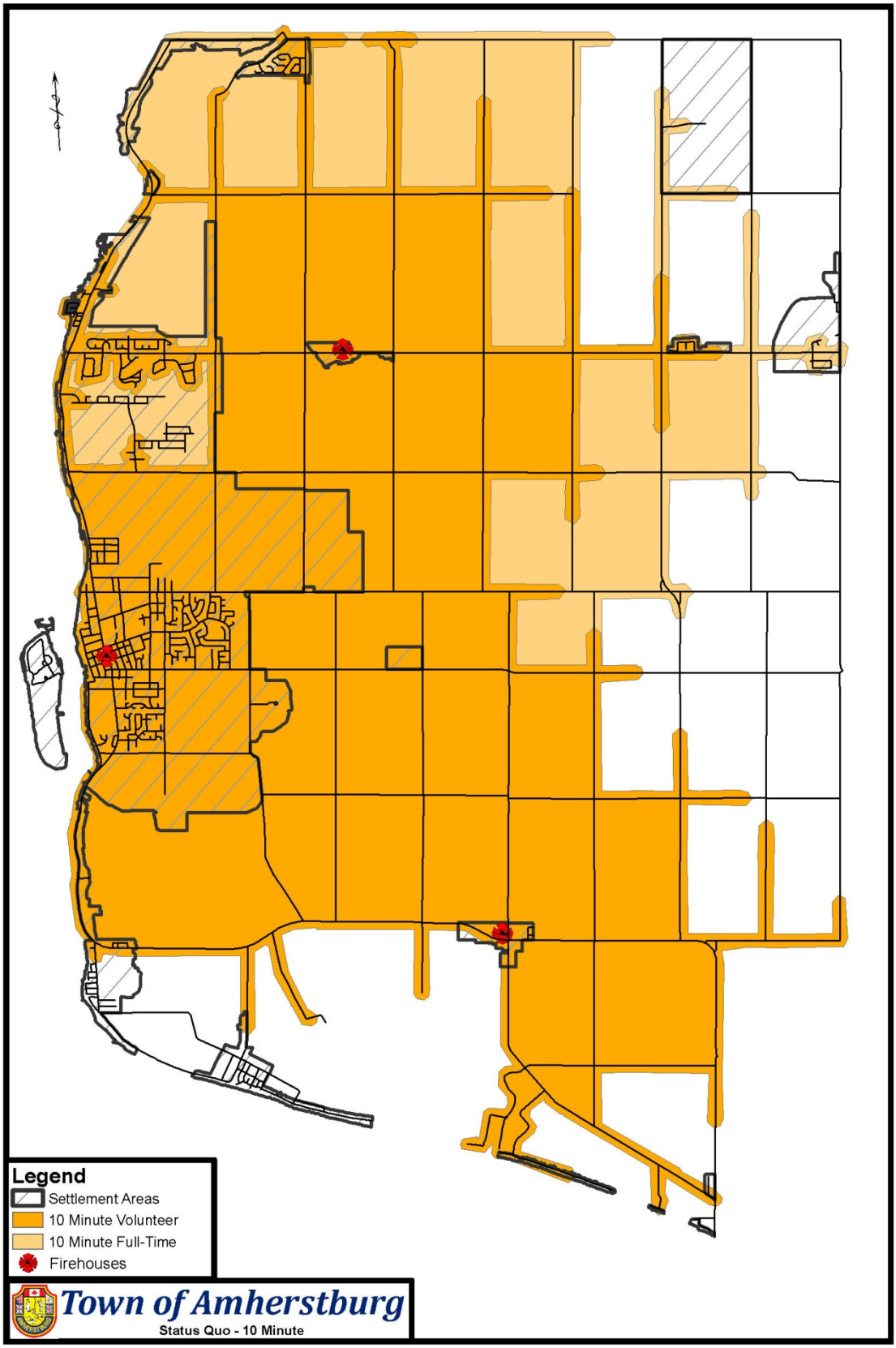
The "drive time" map very clearly shows the Road Network and Utilizes Colours to simulate the computer generated average drive times of each station.

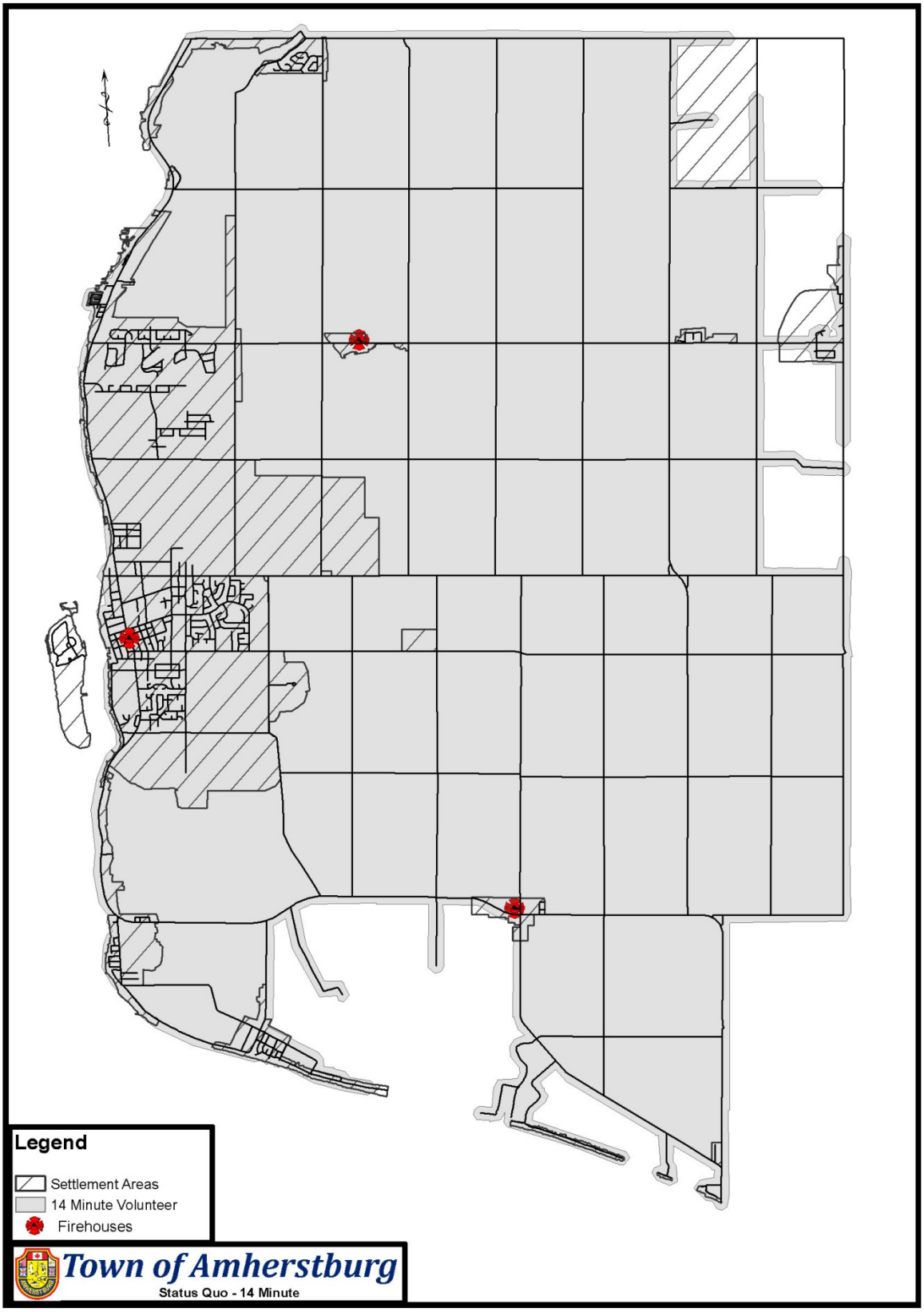

Legend
35 Km/h
40 Km/h
45 Km/h
50 Km/h
65 Km/h
70 Km/h
Town of Amherstburg
Fire Truck Network - Speeds

Levels of Response Time 2015-2017

This section of the report illustrates the current levels of response time for all of the fire stations within the Town of Amherstburg. The process developed and utilized data provided by the CriSys database and internal GIS data. Also included are the “Areas of Concern” where response time can be met but the number of firefighters that can assemble in the respective Demand Zones cannot be achieved.


Legend
Settlement Areas
9 Minute Volunteer
9 Minute Full-Time
Firehouses
Town of Amherstburg
Status Quo - 9 Minute


Legend
Settlement Areas
10 Minute Volunteer
10 Minute Full-Time
Firehouses
Town of Amherstburg
Status Quo - 10 Minute


Legend
Settlement Areas
14 Minute Volunteer
Firehouses
Town of Amherstburg
Status Quo - 14 Minute

Development of our Evaluation Model

Road Network Model

A Process/Methodology was developed in coordination with GIS staff so that a network analyst road speed model could be built. The model was used to determine speeds for roads, across the entire Town of Amherstburg, which would most accurately represent the average speed of fire apparatus travelling over a segment of roadway. This was necessary as there is no existing Town data formatted in a manner that could be used. Additionally, an accurate representation of actual road speeds of responding apparatus is needed; not posted speed limits.

The road speed model is used to predict many types of scenarios such as current level of response coverage, where stations may be opened, moved or closed, and to model response coverage for future growth.

Model Defined Speed Zones

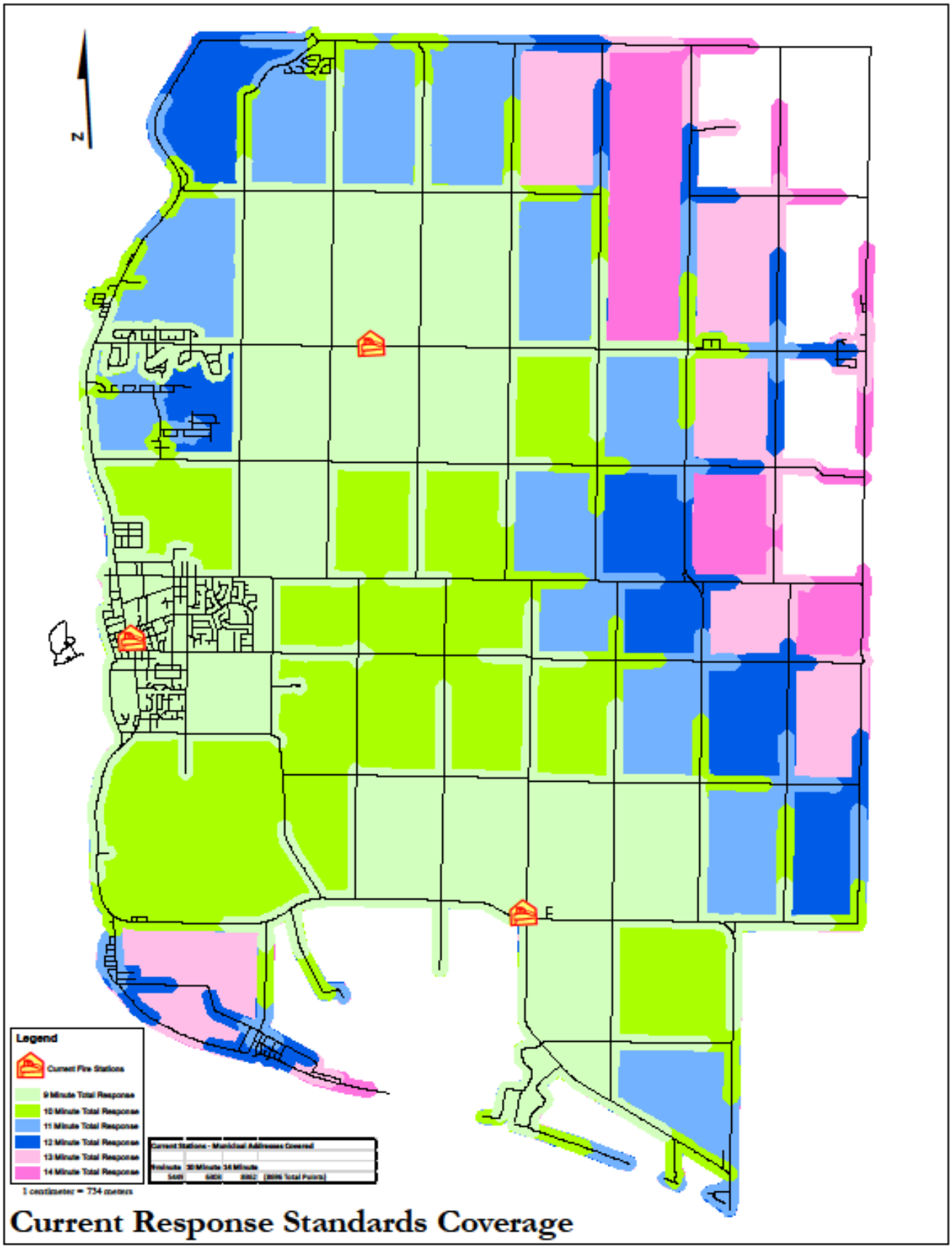
Zones were created using the assigned service area grids used by the WFRS Computer Aided Dispatch (CAD). Each of the grids was further subdivided into congested (secondary roadways) and non-congested (primary roadways) areas so that speed zones could be created.

Road Speed Analysis

Selected previous incidents were then plotted on a map. Using the network analyst model, the program “drove” to each incident from the closest stations. This model included the time it takes staff on these actual calls to respond from where they were at the time of the call, to the station to then respond with appropriate fire apparatus (known as Turnout time). Average Turnout Time for Volunteer Staff was established as 4.5 Minutes. The average Turn out time for Full-time staff on duty is 2 Minutes.

Current Level of Response

The Current Response Standards are illustrated by shaded road networks, indicating those streets and areas that are currently achieving the NFPA guideline of 9 minutes, 10 minutes and 14 minutes for single family residential occupancies. Additional one minute increments are included between 9 minutes and 14 minutes.


N
E
Legend
Current Fire Stations
9 Minute Total Response
10 Minute Total Response
11 Minute Total Response
12 Minute Total Response
13 Minute Total Response
14 Minute Total Response
1 centimeter = 734 meters
Current Stations - Municipal Addresses Covered
Current Response Standards Coverage

Service Delivery Model

Based on the speeds assigned to the road network, GIS staff created a coverage (drive time) model from all existing and/or future stations.

The model predicts the distance/time a vehicle would travel for any timeframe, which is added to the Turnout time to obtain a total response time.

Road Speed Results

Road speeds were selected after reviewing actual response times and other studies completed in municipalities that have used the GIS analyst tool.

The selected average road speeds for the separate speed zones and highways are as follows:

Service Area	Primary (Non-congested)	Secondary (Congested)	Highway
Urban Core	45 km/hr.	35 km/hr.	70 km/hr.
Suburban	50 km/hr.	40 km/hr.	80 km/hr.
Rural	70 km/hr.	50 km/hr.	90 km/hr.

Fire Attack Team

Fire Attack Team is defined as the number of personnel (fire companies) responding to effectively control fires. Fire companies must respond with an adequate number of personnel to carry out the Critical Tasks assigned to their company and maintain compliance with applicable standards such as NFPA. It is, therefore, essential for AFD to have a sufficient number of personnel and apparatus arriving that will permit:

- Apparatus to be used to its full capability (to be productive);
- Multiple priorities/tasks to be accomplished simultaneously;
- Officers to effectively supervise company operations without becoming overly involved in the actual tasks; and safety and accountability to be adequately provided for all responders.

Force of Attack

Based on an analysis of the past three years of Priority-One calls, the average total number of firefighters that could be expected in totality of an alarm in each response district is 12.

In an area immediately dangerous to life and health, initial attack operations must have the capability, capacity and be organized to ensure that at least four members are assembled, before entering and starting interior fire suppression/rescue ops.

Station and Deployment Triggers

The following station and deployment triggers (the action that results in a change in resources being deployed to the area) to be used in identifying the deployment of fire service resources in the Town of Amherstburg are:

- Growth
- Construction
- Response Level
- Risk
- Land Use

The Fire Management Team expects that several triggers would act together to cause an action to occur.

Calculation:

Using available Town of Amherstburg data and resources can demonstrate how the change to land use significantly affects risk, response level or Capacity. Based on the identified risk value, the appropriate resources should be deployed in the area to meet the approved level of service.[2]

The basis for these triggers can be referenced in the following documents:

- Commission on Fire Accreditation International, Inc. 4th Edition, Creating and Evaluating Standards of Response Coverage for Fire Department
- Network for Environmental Risk Assessment and Management Basis Frameworks for Risk Management
- OFM Public Fire Safety Guidelines
- Comprehensive Fire Safety Effectiveness Model Considerations

At Present the 3 station deployment model and three benchmark Demand Zone service level standards provides protection to;

[2] "The approved level of service to be determined by Council" in an Establishing and Regulating By-Law

	Municipal Addresses Covered		
Time	9 Minutes/15 FF	10 Minutes/10 FF	14 Minutes/6FF
Target	2881	3501	3111
Actual	0	2797	3111

Results, Impacts and Options for Consideration

Amherstburg Fire Department (AFD) is a Composite fire service comprised of 68 personnel 4 Full time firefighters, 4 Excluded Staff and 60 Paid on Call (volunteers)) operating 6 divisions or branches. AFD provides fire protection to the community by employing the "three lines of defence" enabled by the FPPA, which are, effective fire prevention and public education programs, strict codes and standards enforcement and effective emergency response.

Ultimately consideration should be given to **"what is best for the residents we serve".**

SWOT Analysis

Based on the review of service delivery for the Fire Department, a SWOT (strengths, weaknesses, opportunities and threats) analysis was developed and is contained in the tables below. It helps an organization to know what it can build on and what it needs to be mitigated or change. Strengths and weaknesses relate to the internal world of the organization while opportunities and threats look at the external world in which the organization operates.

Strengths	Weaknesses
• Our people • Commitment to serve • Innovative • Authentic • Collaborative • Trustworthy • Courageous • Community minded • Inclusive • Respected • Willing to change • Mentorship	• Succession planning • Retention of knowledge • Rapid change • The current staffing level barely meets the lower effective response level for Low and moderate risk occupancies. • The staffing levels result in AFD being unable to assemble adequate resources for an emergency occurring in High Density areas within 9 minutes any

	of the time. • No community support for residential fire sprinklers • No Technology Plan • Non-Integrated RMS • No Reserve Funding strategy for asset management • Most Agreements are not formalized • weak interdepartmental liaison • lack of Standard Water Distribution
Opportunities • Support incentives or initiatives that would promote any future development to include automatic fire sprinklers • Succession planning for all positions • Labour relations are stable/strong • Relationships are strong • Willingness to invest in staff and people • Willingness to adopt new ideas • Integrated technological improvements • All programs that are properly resourced • Infrastructure renewal	**Threats** • Future funding at risk • Potential of government to require/mandate consolidation of agencies/services • Over regulation of sector • Potential employees being attracted to other services • Larger losses and injuries experienced

As the evaluation processes neared completion and the analysis of existing service levels were completed a better understanding of the fire service's existing capability to provide operational services was obtained. It then became clear that changes should be made in order to improve initial response capabilities; however, the capability to provide even the lowest level of effective response for concurrent emergencies or major incidents involving high or extreme risk properties presents a significant threat.

During the evaluation of response capabilities in various parts of the Town it was found that there were deficiencies in the 15 firefighters in 9 minutes and 10 firefighters in 10 minutes coverage in specific areas of the Town. (See above: Status Quo response Maps with "areas of Concern")

It was also identified that the Bois Blanc Island, (Boblo Island) has significant fire protection challenges which will be intensified with plans for additional development in the future. A series of recommendations are included in this section.

After careful evaluation and using the available technology, it has become apparent that in order to maintain an acceptable level of service, changes in deployment are required.

The department has studied many redeployments and station relocation scenarios in an effort to determine the most appropriate method to minimize this risk. Scenarios reviewed included a 1 station and a 4 station model with the additional resources necessary (50 FF). The One Station model could not provide the current level of service from a single location. A four station model proved to be more than adequate, but the costs associated would be unreasonable and significant and both were therefore eliminated from consideration.

Several scenarios utilizing the GIS system to evaluate our 3 station model but in optimal locations, giving consideration for risks, location of firefighters and future growth. This was considered the most expensive option. (2 new stations, a major upgrade to the third station and 20 additional FF).

Station Consolidation Scenario models show promise, and may provide the best long term solution to the problem, however, this solution requires the re-construction of the two seriously aging stations resulting in the need for capital dollars.

A Two (2) station consolidation model, would utilize the current number of volunteer staff with no needed increases to staff & vehicles. This seems to present the least expensive solution with the lowest operating cost. As Fire Stations when newly built, are expected to last 40 or more years along with lowering the annual operating costs is a beneficial consideration.

Current Utilities Costs- (3 yr. Average):

Station #	Natural Gas	Water	Electricity	Total /yr.
1	$4,500	$1,000	$14,500	$20,000
2	$3,150	$800	$11,300	$15,250
3	$1,550	$700	$8,300	$10,550
Grand Total	$9,200	$2500	$34,100	$45,800

Discussions' regarding a suitable payback for the Capital investment requirement was very important to have. A review of best practices was undertaken and a Zero Carbon opportunity may be the best consideration for offsetting the capital dollars requirement as well as providing a potential for ongoing future

operational cost reduction for the corporation. A survey of Area Municipalities with New Fire Stations and facility Utilities Costs for similar sized stations indicated;

Projected Utilities costs for New Stations

Station #	Natural Gas	Water	Electricity	Total/Yr.
Consolidated #3 & #1	**$3,500**	**$1,000**	**$5,500**	**$10,000**
#2	**$3,500**	**$1,000**	**$5,500**	**$10,000**
Projected Total	**$7,000**	**$2,000**	**$11.000**	**$20,000**

Based on neighbouring experiences, we can expect approximately $25,000 /yr. or more in operational savings.

However, simply erecting new stations and consolidating/closing old ones, does not solve the response target problem, it just moves the gap from one area of the Town to another. Careful study and planning are required to ensure that any money spent on these projects is spent wisely. The Fire Management Team has examined current operating practices and possible operational change options including location.

Also Identified during the review was the undeniable positive impact of a composite staffing approach to deployment. (Combining fulltime staff together with paid on call Volunteers responding to both the Stations and the Scene directly)

Both response time performance and assembly times subsequently drive resource distribution and concentration. If response times and fire fighter assembly times are low, it is an indicator that sufficient resources have been deployed and outcomes from risk events are more likely to be positive. Conversely, if response times and fire fighter assembly times are high, it is an indicator of insufficient resources and outcomes from risk events are more likely to be negative

Fire department operational performance is a function of three considerations; resource availability/reliability, department capability and overall operational effectiveness.

- Resource Availability/Reliability is the degree to which the resources are ready and available to respond.
- Department Capability is the ability of the resources deployed to manage an incident.
- Operational Effectiveness is the product of availability and capability. It is the outcome achieved by the deployed resources or a measure of the

ability to match resources deployed to the risk level to which they are responding.

The probability of any given unit's availability (or unavailability) is one indicator of the fire department's response reliability. Response reliability is defined as the probability that the required number of competently prepared staff and properly equipped apparatus will be available when a fire or emergency call is received. This has been in part been addressed in the past with the inclusion of Full-time on duty Fire fighters.

As the number of emergency calls per day increases, the probability that a needed piece of apparatus will be busy when a call is received also increases. Consequently, if the right amount of redundancy is not built into the system so that timely and adequate response to emergency calls can be maintained, the department's response reliability decreases.

To measure response reliability, all types of calls for service must be taken into account. Today, medical calls have an impact on the availability of fire department resources and should be considered in the overall evaluation of department reliability. Response reliability can be determined from historical run data and is typically expressed as a per company statistic as well as an agency-wide statistic.

Fire department capability, as a measure of the ability of firefighters to respond, mitigate and recover from each emergency call, often depends on the time of dispatch, arrival of first responders and the assembly of an effective force of Attack in relation to the magnitude of the risk event when they arrive. For example, some fires will be at an early stage and others may already have spread throughout an entire building. Therefore, when determining fire station location, apparatus placement and staffing levels, fire service leaders target a particular point of a fire's growth that marks a significant shift in its threat to life and property. This point is known as "flashover".

On Scene Risk Escalation

During the growth stages of a fire, flashover is a significant event. Preventing this stage of fire behavior is a factor in establishing fire department resource needs. When flashover occurs, in that instant, everything in the room breaks into open flame. This eruption of flame generates a tremendous amount of heat, smoke and pressure with enough force to push the fire through doors and windows and beyond the room of origin. Flashover is a significant stage of fire growth for several reasons. First, the likelihood of survival and the chance of saving any occupants trapped in the room of origin drops dramatically. Second, flashover creates an exponential increase in the rate of combustion as well as the risk to the health and safety of firefighters. Third, a considerably greater amount of water is needed to extinguish the burning material. Fourth, a greater number of firefighters are required to handle the fire spread to different locations in the structure and the larger hose streams now necessary to extinguish the fire. Finally, science shows that a post flashover fire burns hotter and grows faster as time progresses thus compounding the search and rescue task in the remainder of the structure again requiring a greater number of firefighters to mitigate the incident.

The dynamics of fire growth and the associated potential for risk escalation dictate various configurations of fire station locations and firefighter staffing patterns. Understanding fire behavior, particularly flashover, is key to designing an emergency response system so that a sufficient number of firefighters and equipment are strategically located throughout the community to assure that the minimum acceptable force of attack can be assembled to engage in a fire before flashover or substantial risk escalation occurs.

Therefore, to save lives and limit property damage, firefighters must arrive at the right time, with adequate resources to do the job. This has wisely been in part addressed by the inclusion of a Full-time on duty Firefighter 24/7. The geography of the municipality (185.61 Sq. Km.) extends intervention time (Time of Call to Water on the fire) and therefore has its limitations.

In emergency medical response, there is a similar perspective. The same need to intervene early to stop the progression or escalation of a risk event can be noted in firefighter and paramedic response to cardiac or traumatic emergencies. For example in a heart attack that progresses to a cardiac arrest where a victim becomes pulseless and stops breathing, there is a six minute window of opportunity to intervene. Without intervention from bystanders or first responders arriving in a timely manner, irreversible brain damage will ensue. The same is true for badly injured victims of trauma where blood loss is significant, without appropriate intervention, the emergency continues to escalate to a point of irreparable damage.

The inclusion of a Full-time on duty Firefighters 24/7 addresses both quick attack to prevent flashover, medical response to life threatening emergencies and most importantly provides the entire municipality with a guaranteed response regardless of time of day.

Effective Force of Attack

As discussed previously in this report, an effective response force is defined as the minimum number of firefighters and equipment that must reach a specific emergency incident location within a maximum prescribed travel [driving] time. The maximum prescribed travel time acts as one indicator of resource deployment efficiency.

Fire Department response capability

Fire department response capability and capacity is a function of the community's resource allocation and is a significant determinant in the degree of vulnerability of a community to unwanted fires and other emergencies. Naturally, a community with a sizeable and effective firefighting force, for example, would be less vulnerable to the large negative consequences of an unwanted fire than would a community with fewer resources allocated.

Recognizing this phenomenon, the team examined the best practices for minimizing the consequences of unwanted fires and other emergencies in our community by matching

the allocation of fire department resources to the risk profile of our community. The addition of 6 career firefighting positions over the life of this plan, beginning with 1 now as bargained and 5 in future when development supports this, would be the desired result. This end state would mean an increase of approximately 1.7% to the municipal levy over the life of the plan.

Either Option under consideration will produce improvements to achieving service level targets.

	Option A & B – Service Level Targets Achieved		
Time	9 Minutes/15 FF	10 Minutes/10 FF	14 Minutes/6FF
Target	2881	3501	3111
Option A & B	2881	3501	3111

Options

Option A –

Consolidation of Station #3 & Station #1. Redeployment of staff and equipment to a new rebuilt Station #2 in the same location & a new Station #1/3 located on the Libro Centre property. Buildings would be Leeds Silver construction and Zero Carbon removing it from the Grid. Surplus Power would offset operating costs of the station. Ongoing operating costs of Station #3 would be eliminated. Property could be sold to offset costs of new construction of station at Libro Centre.

Existing Station #1 space at Town Hall could be declared surplus and sold or repurposed as part of a Town Hall Complex.

Re-distribution of volunteer firefighters from Station #3 and Station #1 to provide for 30 firefighters at each station. The relocation of existing full time firefighters to the new Station #1 would complete the improvement of response capabilities utilizing existing resources. Our ability to meet at least the lower effective response level for emergencies occurring in high risk and extreme risk occupancies, as identified in this report and improving the level of guaranteed response to the whole municipality may result.

Recruit for the first additional full-time fire fighter to address staffing ratio and consider future up staffing.

Option B –

Continue with the 3 station model with reconstruction of both Stations # 2 and # 3 and needed upgrades at Station # 1 including the roof and replacement of the 6 overhead doors (Front and Rear) of the Station. Up staff of 10 additional volunteer firefighters at both Stations #1& #2 (Total 20 additional) to meet response targets. New Buildings would be Leeds Silver construction and Zero Carbon removing them from the Grid. Surplus Power sold back to the utility would offset operating costs.

Additional FTE's to be located at upgraded Station# 1 improving response capabilities to meet at least the lower effective response level for emergencies occurring in high risk and extreme risk occupancies, as identified in this report and improving the level of guaranteed response to the whole municipality.

Recruit for the first additional full-time firefighter to address staffing ratio and consider future up staffing.

Summary of Costs of Options (Table 1)

Option #	Consideration	Funding /Position Requirement	Service Level Impact	$ Impact
Option A	**2 Station Model –** Consolidation of Station #1 &# 3 with relocation to Libro Property. Carbon Zero Buildings Reconstruction of Station #2 on current property	$3 Mil. Capital $3 Mil. Capital Sale of the Station #3 Property to offset costs -$??	Re deployment of Resources Meets Service Level Targets in all Risk Areas.	$6 Mill Capital
Option B	**3 Station Model** Includes reconstruction of Station #2 & # 3 Upgrades to Station # 1 Including Roof Bay Doors	$6 Mill- 2 New Stations Increase +20Volunteers FF for Station #1 & 2 60K Capital PPE Upgrades to St.#1 $800K Capital	Meets Service Level Targets in all Risk Areas.	$6.86 Mill Cap $150K Operations

R-23) It is recommended that an Option as outlined in this updated MFP report be developed, funded, including possible grants, and implemented.

Boblo Island Challenges

In February of 2017 the Municipal Clerk provided a report to Council, attached as Appendix I -20170123 Boblo Island report, outlining Island Access challenges for a variety of emergencies. The report included information and both Short and Long Term solutions to the fire protection needs of the developed portions of the Island.

On July 29, 2019 a follow-up report regarding implementing Phase one was provided to council by the fire chief.

Boblo Island is an island in the Detroit River on the Canadian side of the border and forms a part of Amherstburg. The main northbound shipping channel of the Detroit River currently lies between Boblo Island and the Amherstburg mainland, and is called the Amherstburg Channel. The island is currently being developed as Boblo Island and Marina Resort Community by Boblo Developments Inc. Boblo Island currently has a community of homes and condominiums on the north end of the island and has been negotiating with the Ministry of Natural Resources over the past 4 years, awaiting environmental clearance for development on the south end of the island.

The services for phase 1 of the development, being roads, storm and sanitary sewers, water mains, and electrical distribution, etc., were completed and have been accepted by the Municipality, however the island is serviced by a private ferry.

It is important to note that when the ferry service is inoperable, vehicles of any size cannot be transported to and from the island which poses some concern for the municipality's emergency service responders.

These occurrences are infrequent, but there have been a few ferry mechanical issues which have also caused ferry service interruptions. Recently unusually high water levels throughout the great Lakes system have added to the difficulty of getting Fire Department vehicles onto the island. Amherstburg Fire and Police Service and Essex/Windsor EMS share concern over response time and response capabilities in the event of situations which prevents reliable access to the Island.

It is the responsibility of the Municipality to ensure the safety and well-being of its residents. In the event of an emergency where ferry access is not available, emergency service responders will not be able to bring the appropriate apparatus or equipment over to the island to tend to the emergency effectively.

Council was made aware of an effort to alleviate the concerns shared by the island owner, and residents.

Having a better understanding of the cause of concern, some short and long term solutions were proposed in the January 2017 report to provide sufficient emergency response to island residents in the case of an emergency where the ferry is inoperable. These solutions were proposed below for Council's consideration.

Short Term Solution Proposal

Ferry Service

- Amherstburg Ferry Company will notify the Municipality immediately when the ferry service is inoperable
- The Municipality will contact CCG for ice breaker assistance
- Amherstburg Ferry Company will operate passenger airboat until ferry service resumes

Emergency Response

- Emergency Service responders will only cross on the tug or a Transport Canada safety regulated airboat
- Emergency Service responders will make decisions on the response that is most appropriate at the time of incident
- Use of a maintenance type vehicle to move fire equipment to and from a fire incident should be permanently located on the island during the winter months
- Fire equipment to be stored permanently on the island for use during the winter months

This short term solution allows for prompt attention to the ferry needs and addresses the concern as quickly as possible to get the ferry operable. In case of fire, or medical emergency, it is believed that storing additional equipment on the island will address this matter adequately for the short term.

It is important to note that as per the CCG's Icebreaking Operations Services response time, noted above, it could take up to 8 hours before an ice breaker arrives to assist.

The relocation of equipment did not occur in 2018 nor 2019 as a town vehicle was not available.

Additional urgency was faced by the municipality in the spring through summer of 2019 with unprecedented high water levels throughout the great lake system including the Detroit River. This situation created a higher level of urgency to complete the short term solutions. The high water levels impeded our ability to respond to Boblo Island as fire apparatus could not board the ferry without occurring significant damage to both the fire apparatus and the ferry. This had the potential to increase the frequency of

inaccessibility to the island during fire emergencies. As a result council was provided with a report detailing the situation.

On July 29, 2019 municipal Council Directed the Fire Chief to implement;

The redeployment of the 1995 Spartan Fire Pumper as part of the short term solution for enhancing fire response services on Boblo Island.

This included the construction of a temporary structure and, the vehicle will not be recognized by Fire Underwriters Survey at the end of the 2020 Calendar Year. It is planned that when other in-service vehicles are replaced within the fire fleet, that the vehicle being replaced would then be transferred to the Island to replace the vehicle deployed there (such as this 1995 model), and in turn the older vehicle on the Island would be disposed of.

The vehicle would require some retrofitting to ensure that all vehicle compartments and doors could be locked to prevent loss of equipment. The additional equipment for this vehicle was also purchased.

Long Term Solution Proposal

<u>Ferry Service</u>

- Contact CCG to specifically request a special agreement for ice breaking services downstream to maintain ice flow and diversion of vessels to the Livingston Channel from December to April (where weather dictates) to maintain a frozen edge upstream for the safe passage of the ferry, island residents and emergency service responders. Administration continues to pursue this direction.

<u>Emergency Response</u>

- Purchase an additional fire apparatus for Station 1 and maintain an apparatus and additional equipment on the island
- Construct a Fire station to house the apparatus and equipment

This long term solution is believed to be the best solution for the safety and well-being of the municipality's island residents. It will enable Emergency Services year round access to the island without additional delay, and will allow the Amherstburg Fire Department to appropriately respond to a fire incident on the island in a limited manner at any time of year regardless of ferry service.

A new Pumper Rescue has been received for the replacement of Engine #1 and was placed into service in Late 2018. Old Engine #1 has been redeployed as above.

An Island Community meeting was held on September 23, 2017 with residents of Boblo Island. Interest was solicited by the fire chief and CAO for those residents interested in forming a response capability as well as fire prevention and public fire safety capacity.

A total of 28 residents have expressed interest in Firefighting and an additional 10 are interested in participation in prevention and education activities.

A follow-up meeting with the Owner of Boblo Developments was held to confirm previous commitments of a parcel of land for facilities at no charge to the municipality.

Due to the Island's unique circumstance, where ferry service is necessary to get to and from the island, emergency response times to the island are longer than usual even under normal weather conditions. However, with the additional concern raised regarding the municipalities inability to respond appropriately to a medical, police, fire or other emergency on the island when the ferry is inoperable, the municipality has a duty to address the situation for the safety of its island residents.

Section 2.1(3), Municipal Emergency Management Programs of the *Emergency Management and Civil Protection Act (EMCPA),* states the following:

"Hazard and risk assessment and infrastructure identification

(3) In developing its emergency management program, every municipality shall identify and assess the various hazards and risks to public safety that could give rise to emergencies and identify the facilities and other elements of the infrastructure that are at risk of being affected by emergencies. 2002, c. 14, s. 4."

R-24) It is recommended that, as an Initial phase, a single bay (20'X70') pre-engineered building with basic heating, lighting, shower/washroom facilities be built to safely house a fire apparatus and provide a space for equipment and training for firefighters.

An additional challenge identified at the community meeting for residents, is the difficulty in obtaining affordable fire insurance. Fire underwriters currently consider the island unprotected which caused many insurance companies to not policies for resident property owners or offer them at an extreme cost. This recommendation once completed will address this issue.

Available funds in the Development Charges Reserve for the construction of a fire facility only as at December 31, 2017 are $211,251. Cost for a facility is estimated to be $450,000 including fit-up costs

To fully equip a fire service Pumper the equipment that will be required is estimated to be $80,000.00.

Additional costs to the Fire Department Operating Budget are $97,000.00 and include:

- Risk Insurance - $4,000.00
- Salaries for Response 20 FF - $27,000.00
- Salaries for Training 20 FF- $45,000.00
- Heat/Hydro / water- $ 5000.00
- Miscellaneous Operating Costs $ 16,000.00

Item-**CAPITAL**	Estimated Cost	Funding	Total $ required
Fire Facility	450,000.00	$250,000.00	$200,000.00
Facility Contingency	$45,000.00	0	$45,000.00
PPE for 20 FF	$65,000.00	0	$65,000.00
Uniforms	$10,000.00	0	$10,000.00
20 Pagers	$12,000.00	0	$12,000.00
10 Radios	$7,000.00	0	$7,000.00
Computers and Training Equipment	$6,000.00	0	$6,000.00
FF Equipment for Engine	$80,000.00	0	$80,000.00
Total	**$675,000.00**	**$250,000.00**	**$425,000.00**

R-25) It is recommended an amendment to the Town's Establishing and Regulating By-law be made to reflect the Boblo Island protection changes required by council.

R-26) It is recommended that all changes to protection on Boblo Island be communicated with Fire Underwriters Survey to re-evaluate dwelling protection grading for Properties.

Technical Rescue

As directed in the Establishing and Regulating By-law, AFD is responsible for many forms of technical rescue. These include land and vessel based Water /Ice rescue activities, vehicle extrication and rescue, control of hazardous materials incidents, tiered medical response, and elevator rescue. Each of these disciplines requires a commitment of on-going training, recertification and providing the equipment necessary to conduct the rescue in a proficient manner and enhance the safety of the firefighters performing the rescue. AFD is always in the process of enhancing their ability to respond to these technical rescue activities.

The level of service provided for technical rescues are defined by the National Fire Protection Association (NFPA), these are; awareness, operations and technician. The skills required increase with each level. AFD personnel operate at various levels depending on the activity. AFD operates at the technician level for Vehicle Extrication and Operations level for hazardous materials incidents supported by WFRS and

operations/Technician level for land/vessel based ice/water rescue, tiered medical response, and elevator rescue.

Post emergency evaluation:

A post emergency evaluation is an objective evaluation of what has taken place during the course of active fire suppression or other emergency operations. It will point out what can be done in the future to improve and obtain a more efficient operation. Post emergency evaluations should be conducted as soon as is possible following the incident.

A post emergency evaluation should be conducted for any responses which prove to be other than routine such as:

a) every structure fire;
b) fatal fires or critical injuries;
c) large loss fires;
d) explosions;
e) incendiary;
f) hazardous materials incidents;
g) responses where an inquiry or legal action is anticipated for any reason; and
h) any response where there was a deviation from standard operating procedures.

Participation by all response personnel is necessary to have an objective evaluation. The results of these evaluations may require changes and/or amendments to standard operating procedures or pre-emergency plans and should be relayed to the remainder of the fire department as soon as reasonably practicable.

R-27) it is recommended that a formalized Post Fire evaluation program be implemented for all responses not considered to be routine.

TRAINING DIVISION

The objective of any fire department training program should be to provide the best possible training so that each person within the department will be capable of operating at acceptable performance levels relative to their rank and assignment.

The municipality, as the employer, shall provide information, instruction and supervision under the requirements of the Occupational Health and Safety Act, Section 14 (2) (a).

The fire ground performance level of a fire department normally serves as a good indication of the type, quality and quantity of training that has been provided. In effect, it measures the efficiency of the system. A good training program is undoubtedly the single most important factor in producing and maintaining a high level of proficiency in any fire department. No person can become knowledgeable in fire protection without proper training to an accepted standard.

Fire prevention and fire suppression are recognized as services that require special skills and technical knowledge. The work of a firefighter is two-fold; to minimize the chances of fire occurrence, and to minimize the losses when fire occurs. Training of fire fighters must be carried out by teaching fire prevention and fire suppression skills, by following carefully developed training programs. Training officers should be appointed to develop and schedule in-service fire department training programs, which include recruit and refresher training. They should also coordinate the work of company officers in the program and supervise all training and plan training sessions for all fire suppression personnel. All officers must know the techniques, methods and ways of teaching. They must study numerous textbooks and training manuals on a variety of subjects, and know the new techniques of fire prevention and fire suppression as they are developed in order to maintain a high degree of efficiency. The training officer should maintain an up-to-date record of the training received by each fire fighter and officer.

The Town of Amherstburg has recognized the importance of training requirements and also recognized that suitable resources were needed. In 2017 a Full-time Training Officer/Firefighter was hired to facilitate the expanding needs of Training Programs.

WATER SUPPLY

Adequate water supplies are essential for firefighting, regardless of whether water is from a distribution system, static source(s), or transported to the fire scene by vehicle. It must be ensured that adequate water supplies are available in both urban and rural communities to protect exposures and to extinguish fires. Water supply reserves must be accessible and delivered rapidly and efficiently to the emergency scene. Fire department personnel should assess their needs and resources and the dependability of water supply for firefighting.

Static water supply

When a municipality must depend on water from static sources for firefighting purposes, provision should be made for fire trucks to reach the source of water without obstruction or risk to the fire fighters. Drafting water from a static source requires that the fire truck be located as closely as possible to the water.

Adequate water supplies are essential for firefighting, regardless of whether water is from a distribution system, static source(s), or transported to the fire scene by vehicle. It must be ensured that adequate water supplies are available in both urban and rural communities to protect exposures and to extinguish fires. Water supply reserves must be accessible and delivered rapidly and efficiently to the emergency scene. Fire department personnel should assess their needs and resources and the dependability of water supply for firefighting.

Water distribution system

The distribution system normally consists of a network of pipes, elevated storage tanks, and underground storage and booster pumps if necessary. Water mains are normally listed in three general categories: arterial, secondary and distributors.

The distribution system is the portion of the water supply chain that receives water for delivery throughout the service area. Fire hydrants, gate valves, elevated storage, reservoirs and auxiliary pumps are supplementary parts of the distribution system. The distribution system is also termed a grid system. The grid system should be composed of the following components:

a) Arterial or primary feeders - a large pipe that carries water to various points in the system for local distribution. The diameter of this line could range from 12 in. (304.8 mm) diameter in smaller cities to 60 in. (1524 mm) diameter, or greater, in larger municipalities.
b) Secondary feeders - intermediate pipelines that are used to reinforce the flow rates in the grid system that can be looped, or added to weak points within the system, to assist flow rate capacity as deficiencies are discovered. Normally designed to deliver water from the arterial feeders for distribution in local areas,

they may vary from 8 in. (203.2 mm) diameter in smaller systems to 16 in. (406.4 mm) diameter, or greater, in the larger systems.

c) Distributors - a grid made of smaller mains that serve the fire hydrants and local consumers. Pipe diameters smaller than 6 in. (152.4 mm) are not suitable for firefighting purposes and should not be allowed. The current trend is to lay pipe no smaller than 8 in. (203.2 mm) in diameter.

The ability of the distribution grid to carry water is dependent upon the flow capacity of the system's pipe network. Factors that affect a pipe's ability to carry water are the same that affect flow in hoses: length, cross-sectional diameter, resistance to flow (friction loss) and source pressure.

Urban water supply

A fire fighter's knowledge should extend to all elements of a water supply system that can be used for fire protection, but primary consideration should be directed to the distribution system.

Water supply is one of the most important facilities available for use by fire fighters and the accessibility and strength of the supplies is a significant factor in the control of large fires. A thorough knowledge of the water supply system is necessary before the fire department can discuss and prepare effective pre fire operational plans. Therefore, a study of the water supply by fire department members, and especially every officer and pump operator, is of importance in order that the fire department will have a thorough understanding of the capabilities of the system.

Water supply and insurance rating

The fire protection service should be consulted in making recommendations for improving water supply systems that are inadequate and recommending that new water supply installations be designed to deliver the required fire flow to protect each municipality and the occupancies within those municipalities. If this is fulfilled, there are a number of built-in benefits for the municipality:

a) more water will be available for commercial use;
b) more water will be available for domestic use;
c) the likelihood of water shortage will be minimized;
d) there will be a built-in water supply reserve in the event of a disaster;
e) the fire service will have improved hydrant spacing, which will result in shorter hose lays and improved pumper performance; and
f) the municipality could receive an improved rating for fire insurance rates.

The fire insurance rating schedules presently being used take several items into consideration when setting the insurance premium base rates. The two most important

categories are the fire department and the water supply system. High ratings in both of these areas normally result in a good rating for the community.

Insistence upon improved water supply delivery systems can carry rewards that can be utilized on a daily basis. The water supply can be used daily by the municipality. The lower rate for the fire insurance premiums can be a financial asset to the community. These items are in addition to the fact that the fire service will have sufficient water supply in the event of fire or other emergency that requires the use of water.

Rural water supply

When a municipality must depend on water from static sources for firefighting purposes, provision should be made for fire trucks to reach the source of water without obstruction or risk to the fire fighters. Drafting water from a static source requires that a fire truck be located as closely as possible to the water.

Pre-fire planning is vital in rural water supply for firefighting as it is in all fire service operations. The fire fighter cannot commit to memory all sources of water in the municipality. It is the task of every fire department to develop a system to make water supply information available to fire fighters responding to any location in the municipality.

Large diameter outlets on hydrants

Water supply for firefighting in large buildings or closely exposed occupancies depends on:

a) adequate flow available in water mains near the site;
b) proper connection from hydrant to pumper; and
c) proper discharge lines, pumper to fire.

Large fires demand large volumes of water for control and extinguishment. High volume supply lines to the pumper are required as well as use of master stream devices or multiple hand lines discharging large quantities of water to the fire.

Speed is essential. Currently there is no standardized connection on many fire hydrants resulting on the need to carry multiple adapters which slows the connection to hydrants during operations. Connecting one high volume supply hose from the hydrant to the pumper is much more efficient than using a number of smaller lines. High volume hose has the capacity to carry much more volume with much less friction loss.

Hydrant barrels with high volume connection capability are only slightly more costly than the standard hydrant barrel. They are installed only where water mains can provide sufficient flow and where requirements for fire suppression indicate possible use of large volumes.

Water supply program

Adequate water supplies, including hydrant service, are essential for firefighting. Regardless of whether water is from a distribution system, static sources or transported to the fire scene by vehicle, a water supply officer should be appointed. The officer would liaise with water departments where they exist, establish hydrant inspection programs where needed, survey static water supply sites, inspect the accessibility of water source sites, determine methods of relaying and transporting water during shortages of water and coordinate water supply at large fires.

R-28) It is recommended to prepare individual water source cards for each water supply point and note them on a master map of the municipality. These water source cards could include the type of source (hydrant, stream, lake, cistern, etc.), point of access, flow available and any particular problem details such as winter conditions that may make some sources unusable.

Colour coding of fire hydrants

Fire departments can benefit greatly from a system of colour-coded fire hydrants. The coding system is normally designed to indicate the flow rate for the individual hydrant, not the flow rate when tested as a grid system. A good system would incorporate the recognized system as follows:

- CLASS AA 5500 L/min or greater - LIGHT BLUE
- CLASS A 4000 - 5499 L/min - GREEN
- CLASS B 2000 - 3999 L/min - ORANGE
- CLASS C less than 2000 L/min - RED

Notes: The above figures have been rounded off in the conversion from U.S. gallons.

R-29) It is recommended that standardized hydrant connections be implemented across the municipality and installing night-bright colour rings will also help in spotting hydrants and then determining what the flow rates are.

Private systems with sprinklers

Many occupancies do not rely upon a public water supply system for their total protection. When an occupancy is large or the water system is not reliable, it is not uncommon to find that the system can be fed from both private and public water sources, or that the private system is totally self-contained. Such a system may include some or all of the following:

a) elevated storage tanks,
b) pressurized storage tanks,
c) fire pumps with reservoirs,

d) fire pumps to supplement public supply pressure,
e) fire department connections.

Any one of the supplemental systems can have an effect upon the way a sprinkler system and/or fire suppression tactics may operate. Normally, only one of the supplementary sources will exist in addition to a public water supply source and fire department connection

The Town of Amherstburg water distribution system design is based on standards which include various firefighting components such as minimum size water mains, fire hydrants with set spacing, reservoirs/elevated tanks, pumping stations and minimum/preferred fire flow requirements. Several major projects have been undertaken by the Town since the 2007 Fire Master Plan. AFD, in conjunction with the Engineering Department, and Environmental Services had completed a Fire Underwriters Survey. This survey could result in reduced fire insurance premiums for all taxpayers in Amherstburg if, this Information was updated with the Fire Underwriters.

R-30) It is recommended that the municipal profile and details of changes to water supply and Fire Department operations and equipment be provided to Fire Underwriters with the express purpose of having Dwelling Protection ratings and Fire Protection grading amended to reflect current capacity.

Currently a Water Master Plan is being undertaken through a Consultant (Stantec) by the Environmental Services Division. All of the aforementioned challenges and shortcomings with the municipal water distribution system can be reviewed and addressed as part of the Water Master Plan.

R-31) It is recommended that the municipal Water Master Plan review include details of changes to water supply and Fire Department operational needs for the express purpose of having Dwelling Protection ratings and Fire Protection grading reflect current capacity and future development needs.

COMMUNITY EMERGENCY MANAGEMENT

Pursuant to the Emergency Management and Civil Protection Act, the Town of Amherstburg's Community Emergency Management Program uses the principles of risk management to save lives and to protect property and the environment, to maintain economic stability and to assure the continuance of critical infrastructure during emergencies and disasters. The Town of Amherstburg takes an "all hazards" approach to emergency management and develops plans to prioritize risk through probability and consequence, whether manmade or natural.

Community Emergency Management Program activities include: identifying the hazards and assessing the associated risk to public safety and security, having emergency plans governing the provision of necessary services during an emergency and the procedures by which employees of the municipality and others respond to the emergency, conducting training and exercises to ensure the readiness of municipal employees and other persons to act under the plan, and carrying out public awareness and education programs on the risks to public safety and on public preparedness for emergencies. The program also includes an emergency operations centre from which to control and coordinate the Town's response to an emergency where it can be efficiently exercised.

A new Emergency Response Plan was created in 2017 and includes a functioning Emergency Management Program Committee in compliance with Legislation.

The current gap in regards to Community Emergency Management is a lack of a sustainable building stock inventory in the Town of Amherstburg. It is essential, that if a community is to be prepared for disaster management that they are aware of the hazards that are present in the community. There is currently a gap in identifying buildings that would be expected to survive a given risk and provide the basis for mitigating an incident.

R-32) It is recommended that a joint project that includes and Building Department and the Planning department be established to ensure an accurate building stock inventory and Critical Infrastructure be established and maintained.

An Emergency Operations Center (EOC) is a complex facility that serves as a nerve center during both small emergencies and large disasters. The Current EOC is Located at 3400 Middle Side Road and Lacks many of the considerations necessary for a fully functional EOC.

There are five primary considerations for the design of an Emergency Operations Center:

- Survivability
- Redundancy

- Communications
- Flexibility and Open Architecture
- Security

These design considerations are important even if you are remodelling a building to become your EOC, or modifying and improving an existing EOC.

Survivability

It is critical that your EOC remains operational during an emergency. If you must relocate your operations to another facility without the same Capacity and technology as your EOC, it can put you and your response operation at a severe disadvantage, and fighting to regain control of an event.

The EOC should be located away from high hazard areas and in a survivable building. In our modern culture this may be difficult, since there are hazards, natural or technological almost everywhere. There should be separation from highways, railroads, pipelines, hazardous material sites, and the like.

Location of the facility is driven by many factors including space availability, political decisions, accessibility, and proximity to potential hazards. You may not have a choice of locations. You are assigned a building and space based on its availability. In this case you must take every action possible to harden the facility to survive a disaster. Examine all mitigation measures available to you. Consider measures to protect staff from airborne vapour hazards by having systems in place to either filter air intakes, or to shut air handling systems down to allow for sheltering in place.

Redundancy

Redundancy is closely allied with survivability. Your facility survivability is linked to the number of redundant systems that support it. The challenge is that when designing, building and modifying a facility, redundancy is not valued.

In this era of tight budgets, you can expect considerable opposition to having multiple systems backing up existing systems. It is not that hard to convince a budget person that a generator is needed for an EOC. Convincing the budget office that you need a second generator to back up the emergency generator can be another issue. Experience tells us that one thing you can count on in a power outage is that generators will fail.

Other redundant systems to consider include heating, cooling, and water supplies. We have become more technology dependent in our need to keep electronic systems cooled and functioning. With outside temperatures over 90 degrees, the air conditioning unit in the EOC could fail, causing uncomfortable working conditions for those inside. Worse than human discomfort, communications systems could be lost.

How much fuel and other supplies do you need on site in order to be self-contained and functional following a disaster? The national level message of three days for individuals and families is not adequate for EOCs. With a catastrophic event that includes transportation challenges it would be appropriate to plan for 7-10 days of fuel and other supplies.

Communications

The EOC exists to gain and maintain situational awareness and to coordinate the use of resources to restore operations and to recover from the impact of a disaster. To do this requires multiple communications systems.

Having communications system redundancy is extremely important. Hard line phones, cellular communications, satellite phones, and multiple radio systems are all necessary to ensure continuous operations and linkage with the rest of the world. Amateur radio groups have provided communications links for decades during disasters and are still used today as backup communications to highly sophisticated radio systems. Every EOC should have amateur radio equipment and operators available to help during times when other methods of communications fail or need augmentation.

Consider having multiple communications paths for your T1 lines and other ground cable based systems. You don't want one errant backhoe to take out your entire operation. The move to Voice over Internet Protocol (VoIP) phone systems are wonderful for generating day to day cost savings. However, it exposes you to another vulnerability of having an internet outage. And, in this era of Private Branch Exchange (PBX) phone systems, it is still a good idea to have a few POTs (Plain Old Telephone) lines that run from your facility straight to the telephone company's main switch.

A functioning television can help you obtain and maintain situational awareness. Television systems can be made redundant. An EOC can have cable television, backed up by a satellite system and then an antenna on the roof if the other higher technology systems fail.

Flexibility and Open Architecture

What are the new technology systems that will be employed in the next 20-40 years? If you are building a new EOC, flexibility is one of the things that you need to consider. Design flexibility for scalable operations and also for new technology and mission requirements.

Examples are:

Space needs already exceed space availability by the time the facility is constructed and occupied

Not planning for adequate space for technology systems and pathways has limited improvements in this area.

As much as possible, factor in future growth in staffing, and technology in your design. You will need to make your case to budget staff whose only role is keeping a lid on your expenditures for the facility.

While technology systems of today are much smaller than their ancestors of 20 years ago, they still require space and cabling. No matter where the computer room is, wires must run from that location to your various work locations. Always plan for expansion when determining the diameter of your communications pipes running from the server room to administrative and operational areas.

Raised flooring is another consideration for allowing the maximum flexibility for the routing and distribution of your various communications and IT systems. The balancing aspect will once again be the cost of raised flooring over other less expensive alternatives that don't provide the same level of flexibility.

You should plan ahead for the use of all available spaces. For instance, you might have an area designated as storage. During the design phase have this space configured with systems such as electrical power and communications so that it can serve as future office space. This will allow for additional staff growth even when you are not able to get dedicated funding for it in your existing administrative spaces.

Many times EOCs are not dedicated spaces, but serve as conference or training rooms during non-emergency times. Consider the use of flexible wall systems so that you can configure your space based upon needs. In some cases you will have minor emergencies and in others you may need to grow the facility to handle a catastrophe. Wide hallways allow for the movement of people quickly and efficiently. It also allows for the natural ad hoc meetings to occur as people walk through the building without blocking the operations of the facility as a whole.

Security

You should be considering what types of threats are emerging worldwide and not discount the fact that those types of attacks might be employed here during the lifetime of the facility.

Layered levels of security are always a good route to take. You might have one level for day to day operations when the threat is lower and then increasing measures as the threat escalates.

Access control in the form of card readers, fencing, gates, security checkpoints and biometric devices might be appropriate. Cameras are cost effective measures for access control and as a deterrent to surveillance operations against your facility.

Designing the driving approach to your facility is easily done for new construction. Eliminating running starts and having barriers in place to stop cars and trucks from getting close to your facility are appropriate measures. EOCs located in urban areas may not have this luxury.

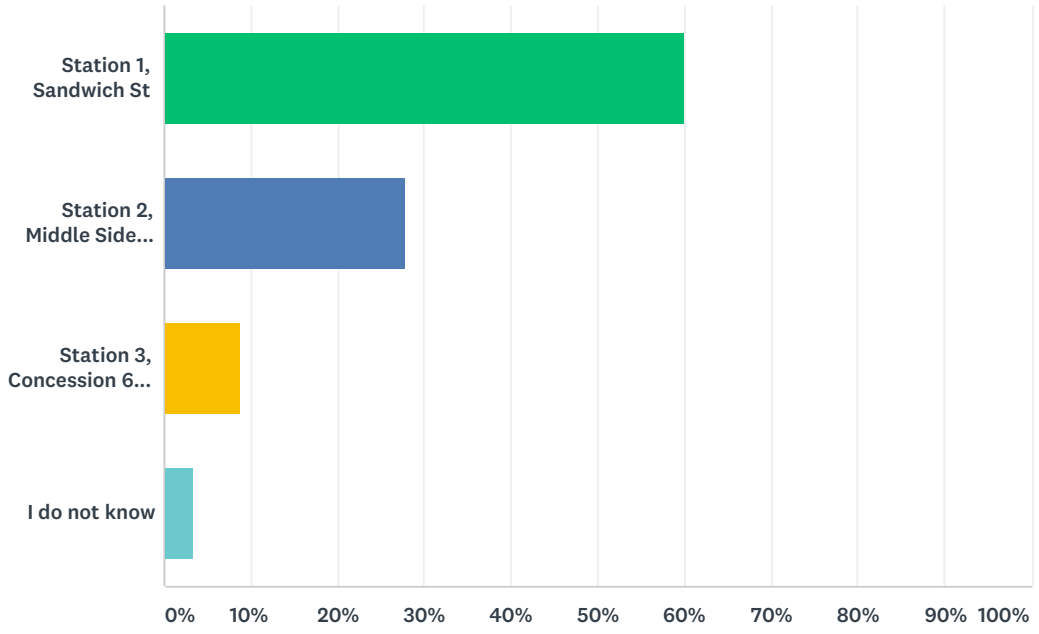
Protecting staff by putting blast film over windows is another consideration. Just remember that these films, while minimizing glass shattering, also block radio waves from entering your building, so some form of repeater system may be needed for your communications systems.

EOCs are probably not primary targets for terrorists, but they would make excellent secondary targets for follow-up attacks, since they will be activated and full of people responding to the situation.

R-33) It is recommended that a proper EOC be designed and situated to ensure a proper robust facility that aides in the management of emergencies that occur within the Town.

Q1 What Station response area do you live in?

Answered: 90 Skipped: 0



ANSWER CHOICES	RESPONSES	
Station 1, Sandwich St	60.00%	54
Station 2, Middle Side Road	27.78%	25
Station 3, Concession 6 South	8.89%	8
I do not know	3.33%	3
TOTAL		90

Q2 What is the name of your street?

Answered: 87 Skipped: 3

ANSWER CHOICES	RESPONSES	
Street	100.00%	87

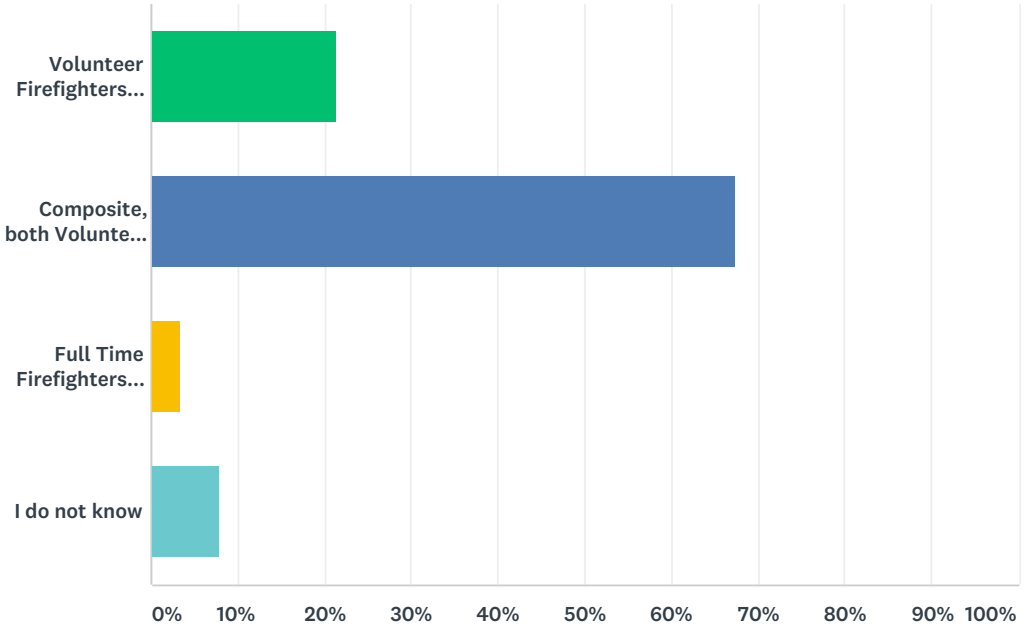
#	STREET	DATE
1	Brock	8/23/2019 5:51 AM
2	Mediterranean	8/22/2019 6:34 PM
3	Atlantic	8/22/2019 5:38 PM
4	Conc 2	8/22/2019 5:36 PM
5	Illinois	8/22/2019 5:29 PM
6	Concession 2 north	8/22/2019 4:40 PM
7	Virginia	8/22/2019 2:36 PM
8	front rd	8/18/2019 6:28 PM
9	Gore St.	8/16/2019 8:35 AM
10	Alma	8/13/2019 7:57 PM
11	Fryer	8/13/2019 10:10 AM
12	Alma	8/12/2019 5:32 PM
13	Creek	8/12/2019 6:14 AM
14	forhan	8/12/2019 4:53 AM
15	Turner cres	8/11/2019 6:35 AM
16	Front Rd North	8/11/2019 4:14 AM
17	Richmond	8/10/2019 10:49 AM
18	6th concession north	8/9/2019 3:34 PM
19	Lakewood Drive	8/9/2019 4:52 AM
20	County Road # 20	8/9/2019 3:27 AM
21	Pointe West Drive	8/8/2019 11:35 AM
22	Front Road	8/8/2019 7:38 AM
23	Erie	8/7/2019 6:58 PM
24	king	8/7/2019 6:41 PM
25	Whelan	8/7/2019 6:16 PM
26	Golfview	8/7/2019 2:31 PM
27	Park Lane Circle	8/7/2019 11:05 AM
28	Sandwich	8/7/2019 10:25 AM
29	Rankin	8/7/2019 5:11 AM
30	forhan st	8/7/2019 4:09 AM
31	Front Road S	8/6/2019 7:09 PM
32	Bratt Dr.	8/6/2019 6:28 PM
33	Summer Ridge	8/6/2019 6:06 PM

34	dot	8/6/2019 6:01 PM
35	Golfview	8/6/2019 4:34 PM
36	Fryer	8/6/2019 4:28 PM
37	Rankin Ave	8/6/2019 4:26 PM
38	McBride road	8/6/2019 4:20 PM
39	Richmond st	8/6/2019 3:54 PM
40	Alma	8/6/2019 3:46 PM
41	Lake Erie drive	8/6/2019 3:37 PM
42	Wigle	8/6/2019 3:34 PM
43	Forest Hill Cres.	8/6/2019 3:34 PM
44	Heaton	8/6/2019 3:28 PM
45	Riverfront PK Cres	8/6/2019 3:27 PM
46	Hawthorn	8/6/2019 2:46 PM
47	Brush Crescent	8/6/2019 2:06 PM
48	King	8/6/2019 2:04 PM
49	Lake Erie drive	8/6/2019 1:58 PM
50	Poplar court	8/6/2019 1:54 PM
51	Reynolds	8/6/2019 1:22 PM
52	North	8/6/2019 1:21 PM
53	Texas	8/6/2019 12:53 PM
54	Richmond st	8/6/2019 12:49 PM
55	Concession 3n	8/6/2019 12:37 PM
56	Bastien	8/6/2019 12:25 PM
57	Stone Ridge	8/6/2019 12:12 PM
58	shaw drive	8/6/2019 12:09 PM
59	Victoria street south	8/6/2019 12:07 PM
60	Hilton Crt.	8/6/2019 12:03 PM
61	Walnut	8/6/2019 12:02 PM
62	Malden hill	8/6/2019 11:51 AM
63	South Riverview Dr	8/6/2019 11:26 AM
64	Tennessee Cr	8/6/2019 11:14 AM
65	States Ave	8/3/2019 8:33 AM
66	Sandwich St. N	8/3/2019 6:28 AM
67	Cherrylawn	8/3/2019 6:03 AM
68	Stone Ridge Avenue	8/3/2019 6:01 AM
69	Conc 5N	8/2/2019 11:49 AM
70	Concession 3 N	8/2/2019 5:32 AM
71	Victoria St N	8/1/2019 9:40 AM
72	McCurdy dr	8/1/2019 9:21 AM
73	Front Road	8/1/2019 9:02 AM
74	Birdie	8/1/2019 8:19 AM

75	hyde park	8/1/2019 7:48 AM
76	Mickle	8/1/2019 7:44 AM
77	McCurdy Dr	8/1/2019 4:30 AM
78	county rd 20	8/1/2019 4:15 AM
79	Eggleton	7/31/2019 8:06 PM
80	Pointe west drive	7/31/2019 3:05 PM
81	Bratt	7/31/2019 9:24 AM
82	brush	7/31/2019 8:35 AM
83	Greenway Court	7/30/2019 6:10 PM
84	Cambridge Crt	7/30/2019 10:48 AM
85	Alma st	7/30/2019 9:40 AM
86	Alma	7/30/2019 9:12 AM
87	Sandwich	7/29/2019 4:35 PM

Q3 What type of response do you believe you are receiving from your station?

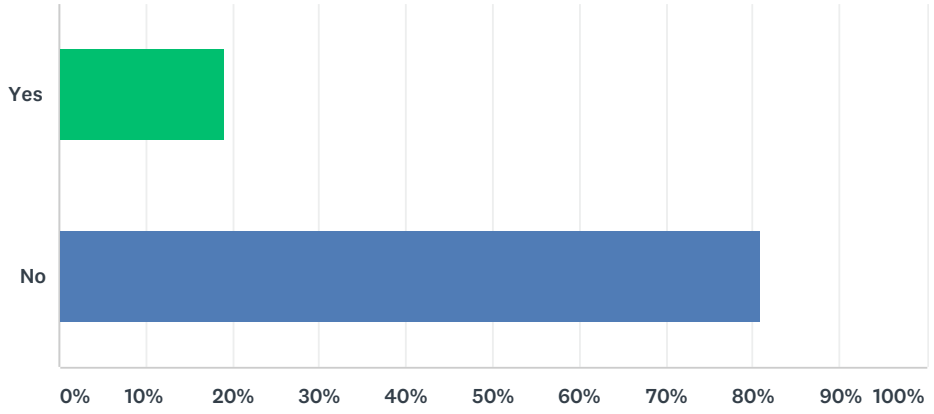
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Volunteer Firefighters (Paid On Call) only	21.35%	19
Composite, both Volunteers (Paid On Call) and Full Time Firefighters	67.42%	60
Full Time Firefighters only	3.37%	3
I do not know	7.87%	7
TOTAL		89

Q4 Have you directly received service from the Amherstburg Fire Department?

Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	19.10%	17
No	80.90%	72
TOTAL		89

Q5 What is your general feeling of the Amherstburg Fire Department in relation to:Its level of professionalism Community safety and responsePublic education and fire prevention programs

Answered: 85 Skipped: 5

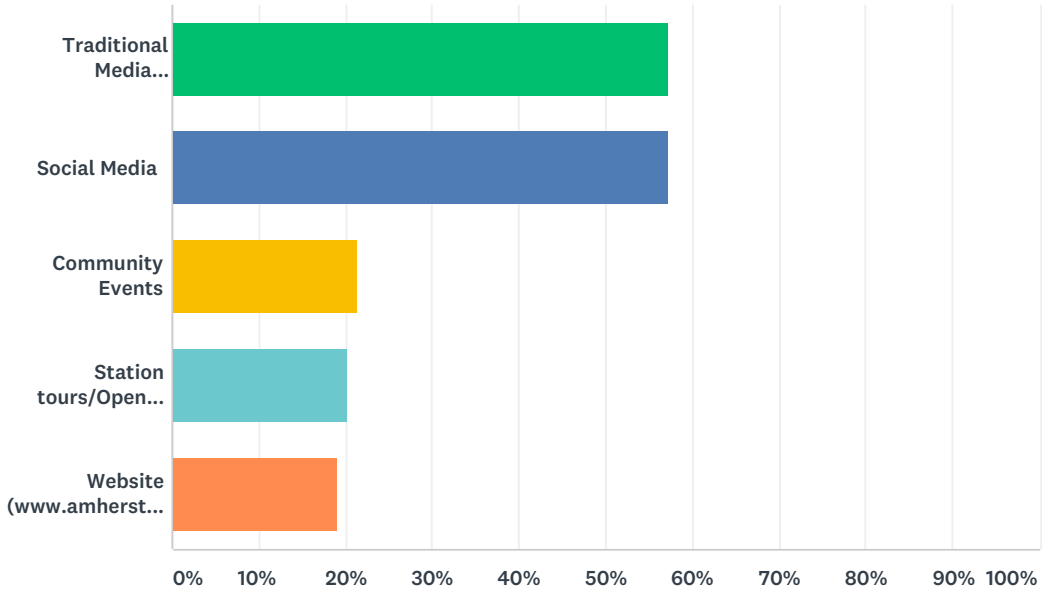
#	RESPONSES	DATE
1	First class very professional	8/23/2019 5:51 AM
2	Good work..great people	8/22/2019 6:34 PM
3	Don’t know	8/22/2019 5:38 PM
4	Top notch	8/22/2019 5:36 PM
5	Average	8/22/2019 5:29 PM
6	Satisfied	8/22/2019 4:40 PM
7	Amherstburg Fire does a excellent job being role models in the community and teaching kids about fire safety through the various community events	8/22/2019 2:36 PM
8	Wonderful service and response times are on point. It is comforting to know if any state of emergency that they can be so close to home for us and quick.	8/18/2019 6:28 PM
9	I feel the Amherstburg Fire Department provides excellent service. I have complete confidence in the abilities of all officers and firefighters and believe they do a good job with fire safety.	8/16/2019 8:35 AM
10	Professional, capable, and quick response times. Public Education and communications could be improved.	8/13/2019 7:57 PM
11	doing at great job	8/13/2019 10:10 AM
12	Great group of people doing a great job	8/12/2019 5:32 PM
13	Great staff!	8/12/2019 6:14 AM
14	ok	8/12/2019 4:53 AM
15	It is a very dedicated fire service	8/11/2019 6:35 AM
16	I feel the Fire department is doing a great and amazing job	8/11/2019 4:14 AM
17	Very informative	8/10/2019 10:49 AM
18	No idea	8/9/2019 3:34 PM
19	Good	8/9/2019 4:52 AM
20	Reliable, Professional and well trained individuals.	8/9/2019 3:27 AM
21	No opinion	8/8/2019 11:35 AM
22	Don't know - never had contact	8/8/2019 7:38 AM
23	Ok	8/7/2019 6:58 PM
24	i do not know.	8/7/2019 6:41 PM
25	Don’t see much community events other then school safety visits	8/7/2019 6:16 PM
26	Not Suffient	8/7/2019 2:31 PM
27	Well done	8/7/2019 11:05 AM
28	Why is our fire chief from out of town, disappointing . I’ve lived here 41 yrs, and I’m sure we have enough experienced fireman to fill that job	8/7/2019 10:25 AM
29	From what I know it is excellent	8/7/2019 5:11 AM
30	Excellent	8/7/2019 4:09 AM

31	Total respect for AFD.	8/6/2019 7:09 PM
32	Good	8/6/2019 6:28 PM
33	Fine	8/6/2019 6:06 PM
34	good	8/6/2019 6:01 PM
35	I think you guys do a great job. Very professional. Love the community participation.	8/6/2019 4:34 PM
36	I have no data on this to give an opinion	8/6/2019 4:28 PM
37	current firefighters are professional, our experience when we had a fire was exceptional. Possibly more could be done in area of public education and fire prevention	8/6/2019 4:26 PM
38	Very good	8/6/2019 4:20 PM
39	Welcoming and professional	8/6/2019 3:46 PM
40	Great. My neighbour needed their services recently, very professional.	8/6/2019 3:37 PM
41	I have had no reason to believe that I would not receive top qualify, professional, timely response from the Amherstburg Fire Department	8/6/2019 3:34 PM
42	Awesome	8/6/2019 3:34 PM
43	Great	8/6/2019 3:28 PM
44	excellent	8/6/2019 3:27 PM
45	Good	8/6/2019 2:46 PM
46	Top notch!	8/6/2019 2:06 PM
47	Seems to be fine	8/6/2019 2:04 PM
48	No comment	8/6/2019 1:58 PM
49	Good	8/6/2019 1:54 PM
50	Meets expectations	8/6/2019 1:22 PM
51	Very disappointed in the language used by the volunteer fireman using the truck to spray splash pad on Canada Day certainly not professional!!!!! This language should be kept at the fireball and not used at a Canada Day community event!	8/6/2019 1:21 PM
52	I don't know. Wish they did an open house for families to learn	8/6/2019 12:53 PM
53	Very good	8/6/2019 12:49 PM
54	Good	8/6/2019 12:37 PM
55	Not aware of anything in resent years.	8/6/2019 12:25 PM
56	They seem good to me.	8/6/2019 12:12 PM
57	I think they are professional and very community minded, would like to see more full time fire fighters and less reliance on the volunteers.	8/6/2019 12:09 PM
58	I think they are terrific very professional and they take their job very serious!	8/6/2019 12:07 PM
59	Professional and approachable.	8/6/2019 12:03 PM
60	Excellent	8/6/2019 12:02 PM
61	Ok	8/6/2019 11:51 AM
62	excellent	8/6/2019 11:26 AM
63	No opinion	8/6/2019 11:14 AM
64	Very good	8/3/2019 8:33 AM
65	I feel they are doing a good job...would love to see even more kid focused education programs!	8/3/2019 6:28 AM

66	I know they do a wonderful job. They were the first responders when my daughter was hit by a car. I am so grateful to the firefighters who kept me calm and made me feel like everything was going to be alright. Amazing group of people.	8/3/2019 6:03 AM
67	It's fine. That seems like a strange question.	8/3/2019 6:01 AM
68	Have not had need of fire department fortunately but would like to think they would exude the professionalism expected of their positions. I do always read their messages out front of fire station and find information good reminders to do our part	8/2/2019 11:49 AM
69	good	8/2/2019 5:32 AM
70	good	8/1/2019 9:40 AM
71	Very good	8/1/2019 9:21 AM
72	Awesome	8/1/2019 9:02 AM
73	Excellent	8/1/2019 8:19 AM
74	fine	8/1/2019 7:48 AM
75	A professional service that is working hard for the people of Amherstburg	8/1/2019 7:44 AM
76	Its excellent. The best better not get rid of it like the police. That was pathetic.	8/1/2019 4:30 AM
77	Professional and always going above and beyond to get the job done.	8/1/2019 4:15 AM
78	Don't see much public engagement. That's hard to do as a volunteer service. Otherwise functions well.	7/31/2019 8:06 PM
79	Second to none.	7/31/2019 3:05 PM
80	Not very involved. Bad social view from what I hear but dont know personally	7/31/2019 9:24 AM
81	They seem to be professional and the community program are great. Have not really dealt with them much.	7/31/2019 8:35 AM
82	Good service	7/30/2019 10:48 AM
83	I think they are very professional and my son loves every time he gets to meet them and see them at events	7/30/2019 9:40 AM
84	Very caring and attentive	7/30/2019 9:12 AM
85	Good	7/29/2019 4:35 PM

Q6 How do you currently receive information about fire safety, smoke and CO alarm programs, and other programs offered by Amherstburg Fire Department?

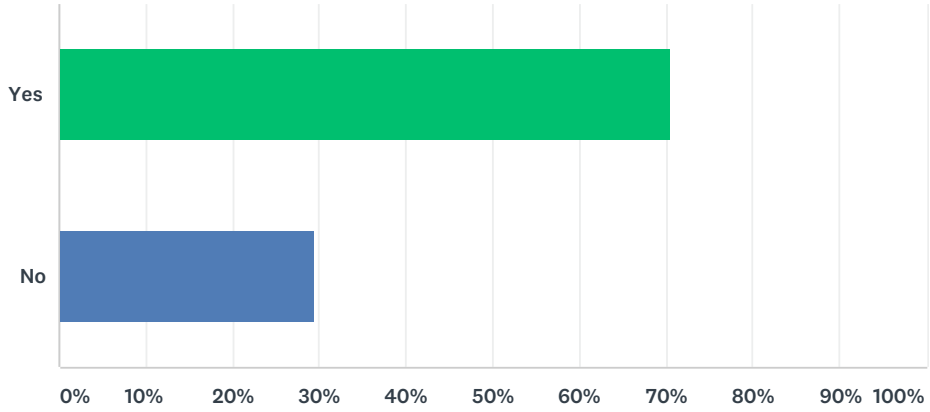
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Traditional Media (Newspapers, Mail-outs, Radio)	57.30%	51
Social Media	57.30%	51
Community Events	21.35%	19
Station tours/Open Houses	20.22%	18
Website (www.amherstburgfire.com)	19.10%	17
Total Respondents: 89		

Q7 Do you feel that you have had enough opportunities to receive that information?

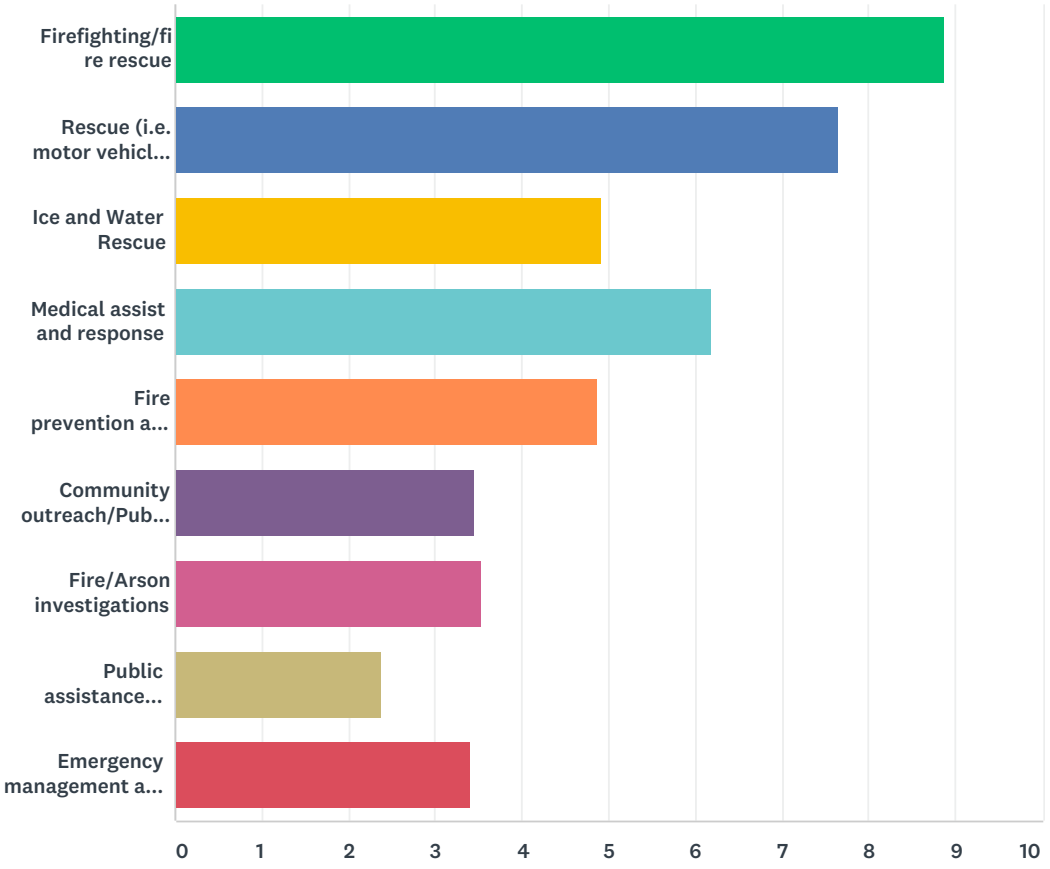
Answered: 88 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	70.45%	62
No	29.55%	26
TOTAL		88

Q8 There are nine core services delivered by the Amherstburg Fire Department. Which services are most important to you? Please rank in order of priority from 1 (most important) to 9 (least important). Please use each number only once and use all nine numbers.

Answered: 89 Skipped: 1



	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
Firefighting/fire rescue	90.70% 78	6.98% 6	1.16% 1	1.16% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	86	8.87
Rescue (i.e. motor vehicle accidents)	3.53% 3	76.47% 65	12.94% 11	3.53% 3	1.18% 1	0.00% 0	0.00% 0	1.18% 1	1.18% 1	85	7.65
Ice and Water Rescue	0.00% 0	3.53% 3	22.35% 19	21.18% 18	16.47% 14	12.94% 11	9.41% 8	3.53% 3	10.59% 9	85	4.92
Medical assist and response	2.35% 2	8.24% 7	44.71% 38	23.53% 20	9.41% 8	3.53% 3	3.53% 3	1.18% 1	3.53% 3	85	6.19
Fire prevention and fire code inspections	3.49% 3	2.33% 2	8.14% 7	20.93% 18	27.91% 24	15.12% 13	11.63% 10	9.30% 8	1.16% 1	86	4.87
Community outreach/Public fire safety education	0.00% 0	1.20% 1	4.82% 4	4.82% 4	13.25% 11	22.89% 19	25.30% 21	12.05% 10	15.66% 13	83	3.46

Fire/Arson investigations	1.19% 1	0.00% 0	3.57% 3	8.33% 7	17.86% 15	13.10% 11	25.00% 21	20.24% 17	10.71% 9	84	3.54
Public assistance requests/Non-emergency responses	0.00% 0	1.18% 1	0.00% 0	4.71% 4	4.71% 4	10.59% 9	11.76% 10	31.76% 27	35.29% 30	85	2.38
Emergency management and planning	1.19% 1	2.38% 2	3.57% 3	10.71% 9	8.33% 7	20.24% 17	13.10% 11	20.24% 17	20.24% 17	84	3.42

Q9 Are there any additional services that you believe should be provided in relation to fire prevention, fire safety education and response to emergencies? If so, please specify.

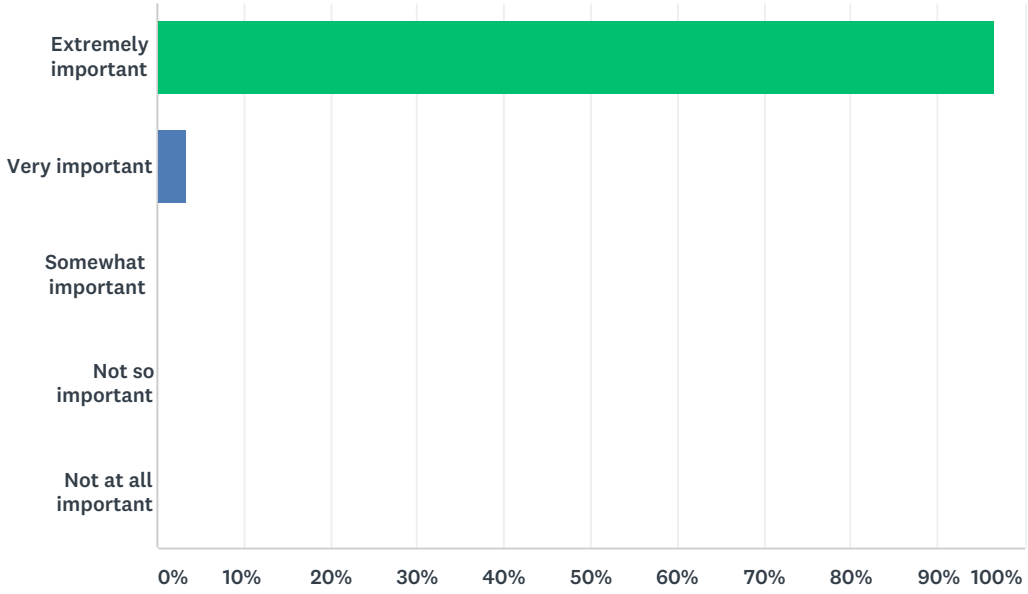
Answered: 55 Skipped: 35

#	RESPONSES	DATE
1	No	8/22/2019 5:38 PM
2	No	8/22/2019 5:36 PM
3	No	8/22/2019 4:40 PM
4	No	8/22/2019 2:36 PM
5	Please keep fire dept as is with no changes.....why fix something that isnt broken	8/18/2019 6:28 PM
6	Perhaps more social media posts regarding fire safety and updates on calls, severity of specific calls and those type of updates.	8/16/2019 8:35 AM
7	Safety tips and public outreach. Start an "Ask a Firefighter" forum on your webpage so that the public can ask questions or share concerns and get a response	8/13/2019 7:57 PM
8	No	8/12/2019 5:32 PM
9	n/a	8/12/2019 6:14 AM
10	Increase full time firefighters	8/11/2019 6:35 AM
11	none	8/11/2019 4:14 AM
12	No	8/9/2019 3:34 PM
13	No	8/9/2019 4:52 AM
14	No.	8/9/2019 3:27 AM
15	no	8/8/2019 11:35 AM
16	no	8/8/2019 7:38 AM
17	No	8/7/2019 6:58 PM
18	no	8/7/2019 6:41 PM
19	Local disaster plans	8/7/2019 6:16 PM
20	No	8/7/2019 11:05 AM
21	no	8/7/2019 4:09 AM
22	Na	8/6/2019 6:06 PM
23	no	8/6/2019 6:01 PM
24	No	8/6/2019 4:34 PM
25	Not that I can think of	8/6/2019 4:28 PM
26	No	8/6/2019 4:20 PM
27	The latest equipment	8/6/2019 3:37 PM
28	No	8/6/2019 3:34 PM
29	No	8/6/2019 3:28 PM
30	none	8/6/2019 3:27 PM
31	No	8/6/2019 2:46 PM

32	No	8/6/2019 2:06 PM
33	No	8/6/2019 2:04 PM
34	No comment	8/6/2019 1:58 PM
35	No	8/6/2019 1:22 PM
36	No	8/6/2019 1:21 PM
37	No	8/6/2019 12:53 PM
38	No	8/6/2019 12:37 PM
39	No	8/6/2019 12:25 PM
40	No	8/6/2019 12:12 PM
41	n/a	8/6/2019 12:09 PM
42	no	8/6/2019 12:03 PM
43	not sure	8/6/2019 11:26 AM
44	No opinion	8/6/2019 11:14 AM
45	I believe the firefighters should be more involved with our schools. More open houses would be nice. I have 2 small children and my 3 year old loves the fire trucks and I would love to see them more in the community especially for our children.	8/3/2019 6:03 AM
46	I think with the shortage of EMS, that the fire department should respond to medical calls too.	8/3/2019 6:01 AM
47	Full time department	8/1/2019 9:02 AM
48	No	8/1/2019 8:19 AM
49	no	8/1/2019 7:48 AM
50	Like it how it is do not get rid of our fire department	8/1/2019 4:30 AM
51	no	8/1/2019 4:15 AM
52	No	7/31/2019 8:06 PM
53	No	7/31/2019 3:05 PM
54	More active planning/ preparation and information regarding fermi 2	7/31/2019 9:24 AM
55	None I can think of	7/30/2019 9:40 AM

Q10 How quickly the Fire Department gets to me if I have an emergency

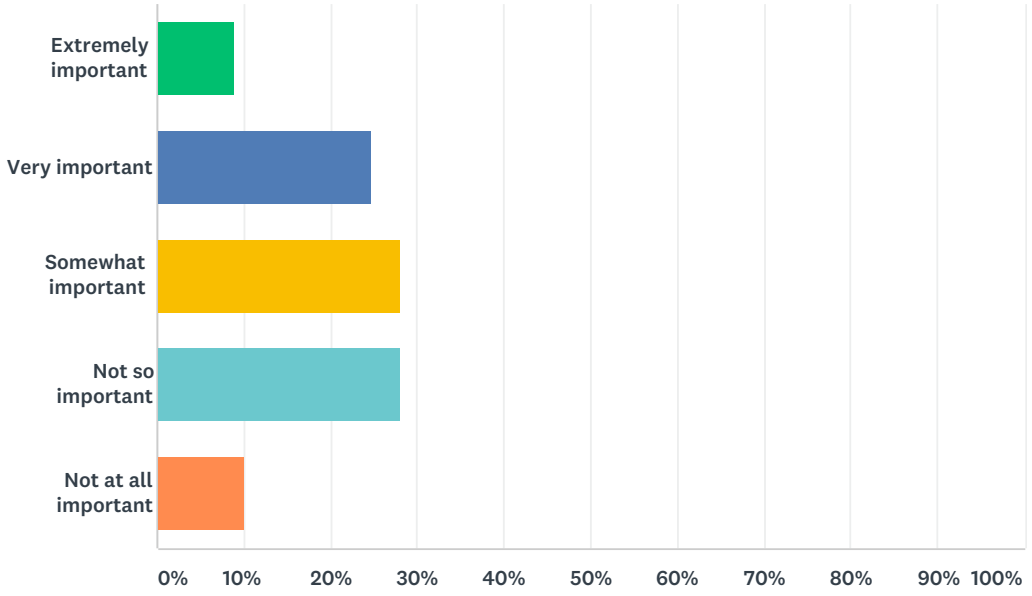
Answered: 90 Skipped: 0



ANSWER CHOICES	RESPONSES	
Extremely important	96.67%	87
Very important	3.33%	3
Somewhat important	0.00%	0
Not so important	0.00%	0
Not at all important	0.00%	0
TOTAL		90

Q11 Whether the Fire Department will visit my home to give me safety advice and/or install/inspect smoke and CO alarms

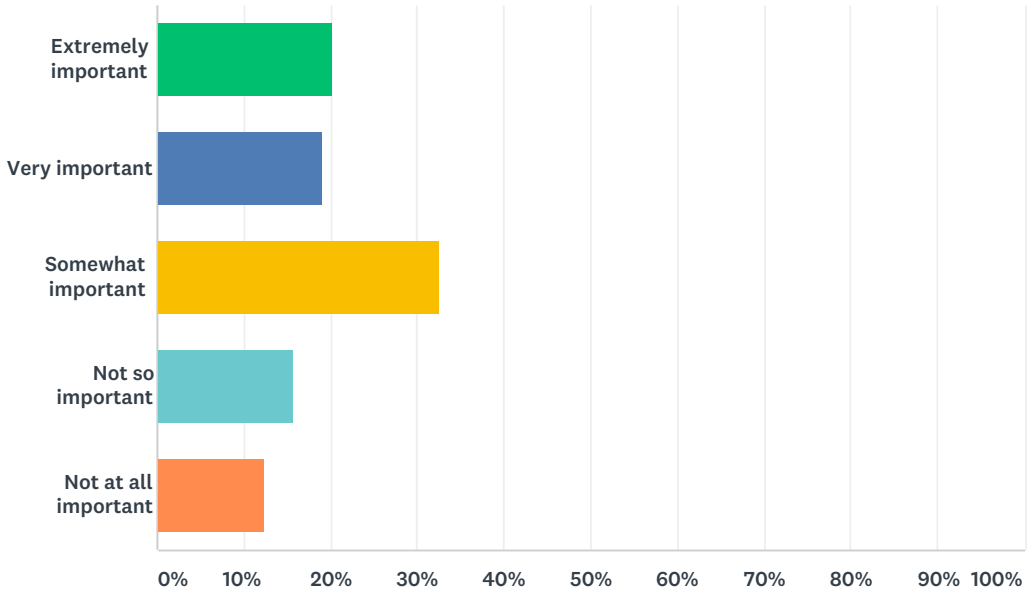
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	8.99%	8
Very important	24.72%	22
Somewhat important	28.09%	25
Not so important	28.09%	25
Not at all important	10.11%	9
TOTAL		89

Q12 How much the fire services costs me as a tax payer

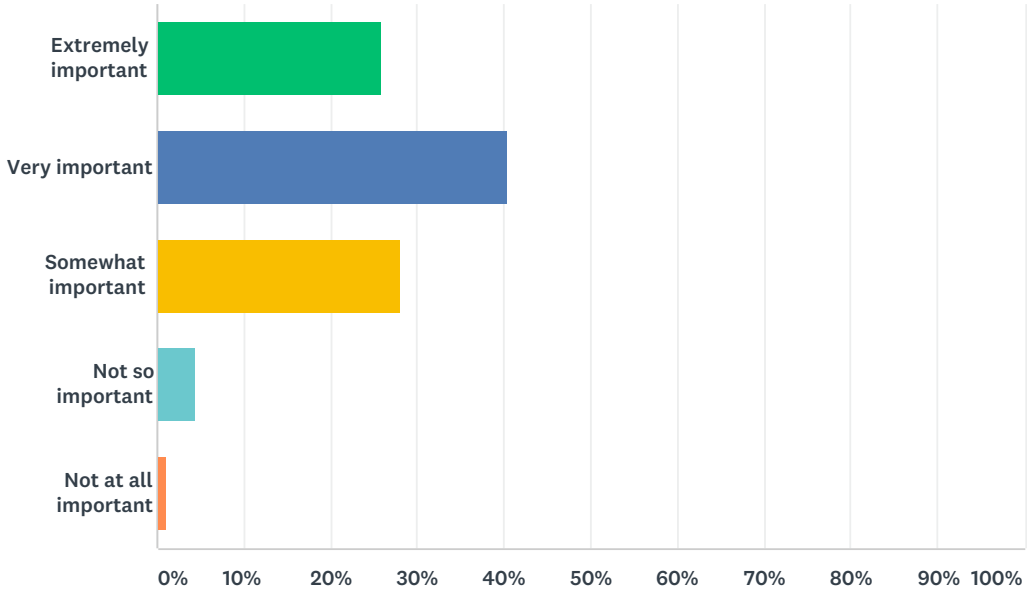
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	20.22%	18
Very important	19.10%	17
Somewhat important	32.58%	29
Not so important	15.73%	14
Not at all important	12.36%	11
TOTAL		89

Q13 How well the Fire Department works with other agencies to provide wider community safety services

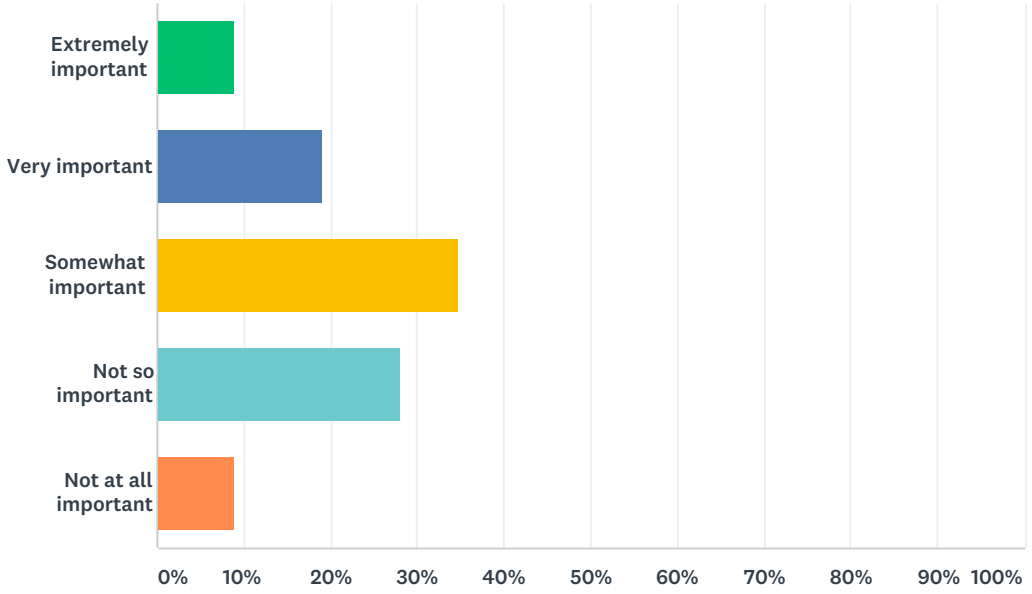
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	25.84%	23
Very important	40.45%	36
Somewhat important	28.09%	25
Not so important	4.49%	4
Not at all important	1.12%	1
TOTAL		89

Q14 How often the Fire Department consults me about their services

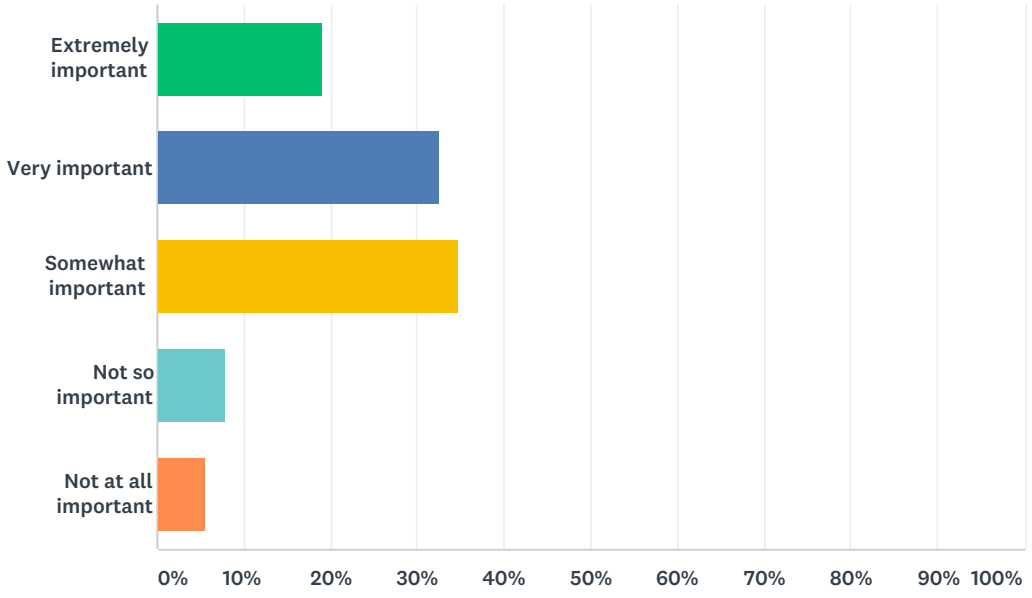
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	8.99%	8
Very important	19.10%	17
Somewhat important	34.83%	31
Not so important	28.09%	25
Not at all important	8.99%	8
TOTAL		89

Q15 How often the Fire Department provides community training opportunities (e.g. fire extinguisher training; school safety programs; older and wiser program; smoke and CO alarms; fire escape planning)

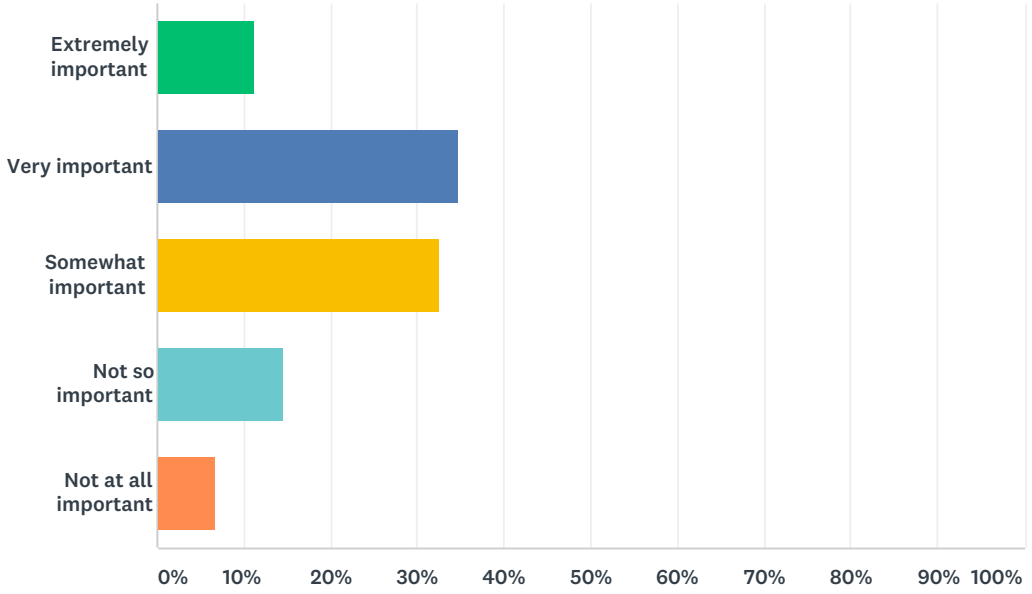
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	19.10%	17
Very important	32.58%	29
Somewhat important	34.83%	31
Not so important	7.87%	7
Not at all important	5.62%	5
TOTAL		89

Q16 How visible the Fire Department is at local community events

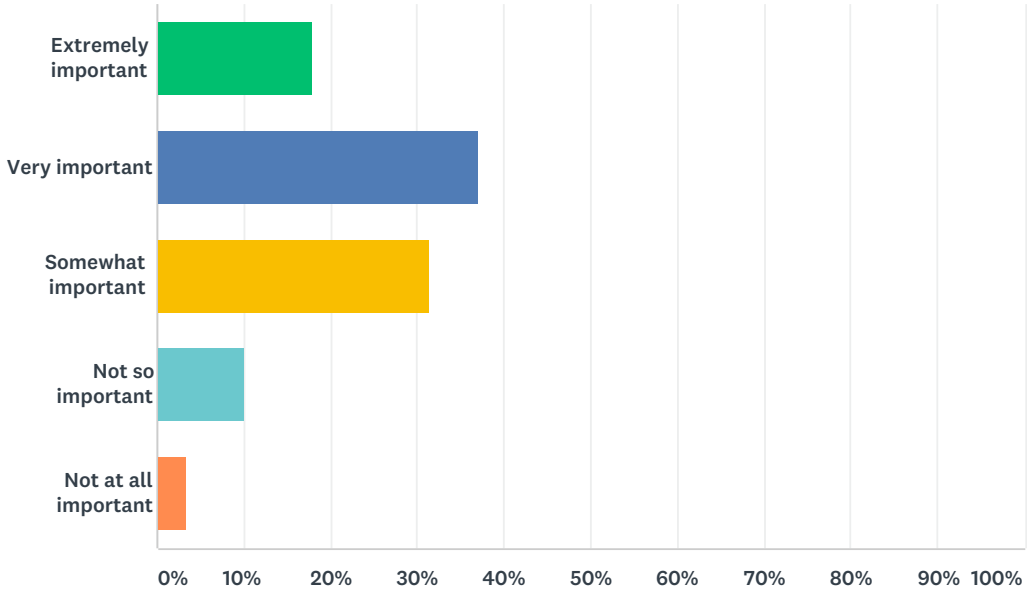
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	11.24%	10
Very important	34.83%	31
Somewhat important	32.58%	29
Not so important	14.61%	13
Not at all important	6.74%	6
TOTAL		89

Q17 Help contacting assisting services after an emergency (Victim Services, Red Cross, Insurance)

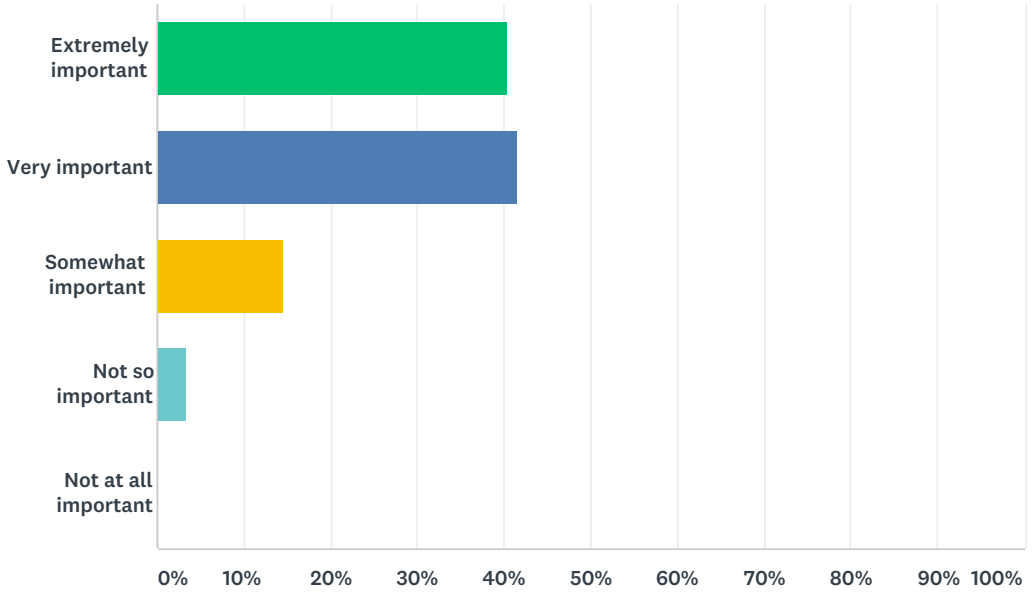
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	17.98%	16
Very important	37.08%	33
Somewhat important	31.46%	28
Not so important	10.11%	9
Not at all important	3.37%	3
TOTAL		89

Q18 Timeliness to any request for services or assistance from the Fire Department

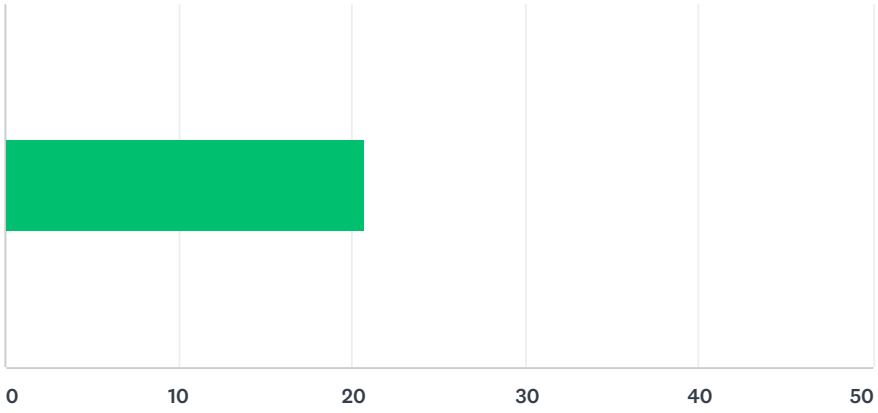
Answered: 89 Skipped: 1



ANSWER CHOICES	RESPONSES	
Extremely important	40.45%	36
Very important	41.57%	37
Somewhat important	14.61%	13
Not so important	3.37%	3
Not at all important	0.00%	0
TOTAL		89

Q19 If you or a family member experiences a fire emergency, what is the minimum amount of firefighters you expect to respond? (The fire department has a total of 3 stations and 67 staff members equally distributed among the stations)

Answered: 87 Skipped: 3



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	21	1,801	87
Total Respondents: 87			

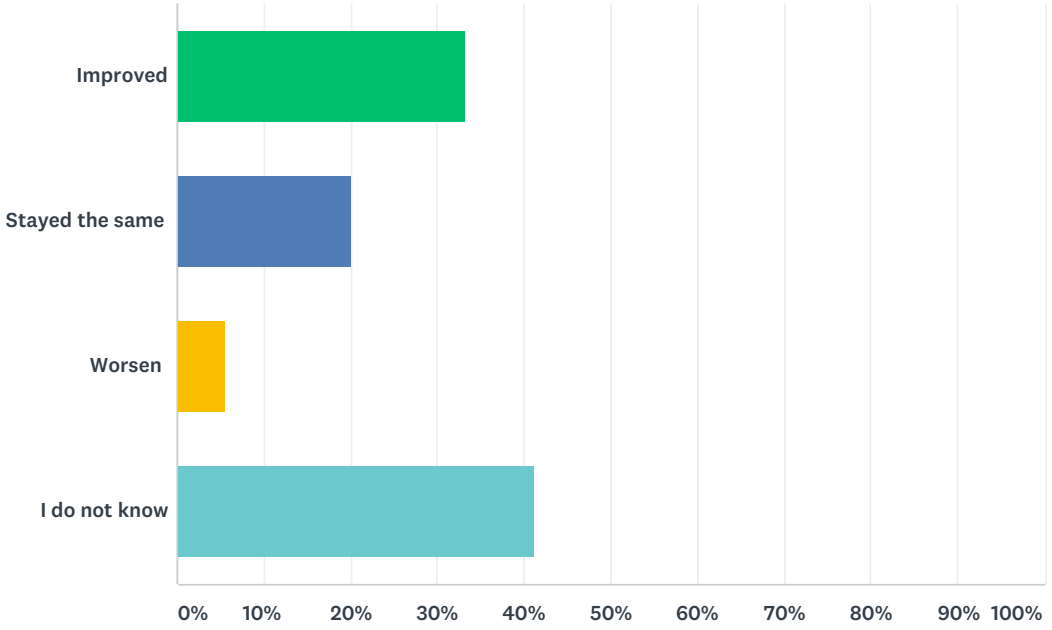
#		DATE
1	8	8/23/2019 5:51 AM
2	21	8/22/2019 6:34 PM
3	4	8/22/2019 5:38 PM
4	10	8/22/2019 5:36 PM
5	10	8/22/2019 5:29 PM
6	67	8/22/2019 4:40 PM
7	7	8/22/2019 2:36 PM
8	10	8/18/2019 6:28 PM
9	20	8/16/2019 8:35 AM
10	3	8/13/2019 7:57 PM
11	67	8/13/2019 10:10 AM
12	25	8/12/2019 5:32 PM
13	15	8/12/2019 6:14 AM
14	10	8/12/2019 4:53 AM
15	5	8/11/2019 4:41 PM
16	22	8/11/2019 6:35 AM
17	20	8/11/2019 4:14 AM
18	18	8/10/2019 10:49 AM
19	15	8/9/2019 3:34 PM

20	8	8/9/2019 4:52 AM
21	67	8/9/2019 3:27 AM
22	100	8/8/2019 11:35 AM
23	10	8/8/2019 7:38 AM
24	3	8/7/2019 6:58 PM
25	8	8/7/2019 6:41 PM
26	11	8/7/2019 6:16 PM
27	3	8/7/2019 2:31 PM
28	10	8/7/2019 11:05 AM
29	11	8/7/2019 10:25 AM
30	10	8/7/2019 5:11 AM
31	94	8/6/2019 7:09 PM
32	14	8/6/2019 6:28 PM
33	5	8/6/2019 6:06 PM
34	2	8/6/2019 6:01 PM
35	20	8/6/2019 4:34 PM
36	6	8/6/2019 4:28 PM
37	32	8/6/2019 4:26 PM
38	11	8/6/2019 4:20 PM
39	12	8/6/2019 3:54 PM
40	11	8/6/2019 3:46 PM
41	40	8/6/2019 3:37 PM
42	10	8/6/2019 3:34 PM
43	10	8/6/2019 3:34 PM
44	30	8/6/2019 3:33 PM
45	10	8/6/2019 3:28 PM
46	21	8/6/2019 3:27 PM
47	6	8/6/2019 2:46 PM
48	10	8/6/2019 2:06 PM
49	12	8/6/2019 2:04 PM
50	15	8/6/2019 1:58 PM
51	6	8/6/2019 1:54 PM
52	20	8/6/2019 1:22 PM
53	10	8/6/2019 1:21 PM
54	12	8/6/2019 12:53 PM
55	4	8/6/2019 12:49 PM
56	10	8/6/2019 12:37 PM
57	10	8/6/2019 12:25 PM
58	100	8/6/2019 12:12 PM
59	23	8/6/2019 12:09 PM
60	40	8/6/2019 12:07 PM

61	25	8/6/2019 12:03 PM
62	13	8/6/2019 12:02 PM
63	51	8/6/2019 11:51 AM
64	5	8/6/2019 11:26 AM
65	10	8/6/2019 11:14 AM
66	8	8/3/2019 8:33 AM
67	10	8/3/2019 6:28 AM
68	5	8/3/2019 6:03 AM
69	8	8/3/2019 6:01 AM
70	34	8/2/2019 5:32 AM
71	25	8/1/2019 9:40 AM
72	19	8/1/2019 9:21 AM
73	20	8/1/2019 9:02 AM
74	30	8/1/2019 8:19 AM
75	20	8/1/2019 7:48 AM
76	20	8/1/2019 7:44 AM
77	100	8/1/2019 4:30 AM
78	67	8/1/2019 4:15 AM
79	12	7/31/2019 8:06 PM
80	10	7/31/2019 3:05 PM
81	9	7/31/2019 9:24 AM
82	15	7/31/2019 8:35 AM
83	20	7/30/2019 6:10 PM
84	12	7/30/2019 10:48 AM
85	15	7/30/2019 9:40 AM
86	30	7/30/2019 9:12 AM
87	4	7/29/2019 4:35 PM

Q20 Over the last three years has the fire service in Amherstburg:

Answered: 90 Skipped: 0



ANSWER CHOICES	RESPONSES	
Improved	33.33%	30
Stayed the same	20.00%	18
Worsen	5.56%	5
I do not know	41.11%	37
TOTAL		90

#	IF YOU ANSWER IMPROVED OR WORSEN: PLEASE EXPLAIN	DATE
1	the employees and volunteers have undergone more training.	8/18/2019 6:28 PM
2	Purchases such as the mobile fire unit at Station 2 and other training methods have enhanced service.	8/16/2019 8:35 AM
3	Seem like we have 50 people show up, and they'll get paid, only to turn around and be gone in 5 minutes. Why do we have so many full time fire fighters, lots of money to give out when you have no fires.	8/7/2019 10:25 AM
4	I just moved here	8/6/2019 6:06 PM
5	Insufficient information	8/6/2019 4:28 PM
6	The Fire Department has become more visible in the past few years. There are always awareness sessions, regarding current issues relating to fire safety, the Iodine Pills initiative/distribution, burn permit outreach/consultations and have been more interactive throughout the community regarding services provided, prevention, education, etc.	8/6/2019 3:34 PM
7	Increased in public education, Fire-fighters visible in community doing positive things like good fellas, toy drive, female recruitment and at rib fest	8/6/2019 1:22 PM
8	I believe they have followed recommendations given by governing bodies, become more community-wise involved and more responsible with both finances and record-keeping	8/3/2019 6:28 AM

9	Nothing to explain. These men and women are amazing.	8/3/2019 6:03 AM
10	It seems to have improved only in that they are on social media more. Otherwise, I don't think there's been a big change.	8/3/2019 6:01 AM
11	Do not get rid of our fire department. Is that what this servay is about. Cut the fat cats at town hall. Hiring like drunken sailors for high paying jobs and taxpayers suffer.	8/1/2019 4:30 AM
12	Negative publicity, hiring friends and family. Needs an overhaul.	7/31/2019 8:06 PM
13	TOOO many full time paid staff doing jobs that used to be volunteer	7/31/2019 6:17 AM
14	I’ve seen more interaction at community events in the past few years and more educational information handed out	7/30/2019 9:40 AM
15	Appears to be quicker response.	7/29/2019 4:35 PM

Q21 Any additional comments

Answered: 40 Skipped: 50

#	RESPONSES	DATE
1	Don’t think of cutting back services	8/22/2019 4:40 PM
2	Overall, the Amherstburg Fire Department does a great job. Additional fire safety tips via social media never hurts, though.	8/16/2019 8:35 AM
3	n/a	8/12/2019 6:14 AM
4	No	8/9/2019 4:52 AM
5	no	8/8/2019 11:35 AM
6	No	8/7/2019 6:58 PM
7	no	8/7/2019 6:41 PM
8	These are not questions to ask the general public - need some kind of expertise in the subject matter	8/7/2019 6:16 PM
9	Very costly	8/7/2019 2:31 PM
10	No	8/7/2019 11:05 AM
11	The AFD has always come to the aid of myself and family. I certainly don't want to see any changes unwarranted.	8/6/2019 7:09 PM
12	Hopefully that the fire department is quick to respond to all calls	8/6/2019 6:06 PM
13	Keep up the great work!	8/6/2019 4:34 PM
14	Nope	8/6/2019 4:28 PM
15	Hi	8/6/2019 3:37 PM
16	No	8/6/2019 3:28 PM
17	none	8/6/2019 3:27 PM
18	No	8/6/2019 2:46 PM
19	No	8/6/2019 2:06 PM
20	Nope	8/6/2019 2:04 PM
21	No	8/6/2019 1:22 PM
22	Do not understand as a taxpayer why we have 3 full time fireman at station 2 making the wages they do and why the Fire Chief does not live within the Amherstburg boundaries, not all fires are from 9-5.	8/6/2019 1:21 PM
23	No	8/6/2019 12:53 PM
24	No	8/6/2019 12:37 PM
25	No	8/6/2019 12:25 PM
26	Nope	8/6/2019 12:12 PM
27	n/a	8/6/2019 12:09 PM
28	Thanks for offering the ability to respond and provide public opinion.	8/6/2019 12:03 PM
29	More community involvement. Please make sure Boblo residents stay safe.	8/3/2019 6:03 AM
30	Residents on Boblo deserve fire protection just like anybody else. Councillor Courtney's idea of surcharging them is ridiculous. Fire service is a basic need.	8/3/2019 6:01 AM

31	I sincerely hope the answers in this survey will be received as stated and not with one's perceived interpretation which we all sometimes tend to do. I do not want to see AFD go in the same directions as APD under any circumstances.	8/2/2019 11:49 AM
32	I hope our AFD does not go the same way that our APS . if the town wants to save money, they should stop senseless spending and stop creating those high paying positions !	8/1/2019 9:21 AM
33	No	8/1/2019 9:02 AM
34	No	8/1/2019 8:19 AM
35	Leave our fire department alone...	8/1/2019 4:30 AM
36	The current fire plan and structure in the Town currently works flawlessly. I believe the 3 halls are dispersed just fine throughout the town for lower response times.	8/1/2019 4:15 AM
37	No	7/31/2019 8:06 PM
38	No	7/31/2019 9:24 AM
39	Keep our fire dept. Don't sell out like you did the police, we have more then enough volunteers. no need for staff.	7/31/2019 6:17 AM
40	Keep up the great job	7/30/2019 9:40 AM

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW 2017 – 67

A By-law to Establish and Regulate the Fire Department

WHEREAS the Municipal Act, 2001, S.O. 2001, c.25, provides that a municipality has the capacity rights, powers and privileges of a natural person for the purpose of exercising its authority under the Act;

AND WHEREAS the Municipal Act, 2001 provides that Sections 8 and 11 shall be interpreted broadly so as to confer broad authority on municipalities to (a) enable municipalities to govern their affairs as they consider appropriate and, (b) enhance their ability to respond to municipal issues;

AND WHEREAS the Fire Protection and Prevention Act, 1997, (FPPA) 1997, S.O. c4, as amended requires every municipality to establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention and to provide such other Fire Protection Services as it determines may be necessary in accordance with its need and circumstances;

AND WHEREAS the Fire Protection and Prevention Act, 1997 permits a municipality, in discharging these responsibilities, to establish a fire department;

AND WHEREAS the Fire Protection and Prevention Act, 1997 requires a municipality that establishes a fire department to provide fire suppression services and permits the fire department to provide other fire protection services;

AND WHEREAS the Fire Protection and Prevention Act, 1997 requires a municipality that establishes a fire department to appoint a fire chief;

AND WHEREAS the Fire Protection and Prevention Act, 1997 (FPPA) authorizes a council of municipality to pass by-laws under the FPPA to regulate fire prevention, to regulate the setting of open-air fires and to designate private roads as fire routs;

NOW THEREFORE the Council of the Town of Amherstburg **ENACTS AS FOLLOWS:**

1. **DEFINITIONS**
   In this by-law, unless the context otherwise requires,

   "Additional services" means any activities undertaken at the direction of the fire chief or deputy fire chief that are beyond the normal funding & resources of the fire department;

   "Approved" means approved by the Council of the Town of Amherstburg;

   "Automatic Aid" means any agreement under which a municipality agrees to provide an initial response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department is capable of responding more quickly than any fire department situated in the other municipality; or a municipality to provide a supplemental response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department in the municipality is capable of providing the quickest supplemental response to fires, rescues and emergencies occurring in the part of another municipality;

   "Base Hospital" means a hospital that provides medical direction, leadership and advice in the provision of pre-hospital emergency health care within a broad based, multi-disciplinary, community emergency health services system in a specified geographical area. This involves the Base Hospital acting as a resource centre and facilitator to assist in ensuring that Emergency pre-hospital care and transportation is meeting a community's needs. In addition, the Base Hospital

through the Physician-Medical Director provides training, quality assurance, continuing education and guidance to pre-hospital emergency care providers. All such programs shall be approved in advance by the Ministry of Health. The base Hospital also functions in an advisory capacity to the Ministry of Health on matters relating to pre-hospital emergency care.

"Chief Administrative Officer (CAO) means the person appointed by council to act as the chief administrative office for the corporation;

"Chief Fire Official" shall mean the Assistant to the Fire Marshal who is the Fire Chief or a member or members of the fire department appointed by the Fire Chief under the FPPA or a person appointed by the Fire Marshal under the FPPA;

"Collective Agreement" means the Agreement between the Corporation and the International Association of Fire Fighters Local 3803, known as the Amherstburg Professional Firefighters Association made under the provisions of the Fire Protection and Prevention Act;

"Confined Space" means any space that has limited or restricted means for entry or exit (i.e. tanks, vessels, silos, storage bins, hoppers, vaults, trenches, excavations and pits) and that is not designed for human occupancy;

"Corporation" means The Corporation to the Town of Amherstburg;

"Council" means the municipal council of the Corporation;

"Deputy Chief" means the person or persons appointed by council to act on behalf of the Fire Chief of the Fire Department in the case of an absence or a vacancy in the office of Fire Chief;

"Division" means a Division of the Fire Department as provided for in this By-law;

"Emergency Control Group" means the Mayor with designated Senior Officials who coordinate and deploy resources to mitigate the impact of a municipal or other large scale emergency incident;

"Community Emergency Management Program Committee" means the group of municipal officials that are responsible to ensure that local programs and committees are developed as required to enable the emergency management process in accordance with the requirements of the Emergency Management and Civil Protection Act;

"Fire Chief" means the person appointed by council to act as fire chief for the corporation;

"Fire Department" means the Town of Amherstburg Fire Department;

"Firefighter" means a Fire Chief and any other person employed in, or appointed to, a fire department and assigned to undertake fire protection services, and includes a Volunteer Firefighter;

"Firefighters' Association" means the International Association of Fire Fighters Local 3803, known as the Amherstburg Professional Firefighters Association;

"FPPA" means the Fire Protection and Prevention Act, 1997, S.O., c.4, as may be amended from time to time, or any successor legislation, and any regulation made there under;

"Fire Protection Services or Fire Services" include fire suppression, fire prevention, public fire safety education, communications, training of persons involved in the provision of fire protection services, apparatus equipment and maintenance, rescue "as defined" emergency services, and administration

services as set out in Appendix "A", and the delivery of all those services;

"Member" means any defined Firefighter or Officer as per the FPPA and / or any person employed in, or appointed to the Fire Department and assigned to undertake fire protection services;

"Mutual Aid" means a program, coordinated by the Province of Ontario to provide / receive reciprocal assistance in the case of an emergency in a municipality, community or area where resources in a municipality, community or area have been depleted, but does not include Automatic Aid;

"Officer" means any member with the rank of Lieutenant or higher;

"Property" means personal and real property;

"Specialty Service" means rescue & response to, ice / water rescue, hazardous materials (including CBRNE) response, Emergency Pre-hospital care responses as outline in tiered response agreements or any other specialized activity or service authorized by Council in accordance with available resources;

"Waterworks" means the Essex Power Corporation, its successors and assigns.

2. ESTABLISHMENT

2.1 A department for the Corporation of the Town of Amherstburg to be known as the Amherstburg Fire Department is hereby continued and the head of the fire department shall be known as the Fire Chief.

2.2 The (goals/mission statement) of the fire departments shall be as those contained in **Appendix "B"** of this by-law and the fire services shall be organized as per the corporate approved organizational chart.

3. EMPLOYMENT

3.1 The Fire Chief may recommend for appointment, any qualified person as a member of the department if the position is authorized by Council and is subject to the approved hiring policies of the Corporation.

3.2 A person appointed as a member of the department shall be on probation for a minimum of twelve months, during which time they shall take such special training, evaluations and examinations as may be required by the Fire Chief. All firefighters must retire at the end of the month in which they turn 60 and all Officers must retire at the end of the month in which they turn 65 unless otherwise approved by council.

3.3 Any probationary member may be discharged in accordance with the F.P.P.A. for any just cause upon recommendation by the Fire Chief to the CAO.

3.4 All recommendations for appointments, promotions, and demotions will be reported to the Manager of Human Resources by the Fire Chief and remain subject to the complement approved by Town Council and subject to procedures directed by the CAO.

4. ORGANIZATION

4.1 The Fire Department shall be organized into divisions, such as Administration, Training, Fire Prevention, Fire Suppression or Fire Rescue, and Apparatus, Equipment and Communication,

4.2 The Fire Chief, with prior approval of the CAO, may re-organize, eliminate or establish divisions or may do all or any of these things or any combination of

them as may be required to ensure the proper administration and efficient operation of the Fire Department for the Corporation.

5. COMPOSITION

5.1 The Fire Department shall consist of the Fire Chief, Deputy Fire Chief, Assistant Deputy Fire Chief, District chiefs, Captains, other officers, administrative support staff and any other person(s) as may be authorized or considered necessary from time to time by Council or by the CAO on recommendation from the Fire Chief for the Fire Department to perform fire protection services.

5.2 The Fire Chief shall be appointed by By-law of the Corporation

5.3 The Deputy Fire Chief/Assistant Deputy Fire Chief shall be appointed by By-law of the Corporation

6. CORE SERVICES

6.1 The core services of the Fire Department shall be those contained in **Appendix A**.

7. RESPONSIBILITIES AND AUTHORITY OF THE FIRE CHIEF

7.1 The Fire Chief shall be the head of the fire department and is ultimately responsible to Council, through the CAO, for proper administration and operation of the fire department including the delivery of fire protection and prevention services.

7.2 The Fire Chief shall be a contributing member of the Corporation's Senior Management team reporting as determined to the CAO, from time to time and will perform the duties of an Emergency Control group member as required.

7.3 The Fire Chief shall be authorized to make such general orders, policies, procedures rules and regulations, and to take such other measures as the Fire Chief may consider necessary for the proper administration and efficient operation of the Fire Department and the effective management of fire protection services for the corporation, and for the fire prevention, control and extinguishment of fires, the protection of life and property, and the management of emergencies without restricting the generality of the foregoing:

A) For the care and protection of all property belonging to the Fire Department;

B) For arranging for provision and allotment of strategic staffing and proper facilities, apparatus, equipment, materials, services and supplies for the fire department;

C) For arranging and implementation of automatic aid, mutual aid and other negotiated fire protection and emergency service agreements within the Corporation's border and or within the municipal borders of Other Essex County municipalities;

D) For determining and establishing the qualifications and criteria for employment or appointment and the duties of all members including support staff, of the Fire Department;

E) For the conduct and the discipline of members of the Fire Department;

F) For preparing and upon approval by Council, implementing and maintaining a Departmental fire service master plan and program for the

Corporation;

G) For assistance as a contributing member of the Community Emergency Management Program Committee, in preparation, implementation and maintenance of any emergency plans, organizations, services, or measures established or to be established by the Corporation;

H) For reporting to the appropriate crown attorney or other prosecutor or law enforcement officer the facts upon evidence in any case in which there is reason to believe that a fire has been the result of criminal intent or negligence or in which there is reason to believe an offense has been committed under the FPPA and/or Criminal Code of Canada;

i) For keeping an accurate record, in convenient form for reference, of all fires, rescues and emergencies responded to by the Fire Department and report of the same to the Office of the Fire Marshal.

j) For keeping such other records as may be required by Council, the Corporation and the FPPA;

k) For preparing and presenting annual reports of the Fire Department to Council;

l) The Fire Chief or his Designate(s) may when deemed necessary:

i) pull down or demolish any building or structure to prevent the spread of fire, or take any action necessary to prevent, control or extinguish fire or perform rescue.

ii) when unable to contact the property owner, to take such necessary action, which may include, boarding up or barricading of buildings or property to guard against fire or other danger, risk or accident,

iii) take steps as necessary for the corporation to recover expenses incurred by such necessary action in a manner provided by the Municipal Act, 2001 or the FPPA.

iv) shall investigate the cause, origin and circumstances of all fires, and report all fires to the Fire Marshal as required by the Fire Protection and Prevention Act, 1997

v) shall submit to the council for its approval the annual estimates for the Fire Department, concurrent with the town's annual budget process, and shall be responsible to take measures to control expenditures to meet estimate or to report unavoidable variance as soon as is practical once they are known.

7.4 The Fire Chief is authorized to perform the duties of Alternate Essex County Fire Coordinator as required.

7.5 The Fire Chief shall ensure a completed risk assessment is undertaken, reviewed and updated periodically to support informed decision making and evaluation of program delivery.

8. RESPONSIBILITIES AND AUTHORITY OF THE DEPUTY FIRE CHIEF/Assistant Deputy Fire Chief

8.1 The Deputy Fire Chief shall be the second ranking officer of the Fire Department and shall be subject to and shall obey all orders of the Fire Chief.

8.2 The Deputy Fire Chief shall perform such duties as are assigned by the Fire Chief and shall act on behalf of the Fire Chief in case of absence or vacancy in

the office of the Fire Chief.

8.3 The Deputy Fire Chief shall report to the Fire Chief on the activities of the divisions and or stations that is their responsibility;

9. DIVISIONAL RESPONSIBILITIES

9.1 Each division of the fire department is the responsibility of the fire chief and is under the direction of the fire chief or a member designated by the fire chief. Designated members shall report to the fire chief on divisions and activities under their supervision and shall carry out all orders of the fire chief

9.2 The fire chief is responsible for carrying out, or delegating in total, or in part, the following duties pertaining to the function of the **Division of Administration**. He/she shall:

(A) provide administration facilities for the chief and deputy chief of the fire services,

(B) prepare the Fire Department budget and exercise control of the budget,

(C) prepare the payroll of the fire services and initiate requisitions for materials and services and certify all accounts of the fire services,

(D) maintain personnel records, and support human resources functions & negotiate Service Level Agreements.

(E) arrange for the provision of Employee Assistance Services,

(F) arrange for the provision of Records Management Systems,

(G) provide liaison with the local fire fighters' association,

(H) prepare the annual report of the fire services,

(I) carry out the general administrative duties of the fire services,

(J) Implement Performance Measures and Benchmarks for comparison purposes

9.3 The Fire Chief is responsible for carrying out, or delegating in total, or in part, the following duties pertaining to the function of the **Division of Apparatus, Equipment & Communications** He/she shall:

(A) prepare specifications for the purchase of communications Services equipment and for additions to existing communications systems;

B) prepare specifications for the purchase of apparatus and equipment;

(C) maintain and keep in repair all existing vehicles, including firefighting, rescue and salvage apparatus of the fire services;

(D) initiate requisitions for materials, parts and equipment through the division of administration;

(E) provide recharging facilities for Self Contained Breathing Apparatus and cylinders as part of a complete respiratory protection program guided by CSA Z94.4 standards and to test and repair hose;

(F) provide personal protective equipment and associated safety & health programs for fire services personnel;

(G) provide liaison with Essex Power Corp in order to ensure an adequate flow of water in new waterworks projects and the adequate maintenance of existing waterworks facilities for the use of the fire services;

9.5 The Fire Chief is responsible for carrying out, or delegating in total, or in part, the following duties pertaining to the functions of the **Division of Fire Suppression or Fire Rescue**. He/she shall:

(A) determine the numbers of companies of The Division of Fire Rescue;

i) prevent, control and extinguish fires;

ii) conduct investigations of fire in order to determine cause, origin, and, where appropriate, to request the Fire Prevention Division, & the Office of the Fire Marshal to conduct an investigation;

iii) perform rescue and salvage operations and render first aid;

iv) respond and assist at such emergencies indicated in Appendix "A" as may be required;

v) participate in training;

vi) conduct pre-firefighting operations planning;

vii) perform apparatus maintenance and cleaning duties at stations;

(B) assign a captain who is in command of the company to which he/she is assigned and is responsible for the proper operation of that company to the Fire Chief

(C) designate a member of the fire services to act in the place of an officer in the fire services, and such member, when so acting, has all the powers and shall perform all the duties of the officer replaced;

9.6 The Fire Chief is responsible for carrying out, or delegating in total, or in part, the following duties pertaining to the function of the **Division of Fire Prevention** through an approved fire prevention statement, Appendix "A". He/she shall:

(A) conduct fire prevention inspections of premises;

(B) enforce fire prevention by-laws;

(C) examine and comment on building plans;

(D) provide personnel for fire prevention & public education awareness activities, as outlined in Appendix "A";

(E) maintain fire loss records;

(F) receive, process and follow up reports of fire prevention inspections conducted under the Division of Fire Suppression;

9.7 The Fire Chief is responsible for carrying out, or delegating in total, or in part, the following duties pertaining to the function of the **Division of Training**. He/she

shall:

(A) establish a fire services training program guided by NFPA 1001-2013 ed., complete with annual JPR (Job Performance Requirements) completion for all positions, written records, and conduct training for all personnel of the fire services in fire administration, fire prevention, incident safety, special operations and fire suppression;

(B) administer training programs in stations;

(C) prepare and conduct examinations and evaluations of members as required;

(D) administer a recruitment program;

(E) administer a medical assistance program that includes first aid, CPR and defibrillation as component parts, guided by Base Hospital;

9.8 (A) The Fire Chief shall develop an approved fire services promotional policy based on such evaluations, written, practical and oral examinations as deemed necessary.

(B) As part of the approved promotional policy, the Fire Chief and the Deputy Chief or delegates shall evaluate all members of the fire services who are participating in an examination for promotion.

10. CONDUCT AND DISCIPLINE

10.1 Every member of the Fire Department shall conduct themselves in accordance with Corporate policies, Department orders, procedures, rules and regulations and shall give their whole and undivided attention while on duty to the efficient operation of the Fire Department and shall perform the duties assigned to them to the best of their ability in accordance with the FPPA and any collective agreement or written agreement that may be applicable.

10.2 The Fire Chief may reprimand or suspend any member of the Fire Department for insubordination, inefficiency, misconduct, tardiness or for non-compliance with any provisions of this Bylaw, Corporation policies, departmental procedures, guidelines, general orders or rules and regulations that, in the opinion of the Fire Chief, would be detrimental to the discipline and efficiency of the Fire Department.

10.3 The Fire Chief shall submit a report to the CAO and to the Managerof Human Resources regarding the reprimand or suspension handed out to any member of the department.

10.4 Any such disciplinary action shall be in accordance with Corporate policies unless otherwise governed by the collective agreement between the Corporation and the Amherstburg Professional Firefighters Association.

11. REFUSAL TO LEAVE

11 .1 No person present at a fire scene shall refuse to leave the immediate vicinity when required to do so by the Fire Department or the Police Service.

12. RECOVERY OF COSTS - ADDITIONAL EXPENSES

12.1 If as a result of a Fire Department response to a fire or an emergency incident, including a motor vehicle accident or the carrying out any of its duties or functions, the Fire Chief or Deputy Fire Chief(s) determines that it is necessary to incur additional expenses, retain a private contractor, rent special equipment not

normally carried on a fire apparatus or use more materials than are carried on a fire apparatus, the "additional services" required in order to suppress or extinguish a fire, preserve property, prevent a fire from spreading, control or eliminate an emergency, carry out or prevent damage to equipment owned by the corporation or otherwise carry out the duties and functions of the fire department and/or to generally make "safe" an incident or property, the owner of the property requiring or causing the need for the additional services shall be charged the full costs to provide the additional services including all applicable taxes.

13. FIRE DEPARTMENT RESPONSES OUTSIDE OF THE MUNICIPALITY

13.1 The Fire Department shall not respond to a call with respect to a fire or emergency outside the limits of the municipality except with respect to a fire or emergency;

A) that, in the opinion of the Fire Chief or designate of the Fire Department, threatens property in the Town of Amherstburg or property situated outside the Town of Amherstburg that is owned or occupied by the Town of Amherstburg;

B) in a municipality with which an approved agreement has been entered into to provide fire protection services which may include automatic aid;

C) on property with which an approved agreement has been entered into with any person or corporation to provide fire protection services;

D) at the discretion of the Fire Chief, to a municipality authorized to participate in a county, district or regional mutual aid plan established by a fire coordinator appointed by the Ontario Fire Marshal, emergency fire service plan or any other organized plan or program on a reciprocal basis;

E) on property beyond the municipal boundary of the Town of Amherstburg where the fire chief or designate determines immediate action is necessary to preserve life or property and the appropriate department is notified to respond and assume command or establish alternative measures, acceptable to the Fire Chief or designate;

F) on highways that are under the jurisdiction of the Ministry of Transportation or other agency within the Town of Amherstburg;

G) response due to a request for special assistance as required through a declaration of a provincial or federal emergency and such request has been approved by the Fire Chief, the CAO and the Head of Council.

14. CONFLICT

14.1 Where this by-law may conflict with any other by-law, this By-law shall supersede and shall prevail over that other By-law to the extent of the conflict.

15. REPEAL

15.1 "By-law 2015-108 is repealed"

16. SHORT TITLE

16.1 This By-law shall be known as the Fire Department Establishing and Regulating By-law

17. PENALTIES

17.1 Any person who violates any provisions of this By-law is, upon conviction guilty of an offense and shall be liable to a fine, subject to the provisions of the Provincial Offences Act, R.S.O. 1990 c. P. 33 as amended.

Read a first, second and third time and finally passed this 10th day of July, 2017.

MAYOR- ALDO DICARLO

CLERK- PAULA PARKER

Appendix A

Core Services — Fire Suppression and Emergency Response

Fire suppression services shall be delivered in both offensive and defensive mode and shall include search and rescue operations, forcible entry, ventilation, protecting exposures, salvage and overhaul as appropriate with existing resources.

Sire Protection Services delivered by the Amherstburg Fire Department to the Town of Amherstburg include;

Response Zone

Definitions

Response zone risks will be regularly assessed (at least every 3 years) in accordance with the Fire Protection and Prevention Act and risk based responses will be identified for the various risks within the community. First response resource assignments will be implemented based on Fire Risk and Population Density Zones.

Key Performance Indicators can be found in table 4.3.2 (Staffing and Response Time) of NFPA 1720, as amended.

Interior offensive and exterior defensive firefighting tactics in residential, commercial, institutional, assembly and industrial structures and properties to control and extinguish fires as appropriate with existing resources.

Fire rescue activities including, entering, conducting primary and secondary searches, and where possible removal of trapped, injured and distressed persons when safety of staff and the public are not a concern.

- Due to present accessibility challenges a delayed response to Wolfe Island and Boblo Island is a reality of response. The Town continues to consider resolution to both response areas.

Conducting training, communications, incident management, and incident safety activities to support firefighting operations and other responses and services.

Ventilation, Salvage and Overhaul operations to save and protect life and property

Incident Safety Services
Establish and administer a Safety Management System for the fire services that includes an incident safety program and occupational health and safety in the workplace, activities including rapid intervention crews at emergencies.

As part of an overall Health and Safety Management system, provide incident safety services at all "Working Fires and Activities" where "significant work" is performed.

Implement a Respiratory Protection program consistent with the requirements of CSA z 94.4 standards.

Special Operations
Emergency pre-hospital care responses and medical acts or other first aid / CPR services shall be maintained as per local tiered response agreement with Essex-Windsor EMS and under the supervision of local "Base Hospital" medical director, appropriate to the needs of the municipality as recommended by the Fire Chief and as agreed.

Rescue activities including "Shore Based" and "Vessel based" Water Rescue services and On ice rescue activities.

Auto Extrication activities at the "basic" and "heavy" levels to provide access to injured and entrapped persons involved in transportation emergencies. This involves the prevention, control and extinguishments of fires, controlled relocation & removal of materials and freeing trapped persons from the entrapment and making them accessible for removal.

Hazardous Materials Response (Chemical / Biological / Radiological / Nuclear/Explosive CBRNE) in conjunction with agreements with the County of Essex and the City of Windsor Fire and Rescues Services Haz-Mat team.

Amherstburg Fire Department shall respond to incidents involving hazardous materials, using specialized equipment, skills and training in a manner referred to as "Operations" level.

Mutual Aid
The Department and the Fire Chief are authorized to participate in the Essex County Mutual Aid program and system organized and operated by the Province of Ontario directed by the Fire Marshal under the F.P.P.A.

Fire Prevention and Public Fire Safety Education
The delivery of all mandatory programs and services required by the Fire Protection and Prevention Act. R.S.O.

Fire prevention inspections upon receiving a complaint or a request to inspect

The distribution of public fire safety education materials, which shall include information on planning escape from residential occupancies, and encourages the mandatory installation and maintenance of residential smoke alarms

Children's educational programs in all elementary schools supported through the Safety Village

Proactive inspections of vulnerable occupancies identified in a community risk assessment

Determination of cause, origin and circumstances of all fires that occur in the town and the reporting of all fires to the provincial authority (Fire Marshal)

Administration of a youth fire setters program that educates families and youth fire setters

Participation in community activities which provide a significant fire safety educational opportunity

To conduct post-incident evaluations, which examine fire ground effectiveness, building performance, occupant behaviour and fire service program effectiveness to review comprehensive fire safety effectiveness in the community.

Appendix B

PRIMARY GOALS

The goals of the Amherstburg Fire Department Services is to provide fire protection services through a range of programs designed to protect the lives and property of the inhabitants from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by man or nature; first to the Town of Amherstburg; second, to those municipalities requiring assistance through authorized Mutual Fire Aid plan and program activities.

Primary objectives of the fire services:
In order to achieve the goal of the fire services, necessary funding must be in place and the following objectives met:
1. Identify and review the fire risks of the Town of Amherstburg and ensure programs are in place to minimize identified risks;
2. Provide an administrative process consistent with the needs of the fire services;
3. To conduct fire prevention inspections upon request or complaint;
4. To distribute public fire safety education materials to the community including home escape planning information and encourage the use of Smoke Alarms;
5. Proactive inspections of vulnerable occupancies identified in a community risk assessment;
6. Ensure that firefighting equipment and operating personnel are available within the municipality to provide adequate response to a citizen's call within a reasonable length of time;
7. Provide fire services training to an accepted standard which will ensure the continuous up-grading of all personnel in the latest techniques of fire prevention, firefighting and control of emergency situations and to co-operate with other municipal fire services with respect to management training and other programs;
8. Provide for a maintenance program to ensure all fire protection apparatus, and equipment, is ready to respond to emergency calls;
9. Ensure, through plan examination and inspection that required fire protective equipment is installed and maintained within buildings;
10. Ensure compliance with applicable municipal, provincial and federal fire prevention legislation, statutes, codes and regulations in respect to fire safety;
11. Develop and maintain an effective public information system and educational program, with particular emphasis on school fire safety programs; and commercial, industrial and institutional staff training:
12. Ensure in the event of a major catastrophe in the Town of Amherstburg, assistance to cope with the situation is available from outside fire services and other agencies;
13. Develop and maintain a good working relationship with all federal, provincial and municipal fire services, utilities and agencies, related to the protection of life and property;
14. Interact with other municipal fire services respecting the aspects of fire protection on any given program;
15. Ensure these objectives are not in conflict with any other municipal services.

MISSION STATEMENT

The primary mission of the Amherstburg Fire Department Services is to provide a range of programs to protect the lives and property of the inhabitants of the Town of Amherstburg from the adverse effects of fires, sudden medical emergencies or exposure to dangerous conditions created by man or nature.
Building on our past success and our respect from partners in the community, we endeavour to become Amherstburg's leaders in professional and proactive prevention and response to public safety emergencies. We will strive to be a caring, respectful, diverse and environmentally sound organization that holds itself and its members to account for excellence in service delivery.

Vision:
Amherstburg Fire Department Services delivers on our public safety mandate to preserve life, property and the environment through mutual respect, trust, honesty, and cooperation across our divisions and in partnership with our community.

The Town of Amherstburg
ONTARIO

INFORMATION TECHNOLOGY STRATEGIC PLAN:

"How Can We Help"

(2019-2024)

Fire Department

1. Business Context

Mandate and Strategic Focus

Town of Amherstburg Community Strategic Plan- Mandate - is to improve the day-to-day service experience for the citizens of Amherstburg, and at the same time create the structures and tools necessary to find the corporate-wide efficiencies mandated by Council.

- **CAO Department's Mission :**
  - Provide strategic operational objectives to its service groups
  - Optimize service corporate-wide to clients
  - Maximize corporate resource utilization
  - Facilitate cost minimization among service groups
- **Strategic Business Focus for Fire Services**:
  - ***Enhance Interoperability –*** among emergency service providers so that they can work seamlessly together with their systems or products without any special effort.
  - ***Leverage and Optimize Information Technology Investments –*** of Town and potentially County emergency service providers to enhance emergency service delivery and to reduce costs.
  - ***Shared/common Systems and Cooperative Initiatives –*** enhanced service delivery with a cross organizational governance/accountability oversight structure with an effective defined operations framework.

The focus of Fire's strategy is to transform, to enhance interoperability and effectiveness among Town Departments by taking advantage of new transformative technologies. This new vision aligns well with the new re-organization of Town Operations Departments and the new business focus of Town Council. The IT Strategy will require flexibility among Town groups and service providers.

Business Drivers

There are a number of primary drivers each having a direct influence on Fire Services, these include:

1. Uniqueness of the Town of Amherstburg: It is the Festival Leader these conditions impose unique demands on Fire Department operations**.**
2. Fiscal Responsibility: Fire Services must pay attention to planning and leveraging investments made in capital apparatus, resources and information technology.
3. Cooperative Approach to Service Delivery: Enhancing how Town Departments work together to minimize costs and improve service delivery.
4. Emergency Services Interoperability: Responding to major disasters is a vital service, interoperability between emergency responders' increases effectiveness and efficiency of disaster response.
5. Cost Savings and Aversion: Lower costs through optimization and re-structuring Town programs.
6. Alignment with the Town of Amherstburg Priorities: Ensuring service groups align their priorities and business plans with those set out by council.
7. Alignment with a common IT environment: Aligning IT investments so that they conform to standards, common architectures and secure 24x7 environment.
8. Emergency Preparedness: Organizational readiness to respond to any Town of Amherstburg major emergency situation.
9. 2016 Ministry of Labour Orders and OFM Review of Fire Services recommendations regarding proper records management practices
10. New Mandatory regulations affecting fire services. Included in the regulations is the requirement for municipalities to publicly report activities based on set criteria *see attachment*

2. Current Situation

Current IT Environment of Emergency Services Groups

- ***Windsor/Amherstburg Police Service (WPS) (eff. Jan.1/19)***

Windsor Police Service operates as an independent "legal" entity governed by the Police Services Act of Ontario, as such there is no direct reporting responsibility to Town Council. The relationship is indirect based on an agreed upon requirement for all emergency services groups to cooperation and align their services according to the established priorities and direction of Council. WPS is not a "normal" Town department, because of its uniqueness and mandate & it has its own Information Technology group that services the needs of WPS. These needs are unique in terms of security, 24/7 operations, responsiveness and relationship with other protective services (e.g. Ontario Provincial Police (OPP), RCMP, and others). Their IT environment includes the following main components:

- 24/7 Communications Centre for 911 and Dispatch
- 24/7 Computer Operations Centre
- Computer Dispatch System (CAD)
- Police Records Management System (RMS)
- Voice radio system (City digital system)
- Wireless network in support of mobile laptops (with GPS, AVL etc.)
- Regional type computer network with desktop computers, office automation and analytical tools (separate from the City's network).
- Secure communications links to other Police organizations
- Numerous Police services systems (e.g. figure prints, mug shots, etc.) 24/7 computing services and communications facilities.

- ***Amherstburg Fire Department (AFD)***

Current AFD IT environment is the result of a Town amalgamation completed in 1998. Their IT environment includes the following main components):

- Computer Aided Dispatch System (through Windsor Fire & Rescue (WFRS))
- Records Management System (RMS) –Auxilium).
- Voice radio system (regional Motorola Mototurbo system Shared by 5 Departments).
- Town computer network with 12 desktop/Laptop computers, Limited office automation and analytical tools.
- No Secure communications link to Police 24/7
- Station Alerting System via Kelcom Shared Regional paging system
- Computing Services for CAD supplied by Town GIS and WFRS.
- RMS and other IT support (desktop, network, office tools) services provided by the Town's IT Department

- ***Essex-Windsor Emergency Medical Services (EWEMS)***

Current Paramedic IT environment is the result of the County of Essex assuming responsibility for Paramedic services delivery during County amalgamation (1999). The province still retains oversight accountability and funds approximately 50% of the service. Their IT environment includes the following main components

- Computer Dispatch System – ARIS (mandated service operated by province)
- Paramedic inventory system (operated by County IT) and hand held scanners
- Provincial Motorola voice radio system and backup County Radio system
- County computer network with new desktop computers, office automation and enhanced analytical tools
- Paramedic Patient system with computer (on board ambulance) WIFI communications in station
- On board ambulance Panasonic CF 31 laptops (~100) running mapping system for route determination
- Ambulance GPS/AVL system for ambulance location tracking
- RMS and other IT support (desktop, network, office tools) services provided by the County's IT

- ***Licencing and Enforcement Services***

Current Licencing and Enforcement Services IT environment is completely supported and configured by Information Technology Department of the Town. Their current IT environment includes the following main components:

- Town computer network desktop/Laptop computers, Limited office automation and analytical tools.
- Dispatch service not available

- ***Office of Emergency Management***

Current OEM IT environment is part of Fire Services and supported and configured by the Information Technology Department of the Town. Their current IT environment consists includes the following main:

- Town computer network with 2 desktop/Laptop computers, Limited office automation and analytical tools.
- The Everbridge Mass Notification system (The Town's major incident Public and internal notification software)

Comparative Review of IT Functions and Components by Group

Table 1 - Summary Review

Function/ Component	***POLICE***	***FIRE***	***PARAMEDICS***	***BYLAW***	***EMO***
Dispatch CAD System	Yes	Supplied by WFRS	Provincial system	No	No
Com Centre	Renovation planned	Expansion planned	Run by Prov.	No	No
Central Info. System	Yes Police specific (RMS)	Yes, Auxilium (RMS)	Yes, operated by County (RMS)	No	New Prov. System tendered
Wireless Data system	Yes for MDTs	No application	Yes for MDTs - Provincial	No	N/A
Regional WAN	Yes, separate from City	No	City Network	City Network	N/A
Secure Network	Yes	WFRS Only Police Links	Yes	No	No
Wi-Fi	Yes and Expanding	Just installed it WFRS	Yes and Expanding	No	No
Paging System	No	Yes, Kelcom owned	Yes, outsourced	No	Yes AFD
Video Feeds	City Traffic MTO& Border	MTO WFRS	?	No	No
Mobile Laptop (MDT)	Yes	No	Yes	No	N/A
GPS/AVL	Yes	No	Yes	No	N/A
Mobile Incident Command	Yes	No	Yes	No	No
Defined IT SLAs	Yes	Yes with Kelcom & City WFRS	?	?	Yes Everbridge

Function/ Component	***POLICE***	***FIRE***	***PARAMEDICS***	***BYLAW***	***EMO***
Separate IT Ops Budget	Yes	Yes for Radio	?	No	No
24/7 IT Operations	Yes	Yes, with WFRS only	Yes, Province and County IT,	No	No
Defined IT Governance	Yes	No	No	No	No
Planned IT Evergreening	Yes	No	Yes	No	No
IT Backup Facilities	Partially	Partially	Yes	Partially	Partially
Mobile Office	Yes	No	Yes, Initiated	No	No
IT Planning & Research	Yes	No	Yes	No	N/A
Enhanced IT Interoperability (info sharing)	Yes Fire & Police CAD & Maps	Yes Fire & Police CAD & Maps WFRS	No	No	No
Centralized Incident Management	No	No	No	No	No

3. I.T. Strategic Focus

IT Goals

Fire Department' strategic IT focus is 'cooperative enablement' – to focus on investments which can be shared by among emergency providers which contribute to achieving the following:

- **Enhanced Utilization of Information Technology** – to avoid service cost increases while improving services to citizens.
- **Leveraged Use of Available Town Database Information** – for more effective operations.
- **Optimized Service Capabilities** – by providing more effective and enhanced operational framework and capabilities across service groups to meet any emergency response situation including increased interoperability.
- **Shared Services and Systems** – by using common/standard applications and IT services under a common governance/accountability/shared operations structure.

The AFD IT Strategy is aimed at providing a higher level harmonized use of IT investments for Police, Fire, Paramedic, By-law, and EMO. The aim is to provide direction and structure using a cooperative approach to IT investments for emergency services.

Information Technology must move from supporting the business priorities to enablement of them. This places an emphasis on 'effectiveness' which necessitates minimizing organizational barriers to cooperation and establishing clear objectives with accountabilities.

IT Objectives

To enable the organization to achieve its IT goals the following objectives must be achieved:

- The Establishment of a governance and accountability structure for shared/common IT services and a progressive move to a common shared services environment which supports interoperability.
- Establish a common operational 24/7 environment for shared services and systems.
- Provide secure, mobile access to information databases 24/7 to Town groups
- Enhance interoperability amongst groups by facilitating 'on-demand' incident information exchange
- Implement new 24/7 emergency management decision support technologies.

4. I.T. Investment Plan

IT Investment Principles

All significant Town of Amherstburg IT investment solutions will conform to the following principles or guides:

- Investment Solutions will align with Town of Amherstburg's Strategic Focus and be cost effective.
- Investment solution implementation will give due consideration to increasing "IT Effectiveness" by:
    - Emphasizing system simplicity – common standards that reduce complexity and standardize infrastructure;
    - Right sizing capability – appropriate use of staffing vs. contracting;
    - Clear delineation of accountability and management.
- Solutions will address interoperability considerations with other primary emergency responders.
- Investments will align with the infrastructure IT standards and guides identified by emergency service groups for technology conformity.

Implementation Road Map

Without proper execution even the best IT strategy means nothing. With that in mind, the following road map outlines the steps to follow for successful implementation of its IT Strategy:

- Establish an IT Governance
    - Steering Committee to oversee IT Strategic Plan and Projects
    - linkages to other Town group's IT plans & projects (coordination & rationalization)
    - Alignment with Town Priorities
- Communications – Tracking and Reporting
    - Identify critical success factors and performance metrics
    - Develop reports and vehicles for communicating results to stakeholders
- Establish Project Management
    - Project Management to follow "best practices" for Planning, Control, and Organizing
    - Reporting to Steering Committee
- Develop Service Provision levels for services with tracking metrics
- Develop Service Provision levels for IT services with tracking metrics
- Establish periodic senior management review of progress against objectives

Public Reporting and Fire Department Response Times

The intention of the new regulation is focused on standardizing data reporting, improving transparency and accountability, and clarifying definitions. It is further required to report to council on how the department is carrying out it directed service levels throughout the community as outlined in the Establishing and regulating By-Law 2017-67.

The regulation comes into force January 1, 2020. Eight (8) Criteria have been established for reporting to the public information related to incidents and service level benchmarks. Definition of terminology has been changed which will be a challenge to communicate. (e.g. Total Response time previously was understood to be from receipt of call to arrival at the driveway. It is now defined as: The time interval from the receipt of the alarm at the PSAP to when the first fire department unit is initiating action or intervening to control the incident.)

Additionally reporting criteria is required for units with Full time fire fighters and units with volunteer staff on board. Based on our deployment model we will be required to report both or twice for each call.

Currently we have the ability to report on 4 of the 8 criteria from information provided under contract from the City of Windsor dispatch centre.

Alarm transfer time: The time interval from the receipt of the emergency alarm at the PSAP until the alarm is first received at the fire department communication centre
Alarm answering time: The time interval that begins when the alarm is received at the fire department communication centre and ends when the alarm is acknowledged at the communication centre
Alarm processing time: The time interval from when the alarm is acknowledged at the fire department communication centre until response information begins to be transmitted via voice or electronic means to fire department facilities and fire department units
Alarm handling time: The time interval from the receipt of the alarm at the PSAP until the beginning of the transmittal of the response information via voice or electronic means to fire department facilities or the fire department units in the field

Effort is required to improve internal reporting as well as working with our partners. However, we continue to believe that an overhaul of Ontario’s Standard Incident Reporting (SIR) framework is required.

It should be noted that while provincial work is being done to overhaul Ontario’s SIR system, municipalities would not be barred from adopting enhanced reporting structures, should they deem it necessary to deliver as part of their level of service.

It should also be noted that it is a municipal responsibility to set the level of fire and emergency service, including reporting standards.

To resolve the public reporting requirement as well as to improve monthly reporting data and assist staff to comply with standard operating procedures. A solution is necessary that would further protect the municipality from liability claims involving motor vehicle collisions, assist with preventative maintenance, and serve as a training tool.

Safety is top priority for the fire service. Teams need technology that is dependable, secure, and provides real-time data and views. Fleet management technology solutions offer the insight, visibility, and actionable alerts needed to transform operations and ensure driver and civilian safety.

Vehicles send data from a multitude of sources, including the engine, the drivetrain, the instrument cluster and other subsystems. Utilizing multiple internal networks, the Technology captures much of this data and results in the richest collection of information including;

- live fleet movements on an animated map with Active Tracking
- Driver safety scorecard & seat belt detection
- Monitor lights, siren, doors
- Dispatching & route optimization including Map and dispatch integration
- High-performance GPS technology
- Advanced dashboard reports with an Open platform for easy data integration into our RMS
- Asset and people Tracking, Driver ID
- Live tracking of fleet vehicles (real-time location)
- Fast, integrated mapping
- Consistent data and reporting across all makes and models
- second-by-second data
- accurate engine diagnostics

<u>Cut Fuel Costs & Optimize Fleet by including Go-Green implementation</u>

- Fuel consumption tracking
- Reduce speeding and unnecessary idling
- Reduce CO2 emissions
- Detect engine issues
- Minimize wear and tear on vehicles
- Predictive maintenance

<u>Improve Safety & Compliance by</u>

- Risk and safety reports
- Driver feedback
- Instant accident notifications
- Monitor seat belt use
- Set policy rules and alerts
- System security
- Ensure authorized use

This would ensure our ability to report on all 8 criteria identified in the regulation including

Turnout time: The time interval that begins when the fire department facilities and fire department units notification process begins by either an audible alarm or visual annunciation or both and ends at the beginning point of travel time
Travel time: The time interval that begins when a fire department unit is en route to the incident and ends when the fire department unit arrives at the scene
Initiating action/intervention time: The time interval from when a fire department unit arrives on the scene to the initiation of emergency mitigation
Total response time: The time interval from the receipt of the alarm at the PSAP to when the first fire department unit is initiating action or intervening to control the incident

Fire Protection and Prevention Act, 1997

ONTARIO REGULATION 377/18

PUBLIC REPORTS

Consolidation Period: From May 8, 2018 to the e-Laws currency date.

Note: THIS REGULATION IS NOT YET IN FORCE. It comes into force on January 1, 2020.

No amendments.

This is the English version of a bilingual regulation.

CONTENTS

Definition

1. In this Regulation,

"PSAP" is short for public safety answering point, which means a call centre responsible for answering calls to 9-1-1 for police, firefighting and ambulance services.

Preparation of public reports

2. (1) The Fire Marshal must give every fire department the information required by Schedule 1, based on the information the Fire Marshal has received through reports under subsection 11 (2) of the Act.

(2) Every fire department must prepare a public report setting out,

(a) the information required by Schedule 1; and

(b) any other information the fire department chooses to include.

(3) The fire department may use the information required by Schedule 1 that the Fire Marshal provided to prepare their public report, or may carry out their own calculations respecting the same time period.

Dissemination of public reports

3. (1) Every fire department must give their public report to the Fire Marshal no later than 180 days after the Fire Marshal gives the fire department the information.

(2) Every fire department that is authorized to provide fire protection services by a municipality must give their public report to the municipal council before giving its public report to the Fire Marshal.

(3) Every fire department that is authorized to provide fire protection services by a group of municipalities must give their public report to the municipal council of each municipality in the group of municipalities before giving their public report to the Fire Marshal.

(4) The Fire Marshal may make the public report available to the public.

Clarification

4. For greater certainty, this Regulation does not imply that firefighters have authority to perform acts that the *Regulated Health Professions Act, 1991* does not permit them to perform.

5. Omitted (provides for coming into force of provisions of this Regulation).

SCHEDULE 1
REQUIRED INFORMATION
CAREER FIREFIGHTERS

1. (1) The public report must set out the following information respecting incidents in which the first fire department unit that arrives on the scene does not include a volunteer firefighter:

1. For each standard set out in the following Table,
    i. the percentage value of how often the fire department achieves that standard for the corresponding time interval, and
    ii. the corresponding benchmark percentage value for how often the fire department should achieve or exceed that standard.
2. For each time interval set out in the following Table that does not have a corresponding standard, the time interval value that the fire department achieves or exceeds 90% of the time.

Table

Item	Column 1 Time interval	Column 2 Standard	Column 3 Benchmark
1.	Alarm transfer time: The time interval from the receipt of the emergency alarm at the PSAP until the alarm is first received at the fire department communication centre	30 seconds	95%
2.	Alarm answering time: The time interval that begins when the alarm is received at the fire department communication centre and ends when the alarm is acknowledged at the communication centre	15 seconds	95%
3.	Alarm processing time: The time interval from when the alarm is acknowledged at the fire department communication centre until response information begins to be transmitted via voice or electronic means to fire department facilities and fire department units	64 seconds for calls other than the following calls; and 90 seconds for the following calls: 1. Calls requiring emergency medical dispatch questioning and pre-arrival medical instructions 2. Calls requiring language translation 3. Calls requiring the use of a TTY/TDD device or audio/video relay services	90%

		4. Calls of criminal activity that requires information vital to emergency responder safety prior to dispatching units 5. Hazardous material incidents 6. Technical rescue 7. Calls that require determining the location of the alarm due to insufficient information 8. Calls received by text message	
4.	Alarm handling time: The time interval from the receipt of the alarm at the PSAP until the beginning of the transmittal of the response information via voice or electronic means to fire department facilities or the fire department units in the field	No standard; set out the time interval value that the fire department achieves or exceeds 90% of the time	No benchmark
5.	Turnout time: The time interval that begins when the fire department facilities and fire department units notification process begins by either an audible alarm or visual annunciation or both and ends at the beginning point of travel time	80 seconds for fire and special operations; 60 seconds for emergency medical services	90%
6.	Travel time: The time interval that begins when a fire department unit is en route to the incident and ends when the fire department unit arrives at the scene	240 seconds for fire suppression; 240 seconds for the arrival of a unit with a first responder with an automatic external defibrillator or higher level capability no standard for other services	90%
7.	Initiating action/intervention time: The time interval from when a fire department unit arrives on the scene to the initiation of emergency mitigation	No standard; set out the time interval value that the fire department achieves or exceeds 90% of the time	No benchmark
8.	Total response time: The time interval from the receipt of the alarm at the PSAP to when the first fire department unit is initiating action or intervening to control the incident	No standard; set out the time interval value that the fire department achieves or exceeds 90% of the time	No benchmark

(2) The public report does not have to set out information for items 1, 2, 3, 4 and 8 if the information is not available from the fire department's records.

Volunteer Firefighters

2. (1) The public report must set out the following information respecting incidents in which the first fire department unit that arrives on the scene includes at least one volunteer firefighter:

1. For each time interval set out in the following Table, the time interval value that the fire department achieves or exceeds 90% of the time.

Table

Item	Column 1 Time interval
1.	Alarm transfer time: The time interval from the receipt of the emergency alarm at the PSAP until the alarm is first received at the fire department communication centre
2.	Alarm answering time: The time interval that begins when the alarm is received at the fire department communication centre and ends when the alarm is acknowledged at the communication centre
3.	Alarm processing time: The time interval from when the alarm is acknowledged at the fire department communication centre until response information begins to be transmitted via voice or electronic means to fire department facilities and fire department units
4.	Alarm handling time: The time interval from the receipt of the alarm at the PSAP until the beginning of the transmittal of the response information via voice or electronic means to fire department facilities or the fire department units in the field
5.	Turnout time: The time interval that begins when the fire department facilities and fire department units notification process begins by either an audible alarm or visual annunciation or both and ends at the beginning point of travel time
6.	Travel time: The time interval that begins when a fire department unit is en route to the incident and ends when the fire department unit arrives at the scene
7.	Initiating action/intervention time: The time interval from when a fire department unit arrives on the scene to the initiation of emergency mitigation
8.	Total response time: The time interval from the receipt of the alarm at the PSAP to when the first fire department unit is initiating action or intervening to control the incident

(2) The public report does not have to set out information for items 1, 2, 3, 4 and 8 if the information is not available from the fire department’s records.

THE CORPORATION OF THE TOWN OF AMHERSTBURG
AMHERSTBURG FIRE DEPARTMENT
STANDARD OPERATING PROCEDURE

Service Area:	**Office of the Chief Administrative Officer**	Procedure No.:	**SOP 01-Admin-102**
Department:	**Amherstburg Fire Department (AFD)**	Approval Date:	**March 13, 2020**
Division:	**Administration**	Approved By:	**Bruce Montone**
		Effective Date:	**March 13, 2020**
Subject:	**Rules and Regulations – General Code of Conduct**	Policy Ref.:	
		Pages:	Replaces: **SOP 01-Admin-102**
Prepared By:	Bruce Montone		Date: **February 15, 2019**

1. PURPOSE

1.1. To provide a code of conduct and a basic set of rules for all Amherstburg Fire Department members authorized and required by the Establishing and Regulating Bylaw 2017-67.

2. SCOPE

2.1. All Amherstburg Fire Department members

2.2. Policy Statement: Our mission is to serve the community with the highest quality of service by protecting life, property and the environment through services provided in the Bylaw and under the Act. The members of Amherstburg Fire Department are its ambassadors and are expected, while in the performance of their duties, to maintain and conduct themselves in a professional manner when interacting with the Fire Chief, Council, the public and co-workers.

2.3. The intent of this document is to provide members with a guide to improve our standard of service. To identify authority and accountability structures and expectations. Members should be aware that their conduct might bear the closest public scrutiny. Theses Operational Procedures are not designed, nor intended, to limit any member in the exercising their judgment or initiative in taking the action that a reasonable person would take in extraordinary situations, which are bound to arise in the Fire Service. This code is a living document and shall be reviewed on a regular basis to comply with an ever-changing workplace.

2.4. Amherstburg Fire Department members are individually responsible for knowing and complying with the Code of Conduct, rules and regulations. It is incumbent upon Management to provide time and opportunity to familiarize with all aspects of the policies referenced in this document.

2.5. When in doubt about the interpretation or application of this document, clarification should be sought immediately from a direct supervisor or Fire Chief.

3. PROCEDURE

3.1. Daily activities

- Members shall follow all policies, operational procedures, directives, and orders from officers.
- Members shall report for duties at prescribed times or call in and remain on duty until relieved or excused by an officer.
- Every member shall be responsible for their personal equipment issued the care and condition of all such equipment.
- Any members making a report, request or complaint outside the regular chain of command, shall make such report, request or complaint in writing addressed to the Chief.
- Members of the department will refer all inquiries relative to Fire Operations to the person designated in charge that will if necessary consult with the Chief of the department.
- Recharging of air cylinders other than for the department is prohibited unless approved by the Chief or designate.
- Visitors will not be allowed within the stations after 2200 hours unless permission is granted from Chief or designate.

3.2. Confidentiality/Communications: Members will not disclose confidential information on operations, the property, government, or affairs of the community or department without proper authorization. Any information not generally available to the public cannot be used for benefit be disclosed outside of the chain of command. Members cannot represent the community or make comments to the media, the public, council, or any other outside source about work-related issues unless they have been authorized to do so by the Fire Chief. It is not the intent of this code to restrict the ability of the members to express a personal opinion on matters of general interest. In such cases, the member must make it clear that the comment is being made in their capacity as a private citizen, and not as a representative of Amherstburg Fire Department or its operations.

3.3. **Disclosure:** If a member is aware of any conduct or situation that may be contrary to this code they must inform their direct supervisor or the Fire Chief. It shall be the duty of a member charged with a crime or charged with an offense that would adversely impact the performance of their duties to inform their direct supervisor or the Fire Chief.

3.4. **Conflict of Interests:** Members cannot place themselves in a position where they could derive any direct or indirect benefit from any community contracts, especially those they can influence. Members will not benefit or appear to benefit, financially or otherwise, from the use of information acquired during the course of their official duties. The Amherstburg Fire Department encourages members to take part in community activities. However, it is important to bear in mind that such service may, at times, place the employee in a real or perceived conflict of interest situation. Any situation with potential, perceived or actual conflict must be reported as soon as reasonably possible to their direct supervisor or Fire Chief.

3.5. **Political Activity:** To ensure public trust in the community, members must be, and appear to be, both personally impartial and free of undue political influence in the exercise of their official duties as a member of the Amherstburg Fire Department. Notices, posters or similar material in support of a particular candidate or political party are not to be displayed or distributed by the member at the Fire Hall or in or on the Fire Hall property.

3.6. Attendance

- Members shall respond to alarm calls in a timely fashion and be ready for duty.
- Members shall remain with their company at the scene of emergency response or assigned staging area until directed otherwise by superior officer.
- Members shall report at the prescribed time for training sessions, maintenance sessions and other duties as assigned from time to time and shall remain on duty until properly relieved by superior officer.
- Members shall attend 50% of annual training sessions and emergency responses, as well as 100% of Assigned Squad Duties (Station duties). Failure to do so may be considered grounds for disciplinary action.

3.7. Response Zones/Addressing

- Members shall respond in their assigned station zone only, unless directed by an officer or second station response.
- Members shall notify the Fire Chief of any change in his/her address or telephone number within 24 hours of such change.
- First responders who happen upon an incident may offer assistance even if they are not from that response zone. This includes when driving past incidents, when visiting friends and family in other response zones, or when attending another station for Fire Department matters.
- Firefighters attending within another response zone may not participate in any offensive or hands-on assignments unless they have their proper PPE donned.
- Those found chasing calls in other response zones may be subject to discipline.

3.8. Driving

- All Highway Traffic Act rules and regulations shall be adhered to while responding in personal vehicles including but not limited to pulling over and yielding to all emergency response vehicles regardless of the use of a green flashing light enroute to the emergency response scene.
- All HTA applicable to fire Department vehicles shall be adhered to while driving Amherstburg Fire Department vehicles.
- It is the policy of the Amherstburg Fire Department that when responding to an emergency scene in fire apparatus, posted speed limits are not to be exceeded by more than 20 KPH and only when it is safe to do so, considering but not limited to: road, weather and traffic conditions.
- A valid class “DZ” license shall be maintained by members of Amherstburg Fire Department, any deficiencies of the same shall be reported to the Fire Chief immediately.
- Seat belts are to be worn while operating or riding any emergency apparatus.
- Any member involved in a motor vehicle accident while on duty shall immediately report the details of incident to the Fire Chief or designate.

3.9. Equipment

- All members will ensure that equipment is tested / used in accordance with posted orders issued for that purpose.
- Members shall wear their full issue personal protective equipment as required unless otherwise authorized by incident commander or officer in charge.
- Amherstburg Fire Department equipment and property shall not be used for anything other than department business without permission of the Fire Chief or designate.

3.10. Safety/Injury

- Members shall observe all safety rules and accepted practices, and further members are expected to report and assist in correcting unsafe conditions and activities, and work collectively toward the prevention of accidents using the chain of command, post incident critiques, health and safety committee and other resources laid out in these guidelines and applicable acts.
- Any member injured or involved in an accident (no matter how minor) shall immediately report same to the Officer in Charge who shall forthwith report to the Fire Chief or designate to ensure that proper documentation is done for Workplace Safety and Health Insurance and any other applicable acts, as well as documented on an emergency field report.
- Any exposure to hazardous materials, chemical or biological, the nature and/or duration must be reported so that proper documentation of same can be kept on member's files or further mitigation can be undertaken.

3.11. House/Station rules

- Washing of member's private vehicles is permitted provided apparatus area is left in clean and tidy condition, and department supplies are not to be used.
- Mechanical work on personal vehicles is not allowed without express permission of the Fire Chief or designate.
- Members may use the training room and other facilities (TV, work out materials, computers etc.) or use the facilities for study and socializing between members at their own leisure during off duty hours.
- Meetings and social events beyond those described are strictly prohibited without obtaining permission from the Fire Chief or designate.
- Amherstburg Fire Department equipment is not to be borrowed or removed from any station without expressed permission of the Fire Chief or designate.
- Water and sport drinks is for use during incidents and exterior practical training only.

3.12. **Media / Social Media / Internet:** No members shall supply information or comment of any kind regarding the operations of Amherstburg Fire Department, emergency responses, policies or photos of the same to any outside parties, media or councillors nor post the same to any online media/ social media source. All communications of the same shall be done by the Fire Chief or designate.

3.13. Incident Command / Chain of command

- Members shall act with respect, courtesy and professionalism.

- Incident command may be relinquished or a senior officer (See Org. Chart for Line & Staff Authority) may relieve someone of incident command but before doing so full disclosure of pertinent details regarding the response and mitigation should be communicated between parties. This Transfer will be done utilizing the AFD formal transfer of command process and the "Blue Card Command" procedures and the Strategic Decision Making Model to ensure safe effective and efficient emergency ground operations.
- Failure to comply with a legal order that is duly authorized by an incident commander or superior officer may result in disciplinary action including reprimand, suspension, demotion, or termination depending on its severity. (a report outlining details is to be forwarded up the Chain of Command)
- The Fire Department Organizational Chart, see attached, shows the chain of command for the Amherstburg Fire Department. It identifies operational line and staff authority of all personnel in the delivery of services to Town of Amherstburg. APFFA members are not subordinate to Volunteer/Paid On-call member of any rank.
- Roles and Responsibilities may overlap based on Situational Factors, Council Direction (E&R Bylaw) or Departmental/Divisional Assignments. Clarification may be sought from Chief Officers (Deputy Fire Chief/Fire Chief) through the Chain of Command.

3.14. Chain of Command for the Department is as follows:

- Fire Chief
- Deputy Fire Chief
- Assistant Deputy Fire Chief
- District Chief
- Captain
- Firefighter

3.15. **Discovery**: When property of any nature (particularly money, jewelry etc) belonging to a third party is found or recovered at an emergency scene, the member shall turn all such property over to the incident commander who will in turn bring to Police officers attention. If any evidence of criminal or suspected criminal activity is discovered it shall be brought to the attention of the incident commander who will in turn consult with appropriate agency for its' preservation or removal. Under no circumstances are any properties to be turned over to a third party without the expressed direction of the Incident Commander.

3.16. **Fire Department Logo Decal – Personal Vehicles:** Firefighters will be provided with a logo decal for their use on their personal vehicle to identify them as members of the department. Only one decal per firefighter will be issued for the exclusive use on their primary vehicle. Decals are not to be used by Spouses, Family members nor close friends and neighbours. When members retire, or leave the employ of the fire department, or when vehicles are sold decals shall be removed from use. No other use of the Amherstburg Fire Department logo or Amherstburg town name/department name is permitted to be used in any form of decal, sign, or display on a firefighter's vehicle. Firefighter's who decide to utilize the logo decal must ensure that it is the most update

version of the department logo and is properly maintained. All old or damaged logos shall be removed from personal vehicles as soon as possible and replaced.

3.17. **Alcohol/ intoxicants**: No member shall possess, consume, sell, provide or offer for sale or provide any alcohol, prescription drug, non-prescription drug while on Amherstburg Fire Department or Town of Amherstburg property. No member shall report for duty while he or she is under the influence (impairment) of an intoxicant, alcohol, prescription or non-prescription drug.

3.18. Discreditable Conduct, No member shall:

- Fail to treat persons without discrimination with respect to fire services because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability,
- Use profane, abusive or insulting language that relates to a person's race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability,
- Be guilty of oppressive or tyrannical conduct towards an inferior in rank,
- Use profane, abusive or insulting language to any other member of a fire service,
- Use profane, abusive or insulting language or is otherwise uncivil to a member of the public,
- Willfully or negligently makes any false complaint or statement against any member Amherstburg Fire Department,
- Assault any other member of Amherstburg Fire Department,
- Be guilty of a criminal offence that is an indictable offence or an offence punishable upon summary conviction,
- Make false statements on any record or report,
- Threaten, intimidate or coerce any other members or the public,
- Engage in conduct that serves to create a negative and toxic work environment
- Engage in any type of harassment as laid out in the Town of Amherstburg policy,
- Use profane, immoral or indecent language, or conduct him or herself in any manner which might be prejudicial to the good reputation order or discipline of Amherstburg Fire Department.
- Members shall not falsify departmental records reports and communications, fail to complete reports fully, nor make false or misleading statements regarding operations of Amherstburg Fire Department.

3.19. **Discipline**: Members who fail to comply with their obligations or directions given pursuant to department policies and operational procedures may be subject to discipline up to and including discharge.

4. RECORDS, FORMS, AND ATTACHMENTS

4.1. Department Organizational Chart

B. Montone
Fire Chief, Amherstburg Fire Department

It is understood that this procedure may not address all circumstances. Conditions may exist that require some type of deviation by the Incident Commander. Decisions should always be based on experience, the safety of the public and the safety of Fire Department personnel.

APPENDIX E

THE CORPORATION OF THE TOWN OF AMHERSTBURG
BY- LAW NO. 2018 - 30

By-law to appoint a Deputy Fire Chief for the Amherstburg Fire Department

WHEREAS the Council of the Corporation of the Town of Amherstburg is empowered by the Municipal Act, S.O. 2001, c.25, and the Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4, to appoint a Fire Chief;

AND WHEREAS the Council of the Corporation of the Town of Amherstburg deems it expedient to appoint a Deputy Fire Chief to enforce the provisions of the said Acts;

NOW THEREFORE the Council of The Corporation of the Town of Amherstburg enacts as follows:

1) That Paul Acton be hereby appointed as Deputy Fire Chief of the Town of Amherstburg Fire Department, effective April 9, 2018.

2) That Paul Acton be authorized to enforce the provisions of any applicable Acts or legislation and any other By-laws within the Town of Amherstburg.

3) That he shall have all the powers and duties as defined in respect to the Deputy Fire Chief duties.

4) The By-law 2016-56 is hereby repealed in its entirety on April 9, 2018.

Read a first, second and third time and finally passed this gth day of April, 2018.
Mayor - Aldo DiCarlo

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2017-32

By-law to Appoint a Fire Chief for the Amherstburg Fire Department

WHEREAS the Council of the Corporation of the Town of Amherstburg is empowered by the Municipal Act, S.O. 2001, c. 25, and the Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4, to appoint a Fire Chief;

AND WHEREAS the Council of the Corporation of the Town of Amherstburg deems it expedient to appoint a Fire Chief to enforce the provisions of the said Acts; and,

NOW THEREFORE the Council of The Corporation of the Town of Amherstburg enacts as follows:

I. That Robert Bruce Montone be hereby appointed as Chief of the Town of Amherstburg Fire Department, effective April 24, 2017.

S That Robert Bruce Montone be authorized to enforce the provisions of any applicable Acts or legislation and any other By-laws within the Town of Amherstburg.

T That he shall have all the powers and duties as defined in By-Law Number 2015- 108 in respect to the Fire Chief duties.

U That By-Law Number 2016-57 is hereby repealed effective April 24, 2017. Read a first,

second and third time and finally passed this 10th day of April, 2017.

ALDO DICARLO, MAYOR

CEMPC

CEMC

Fire Chief

Deputy Fire Chief

ADC

Division of Apparatus, Equipment, and Communications

9 Apparatus, 3 Stations, Windsor Dispatch

Division of Fire Prevention

All Station Officers

Division of Operations

A,B,C,D Platoon District Chief (FT FF)

Station 1 DC

Squad 1A

1-Vacant (Fulfilled by Dc1) 1-Captain 8-FF

Squad 1B

2-Captain 8-FF

Station 2

Squad 2A

1-Captain 9—FF

Squad 2B

1-Captain 9—FF

Station 3

Squad 3A

2-Captain 8-FF

Squad 3B

2-Captain 8-FF

Division of Training

Training Officer / District Chief

All Station Officers

Division of Administration

Administrative Assistant

CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 1998-68

Being a By-law to provide for the participation of the Town of Amherstburg Fire Department in County Emergency Fire Service Plan and Program.

WHEREAS, Paragraph 32 of Section 210, Chapter M.45 of The Municipal Act, R.S.O. 1990, authorizes the Councils of local municipalities to adopt and participate in an Emergency Fire Service Plan and Program.

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF AMHERSTBURG HEREBY ENACTS AS FOLLOWS:

1. That the Town of Amherstburg Fire Department be authorized to leave the limits of the municipality or fire area, at the discretion of the Chief or his/her designee and under the direction of the Essex County Fire Co-ordinator, to respond to calls for assistance from other municipal fire departments authorized to participate in the Essex County Emergency Fire Service Plan and Program or any other Regional, District or County Emergency Fire Service Plan and Program on a reciprocal basis.

2. That the Town of Amherstburg Fire Department be authorized to leave the limits of the municipality or fire area, at the discretion of the Chief or his/her designee and under the direction of the Essex County Fire Co-ordinator, to respond to calls for automatic aid from other municipal fire departments authorized to participate in the Essex County Emergency Fire Service Plan and Program or any other Regional, District or County Emergency Fire Service Plan and program on a reciprocal basis. The provision of automatic aid is on a cost recovery basis and each municipality shall be liable for any costs incurred by another municipality(s) for the provision of these services as indicated in the Essex County Emergency Fire Service Plan and Program.

3. In case of the provisions of this by-law conflict with the provisions of any other by-law, the provisions of this by-law shall prevail.

4. By-law No's 2391 (Amherstburg), 2064 (Anderdon), 96-15 (Malden) are hereby repealed.

5. This By-law shall come into force and effect on the final passing hereof.

Finally passed this 14th day of December , 19 98

Wayne Dyson
MAYOR

CLERK

1st Reading: December 14, 1998

2nd Reading: December 14, 1998

3rd Reading: December 14, 1998

APPENDIX H

Town of Amherstburg Fire Department

Community Risk Assessment

Prepared by: Amherstburg Fire Department with information from Town of Amherstburg, Statistics Canada, and the Office of the Fire Marshal

October 18, 2018

Contents

Introduction

The Amherstburg Fire Department has a legislated responsibility under the Fire Protection and Prevention Act r.s.o.(FPPA) to provide public fire safety education and certain components of fire prevention to the community. The goal is to minimize emergency responses through education, code enforcement, and inspections, to ensure the residents and buildings are as fire safe as possible. In evaluating the fire safety programs that a municipality provides, the Office of the Fire Marshal identifies the following items as a minimum;

- Community Risk Assessment and community concerns/issues identified in the Community Risk Assessment
- a smoke alarm program
- distribution of fire safety education materials, and
- Conducting inspections upon complaint or when requested to assist with Fire Code compliance.

Conducting a Community Risk Assessment is the first step toward ensuring compliance with these requirements and is a practical information gathering and analyzing exercise for the purpose of determining the community fire risk and identifying appropriate programs and services to effectively address the community's fire safety needs. For the purpose of determining the fire risk in the Town of Amherstburg, the simplified risk assessment examined the demographic and building stock profile and local and provincial fire loss profiles based on the data currently available.

The information provided in the Community risk assessment will serve to determine the effectiveness of the existing fire safety education and prevention programs in the community, as well as identify gaps which can form the basis for improvement in delivering systems, and give direction in facilitating future goal setting.

The main components which the community risk assessment encompasses are as follows:

- Geographic profile
- Demographic profile of the community
- Building stock profile of the community
- Critical Infrastructure
- Hazard Profile
- Public safety response
- Community service profile
- Economic profile
- Comparison of local and provincial fire losses
- Information/Concern Summary analysis and evaluation
- Priority setting for compliance with legislation & Implementing solutions

Amherstburg Fire Department Profile

The Amherstburg Fire Department services a population of 21,940 residents, within an area of 185.67 square km. Service is provided through three fire stations which include the following, Station #1 is located in the 200 year old downtown core, station #2 in the former Anderdon Township, and station #3 in the former Malden Township. The department is classified as a composite membership consisting of a fulltime fire chief, fulltime deputy fire chief, full-time assistant deputy fire chief/ fire prevention officer, full-time administrative assistant. Three fulltime first class firefighters and one full-time firefighter/training officer based at station 2, supported by (60) sixty paid per call volunteer fire fighters make up the remaining members. Apparatus consists of 3 pumper/Rescues, 2 tanker pumpers, 3 command support vehicles, 1 Ariel ladder, 1 rescue boat. The department responded to over 522 calls for services in 2017 including house fires, tiered medical response; vehicle extrication, water & ice rescue, limited hazardous materials response, as well as other emergencies either natural or man-made. The fire department also performs complaint and request fire code inspections, all vulnerable occupancy inspections and fire drills and public fire safety education through different venues. Additionally residential open fire site inspections to promote fire safety and ensure By-Law compliance.

Geographic Profile

The town of Amherstburg's geolocation is 42.10187° N, -83.1089° E and borders on the Detroit River and Lake Erie in the Southern portion of the province that divides Canada and the United States of America. Within the Town of Amherstburg there is 43.7 kilometers of shoreline of the Detroit River, and Lake Erie, as well as 12.4 kilometers of shoreline on inland waterways including an inland river, a number of small creeks and hundreds of acres of wetland marsh also home to many forms of wildlife. The municipality is primarily rural with the largest portion of the population (approx. 15,000) living in the suburban area

surrounding the town core. The rural area is primarily cash crops consisting of corn, wheat and soybean production. Its location offers a climate that is also perfect for grape production which has seen growth in operating wineries.

Building Stock Profile

Occupancy Classification		# of Occupancies
Group A	Assembly (411,412,414,441,605,608)	65
Group B	Institutional (625,626)	3
Group C	Single family(301,302,303,304,309,311,313,314,322)	7123
	Multi-unit residential(332,333,334,335,336,340,341,365,370	454
	Hotel / Motel (450)	4
	Mobile Homes & Trailers	65
	Other(588,597)	6
Groups D & E	Commercial (400's minus 411,412,414,441,471,472)	138
Group F	Industrial (510,520,521,523,530,531,540,558,568,590,593)	68
Other occupancies not classified in OBC such as farm buildings.(210,211,220,221,222)		282
	Totals	8280
Total # of mixed occupancy buildings(303,304,471,472)	72	

Building Stock Profile Commentary

The municipality consists of an urban 200 year old downtown with many older homes and type III buildings in the core. There are a few older industrial buildings remaining in the urban section, as well as a couple new ones that have recently been built. A small industrial park with 13 businesses was established back in the late 1980's in the rural part of the municipality which consists of small to medium size buildings. Strip malls and one major big box store are located to the south of the downtown core. Most of the homes built in the 10 different subdivision projects pre 2010 are detached single family homes. There has been a move to semi-detached units to meet the economic need of the population. The rural area has a number of small clusters of homes spread throughout the municipality also varying in age.

Buildings in the Town of Amherstburg identified as critical infrastructure such as water and waste treatment plants, financial, health and food services have been noted as part of our emergency planning process.

Through our hazard identification risk assessment, our building stock could be affected by natural disasters such as tornados, windstorms, flooding, earthquakes, building collapse, explosions and fires.

Building Stock Profile Concerns

- Old downtown core. Many building very close together.
- Lack of hotels/motels in area. Existing home owners looking to rent part of their home during busy tourist season
- Potential for economic and job loss in some industrial properties ie Diageo, Centreline
- A number of structure have been related to multi-unit residential rental properties in the downtown core
- Increase in semi-detached dwelling construction
- Retrofit not completed in many multi residential properties
- Buildings identified as part of our critical infrastructure primarily the water and waste treatment buildings would have an adverse effect on the community if destroyed by fire.

Critical Infrastructure Profile

- Water Storage, treatment, and distribution plant
- Police department
- Fire department
- Public works
- Town hall including Finance, Licensing, Tax department, I.T.
- Diageo (2nd largest employer)
- ETR Rail Lines
- Canadian Coast Guard Facilities

Demographic Profile

Ages of population	#	% of Total Population	Provincial Average % of Population
Age 0-4	1045	4.7	5.17
Age 5-14	2525	11.5	11.2
Age 15-19	1465	6.7	6.0
Age 20-24	1300	5.9	6.65
Age 25-44	4770	21.8	25.7
Age 45-54	3410	15.6	14.8
Age 55-64	3450	15.6	13.6
Age 65-74	2440	11.1	9.4
Age 75-84	1030	4.7	5.1
Age 85 and over	505	2.3	2.2
Median age of population	44.5		41.3
Total Population	21,940		13,448,494

Barriers to Public Education

Approximately 88.5% of the population in Amherstburg speaks English as first language. The remainder of the population may have limited translation requirements for languages such as Italian, French, Balto-Slavic, German, Portuguese and Cantonese/Mandarin. Public Education messaging specifically for the purposes of vital information i.e. nuclear and emergency preparedness, smoke and carbon monoxide alarm along with fire safety information.

Demographic Profile Commentary

Approximately 50% of the community is over 45 years of age. The area in and around Amherstburg is being marketed as an area to retire due to lower housing prices compared to the GTA and surrounding communities.

The median age in the town of Amherstburg is 44.5 where the average in the province is 41.3.

The majority of the population does speak and understand English. There is one French only elementary school that Amherstburg Fire attended to deliver fire safety messages in French.

Population growth has been slow in comparison to the rest of the province. The down turn in the auto sector almost a decade ago has just started to turn around and the lack of well-paying jobs available has caused some to relocate. The unemployment rates have stabilized due to an influx in part-time employment. The need for low income homes has been an issue due to the lack of good paying full time jobs.

While the economy has strengthened, the real estate market has seen progressive improvement with sales and home prices increasing dramatically in the last two years. The rezoning of large areas of farm land into residential zoning will allow growth to continue due to the shortage of homes and properties available around the region. An environmental assessment is currently underway to allow for 1700 homes to be constructed in the south east quadrant of the town,

an application for the construction of 200 lots on Bob Lo Island and expansion of the Kingsbridge subdivision.

Demographic Profile Concerns

- Large senior population adds to the number of medical responses annually
- Increased population in good weather due to seasonal homes add to overall population taxing already overstretched services
- Increase in vulnerable occupancies due to aging population
- Area being marketed as a seniors retirement area

Population fluctuation
(e.g., tourism, special events)

The Town of Amherstburg is host to many recreational and cultural events throughout the year such as Woof-a-roo, Cars Gone Crazy, Rib Fest, Harvest Festival, Santa Claus Run to name a few. Each event can see anywhere from a couple hundred to over 25,000 visitors for a weekend event. The Bob Lo Island community is home to seasonal and year round residents that require a short ferry ride across the river to access. The population increases in the summer months for the cottage life and many island residents' travel south for the winter months. A number of cottages along the Detroit River and Lake Erie also add to the population growth in the summer months as cottagers head to the water front for relaxation.

Vulnerable groups / individuals
(e.g., non-ambulatory)

List of applicable occupancies:

Community Living Essex County: has 9 special needs homes with 37 residents spread out in the community with 24 hour staffing:

Seasons Amherstburg Assisted Living Retirement Home: with 128 residents

Richmond Terrace Long Term Care: with 106 residents

Victoria Street Manor: with 7 residents

Combined total number of vulnerable individuals: 278 residents

Hazard Profile

One of the hazards identified and a under a lot of public attention at this time is the Fermi II Nuclear Generating Station located across the Detroit River at the mouth of Lake Erie within the United States. The southern portion of Amherstburg is located within the 16.1 kilometre primary zone. Progress has been slow in working with the province on emergency planning and responsibility.

Another hazard is the extreme weather events that range from high winds heavy rainfall, large snow falls, to extreme heat and humidity and drought. In the past 12 months the community has experienced 2-EF 2 Tornados, 1- 4.0 earthquake and 2- One-hundred Year Rain Storms.
Technological events such as frequent power outages disrupt residents and business alike.

Public Safety Response Profile

- Amherstburg Police Department services the entire municipality at the present, but the service will be contracted to Windsor Police in January 2019. Special operations are currently provided Ontario Provincial Police and Windsor Police

- Essex- Windsor County ambulance service provides first responder Emergency medical/transportation services for the municipality of Amherstburg as well as the entire county and City of Windsor. They provide basic as well as advanced life support.

- Canadian Coast Guard Base the service, maintains and deploys as necessary navigational aids both fixed and floating Stationed in Amherstburg is the CCGS Caribou Isle, a Coast Guard navigational aids

tender, and the Coast Guard Cutter Thunder Cape, a search and rescue vessel, both operational from the end of March until December each year There is a pollution response trailer for early response and containment in the event of an environmental spill .

- Hazardous material incidents which requires specialized equipment and training is provided by Windsor fire and Rescue Services which is one of the provincial Level 3 CBRNe teams.

Community Services Resources profile

- Canadian Red Cross
- City of Windsor Social Services
- Community Living Essex
- Amherstburg Food mission
- Amherstburg Community services
- Amateur Radio Club
- Numerous Service Groups

Economic Profile

Amherstburg is a Bedroom Community to the City of Windsor with the majority of employment enjoyed within the city.

The town has a variety small to medium sized businesses that provide employment for some residents. These include an alcoholic beverage bottling plant, to wineries in the rural areas, to automotive related suppliers in the industrial park located in the east part of town, commercial components in the downtown core as well as the village of McGregor. These businesses provide employment and pay tax to the town of Amherstburg

Fire Loss Profile

Comparison of Provincial (Ontario) and Local (Town of Amherstburg) Fire Loss Statistics by Occupancy/Property Classification

A review of the local and provincial fire loss statistics has confirmed residential properties as being the predominant community fire risk, based on occupancy, in regards to the total number of fire occurrences; and the greatest amount of dollar loss in property. Based on the fire loss statistics for the three-year period (2014-2016), residential occupancies contributed for:

- **48.85%** of all fires in Ontario and **42.47%** of all fires in the Town of Amherstburg
- **81.06%** of all injuries in Ontario and **0%** of all injuries in the Town of Amherstburg
- **88.17%** of all fatalities in Ontario and **0%** of all fatalities in the Town of Amherstburg
- **53.03%** of all dollar loss in Ontario and 81.42**%** of all dollar loss in the Town of Amherstburg

PROPERTY CLASSIFICATION	ONTARIO FIRE LOSSES 2014-2016 (%)				AMHERTSBURG FIRE LOSSES 2014-2016 (%)			
	TOTAL FIRES	INJURIES	FATAL	$ LOSS	TOTAL FIRES	INJURIES	FATAL	$ LOSS
Assembly	309	23	0	26,596,917	1	0	0	400,000
Care & Detention	89	7	0	9,631,975	0	0	0	0
Residential	5217	647	67	374,897,397	8	0	0	540,000
Business & Personal Services	173	12	0	16,689,000	0	0	0	0
Mercantile	243	8	0	15,568,487	0	0	0	0
Industrial	532	49	2	304,953,772	0	0	0	0
Other/Not Class.	316	5	0	4,494,506	0	0	0	0
Vehicle Fires	2859	37	5	66,388,616	5	0	0	115,500
Outdoor	713	17	6	10,936,347	13	0	0	0
Classified under National Farm Building Code	184	9	0	31,849,026	0	0	0	0
2014 Total:	**10635**	**814**	**80**	**862,006,043**	**27**	**0**	**0**	**1,055,500**

Assembly	277	13	0	19,851,840	0	0	0	0
Care & Detention	83	22	0	17,000,234	0	0	0	0
Residential	5385	704	83	423,043,886	8	0	0	1,067,600
Business & Personal Services	166	8	0	11,069,201	0	0	0	0
Mercantile	228	11	0	56,122,119	1	0	0	80,000
Industrial	523	22	1	72,533,165	1	0	0	200,000
Other/Not Class.	369	6	1	7,936,765	1	0	0	1,000
Vehicle Fires	2942	42	7	56,523,657	2	0	0	16,000
Outdoor	769	22	2	7,132,480	4	0	0	0
Classified under National Farm Building Code	209	10	0	51,400,385	0	0	0	0
2015 Total:	**10951**	**860**	**94**	**722,613,732**	**17**	**0**	**0**	**1,364,600**
Assembly	252	7	0	22,728,955	0	0	0	0
Care & Detention	123	11	2	2,285,861	0	0	0	0
Residential	5243	592	81	435,838,996	15	0	0	2,239,030
Business & Personal Services	165	9	1	15,960,827	0	0	0	0
Mercantile	252	11	0	36,493,671	1	0	0	5,000
Industrial	548	29	1	90,827,730	0	0	0	0
Other/Not Class.	409	8	0	8,213,481	1	0	0	40,000
Vehicle Fires	2843	29	3	73,262,620	4	0	0	20,200
Outdoor	832	19	0	14,066,864	8	0	0	0
Classified under National Farm Building Code	177	8	0	42,117,250	0	0	0	0
2016 Total:	**10844**	**723**	**88**	**741,796,110**	**29**	**0**	**0**	**2,304,230**
TOTAL 2014-2016	**32430**	**2397**	**262**	**2,326,415,885**	**73**	**0**	**0**	**4,724,330**

As residential fires represent the greatest risk to the community, the Amherstburg Fire Services Fire Prevention, Service Delivery must focus on efforts to target this risk through initiatives such as: enhanced public education activities; appropriate inspection programs and the support of legislative changes to require the installation of residential sprinklers.

Table 1:

Amherstburg Residential Fire Losses

(Source, OFM Fire Loss Statistics 2014-2016)

RESIDENTIAL TYPE	TOTAL FIRES	INJURIES	FATALITIES	$ LOSS
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	
Multi unit dwelling			0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	8		0	
2014 Total:	**8**		**0**	**$540,000**
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	
Multi unit dwelling	2		0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	8		0	
2015 Total:	**10**		**0**	**$1,067,600**
Dual residential/business			0	
Hotel/Motel			0	
Mobile Home			0	
Multi unit dwelling			0	
Other residential			0	
Rooming/group homes			0	
Detached/semi/attached	15		0	
2016 Total:	**15**		**0**	**2,239,030**
TOTAL 2014-2016	**33**		**0**	**3,846,630**

Municipal Fire Loss Profile

Municipal Fire Deaths and Injuries								
Occupancy Classification		**2015**		**2016**		**2017**		**Total Deaths + Injuries**
		Deaths	**Injuries**	**Deaths**	**Injuries**	**Deaths**	**Injuries**	
Group A	Assembly	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Group B	Institutional	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Group C	Residential	**0**	**0**	**0**	**0**	**0**	**1**	**1**
Groups D & E	Commercial	**0**	**0**	**0**	**0**	**0**	**1**	**1**
Group F	Industrial	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Mobile Homes & Trailers		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other		**0**	**1**	**0**	**1**	**0**	**1**	**3**
Total Deaths / Injuries		**0**	**1**	**0**	**1**	**0**	**3**	**5**

Municipal Property Dollar Loss

Occupancy Classification		**2015**		**2016**		**2017**		**% of Total Dollar Loss (2015-2017)**
		# of Fires	**$**	**# of Fires**	**$**	**# of Fires**	**$**	
Group A	Assembly	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Group B	Institutional	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Group C	Residential	**7**	**1,232,100**	**16**	**2,279,030**	**7**	**448,000**	**60%**
Groups D & E	Commercial	**1**	**80,000**	**1**	**5,000**	**0**	**0**	**4%**
Group F	Industrial	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Mobile Homes & Trailers		**0**	**0**	**0**	**0**	**1**	**1,000**	**2%**
Other		**5**	**52,500**	**4**	**20,200**	**8**	**648,500**	**34%**
Total Dollar Loss			**1,364,600**		**2,304,230**		**1,097,500**	**4,767,330**

Comparison of the Community's Experience to other comparable communities

Amherstburg - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions NoLoss	Burning (controlled)	CO False calls	False fire calls	Medical/re suscitator call	Other response
410 *100%*	21 *5%*	9 *2%*	39 *10%*	37 *9%*	60 *15%*	105 *26%*	38 *9%*
Pre fire conditions/ no fire	Public Hazard	Rescue					
17 *4%*	29 *7%*	55 *13%*					

Essex - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions NoLoss	Burning (controlled)	CO False calls	False fire calls	Medical/re suscitator call	Other response
369 *100%*	31 *8%*	5 *1%*	22 *6%*	25 *7%*	67 *18%*	76 *21%*	38 *10%*
Pre fire conditions/ no fire	Public Hazard	Rescue					
36 *10%*	19 *5%*	50 *14%*					

LaSalle - 2016							
Total	Fires/ Explosions Loss	Fires/ Explosions NoLoss	Burning (controlled)	CO False calls	False fire calls	Medical/re suscitator call	Other response
359 *100%*	15 *4%*	14 *4%*	11 *3%*	41 *11%*	89 *25%*	52 *14%*	18 *5%*
Overpressure (no fire)	Pre fire conditions/ no fire	Public Hazard	Rescue				
1 *0%*	24 *7%*	33 *9%*	61 *17%*				

Municipal Fire Loss Profile Commentary

60% of all fires from 2014-16 were in residential occupancies. An additional 34% were vehicle fires cars, pickups, tractors and combines).

When vehicle fires are excluded from the total fire loss amount, 91% of all structure fires in that period of time were in residential occupancies.

Fire loss normally fluctuates from year to year, and specifically due to the fact that in 2016 for example there were two high dollar loss fires in two residential homes. One of the homes was estimated at $500,000 and another at $890,000, compared to other house fires in the $100,000- $200,000 range. Residential occupancies continues to be the largest percentage of fire loss, although agricultural fire dollar loss can reach over one million dollars.

Of the five fire injuries, 2 occurred at open burns, 1 was from a small explosion at a pizzeria, 1 was from trying to extinguish a tractor fire and 1 was at a single family residence.

With a large rural area in the municipality, it is not unusual to have motor vehicle collisions or fires involving farm machinery. With the cost of these large pieces of farm machinery, the dollar loss can range from a few thousand to upwards of 1 million dollars. Also within these rural farm properties we have large farm equipment maintenance, and storage buildings that house these expensive pieces of farm machinery. A fire in these structures could total 2 million dollars in damage.

Municipal Fire Loss Profile Concerns

.

,

- Large number of older homes converted to multi unit residential
- Downtown core consist of 200 year old building stock
- Retrofit has not been completed for many of the structures requiring upgrades
- Majority of fires are in residential occupancies
- 2 of our 5 fire injuries were due to incidents at open air burns.

Information/Concerns analysis and evaluation summary

Based on the profiles and identified concerns, the following will provide a summary of the community's potential fire concerns and a recommended means of addressing each concern.

IDENTIFIED CONCERN	RECOMMENDATION
❑ FPPA legislated responsibilities >community fire safety minimum program requirements	❑ Conduct a comprehensive service delivery review of the Fire Prevention Division to confirm the Fire Services ability to meet it's mandated responsibility and that the delivery of fire prevention activities is addressing the community fire risk in a cost effective and efficient manner. ❑ Continue the decentralized delivery of Fire Prevention services to reduce inefficiencies due to excessive travel
• Old downtown core. Many building very close together. • Lack of hotels/motels in area. Existing home owners looking to rent part of their home during busy tourist season • A number of structures have been converted to multi-unit residential rental properties in the downtown core • Increase in semi-detached dwelling construction • Retrofit not completed in many multi residential properties • Buildings identified as part of our critical infrastructure primarily the water and waste treatment buildings would have an adverse effect on the community if destroyed by fire.	❑ As Urban Renewal continues, coordinate with CBO to ensure current OBC requirements. ❑ Public Education programming regarding Basement Apartments and Rooming Houses ❑ Program development to provide awareness initiative to visitors and inspection services to the tourism industry. ❑ As Urban Renewal continues, coordinate with CBO to ensure current OBC requirements Enhance Water Supply planning activities
❑ Cultural and linguistic concerns	❑ Public Education programs directed towards these target audiences
❑ Service delivery in both official languages	❑ Increased demands for program development (translation and creation of new programs to meet the

	community's need).
, • Large number of older homes converted to multi unit residential • Downtown core consist of 200 year old building stock • Retrofit has not been completed for many of the structures requiring upgrades • Majority of fires are in residential occupancies • 2 of our 5 fire injuries were due to incidents at open air burns.	❑ Evaluate public education program development based on needs (urban/rural) ❑ Comprehensive fire inspection programs to target identified risk groups/properties and identified risks. ❑ Demands for legislated inspection programs, such as program for residential retrofit.

Priority Setting for Compliance

Information from our demographic, building stock and municipal fire loss profiles,

Priority Setting Worksheet					
Priority	Status		Effectiveness, Goals/Objectives		
Fire Safety Priority	Current fire prevention / public education programs that address the fire safety priority		Existing programs adequately address the fire safety priority & ensure compliance with minimum FPPA requirements		
	Fire Prevention (inspection) Activities	Public Education Activities	Y/ N	Fire Prevention (Inspection) Activities	Public Education Activities
Retrofit of multi residential properties	Compile list of buildings requiring retrofit	None	N	With only 1 FPO, start with 2 unit buildings as time permits	Use Social Media and local paper to notify owners AFD to begin retrofit inspections
Non-compliance of smoke and carbon monoxide	Continue with enforcement activities	Use of social media re: smoke and CO alarms	Y		
150-200 year old Downtown core	Annual business licenses in commercial area.	None	Y	Continue to complete annual inspections and any request or complaint issues.	

Smoke and CO alarm program to be expanded	Partnered with Rotary for purchase of CO alarms	Media exposure through social media and local newspaper	Y		
Nuclear emergency management preparedness	None	Limited public education messaging	N	Working with OFMEM to create concept of operations	Work with MOH on KI pill distribution, use social media and local newspaper to deliver messaging
Other language fire safety messages	None	No other language messaging at this time	N	Work with community partners to identify demographics	Work with community partners to deliver fire safety messages in those languages
Open air burning	Started to inspect and approve open burns	Educate public on safe distances and types of open burns permitted	Y	Using FF's to assist in the inspection process	Educate residents through open houses, social media and local newspaper
Older homes converted to multi- unit residential	Joint inspection with building dept. for new applications	None	Y		

APPENDIX I

THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF THE CAO

MISSION STATEMENT: Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.

Author's Name: Paula Parker	**Report Date: January 3, 2017**
Author's Phone: 519 736-0012 ext. 2238	**Date to Council: January 23, 2017**
Author's E-mail: pparker@amherstburg.ca	**Resolution #: N/A**

To: **Mayor and Members of Town Council**

Subject: **Boblo Island Emergency Planning**

---

1. RECOMMENDATION:

It is recommended that:

1. The report from the Municipal Clerk/Risk Manager dated January 3, 2017 regarding Boblo Island Emergency Planning **BE RECEIVED**; and,

2. Administration **BE DIRECTED** to contact Fisheries and Oceans Canada, Canadian Coast Guard to negotiate a special assistance agreement during the winter months to aide with uninterrupted ferry service for Boblo Island residents.

2. BACKGROUND:

Boblo Island is an island in the Detroit River on the Canadian side of the border and forms a part of Amherstburg. The main northbound shipping channel of the Detroit River currently lies between Boblo Island and the Amherstburg mainland, and is called the Amherstburg Channel. The island is currently being developed as Boblo Island and Marina Resort Community by Boblo Developments Inc. Boblo Island currently has a community of homes and condominiums on the north end of the island and has been negotiating with the Ministry of Natural Resources over the past 4 years, awaiting environmental clearance for development on the south end of the island.

The services for phase 1 of the development, being roads, storm and sanitary sewers, water mains, and electrical distribution, etc., were completed and have been accepted by the Municipality, however the island is serviced by a private ferry.

On December 20, 2016, the Boblo Island Ferry Service advised the Fire Station 2, On-Duty Officer that ferry services to and from the island were inoperable due to ice conditions on the Detroit River. The ferry was out of service for approximately 9 hours and a passenger airboat was used to transport residents to and from the island in place of the ferry service. It is important to note that while the ferry service is inoperable, vehicles of any size cannot be transported to and from the island which poses some concern for the municipality's emergency service responders.

Amherstburg Fire and Amherstburg Police Service share concern over response time and response capabilities in the event of inclement weather which prevents the operation of the ferry service.

3. DISCUSSION:

It is the responsibility of the Municipality to ensure the safety and well-being of its residents. In the event of an emergency where ferry access is not available, emergency service responders will not be able to bring the appropriate apparatus or equipment over to the island to tend to the emergency effectively.

In an effort to alleviate the concerns shared by the island owner, administration met with Mr. Amicone, Boblo Developments Inc., to better understand the reason for the inoperability of the ferry service during inclement weather and to offer some assistance in providing solutions for the safety of island residents.

Administration also made contact with the Canadian Coast Guard (CCG) to determine whether assistance from an ice breaker was feasible in these instances. The CCG indicated that the municipality had 24/7 access to the ice breaking duty officer and assistance would be sent as soon as available.

Further research into the CCG Icebreaking Operations Services indicates the following (emphasis added):
"Readiness

*During the ice season, CCG icebreakers will be maintained in a state of readiness whereby they **may** respond to a service request within 1 hour.*

Response Time

Under average ice conditions, a CCG icebreaker will be on scene to provide icebreaking services within the hours stipulated below:

Region	***Hours***
Canadian Arctic	*10 hours*
East Coast of Newfoundland	*8 hours*

Gulf of Saint Lawrence	*12 hours*
Saint Lawrence and Saguenay Rivers	*5 hours*
Great Lakes	*8 hours*
Fishing Harbour Breakouts	*24 hours*

These hours are calculated from the time that the service is required until the icebreaker arrives on scene. Service will not be provided to these standards when severe environmental conditions, hydrographic or geographic features of the area would endanger CCG personnel, ships or equipment or those requesting the services.

Applicable Priorities

1. *All distress and emergency situations take precedence;*
2. *Service requests from ferry services provided in accordance with the Terms of Confederation/Union will be given priority; other ferry services will receive priority as deemed appropriate by the CCG;*
3. *Ships with vulnerable cargoes (pollutants, dangerous goods, perishable) and vessels transporting cargo which is vital to the survival of communities;*
4. *Marine traffic and fishing vessels."*

The Minister of Fisheries & Oceans, through various legislative means including the *Oceans Act*, provides icebreaking services for the safe, economical and efficient movement of ships in Canadian waters and to decrease the risk of flooding as a result of ice build-up. The CCG Provision of Icebreaking Services, Directive 1, sections 3.4 and 3.5 state the following:

"3.4 Requests for Service

Requests for icebreaking services in areas or timeframes outside those defined in this document will be reviewed and prioritized based on weather and ice conditions, the number of available icebreakers in the area, and the amount of traffic needing assistance.

3.5 Service Under Special Agreement

Where it is appropriate and feasible to do so, icebreaking services may be provided under special agreement with other government departments or agencies."

After discussion with a representative from the CCG, it was understood that the Amherstburg Channel is not maintained throughout the winter months in the same manner as the Livingston Channel, which runs parallel to the Amherstburg Channel on the other side of the island, and in the opinion of the representative, shipping vessels prefer the use of the Livingston Channel during the winter.

In the course of the meeting, Mr. Amicone indicated the reason for the ferry's inoperability during extreme cold temperatures to be a build-up of ice breakage from the Amherstburg Channel that forms an ice jam at the narrowest point of the Channel (the ferry crossing). This is caused when shipping vessels use the Amherstburg Channel. He further indicated that if the Amherstburg Channel were to remain unused in the winter months an ice bridge can be formed where the ferry crosses and transport to and from the island would not be a concern. A frozen edge upstream can be maintained and icebreaking is only required downstream to keep the flow open.

Having a better understanding of the cause of concern, some short and long term solutions were proposed to provide sufficient emergency response to island residents in the case of an emergency where the ferry is inoperable. These solutions are proposed below for Council's consideration.

Short Term Solution

Ferry Service

- Amherstburg Ferry Company will notify the Municipality immediately when the ferry service is inoperable
- The Municipality will contact CCG for ice breaker assistance
- Amherstburg Ferry Company will operate passenger airboat until ferry service resumes

Emergency Response

- Emergency Service responders will only cross on the tug or a Transport Canada safety regulated airboat
- Emergency Service responders will make decisions on the response that is most appropriate at the time of incident
- Use of a maintenance type vehicle to move fire equipment to and from a fire incident should be permanently located on the island during the winter months
- Fire equipment to be stored permanently on the island for use during the winter months

This short term solution allows for prompt attention to the ferry needs and addresses the concern as quickly as possible to get the ferry operable. In case of fire, or medical emergency, it is believed that storing additional equipment on the island will address this matter adequately for the short term.

It is important to note that as per the CCG's Icebreaking Operations Services response time, noted above, it could take up to 8 hours before an ice breaker arrives to assist.

Long Term Solution

Ferry Service

- Contact CCG to specifically request a special agreement for ice breaking services downstream to maintain ice flow and diversion of vessels to the Livingston Channel from December to April (where weather dictates) to maintain a frozen edge upstream for the safe passage of the ferry, island residents and emergency service responders

Emergency Response

- Purchase an additional fire apparatus for Station 1 and maintain an apparatus and additional equipment on the island
- Construct a Fire station to house the apparatus and equipment

This long term solution is believed to be the best solution for the safety and well-being of the municipality's island residents. It will enable Emergency Services year round access to the island without additional delay, and will allow the Amherstburg Fire Department to appropriately respond to a fire incident on the island at any time of year regardless of ferry service.

4. RISK ANALYSIS:

Due to the Island's unique circumstance, where ferry service is necessary to get to and from the island, it is important to note that emergency response times to the island are longer than usual even under normal weather conditions. However, with the additional concern raised regarding the municipalities inability to respond appropriately to a medical, fire or other emergency on the island when the ferry is inoperable, the municipality has a duty to address the situation for the safety of its island residents.

Section 2.1(3), Municipal Emergency Management Programs of the *Emergency Management and Civil Protection Act (EMCPA),* states the following:

"Hazard and risk assessment and infrastructure identification

(3) In developing its emergency management program, every municipality shall identify and assess the various hazards and risks to public safety that could give rise to emergencies and identify the facilities and other elements of the infrastructure that are at risk of being affected by emergencies. 2002, c. 14, s. 4."

An amendment to Town's Establishing and Regulating (E & R) By-law has been identified and will be brought back to Council for consideration as a housekeeping matter at a later date.

5. FINANCIAL MATTERS:

Short Term Solution Costs

- 500' of 2 ½ inch hose
- 1000' of 1 ½ inch hose
- 2 1 ½ nozzles
- 2 2 ½ - 1 ½ gated wyes
- Portable pump
- 8 self-contained breathing apparatus

- Forcible entry tools, etc.
- Maintenance type vehicle
- Storage facility

The equipment and vehicle needed for this short term solution can be provided at little to no additional cost. Surplus equipment from the 3 fire stations will be transported to the island to be stored/used in the winter. The vehicle will be borrowed from the Parks fleet while it is not in use through the winter months and stored on the island at the ferry dock for quick delivery of services once Emergency Responders reach the island.

The temporary storage facility will be supplied by Boblo Developments Inc. to shelter the stored equipment from the elements.

Long Term Solution Costs

Replacement of the 1995 Spartan Fire Pumper at Station 1 will allow this pumper and its equipment to be relocated to the island permanently throughout the year. Amherstburg Fire will be responsible for maintenance of the pumper and equipment, as well as general upkeep of the interior of the storage building.

The construction and maintenance of the building to house the fire truck will be the responsibility of the Town. Administration will work with Mr. Amicone, to not only address the Town's emergency response concerns, but future needs of the Parks and Public Works departments on the island. Available funds in the Development Charges Reserve for the construction of a fire facility only as at December 31, 2016 are $157,000.

The funds for the replacement of the 1995 Spartan Fire Pumper were allotted in the 2017 Fire Budget.

6. CONSULTATIONS:

Dominic Amicone, Boblo Developments Inc. was consulted on this report and concurs with the recommendations.

7. CONCLUSION:

Amherstburg Fire and Amherstburg Police Service have identified a concern over response time and response capabilities in the event of inclement weather which prevents the operation of the ferry service to and from Boblo Island. In the event of an emergency where ferry access is not available, emergency service responders are unable to bring the appropriate apparatus or equipment to the island to tend to the emergency effectively.

As it is a legislated responsibility of the Municipality to ensure the safety and well-being of its residents under the *EMCPA,* Administration recommends that the Municipality request a special agreement with Fisheries and Oceans Canada, Canadian Coast Guard to aide with uninterrupted ferry services for island residents, to adequately provide emergency services.

Paula Parker
Municipal Clerk

pp

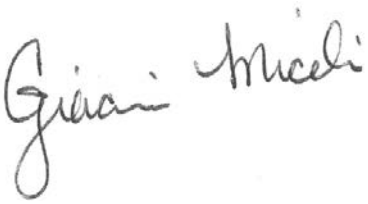
Report Approval Details

Document Title:	Boblo Island Emergency Planning.docx
Attachments:	N/A
Final Approval Date:	Jan 16, 2017

This report and all of its attachments were approved and signed as outlined below:

Justin Rousseau - Jan 13, 2017 - 12:08 PM

Mark Galvin - Jan 13, 2017 - 12:33 PM



John Miceli - Jan 13, 2017 - 2:14 PM

Paula Parker - Jan 16, 2017 - 2:43 PM

MALDEN RD
NORTH TOWNLINE RD
NORTH TOWNLINE RD
NORTH TOWNLINE RD
WALKER RD
CONCESSION 2 N
CONCESSION 3 N
CONCESSION 4 N
CONCESSION 5 N
CONCESSION 6 N
CONCESSION 8
SMITH INDUSTRIALDR
SARI LANE
NORTH SIDEROAD
NORTH SIDEROAD
HOWARD AVE
COUNTY RD 20
MIDDLE SIDEROAD
MIDDLE SIDEROAD
CONCESSION 2 N
WALKER RD
TEXAS RD
TEXAS RD
TEXAS RD
TEXAS RD
CONCESSION 3 N
CONCESSION 4 N
CONCESSION 5 N
CONCESSION 6 N
HOWARD AVE
CONCESSION 8
WALKER RD
ALMA ST
ALMA ST
CONCESSION 4 S
CONCESSION 5 S
CONCESSION 6 S
CONCESSION 7
HOWARD AVE
CONCESSION 9
ESSEX CTY RD 11
SIMCOE RD
SIMCOE RD
SMITH RD
SOUTH SDRD
SOUTH SDRD
CREEK RD
CONCESSION 4 S
CONCESSION 5 S
CONCESSION 6 S
CONCESSION 7
HOWARD AVE
CONCESSION 9
SMITH RD
COUNTY RD 20
COUNTY RD 20
MALDEN COLCHESTER SOUTH TOWNLINE RD
FRONT RD S
CONCESSION 3 S
KNAPPS ISLAND RD
COUNTY RD 50
CONCESSION 7
COUNTY RD 20
MCLEOD AVE
ERIE AVE
WILLOW BEACH RD
COLLISON SIDE RD
HOLIDAY BEACH CONSERVATIO
LAKE ERIE CC
COUNTY RD 50
ESSEX RD 41
LEVERGOOD LANE

Legend

- Under 7 Min - 482
- 7 - 9 Min - 258
- 9 - 10 Min - 74
- 10 - 14 Min - 82
- Over 14 Min - 23

Town of Amherstburg

Fire Calls 2015 -2017 - Response Times

GIS Department 2018

Legend

Population Density per km

- 5.1 100.0
- 100.1 - 500.0
- 500.1 - 1000.0
- 1000.1 - 25000

Firefighters

- Station 1
- Station 2
- Station 3
- At Risk Properties

Station 1 - 131
Station 2 - 72
Station 3 - 50

Town of Amherstburg

Population Density and Firefighter Locations

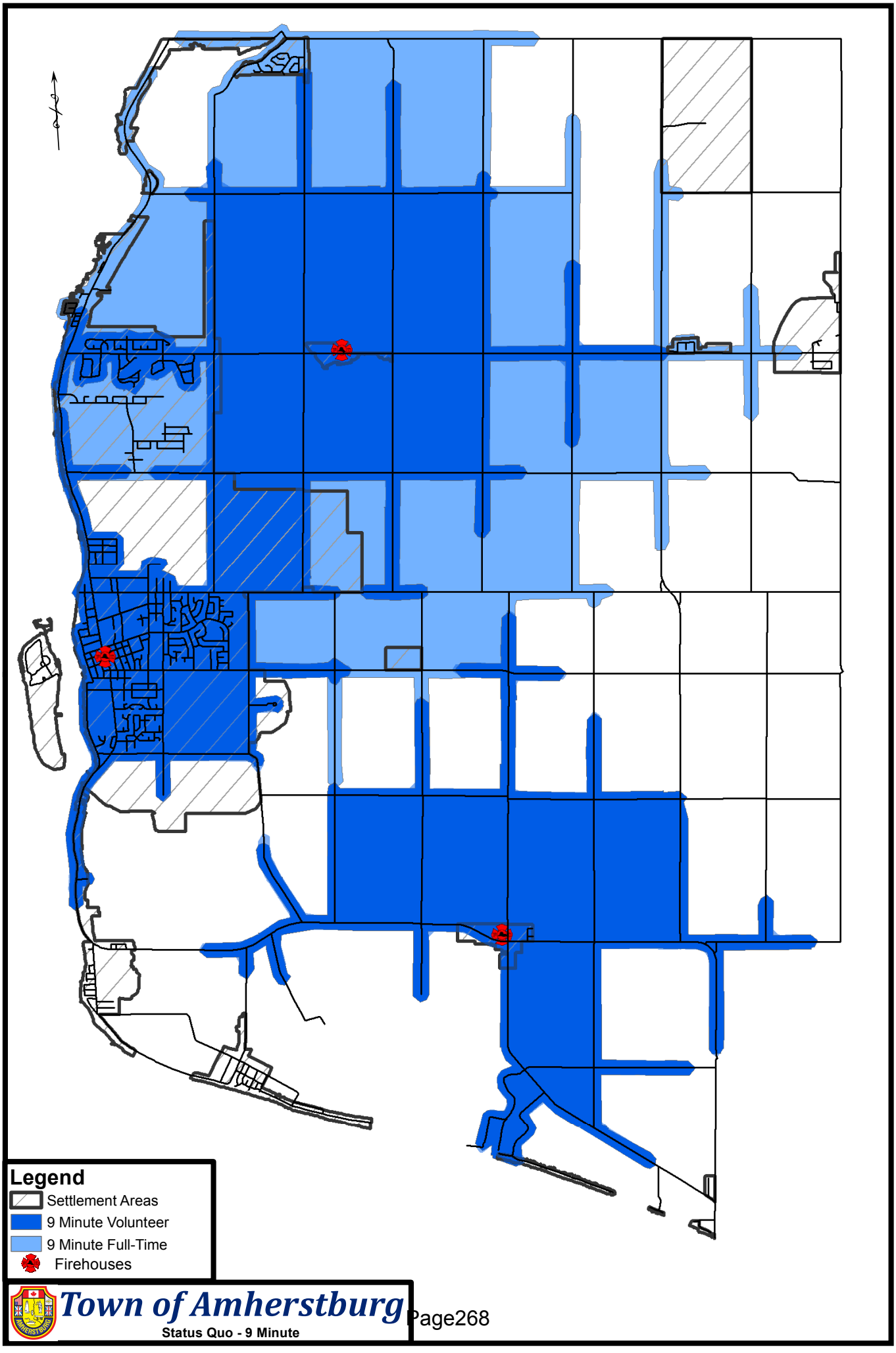
Legend

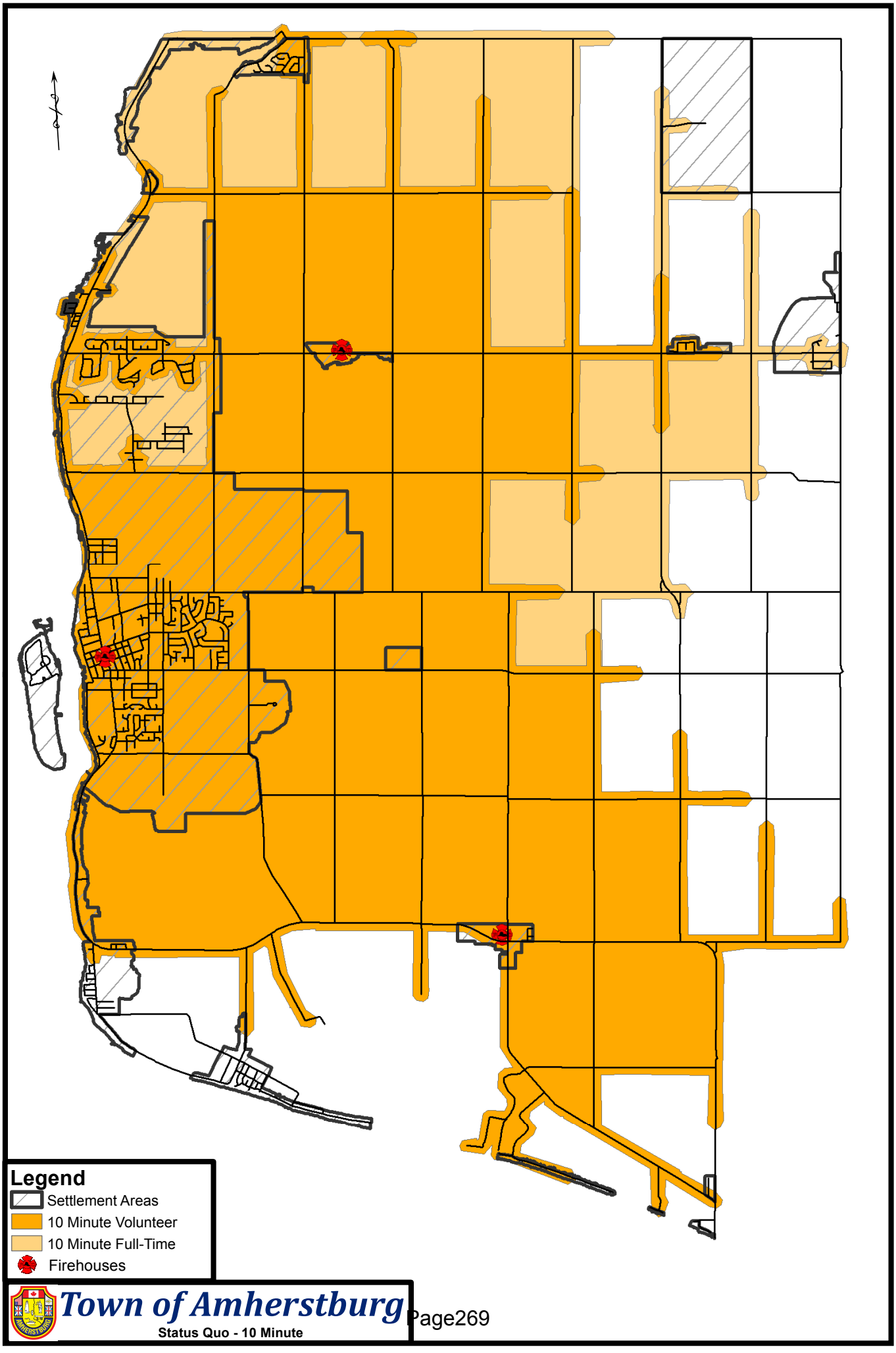
- 35 Km/h
- 40 Km/h
- 45 Km/h
- 50 Km/h
- 65 Km/h
- 70 Km/h

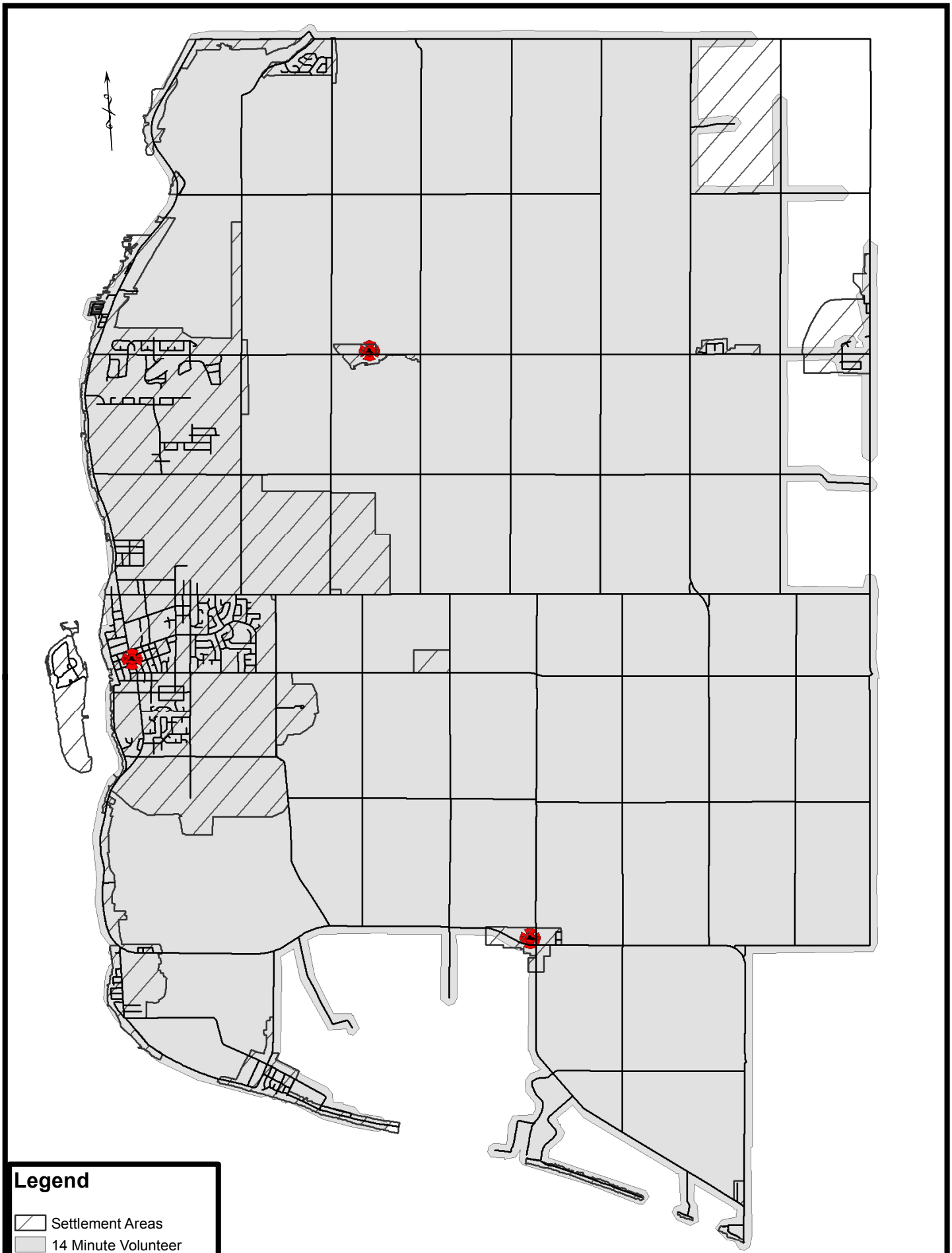
Town of Amherstburg

Fire Truck Network - Speeds

GIS Department 2019

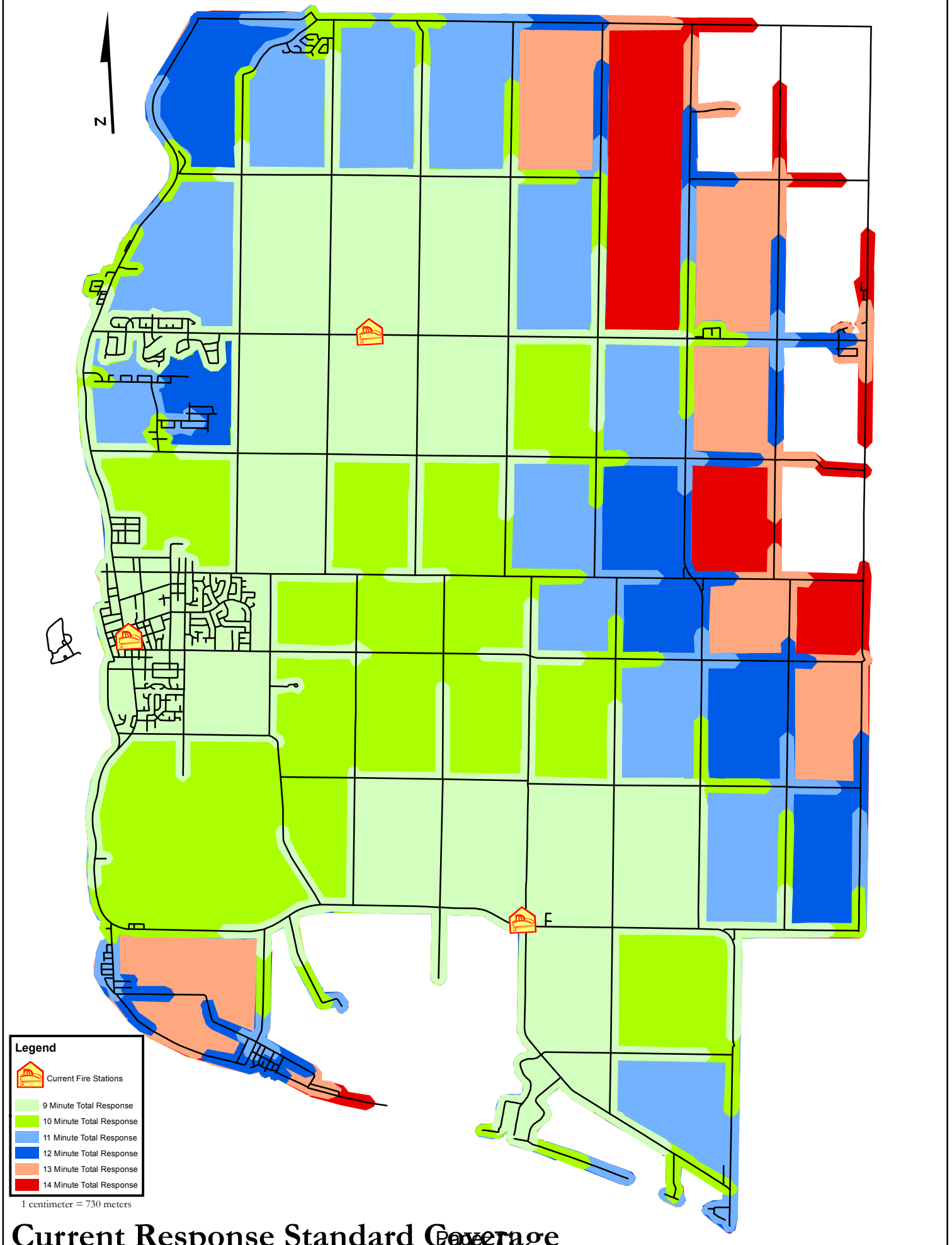

Legend
Settlement Areas
9 Minute Volunteer
9 Minute Full-Time
Firehouses
Town of Amherstburg
Status Quo - 9 Minute


Legend
Settlement Areas
10 Minute Volunteer
10 Minute Full-Time
Firehouses
Town of Amherstburg
Status Quo - 10 Minute



Town of Amherstburg

Status Quo - 14 Minute



Current Response Standard Coverage

Page 1