



Fire Department Master Plan Update Council Workshop - Newmarket

Central York Fire Services
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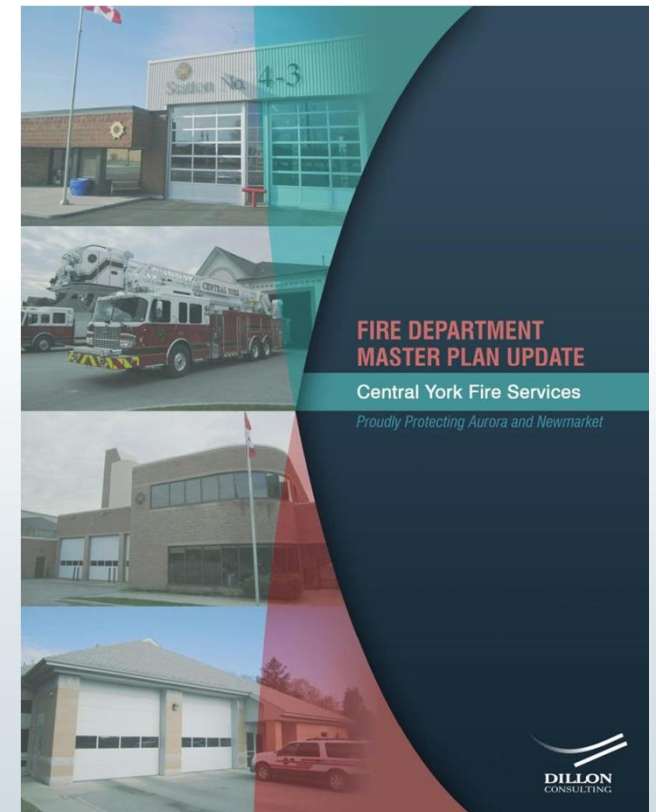
Presentation Outline

- Overview of Fire Master Plans
- Municipal Responsibilities
- Fire Master Plan Update Background
- Community Risk Profile
- Existing Conditions, Historical Calls & Response Modelling
- Recommendations
- Questions & Discussion



What is a Fire Master Plan?

- Comprehensive evaluation of all current fire services.
- Compared to legislated standards and best practices.
- An opportunity to identify alternative service-delivery options based on evidence-supported analyses.
- Creation of a strategic, multi-year plan to deliver service based on the needs and circumstances of the community.



Benefits of a Fire Master Plan

- Provides strategic template for delivering fire services over the next 5 to 10 years.
- Response to community risks and needs.
- Ensure Central York is addressing legislated responsibilities / requirements.
- Opportunity for public & stakeholders to participate in developing service level performance targets and measures.



Municipal Responsibilities

Under the FPPA, every municipality shall:

(a) Establish a program for public education with respect to fire safety and certain components of fire prevention;

(b) Provide other fire protection services as necessary.

FIRE PROTECTION AND PREVENTION ACT, 1997

FIRE PROTECTION AND PREVENTION ACT, 1997

S.O. 1997, CHAPTER 4

This document includes the following amendments:

1997, c. 21, Sched. A, s. 3;
1998, c. 15, Sched. E, s. 12;
2001, c. 25, s. 475;
2002, c. 17, Sched. F, Table;
2002, c. 18, Sched. N, ss. 1-14;
2004, c. 8, s. 46;
2005, c. 33, ss. 8-10;
2006, c. 19, Sched. M, s. 2;
2006, c. 32, Sched. C, s. 20;
2006, c. 33, Sched. Z.3, s. 12;
2006, c. 35, Sched. C, s. 44;
2009, c. 33, Sched. 6, s. 59.

This document is prepared for convenience only. For accurate reference and current information on amendments to the *Fire Protection and Prevention Act, 1997*, refer to the Government of Ontario's e-Laws web site at www.e-laws.gov.on.ca.

Rev.1

1

(a) Public Education Program

At a minimum this should include:

- ✓ Simplified Risk Assessment – to identify the extent of other fire protection services.
- ✓ A smoke alarm program.
- ✓ Fire safety education activities distributed to residents/occupants.
- ✓ Inspections upon complaint or when requested to assist with code compliance.



(b) Other Fire Protection Services

Services should include:

- ✓ Identifying the level of fire protection (suppression) services the municipality deems necessary based on its own needs and circumstances.
- ✓ Determined through evaluating factors.
e.g., community risk, liability, financial capabilities, resources, and community and council expectations.



Ontario Fire Safety & Protection Model

Three Lines of Defence

Public Education and Prevention

- Smoke Alarm Program, school and seniors education, risk management, etc.

Fire Safety Standards and Enforcement

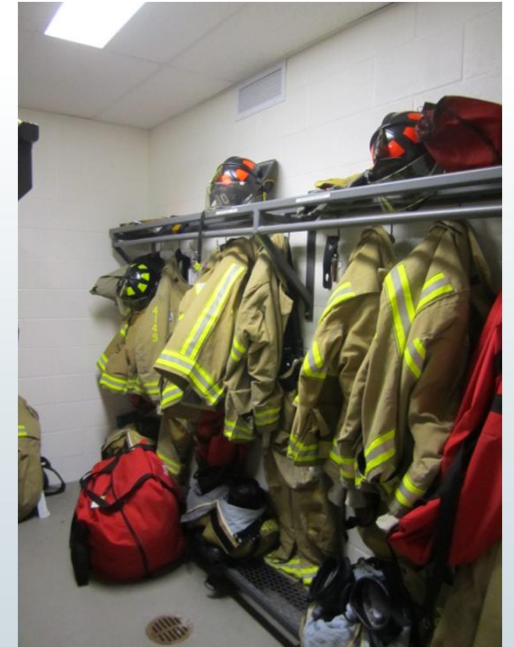
- Inspections, Occupancy Inspections, Licensing Approval, Violation Enforcement, Fire Investigations, etc.

Emergency Response

- Office of Fire Marshal and Emergency Management Guidance Notes
- National Fire Protection Association Standards (NFPA)
- Ministry of Labour (Section 21 Guidance Notes)
- Industry Best Practices

Fire Master Plan - Background

- Current Master Fire Plan developed in 2008
 - Comprehensive assessment of current conditions
 - Identified 92 tasks including short-term to long-term priorities (2017)



Fire Master Plan - Background

- Included principles of establishing performance measures
 - CYFS should strive to achieve a goal of first arriving crew consisting of at least three firefighters and an officer responding to emergencies within six minutes of receiving an emergency call, 90% of the time.
 - CYFS should strive to achieve a goal of responding to reported structure fires with twelve firefighters within ten minutes, 90% of the time.

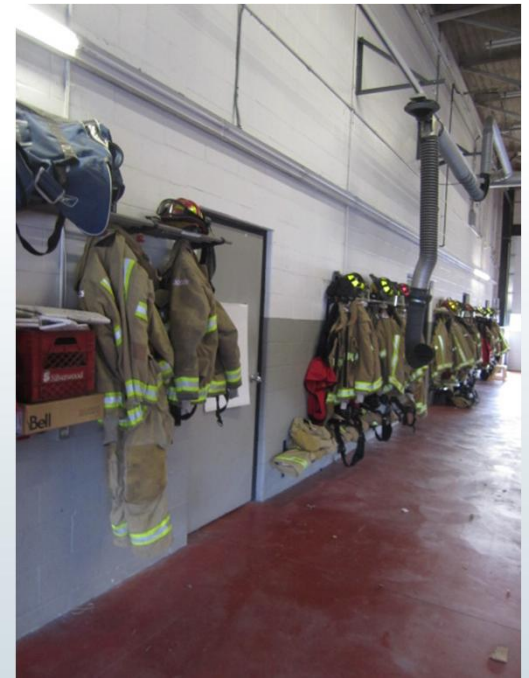
Fire Master Plan - Background

- CYFS has made positive steps towards achieving many of the short-term tasks.
- Shift within the industry to the identification of “critical fireground tasks”.
- Current emphasis on understanding community risk as the basis for delivering services and programs.
- Community growth including intensification is challenging the department.
- Consolidated service is still showing significant benefits.
- Sustainable Training Facility & resource needs.

Community Risk Profile

Analysis of eight key risk factors including:

- ✓ Property stock;
- ✓ Building height and area;
- ✓ Building age and construction;
- ✓ Building exposures;
- ✓ Demographic profile;
- ✓ Geography/topography/road network;
- ✓ Past fire loss statistics;
- ✓ Fuel load.



Community Risk Profile

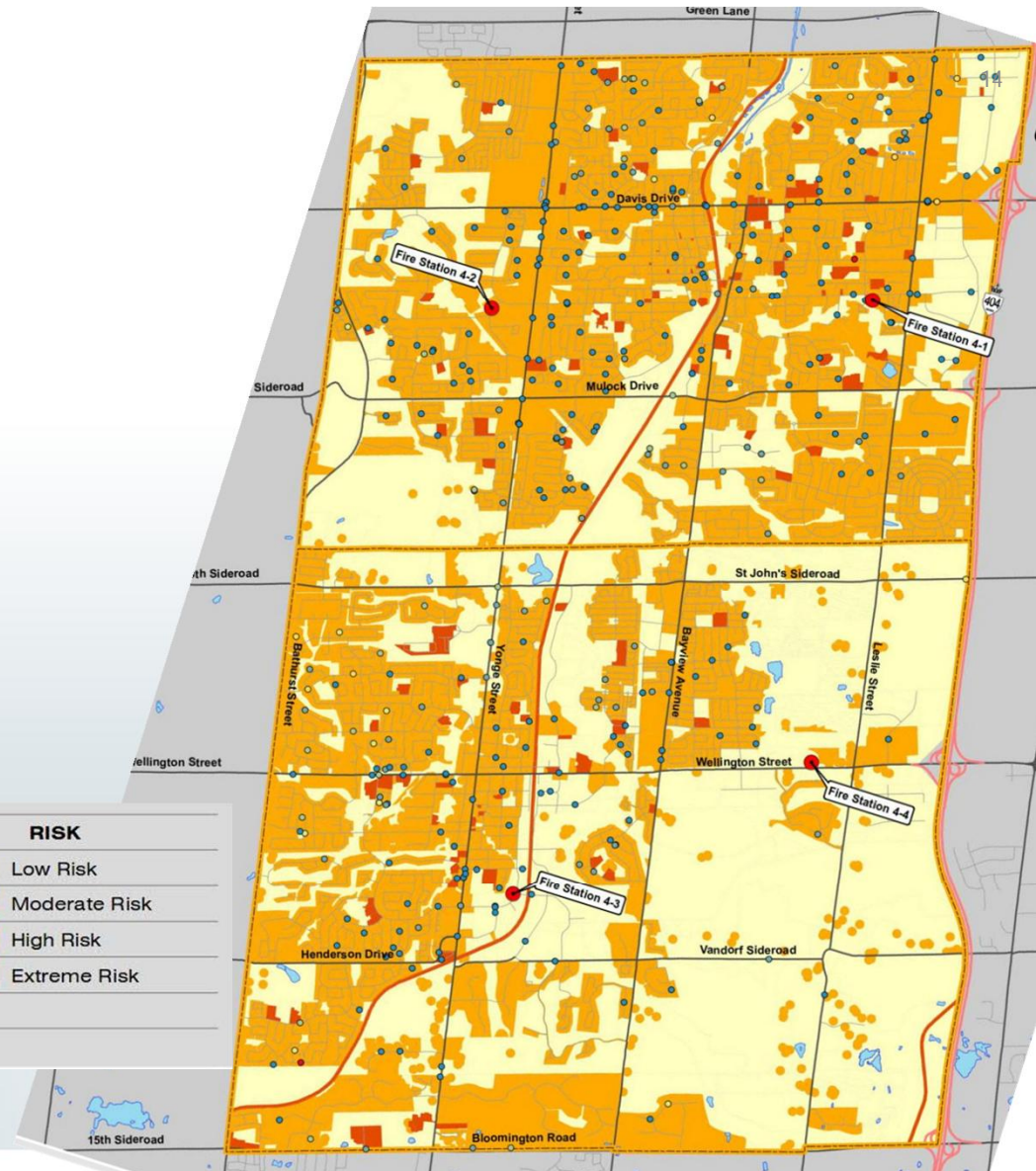
- Anticipated growth over the coming 20 year period, for Central York:
 - Population at 17% (0.8% annual average).
 - Employment at 33% (1.6% annual average).
- Newmarket's growth is focused on intensification of the Yonge-Davis Provincial Urban Growth Centre and the Yonge Regional Centre.
- 66% of Aurora's population growth will be greenfield development, primarily in the north-east and 34% of growth will be through intensification.

Existing Risk Model: Historical Calls

Travel Time	% of calls		
	Low Risk	Moderate Risk	High Risk
4 min	60%	67%	67%
8 min	100%	99%	100%

Note: There are no extreme risk zones within the Town of Aurora or the Town of Newmarket

	TRAVEL TIME TO FIRE CALLS (2009-2013)		RISK
● Fire Station	● ≤ 4 min	● ≤ 10 min	■ Low Risk
— Highway	● ≤ 5 min	● > 10 min	■ Moderate Risk
— Arterial	● ≤ 6 min		■ High Risk
— Local	● ≤ 7 min		■ Extreme Risk
+ Railway	● ≤ 8 min		
■ Waterbody	● ≤ 9 min		
■ Municipal Boundary			



Existing Conditions, Historical Call Data & Response Modelling

Emergency Response Measures

TOTAL RESPONSE TIME - Three Components:

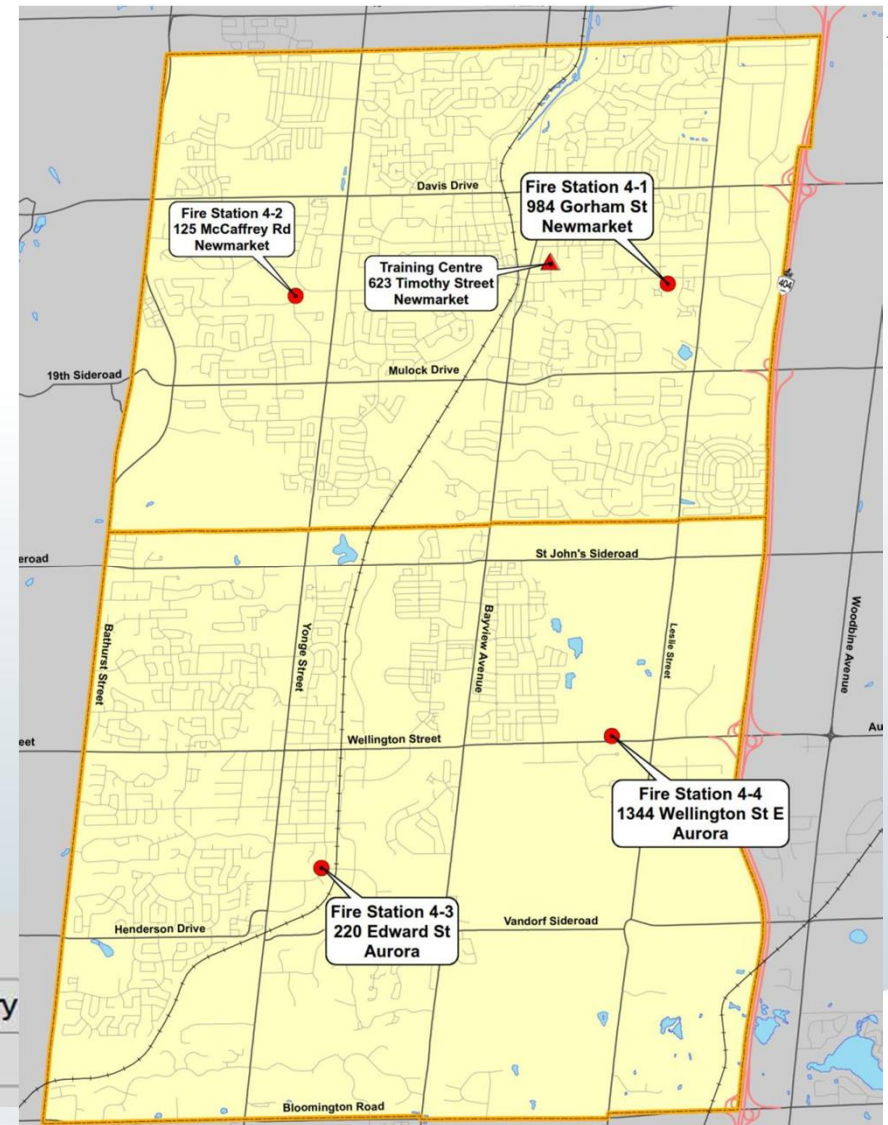
Measure	Description
Dispatch Time	Time to receive and dispatch the call.
Turnout Time	Time required for firefighters to react and prepare to respond.
Travel Time	Actual travel time from the fire station to the incident



Department Background: Existing Stations

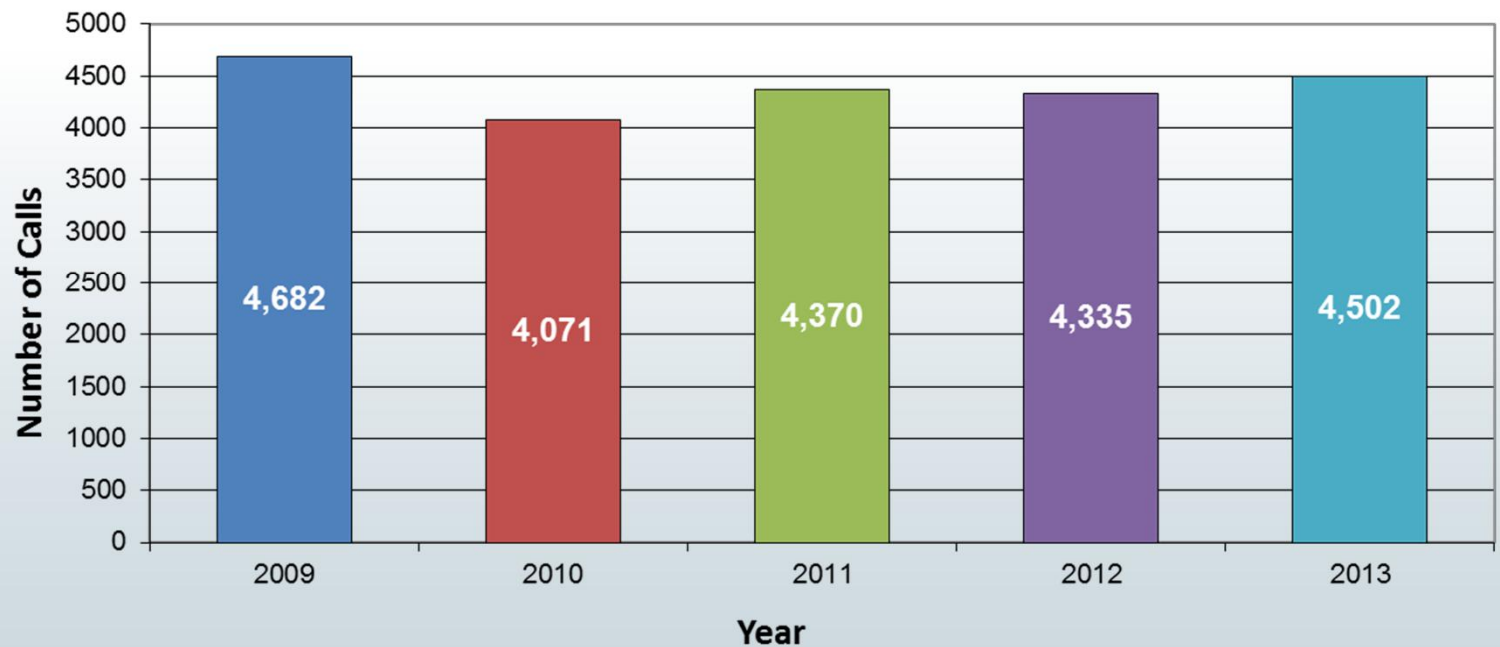
Stations / Facility	Address
Station 4-1	984 Gorham St., Newmarket
Station 4-2	125 McCaffrey Road, Newmarket
Station 4-3	220 Edward St., Aurora
Station 4-4	1344 Wellington St. E, Aurora
Training Centre	623 Timothy Street, Newmarket

	Fire Station		Arterial		Waterbody
	Training Centre		Local		Municipal Boundary
	Highway		Railway		



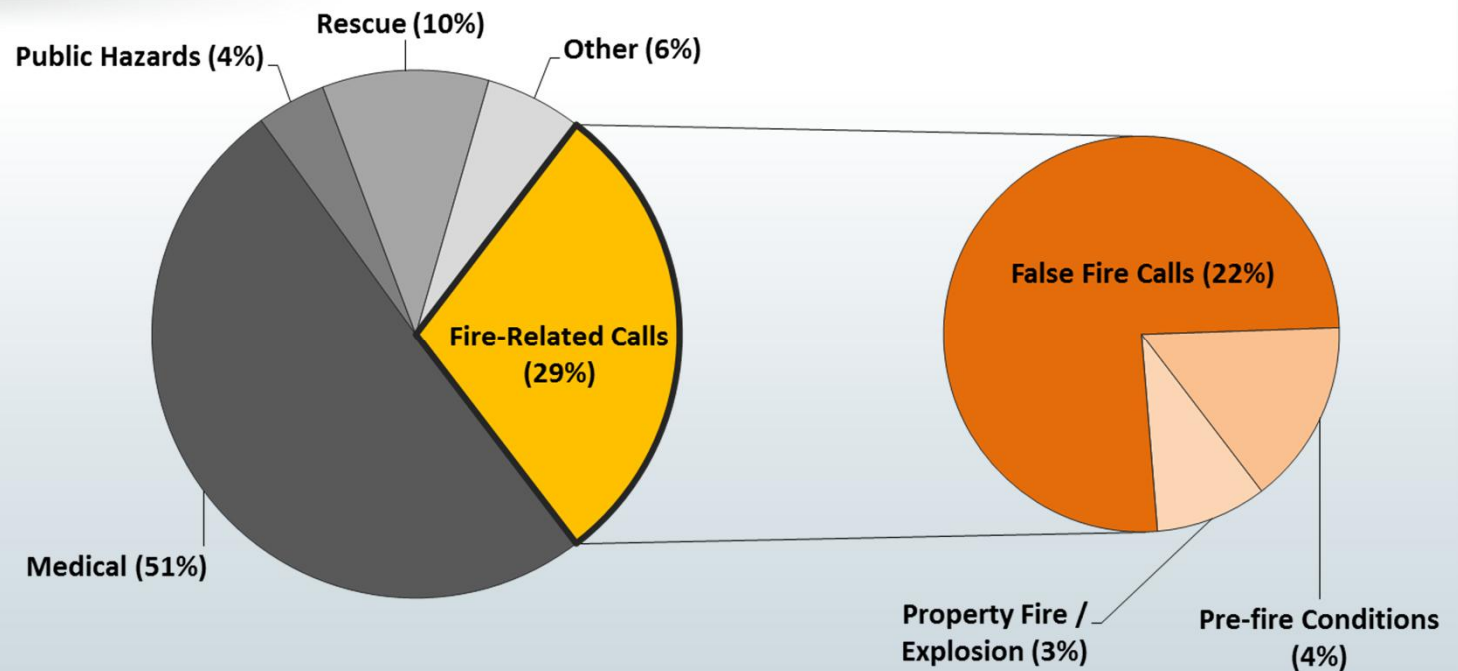
Department Background: Historical Call Volume

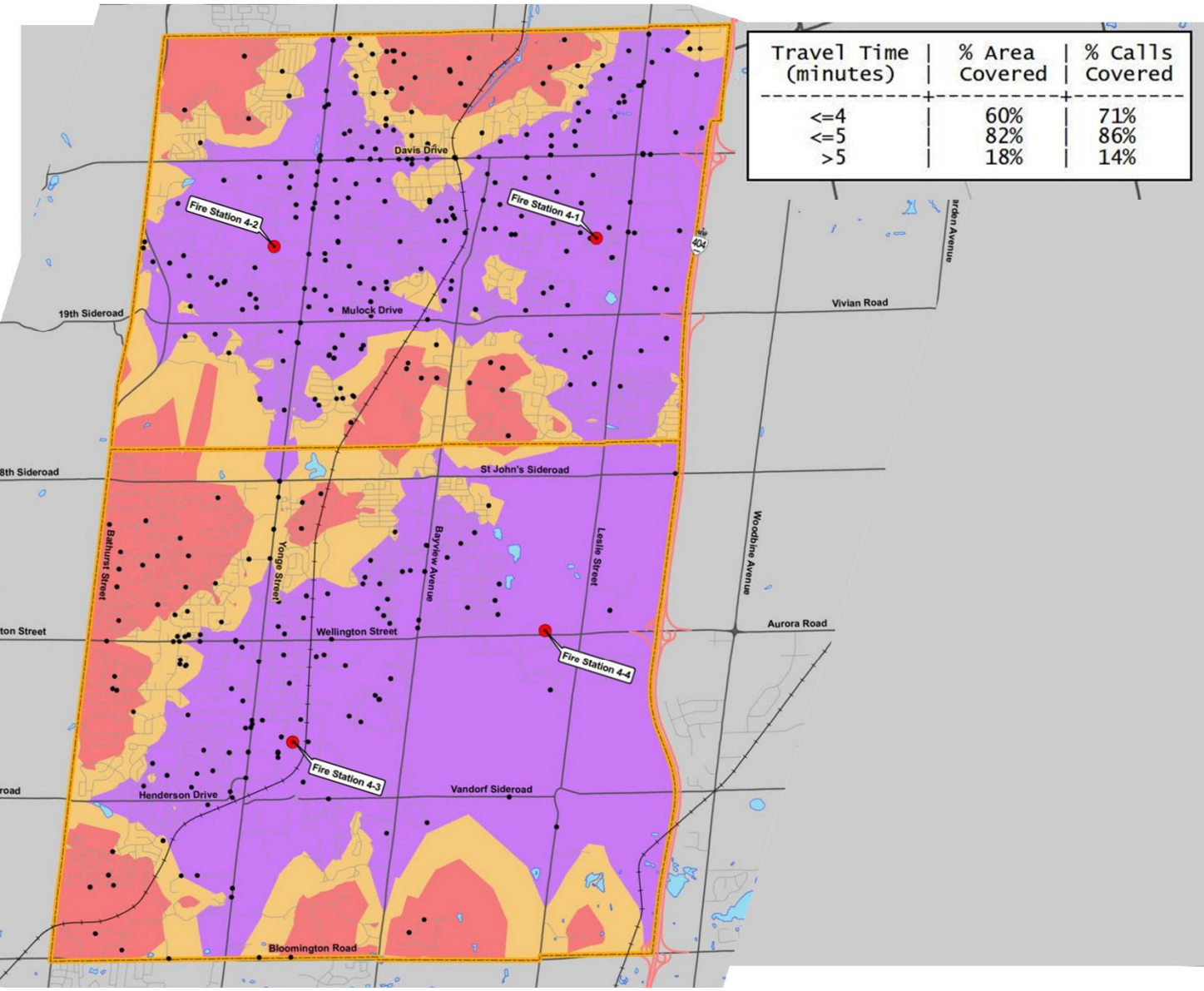
Call Volume by Year
(2009 to 2013)



Department Background: Historical Call Volume

Percentage of
CYFS Calls by
Response Types
(2009 to 2013)





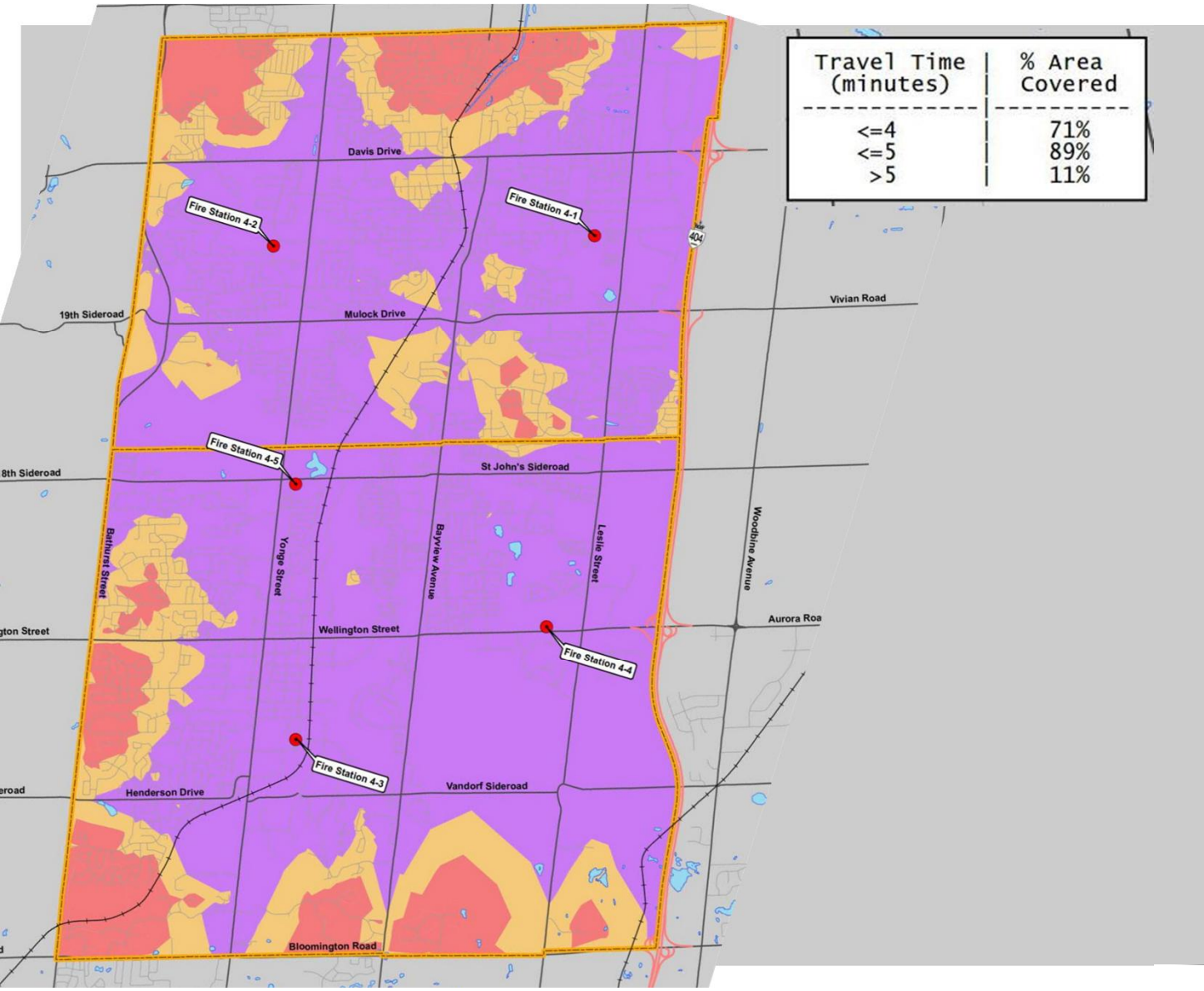
Existing Initial Response

TRAVEL TIMES

- < = 4 Minutes @ Network Speed
- < = 5 Minutes @ Network Speed
- > 5 Minutes @ Network Speed

"NFPA 1710: Initial arriving company, minimum of 4 firefighters responding within 4 minutes travel time to 90% of incidents"





Future Initial Response – 5 Station Model

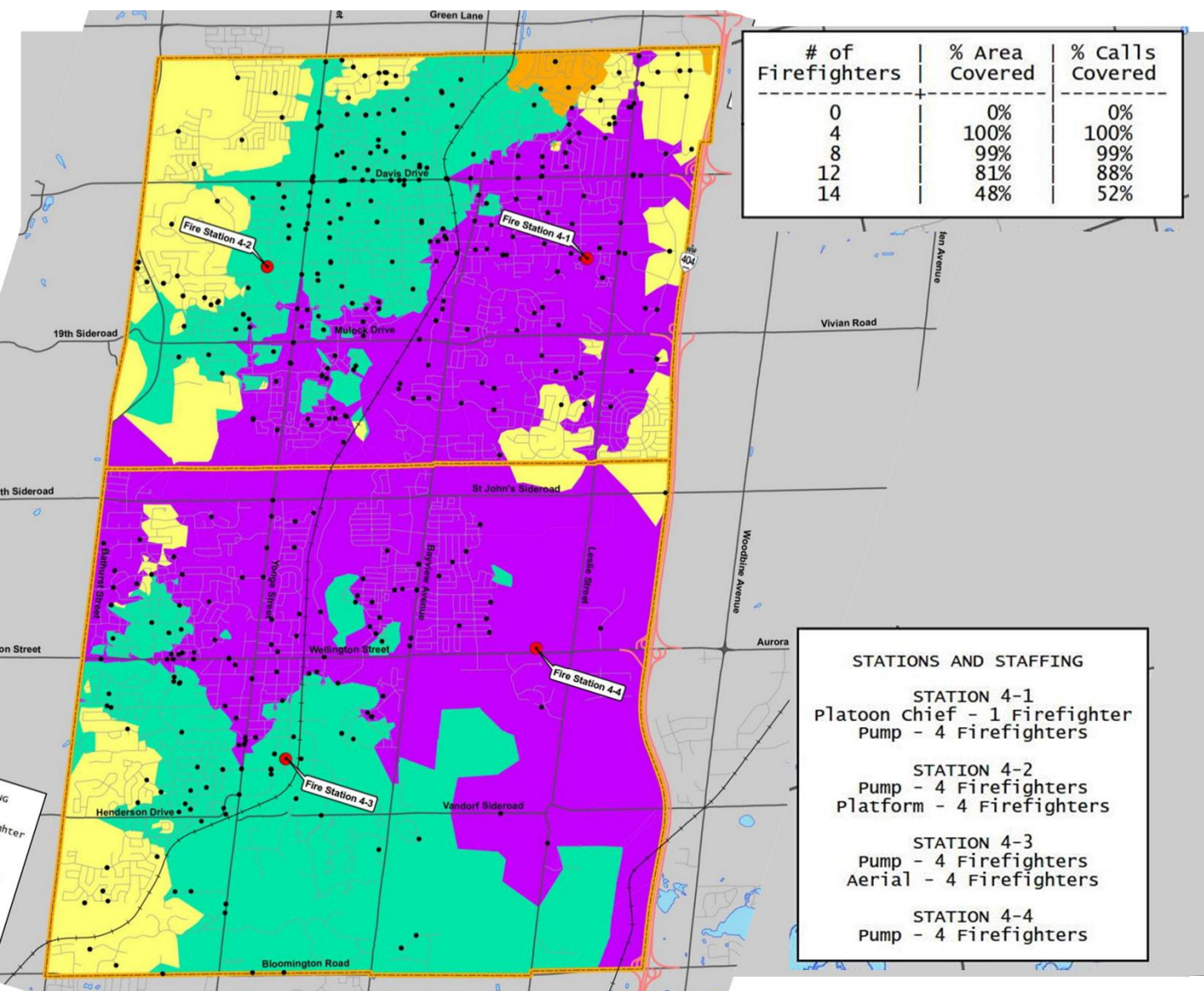
TRAVEL TIMES

- < = 4 Minutes @ Network Speed
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"NFPA 1710: Initial arriving company, minimum of 4 firefighters responding within 4 minutes travel time to 90% of incidents"



Existing Depth of Response

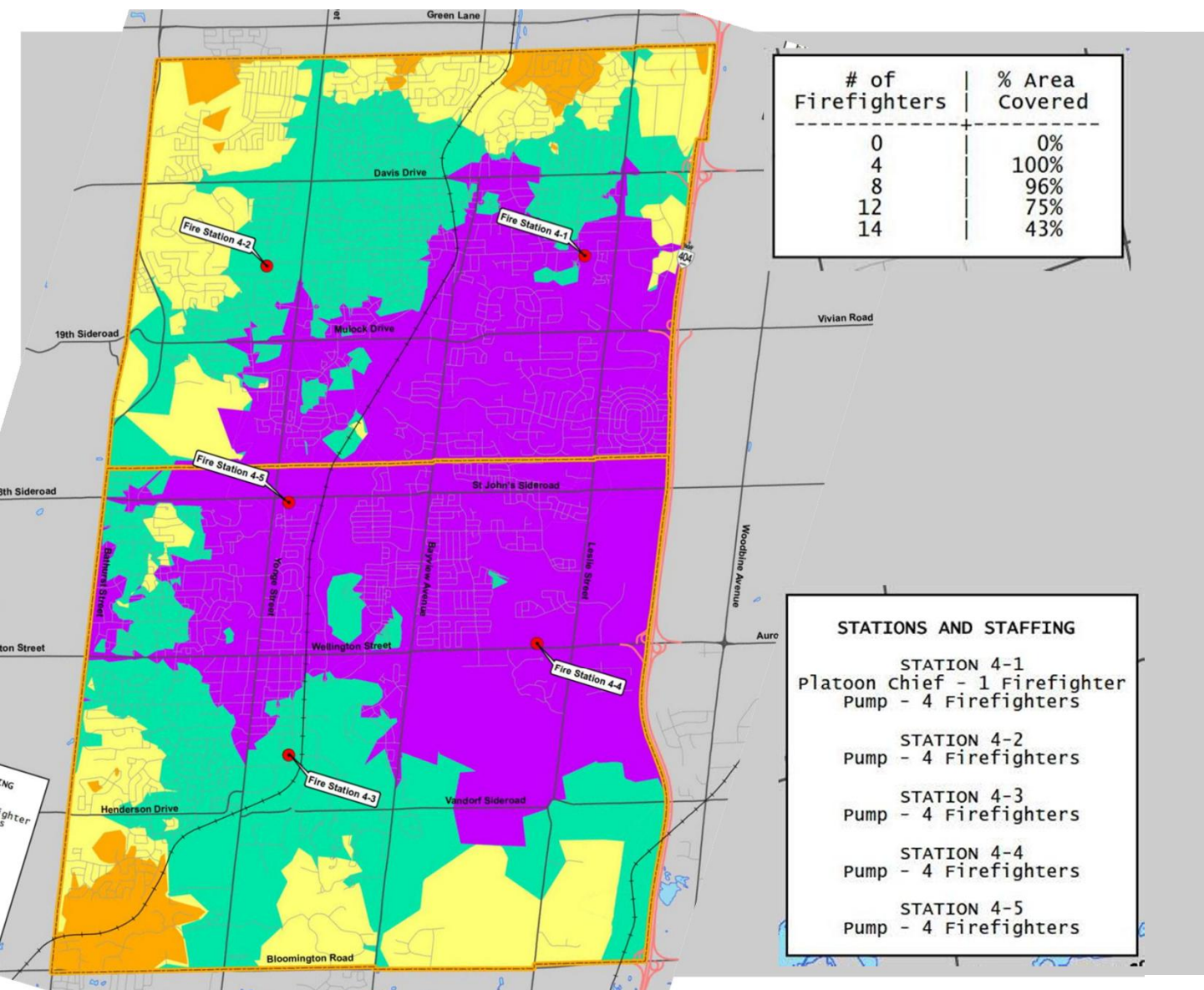


DEPTH OF RESPONSE

TOTAL NUMBER OF FIREFIGHTERS REACHING AREA WITHIN 8 MINUTES OF TRAVEL TIME

0 Firefighters	12 Firefighters
4 Firefighters	14 Firefighters
8 Firefighters	

• Historical Fire Calls (2009-2013)	— Local
● Fire Station	+ Railway
— Highway	■ Waterbody
— Arterial	▭ Municipal Boundary



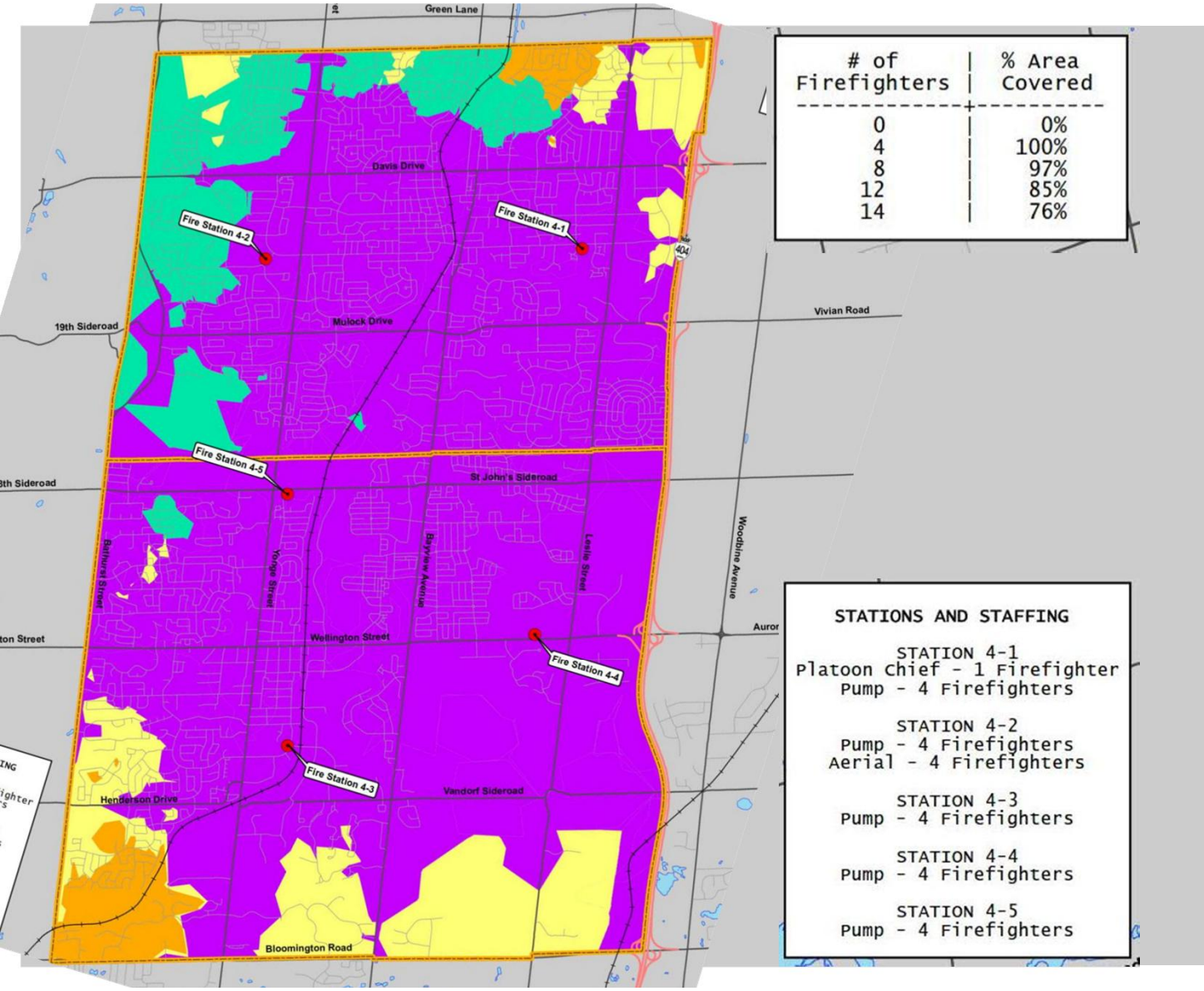
Future Depth of Response – 5 Station Model

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— Highway	— Waterbody
— Arterial	— Municipal Boundary



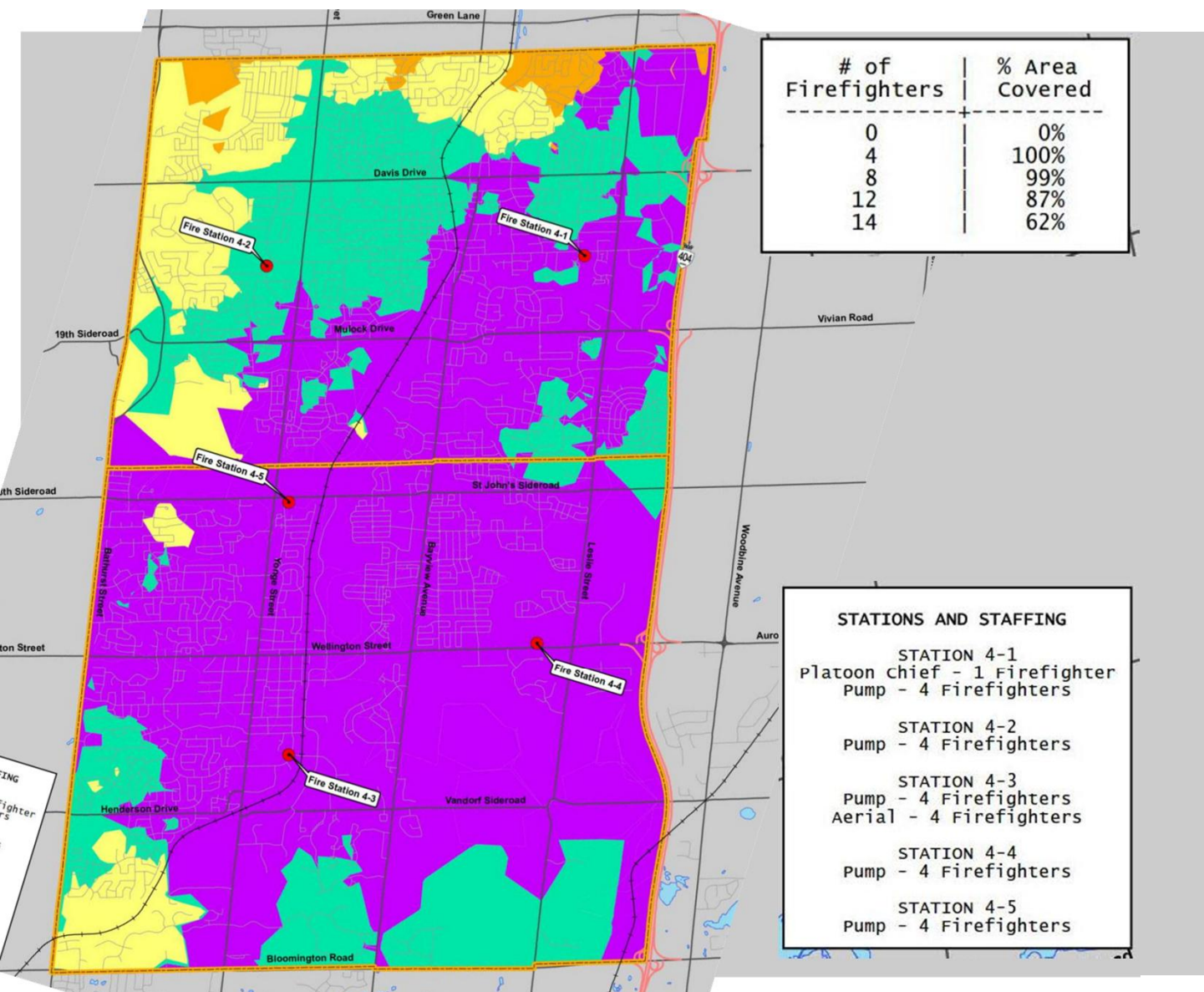
Future Depth of Response – 5 Station Model

6 Crew Model

DEPTH OF RESPONSE	
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<div></div> Historical Fire Calls (2009-2013)	<div></div> Local
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Future Depth of Response – 5 Station Model

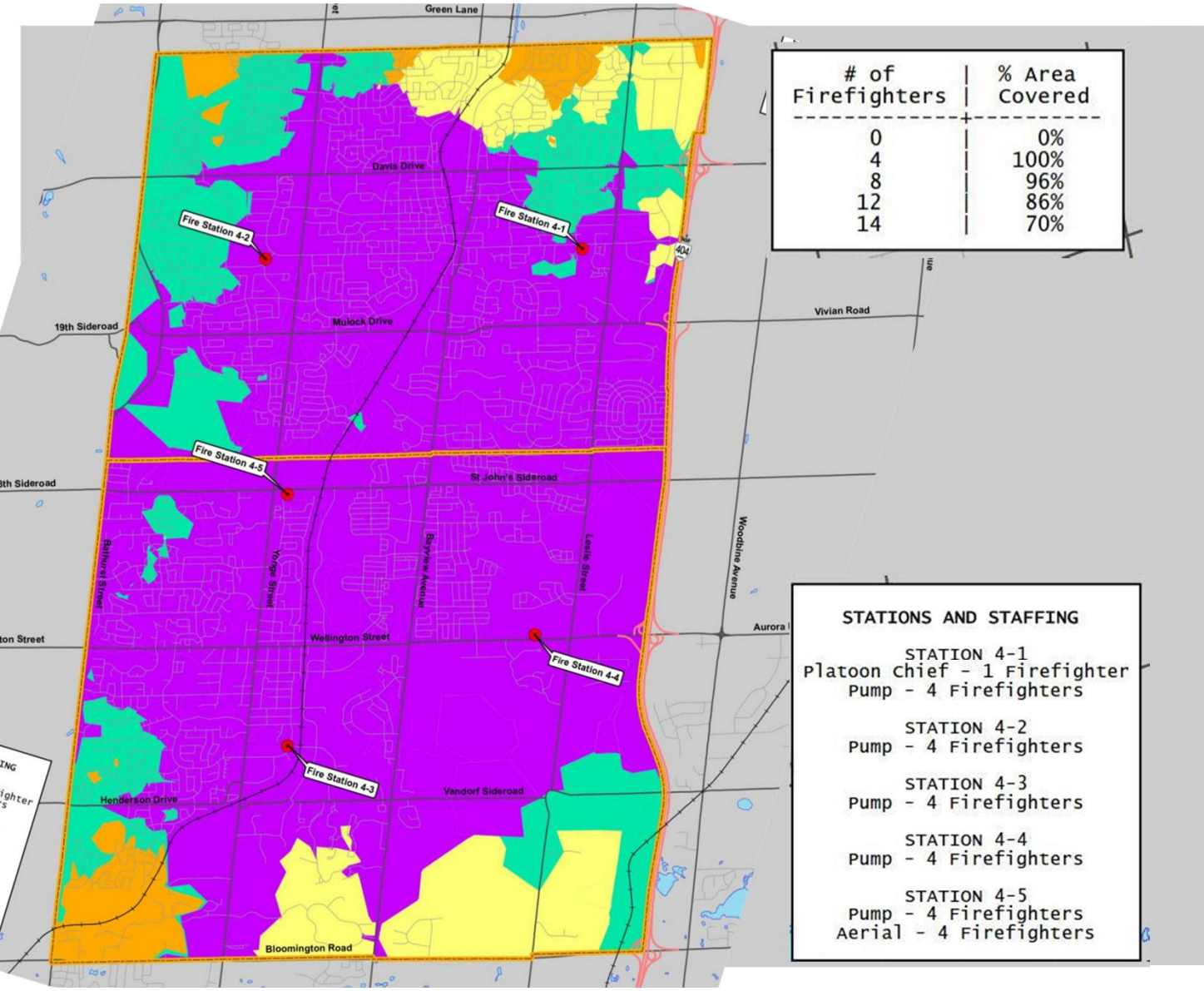
6 Crew Model

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Future Depth of Response – 5 Station Model

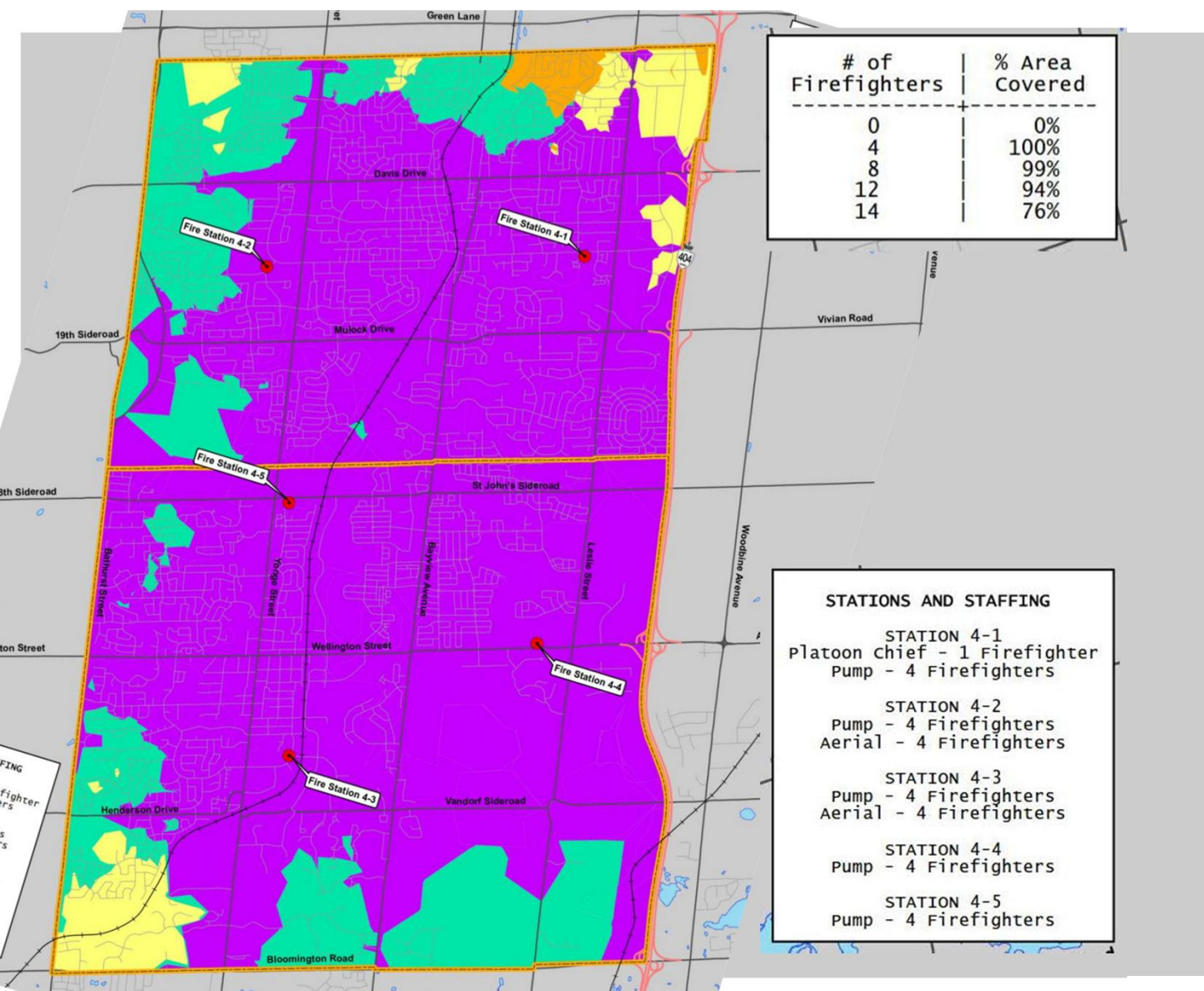
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STATIONS AND STAFFING	
STATION 4-1	
Platoon Chief - 1 Firefighter	
Pump - 4 Firefighters	
STATION 4-2	
Pump - 4 Firefighters	
STATION 4-3	
Pump - 4 Firefighters	
STATION 4-4	
Pump - 4 Firefighters	
STATION 4-5	
Pump - 4 Firefighters	
Aerial - 4 Firefighters	





Future Depth of Response – 5 Station Model 7 Crew Model

DEPTH OF RESPONSE

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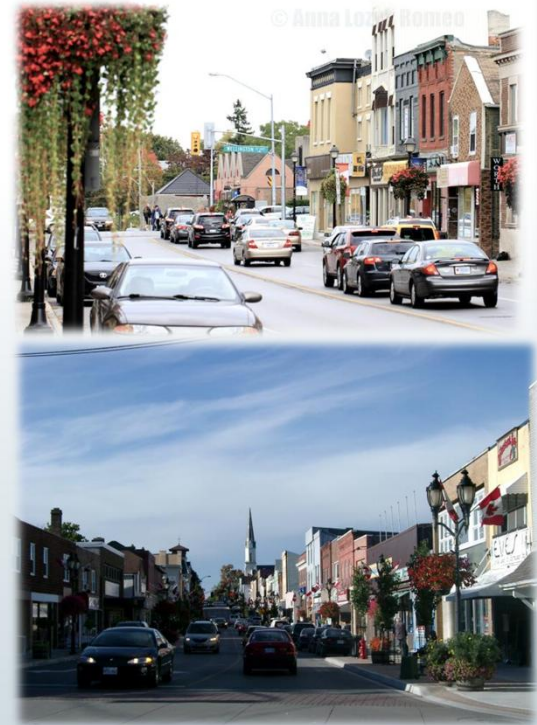
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— Highway	■ Waterbody
— Arterial	□ Municipal Boundary

Strategic Priorities and Recommendations

Strategic Priorities

The utilization of a Comprehensive Community Risk Assessment to determine the level of existing and projected fire safety risks within the two municipalities as the basis for assessing the current and future fire protection services.



Strategic Priorities

The optimization of the first two lines of defence including public education and prevention, and the utilization of fire safety standards and enforcement to provide a comprehensive fire protection program within the two municipalities based on the results of the Comprehensive Community Risk Assessment.



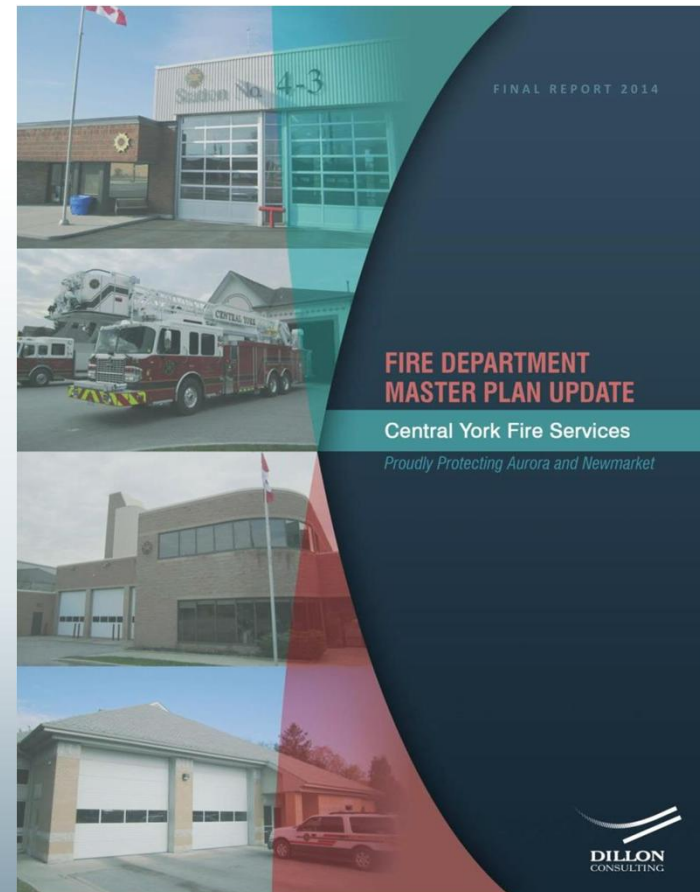
Strategic Priorities

Emphasis on strategies that support the sustainability of fire protection services that provide the most cost effective and efficient level of fire protection services resulting in the best value for the community.



FINAL REPORT

Recommendations



Strategic Report

1. That subject to the consideration and approval of the 2014 Fire Department Master Fire Plan Update by the Joint Council Committee, the Town of Newmarket Council, and the Town of Aurora Council, that the Fire Chief be directed to update the Consolidated Fire and Emergency Services Agreement, and the required Establishing and Regulating By-Laws of both Towns.

Strategic Report

2. That the Consolidated Fire and Emergency Services Agreement be revised to include that in conjunction with updating the Master Fire Plan on a five year cycle, the updated Master Fire Plan include a Financial Business Plan including the operating and capital requirements for the next five year cycle for the delivery of fire protection services.
3. That the Fire Chief be directed to update the Comprehensive Community Risk Assessment on an annual basis and include it within the CYFS Annual Report to the Joint Council Committee.

ADMINISTRATION DIVISION

Recommendations



Administration Division

4. It is recommended that the Joint Committee of Council review the Consolidated Fire and Emergency Services Agreement, including the status of the 2014 Fire Department Master Plan Update, CFESA Budget Process, Facility Management and CFESA Reporting Structure.
5. That the CYFS prioritize the development of a mission statement, vision statement and organizational values through a process of staff engagement and consultation.

Identified
in 2008 –
2017 Plan

Administration Division

6. That subject to the consideration and approval of the 2014 Fire Department Master Fire Plan Update by the Joint Council Committee, the Town of Newmarket Council, and the Town of Aurora Council, that the Fire Chief be directed to include the performance objectives identified within 2014 Fire Department Master Fire Plan Update and report against them as part of the CYFS annual operating and capital budget submission.

Administration Division

Identified
in 2008 –
2017 Plan

7. That the current part-time Administrative Assistant position be converted into a full-time position to support the administrative needs of the CYFS, and that the Administration Coordinator continue to identify efficiencies and the need for any additional administrative staff.
8. That the Town of Newmarket implement the position of Network and Communications Coordinator within the CYFS to oversee the technology needs of the department including the development of a Technology Architecture Plan in consultation with the Newmarket Information Technology department.

Administration Division

9. That the position of Human Resource Consultant be reinstated as a full-time position supporting the CYFS. This staff position would be a member of the Human Resources Department at the Town of Newmarket, providing full-time support to the CYFS (reporting to the Fire Chief and Director of Human Resources).
10. That job descriptions and a performance development program, consistent with the Town of Newmarket program be developed for all unionized CYFS staff.

Identified
in 2008 –
2017 Plan

Administration Division

Identified
in 2008 –
2017 Plan

11. That the CYFS prioritize professional development including a formal succession planning process that recognizes the importance, and provides the opportunities for mentoring, secondments, job shadowing, and cross training within the department, and where external opportunities may be identified.

Administration Division

12. That the CYFS develop a Standard Operating Guideline in consultation with the York Regional Police Services for joint responses.
13. That the CYFS explore further shared services opportunities and joint purchasing opportunities with the other emergency services within York Region.

FIRE PREVENTION & PUBLIC EDUCATION DIVISION

Recommendations



Fire Prevention & Public Education

14. That subject to the consideration and approval of the Fire Department Master Plan Update by the Joint Council Committee, the Town of Newmarket Council, and the Town of Aurora Council the proposed Fire Safety Program Delivery Cycles included within the Fire Department Master Plan Update be included within the Establishing and Regulating By-Laws of both Towns.

Fire Prevention & Public Education

15. That an additional full-time position of Fire and Life Safety Educator be created to reflect CYFS continued commitment to optimizing the first two lines of defence and the delivery of public fire and life safety programs.
16. That an additional Fire Inspector position be created to reflect Councils' continued commitment to optimizing the first two lines of defence and the delivery of public fire and life safety programs.

Identified
in 2008 –
2017 Plan

Fire Prevention & Public Education

17. That subject to the consideration and approval of the Fire Department Master Plan Update by the Joint Council Committee, the Town of Newmarket Council, and the Town of Aurora Council the proposed enhanced Fire Inspection Cycles included within the Fire Department Master Plan Update be included within the Establishing and Regulating By-Laws of both Towns.

Fire Prevention & Public Education

18. That the CYFS develop a Fire Prevention Policy that reflects the requirements of PFSG 04-45-12 "Fire Prevention Policy" for consideration and approval by the JCC to be included within a new Establishing and Regulating By-law for each municipality.
19. That CYFS develop an SOG for Fire Investigation following the framework of PFSG 04-52-03 Fire Investigation Practices as presented within this FDMPU.

Fire Prevention & Public Education

Identified
in 2008 –
2017 Plan

20. That in consultation with staff from both Towns the CYFS initiate a review of the current by-laws regulating the display and sales of fireworks, and that where possible the by-laws of both Town be revised to be consistent in definition and application of the regulations.
21. That the CYFS implement the proposed fire prevention/public education staffing model as presented within the Central York Fire Services Fire Department Master Plan Update.

FIRE SUPPRESSION DIVISION

Recommendations



Fire Suppression Division

22. That the CYFS emergency response dispatch protocols be revised to reflect the proposed minimum staffing deployments for low, moderate and high risk occupancies (Table 16) and the proposed revised performance objectives for emergency response (Table 19).
23. That the CYFS continue to prioritize pre-incident planning and work towards the development of Quick Action Plans for all buildings within the CYFS response area with priority assigned to high risk buildings.

Fire Suppression Division

Identified
in 2008 –
2017 Plan

24. That the CYFS develop a fifth fire station (Station 4-5) including space for administration, fire prevention/public education, and training, including a new training centre in the area of the intersection of St. John's Sideroad and Industrial Parkway within the short-term (1-2 year) horizon of this five year plan.

Fire Suppression Division

25. That in considering the recommendation for a fifth fire station (Station 4-5) with administrative and training functions (as proposed within the 2014 FDMPU) the CYFS also consider the current use of fire Station 4-1 as a headquarters facility and the identified infrastructure improvements in considering the sustainability of this station, reuse or alternative use, or the relocation of Station 4-1 in close proximity to its current location in a similar building to that of Station 4-4.

Fire Suppression Division

26. That the CYFS implement a phased recruitment process for 20 additional firefighters to be coordinated with the development and construction of the fifth fire station (estimated completion late 2016) proposed within the FDMPU.
27. That the Town of Newmarket and Town of Aurora should include the CYFS in the ongoing planning and development of the road network where emergency response travel times may be impacted as the result of traffic calming measures, road network design and development, and traffic congestion.

Fire Suppression Division

Identified in
2008 – 2017
Plan

- 28. That the CYFS develop an SOG for wildland/grass fires that identifies staff roles and responsibilities and identifies the operation of Utility 410.
- 29. That the CYFS should continue to develop tanker operations and achieve a certified tanker shuttle accreditation.
- 30. That the JCC request an update from Public Works staff of both Towns to develop a strategic time frame to implement the Fire Hydrant Compatibility Plan referenced in Fire Services Report 2013-06 to update flow rates and fire hydrant conspicuity.

TRAINING DIVISION

Recommendations



Training Division

Identified
in 2008 –
2017 Plan

- 31. That the CYFS hire an administrative assistant dedicated to supporting the needs of the Training Division in the immediate horizon of the plan.
- 32. That the CYFS hire a third Training Officer as a dedicated position to replace the secondment position implemented in 2011.
- 33. That the CYFS implement the position of Assistant Deputy Chief within the short-term (1-2 year) horizon of this five year plan.

Training Division

Identified
in 2008 –
2017 Plan

34. That the proposed Assistant Deputy Chief - Training & Emergency Management be designated the Community Emergency Management Coordinator (CEMC) as well as being tasked to monitor the workload pressures on the training division as a result of the increased fire suppression staffing proposed, technological changes affecting training, changes in provincial regulations, administrative support and corresponding need for increased staffing in three to five years as recommended by the 2008 plan.

Training Division

35. That the role of the Training Officers should be clarified in a Standard Operating Guideline. Their responsibilities should be noted as:

- Researching and developing appropriate training programs for all CYFS staff;
- Developing and delivering (or assisting with the delivery) of new training initiatives;
- Ongoing review of training records and assessing individual progress;
- Overseeing a quality assurance program for the delivery of all training programs; and
- Monitoring the CYFS requirements for certification, and compliance with legislative and regulatory requirements for staff training.

Training Division

Identified
in 2008 –
2017 Plan

36. That Standard Operating Guidelines be developed to provide clear direction to all staff as to their roles and responsibilities relative to department training and staff development.
37. That the CYFS conduct a comprehensive training facilities assessment as part of the design and development of the proposed fifth fire station.
38. That the CYFS develop an enhanced Comprehensive Annual Training Program to facilitate the transition of the CYFS to the NFPA Professional Qualifications Standards adopted by the OFMEM.

Questions & Discussion

