Toronto Fire Services
Master Fire Plan • 2007

TORONTO Fire Services

Toronto Fire Services - Master Fire Plan 2007

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Executive Summary

This Master Fire Plan is intended to serve as a strategic planning framework for policy, organizational, capital and operational decisions affecting Toronto Fire Services. It outlines a path for the short, medium and long term. It considers the relevance of a number of past reports, including the 1999 KPMG study, and updates the information and considers new input to form a series of recommendations to guide the next five years of the Fire Services' development. Financial implications of the recommendations, outlined in Chapter 15, have already been included in the Fire Services Capital and Operating budget submissions, although the recommended years may have changed based on need rather than affordability. These costs are contained in this report to emphasize their importance.

Summary of Recommendations

Emergency Response Capabilities – Fire Stations and Vehicles

1. That the Council-mandated KPMG report of 1999 now be seen as a historical document and the 2007 Master Fire Plan guide the response time and staffing targets in the future, using NFPA Standard 1710 as the guideline.

2. Construction of new stations identified be accelerated to reflect the TFS recommendations outlined in this section. The original KPMG recommendations would have seen construction of all stations being complete at this time.

3. Only Station 424 (463 Runnymede Rd) is to be closed, with no co-location with Station 425 (83 Deforest Rd) in the future. Any decision to move Station 425 from its current location to Bloor Street West will be made on its own merits and availability of suitable building location.

4. Co-location of Stations 323 (153 Chatham Ave) and 324 (840 Gerrard St E) – formerly know as T12 and T26, no longer be pursued. The redevelopment of Regent Park and the West Donlands project will put pressure on fire service delivery in this area.

5. The anticipated proceeds of sale of the property where Station 135 is currently located (641 Eglinton Ave W) be brought forward as soon as possible to begin construction of the Chaplin Ave Fire and EMS station on nearby, City-owned land.

6. To enhance capabilities in the areas of the City of Toronto where the risk is greatest and where extra personnel would best mitigate this risk, increasing the minimum staffing on aerial devices in the downtown core to 4, from the current 3. This will require a base personnel increase of 24 positions.

7. The Regent Park development be reviewed as soon as possible to ensure that a developer-funded station is considered within the project area, situated strategically to support the expected increase in area population and densification, and future growth associated with other initiatives. This station could conceivably be staffed by one of the apparatus and associated personnel being moved east from Station 325 (475 Dundas St E).

8. The station and apparatus moves recommended in the deployment model adjustments be completed, with the understanding that each move may cause changes in response times and effectiveness and may require review and possible adjustments in each instance. Consequently, an on-going and comprehensive review will be carried out with the construction of each new station.

9. The Toronto Transit Commission absorb all the costs of constructing and relocating Station 141 (3965 Keele St) to an appropriate location nearby as part of and in sufficient time to accommodate the expansion of the subway north into York University and York Region.

10. A review of Command and District boundaries for response and administrative purposes be undertaken and actioned as soon after the opening of Station 116 (Sheppard Ave / Leslie St) to produce sufficient data for analysis.

Special Operations

1. Funding for special teams, specifically the CBRN and HUSAR teams be maintained at least at their current levels for the purchase of equipment and training, and for conducting regular, scheduled exercises for a variety of plausible scenarios.

2. Support for Joint Operations involving the three emergency services be provided wherever appropriate and recognition that Toronto has established itself as a world leader in the creation and deployment of joint, multi-disciplinary teams.

3. Sufficient funding for all forms of special operations be made available for the purpose of enhancing the capability of TFS to respond to any and all hazards, including the highly-specialized training necessary for teams and individuals to maintain relevant certification.

Waterfront/Marine Response Operations

1. In order to complete the life-cycle extension of the *William Lyon Mackenzie*, sufficient funds be approved to refurbish the medical transportation cabin and the fireboat's electrical system.

2. Specialized fireboat and shipboard firefighting training continue to occur for fireboat and land-based crews, ensuring that the marine unit is fully integrated into all waterfront Incident Management plans.

3. The *SORA* be fully integrated into the waterfront plan, that it be operationalized to respond outside of the inner harbour, and that it be equipped to credibly replace and support the William *Lyon Mackenzie* in any marine firefighting or rescue scenario, including responding in an auxiliary search and rescue role as part of the national search and rescue plan that covers the City of Toronto and area.

4. That Council consider a by-law to enhance the initial firefighting response in marinas. This could consist of training and equipment required of marina operators, as well as minimum standards to ensure easy access to all marina areas by land-based fire crews. The by-law could be modeled on those found in other cities, such as Vancouver and area, where a large number of marinas are located.

Intelligent Transportation Systems – Emergency Vehicle Preemption

Toronto Fire Services would like to investigate:

1. The use of Emergency Vehicle Preemption Devices. This would be done in a designated pilot area to be determined, with input from stakeholders.

   Depending on the outcome of this pilot program, the use of EVP devices could be implemented in other high traffic congestion areas, or areas that necessitate a longer response route.

2. The use of direct control of the required RESCU and COMPASS cameras in instances where we feel they would assist us with our response.

Incident Management and Emergency Response Operations

Toronto Fire Services would like to implement:

1. The development of multi-disciplinary Incident Management Teams, with specialized training of personnel in all of the various Incident Management System functions.

2. Continued development and adoption of Unified Command practices and protocols, along with our emergency service partners, in any response involving joint operations.

3. Enhanced developmental opportunities in the form of funding for external executive education programs in skill areas beyond those related exclusively to fire fighting and emergency response. This will include executive exchange programs, specialized training and certification program and university graduate level studies, in an effort to enhance overall effectiveness and support succession planning at a strategic level.

4. The development of a Command and Leadership Academy, which will form the nucleus for development of staff at all levels. This virtual institution will create a learner-centred environment where access can be found to core and supplementary modules in all areas of command and leadership, from the tactical to strategic levels. Partnerships with external learning institutions will ensure the most effective delivery of programs in this area.

5. A command simulator as a core component of the Command and Leadership Academy. This will provide interactive simulations of large-scale incidents through computer programs and three-dimensional models. The exercises take Chief and Company officers through simulated incidents to teach them to make better decisions at the scene of the emergency - decisions that could potentially save the lives of our firefighters and citizens. Leveraging on investments already made, realization of this simulator will complete the ideal learning environment.

Fire Prevention and Public Education

1. Clearly identify the section's goals and objectives, with input from the Fire Chief, Deputy Fire Chief, Division Chief, District Chiefs and staff within the section.

2. District Chiefs, and Division Chief, to meet regularly to continue to develop the Standard Operating Guidelines and Procedures for the section, until complete, and there-after on a semi-annual basis to ensure relevancy.

3. The Division Chief should ensure that all staff are fully trained and aware of their responsibilities with respect to the SOG&P's, including monitoring to ensure consistency in their application across all areas of the City.

4. Management of the Fire Prevention and Public Education section should develop standards of performance for staff at all levels, from probationary through District Chief. These standards should be applied through the annual performance management program.

5. Ensure adequate training opportunities are provided for staff at all levels to address issues such as technological change, standards of operation, promotional opportunities, skills maintenance and development, and leadership and management training.

6. All performance standards and training programs should be reviewed annually for relevancy, and updated regularly as required.

7. Management of the Fire Prevention section should continue working with the Office of the Fire Marshal and Land Information Toronto on the development of a "risk based" approach in delivering fire prevention programs in the City, meaning that inspections are conducted based upon the risk associated with particular occupancies. On completion of this project, a staff report will be submitted to Committee and Council with a request to increase staff to the level required for a risk based inspection system.

8. Management of the Fire Prevention section continue the development and implementation of an new electronic reporting system for fire prevention and public education, including the implementation of systems to allow mobile reporting to increase the efficiency of staff by reducing the amount of time spent in the office.

9. Reporting systems should be used to monitor workloads and identify trends in inspection and education activities.

10. Management of TFS should continue to pursue opportunities to increase the number of Fire Prevention Inspectors and Public Educators to improve life safety programs for residents of the City of Toronto. In addition, management of the Fire Prevention and Public Education section should pursue alternatives to ensure the most efficient use of existing staff resources across the City.

11. Management of TFS should continue to request additional staffing (one Captain and five Investigators) through the annual operating budget process in order to reinstitute the Fire Cause Determination project.

12. Existing and future records management systems should be used to identify trends in emergency incidents to identify areas of concern for public educators, to ensure resources are used as effectively as possible. This includes identification of the need for increased use of existing programs, and the need to develop new programs to deal with emerging or new issues.

13. The Public Education section should continue the implementation of the Risk Watch program in all schools in the City of Toronto.

14. All public education programs should be re-evaluated for content, delivery method and efficiencies. When the re-evaluation is complete, a staff report will be forwarded to Committee and Council containing public education goals with time lines and required staff levels to accomplish the goals.

15. All public education activities should be recorded in electronic records systems to allow TFS to track the effectiveness of programs and delivery methods, and report on performance measures related to people reached, distribution of brochures, etc. to determine the most efficient and effective methods of educating the public.

Communications and Information and Communication Systems

1. Complete the Quality Assurance Study in the Communications Division in 2007. Results of the study should provide information to form a business case to better support the staffing request for a Quality Assurance Manager in the 2008 Operating Budget submission.

2. The Division Chief, Communications and the Division Chief, Information & Communication Systems should identify all of the risks associated with communications systems within the Communications Centre and across the City. These risks should be prioritized and measures taken to mitigate these risks.

3. The Division Chief, Communications and the Division Chief, Information & Communication Systems should identify all system improvement projects and develop project teams and cost estimates as appropriate. All cost projections should be included in annual Capital and Operating budget submissions as appropriate.

4. The Division Chief, Communications, should work with Human Resources staff to update the recruitment process for the section.

5. The Division Chief, Communications should consult with the Division Chief, Professional Development and Training, Local 3888 and other appropriate parties on the development of courses to assist staff in preparing for promotions and supervisory duties.

Professional Development and Training

1. Develop standard operating guidelines and policies for the Division, including training staff on their content and ensuring compliance through annual performance management reviews.

2. Develop and implement an electronic training records system for TFS. The system should be a simple, flexible, adaptable and capable of being expanded as the Service continues to develop in the future.

3. Continue to pursue funding for additional facility and simulator development in the Fire Services annual Capital Budget submission, as identified in the Financial Implications chapter of this report (Chapter 15).

4. Complete the development of the HUSAR and CBRN Teams and secure and maintain ongoing agreements for funding with the Federal and Provincial governments.

5. Develop and implement an appropriate succession and development plan for all levels within the division.

6. Develop and implement web-based training programs for TFS.

7. Clearly identify the goals and objectives of the Emergency Planning Research and Development Section in conjunction with Fire Prevention and Public Education, to ensure that overlaps are minimized, economies are achieved, and the overall level of service to fire fighters and the citizens of Toronto is maintained or enhanced.

8. Management of Professional Development and Training consider the need for additional staff and/or changes to City bylaws to enhance fire protection and response as work demands increase, with any changes presented through Staff Reports to the appropriate Committee and Council, or through annual budget submissions as necessary.

9. The Emergency Planning, Research and Development Section continue to coordinate the TFS Pandemic Flu Planning to ensure continuity of service and availability of supplies in the event of an extended medical crisis in the City.

Mechanical

1. The Division Chief, Mechanical in consultation with the Deputy Fire Chief and Fire Chief should continue to explore options to increase the number of mechanical service bays available to staff in the section. This includes identifying any surplus properties that may be available for sale, or the expansion of the existing facility at Toryork.

2. Continue to pursue the request for additional Emergency Vehicle Technicians through the annual operating budget process. A total of 5 positions have been requested to allow the Mechanical Division to keep up with the workload of the section. This request was removed from the operating budget submission at the review stage in both 2006 and 2007.

3. Continue the implementation of the M5 system within the Mechanical Maintenance section in accordance with Corporate direction and the recommendations of the Auditor's Operational review.

4. Develop Standard Operating Guidelines and Policies specific to the Mechanical Division Include a review of existing Operational SOG's relevant to the Mechanical Division, to ensure they align with the business practices of this section. In addition, policies developed for the Mechanical Division that affect operating procedures of other divisions must be communicated widely.

5. Ensure successful implementation of the Corporate Warehouse Rationalization project, to ensure stricter controls on the use of parts and record keeping associated with mechanical activities. The current projected implementation of the warehouse project in the Toryork facility is May 2007.

6. With input from the Fire Chief, Deputy Fire Chief and other Division Chiefs, work on the implementation of a succession planning program, including implementation of a modular promotion program and various staff development activities as appropriate to the section.

7. Management of the section should work with representatives from Local 3888 towards implementation of an apprenticeship program for Emergency Vehicle Technicians.

Staff Services

1. The Fire Chief, in consultation with the Ontario Association of Fire Chiefs and the Office of the Fire Marshal (OFM), request a change in the Fire Protection and Prevention Act (FPPA) 1997 to amend qualifications for new fire fighters to require OFM certification and/or previous fire fighting experience.

2. Continue to request funding through the annual operating budget to allow the permanent addition of two Captains positions to the complement of the Recruitment and Outreach section so that staff secondments are no longer required.

3. Work with staff from Human Resources and to determine the appropriate size of the hiring list for Toronto Fire Services, and to develop streams of eligibility for both college graduates, non-college graduates, and experienced fire fighters.

4. Effectively manage the streams of eligibility over time, to ensure that all interested candidates are able to pursue a career in the Fire Services.

5. Identify the Public Information Section as the single point of contact for media within the Fire Services, and establish the one phone number, one email address for contact. Ensure consistency of messages by strengthening relationships between staff of the section and Public Education.

6. Continue the development of the Corporate Warehouse Rationalization project by developing on-line cataloguing and ordering systems for fire halls, and the development of electronic records management systems. Existing systems should be analyzed for their ability to be used for barcode/scanning technology for inventory/ordering as well as personal accountability on scene.

7. Consolidate distribution/management of personal firefighting equipment including Pit Passes, ID Tags, etc. thorough the Quartermaster section at the Rotherham facility.

8. Management should continue to ensure TFS remains on the cutting edge of technology with regards to firefighting gear and personnel safety equipment.

9. Work with Local 3888 and the Mechanical Division on the implementation of the Warehouse Rationalization Project in the parts rooms at the Toryork mechanical facility, including the potential move of one stockperson to assume responsibility for this facility prior to the May 2007 project deadline.

10. Expand the inventory of modified duty positions with TFS. Improve systems for tracking modified duty employees, including regular contact and follow-up in order to help Operations logistics with staffing.

11. TFS management should continue to work with Corporate Facilities staff to identify and request adequate annual operating and capital funding to maintain fire facilities in an adequate state of good repair.

Succession Planning

1. The Deputy Fire Chief, Operations, in consultation with the Fire Chief and Division Commanders, should continue to develop a succession plan appropriate to the Operations Division. This plan should be developed on the basis on work completed in 2006 and reviewed in 2007, and should be ready for implementation by January 1, 2008.

2. The various Division Chiefs, in consultation with the Deputy Fire Chiefs and the Fire Chief, should develop a succession plan applicable to Support divisions. The succession plan should be completed for implementation by January 1, 2008.

3. Where possible, succession plans should be developed that allow staff to cross artificial barriers that have been created in the Fire Services, in an effort to break down existing silos.

4. Management representatives should continue to develop and implement a plan for succession management for excluded staff, to provide opportunities across all sections of TFS in preparation for senior management positions.

5. The Fire Chief should include any costs associated with succession planning in future operating budget submissions for the Fire Services.

Residential Sprinklers

1. Continue to advocate for change to the Ontario Building Code to incorporate requirements for automatic fire sprinkler systems in residential buildings.

2. Continue to provide education to the public on the life saving benefits of residential sprinklers as an addition to new home construction.

The Science of Public Safety and Firefighting

1. Toronto Fire continue to explore, promote and solicit opportunities where it can contribute to relevant and useful research, and establish partnerships with academic, research or other organizations to do so. In doing so, it must consider the financial interests of the City by limiting its contribution to "in-kind" support or minimal amounts of funds, as well as any intellectual property that may derive from the research.

2. Where opportunities for co-development with commercial partners are available, that a clear policy be developed to allow participation, while at the same ensuring maximum benefit to the City.

3. To maximize the effectiveness of the partnerships, specific research areas should be limited to a) firefighter safety, b) interoperability, c) human factors, and d) fire prevention. However, nothing precludes establishing research opportunities with local partners such as the City's colleges and universities in specific areas relating to analysis of operational effectiveness and resource deployment.

Chapter 1: Introduction

On January 1, 1998, the seven former municipalities that made up Metropolitan Toronto were amalgamated to form the new City of Toronto. The restructuring of Toronto's municipal government has been one of the most ambitious undertakings in North America, as seven large municipalities were combined, municipal and provincial responsibilities were revamped, and property tax reformed.

The "new" City of Toronto is now the fifth largest municipal government in North America, with 45 members of Council (including the Mayor), approximately 45,000 employees, an operating budget of over $7 billion annually, and an annual capital budget over $1 billion. The City, which is located on the northwest shore of Lake Ontario, comprises 641 square kilometres and is home to more than 2.7 million people. Only the governments of Canada, British Columbia, Alberta, Ontario and Quebec govern larger populations than the new City of Toronto.

Toronto stretches 43 km from east to west and 21 km from north to south at its longest points. The perimeter is approximately 180 km, and it includes a shoreline that stretches 43 km (as the crow flies), or 138 km factoring in the bays and islands.

The 1998 amalgamation of the former six municipal fire departments created what is now the largest fire service in Canada, and the 5th largest fire service in North America. With that distinction comes a great responsibility to be the leader in the Canadian fire "industry".

1.1 Legislative context

The Fire Protection and Prevention Act is the governing legislation for fire prevention and public safety in Ontario. Within the framework established by the FPPA, municipalities are responsible for funding and delivering fire protection Services and the province is responsible for providing municipalities with advice, guidance and support.

Under the act, municipalities are required to complete an assessment of the community's fire risks and to establish a program that includes public education with respect to Fire Safety and Fire Prevention.

1.2 Influencing Background Reports and Studies

In the years subsequent to amalgamation, Council commissioned a consultant's report ultimately submitted by KPMG. This report served as the roadmap through the difficult years following amalgamation, focusing primarily on maximizing efficiencies and identifying optimal fire protection for the City of Toronto based on fire station locations. It also addressed co-location opportunities with Toronto Emergency Medical Services, as well as reviewing the type and placement of fire apparatus throughout the city. This report has guided the strategic development of Toronto Fire Services since amalgamation.

Beginning in 2004, the Fire Chief and TFS senior management team began to view the KPMG study and its recommendations as insufficient to address future planning needs. The Fire Chief implemented a project that would see Fire Services staff proceed with the development and preparation of a draft Master Fire Plan based on an analysis of needs and risk. This Master Fire Plan would also be developed in conjunction with an update of the 2003-2007 Strategic Plan. Work on this project began in late 2005 and this document contains the results of the Master Planning initiative.

The Master Fire Plan is intended to serve as a strategic planning framework for policy, organizational, capital and operational decisions affecting Toronto Fire Services. It outlines a path for the short, medium and long term. A critical phase in this process is a thorough review of the current context for the service, referred to as an environmental scan.

It is useful to review the guidelines from the Office of the Fire Marshal (OFM) which describes the process as *"a framework for municipal decision making which should link council policy setting responsibility and the fire service operational expertise to accommodate short, medium or long term planning."* The guiding principles of a Master Fire Plan are:

- The residents of any community are entitled to the most effective, efficient and safe fire services possible;
- The content of existing collective agreements will be respected and the collective bargaining process will be recognized as the appropriate channel for resolving labour relations issues under collective agreements and the Fire Protection and Prevention Act;
- Collective bargaining issues affecting public safety will be identified; and
- Those responsible must work within these parameters in making recommendations for improving municipal fire services.

According to the OFM, when completed and approved, Master Fire Plan components should include:

- The mission statement, values and roles of the department;
- The necessary programs or projects approved by council;
- Projected expenditures that the public can afford; and
- Schedules for developing, implementing and maintaining appropriate programs and services.

The Master Fire Plan should also confirm a council commitment to monitor, evaluate and revise this plan to improve community fire safety continuously.

The KPMG study described above was strictly a facilities study which focused on the most appropriate arrangements for fire and ambulance facilities. An operational review of the Fire Services or reviews of the adequate and appropriate human resources for the delivery of Fire Services were not part of the terms of reference for this study. At the writing of this report, the City is in the beginning stages of undertaking a review of the administrative functions of Fire and EMS, to determine if there are efficiencies to be found that will result in cost savings and improved service in the following areas:

- Budget Services
- Financial Services
- Information Technology
- Information Management
- Payroll/Administration Services
- Facilities Management
- Quartermaster/Stores Management
- Human Resources/Employee Labour Relations

It is anticipated that the study will be completed in the third quarter of 2007.

The first Strategic Plan of the amalgamated Toronto Fire Services was released in January 2003, following guiding principles as outlined in the City's Strategic Plan 2001. The TFS Strategic Plan was based on seven Strategic Directions accompanied by goals to achieve them. The plan was built on post-amalgamation successes to provide a standard level of high quality service for the city. The areas addressed included leadership, roles and responsibilities, accountability, communication, standardization, the divisional planning process, and interdivisional coordination. Many of the goals of the existing Strategic Plan have been implemented or achieved, resulting in the need to revisit the plan and update it for future years. As part of the Fire Master Planning process, the Fire Services Strategic Plan has been updated and revised based on the current environment, and taking into account the City's priorities and the new organizational structure of the City of Toronto.

Another report that has resulted in changes for the Fire Services, and has contributed to this strategic plan review, is a 2006 report by Toronto's Auditor General. The Auditor's report followed a 2005 review of the Fire Services, based on the program's risk exposure, potential for City liability, the extent of expenditures, revenues and assets, and the potential impact on public safety. The Fire Services had not been the subject of an audit since amalgamation in 1998, and none of the former fire departments had been the subject of an audit for many years. In the review, the Auditor General focused on control over compliance with City purchasing policies and procedures; Fire Prevention Inspection Services; Vehicle Maintenance Services; management and control over warehouse inventory; and the TFS Gift shop operation. The recommendations of the Audit report, entitled *"Operational Review – Toronto Fire Services"* are currently being implemented within the Fire Services, and are referenced throughout this document.

1.3 Toronto Fire Services Credo, Vision, Mission and Core Values

In early 1999 a group of Toronto Fire Services staff was formed to produce a Credo, Vision and Mission Statement and a set of Core Values as the first step in developing a Strategic Plan for the Fire Services.

This group of 23 staff members each consulted with another 20 staff members and the public to involve over 400 people in the process. The group presented their report to the Senior Management Team at the end of June 1999 with their recommended Credo, Vision Statement, Mission Statement and Core Values. The outcome of this work, documented below, continues to be referred to in staff advisories, memoranda and other communications, and formed the basis for this document.

The Vision, Mission, Credo and Core Values were revisited during the writing of the Fire Services 2003-2007 Strategic Plan, and were re-affirmed as appropriate for the Fire Services. Given these two previous extensive processes, these elements were not reviewed during the writing of this document, as they were seen to meet the ongoing needs of the Fire Service.

CREDO

"Courage, Compassion, Service"

"Courage to move forward, Compassion in everything we do, Service without boundaries."

VISION STATEMENT

"Toronto Fire Services will be a pro-active leader in fire prevention, protection and emergency services to meet the diverse needs of our communities."

MISSION STATEMENT

"We are dedicated to protect life, property and the environment from the effects of fires, illness, accidents, natural disasters and other hazards."

"We are committed to enhancing fire safety and raising community awareness through education and involvement."

"Toronto Fire Services will pursue the acquisition and use of the most effective technology, equipment and resources to ensure we continue to perform in a competent and professional manner. We will always seek new opportunities to fulfil our mission. We are dedicated to building a cohesive, equitable and unified workforce."

"We provide high quality and caring services to those who live in, work in and visit our City… safely, efficiently and effectively."

CORE VALUES

Integrity
- Openness, honesty, loyalty and honour; doing unto others as we would to ourselves; leading through example to achieve a common goal by actions; dealing with each other truthfully.

Professional Development (Development of Human Resources)
- Commitment to continually expand the abilities of personnel.
- Funding and time available for professional, academic, and practical courses.
- Management training before and after promotion.
- Career planning and similar expanded services.
- Encouragement and nurturing of employees.

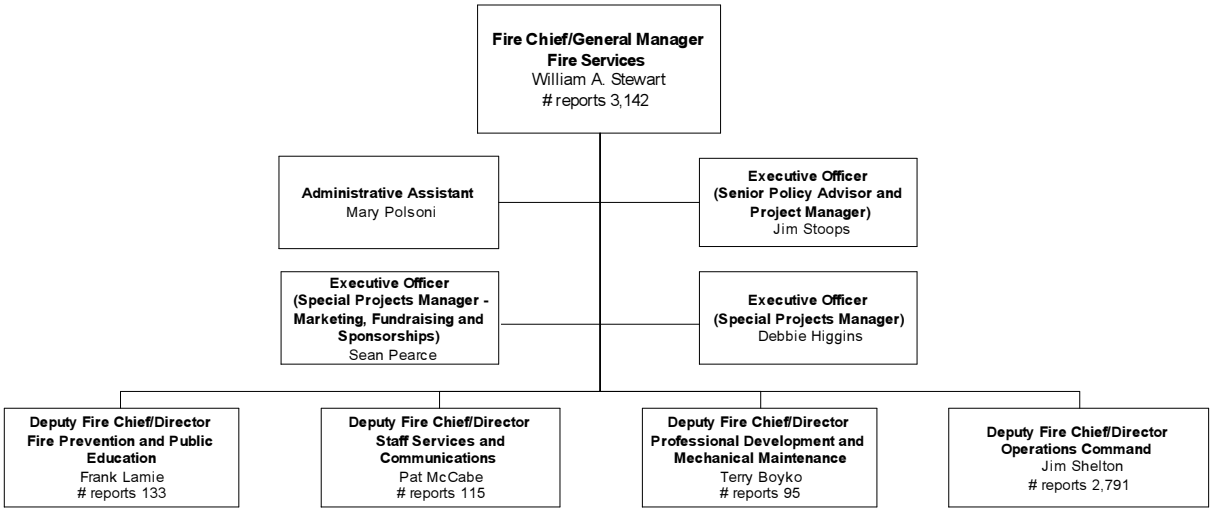
Accountability
- All personnel, management and otherwise, providing a level of accountability to each other and the community.
- Implementation of responsible measuring.
- Accountability used for growth as a positive and not a negative.

Teamwork
- Importance to develop and maintain a sense of family, camaraderie and loyalty to one another and to the community.
- Provide a sense of help and encouragement for one and by all.
- Partnership approach with personnel, management and community working hand in hand.

Innovation
- Progressive, pro-active, modern, open and creative.
- Open and receptive to all input and feedback.
- Adoption of the principles of ISO 9000 – accountability, ability to move ideas up and down the chain of command, participation, feedback and follow-through.

1.4 Background

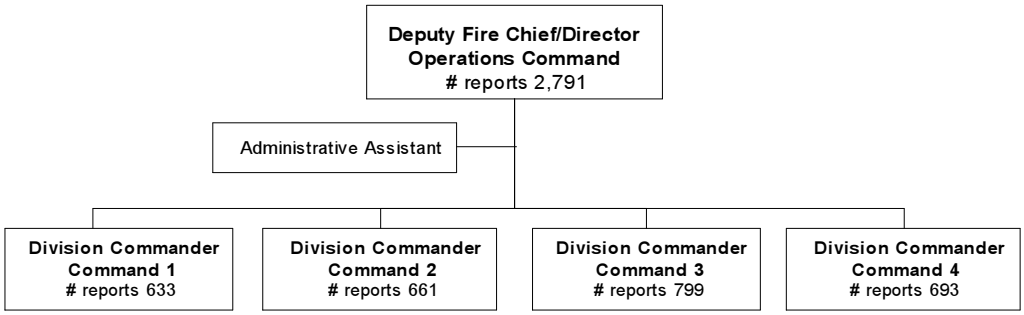
As of January 2007, Toronto Fire Services is comprised of 3,143 staff under the leadership of the Fire Chief and four Deputy Chiefs, as follows:



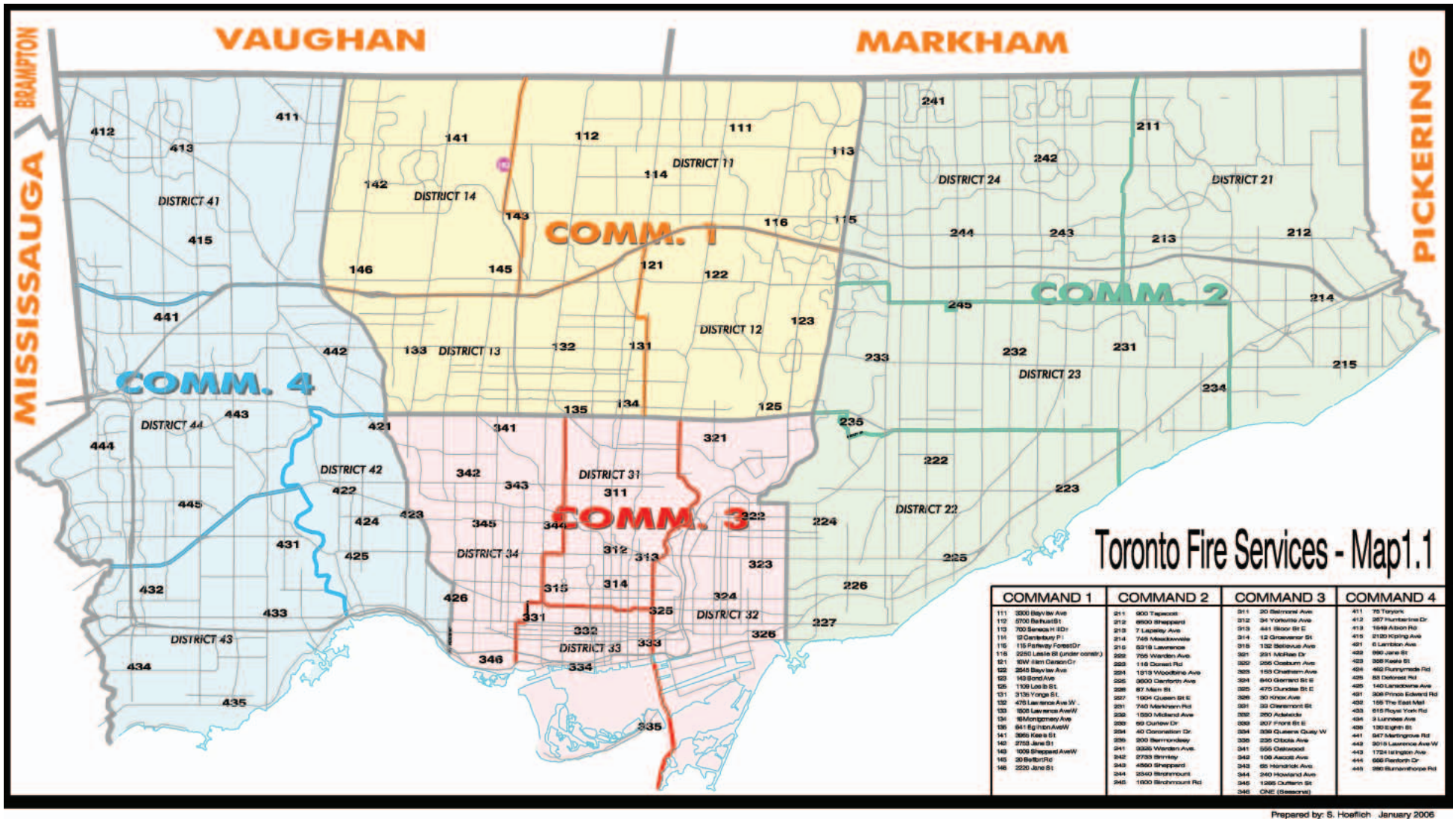
Toronto Fire Services (TFS) provides "all hazards" protection to 2,724,784 (2006 projection, City of Toronto Planning) permanent residents and a full and part-time workforce of 1,262,700 (2005), in an area covering 641 sq km. In addition, hundreds of thousands of commuters, tourists and visitors use the City's roadways, amenities and businesses on a daily basis.

Organizationally, TFS is comprised of one (1) Operations Division, divided into four (4) geographic Commands, and six (6) Support Divisions. There are 83 fire stations; one of which is currently under construction and another which is located on the grounds of Exhibition Place and operates only seasonally (see Map 1.1).

The Operations division is the largest division in the service, comprising 2,792 staff, as follows:



Fire fighters work a 42 hour week. The Operations Division operates a four platoon system of 24 hour shifts, while the Support Divisions work shifts that are adapted to their particular role. Front-line apparatus consist of 57 pumpers; 28 rescue/pumpers; 31 aerial devices of which 26 are ladders, 3 are platforms and 2 are towers; 5 heavy rescue squads; 4 air/light units; 2 hazardous materials units; 1 high-rise unit; and 1 fireboat.



Prepared by: S. Hoeflich January 2006

Toronto Fire Services is funded and mandated by the City of Toronto to provide residents and businesses with protection against loss of life and property by fire. For many years, extinguishing fires was considered the primary purpose of Fire Services. Today, it is realized that a full measure of service to the citizens requires as much attention to preventing fires as to extinguishing them. Fire Prevention, Public Education and fire suppression are equally vital in Fire Services today.

The Fire Prevention and Public Education Division of Toronto Fire Services educates the public about emergencies, fire regulations, home inspections and the Alarmed for Life campaign regarding smoke alarms and carbon monoxide detection. Systematic, thorough fire inspections and re-inspections and code enforcement are the backbone of effective fire prevention work and a major factor in reducing the loss of life and property.

1.5 Assumptions for Planning

Toronto will continue to expand, both in existing vacant pockets of land and through in-fill development of the highly urbanized core in terms of new construction and population. Continued improvements in the fire-related provisions of our Building and Fire Codes will have a positive impact on new construction.

The extensive amount of high tech industry, a complex urban infrastructure, protection of the nation's largest university, and the new condition of the City as a potential target for terrorism present unique challenges for the Fire Service. Additionally, in-fill and redevelopment in the downtown area, particularly in terms of high rise living and work units will significantly increase the number of people in the area and the calls for service.

Service delivery to people is the hallmark of Toronto Fire Services. As seen in Table 1.1, the annual number of fires averages approximately 9,000, which translates to an average of 25 fires a day across the City.

Table 1.1: 2003 – 2006 Calls by Event Type (at time of dispatch)

	2006	**2005**	**2004**	**2003**
Check Call	7,003	7,509	5,647	5,903
Carbon Monoxide	3,652	3,828	2,992	2,927
Fire Alarm Ringing	28,196	29,063	31,885	32,786
Fire	8,719	9,362	8,724	9,259
Gas Leak	496	531	765	966
Hazardous Materials	1,877	1,738	1,144	837
Medical Call	73,140	72,645	64,383	65,721
Rescue	2,199	2,311	2,070	2,081
Vehicle Incident incl. Fire	12,198	11,436	11,080	10,978
Wires Down	1,042	970	761	966
Other	846	1,123	1,049	843
Total Number of Incidents	**139,368**	**140,516**	**130,500**	**133,267**
Total Number of Vehicle Runs	**294,660**	**303,606**	**293,023**	**306,560**

In 2006, over 50% of the 139,368 emergency responses were for medical tiered-response emergencies. Toronto Fire Services only attends actual or potential life threatening emergency medical 9-1-1 calls along with Emergency medical Services (EMS). 9-1-1 calls to Toronto EMS are screened by medical call-takers using an industry standard protocol. Toronto Fire Services only responds to those calls with an identified actual or potential threat to life ("Delta" or "Echo" priority. This represents only 32.5 percent (2005) of all emergency 9-1-1 calls.

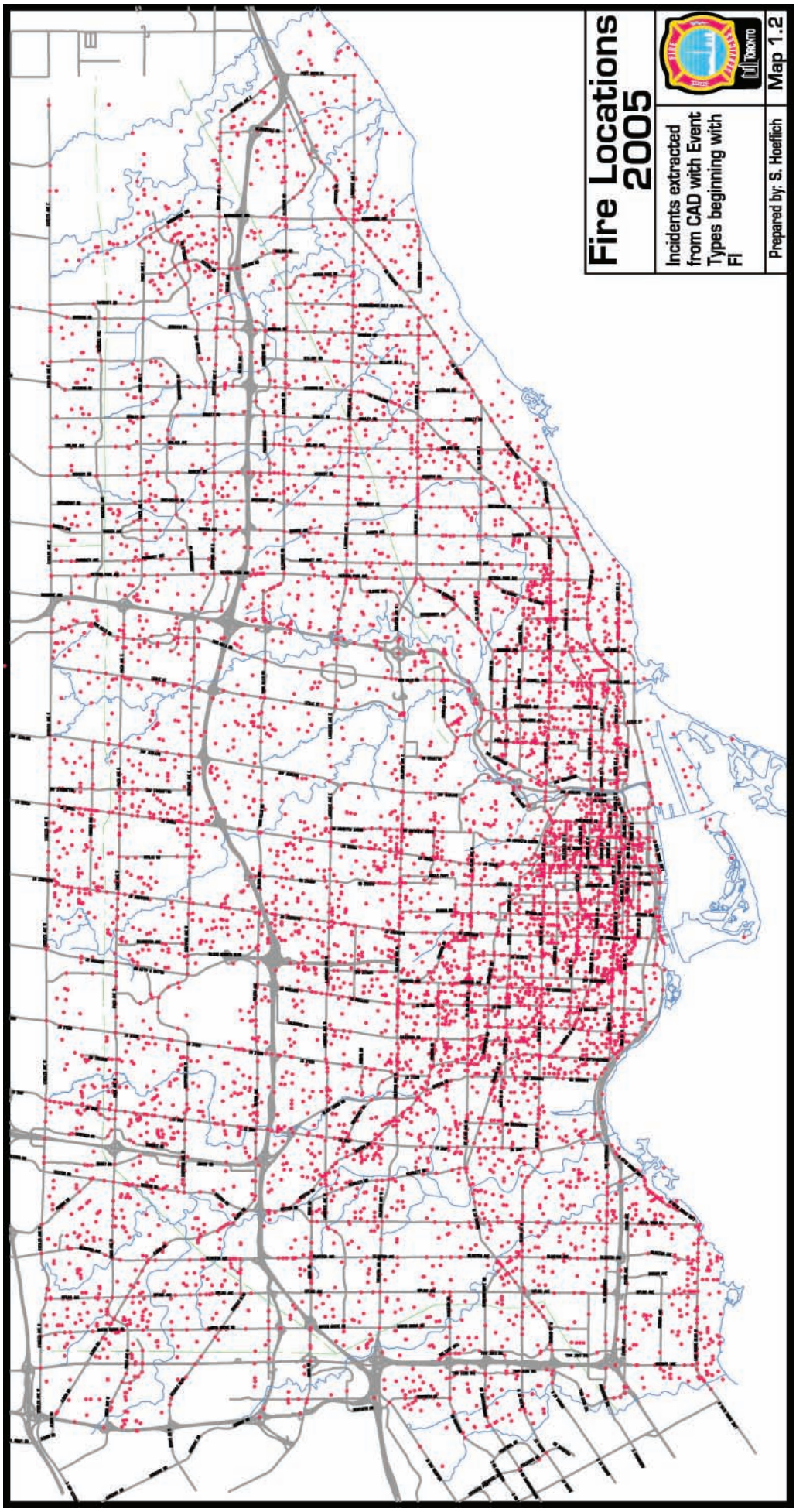
A committee comprised of medical and operational representatives from Toronto EMS, Toronto Fire Services and the Sunnybrook-Osler Centre for Prehospital Care (the Base Hospital) periodically review the tiered response criteria to confirm the appropriateness of each tiered response code and thereby ensure that fire fighters are responding to only those calls involving patients with high acuity of illness or injury.

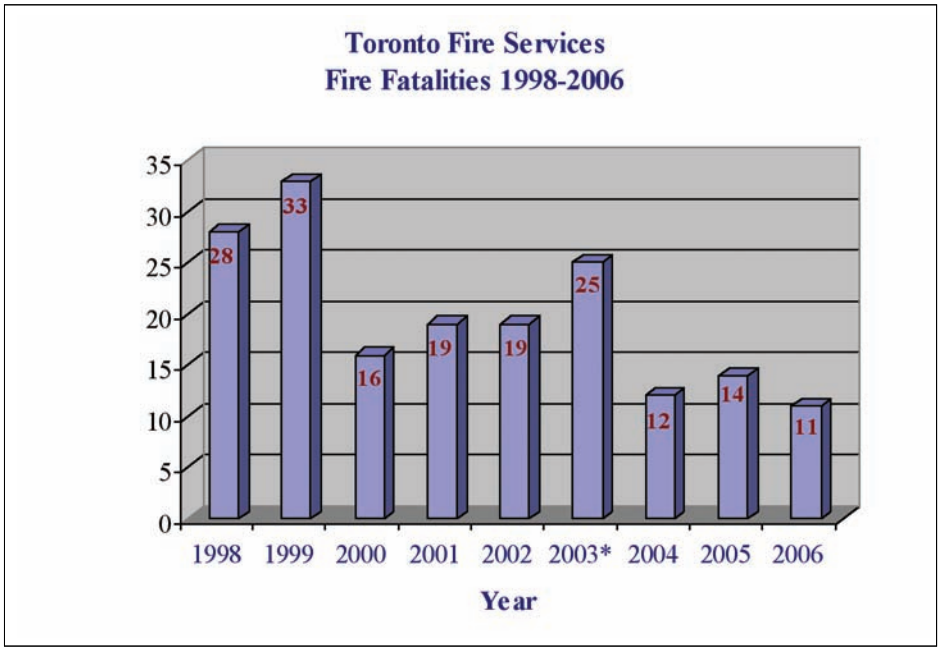
Several medical studies, including the internationally recognized Ontario Prehospital Advanced Life Support Study (OPALS), proved that survival from out of hospital cardiac arrest is dependent on early basic life support care and early defibrillation, and diminishes with each minute that elapses after a victim collapses. Basic life support CPR and early defibrillation have been competently delivered by Toronto fire fighters since 1996, and fire fighters often can arrive rapidly at cardiac arrest scenes by virtue of their greater number of stations and fire apparatus.

As indicated previously, TFS responds to approximately 9,000 fire calls per year. Map 1.2 shows the locations of fires across the City in a single year, indicating that these events occur across the City as a whole. No areas are immune from the effects of fire. In 2006, fire losses in the City were estimated at over $38 million. Map 1.2 clearly indicates that without containment, in a single year there would be extensive damage across the City due to the spread of fire.

Toronto Fire Services is truly the all hazards response agency. In addition to fires, other demands on our resources continue to increase, including hazardous responses, Special Operations, and Joint Operations relating to special events services. In 2006, 15.4 percent of total calls were related to hazardous conditions and rescues. This represents an increase of 12.5 percent over 2005, and an increase of 48.2 percent since 1999. This results in programmatic impacts on training development and maintenance, equipment and supplies, and time management. It is anticipated that these response types will continue to increase in the future as redevelopment and intensification occurs in the City.

The graph below indicates the fire fatalities reported for the City of Toronto from 1998 through 2006. In 1999, Toronto Fire Services instituted a program known as the "War on Fire", in response to an unacceptable number of fire deaths in the City. The success of the program can be seen in the results below:


Fire Locations
2005
Incidents extracted
from CAD with Event
Types beginning with
FI
Prepared by: S. Hoeflich
Map 1.2



**Note: The unusual spike in fire fatalities in 2003 is a result of a gas explosion that tragically claimed seven lives.*

The Office of the Fire Marshal defines a fire death as a person who dies as a result of injuries sustained during a fire incident (including explosions). Reportable fire deaths include suicides by fire and homicides by fire, but exclude fire deaths occurring in vehicle accidents.

Map 1.3 indicates the location of the 170 fire fatalities that occurred across the City from 1998 to 2006. As depicted, these incidents occur across the City, and in most cases are identified as preventable fire deaths. As indicated in more detail in Chapter 13 of this report, Toronto Fire Services advocates for sprinklers in residential building as a means to prevent deaths, injuries and property loss by suppressing fires before they grow to seriously endanger life an property. Almost 90% of fire related deaths are as a result of residential fires.

As indicated above, since amalgamation there have been 170 fire deaths in the City. Table 1.2 offers a bigger picture by setting out deaths, injuries and losses due to residential fires in the City of Toronto from 1994 to 2005. While there were 273 fire fatalities in Toronto, 237 deaths and 2,825 injuries occurred in residential fires during that time. Residential fires accounted for 87 percent of all fire-related deaths and approximately 75 percent of fire-related injuries. During the same period, residential fires also accounted for significant property losses valued at over $314 million (not adjusted for inflation).

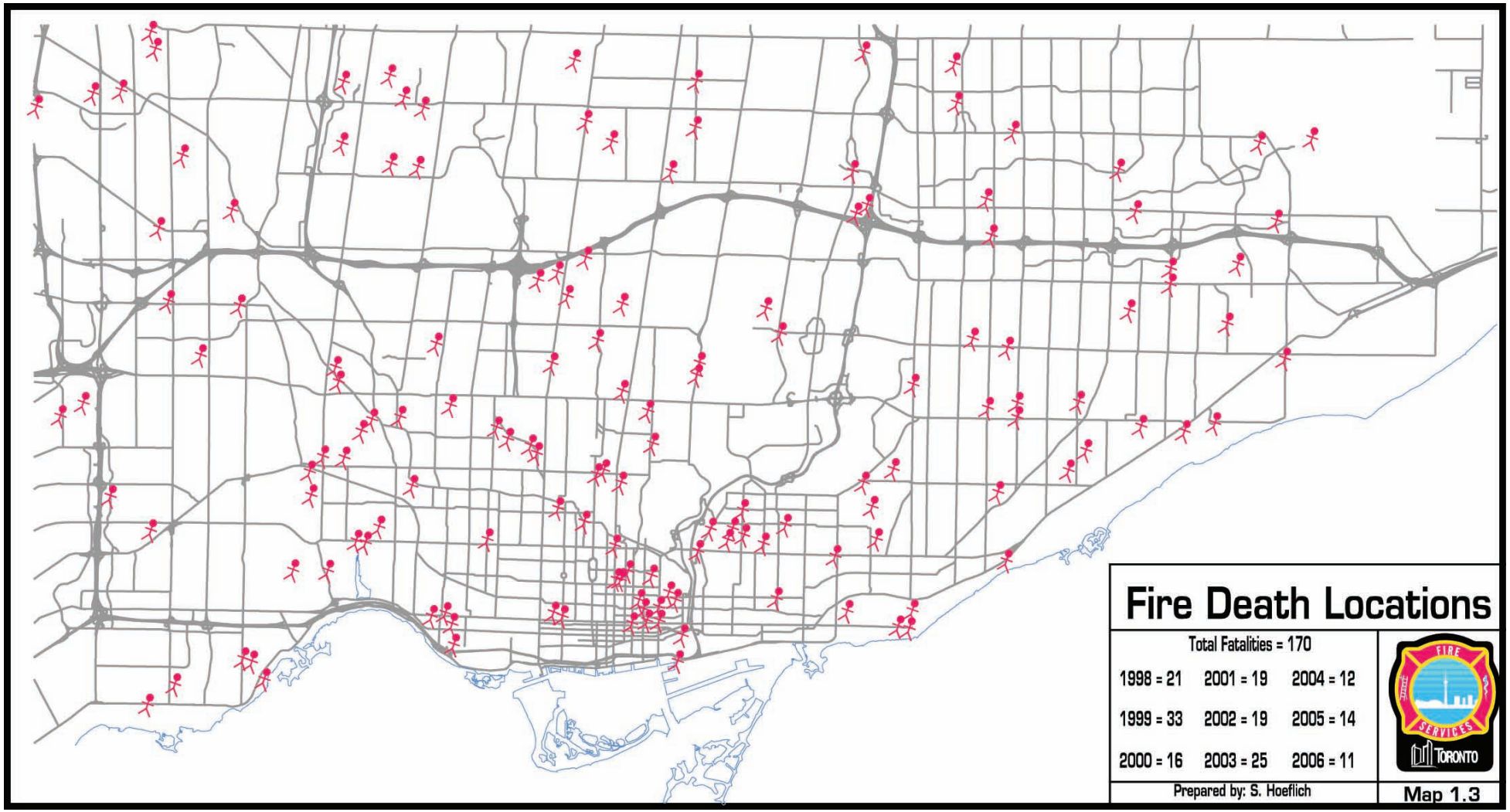

Fire Death Locations
Total Fatalities = 170
1998 = 21
2001 = 19
2004 = 12
1999 = 33
2002 = 19
2005 = 14
2000 = 16
2003 = 25
2006 = 11
Prepared by: S. Hoeflich
Map 1.3

Table 1.2: Residential Fire Deaths, Injuries and Property Losses in Toronto, 1994 - 2005			
Year	**Fire Injuries**	**Fire Deaths**	**Fire Losses ($) (Not Adjusted For Inflation)**
1994	384	17	$21,837,929
1995	340	25	$22,106,697
1996	342	22	$19,104,486
1997	356	24	$21,981,973
1998	245	24	$18,532,998
1999	184	32	$26,985,336
2000	173	15	$21,153,913
2001	178	16	$42,179,769
2002	158	15	$26,219,597
2003	163	22	$27,314,551
2004	172	12	$20,729,772
2005	130	13	$46,180,981
Total	**2,825**	**237**	**$314,328,002**

Given the number of fire-related tragedies Toronto has experienced, the City has an interest in pursuing best practices to achieve a high level of fire safety in Toronto and for fellow citizens throughout Ontario.

The increased use of smoke detectors and, in the future, the increased existence of residential automatic fire sprinkler systems, will result in earlier detection and control of structure fires, thus resulting in fewer fire fatalities, fire related injuries, and lowered structural fire loss. Commitment to the concept of continuous improvement and unrelenting devotion to service excellence will be required to maintain and enhance the positive image of the TFS in the community.

Fire station location and apparatus deployment assumes continued City emphasis on traffic management, serious consideration for the implementation of an emergency vehicle traffic preemption system and management of vehicle capacity on arterial streets.

As a destination City, Toronto is host to an ever increasing number of special events. Many of these events require additional staffing and equipment in order to safely manage the event without adversely affecting normal service delivery capability for the balance of the community. The positive relationship which exists with other City departments will continue to be maintained and enhanced in an effort to provide highly effective emergency services to all Toronto residents and visitors alike.

Toronto Fire Services is an “all hazards” type emergency service delivery organization - one that is highly involved in incident prevention and highly effective responses to incidents that do occur. Our involvement in emergency management has paid significant dividends for the City and we will continue to work with our partners at the regional, provincial and federal levels to further strengthen this critical mitigation, response, and recovery capability. In the event of a

major community health emergency, i.e. pandemic flu outbreak, it is expected that Toronto Fire will play a major role in terms of emergency medical response to the critically ill.

Solid support from City Council and funding from senior levels of government have played a critical role in the continued development of the Toronto Fire Services as we make preparations for strengthening our service delivery capability in the early years of the 21st century. The greatly increased emphasis being placed on preparation for large-scale natural or man-made events and the associated response will continue to challenge the service and the City.

Chapter 2: Emergency Response Capability

2.1 Objectives of this Section

The specific objectives of this section can be summarized as follows:

- To recommend the adoption of response time targets as described in National Fire Protection Association (NFPA) 1710 for Toronto Fire Services;
- To recommend the adoption of best practices in the delivery of all-risks/all-hazards protection services; and
- To review the recommendations of the 1999 KPMG Study of Fire Services, with respect to the location and construction of fire stations.

2.2 Scope of this Section

We have employed information and data provided by various departments within the City in the research and development of this report.

The study involved a current and comprehensive evaluation of the location of the existing fire stations within the City of Toronto. The evaluation consisted of an assessment of existing service levels and risks to determine the most suitable locations for fire stations, including those previously recommended in the 1999 KPMG Study. The review also critically examined the order of construction as previously identified and prioritized in the same study and the TFS staff responses and alternative proposals presented. The results of these complementary documents were adopted by Council in November 1999.

2.3 Statement of Assumptions

As they remain relevant, and to support an appropriate comparison with those stated by KPMG in 1999, the following assumptions with regards to Fire Services are repeated as follows:

- Fire Services will continue to provide first response for high-priority medical calls.
- Medical calls are not to be considered in the determination of the best location for fire stations. Fire protection obligations (property and life risk) will continue as primary location determinants.
- Station locations will provide the most appropriate geographic distribution and provide for anticipated growth.

2.4 Fire Service Strategy, Stations and Apparatus

2.4.1 Objectives of this Component

The general objective of this section was to define an overall plan for the optimal location of fire stations and apparatus throughout the City.

The specific objectives were to:
- Review and evaluate public life risks and property risks across the City.
- Define appropriate response time standards for Toronto Fire Services, based on the National Fire Protection Association (NFPA) 1710, and consideration for local conditions.
- Review all current fire station conditions.
- Conduct a comprehensive evaluation of the location of the existing fire stations within the City of Toronto, including those previously recommended in the 1999 KPMG Study. This evaluation critically examines the order of construction as previously identified and prioritized in the same study and the TFS staff responses and alternative proposals presented to determine their continued relevance.
- Review the existing apparatus allocation and deployment plan across the City to determine their ability to provide an appropriate response to all areas of the City.

2.4.2 Methodology

The methodology used for this section involved five major activities, as follows:
- Public life and property risk assessment;
- Response time review;
- Fire station conditions;
- Fire station location analysis; and
- Apparatus and fire company deployment.

2.5 Public Life and Property Risk Assessment

In order to adequately assess and identify the "all-hazards" risk to the City of Toronto, Toronto Fire consulted with the City's Office of Emergency Management and carefully examined both the City's Emergency Plan and Hazard Identification and Risk Assessment (HIRA) report. The HIRA report is notable in that it considers all hazards and was created from input received from the following organizations:

- Toronto Fire Services
- Toronto Emergency Medical Services
- Toronto Public Health
- Toronto Police Service
- Toronto Transit Commission
- Toronto Region Conservation Authority
- Environment Canada
- Emergency Management Ontario
- Enbridge Gas

- Enwave
- Toronto (City of) Urban Development Services
- Toronto Hydro Electric System
- Toronto (City of) Water; Quality Control and System Services
- Trans Northern Pipelines

A review of the risk matrix developed within the HIRA indicates that Toronto Fire is well-prepared for those incidents that have a high probability and are within its scope of primary responsibility. It is also prepared for and works collaboratively with other agencies to respond to those events that have a medium probability of occurrence (1 incident in the last 5 years) and a high (substantial) impact.

2.6 Response Time Review

NFPA 1710 (Section 3.3.42) describes fire service time as an elapsed time interval consisting of the following components:

Time:

- **Alarm Time.** The point of receipt of the emergency alarm at the public safety answering point to the point where sufficient information is known to the dispatcher to deploy applicable units to the emergency.
- **Call Processing Time.** See Dispatch Time.
- **Dispatch Time.** The point of receipt of the emergency alarm at the public safety answering point to the point where sufficient information is known to the dispatcher and applicable units are notified of the emergency.
- **Turnout Time.** The time beginning when units acknowledge notification of the emergency to the beginning point of response time.
- **Response Time.** The time that begins when units are en route to the emergency incident and ends when units arrive at the scene.

(NFPA 1710 – 2004 Edition, Section 3.3.42.1-5)

This is consistent with the KPMG definition of response time: "analysis is based on travel time or road response time, which is the time for a fire truck to reach the incident scene from the station". (KPMG, 1999, p.7)

The other components of "time" were not included because according to KPMG, they "have no geographic or spatial characteristics that could influence station location". (KPMG, 1999, p.8) While this remains true, other portions of this Master Fire Plan will address these other time components and for that reason, they are described here.

During the conduct of the KPMG study, response time standards from other large Canadian and US urban jurisdictions were surveyed and included in the study. These were used to justify the "travel time" unit of measurement (from the station to the incident) of 4 minutes.

The adoption of NFPA Standard 1710 as a target recognizes the 4 minute response time and provides target times for all other components of emergency incident handling.

2.7 Fire Station Conditions

Since 2002, building condition audits of TFS facilities have been performed by Corporate Facilities and Real Estate. This Asset Management Program is designed to maintain City buildings in a state of good repair through remedial maintenance, rehabilitation, renovation and equipment replacement, consistent with corporate policy, fiscal targets and client needs.

Funding requests are included in our Capital Budget submissions each year to address the state of good repair. In addition, Operating funds are provided in the annual budget for day-to-day maintenance. However, due to fiscal restraint measures, the funding levels provided are insufficient to fulfill the recommended Capital or day-to-day requirements.

Capital improvements (minor or major) to support the KPMG-recommended apparatus moves are included in the chart below. It should be noted that a few of the structural changes recommended by KPMG were not done because of adjustments to the recommendations on apparatus relocations following TFS senior staff review.

Table 2.1: KPMG Recommended Capital Improvements

Station	Address	Remarks
116	2250 Leslie Street	New station to be completed in 2007.
131	3135 Yonge Street	Lowered and reinforced apparatus bay. Renovations to interior of station.
132	476 Lawrence Avenue West	New station built in 1999.
141	3965 Keele Street	Renovations to first and second floors as well as apparatus bays.
143	1009 Sheppard Avenue West	Raised lintel and poured new concrete apron. Renovations to interior of station.
212	8500 Sheppard Avenue East	New station built in 2002.
224	1313 Woodbine Avenue	Raised lintel.
226	87 Main Street	Lowered and reinforced apparatus bay. Renovations to interior of station.
311	20 Balmoral Avenue	Rounded corners of facing on stone work to accommodate turning of fire apparatus.
312	34 Yorkville Avenue	Raised lintel.
313	441 Bloor Street East	Reinforced slab in apparatus bay. Renovations to interior of station.
324	840 Gerrard Street East	Reinforced slab in apparatus bay. Renovations and expansion to kitchen.
325	475 Dundas Street East	Raised lintel and resurfaced slab floor. Renovations to 2nd floor interior of station.
334	339 Queens Quay West	New station built in 1999.
342	106 Ascott Avenue	Extended apparatus bay and widened doors.
413	1549 Albion Road	Raised roof.

Station	Address	Remarks
423	358 Keele Street	Lowered and reinforced apparatus bay. Renovations to interior of station.
433	615 Royal York Road	Total station renovation in 2005.
435	130 Eighth Street	Extended apparatus bay and widened doors. Renovations to interior of station.
441	947 Martingrove Road	Lowered and reinforced apparatus bay.
445	280 Burnamthorpe Road	Raised lintel and poured new concrete apron. Removed shooting range.

2.8 Fire Station Location Analysis

The City's Urban Development Services (UDS) Transportation Planning section was requested to replicate the KPMG assessment of fire station locations, using a computerized model (EMME/2) which simulates travel on the City road network. The purpose of this analysis was to validate KPMG's original conclusions and to identify any trends, or additional overlap and under-serviced areas which may have occurred since 1999.

Response time contours were not calculated for following stations:
- Station 346 (formerly T32) – Seasonal use only
- Station 335 (formerly T33) – Serves only the islands

Station 334 (formerly T35 – T9), which was under construction during the KPMG review and therefore excluded, is now eligible and included in this review.

Also reviewed were actual response time statistics for the period between January 1, 2003 and May 31, 2006. The analysis examined response time by Station Area and by Emergency Service Zone (ESZ).

2.9 Findings of KPMG Review

2.9.1 Service Overlap Areas

The service overlap areas identified in the 1999 KPMG Study remain relevant. The original recommendations included closing Stations 323 (formerly T26 – 153 Chatham Avenue) and 424 (formerly T31 – 426 Runnymede Road). The modification recommended by Fire Services and approved by Council were to merge the station areas of Station 323 and 324 (T12 – 840 Gerrard Street East) and to build a new Station in the optimal location within their respective service areas. The same Fire Services recommendation was also applied to Stations 424 and 425 (T16 – 83 Deforest Road).

To date, no suitable and available location has been identified for these purposes. Table 2.3 below reflects the current status of these outstanding recommendations.

2.9.2 Under-Serviced Areas

The 1999 KPMG Study identified the following areas as under-serviced:

1. Northwest Etobicoke – west of Hwy 27, south of Rexdale Boulevard. KPMG strategy was to construct station identified as **Station A**.

2. Downsview – Keele Street, between Wilson Avenue and Sheppard Avenue. KPMG strategy was to construct station identified as **Station B**.

3. Northeast North York – centred on Sheppard Avenue, between Leslie Street and Bayview Avenue. KPMG strategy was to construct station identified as **Station C**. The need for a station in this area had already been proposed in the (former) City of North York 1997 Capital Budget.

4. Central Scarborough – near the area of the intersection of Eglinton Avenue East and Midland Avenue. KPMG strategy was to construct station identified as **Station D**. The need for a station in this area had already been proposed in the (former) City of Scarborough Fire Station location study of 1992.

5. Eastern Scarborough – near the area of the intersection of Ellesmere Road and Morningside Avenue. KPMG strategy was to construct station identified as **Station E**. The need for a station in this area had already been proposed in the (former) City of Scarborough Fire Station location study of 1992.

6. Northeast Scarborough – near the area of the intersection of Sheppard Avenue and Morningside Avenue towards the City boundary. KPMG strategy was to construct station identified as **Station F** and identified the need as immediate.

Other under-serviced areas identified in KPMG but not recommended for new stations at the time included:

1. Western Etobicoke – west of Renforth Drive, between Dundas Street West and Burnhamthorpe Road.

2. Northwest Scarborough – in the area bounded by Sheppard Avenue and Finch Avenue (north/south) and Victoria Park Avenue and Warden Avenue (east/west).

Subsequent to the release of the KPMG report, these recommendations were modified such that due to the proximity of the proposed Stations E and F, the immediate need for two stations was combined into a single station, in the Sheppard and Morningside area. In addition, a station was proposed in the area of the Sunnybrook Health Centre, to improve historical response times to that location. Planning for a station at Sunnybrook had begun in 1993 by the (former) City of North York. This location was identified as **Station G**.

2.10 Current Status

The following chart reflects the original priority order of construction and the current status of those recommendations:

- Stations E and F combined – built as Station 212.
- Station C – approved in Capital for 2006-2007 construction as Station 116.
- Station G – Sunnybrook – added to list.

Table 2.2: Current Status of KPMG Recommended Station Developments

Station	Year	Status	Remarks
"E/F"	2000	Completed	Station 212 – 8500 Sheppard Ave E opened in 2002
"G"	2001	Incomplete	Land cost at Sunnybrook prohibitive – incidents and development projections do not support current priority
"A"	2002	Incomplete	Incidents and development projections do not support current priority
"C"	2002	In Progress	Station 116. Site acquired (area of southwest corner of Leslie / Sheppard), construction scheduled for completion in 2007.
"D"	2004	Incomplete	Incidents and development projections do not support current priority
"B"	2005	Incomplete	Incidents and development projections do not support current priority

Also included in the KPMG report and resulting Implementation Schedule were the following Capital Improvements, in their original order of priority:

Table 2.3: Current Status of KPMG Recommended Capital Improvements

Station	Year	Status	Remarks
T31-T16	2000	Incomplete	Now Stations 424 and 425 – Unable to secure suitable location to date. Station 424 to be closed.
E1	2000	Completed	Station 433. Extensive renovation construction completed in 2005, station rededicated in November 2005.
T12-T26	2001	Incomplete	Now Stations 323 and 324 – Unable to secure suitable location to date. This co-location is no longer supported.
T29	2003	Incomplete	Now Station 135. Unable to secure funding for construction of new station on City-owned property at Chaplin Crescent to replace existing station to date.

2.10.1 Revised Station Construction Priority

As a result of the original report, the project to construct the "immediate need" station was begun without delay, resulting in the opening of Station 212 at 8500 Sheppard Avenue East in 2002.

The timetable for the construction of the remaining stations was delayed for two primary reasons: 1) Capital Budget pressures for competing high-priority City projects, and 2) the lack of suitable and available land in the area concerned.

Table 2.4: Revised Station Construction Priority					
Order of Priority	**KPMG Recommended Year of Construction**	**1999 KPMG/TFS**	**2004-2006 TFS Review**	**Current Capital Year of Construction**	**TFS Proposed Year of Construction**
1	2000	E/F (Stn 212)	E/F (Stn 212)	Open 2002	Open 2002
2	2001	G (Stn 124)	C (Stn 116)	2006-2007 (approved)	2006-2007 (approved)
3	2002	A (Stn 414)	D (Stn 221)	2012	2008
4	2002	C (Stn 116)	G (Stn 124)	2013	2009
5	2004	D (Stn 221)	B (Stn 144)	2014	2010
6	2005	B (Stn 144)	A (Stn 414)	2015	2011

A preliminary and internal review of the station construction priority conducted in 2004 resulted in the identification of an emergent need for accelerating the construction of Station C. This, in conjunction with the availability of suitable municipal property in the area under consideration, prompted the decision to allocate funding and begin construction. This was achieved during the 2005 Capital Budget presentation, resulting in funding commitments for the years 2006 and 2007.

2.11 Statistical Analysis

It has been seven years since KPMG published its findings of response times and station construction recommendations. Since then, one station has been built and another is under construction. One of the key components absent in the original KPMG report was a reliable, city-wide statistical analysis of accurate response time data. The full implementation of the new Computer-aided Dispatch system (CAD) and new station areas supported by the opening of Station 212 in December 2002 now provides an opportunity for reliable response information to be analyzed for a period of more than three years.

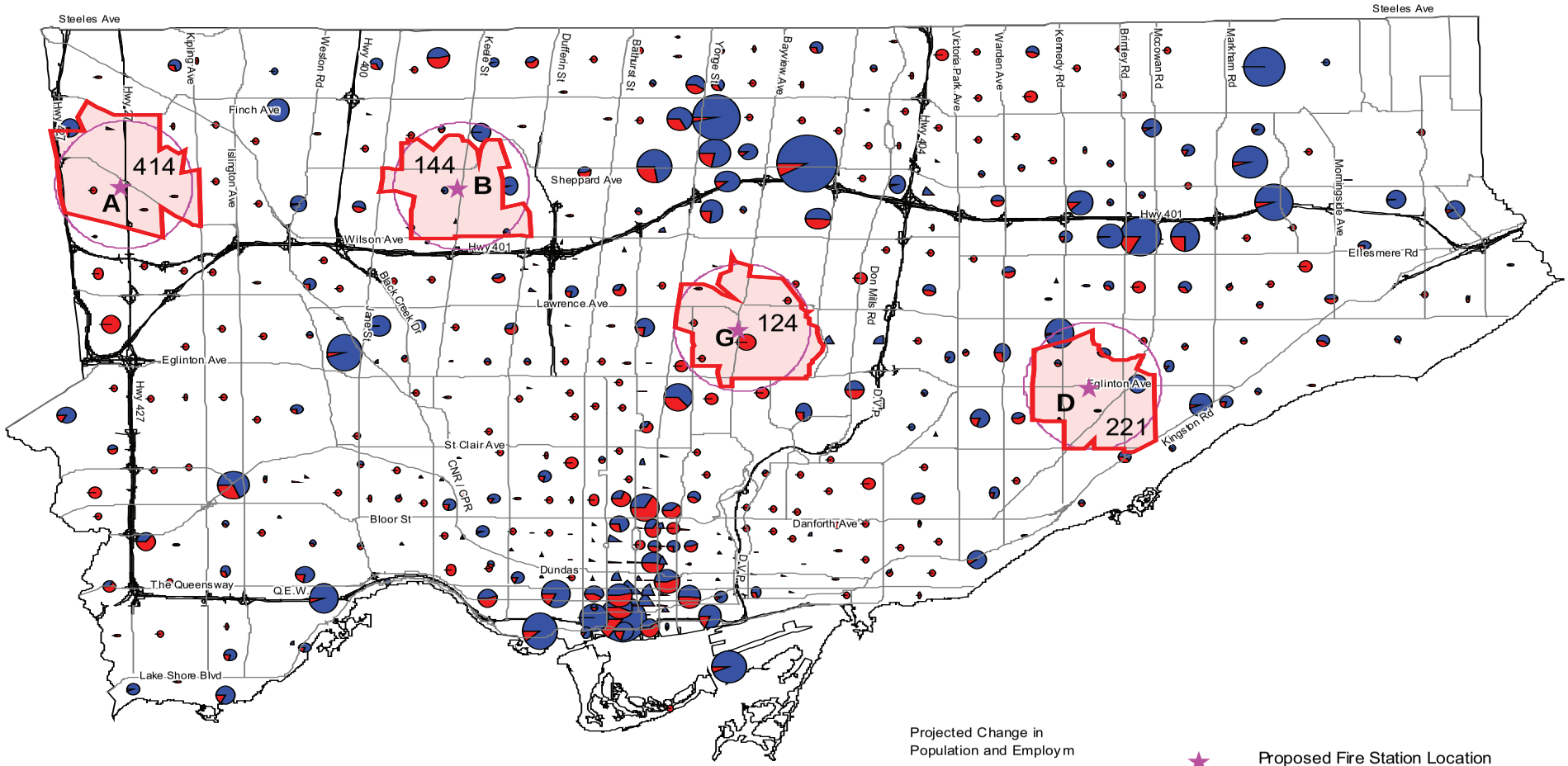
2.11.1 Methodology

For each of the suggested station locations, a 1.5km radius was drawn to determine that station's catchment area (see Proposed Fire Station Service Areas, Map 2.1). Fire service incidents reported in the Emergency Service Zones (ESZ) within this 3 Km circle were listed and the 90 percentile response time for the first dispatched truck was calculated. The main focus of this particular analysis was to validate or refute the KPMG priority order based on the number of events that actually occurred within the ESZ's.

The following tables reflect the actual data for the proposed station areas, using the methodology described above, for the period between January 1, 2003 and May 31, 2006. The three columns in each table represent the Emergency Service Zone (ESZ) which would be in the primary response area of the new proposed stations, the Total Calls received in that ESZ for January 1st, 2003 to May 31st, 2006 and the 90% response time for each ESZ during that period. The target time for that column should be 5 minutes, which equals the NFPA 1710 standard of 1 minute from Dispatch to En Route plus 4 minutes for En Route to Arrival (Road Response). This

Proposed Fire Station Service Areas

Projected Growth 2006-2016



Projected Change in Population and Employm

10,000
5,000
1,000

Population
Employment

Proposed Fire Station Location

1.87km Buffer

Proposed Fire Station Service Area

Sources:
Proposed Fire Station Service Areas
Toronto Fire Service

Population Projections V1.4 by 1996 Traffic Zone
Employment Projections V1.0 by 1996 Traffic Zone
Toronto City Planning, Policy and Research Section

Map 2.1

measure was used because the Dispatch and Arrival time stamps are validated by both the system and the dispatcher.

ESZ	Total Calls	90% Time
222002 & 007	159	7:19
222008	612	6:55
222009	251	7:17
222013	593	6:28
222014	314	7:12
222015	264	6:49
222021	293	7:28
223001	460	6:40
223005	644	6:26
223007	184	7:14
223008	239	6:56
223009	1105	6:28
223010	155	5:41
223012	620	6:19
232022	451	6:50
232023	1303	7:04
232025	390	6:47
232026	352	7:32
Total	**8369**	**7:16**

Proposed Station D (221) Area ESZ's

ESZ	Total Calls	90% Time
412007	368	5:23
412008	393	6:06
412009	129	7:20
412010	832	8:05
413014	828	6:20
415001	50	7:18
415002	276	6:34
415003	118	6:37
415006	118	6:04
415009	238	5:07
441001	31	8:02
441002	164	6:43
Total	**3545**	**7:16**

Proposed Station A (414) Ares ESZ's

ESZ	Total Calls	90% Time
141012	473	6:45
141013	345	6:31
141014	366	7:45
141015	99	8:34
142011	573	6:13
142012	629	7:39
142016	215	6:15
145001	215	7:06
145002	349	6:19
145016	0	N/A
146006	383	7:32
146009	507	7:02
Total	**4252**	**7:04**

Proposed Station B (144) Area ESZ's

ESZ	Total Calls	90% Time
122016	188	6:36
122018	133	7:45
131004	518	5:45
131005	87	6:30
131007	291	6:11
131008	153	7:15
131009	749	6:59
134004	181	6:17
134005	132	7:23
134009	55	6:22
321001	108	6:31
321002	298	6:10
321003	195	6:17
321004	191	6:04
Total	**3279**	**6:54**

Proposed Station G (124) Area ESZ's

2.11.2 Detailed Analysis

A detailed analysis of each remaining KPMG proposed station area reveals that the original order of construction requires revision. The most obvious priority should go to Station D (221) (Map 2.2). This area has nearly twice as many incidents as the next area, and 2,856 of those calls had a 90% response time exceeding 7 minutes – greater than 2 minutes above the target. Further, this area had been recommended for a new station as far back as the (former) City of Scarborough Fire Station location study of 1992.

The additional station recommended to be built subsequent to the KPMG study was Station G (124) at or near the Sunnybrook Health Centre (Map 2.3), to improve historical response times to that location. Planning for a station at Sunnybrook had begun in 1993 by the (former) City of North York. Since January 1st, 2003, 581 of the 749 calls in ESZ 131009 have been for Sunnybrook. The 90% response time for that ESZ is at 6:59. By contrast, the downtown hospital campus consisting of the Hospital for Sick Children and Toronto General Hospital (combined) has generated 314 calls during the same period, with a 90% response time under the 5 minute (Dispatch to Arrival) target. The high risk nature of this facility is the determinant for priority of construction.

The order of the next two proposed stations is determined by using the following criteria. Station A (414) (Map 2.4) had 1,042 calls with a 90% response time exceeding 7 minutes, while Station B (144) (Map 2.5) had 2,199 calls with a 90% response time exceeding 7 minutes. Therefore, not only did Station B (144) have more calls overall than Station A (414), but it had more than twice as many calls who exceeded the response time of 7 minutes – again, greater than 2 minutes above the target. Consequently, Station B (144) should be constructed before Station A (414) with the potential for reversal based on development patterns over the next few years.

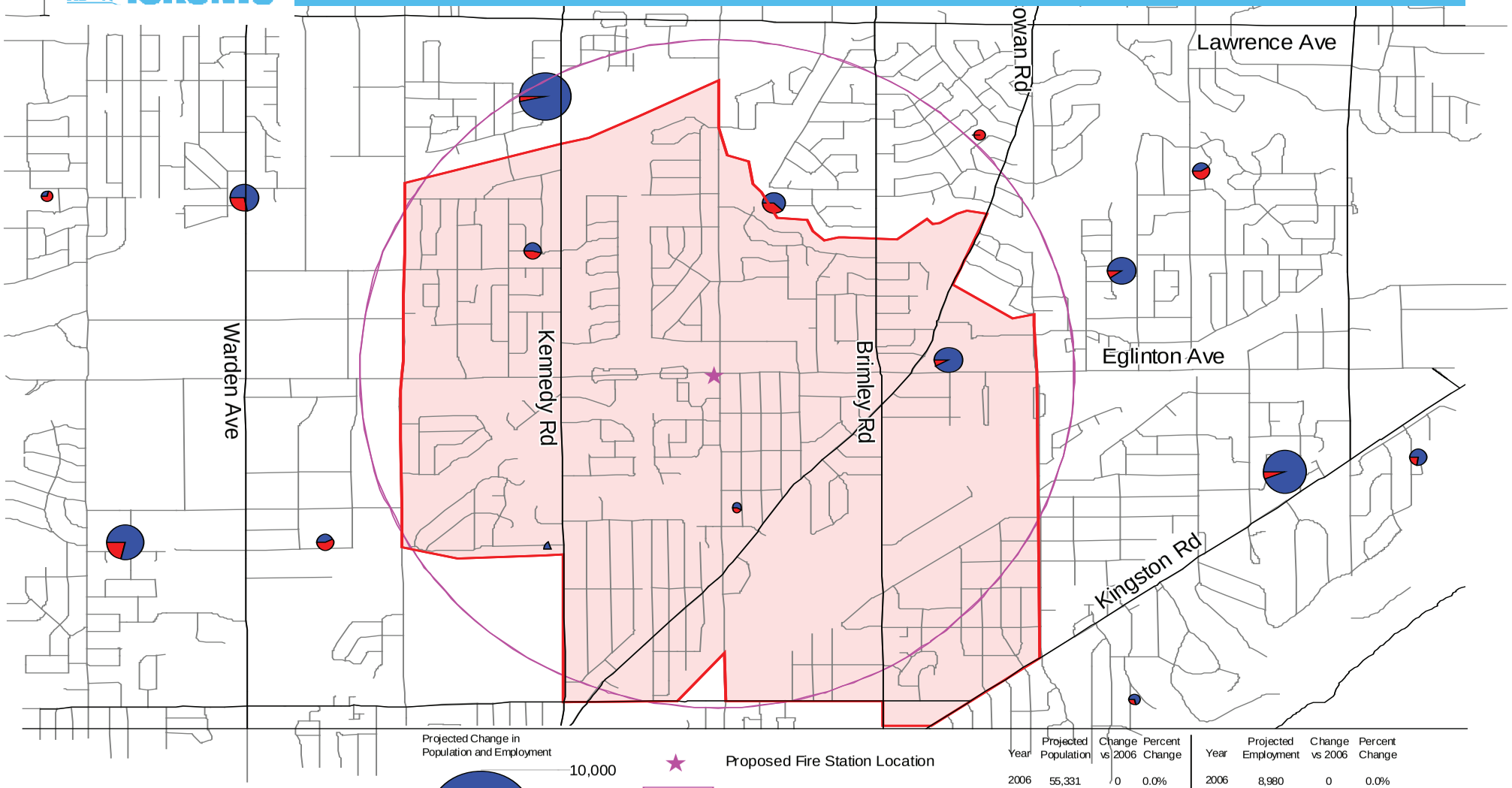
2.12 Emerging Station Needs

2.12.1 York University/York Region Subway Extension

The Toronto Transit Commission/City of Toronto has announced an initiative to extend the Downsview subway line into York Region, using a route that would see it pushing in a northwesterly direction towards York University and onwards. Toronto Fire Services has been formally approached by the TTC to secure the location of the current Station 141 (east side of Keele Street north of Finch Avenue) for the purposes of this project. This would accommodate parking and one of the proposed station access points, including a bus loop.

During the preliminary discussions, a possible alternate location for construction of a new Station 141 has been identified in the area of Murray Ross Parkway and Keele Street (approximately 250 metres north of current station location, on the west side). This area would be suitable to Toronto Fire Services, however, the timing of construction is of critical importance. The appropriate sequence of events would see the construction of the new Station 141 completed before the development of the subway line reaches the stage where TTC construction access to the existing fire station location is necessary.

Proposed Fire Station 221 Service Area (KPMG Stn D) Projected Growth 2006-2016



Year	Projected Population	Change vs 2006	Percent Change
2006	55,331	0	0.0%
2007	55,929	598	1.1%
2008	56,525	1,194	2.2%
2009	57,123	1,792	3.2%
2010	57,719	2,388	4.3%
2011	58,317	2,986	5.4%
2012	58,586	3,255	5.9%
2013	58,856	3,525	6.4%
2014	59,122	3,791	6.9%
2015	59,392	4,061	7.3%
2016	59,662	4,331	7.8%

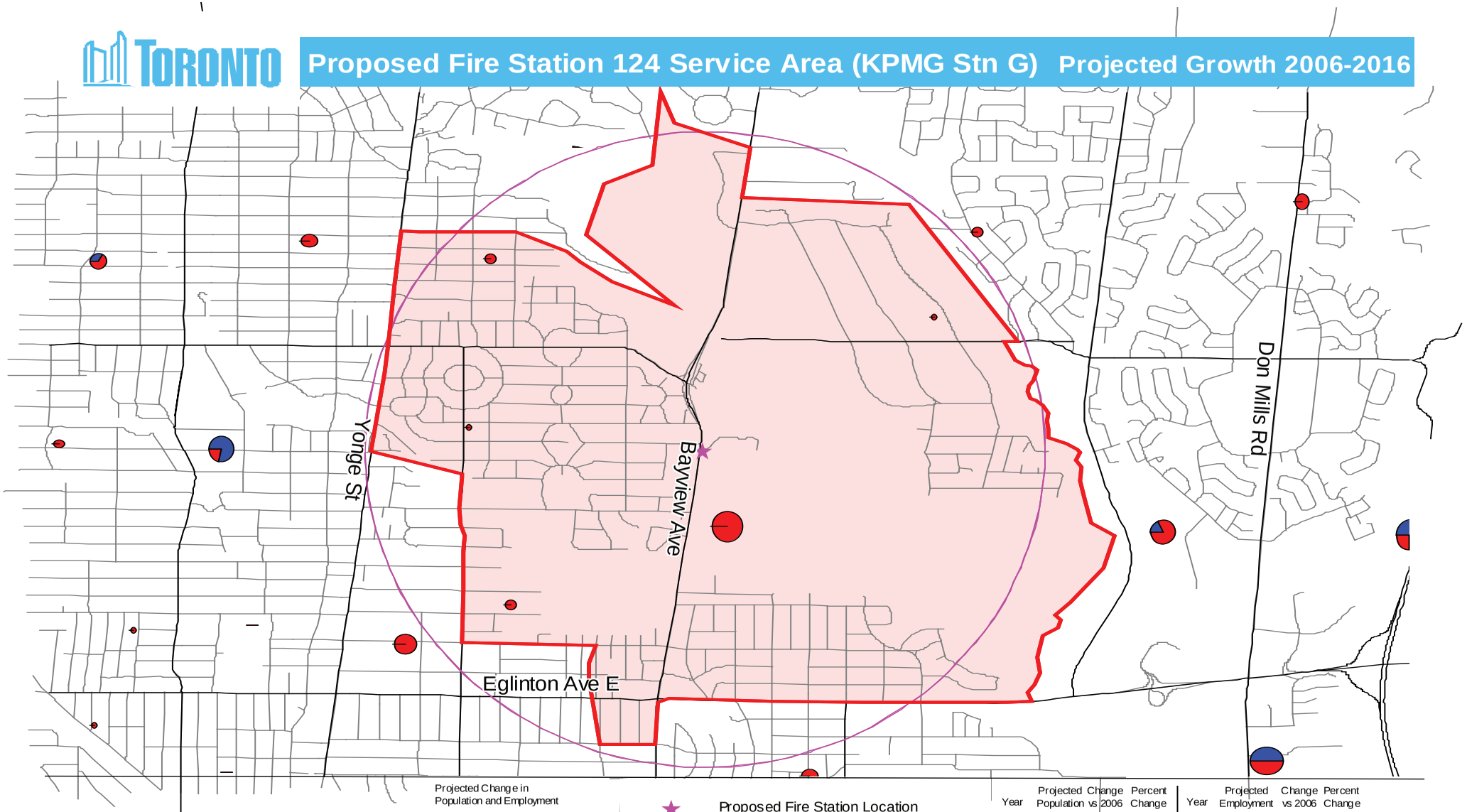
Year	Projected Employment	Change vs 2006	Percent Change
2006	8,980	0	0.0%
2007	9,088	108	1.2%
2008	9,196	216	2.4%
2009	9,304	324	3.6%
2010	9,412	432	4.8%
2011	9,520	540	6.0%
2012	9,593	613	6.8%
2013	9,663	683	7.6%
2014	9,736	756	8.4%
2015	9,806	826	9.2%
2016	9,879	899	10.0%

Sources:
Proposed Fire Station Service Areas
Toronto Fire Service

Population Projections V1.4 by 1996 Traffic Zone
Employment Projections V1.0 by 1996 Traffic Zone
Toronto City Planning, Policy and Research Section

Map 2.2

Proposed Fire Station 124 Service Area (KPMG Stn G) Projected Growth 2006-2016



Projected Change in Population and Employment

10,000
5,000
1,000

Population
Employment

Proposed Fire Station Location

1.87km Buffer

Proposed Fire Station Service Area

Year	Projected Population	Change vs 2006	Percent Change
2006	21,667	0	0.0%
2007	21,643	-24	-0.1%
2008	21,618	-49	-0.2%
2009	21,595	-72	-0.3%
2010	21,570	-97	-0.4%
2011	21,546	-121	-0.6%
2012	21,539	-128	-0.6%
2013	21,531	-136	-0.6%
2014	21,525	-142	-0.7%
2015	21,516	-151	-0.7%
2016	21,508	-159	-0.7%

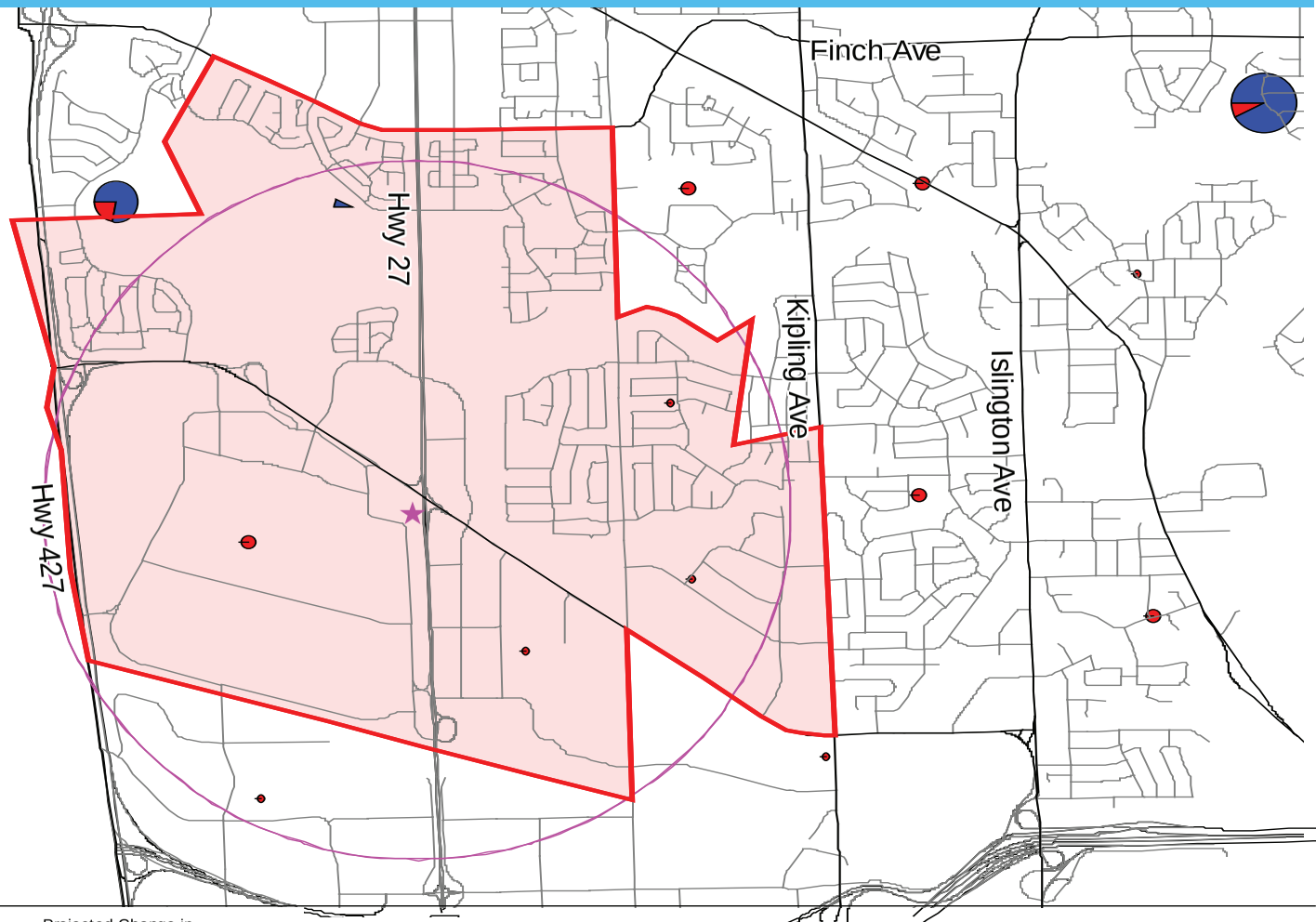
Year	Projected Employment	Change vs 2006	Percent Change
2006	15,900	0	0.0%
2007	16,146	246	1.5%
2008	16,392	492	3.1%
2009	16,638	738	4.6%
2010	16,884	984	6.2%
2011	17,130	1,230	7.7%
2012	17,321	1,421	8.9%
2013	17,509	1,609	10.1%
2014	17,700	1,800	11.3%
2015	17,888	1,988	12.5%
2016	18,079	2,179	13.7%

Sources:
Proposed Fire Station Service Areas
Toronto Fire Service

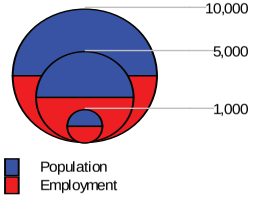
Population Projections V1.4 by 1996 Traffic Zone
Employment Projections V1.0 by 1996 Traffic Zone
Toronto City Planning, Policy and Research Section

Map 2.3

Proposed Fire Station 414 Service Area (KPMG Stn A) Projected Growth 2006-2016



Projected Change in Population and Employment



Proposed Fire Station Location

1.87km Buffer

Proposed Fire Station Service Area

Year	Projected Population	Change vs 2006	Percent Change
2006	17,025	0	0.0%
2007	17,004	-21	-0.1%
2008	16,985	-40	-0.2%
2009	16,964	-61	-0.4%
2010	16,945	-80	-0.5%
2011	16,924	-101	-0.6%
2012	16,943	-82	-0.5%
2013	16,961	-64	-0.4%
2014	16,980	-45	-0.3%
2015	16,999	-26	-0.2%
2016	17,017	-8	0.0%

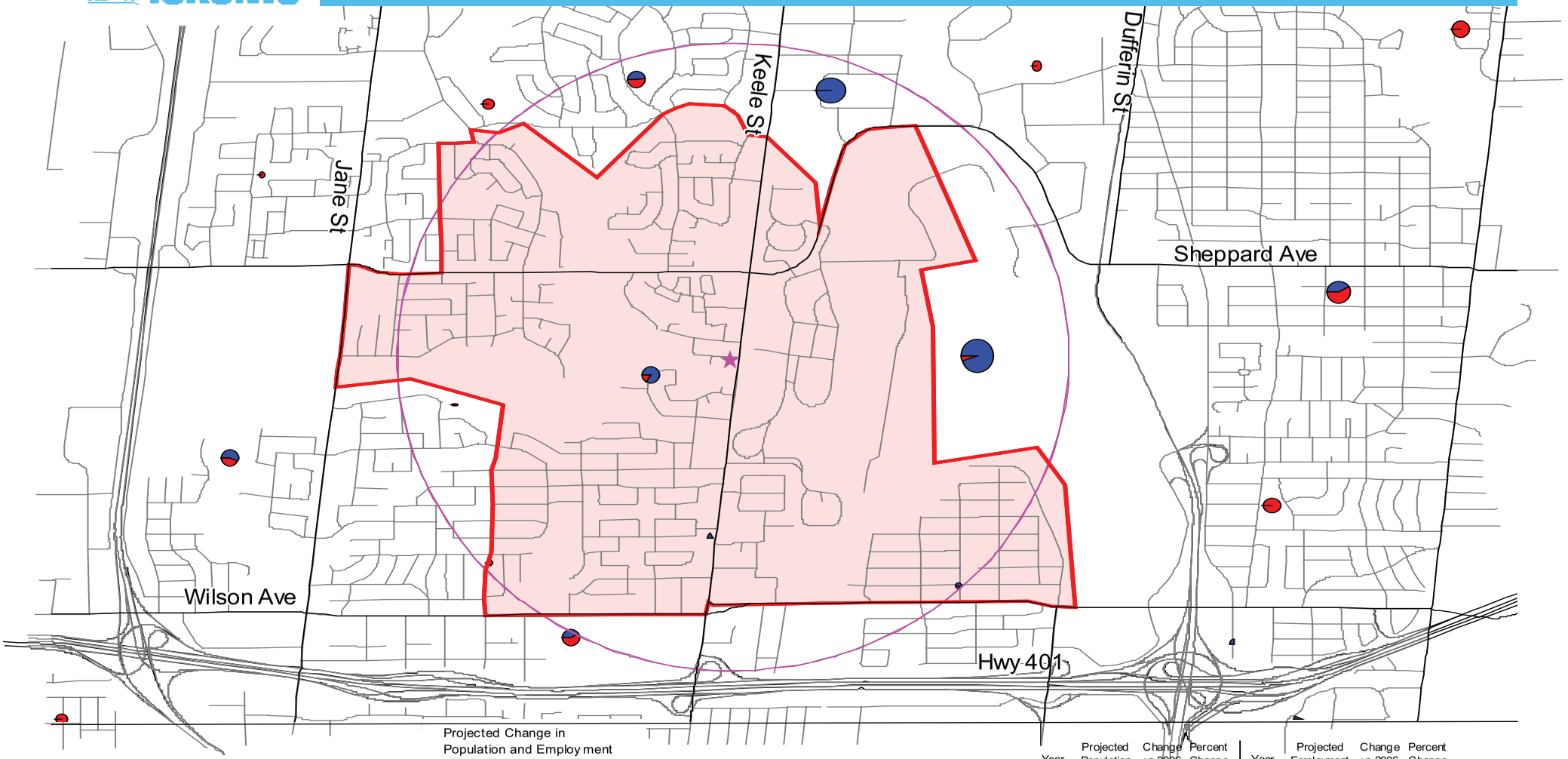
Year	Projected Employment	Change vs 2006	Percent Change
2006	21,010	0	0.0%
2007	21,186	176	0.8%
2008	21,362	352	1.7%
2009	21,538	528	2.5%
2010	21,714	704	3.4%
2011	21,890	880	4.2%
2012	21,983	973	4.6%
2013	22,075	1,065	5.1%
2014	22,168	1,158	5.5%
2015	22,260	1,250	5.9%
2016	22,353	1,343	6.4%

Sources:
Proposed Fire Station Service Areas
Toronto Fire Service

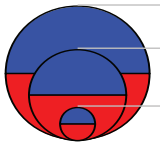
Population Projections V1.4 by 1996 Traffic Zone
Employment Projections V1.0 by 1996 Traffic Zone
Toronto City Planning, Policy and Research Section

Map 2.4

Proposed Fire Station 144 Service Area (KPMG Stn B) Projected Growth 2006-2016



Projected Change in Population and Employment



★ Proposed Fire Station Location

1.87km Buffer

Proposed Fire Station Service Area

Sources:
Proposed Fire Station Service Areas
Toronto Fire Service

Population Projections V1.4 by 1996 Traffic Zone
Employment Projections V1.0 by 1996 Traffic Zon
Toronto City Planning, Policy and Research Sectio

Year	Projected Population	Change vs 2006	Percent Change
2006	47,994	0	0%
2007	48,071	77	0.2%
2008	48,150	156	0.3%
2009	48,229	235	0.5%
2010	48,308	314	0.7%
2011	48,385	391	0.8%
2012	48,883	889	1.9%
2013	49,383	1,389	2.9%
2014	49,880	1,886	3.9%
2015	50,379	2,385	5.0%
2016	50,878	2,884	6.0%

Year	Projected Employment	Change vs 2006	Percent Change
2006	19,905	0	0.0%
2007	20,003	98	0.5%
2008	20,101	196	1.0%
2009	20,199	294	1.5%
2010	20,297	392	2.0%
2011	20,395	490	2.5%
2012	20,408	503	2.5%
2013	20,419	514	2.6%
2014	20,432	527	2.6%
2015	20,443	538	2.7%
2016	20,456	551	2.8%

Map 2.4

2.12.2 East Bayfront/West Donlands/Regent Park Redevelopment

The first impact of the Toronto Waterfront Revitalization plan will be in the area of Ward 28, the largest of which will be the application for rezoning and subdivision on Eastern Avenue. This precinct plan alone calls for the development of 5,720 housing units. If approved, this and the other outstanding applications from 2005 in Ward 28 will add a total of 8,042 housing units and approximately 275,000 sq. ft of office, office/residential, hotel and commercial space consisting of 4 buildings ranging from 28 to 50 stories.

This will add tremendous pressure on the responding fire stations (325 – Dundas and Parliament, 333 - Front and Jarvis, 324 – Pape and Gerrard and 326 – Eastern and Knox). Station 325 ranks 3rd for call volume in the City with 3,829 demands for service in 2006. The 3 apparatus from this station (1 Pumper, 1 Rescue Pumper and 1 Aerial) will also be affected by the Regent Park redevelopment. Station 333 ranks 18th with a call volume of 2,173 in 2006.

The closing of Station 324 as recommended by KPMG subsequent to the merger with Station 323 (153 Chatham Avenue) and relocation to a more central area will be impacted by this development. Consequently, it is recommended that the co-location of Stations 323 and 324 no longer be considered.

Both the Fire Underwriters Survey (FUS) and the NFPA recommend guidelines of 1 fire station for every 25,000 residents. They further recommend that the construction of a new fire station be considered when development reaches 40% of that total. Based on the additional volume which can be expected from these residential and commercial starts, construction of a new station deserves serious consideration in the south-east quadrant of East Bayfront/West Donlands area. This will also potentially reduce fire service pressures as the Portlands begin development.

This corresponds with discussions on a variety of potential outcomes which arose from the Regent Park redevelopment approval process. One possible outcome was the relocation of Station 325, in its entirety, to a new structure to be incorporated into the design of the new community. The other was to extract one vehicle and crew from the current station and move that apparatus to a new structure to be incorporated into the design of the new community, in fact creating a new station and response area but no additional staffing or equipment costs.

TFS is unaware of concrete or detailed plans to construct such a station as part of the overall project but would welcome such an outcome in principle. At this point, it is assumed that the cost of such a station would be absorbed entirely from project costs or through development charges. Consequently, the station has never been identified in the Toronto Fire's long-range capital plans.

2.12.3 Downtown Densification

The four downtown southernmost Wards (excluding Ward 28) are Wards 18, 19, 20 and 27 which bound an area between Lake Ontario on the south, Dufferin/Dundas Street(s) on the west, St. Clair Avenue on the north and the Don Valley Parkway on the east. In addition to the development specifically described in Ward 28, development applications in 2005 totalled more than 9,958 housing units, predominantly in large multi-storey buildings with some featuring mixed use.

The increased gridlock resulting from this densification, which is concentrated south of Queen Street and west of Yonge Street to Dufferin Street, will require consideration to adding a fire station in the area near King Street between Dufferin and Bathurst Streets, or developing other strategies or initiatives to deal specifically with gridlock in this area and the entire downtown core.

One possible strategy is the adoption and implementation of an Intelligent Transportation System within the City of Toronto. Such a system, which is described elsewhere in this document, would allow for traffic signal pre-emption and afford potential relief to fire apparatus response times in heavily congested areas.

2.13 Apparatus and Fire Company Deployment

In parallel with the fire station location review, apparatus and company placement was analyzed. The objective of this task was to confirm that fire apparatus is deployed so as to provide adequate response to all areas of the City.

NFPA 1710 Guidelines

	Minimum Personnel	Maximum Travel Time
First Arriving Company	4	4 minutes
Initial Full Alarm Assignment	15 - 17	8 minutes

The recommended response to comply with NFPA 1710 guidelines, local Standard Operating and property risk considerations and the Fire Underwriters Survey is for sufficient apparatus of the correct type to arrive at the scene within 8 minutes to deliver a sufficient number of fire fighters to conduct all the necessary tasks in a safe manner.

In Toronto, this deployment model has been adjusted from the minimum requirement shown in the chart above, to that which is appropriate for the public life and property risk which ranges from the rural fringe to typical suburban residential to high public life risks downtown.

In addition to the response time guidelines, NFPA Standard 1710 identifies that the minimum staffing for front-line response apparatus (Pumpers and Aerials) should not be less than 4 personnel. Due to adequate resourcing, TFS has maintained minimum staffing for aerials at 3 personnel since amalgamation. In order to enhance capabilities in the areas of the City of Toronto where the risk is greatest and where extra personnel would best mitigate this risk, TFS recommends increasing the minimum staffing on aerial devices in the downtown core to 4, from the current 3. This will require a base personnel increase of 24 positions.

2.14 Apparatus and Fire Company Deployment Model Adjustments

Following an in-depth review of the number of fire companies and apparatus in the current deployment model, minor adjustments have been made to accommodate emerging and anticipated needs. This will provide an improved distribution of resources across the City, but will leave the total number of companies intact at 128. Timelines for accomplishing the new deployment model will be driven by factors such as new station construction and normal apparatus replacement schedules.

The proliferation of high-rise buildings north of Highway 401 in the area of Yonge Street has created the need for a specialized unit to be placed into service. Consequently, the foreseeable future will likely require a second high-rise unit to be located in a station with easy access to Yonge Street, between St. Clair Avenue and Finch Avenue. A further analysis, including measuring the impact of the changes in this document will inform where the high-rise unit is ultimately placed.

The following identifies the re-allocation of apparatus, on a Command by Command basis.

North Command

- Although recommended for closure by KPMG, Station 424 (462 Runnymede Road) has not yet been closed. Two meet two objectives, Station 424 will be closed upon the completion of construction of the new Station 124 (Station G - Sunnybrook) and Pumper 424 (P424) will be relocated and be known as Pumper 124 (P124).

- Completion of the new Station 116 (Station C) will cause Pumper 125 (P125) to be relocated to Station 116 and be known as P116. Aerial 125 (1109 Leslie Street) will be converted to a Pumper and remain in Station 125 and be known as P125. The aerial truck itself will be moved to Station 321 (231 McRae Avenue) and be staffed by the crew from Aerial 311 (A311). It will remain in service as an Aerial and be known as Aerial 321 (A321).

- To alleviate congestion in Station 114 (12 Canterbury Place), a yet to be determined apparatus will be moved to Station 112 (5700 Bathurst Street). Station 112 is of adequate dimensions to accept any vehicle without modifications.

- Upon the completion of construction of the new Station 144 (Station B) on Keele Street between Sheppard Avenue and Wilson Avenue, Aerial 411 (A411) will be relocated to Station 144 and be known as P144. This will leave a single company in Station 411 (75 Toryork Road).

East Command

- Upon the completion of construction of the new Station 221 (Station D) in the Eglinton Avenue East and Midland Avenue area, Pumper 224 (P224) will be relocated to Station 221 and be known as Pumper 221 (P221). This will leave only a single company in Station 224 (1313 Woodbine Avenue). There is currently both a pumper and a rescue(/pumper) assigned to this station.

- As part of the normal replacement cycle, Aerial 231 (A231) will be converted to an aerial platform unit and be known as Platform 231 (PL231). This will correct the imbalance which currently exists with the other Commands and provide for at least one platform or tower device in each Command.

South Command

- Aerial 311 will be moved from service in Station 311 (20 Balmoral Avenue) to Station 321 (231 McRae Avenue) and be known as Aerial 321. This move is precipitated by architectural and structural limits in Station 311 that can no longer accommodate one of the standardized aerial devices designed for current and future service.

- As part of the normal replacement cycle, Pumper 312 (P312) will be converted to a rescue unit and be known as R312 and be located in Station 312 (34 Yorkville Avenue). This is due to a shortage of rescue pumpers in South Command.

- As part of the normal replacement cycle, Pumper 315 (P315) will be converted to a rescue unit and be known as R315 and be located in Station 315 (132 Bellevue Avenue). This is due to a shortage of rescue pumpers in South Command.

- As part of the normal replacement cycle, Pumper 331 (P331) will be converted to a rescue unit and be known as R331.

West Command

- Upon the completion of construction of the new Station 414 (Station A) in the area west of Highway 27 and south of Rexdale Boulevard, Pumper 413 (P413) will be relocated to Station 414 and be known as P414. This will leave only a single company in Station 413 (1549 Albion Road). There is insufficient space for two crews in Station 413 and in addition, there is currently both a pumper and a rescue(/pumper) assigned to this station.

- As described above, construction of the new Station 144 (Station B) will cause Aerial 411 (A411) to be converted to a pumper, relocated to Station 144 and be known as P144.

- As described above, construction of the new Station 124 (Station G - Sunnybrook) will cause Pumper 424 (P424) to be relocated to Station 124 and be known as P124. Station 424 (462 Runnymede Road) will be closed, as recommended by KPMG.

- As part of the normal replacement cycle, Aerial Platform 415 (PL415) will be converted to an aerial(/quint) and be known as A415. This will correct the imbalance which currently exists with West Command having two Platform devices.

The net effect will be that there will be two less aerials in the City, to be replaced by two pumpers. Any other costs associated with these relocations will be minimal.

2.15 Command and District Boundary Review

Subsequent to amalgamation and the KPMG report, Toronto Fire Services created 4 separate Commands, consisting of 16 Districts, to create a reporting structure for response and administrative purposes. The current model was implemented in June of 2001. Six years have passed since then and there is now sufficient historical data to warrant a review of these boundaries.

In the near term, TFS will complete a comprehensive review of several factors to determine if the current Command and District boundaries require adjustment. The construction and opening in 2007 of Station 116 (Sheppard Ave / Leslie St) is an ideal catalyst for this review. It is anticipated that a wholesale review of response and administrative boundaries is necessary to maintain optimal operational effectiveness, and that this should be done on a periodic and regular basis approximately every five years.

2.16 Recommendations

1. That the Council-mandated KPMG report of 1999 now be seen as a historical document and the 2007 Master Fire Plan guide the response time and staffing targets in the future, using NFPA Standard 1710 as the guideline.

2. Construction of new stations identified be accelerated to reflect the TFS recommendations outlined in this section. The original KPMG recommendations would have seen construction of all stations being complete at this time.

3. Only Station 424 (463 Runnymede Rd) is to be closed, with no co-location with Station 425 (83 Deforest Rd) in the future. Any decision to move Station 425 from its current location to Bloor Street West will be made on its own merits and availability of suitable building location.

4. Co-location of Stations 323 (153 Chatham Ave) and 324 (840 Gerrard St E) – formerly know as T12 and T26, no longer be pursued. The redevelopment of Regent Park and the West Donlands project will put pressure on fire service delivery in this area.

5. The anticipated proceeds of sale of the property where Station 135 is currently located (641 Eglinton Ave W) be brought forward as soon as possible to begin construction of the Chaplin Ave Fire and EMS station on nearby, City-owned land.

6. To enhance capabilities in the areas of the City of Toronto where the risk is greatest and where extra personnel would best mitigate this risk, increasing the minimum staffing on aerial devices in the downtown core to 4, from the current 3. This will require a base personnel increase of 24 positions.

7. The Regent Park development be reviewed as soon as possible to ensure that a developer-funded station is considered within the project area, situated strategically to support the expected increase in area population and densification, and future growth associated with other initiatives. This station could conceivably be staffed by one of the apparatus and associated personnel being moved east from Station 325 (475 Dundas St E).

8. The station and apparatus moves recommended in the deployment model adjustments be completed, with the understanding that each move may cause changes in response times and effectiveness and may require review and possible adjustments in each instance. Consequently, an on-going and comprehensive review will be carried out with the construction of each new station.

9. The Toronto Transit Commission absorb all the costs of constructing and relocating Station 141 (3965 Keele St) to an appropriate location nearby as part of and in sufficient time to accommodate the expansion of the subway north into York University and York Region.

10. A review of Command and District boundaries for response and administrative purposes be undertaken and actioned as soon after the opening of Station 116 (Sheppard Ave / Leslie St) to produce sufficient data for analysis.

Chapter 3: Special Operations

Toronto Fire Services Special Operations include, but are not limited to: wildland/interface firefighting, technical rescue, marine firefighting, Joint Operations responses, urban search and rescue, mass casualty response, hazardous materials mitigation, counter-terrorist response, and incident management teams for disaster response. Special operations incidents are typically high risk, low frequency calls requiring special knowledge, skills, and abilities from firefighters.

One of the major challenges facing the fire service when developing specialty teams is that the probability of an event occurring that requires a special team response is low. However, the cost of developing and maintaining a team is relatively high.

These specialty services require continuous commitment from the agencies that provide the services - personnel must complete rigorous initial training and certification programs, and annual continuing education requirements to maintain their certifications; specialty teams require special, often expensive, equipment that is specific to each team's function.

One strategy that has been successfully adopted to deal with the problems of low frequency of use and high-cost of specialty teams is to regionalize these teams. Regional teams allow Fire Departments to individually commit fewer resources to the teams while developing the capacity to provide services in these areas. In the case of Toronto, both the CBRN/E (Chemical, Biological, Radiation, Nuclear and high-yield Explosives) and HUSAR (Heavy Urban Search and Rescue) teams have adopted this approach and form the nucleus of regional response capabilities.

This has led to Toronto's joint (TPS/TFS/TEMS) CBRN team being one of three provincial teams, with on-going provincial and federal funding and established Memorandums of Understanding (MOU) for deployment. The joint HUSAR team, which also receives tri-partite funding, is one of five national teams, and also has established MOU's with federal and provincial partners. Toronto has also benefited in the form of complete federal funding for construction of a recently completed building to house the team on Bermondsey Avenue. Continuing funding to these teams by all levels of government is critical, not only for the purchase of equipment and training, but for conducting regular, scheduled exercises for a variety of plausible scenarios.

Special operations of particular interest to the city of Toronto include: shipboard and marine fire fighting; emergency Hazardous Materials (Hazmat) response; ice and water rescue; chemical, biological, radiological and nuclear response; and heavy urban search and rescue. Shipboard and marine firefighting are discussed separately in the waterfront response section of the document.

3.1 Hazardous Materials

Hazardous Materials management is of concern, both nationally and locally. With the ever-increasing number of chemicals and the extensive amount of high-tech research and industrial activity in the City, the need for a comprehensive effort to both prevent and prepare for hazardous materials emergencies is vital. Hazardous materials operations are managed within the protocols established by Toronto Fire's hazardous materials operating guidelines and procedures. The National Fire Protection Association (NFPA) standard 472 defines a Hazardous Material as a substance capable of creating harm to people, property, and the environment.

Citizens are concerned about highway accidents, warehouse fires, train derailments, and industrial accidents occurring in their community. Many industries that manufacture, use, and store dangers or potentially dangerous substances are often located in close proximity to residential areas. Every day, Hazardous Materials move throughout the city along major transportation corridors by rail and truck.

In addition to the conventional dangers associated with Hazardous Materials, a new threat has emerged in the form of clandestine drug labs. The major problem for both the police and fire service is that the precursor chemicals, which are easily obtained, are both flammable and poisonous. If for any reason, the drug cooking process is interrupted, in the case of methamphetamines, an explosion and fire may occur. The hazards associated with the drug labs are exacerbated by the fact that many labs are set up in hotel rooms or apartments and then abandoned. The chemicals that remain are extremely poisonous and any abandoned drug lab must be considered a Hazardous Materials incident.

Expanding TFS capacity for responding to Special Operations is critical to its efforts to improve management of large-scale incidents. Of particular importance is the expansion of Hazmat-capable units, which would also be called upon to respond in support to incidents involving chemical, biological, radiological, nuclear and explosive (CBRNE) agents.

To expand resources for hazardous materials and rescue incidents, TFS has trained both Pumper and Aerial crews to serve as Hazmat and Rescue Support crews. These apparatus, geographically dispersed throughout the City, have been trained and equipped in both technical rescue and hazmat operations, including decontamination. These units are equipped to quickly respond to incidents requiring these special capacities. In addition, a dedicated, unstaffed vehicle has been equipped for rapid deployment to specialized personnel in support of trench rescue operations.

3.2 Recommendations

1. Funding for special teams, specifically the CBRN and HUSAR teams be maintained at least at their current levels for the purchase of equipment and training, and for conducting regular, scheduled exercises for a variety of plausible scenarios.

2. Support for Joint Operations involving the three emergency services be provided wherever appropriate and recognition that Toronto has established itself as a world leader in the creation and deployment of joint, multi-disciplinary teams.

3. Sufficient funding for all forms of special operations be made available for the purpose of enhancing the capability of TFS to respond to any and all hazards, including the highly-specialized training necessary for teams and individuals to maintain relevant certification.

Chapter 4: Waterfront/Marine Response Operations

Toronto Fire Services is the primary fire fighting emergency service on the waterways. Fires in premises adjacent to the waterfront, commercial or pleasure boat fires require a well-equipped fire service on the waterfront. Since 1964, this service has been provided by the *William Lyon Mackenzie*, a 26m, all weather, ice-breaking boat with 35,000 litre/minute water pumping capability; 4,000-litre hold of foam concentrate; and a 15-metre aerial water tower.

Given the increase in the recreational use of the City's marinas and waterways and the projected development of the waterfront, Toronto Fire must continually assess the capabilities of its Marine Unit. Recognizing the increasing obsolescence of the fireboat and the recent history of significant fire losses on the Islands and isolated portions of the waterfront, as well as the continuing operation of the Toronto City Centre Airport, several initiatives have been undertaken to enhance and optimize response capabilities to waterfront emergencies.

Because shipboard and marine fires present unique complexities, Toronto Fire has regularly contracted with an external expert to provide training in marine firefighting techniques for land-based Fire Companies. This course provided shipboard and marine firefighting training to selected members. The curriculum included tactical exercises, and a review of marine firefighting Incident Management.

4.1 Shifting Priorities for the Fireboat

Although port modernization and a significant reduction in cargo traffic have reduced the frequency of fires, waterfront improvements have at the same time created new challenges and service demands for Toronto Fire. The City has undertaken ambitious waterfront development projects which have transformed waterfront property into multi-use, high-density properties. These development projects often consist of small marinas generally used by recreational boats. Others contain high-rise office and commercial businesses such as hotels and shopping districts like Harbourfront.

This waterfront development appeals to many people and attracts thousands of visitors annually, thus creating a life safety concern for fire and rescue personnel. Waterfront emergencies and fires in particular, can be particularly challenging. Fires in such areas can present significant logistical and tactical problems for land-based fire units because of poor or limited access. Fire personnel may be forced to carry equipment and/or stretch hose lines long distances to attack a fire. A fireboat can give the Incident Commander a tactical advantage in such situations because in many cases, the fireboat has unfettered access to waterfront structures that allows it to quickly manoeuvre into position and commence firefighting and/or support operations. The fireboat can serve as an excellent command post and/or fire sector during major waterfront fire and rescue operations. Fireboats can communicate fire conditions from a unique perspective to the Incident Commander.

The fireboat also is an excellent platform for delivering personnel and equipment to support land-based fire operations. The tremendous pumping capacity of fireboats allows them to supply land-based units with large volumes of water at high pressures through large diameter hose and nozzles over long distances.

4.2 Marine Unit Status

As part of a life-extension program for the fireboat, the Mechanical Division and Marine Unit dry-docked and overhauled the *William Lyon Mackenzie* during 2005, replacing all engines, upgrading the wheel-house with new control and navigation equipment and performing critical maintenance on the ship's articulating aerial device. A final upgrade to the medical transportation cabin and overhaul and rewiring of the *Mackenzie's* electrical system will ensure continued service into the future.

Toronto Fire also acquired a Canadian Coast Guard cutter declared surplus in late 2005. The *SORA*, a 12.5m long multi-task utility craft built in 1982, was presented to the Toronto Fire Services by the former federal minister of Fisheries and Oceans. The *SORA*, which arrived in mid-April 2006, will eventually act as a back-up vessel to the *William Lyon Mackenzie* when the latter is not in service. Operational plans to fully realize the value of this vessel are being developed and implemented.

The 1999 KPMG report which forms the backdrop of this document states that while the *William Lyon Mackenzie* fireboat "provides a quick response to the central waterfront areas of the City, it cannot reach marinas and waterfront properties in the Etobicoke and Scarborough areas promptly." The report further recommends that the City acquire two smaller craft commonly known as "marina boats" to extend coverage of the waterfront. Placing the *SORA* into service will begin to address this shortcoming.

4.3 Secondary Water Supply

One of the most important benefits of the fireboat is to provide an alternate water supply to firefighting efforts along the waterfront. The ship's immense pumping capacity can be used to supplement an inadequate or missing water supply for inaccessible areas not served by hydrants, or instances where the hydrant system may be lost or compromised as a result of infrastructure damage.

Such was the case for the terrorist attack on the World Trade Center. All the water for the suppression of the fires caused by the attack and the subsequent building collapse was provided by pumping water from fireboats in the harbour through a relay pumping operation to the site. Closer to home, this was also the case for the fire which destroyed the City's waste pellet plant at Ashbridge's Bay in 2002. Much of the water for that suppression effort was also provided by pumping water from Lake Ontario to where it was needed. The same is true of significant recent marina fires on the Toronto Islands.

4.4 Marina Fire Protection

There are at least 26 marinas with berthing and facilities for thousands and thousands of pleasure craft between the east and west boundaries of the City and the Toronto Islands. While responsibility for fire protection of these locations ultimately rests with TFS, poor access for land-based response apparatus and the delay associated with responding by water create the potential for significant fire losses to the marinas and the boats located there.

As a mitigation measure, Toronto Fire seeks to pursue initiatives that would both support and mandate marinas to provide a minimum level of fire protection within their facilities. This might consist of a minimum number of fire extinguishers and fire pumps and hose racks to enable an initial fire attack by persons employed by or using the marina. Support for such a by-law would assist implementation of a comprehensive marina fire safety program.

4.5 Recommendations

1. In order to complete the life-cycle extension of the *William Lyon Mackenzie*, sufficient funds be approved to refurbish the medical transportation cabin and the fireboat's electrical system.

2. Specialized fireboat and shipboard firefighting training continue to occur for fireboat and land-based crews, ensuring that the marine unit is fully integrated into all waterfront Incident Management plans.

3. The *SORA* be fully integrated into the waterfront plan, that it be operationalized to respond outside of the inner harbour, and that it be equipped to credibly replace and support the William *Lyon Mackenzie* in any marine firefighting or rescue scenario, including responding in an auxiliary search and rescue role as part of the national search and rescue plan that covers the City of Toronto and area.

4. That Council consider a by-law to enhance the initial firefighting response in marinas. This could consist of training and equipment required of marina operators, as well as minimum standards to ensure easy access to all marina areas by land-based fire crews. The by-law could be modeled on those found in other cities, such as Vancouver and area, where a large number of marinas are located.

Chapter 5: Intelligent Transportation Systems – Emergency Vehicle Preemption

The sudden appearance of an emergency vehicle en route to an emergency can be extremely disruptive as individual drivers manoeuvre to get out of the way. Some drivers become confused and create conflicts that can cause emergency vehicle collisions or block lanes thereby increasing response times. Using Intelligent Transportation Systems (ITS) to provide the emergency vehicles a green light at intersections can reduce driver confusion, reduce conflicts, and improve emergency response times.

A key issue facing the city of Toronto is the challenge that rapid growth in populated areas places on the fire service. Constrained by tight budgets, officials must make decisions on how to provide appropriate levels of service while at the same time coping with increasing demand for services and increasing congestion levels.

Emergency vehicles operating in higher congestion levels are at higher risk for involvement in collisions and are subject unpredictable delays in reaching the scene of an incident. One strategy to offset the effects of congestion is the installation of emergency vehicle preemption (EVP) equipment at signalized intersections. This Intelligent Transportation System technology provides a special green interval to the emergency vehicle approach while providing a special red interval on conflicting approaches.

Over the years, various concepts have been developed to provide the emergency control of traffic signals. Several systems were deployed that created a pre-programmed "Green Wave", providing a progressive green display for the emergency vehicles based on the fire station of dispatch, the response location and the use of predetermined emergency response routes.

In the late 1960's, technologies became available to provide emergency control using vehicle-based transmitters and signal-based detectors that allowed emergency vehicles to preempt the traffic signals as they were approached. Some former municipalities experimented or invested in these systems in an effort to reduce the number of emergency vehicle collisions and enhance response times.

5.1 Benefits

Emergency vehicle preemption systems are designed to give emergency response vehicles a green light on their approach to a signalized intersection while providing a red light to conflicting approaches. The most commonly reported benefits of using EVP systems include improved response times, improved safety, and cost savings. These benefits have been realized since the early deployments of these systems and have been documented since the 1970's.

Emergency vehicle response times can be improved by reducing the probability that responding emergency vehicles will arrive at intersections during the red signal phase and encounter significant queues. In highly congested areas, emergency vehicles may encounter extended queues that force them to slow to a crawl, adding seconds or even minutes to the time required to

reach the scene of an incident. A green light gets traffic moving and dispersed before the emergency vehicle arrival, allowing the responding vehicles to maintain higher average speeds than would be expected given intersection spacing along a route and normal traffic conditions.

Preemption systems can reduce the chance of an emergency vehicle becoming involved in the collision at a signalized intersection. Between 1995 and 2005, more than 25% of all collisions involving emergency vehicles in the United States were found to have occurred at signalized intersections. These collisions often involve situations where the vehicles approaching a green signal cannot see an emergency vehicle approaching on the intersecting roadway because of line of sight problems with nearby buildings, vegetation, or elevation. For these situations, preemption systems provide familiar guidance to private vehicles by showing a red signal at conflicting approaches, thereby bringing these vehicles to an orderly stop. A decrease in emergency vehicle collisions reduces public liability associated with fatalities, injuries, and property damage.

As preemption systems have the potential to improve response times and safety, this trend can translate into cost savings for the City of Toronto. Response times for fires, rescues and medical emergencies are important measures of effective Public Safety organizations and are key elements of planning. In defining appropriate service levels, Toronto Fire Services considers items such as fire flashover time and survival rates for cardiac patients, along with the study of local conditions that include development density and loss potential. Intelligent traffic system solutions such as emergency vehicle preemption can lead to improved response times, thereby increasing the effective service radius of a single station.

Improved response times can also lead to an improvement in the insurance industry ratings of the city's Fire suppression effectiveness, with a corresponding reduction in Fire Insurance rate for residential and commercial property owners. The Underwriter's Survey assigns insurance ratings by classifying a community's ability to suppress fires.

5.2 Current Status

A Steering Committee of stakeholder groups has been established for the purpose of investigating the implementation of Intelligent Transportation Systems for the City of Toronto. What follows provides a brief overview of current initiatives within Toronto Fire as well as our plans for the future in support of ITS.

- **RESCU and COMPASS cameras along the highway corridors**. These cameras are operated independently of Toronto Fire. They assist our emergency dispatchers with advising responding apparatus regarding updated traffic reports as well as incident condition in instances where the cameras are able to view the incident.

- **GPS systems in all of its Emergency Response apparatus**. Toronto Fire Service apparatus are equipped with GPS in order to allow the closest vehicle to be dispatched to the incident. This is an ongoing initiative. The coordinates received from responding apparatus could be forwarded to the Intelligent Transportation System to synchronize traffic signal preemption along the response route.

- **Traffic signal preemption devices at 53 traffic signals located at fire stations**. These allow the timely egress and response onto streets that have a high traffic volume.

5.3 Recommendations

Toronto Fire Services would like to investigate:

1. The use of Emergency Vehicle Preemption Devices. This would be done in a designated pilot area to be determined, with input from stakeholders.

   Depending on the outcome of this pilot program, the use of EVP devices could be implemented in other high traffic congestion areas, or areas that necessitate a longer response route.

2. The use of direct control of the required RESCU and COMPASS cameras in instances where we feel they would assist us with our response.

Chapter 6: Incident Management and Emergency Response Operations

One of Toronto Fire's highest priorities is the continual enhancement of our ability to respond to fires, emergencies, pre-hospital care emergencies and disasters. A key component of this capability is to fully integrate knowledge of the Incident Management System (IMS) within the Chief and Company Officer ranks, as well as enhancing preparedness planning.

The "all-hazards" threat facing Toronto demands that TFS and other emergency responders be prepared for large, long-duration incidents. Toronto Fire uses the IMS on a daily basis, but rarely on the scale needed to deal with large disasters. In response to emerging federal and provincial initiatives with regards to incident management, as well as the best practices developed by the fire service and other emergency responders, TFS has committed to using the IMS as the means of managing all incidents and the resources necessary to carry out emergency response.

IMS principles dictate that all Officers be sufficiently trained and capable of effectively performing any assigned role at a variety of incidents. In response to this, TFS has further institutionalized IMS by increasing the number of Officers with comprehensive training and integrating IMS into all of our everyday procedures and practices.

However, for complex, large-scale incidents, it is also beneficial to deploy personnel who are highly trained and specialized in the specific functions required of Incident Management, such as operations, planning and logistics.

6.1 Incident Management Teams

Incident Management Teams (IMTs) can be defined as multi-disciplinary teams with specialization in all of the various IMS functions. While there are no teams designated as such that currently exist in Toronto, several initiatives have led to the establishment of the nucleus of such response capacity. For example, the command structure of both the Heavy Urban Search and Rescue (HUSAR) and CBRN teams can be characterized and have been modeled as IMTs. In addition, the City's structure for responding to Public Order events also incorporates an IMT approach.

6.2 Joint Operations

Every opportunity has been sought to establish a "Unified Command" structure during day-to-day emergency response activities within the City, when it has been appropriate to do so. This option may be chosen when two or more services have jurisdictional responsibilities and accountabilities for the same incident and wish to share responsibilities, set common objectives, and speak with one voice. While this does not strictly constitute an IMT, it does respect the intent of that philosophy.

The City is well-served by this model, by which the components of an IMT are on-call and ready to respond to any large-scale incident at the direction of the Emergency Services Chiefs. The City also has in place a fully operational Incident Management System for handling urban incidents, including terrorist ones.

6.3 Competencies, Professional Development and Succession Planning

With the introduction and passage of the Fire Protection and Prevention Act (FPPA) in 1997, fire services around the Province have been moving to increase the number of true management positions beyond the historical Chief and Deputies. This has not been an easy transition. In some cases, simply moving staff from the bargaining unit to the newly created management team positions has done little to augment the necessary management/leadership duties and responsibilities. When one considers all of the services provided by the fire service, public and community expectations, health and safety and liability issues coupled with mandatory regulatory requirements, it is clear that a competent capable management team must be developed if the necessary programs are to be established.

In conjunction with the organizational realignment discussed above, and the subsequent recruitment process to fill vacancies at the management level, the City's fire service has had to direct a portion of their efforts to the establishment of requisite competencies for each of the positions. Unlike the past, where to a large extent promotions were based on years of seniority, the core competencies are intended to ensure that the successful incumbents possess the necessary skills and experience to properly carry out their responsibilities, which include management/leadership duties.

Current fire services management continue to direct a portion of their efforts to staff's ongoing professional development and future succession planning. Regular professional development sessions covering a range of relevant and contemporary topics have been regularly prepared and presented to all exempt and management staff. Senior staff have also been encouraged to participate in external training opportunities in such areas as labour relations and leadership, including the City's organizational development programs "Leading Through Excellence" and "Effective Management Skills".

A career path document, highlighting both the mandatory and recommended learning necessary to advance to leadership positions within TFS was prepared and distributed to all members. In collaboration with Local 3888, the promotional qualification has been reshaped into a modular process, structured to achieve learning outcomes rather than being a competition measuring retention of written material.

6.4 Command and Leadership Academy

Training is a critical function for any modern fire service agency. As our work becomes more complex and diversified, the knowledge required, professional standards, and government regulations lead to increases in overall training needs for Toronto Fire.

There are two steps to further enhancing the knowledge and experience of all members of TFS. The first is to support the pursuit of formal academic qualifications, be it at the Community College level – through specialist certificate programs, or at the University level – through the pursuit of undergraduate and even graduate degrees. Attendance at executive level development opportunities is also encouraged for suitable staff. The City's current restrictions on funding such extraordinary learning and development opportunities makes it difficult to reach all those who would benefit from such programs.

The second is to identify and promote applied professional learning opportunities to staff who need this knowledge. Attendance at conferences, seminars and specialized training venues is encouraged within budget constraints. Those attending such sessions are then encouraged to return and develop programs for broader distribution.

In order to enhance the capacity for TFS to deliver some of this material to the broadest possible audience, we will be advancing a proposal to develop a Leadership and Command Academy, where we will identify areas of need and develop training programs to assist our members to become more proficient in emergency service delivery, customer service, emergency incident management, safety, fire prevention, public safety education and personnel management and supervisory leadership. The Command Training curriculum currently in use would be adapted and incorporated into the new structure. Wherever possible, material development and delivery would be fulfilled in partnership with external institutions.

We anticipate basing our curriculum on four pillars of learning, in the following areas:

1. Administration
2. Leadership
3. Emergency Scene or Site Management (Operations and Support)
4. Fire Tactics and Strategies (Operations) or Technical/Specialist Skills (Support)

In addition to the items described below as Command Training, items identified requiring training program development or refresher training include:

- Violence in the Workplace
- Training for Acting Fire Captains and District Chiefs
- Company and Chief Officer Development
- Personnel management and supervisory skills
- Diversity/Sexual Harassment/Hostile Work Environment
- Mandatory Competent Supervisor Training
- Incident Safety Officer Certification
- Minimum company standards and field operations exercises
- Tactical Training
- Incident Management System Training (IMS)
- Applied Administration
- Budgeting and Financial Management
- Purchasing
- City Policies and Collective Agreement
- Dealing with the Media

- Effective Presentations
- Report Writing, Information Technology / Computer training
- Adult Learning and Education
- Training Program Design and Evaluation
- Ethics, Managing Conflict
- Managing Change, Strategic Planning
- Motivating and Dealing with Difficult People
- High-rise Incidents
- Subway Incidents
- Marine Firefighting – Use of Fireboat

6.5 Command Training

The best method for TFS to fulfill its mandate as the "all-hazards" response and management organization is to ensure its firefighters are prepared for any large-scale incidents that may lie ahead.

A great deal of effort has been made to develop a Command Training Centre, to provide interactive simulations of large-scale incidents through computer programs and three-dimensional models. The exercises take Chief and Company officers through simulated incidents to teach them to make better decisions at the scene of the emergency - decisions that could potentially save the lives of our firefighters and citizens.

While much has been accomplished, the current model would benefit from enhancements that would render the simulations even more realistic. Ideally, it would be divided into several sections to replicate an incident as realistically as possible, from dispatch to mitigation.

The environment would consist of an actual dispatching console, allowing a fire dispatcher to "dispatch" the incidents. This provides experience for the dispatcher and allows facilitators to track the communications that can be used later in the critiques.

Sufficient classroom space for various training sessions is required, which during simulations would serve as a staging area and as a place to conduct critiques of the incident. The critiques are used to reinforce the positive results and provide discussion of those areas that need to be reviewed.

Apparatus would be represented by a portable cart used to hold the mobile computer terminal that provides inspection information, maps, and response vehicle location via GPS and communications.

Up to 10 cubicles or kiosks would allow responders to receive or give assignments based on their emergency conditions, activities or tasks. Each kiosk would be equipped with a computer monitor, radio and a headset that allow for communication and interaction, with each participant seeing only pictures of his or her assigned area and actions. The responders then position apparatus and initiate tactics and tasks, based on the situation found.

The environment described above would require only a minor adjustment to existing facilities and carries a relatively low cost. It approximately reflects the current situation. The remainder of the equipment requires a somewhat more significant expenditure.

To replicate the initial arrival environment, it is proposed that the arriving command vehicle be the front two-thirds of a surplus District Chief van, to include everything found in the actual vehicle. A large screen would sit in front of the vehicle to display elements of the simulation. The results of the tasks being performed by the sectors at the individual kiosks would be displayed for the incident commander. Every attempt would be made to make these simulations as realistic as possible.

To support simulation of more serious incidents, a full scale mock-up would be created of the existing Command Post vehicles, which are dispatched on all second alarms and greater or other complex emergencies. The mock-up would contain computers, radios and TVs — everything found on the original. When an incident escalates, the Incident Commander along with any other command staff positions that may be required would occupy the simulator.

A control room to house the equipment for the various sections being tasked would be operated by Operations or Training Officers trained in the equipment's operations and who have related field experience. The control room would provide all the images to all kiosks and command vehicle props using specialized software.

Simulation development to support this type adult learning is quite a challenge in itself. Each simulation can take between 30 and 60 hours to create.

6.6 Recommendations

Toronto Fire Services would like to implement:

1. The development of multi-disciplinary Incident Management Teams, with specialized training of personnel in all of the various Incident Management System functions.

2. Continued development and adoption of Unified Command practices and protocols, along with our emergency service partners, in any response involving joint operations.

3. Enhanced developmental opportunities in the form of funding for external executive education programs in skill areas beyond those related exclusively to fire fighting and emergency response. This will include executive exchange programs, specialized training and certification program and university graduate level studies, in an effort to enhance overall effectiveness and support succession planning at a strategic level.

4. The development of a Command and Leadership Academy, which will form the nucleus for development of staff at all levels. This virtual institution will create a learner-centred environment where access can be found to core and supplementary modules in all areas of command and leadership, from the tactical to strategic levels. Partnerships with external learning institutions will ensure the most effective delivery of programs in this area.

5. A command simulator as a core component of the Command and Leadership Academy. This will provide interactive simulations of large-scale incidents through computer programs and three-dimensional models. The exercises take Chief and Company officers through simulated incidents to teach them to make better decisions at the scene of the emergency - decisions that could potentially save the lives of our firefighters and citizens. Leveraging on investments already made, realization of this simulator will complete the ideal learning environment.

Chapter 7: Fire Prevention & Public Education

7.1 Overview

The Fire Prevention and Public Education Division of Toronto Fire Services performs two very important functions; Code Compliance Inspections and Public Safety Education. The foundation of all Fire Prevention programs is based on three areas including engineering, enforcement and education.

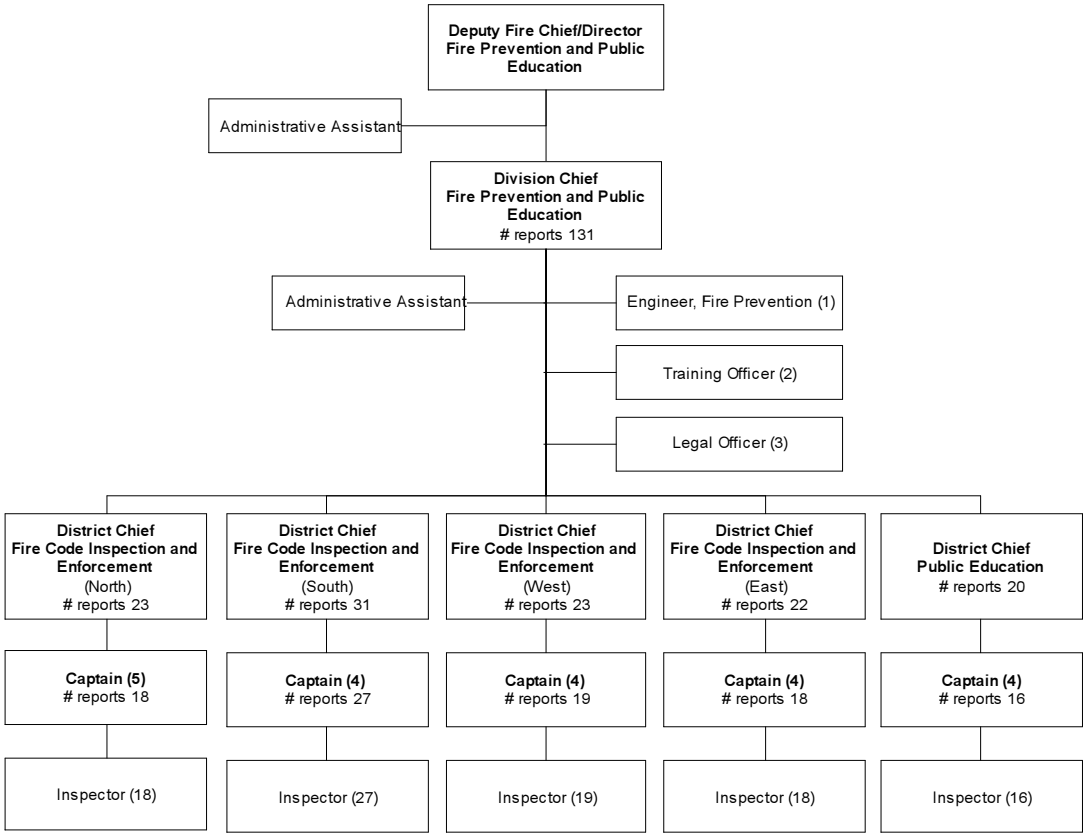
Proper engineering of fire and life safety measures in buildings is ensured through the application of the Ontario Building Code (OBC) in new buildings. Staff review building plans in cooperation with Toronto Buildings, and conduct inspections on new buildings to ensure fire and life safety measures are properly incorporated to assist in early warning, containment and suppression of fire should one start as well as access for firefighting operations. Enforcement of the OBC is in cooperation with Toronto Buildings.

The second area of enforcement is through the Ontario Fire Code (OFC). The OFC is a companion document to the OBC. The OFC outlines requirements for maintenance of fire and life safety systems that have been installed in a building to meet requirements of the OBC. The OFC also includes maintenance of access, means of egress, fire safety planning, and general fire and life safety requirements. Special sections of the OFC include requirements for existing building retrofit to upgrade fire safety features as well as a section for flammable liquid storage and handling. The OFC is enforced by Code Compliance Inspection staff who have been named by the Fire Marshal as Assistants to the Fire Marshal for Ontario under the Fire Protection and Prevention Act (FPPA) 1997.

Public Fire Safety Education is mandated through the Fire Protection and Prevention Act for every municipality in Ontario. Dedicated staff support school programs, deliver fire and life safety programs designed to meet the special needs of population segments such as senior citizens and troubled children, conduct other public education displays at venues such as the Canadian National Exhibition (CNE) and larger malls throughout Toronto, as well as provide regular safety messages through the local media. Operations staff participate in public education through the Alarmed for Life program and support of the Risk Watch program in schools.

The goal of Public Fire Safety Education is to have a world with a fire death rate of zero. This may sound like an impossible dream and not a goal, however, each individual's own personal world is not that large, and the home is the main focus of that world and the most common place for a fire death to happen. If each citizen in Toronto ensured that their home had the proper number of working smoke alarms and that each member of their family practiced an escape plan and knew the family meeting place once they were outside we could very easily have a world with a fire death rate of zero.

Reporting to the Deputy Fire Chief/Director of Fire Prevention and Public Education, staff operate out of four district Commands with a total of 18 district offices across the City. Duties of the Division are carried out by a team of 132 staff as follows:



In addition, ten (10) clerks of the City's Policy, Planning, Finance and Administration Division provide day-to-day clerical support to Fire Prevention and Public Education staff.

7.2 Simplified Risk Assessment/Municipal Fire Protection Information Survey

Municipalities have a legislated responsibility under the Fire Protection and Prevention Act (FPPA) to provide public education with respect to fire and life safety and certain components of fire prevention. Conducting a simplified 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. In general terms, needs and circumstances relate to a municipality's economic situation, geography, population, building profiles and service delivery system.

Conducting a simplified risk assessment is a practical information gathering and analyzing exercise intended to create a community fire profile that will aid in identifying appropriate programs or activities that can be implemented to effectively address the community's fire and life safety needs.

In April 2007, Toronto Fire Services was advised by the Office of the Fire Marshal that their staff had reviewed Toronto's simplified risk assessment and Municipal Fire Protection Information Survey (MFPIS) and a Certificate of Compliance has been awarded to the City of Toronto.

7.3 Role of Fire Prevention and Public Education

Toronto Fire Services is maintained by the City of Toronto to provide residents and businesses with protection against loss of life, property and the environment by fire. For many years, extinguishing fires was considered the primary purpose of Fire Services. Today it is realized that a full measure of service to the citizens requires more attention to preventing fires as to extinguishing them. Fire Prevention, Public Education and Fire Suppression are equally vital in Fire Services today. The work of fire prevention and public education can be considered a pro-active approach reducing the probability of fires occurring and helping to limit the loss of life and property in the fires that do occur. Fire suppression is the reactive approach to help limit the loss of life and property resulting from fire.

The Fire Prevention section of TFS is responsible for enforcing the provisions of the Ontario Fire Code, which is a regulation made under the Fire Protection and Prevention Act as a companion document to the Ontario Building Code. This document provides for the safety of occupants in existing buildings through the elimination or control of fire hazards in and around buildings, the maintenance of life safety systems in buildings, the establishing of fire safety plans in those buildings where necessary and the retrofitting of certain occupancies. Some things looked at under this legislation includes: fire separations; fire hazards; fire department access to buildings; existing facilities; service equipment and it's maintenance; safety to life; and scheduled maintenance of fire protection equipment.

Systematic fire inspections and re-inspections are the backbone of effective fire prevention work and a major factor in reducing the loss of life, property and the environment. Inspections not only prevent fires but also present the opportunity to study and plan for more efficient ways of extinguishing fires. The average person is not trained to recognize fire hazards and does not have full knowledge of the factors that influence the spread of fire. The Fire Prevention Division, by utilizing its expertise in this field, renders a substantial service to the community.

Enforcement of the Ontario Fire Code can significantly reduce fire incidences and minimize property losses. Fire Prevention Division Inspectors ensure that all fire code violations in existing buildings are corrected and those new buildings comply with all fire and life safety requirements prior to occupancy. In most cases, building owners willingly comply with the requirements of the fire code.

The Fire Prevention section of TFS was one of the areas considered by the Auditor General in the Operational Review they conducted through 2005, culminating in their report of findings in January 2006. Since that time, the section has been working towards the implementation of the recommendations, which now form a large part of the basis of this document.

7.4 Goals, Objectives and Policies

Management of the Fire Prevention and Public Education section of TFS should develop a set of internal goals and objectives to define the purpose and future of the section, and to provide staff with a common vision. This should be done with the input of both management and staff. This will include the development of a business plan to identify specific initiatives to help reach the overall goals of the Fire Prevention and Public Education section, and the Fire Services in general. It should also include the development of a set of Standard Operating Policies and Guidelines specific to the section, to clearly identify the responsibilities of staff to ensure consistency in inspection and education activities across all areas of the City, and to ensue all staff are aware of their responsibilities and accountability for their actions.

As a result of the Operational Review conducted in the Fire Services, the Fire Prevention and Public Education section completed a set of standard operating guidelines and policies (SOG&P's). The continuing development of this manual is a priority. As the needs of the community change, guidelines and policies for staff operations must also change to meet the need. Thereafter, the continuing development of the SOG&P manual should include a review of policies in place to ensure that TFS is capable of achieving the standards it has set. Where discrepancies exist, consideration should be given to causes, so that appropriate changes can be made to ensure their consistent application in the workplace. A regular review cycle should be established for the SOG&P manual to ensure that policies remain relevant and achievable. All staff in the section must be responsible for remaining apprised of all SOG&P's, and this should be identified as part of annual performance evaluations.

For Fire Prevention to maintain public confidence in service delivery, property owners and occupants should believe the enforcement process is fair and equitable, and that inspections are carried out in a consistent and efficient manner. It is also important that enforcement measures on similar code contraventions are consistently applied. For example, setting standard policies and procedures in areas such as time frames for compliance by severity of fire hazard, progressive enforcement measures for recurring contraventions or tardy responses and providing an expected target compliance date on a Notice of Violation would ensure fairness and consistency in code enforcement efforts and improve cost effective use of inspection resources.

7.5 Staff Training, Development and Accountability

Management of the Fire Prevention and Public Education section have identified the need to provide opportunities for staff development. This includes the identification of standards that should be applied at each of the various levels of staff development from probationary level through to District Chief, and the development of programs to assist new and existing staff to consistently meet the identified standards. Adherence should be monitored through the annual performance management program for all staff.

As in all sections of TFS, and as identified elsewhere with respect to succession planning, the Fire Prevention and Public Education section should identify or develop leadership and management programs to prepare staff for advancement within TFS. This includes programs for existing Captains and District Chiefs to maintain and/or upgrade their qualifications, consistent with standards that will be developed various staff increment levels described above.

Finally, the section needs to ensure that adequate training is provided to address all of the issues described in this document, including technological changes, promotional opportunities, increment increases, divisional policies and protocols, inspection consistency, and educational program delivery.

7.6 Efficiency and Effectiveness of Staff

Through the Operational Review process, the Auditor General indicated that there are opportunities for Fire Prevention to achieve cost savings by taking advantage of new technology and modifying operating procedures. This process is currently underway, with staff working on the implementation of a new records management system, and a pilot project underway to test the feasibility of handheld mobile workstations to allow reporting in the field, and reducing the amount of time staff have to spend in the office.

In addition to recommendations with respect to staff efficiency through the development of mobile reporting, the Auditor General also recommended that management pursue the option of implementing a risk based approach to fire inspections. The most effective way of ensuring high fire risk properties (such as seniors' care facilities, hotels and schools) achieve an acceptable level of safety is by conducting routine inspections. Identification of properties requiring proactive, regular monitoring could be achieved through a comprehensive risk assessment and by applying generally accepted fire and life safety factors such as the nature of the hazard involved, occupancy type and fire protection devices installed. Management of the section are currently working with the Office of the Fire Marshal to introduce this type of program in Toronto, to ensure that high risk properties are inspected regularly, given the limited staff available in relation to the high volume of inspections required across the City. Also cooperating on this project is the Land Information Toronto section of the IT group. LIT will assist with property data base development.

The full implementation of an electronic records management system, and it's integration into the overall records management system (FireRMS) already in place within TFS, will allow increased efficiency and effectiveness of staff, not only within Fire Prevention and Public Education, but across the department as these records are also available to Operations staff responding to calls and having access to Fire Prevention records pertaining to incident locations, while Fire Prevention staff can also access Operations records. It will allow increased reporting capabilities that will in turn allow management to:

- Monitor inspection workloads and timelines;
- Identify files with outstanding issues;
- Identify high life safety risk and high hazard properties to determine appropriate inspection timeframes;

- Improve current tracking and data collection systems, to provide accurate and relevant information to staff in all sections;
- Monitor emergency responses to identify trends for both inspections and education activities; and
- Allow comparisons between commands by tracking output against projected timelines to determine where further efficiencies may be realized, or where additional staff resources are required in order to meet targets.

7.7 Staff Resources

The past several years have seen severely restricted operating budgets for all divisions across the City of Toronto. These restrictions have resulted in difficulty in acquiring the staff resources necessary to undertake all of the activities desired or required by the Fire Services. Recent years have seen TFS defending existing staff levels, eliminating the possibility of increasing these levels to ensure the life safety of citizens living and working in Toronto.

As part of past budget justifications, senior TFS staff met with representatives of the Ontario Fire Marshal's Office, who suggested that the standard ratio for code enforcement inspectors should be 1:15,000 population, due to the complexity and scale of the building stock in Toronto. Our current ratio is approximately 1:23,000. To meet the 1:15,000 benchmark would require the addition of 57 inspectors. The standard for Public Educators has been identified at 1:50,000, however, in Toronto's 21 staff results in a level of approximately 1:125,000. To reach 1:50,000 would require the addition of 30 public educators.

One of the recommendations in the Auditor General's report, and included in this plan, is to develop a risk based inspection system for routine inspection scheduling. The system would see buildings with a high life safety risk or high hazard risk inspected more often than those considered low risk. When complete, this scheduling system will provide a very accurate indication of required staff levels for inspection. The risk based project has begun, and currently has a completion date of December 2008. However, the first phase of the project has indicated the accuracy of available data is suspect and as such, it may not be possible to meet the original date, resulting in a recommendation to maintain existing staff levels in the Fire Prevention Division until the project is complete. At the completion of the project a staff report will be presented to Committee and Council indicating the results of the project and a plan to increase the staff level to meet the need.

The Fire Protection and Prevention Act mandates every municipality in Ontario to develop and deliver a fire and life safety public education program. The programs delivered by staff in Toronto are currently undergoing a re-evaluation process, which began in the fall of 2006. When this evaluation and restructuring are complete, an accurate staff level will be recommended and a staff report with information to justify the requested staff increase will be forwarded to Committee and Council.

7.8 Fire Cause Determination

What causes fires and fire deaths in a community is a vital piece of information to any fire prevention program. Much in the same way that determining the cause of an airplane crash is used to prevent further deaths, the information gathered during a fire cause investigation is used to develop fire prevention programs to meet the needs of the community and to reach our goal of a world with a fire death rate of zero. With solid information as to what is the cause of a fire that causes a death we can develop codes and public education to help ensure that cause does not result in another death. In late 2003, the Fire Services instituted a pilot program in the Fire Prevention section called Fire Cause Determination. This program was based on a pilot course developed by the Office of the Fire Marshal entitled Advanced Fire Cause Determination and Investigation. The purpose of the course was to enable municipal fire departments to further develop the skills and expertise required to reach an accurate and sound conclusion in determining origin and cause of fires. Toronto Fire Services had six (6) Fire Prevention staff participate and successfully complete the program. As a result these staff were accredited by The Ontario Fire College, the National Fire Protection Association (NFPA 1033 – Standard for the Professional Qualifications for Fire Investigator 1998) and the National Board on Fire Service Professional Qualifications.

The Office of the Fire Marshal currently investigates fires where there is a provincial interest. In recent years, funding cuts at the Provincial level have resulted in fewer and fewer incidents being investigated by OFM investigators, who now tend to focus only on fatal fires and fires with significant dollar loss. Local fire services have the responsibility to investigate all fire occurrences within their jurisdiction. The authority and responsibility to conduct these investigations or evaluations is legislated by the Fire Protection and Prevention Act. In recognition of this obligation, the Toronto Fire Services implemented a pilot program to utilize these six (6) qualified staff members to assist and support Operations staff in the determination of fire origin and cause, as this was seen as essential for the meaningful compilation of fire statistics and in assisting in the identification of local trends in fire occurrences, thus enabling the Fire Prevention and Public Education section to respond with appropriate public education and fire prevention programs.

The pilot program was implemented for a period of one year, and was deemed highly successful by staff from both the section, and the Operations Division. As part of the City's operating budget process, a request was made to provide permanent staffing for this purpose, consisting of one (1) Captain and five (5) investigators. This request was denied, and as a result the program officially ended on February 28, 2005 as the section does not have adequate staffing to continue this initiative and provide an adequate level of fire inspections across the City. The request for funding for additional staff continues to exist within the Fire Services operating budget submission, and is reflected in the Financial Implication chapter of this report (Chapter 15.0). It is recommended that this program be reinstituted as soon as possible.

7.9 Public Education

Public Education is an important function of the Fire Services, as effective education programs can reduce the incidence and severity of fires, and reduce the rate of injuries and fatalities. In 2000, Toronto Fire Services implemented new programs and strategies aimed at decreasing the number of fire fatalities in the City, based on an unacceptable number of fire deaths which occurred in the City in 1999. These programs have been highly successful, reducing fatalities in the City from a high of 33 in 1999 to 16 in the year 2000. Most recently, Toronto experienced 11 fire fatalities in 2006, and continues to pursue a goal of zero.

Existing fire reporting information systems in TFS can be useful in monitoring problem areas and the need for increased public education efforts related to specific issues, such as smoke alarms, and home escape planning. Staff of the Public Education section should use statistics regarding cause of past fire occurrences, injuries and fatalities to determine target groups and develop relevant programs. Reporting systems can also be useful in identifying new trends that may require the development of new programs to enhance life safety in Toronto.

In addition to the development of programs based on trends, staff in the Public Education section should continue to develop new educational programs to meet the needs of all citizens based on age, ethnicity and other demographics. Delivery of programs should be tracked electronically to allow reporting to determine effectiveness of existing and new programs, and to identify potential efficiencies in delivery methods.

7.10 Risk Watch Program

Risk Watch is a curriculum based safety program for use in schools from Junior Kindergarten through Grade 8. The program was developed by the National Fire Prevention Association. However, rather than focus only on fire safety the program includes information on accident prevention in eight separate areas based on statistics that indicate how children are most often injured and killed. Recently the Ontario Fire Marshal's Public Fire Safety Council invested $350,000 to improve the Canadian content of the program and to reduce the cost of materials for use by teachers. Toronto Fire Services considers Risk Watch the best child safety program available today. We are actively assisting with implementation of the program in schools throughout Toronto.

The goal of the Public Education section is to have the Risk Watch program implemented in our 650 Public schools, 480 Catholic schools and over 300 private schools by June of 2010. Staff of the section assist teachers with implementation and provide ongoing support through classroom visits and demonstrations.

A long term goal of the Public Education section that has not been realized due to lack of funding is the development of a Public Education Centre at our Harbourfront location.

The Executive Officer, Marketing, Sponsorships and Fundraising should continue to seek additional partnership opportunities with appropriate agencies and organizations, capitalizing on their experiences, resources and expertise. Sponsorship should be focused on providing all Toronto schools with the Risk Watch curriculum materials as well as the Harbourfront Fire Station Public Education Centre.

7.11 Recommendations:

1. Clearly identify the section's goals and objectives, with input from the Fire Chief, Deputy Fire Chief, Division Chief, District Chiefs and staff within the section.

2. District Chiefs, and Division Chief, to meet regularly to continue to develop the Standard Operating Guidelines and Procedures for the section, until complete, and there-after on a semi-annual basis to ensure relevancy.

3. The Division Chief should ensure that all staff are fully trained and aware of their responsibilities with respect to the SOG&P's, including monitoring to ensure consistency in their application across all areas of the City.

4. Management of the Fire Prevention and Public Education section should develop standards of performance for staff at all levels, from probationary through District Chief. These standards should be applied through the annual performance management program.

5. Ensure adequate training opportunities are provided for staff at all levels to address issues such as technological change, standards of operation, promotional opportunities, skills maintenance and development, and leadership and management training.

6. All performance standards and training programs should be reviewed annually for relevancy, and updated regularly as required.

7. Management of the Fire Prevention section should continue working with the Office of the Fire Marshal and Land Information Toronto on the development of a "risk based" approach in delivering fire prevention programs in the City, meaning that inspections are conducted based upon the risk associated with particular occupancies. On completion of this project, a staff report will be submitted to Committee and Council with a request to increase staff to the level required for a risk based inspection system.

8. Management of the Fire Prevention section continue the development and implementation of an new electronic reporting system for fire prevention and public education, including the implementation of systems to allow mobile reporting to increase the efficiency of staff by reducing the amount of time spent in the office.

9. Reporting systems should be used to monitor workloads and identify trends in inspection and education activities.

10. Management of TFS should continue to pursue opportunities to increase the number of Fire Prevention Inspectors and Public Educators to improve life safety programs for residents of the City of Toronto. In addition, management of the Fire Prevention and Public Education section should pursue alternatives to ensure the most efficient use of existing staff resources across the City.

11. Management of TFS should continue to request additional staffing (one Captain and five Investigators) through the annual operating budget process in order to reinstitute the Fire Cause Determination project.

12. Existing and future records management systems should be used to identify trends in emergency incidents to identify areas of concern for public educators, to ensure resources are used as effectively as possible. This includes identification of the need for increased use of existing programs, and the need to develop new programs to deal with emerging or new issues.

13. The Public Education section should continue the implementation of the Risk Watch program in all schools in the City of Toronto.

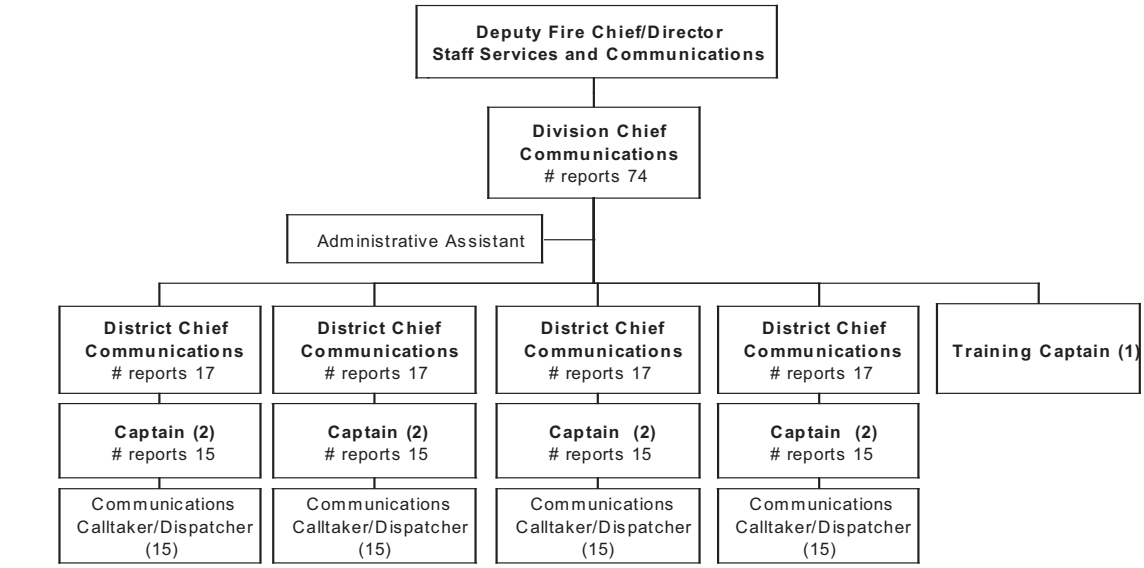
14. All public education programs should be re-evaluated for content, delivery method and efficiencies. When the re-evaluation is complete, a staff report will be forwarded to Committee and Council containing public education goals with time lines and required staff levels to accomplish the goals.

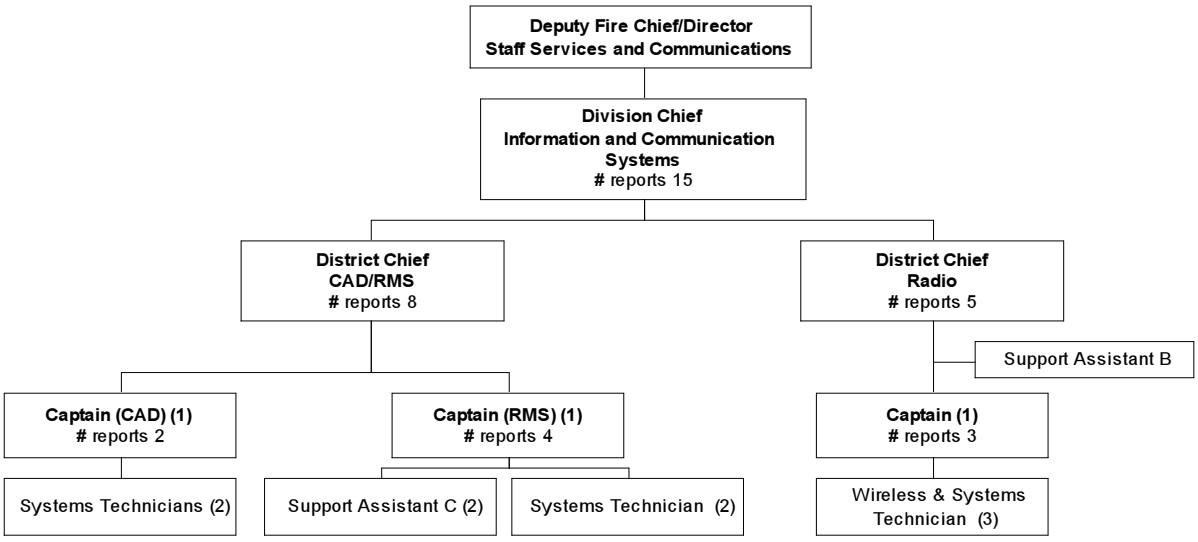
15. All public education activities should be recorded in electronic records systems to allow TFS to track the effectiveness of programs and delivery methods, and report on performance measures related to people reached, distribution of brochures, etc. to determine the most efficient and effective methods of educating the public.

Chapter 8: Communications and Information and Communication Systems

Communications and Information and Communications Systems are two separate sections within TFS, however, since they deal with many common issues, they are being addressed together in this report. These sections report to two different Division Chiefs under a single Deputy, and cover all areas of Communications in terms of the operation and staffing of the Service's emergency communications centre, to installation and maintenance the infrastructure supporting both the Communications Centre, and the radio and information systems in use across TFS.

The organizational structures for the two sections are as follows:





Five main areas of concern have been identified for the Communications section, as follows:

1. Quality Assurance
2. Risk Management
3. Standards and Systems
4. Accountability/Professionalism
5. Staffing

8.1 Quality Assurance

Quality Assurance has been identified as an issue within the Communications section, with a request in the operating budget for a staff person for this purpose in both 2006 and 2007 with no approval. As part of the 2006 Capital Budget, funding was approved to undertake a Quality Assurance Study. This study will assess the current technology in use in the Communications Centre to validate the systems and determine if these systems are being leveraged to effectively support TFS processes. The effectiveness of internal policies, procedures and staff training will also be included in this review. The audit will determine the degree to which Communications section staff are meeting the requirements of the citizens of Toronto and other Fire Service divisions, primarily Operations division staff. This study is expected to be completed in 2007, and will form the basis for a new business case for an additional staff person in the 2008 Operating Budget cycle.

Staff training is another issue that has been identified with respect to quality assurance in the section. The Communications section has a dedicated Training Captain to provide division specific training to staff. This position should be further developed to ensure the needs of the section are being met. Over the term of this plan, the section should work on developing the following training initiatives:

- Completion of current training project, which is the development of a scenario based training program for Call Taker/Dispatchers
- Review and improve/update the existing recruit training program in the section
- Provide opportunities for more formalized in-service training
- Pursue training programs through the Association of Public Safety Communications Officials (APCO), such as:
    - Basic Telecommunicator
    - Fire Services Call Taker/Dispatcher
    - Training Officer
    - Communications Centre Supervisor
    - Leadership program (currently under development)
- Promotional Training Programs for District Chiefs and Captains
- Programs that allow Communications staff to reconnect with the Operations division, including the potential to offer courses from Operations recruit training, and scenarios/ exercises with Operations to reinforce procedures.

All training programs delivered by the section should be reviewed periodically to ensure they remain current and relevant. The Division Chief, Communications should consult with the Division Chief, Professional Development and Training on their ongoing project to develop an electronic system for tracking training records to ensure that all documentation with respect to training in the Communications section is formalized.

8.2 Risk Management

Given the incidents in 2006 that caused power loss within the Communications Centre and the subsequent transfer of operations to the backup communications centre, the Communications section in conjunction with the Division Chief and staff of the Information & Communications Systems section need to work together to identify the areas of risk, prioritize and take action.

Both sections have similar concerns with respect to the existing Communications Centre for the Fire Services. Although a relatively new addition to the Headquarters facility, it is not entirely owned by Fire, it was not designed nor is it maintained exclusively by the Fire Services. At the writing of this report, a project team has been convened for a critical power supply project at Headquarters. This project is being jointly funded by Fire and EMS, with the potential for some contribution from Toronto Police Services as their back-up communications centre is also located in the facility. A total of $300,000 has been included in the Capital Budget in 2007 for the design elements of this project, with a cost to Fire of $150,000. The total project cost is projected at $1.975 million.

The recent failures in the Communications Centre are one example of the potential problems that could occur in the delivery of Fire Services. There is a need to focus in the future on pre incident prevention versus post incident correction. Examples include the following:

- Facilities:
  - Update generator/UPS immediately (currently part of the critical power supply project at Headquarters mentioned previously);
  - HVAC systems;
  - Space requirements planning;
  - Security review; and
  - Expansion of Don Mills Road facility.

- Contingency plans:
  - Method of transfer of operations to Don Mills Road;
  - Further development/testing of evacuation plan;
  - Additional redundancy using Don Mills connection; and
  - Business continuity plan based on a worst case scenario.

8.3 Standards and Systems

Consistent with recommendations for other sections within TFS, both Communications and Information & Communication Systems need to develop a set of standard operating guidelines and policies specific to each section. Within the Communications section, this should include a requirement for consistent implementation of procedures/policies and processes across four Platoons with respect to the call management process.
Management of the two sections should consider the implementation of workgroups to allow continual review of standards and systems for the purpose of continuous improvement. This could include a workgroup specifically related to the development of processes for Communications staff and staff of the Information & Communication Systems sections to work together on items that affect both, in terms of input to project development as well as education and training for new systems. The Division Chief, Communications should consider the potential to revise work schedules of District Chiefs within the section to allow their participation on project teams as appropriate on a short term basis.

Other systems that the two sections should work together to develop, or continue to develop, include:

- Interoperability with other GTA fire services;
- Integration with EIRS (Don Mills Road); and
- Addition of interfaces, including Status Display, Police InterCAD, Fire Monitoring, and the completion of the Cellular 9-1-1 GPS interface.

Finally, there are a number of equipment upgrades that will be required in the coming years, specifically to the telephone system and the recording system. Estimates should be included in capital or operating budget submissions as appropriate once they have been identified in terms of scope.

The largest project facing the Information & Communication Systems section is the need to replace the existing radio system. As confirmed by a consultant's study and Motorola, the current equipment and system infrastructure will be unsupported and in need of replacement as of 2011. It has been identified that the implementation of the replacement project has to begin by 2009 to ensure meeting the 2012 date. In the meantime, the existing operational capability needs to be maintained.

The Radio Communication System Replacement project is a corporate initiative involving three programs: Fire Services, Police Services and Emergency Medical Services. The project is debt funded in the amount of $70.0 million for the replacement of the joint radio communication system infrastructure. Initial cash flows of $0.250 million in both 2007 and 2008 for system consultants and project management are followed by project cash flows of $28.0 million in each of 2009 and 2010 and $13.5 million in 2011. Staff from the Information & Communication Systems section should continue to be intimately involved in the ongoing development of this project.

8.4 Accountability/Professionalism

Accountability of staff is an issue in many sections within TFS, but has been identified by the Communications section as a specific area of concern. As part of the ongoing initiative towards staff development, and the development of standard operating procedures, it is anticipated that a program can be developed that ensures each individual in the section will understand their role with respect to systems, and will be clear on their duties and responsibilities. As part of the ongoing initiative for quality assurance, audits will be performed and performance measures developed to ensure staff compliance. This will also form part of the annual performance management evaluation for staff in the section.

8.5 Staffing

The final area identified as a concern for the Communications section is staffing. This issue is related to ongoing staff development, but specifically identifies the need to deal with issues including:

- The need to update the recruitment process for the Communications section, including the development of additional recruit assessment criteria to aid in the hiring process;
- Development of training programs and mentorship opportunities to prepare staff for promotion;
- The need to develop supervisory training programs, in conjunction with the Professional Development and Training section and Local 3888; and
- The need to conduct an organizational review, including the development of a code of conduct and strategies for conflict resolution and teambuilding.

In addition, the Division Chief, Communications should ensure that staff of the section continue to be involved and represented on various committees, such as the Island Response Committee, and the Fire College Communicators Course Planning Committee, as appropriate.

8.6 Radio Communications System Replacement Project

8.6.1 Background

The current Motorola SmartZone 3.1 voice radio system used by the three emergency services was the result of a joint program by Police and Fire in the late 1990s to implement a common infrastructure. Toronto Emergency Medical Services (EMS) joined the common network in 2002 with plans to be fully integrated by 2007. EMS maintains interoperability with the Provincial system as well as unique features currently used at its own dispatch level. In addition, there is interoperability with the surrounding (GTA and Golden Horseshoe) Public Safety agencies.

Each organization owns, maintains and replaces its own end user equipment and dispatch systems. A Technical Committee with cross-divisional representation deals with common major expenditures or operational changes, which are subject to approval by a Steering Committee consisting of one deputy from each agency. The maintenance of the SmartZone system is the responsibility of the Toronto Police Service (TPS). The administration of the system is also the responsibility of TFS, with the cost shared equally by the three organizations.

Late in 2005, the consultant retained to review the system replacement solutions, Lapp-Hancock, identified two conflicting realities:

- The need to replace existing TPS (and the other two partners') radios, which need to be compatible with the current Motorola infrastructure; and

- The implications of trying to take advantage of appropriate technical and operational advances in a cost effective manner while still sole sourcing the replacement of frontline equipment from Motorola.

Developments in the way of new technical standards of Project 25 (specifically addressing Public Safety systems) which would ensure compatibility between suppliers may not be in place in time for this project. If that occurs, the result will be that Motorola may continue to be the vendor for the city's emergency radio system. However, developments in this area are moving quickly and show great promise.

Due to its scope, the implementation of the replacement project must begin by 2009 to ensure meeting that date and the existing operational capability needs to be maintained in the meantime.

8.6.2 Current Status

The manufacturer of the system has announced that current infrastructure will reach the end of its lifecycle in the year 2012. Toronto Police Service need to replace 5,000 existing voice units over the next five years in anticipation that replacement parts are unlikely to be available after 2008. Fire and EMS have already made arrangements for additional radio units in their respective capital budgets with funding to the end of 2007. Fire has ongoing replacement funding for existing portable radios in its operating budget.

The initial cross-divisional Steering Committee meeting for the Radio Communications Replacement Project of May 16, 2006 identified a number of issues that required some decision making or action by the Chiefs of Police, Fire, and Emergency Medical Services and the Deputy City Manager for Finance. Since then, the Steering Committee has met several times, the City Manager and other key officials have been briefed, the three service Chiefs have endorsed and committed to the project, and a project charter is under development.

The project was identified to Budget Advisory Committee in a report to coincide with the review of the current 5 year capital program and is now included in the City's long-term Capital budget as a $70 Million expenditure, with the majority of the spending occurring in years 2009 to 2011. Activities planned for 2007 include preliminary design analysis and a review and validation of the system governance model.

8.7 Recommendations

1. Complete the Quality Assurance Study in the Communications Division in 2007. Results of the study should provide information to form a business case to better support the staffing request for a Quality Assurance Manager in the 2008 Operating Budget submission.

2. The Division Chief, Communications and the Division Chief, Information & Communication Systems should identify all of the risks associated with communications systems within the Communications Centre and across the City. These risks should be prioritized and measures taken to mitigate these risks.

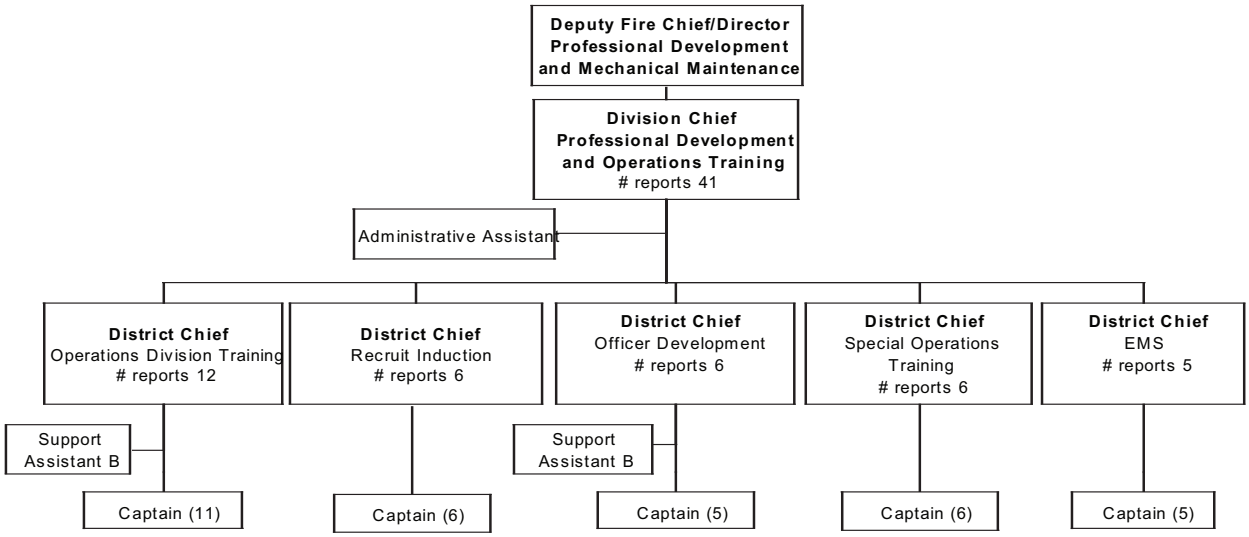
3. The Division Chief, Communications and the Division Chief, Information & Communication Systems should identify all system improvement projects and develop project teams and cost estimates as appropriate. All cost projections should be included in annual Capital and Operating budget submissions as appropriate.

4. The Division Chief, Communications, should work with Human Resources staff to update the recruitment process for the section.

5. The Division Chief, Communications should consult with the Division Chief, Professional Development and Training, Local 3888 and other appropriate parties on the development of courses to assist staff in preparing for promotions and supervisory duties.

Chapter 9: Professional Development & Training

Reporting to a Division Chief, the Professional Development and Training (PD&T) section is comprised of five sections, as follows:



In addition, the Emergency Planning and Health and Safety sections are aligned with Professional Development and Training section, reporting to the same Deputy. While these sections report directly to the Deputy, their day-to-day activities are also conducted under the supervision of the Division Chief, Professional Development and Training.

Consistent with recommendations resulting from examination of other support divisions as part of the Fire Services Operational Review, the Professional Development and Training section is currently in the process of developing and implementing division specific operating guidelines and policies. The development of these policies also includes a review of existing Operational SOG's relevant to the Training division, to ensure they align with the business practices of this section. In addition, policies developed for the Professional Development and Training division that affect operating procedures of other divisions will be communicated widely.

The following additional issues in the Professional Development and Training section will be addressed over the term of this plan.

9.1 Electronic Training Records

Following implementation of the FireRMS system for records management in the Operations section, development of an electronic records management system for Training records is ongoing. It is anticipated that this system will be created and implemented in 2007/08. The goal of the section is to develop a system that is simple, flexible and adaptable. Several systems will

be considered including FireRMS, SAP, Microsoft Access, and any other appropriate software system.

9.2 Development of Training Programs

The Professional Development and Training section of TFS will ensure that all training programs within the curriculum are standardized, including format, and inclusion of goals, objectives, etc.

The division is currently exploring more efficient means of delivering training programs to large numbers of staff in order to keep pace with the demands of the Fire Service. This includes the development and implementation of web-based training programs to replace existing programs such as operations quarterly training, with potential for use by other divisions and for special programs such as HUSAR and CBRN.

As indicated in the discussion of recommendations for the Recruitment and Outreach section of Staff Services (Chapter 11), traditional recruit training programs will need to be modified and shortened significantly to allow for hiring of candidates with pre-service fire education from local community colleges. Developing hiring practices to account for this education should allow the TFS recruit training curriculum to be modified to focus more on the Toronto method of the fire business, since candidates will enter the service with many of the skills previously taught through the on-the-job training program. This will be an on going process, as the full recruit training program will continue to be required while TFS continues to carry a hiring list of qualified candidates, and until the number of community college graduates can keep pace with the demands of fire services across the province. The development of this type of modified training program will also allow for the future potential of the Service to hire experienced fire fighters from other municipalities, or to rehire staff who have left the Service for any length of time.

9.3 Succession Planning

As with all other sections within TFS, Professional Development and Training section must develop a succession management plan for staff in the division, and those transferring into the section. All Training Captains must become OFM Certified Ontario Training Captains. Succession planning for the section should include the provision for an Acting Division Chief, and might be modeled along the lines of the Acting Division Chief model that has been successfully implemented in the Fire Prevention and Public Education section of TFS. As part of the development of succession plans, management of the Professional Development and Training section should also develop a policy to allow or require Training Captains to actively participate in Operations Division incidents such as being an active member of a fire fighting crew, from time to time. This would provide these staff with a continuing connection to the fire fighters they are there to support and train, giving them the ability to compare and ensure their programs and skills remain relevant.

As part of succession planning for all sections, Professional Development and Training will assist in the development of modular promotional processes for both Captains and District Chiefs.

In addition, management should include changes to the divisional transfer policy as part of negotiations with Local 3888 in an effort to efficiently transfer staff from Professional Development and Training to the Operations and other divisions with the least disruption to operations within PD&T.

9.4 Further Development of Training Facilities

Professional Development and Training has been very successful in acquiring capital development funds since amalgamation to upgrade existing training facilities across the City, and to build new training props. In the future, funds have been or will be requested for the following additional projects:

Creation of a computer training lab. A potential location for this is in Station 112, in the space previously identified for a video studio.

Installation of push-pad locks on all facilities.

Upgrade of live burn pads to protect buildings.

Relocation of the West Training Class A burn building to a remote and larger area. The existing facility is currently a health and safety issue in the adjacent fire station.

Additional simulator development, including a water rescue simulator, rubble pile, shoring wall and forcible entry simulators at 3 major facilities.

9.5 Internal and External Relationship Development

The development of relationships is important across all sections of TFS, but is a particular goal of the Professional Development and Training section. The division has expressed a goal of improving internal relationships in order to improve understanding of the logistics related to facility booking and use, and the marketing of facilities to external users.

With respect to external relationships, the division should continue to develop and maintain communication with organizations including the GTAA, Ontario Fire College, community colleges and GTA fire services for the purposes of sharing ideas and resources.

9.6 Development of Special Teams

Professional Development and Training holds the primary responsibility for the development and administrative maintenance of a number of special teams within the Fire Services, including Heavy Urban Search and Rescue (HUSAR) and Chemical, Biological, Radiological and Nuclear (CBRN) response teams.

Over the period of this plan, the development of these teams should continue. The HUSAR Team has achieved tremendous success in the past few years with respect to funding from the Provincial and Federal governments, as well as the City of Toronto, and has recently completed construction on a new building located at the Special Operations Training Centre on Bermondsey. This building will house all of the equipment and vehicles associated with the HUSAR program, and will be the base of operations for the team in the future.

The following should continue to be the focus of both the HUSAR and CBRN teams:

- Complete the development of the teams in terms of building the cache and purchasing the outstanding items needed to sustain the team during operations, including the medical cache, water systems and mobile kitchen (HUSAR);
- Secure and maintain adequate levels of funding from all levels of government for both infrastructure and annual operating costs;
- Maintain and secure Federal and Provincial Memoranda of Understanding (MOU's);
- Maintain and secure MOU's with outside agencies;
- Identify additional personnel requirements for day-to-day operations; and
- Prepare a plan of succession to identify and develop the future coordinators of these programs.

9.7 Emergency Planning, Research and Development

Every municipality, regardless of size and location, can be seriously disrupted by an emergency. This could take the form of a plane crash, severe storm, flood, fire, chemical spill, blackout, or similar disaster. It can also take the form of a health crisis, as seen when SARS affected the City of Toronto in 2003. The Office of Emergency Management (OEM) is part of a joint emergency management initiative that works closely with members of Toronto's Emergency Medical Services, Toronto Fire Services, Toronto Police Service, and Toronto Public Health, Shelter, Support and Housing to provide a unified and cooperative approach to managing and handling emergency situations in Toronto.

With a comprehensive Emergency Plan in place, the City of Toronto is prepared to effectively handle all types of emergencies. The Emergency Plan details the methods in which the City mobilizes its resources during a crisis and ensures all City organizations, emergency response services, and key agencies are fully aware of their respective roles and responsibilities during an emergency. The goal is to respond and reduce the impact of a public emergency and restore the municipality to a normal state as soon as possible. Staff of the Emergency Planning, Research and Development section of Professional Development and Training work with staff from other City divisions to ensure the Office of Emergency Management is prepared for any eventuality.

In addition to planning for major disasters and events, staff of the Emergency Planning, Research and Development section are also responsible for planning around all special events in the City, including street events, festivals, parades, the annual Grand Prix, etc. In addition, staff are involved in the development process in the City, and review plans for densification and redevelopment to ensure adequate fire and life safety measures are in place, including ensuring that road widths meet the need of the fire services. Both of these activities consume a tremendous amount of staff time. The need for additional staff and/or changes to City bylaws to enhance fire protection and response should be considered by the Fire Services as work demands increase, with any changes recommended through the appropriate Committee and Council, or through annual budget submissions as necessary. In addition, the goals and objectives of the sections should be clearly defined to ensure that limited staff resources are utilized most appropriately. This should be done in conjunction with management of the Fire Prevention section, to minimize service overlaps and ensure efficiencies in service provision.

The Toronto Public Health Influenza Plan was released by Toronto Public Health at the Board of Health meeting in November 2006, along with the recommendation that all City divisions, agencies, boards and commissions prepare service continuity plans. The Office of Emergency Management and Toronto Public Health are coordinating this planning effort. Each division, agency, board and commission is creating its own operating plans for coping with pandemic influenza. Emergency Planning, Research and Development staff in TFS are responsible for coordinating the TFS pandemic flu planning, and have been working with staff in all sections to ensure continuity of service and availability of supplies during a health crisis.

9.8 Recommendations

1. Develop standard operating guidelines and policies for the Division, including training staff on their content and ensuring compliance through annual performance management reviews.

2. Develop and implement an electronic training records system for TFS. The system should be a simple, flexible, adaptable and capable of being expanded as the Service continues to develop in the future.

3. Continue to pursue funding for additional facility and simulator development in the Fire Services annual Capital Budget submission, as identified in the Financial Implications chapter of this report (Chapter 15).

4. Complete the development of the HUSAR and CBRN Teams and secure and maintain ongoing agreements for funding with the Federal and Provincial governments.

5. Develop and implement an appropriate succession and development plan for all levels within the division.

6. Develop and implement web-based training programs for TFS.

7. Clearly identify the goals and objectives of the Emergency Planning Research and Development Section in conjunction with Fire Prevention and Public Education, to ensure that overlaps are minimized, economies are achieved, and the overall level of service to fire fighters and the citizens of Toronto is maintained or enhanced.

8. Management of Professional Development and Training consider the need for additional staff and/or changes to City bylaws to enhance fire protection and response as work demands increase, with any changes presented through Staff Reports to the appropriate Committee and Council, or through annual budget submissions as necessary.

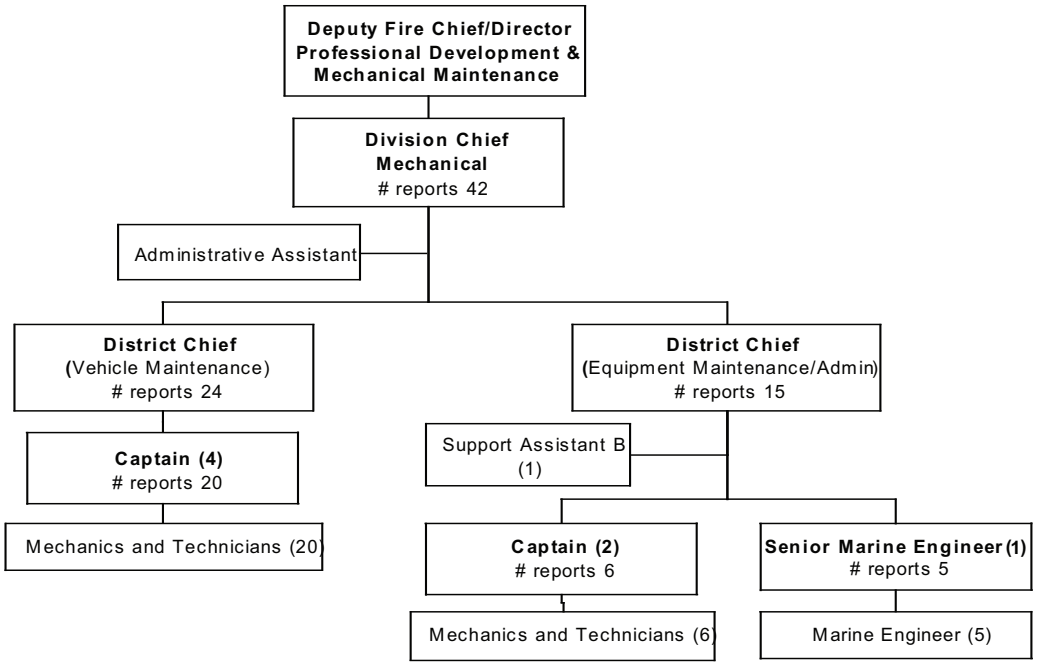
9. The Emergency Planning, Research and Development Section continue to coordinate the TFS Pandemic Flu Planning to ensure continuity of service and availability of supplies in the event of an extended medical crisis in the City.

Chapter 10: Mechanical

The Mechanical section of the Fire Services is responsible for the acquisition, maintenance and repair of all vehicles and equipment in the TFS inventory. Toronto Fire Services operates with a total heavy fleet of 179 vehicles (including firefighting, support and training vehicles) and 180 light vehicles. The section is also responsible for the ongoing operation and maintenance of the William Lyon MacKenzie fireboat, and the newly acquired Sora, a smaller vessel that acts as a backup to the MacKenzie when it is out of service in the warmer months. In addition to vehicles, the section also maintains the complete inventory of small equipment, including Self Contained Breathing Apparatus (SCBA), small engines, ladders, etc.

At amalgamation, responsibility for maintaining the Fire fleet was shared by Toronto Fire Services and Corporate Fleet Services. In 2002, in response to a request by the Budget Advisory Committee on methods for maintaining Fire Services equipment in-house, Toronto Fire Services submitted a report entitled "Fire Services Fleet Maintenance Disentanglement". In the report, Toronto Fire Services proposed to take over maintenance of the entire Fire fleet, effective April 2002. Based on workload and financial information available at the time, Toronto Fire Services estimated that in addition to existing supervisory and management positions in 2001, the Mechanical Division would require seven more Emergency Vehicle Technicians (EVT) (bringing the total from 12 to 19) and a new support position for entering and maintaining data in a fleet maintenance system.

Reporting to a Division Chief, the Mechanical Division currently operates with two District Chiefs running vehicle and equipment sections, as follows:



10.1 Auditor General Report

The Mechanical section of Toronto Fire Services is another section that was subject to review by the Auditor General in 2005/06. Implementation of the recommendations of the Auditor's report is currently underway, and forms the basis of the recommendations of this report.

TFS took back control of fleet maintenance in its entirely in 2002, and between November 2003 and August 2005 moved into a new facility to allow consolidation of a number of separate garage facilities. Unfortunately, this facility has proved to be too small to allow sufficient space to maintain all vehicles in a timely manner, and does not include sufficient indoor space to keep sensitive vehicles and equipment out of the cold for extended periods of time during the winter months.

The 2006 approved Capital Budget for the Fire Services included funds to retain a consultant to determine the ability to expand the existing mechanical facility located at 40 Toryork. This study is currently underway, with capital funding for the expansion dependant on the results of the study. In the meantime, the potential of a new facility has surfaced that also warrants some investigation. Both options should be investigated to determine the most beneficial resolution for the Fire Services. No additional funding should be invested in the development of the Toryork facility until all options are explored and a decision is made. However it is achieved, it is clear that the Mechanical Maintenance section is in need of additional space for operational purposes. The addition of bays for maintenance work will also require the addition of Emergency Vehicle Technicians to staff the additional bays to allow the section to keep up with the level of work that needs to be completed. These staff have been identified in the Fire Services operating budget request and are included in the Financial Implications chapter of this report (Chapter 15). Additional bays and staff will also allow the section to complete additional preventative maintenance work as recommended by the Auditor general in an effort to deal with smaller issues before they become major repairs. An aerial test bed (outside) and a pump test area (inside) are also required at the Mechanical Maintenance expansion site.

Other issues identified through the Audit process include the need for better record keeping for repairs to TFS vehicles. Accurate and complete documentation of repairs performed on vehicles is essential in monitoring service performance and warranty work. Guidelines recommended by both the Highway Traffic Act and the Occupational Health and Safety Act recommend proper retention of inspection and service records. The National Fire Protection Association also recommends separate files be maintained on all inspections, maintenance requests, preventive maintenance, repairs and testing performed on each vehicle. Documentation should include the date and description of maintenance, repairs and inspections performed. TFS currently uses the Corporate M4 system to track vehicle maintenance records, although this software has not been implemented to its full capacity. In investigating the potential to expand the use of M4, it was determined that an upcoming upgrade to M5 across the corporation was currently in development. As a result, management of the Mechanical section is now involved in the project, and plans are underway to implement the upgraded M5 at Toryork once it becomes available.

The Audit report also recommended the development of standard operating guidelines and policies with the Mechanical Maintenance section. The Auditor recommended that policies and formal documentation standards for vehicle repairs and maintenance activities be developed; that documentation requirements and management expectations are clearly communicated to garage staff; and that management regularly review manual and system records and monitor compliance with established documentation policies and standards. These recommendations are currently being implemented.

Finally, the Audit report identified the need for stricter controls to be placed on the inventory of the parts room located at Toryork. Since the release of the Audit report, the Fire Services has installed security in the facility to control access. In addition, the Mechanical section is also involved in the Corporate Warehouse Rationalization study, with implementation of a new inventory control system scheduled for the facility in May 2007.

10.2 Staff Development

The final major issue facing management of the Mechanical section is with respect to staff development. The ability to attract and retain Emergency Vehicle Technicians has been an issue in the section, given the salary scale requirements of Local 3888. In many cases, successful applicants are hired from other City departments, and bring with them a number of years of service which provides challenges in relation to succession planning, as staff in line for management positions are often at or close to retirement themselves. Management of the section should work with representatives from Local 3888 towards implementation of an apprenticeship program for Emergency Vehicle Technicians. Such an agreement should consider factors such as a requirement for a minimum number of years of service after completing the apprenticeship.

Also on the issue of staff development, management of the section has been working with the Office of the Fire Marshal to update the current Canadian standard to NFPA 1071. Other issues include the need to develop a modular promotional system, and the need to involve more mechanical section staff in specification writing for new vehicles, development of purchasing contracts, etc. to prepare them for potential management positions in the future.

10.3 Recommendations

1. The Division Chief, Mechanical in consultation with the Deputy Fire Chief and Fire Chief should continue to explore options to increase the number of mechanical service bays available to staff in the section. This includes identifying any surplus properties that may be available for sale, or the expansion of the existing facility at Toryork.

2. Continue to pursue the request for additional Emergency Vehicle Technicians through the annual operating budget process. A total of 5 positions have been requested to allow the Mechanical Division to keep up with the workload of the section. This request was removed from the operating budget submission at the review stage in both 2006 and 2007.

3. Continue the implementation of the M5 system within the Mechanical Maintenance section in accordance with Corporate direction and the recommendations of the Auditor's Operational review.

4. Develop Standard Operating Guidelines and Policies specific to the Mechanical Division Include a review of existing Operational SOG's relevant to the Mechanical Division, to ensure they align with the business practices of this section. In addition, policies developed for the Mechanical Division that affect operating procedures of other divisions must be communicated widely.

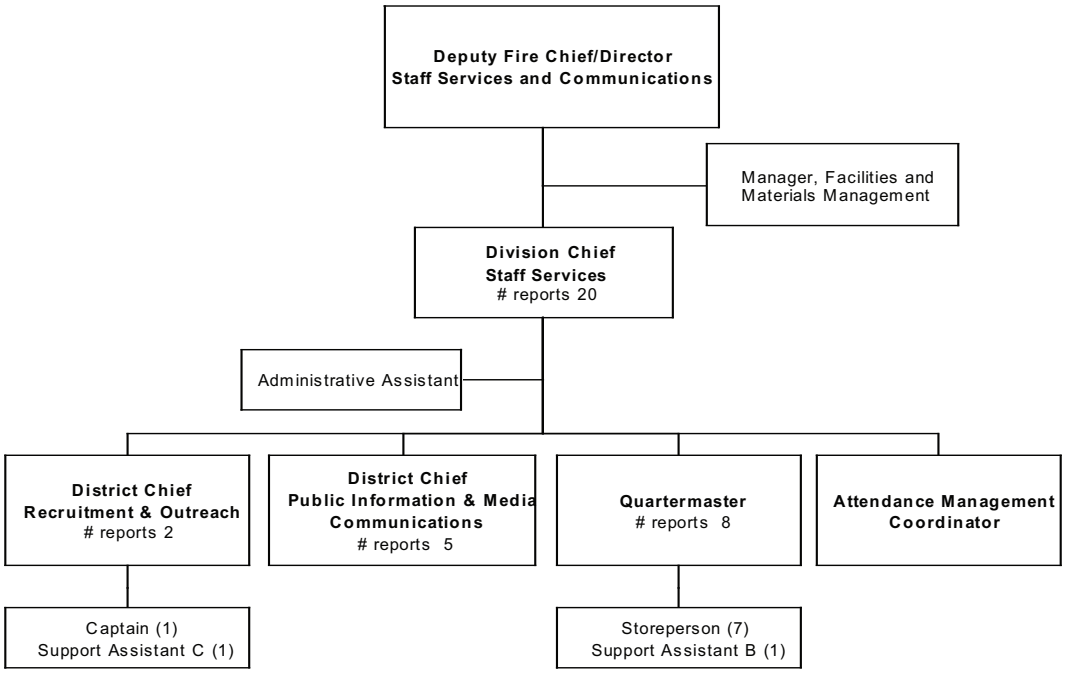
5. Ensure successful implementation of the Corporate Warehouse Rationalization project, to ensure stricter controls on the use of parts and record keeping associated with mechanical activities. The current projected implementation of the warehouse project in the Toryork facility is May 2007.

6. With input from the Fire Chief, Deputy Fire Chief and other Division Chiefs, work on the implementation of a succession planning program, including implementation of a modular promotion program and various staff development activities as appropriate to the section.

7. Management of the section should work with representatives from Local 3888 towards implementation of an apprenticeship program for Emergency Vehicle Technicians.

Chapter 11: Staff Services

The Staff Services section provides an important support function for all sections of TFS, including things like the Quartermaster function, Recruitment and Outreach, and facilities maintenance. These functions are undertaken by a permanent staff of 22, as follows:



In addition to the sections identified above, the Division Chief, Staff Services is also responsible for reporting relationships with the Payroll and Accounting Services sections which are currently part of Corporate Policy, Planning, Finance and Administration, along with ten (10) clerks in the Fire Prevention and Public Education Section. It is the understanding of management of TFS that these staff will be transferred under the direction of Fire Services in the near future, and it is recommended that they report directly to the Division Chief, Staff Services.

Discussion and recommendations with respect to the various sections of Staff Services are identified below.

11.1 Recruitment and Outreach

The recruitment and Outreach section of TFS is currently staffed with one District Chief and one Captain, with administrative support. Staffing in the section is enhanced through annual use of secondments from other Divisions to allow adequate resources to carry out the activities of the section, as annual budget requests to expand the staffing of the section have been denied.

The Recruitment and Outreach section is responsible for the design, development, implementation, and scheduling of recruitment and community outreach programs. The section maintains liaisons with various community organizations and advises, meets with and educates the community about career opportunities within the Fire Services, using methods such as conducting information/briefing sessions, speeches to large and small groups, information displays, workshops and seminars, panel presentations and responding to public inquiries. Staff in the Recruitment and Outreach section must continue to expand the list of events attended in order to raise profile/marketability of TFS in the future.

Fire fighter recruitment is undertaken based on the need to fill a large number of positions at a single time, as a typical recruit class includes 40 or more new staff. Historically, the Fire Services has undertaken one major recruitment campaign per year to assemble a list of qualified candidates that are ready to accept fire fighter positions as they become available in the operations section. In more recent years, there have been a number of changes as the level of retiring staff has decreased significantly, and the number of recruits required has decreased. This has allowed the section to focus more on outreach activities in an effort to educate target groups, including women and citizens with multicultural backgrounds on the benefits of a career in the fire services. At the same time, Ontario Community Colleges have developed Pre-Service Fire Fighting programs that result in better prepared candidates seeking employment within TFS. To date, hiring practices have not been updated to allow for this development. Management are currently working with staff from Human Resources on the development of policies that will allow hiring candidates from three streams – those with pre-service education, those without pre-service education, and experienced fire fighters. In addition, the Professional Development and Training section is working towards a revised recruit training program that accounts for the education or experience that candidates may have received prior to joining TFS. As the number of college graduates increases to meet supply across the Province, the focus of Recruitment and Outreach should shift to allow staff to support candidates in obtaining student assistance so that no interested parties are disqualified from participation due to financial reasons.

The lull in retirements over the past several years is assumed to be a result of a number of adjustments to fire fighter salaries resulting from amalgamation and the development of a single collective agreement which has prompted existing staff to delay retirement to realize the best potential retirement pension. It is expected that by 2008-2009 that retirements will return to their traditional level and average between 100 and 125 per year. At that time it will be important to have an effective management strategy for the three streams of eligibility for hiring (those with pre-service fire education, those without pre-service fire education, and experienced fire fighters), while the Fire Service moves towards a requirement for all candidates to acquire this education prior to applying for a position in the Fire Service. This will require an amendment to existing Provincial legislation and/or municipal policies. In the meantime, it will be important for TFS to ensure that the eligibility list for qualified candidates includes a sufficient number of people to allow recruit classes to start once 40 vacancies are realized, as dictated by the current collective agreement.

11.2 Public Information

Public Information Officers (PIO's) within TFS are responsible for promoting Fire Services through the media, responding to emergencies where public information services or video/photography are required, and coordinating special events and ceremonies.

In the recent past, the Professional Development and Training section had also been working on a project to produce training videos for TFS staff use, however, this project has been unsuccessful to date. Video responsibilities are now the sole responsibility of the Public Information Officers within Staff Services, with staff moving into the video suite that has been developed at Station 112. This will be a pilot project for a two year period culminating in 2009, at which time the success should be evaluated and recommendations made for the future. Implementation of the pilot project will commence upon placement of suitable staff in the section, and all requests for services will be managed through the office of the Division Chief.

In the future, the Public Information Section should continue to develop good working relationships with local media outlets, to the mutual benefit of all parties. This includes devising a system to ensure all inquiries receive a response, and that Public Information Officer are always available through a single point of contact. This will be reinforced through the development of material to emphasize the single phone number for media enquiries, which will be answered on a 24/7 basis, and the development of a single email address that is accessible by all PIO's. Other initiatives of the section should include:

- Strengthen communications to internal staff as well as external clients;
- Co-ordinate public messages with Public Education section of Fire Prevention and Public Education to ensure a consistent message at all time;
- Strengthen use of corporate on-line Media Log;
- Develop media kits for all organized media events;
- Better co-ordination of assigned resources; and
- Post media reports to Chief, Deputies and Division Commanders.

11.3 Quartermaster

The Quartermaster section of TFS is responsible for all purchasing of consumable supplies, personal protective equipment and uniforms in conjunction with the Corporate divisions, Health and Safety Committees and other appropriate staff. Since standardizing equipment across the Fire Services following amalgamation, TFS has continued to ensure staff are provided with equipment that provides the highest level of protection. In the future, TFS management should strive to stay on the cutting edge of technology with regards to fire fighting gear to ensure the safety standards are preserved at the highest possible level for staff.

Throughout 2006, management and staff in the Quartermaster section have been involved in a Corporate Warehouse Rationalization strategy designed to implement a business management model that will provide an organization structure, governance, training and materials management support to improve the manner in which divisions manage the inventories stored in their warehouse operations. This project required a redesign of systems at the Rotherham quartermaster location to allow implementation of SAP as the inventory tracking system for the

City. The new system went live in this location on January 8, 2006. The project should allow staff in the section to focus on the warehousing and distribution of goods required in the Fire Services, with staff in the corporate Purchasing and Materials Management Division assuming responsibility for all purchasing contracts related to warehoused goods, including consolidating orders with other divisions to ensure the best value for the City based on economies of scale.

The implementation of the new system at Rotherham will allow for further future enhancements, including the development of on-line ordering from individual fire stations, and allowing electronic monitoring of activities across shifts to avoid duplicate orders from different shifts for the same station, etc. Other developments that will be implemented over the course of the plan, to provide a better service level to TFS staff, include the consolidation of distribution and management of personal firefighting equipment, including a process to update identification tags (known as Pit Passes) as staff attend the Rotherham facility for Quartermaster items or Mechanical reasons.

The final implementation of the Warehouse Rationalization Project in the Fire Services includes the conversion of the parts room at the Toryork mechanical facility to a proper warehouse facility with implementation of all inventory processes. This has required a staff person to assume responsibility for managing the distribution of this inventory. Having already implemented this project at Rotherham, management and staff from the Quartermaster section will provide a valuable resource to ensure implementation of this project at Toryork before the required deadline of May 2007.

11.4 Medical Office

The Medical Office of TFS includes a contract physician and support staff who undertake tasks including monitoring medical absences within TFS and tracking and reporting absenteeism. In an effort to assist staff, management should work on strengthening the current Return to Work policies, including the development of improved tracking systems to be able to update the progress of these employees on a continual basis. In addition, there is a need to develop existing and new modified positions within TFS to allow staff who are able to return to work at a reduced capacity. This includes the development of procedures to ensure regular follow-up with these staff to assist the Operations division with staffing logistics on an ongoing basis.

11.5 Facilities Maintenance

With a significant inventory of ageing building stock, there is a need to work towards an improved system for facilities maintenance within TFS. This includes methods for controlling and monitoring requests for repairs to ensure coordination and to control expenses.

Since amalgamation, Toronto Fire Services has faced the challenge of managing 90 fire facilities totalling 851,616 sq. ft., with a replacement value of $190M, while also addressing the long-range maintenance needs of existing infrastructure. Fire stations range from 2,900 sq. ft. to 16,500 sq. ft., with dates of construction as far back as 1879, to our current new station to be commissioned in June 2007. Thirteen stations are listed as designated historical sites.

Building assessments of our fire facilities and their audits developed a comprehensive, prioritized Capital Asset Management Plan. This asset management program is designed to maintain corporate buildings in a state of good repair through remedial maintenance, rehabilitation, renovation and equipment replacement with corporate policies, financial targets and fire needs.

This results in a "State of Good Repair" ten-year capital budget. The recommended program spending is for Fire Services mandatory maintenance that is related to health and safety. Essential repairs, if not corrected, may lead to physical damage deterioration of the property and, to a lesser degree, preventative maintenance. The recommended program spending, compared to a conservative industry benchmark of 2 %, is only 1%.

Toronto Fire Services was one of the first City agencies to sign a Service Level Agreement with Facilities and Real Estate to maintain our facilities. This Agreement outlines that Fire facilities should have:

(a) priority setting for building repairs;
(b) compliance with facility maintenance standards;
(c) timely repairs to facilities and buildings;
(d) effective monitoring and control of building maintenance;
(e) coordinated planning for building maintenance;
(f) clear accountabilities; and
(g) decreased risk and liability for the City.

This Agreement, with appropriate funding, attempts to ensure that the day-to-day operations of our facilities, general infrastructure activity and maintaining the facility in a clean, safe and orderly condition is at an acceptable level. Funding levels for state of good repair activities for existing fire facilities is included in the Fire Services annual Capital budget submission, and is identified in the Financial Implications chapter of this report.

11.6 Recommendations

1. The Fire Chief, in consultation with the Ontario Association of Fire Chiefs and the Office of the Fire Marshal (OFM), request a change in the Fire Protection and Prevention Act (FPPA) 1997 to amend qualifications for new fire fighters to require OFM certification and/or previous fire fighting experience.

2. Continue to request funding through the annual operating budget to allow the permanent addition of two Captains positions to the complement of the Recruitment and Outreach section so that staff secondments are no longer required.

3. Work with staff from Human Resources and to determine the appropriate size of the hiring list for Toronto Fire Services, and to develop streams of eligibility for both college graduates, non-college graduates, and experienced fire fighters.

4. Effectively manage the streams of eligibility over time, to ensure that all interested candidates are able to pursue a career in the Fire Services.

5. Identify the Public Information Section as the single point of contact for media within the Fire Services, and establish the one phone number, one email address for contact. Ensure consistency of messages by strengthening relationships between staff of the section and Public Education.

6. Continue the development of the Corporate Warehouse Rationalization project by developing on-line cataloguing and ordering systems for fire halls, and the development of electronic records management systems. Existing systems should be analyzed for their ability to be used for barcode/scanning technology for inventory/ordering as well as personal accountability on scene.

7. Consolidate distribution/management of personal firefighting equipment including Pit Passes, ID Tags, etc. thorough the Quartermaster section at the Rotherham facility.

8. Management should continue to ensure TFS remains on the cutting edge of technology with regards to firefighting gear and personnel safety equipment.

9. Work with Local 3888 and the Mechanical Division on the implementation of the Warehouse Rationalization Project in the parts rooms at the Toryork mechanical facility, including the potential move of one stockperson to assume responsibility for this facility prior to the May 2007 project deadline.

10. Expand the inventory of modified duty positions with TFS. Improve systems for tracking modified duty employees, including regular contact and follow-up in order to help Operations logistics with staffing.

11. TFS management should continue to work with Corporate Facilities staff to identify and request adequate annual operating and capital funding to maintain fire facilities in an adequate state of good repair.

Chapter 12: Succession Planning

Succession Planning is an important issue for the City of Toronto as a whole, and is no less important within the Fire Services, to ensure skilled and competent staff are in pace for the future.

The departure of a large number of employees will create an employee retention challenge for the organization: How can the City combat or manage a large-scale exit of staff that depletes a wealth of knowledge, skills and leadership experience from all parts of the organization? A corporate task force is working on a succession planning strategy to address that challenge. The strategy will attempt to maintain a sense of continuity in key positions and encourage staff development so employees can advance.

Succession Planning is a *deliberate* and *systematic* effort to ensure continued organization performance by projecting leadership requirements, identifying high potential candidates, developing and placing capable people into key roles in the organization.

The benefits of succession planning include:

- Assures leadership continuity;
- Provides opportunities for promotion from within;
- Enhances career development of staff;
- Reduce loss of valued talent;
- Builds a pool of qualified candidates for current & future positions;
- Provides an opportunity to build on strength and put strength in current positions; and
- Averts potential crises in the event of sudden departures.

A good succession plan will develop and retain talented staff, especially individuals with the potential to be promoted into management positions. It will increase the exposure of successful candidates to the management of the Division by participating as a member of the management team and completing on the job and self-directed training, along with work area supervision and assigned project work. They will benefit from individual training plans and on-the-job coaching.

In 2006, TFS began to work on the issue of Succession Planning, working towards the goal of identifying a plan that will work in the various divisions of the Service, as a single plan will not be appropriate for both Operations and Support divisions. A draft plan has been developed within the Operations section which has been presented to Platoon Chiefs for their review so that agreed upon changes can be made prior to implementation.

In addition, a committee made up of management representatives from both operating and support divisions has been struck to develop a plan that will include a method of selecting individuals for succession planning opportunities for management ranks, and to develop a method to allow successful applicants to participate in activities to develop skills for the future. This plan is expected to be completed in 2007 for implementation by January 2008.

12.1 Recommendations

1. The Deputy Fire Chief, Operations, in consultation with the Fire Chief and Division Commanders, should continue to develop a succession plan appropriate to the Operations Division. This plan should be developed on the basis on work completed in 2006 and reviewed in 2007, and should be ready for implementation by January 1, 2008.

2. The various Division Chiefs, in consultation with the Deputy Fire Chiefs and the Fire Chief, should develop a succession plan applicable to Support divisions. The succession plan should be completed for implementation by January 1, 2008.

3. Where possible, succession plans should be developed that allow staff to cross artificial barriers that have been created in the Fire Services, in an effort to break down existing silos.

4. Management representatives should continue to develop and implement a plan for succession management for excluded staff, to provide opportunities across all sections of TFS in preparation for senior management positions.

5. The Fire Chief should include any costs associated with succession planning in future operating budget submissions for the Fire Services.

Chapter 13: Residential Sprinklers

13.1 Background

Toronto Fire Services employs a philosophy of strict code enforcement, strong public education programs, and proactive fire prevention, including installation of equipment such as automatic sprinklers and early detection systems to protect Toronto residents. The division supports fire sprinklers in residential buildings as a means to prevent deaths, injuries, and property loss by suppressing fires before they grow to seriously endanger life and property.

Toronto Fire Services is committed to achieving a high level of public safety. Residential fire sprinklers provide an important opportunity to improve the safety of Toronto's residents. Advocating for their use also provides an opportunity for the City to show leadership on the issue of fire safety.

13.2 Fire Losses in Toronto

While Toronto Fire Services has been diligent in its pursuit of fire protection, Toronto continues to suffer preventable deaths and injuries from fire. Deadly fires usually occur late at night in people's homes. The large majority of fire deaths and injuries in Toronto are due to residential fires, rather than fires in commercial or industrial properties.

As indicated previously in Chapter 1 - Table 1.2, from 1994 to 2005 there were 273 fire fatalities in Toronto, with 237 deaths and 2,825 injuries occurring in residential fires during that time. Residential fires accounted for 87 percent of all fire-related deaths and approximately 75 percent of fire-related injuries. During the same period, residential fires also accounted for significant property losses valued at over $314 million (not adjusted for inflation).

13.3 Addressing Fire Risk

Automatic residential fire sprinklers are a logical response to fire risk. Because the large majority of fire deaths and injuries occur in residential fires, fire protection measures which target residential properties have potential to prevent injuries and save lives.

Residential sprinklers suppress fires to complement the early warning capabilities of smoke alarms and other required fire suppression and containment measures. When a fire starts, the heat sensitive element in the sprinkler detects heat and releases water in a fine mist. Each sprinkler head responds independently. The sprinkler suppresses or extinguishes fire, preventing its spread and preventing the production and spread of lethal smoke.

13.4 Flashover

The impact of fire sprinklers is critical within the context of how fires grow. "Flashover" is the point of transition in the growth of a fire from a small flame to a large fire which engulfs all objects in the room of origin. Flashover is the stage in which all exposed surfaces on materials within the room – the furniture, wall coverings, etc – reach ignition temperatures and all items in the room begin to burn freely. The room containing the fire is consumed, any person in the room will die, and toxic smoke will spread rapidly to other areas of the house, further endangering occupants and hindering their escape. Flashovers in home fires lead to many of the injuries and deaths in residences. Over the years, increased use of combustible furnishings in homes has reduced the period of time between the start of a free-burning fire and flashover – between 2.2 and 4.3 minutes. This means that flashover can easily occur in a home fire prior to the arrival of Fire Services. Residential sprinklers suppress the fire before flashover occurs.

Fatal residential fires most often occur between the hours of midnight and 6:00 am, when victims are asleep. Victims are also disproportionately children and the elderly, who are vulnerable because they are physically less capable of escaping. When a fire occurs, occupants of a house may not be able to respond to smoke alarms and escape in the few minutes before flashover occurs. When provided, fire sprinklers add a layer of protection to prevent the growth of fire to deadly proportions.

13.5 Other North American Jurisdictions

Many other jurisdictions in North America have adopted requirements for automatic sprinklers in residential buildings. With the exception of Ontario, sprinklers are required in high rise residential buildings in the rest of Canada. In addition to provincial requirements, Vancouver has adopted by-laws requiring residential sprinklers in all new residential buildings (including low density housing), under the City's statutory authority in British Columbia.

Over 220 jurisdictions in North America have adopted requirements for automatic fire sprinklers in residential buildings. The large majority of these jurisdictions are municipalities and other local governments in the United States, where building regulations tend to be under the jurisdiction of local rather than state government. Prominent experience with requirements has been gained in Scottsdale, Arizona and Prince George's County, Maryland. New York and Chicago have recently implemented requirements for automatic fire sprinklers in high-rise residential buildings.

There have been reviews of the effectiveness of residential sprinklers in two large North American jurisdictions, one in Canada and the other in the United States. Scottsdale, Arizona has had a sprinkler ordinance in place since 1986, and Vancouver, British Columbia has had a by-law since 1990. Both require all new residential development to be sprinklered. Since the regulations in each jurisdiction came into effect, there have been no fire deaths in sprinklered homes, and over 90 percent of all fires in these homes were contained by the operation of a single sprinkler. The cost of fire damage or loss has also been significantly reduced. In Scottsdale, the damage in the average sprinklered incident was $2,166.00 compared with $45,019.00 in homes without sprinklers. The Vancouver experience has been similar. The

average fire loss in a home with sprinklers was $1,065.00 compared with $13,937.00 in a home without sprinklers.

13.6 Promotion of Residential Fire Sprinklers

City Council in June 2005 and Mayor Miller in a letter to the Honourable Dalton McGuinty, May 2006 supported the Fire Chief's efforts to advocate for residential fire sprinklers in all residential homes in Toronto and throughout Ontario. Council authorized:

(1) the Mayor and the City Manager to formally request the Ministry of Municipal Affairs and Housing to review the Ontario Building Code with respect to requirements for automatic fire sprinkler systems in residential buildings and amend the Code, based on the outcome of study and consultation

(2) the Fire Chief and Chief Building Official to work with the Ministry of Municipal Affairs and Housing and the Office of the Fire Marshal to conduct additional research into the benefits of residential sprinklers;

(3) the Fire Chief to report on further efforts the City may undertake to advocate for the installation of automatic fire sprinklers in residential buildings; and

(4) Council request the Fire Chief to promote community awareness of the benefits of automatic fire sprinkler systems in homes by providing accurate information to the public about the life-saving benefits of home fire sprinklers.

13.7 Recommendations

1. Continue to advocate for change to the Ontario Building Code to incorporate requirements for automatic fire sprinkler systems in residential buildings.

2. Continue to provide education to the public on the life saving benefits of residential sprinklers as an addition to new home construction

Chapter 14: The Science of Public Safety and Firefighting

Canadians today have an unprecedented awareness of public safety concerns, and equally unprecedented expectations for seeing those concerns addressed. Joint research ventures between organizations and academic and applied research centres can strengthen both organizations from the research and practical application perspectives, by facilitating the exploration of scientifically validated and cost-effective approaches. The different perspectives of research partners can prove mutually beneficial.

14.1 Background

In the past few years, Toronto Fire has participated in applied research projects that have yielded significant benefits to the firefighting community and produced a "social good". One particular example was research undertaken by the Toronto laboratory of Defence Research and Development Canada (DRDC), which specializes in human factors. The research studied heat stress in firefighters working strenuously while wearing personal protective equipment. The outcome of this research was the identification of ideal work cycles that would minimize heat stress and associated health hazards as well as recommending a rapid cooling method to enable firefighters to continue working after a short rehabilitation period. Funding for this project was provided primarily by the Ontario Workplace Safety and Insurance Board. Toronto Fire's portion of the project costs consisted of "in-kind" contribution and encouraging and facilitating volunteer participation by interested TFS firefighters. As a result of this research, a quick reference chart has been developed to be used by incident commanders and distributed free of charge to the Canadian firefighting community.

A more recent example has been an extension of the above research, this time in relation to safe practices and optimal work cycles when operating with Self-Contained Breathing Apparatus (SCBA). The intended outcomes of this air management research are to establish work cycle lengths under various activity levels that allow for a safe margin of egress before the individual firefighter exhausts his or her air supply. In this case, the research is also incorporating police and paramedic tasks that are conducted while these first responders are using SCBA. Examples of this include CBRN and clandestine drug lab response scenarios. A broad partnership involving Toronto Fire, the Canadian Police Research Centre, multiple police agencies and the National Research Council is responsible for this project. The research is being conducted by the University of Waterloo, with participation by DRDC – Toronto. Funding for this on-going project is provided primarily by the federal governments of Canada and the US and the Canadian Police Research Centre. Once again, Toronto Fire's portion of the project costs consists of "in-kind" contribution such as access to testing facilities and encouraging and facilitating participation by interested TFS firefighters.

14.2 Research Partnerships

The Canadian Police Research Centre (CPRC) is a partnership among the Canadian Association of Chiefs of Police, the Royal Canadian Mounted Police, and the National Research Council Canada. Recently, it has invited the Canadian Association of Fire Chiefs to join this partnership. As a result of the last federal budget, it has just been placed under the auspices of the federal Department of Public Safety and received significant enhanced funding as well as a mandate to expand its activities to incorporate the entire first responder community. It is governed by an independent Advisory Board made up of representatives from police and other related organizations from across Canada. The first fire representative to be appointed to the Advisory Board is a Toronto Fire member.

By promoting innovation and cooperation between the first responder community, governments, industry, universities, and other research organizations, the CPRC strives to ensure that the best possible resources are made available in a cost-efficient and timely manner.

Through its research agenda, the CPRC provides reliable, objective information on a variety of topics, that contributes to sound, evidence-based decision-making. It also provides a unique service by developing and evaluating technologies and technical standards. Public safety organizations benefit from having an organization that can identify common technology needs, develop standards, and evaluate technology in an operational environment.

14.3 Research Areas

Research projects currently under consideration focus primarily in three areas:

1. Firefighter safety – technology and protective equipment
2. Interoperability – voice and data communications – consequence management
3. Human factors – first responder health and capabilities

The scope and nature of the projects outlined above have consequences towards public safety on a broad scale. The research contemplated in these areas has universal application and must be scientifically validated to ensure accuracy and relevance.

Projects in other areas that are of interest specifically to Toronto Fire Services will also benefit from academic and research relationships. These can be established on an "ad-hoc, as-needed" basis such as occurred last year when the University of Toronto's Rotman School of Management was approached and conducted independent research and analysis of District Chief response times, at no cost to the City.

Toronto Fire Services is the largest fire service in Canada and one of the leading fire and rescue organizations in the world. It has a tremendous capacity to supply expert knowledge and specialized facilities for the conduct of broadly applicable research. As such, it has a responsibility to explore new areas of inquiry and to collaborate across disciplinary lines for the benefit of first responders everywhere. However, it cannot attempt to replicate what already exists elsewhere and must protect the financial interests of the City. It can do this by limiting

contributions to those that are "in-kind" or of a nominal cost, by providing subject matter expertise, and by incubating research and promoting partnerships. Finally, wherever possible and in collaboration with the Association, it can encourage and facilitate the participation of its greatest asset, the individual firefighters and officers of the service.

14.4 Recommendations

1. Toronto Fire continue to explore, promote and solicit opportunities where it can contribute to relevant and useful research, and establish partnerships with academic, research or other organizations to do so. In doing so, it must consider the financial interests of the City by limiting its contribution to "in-kind" support or minimal amounts of funds, as well as any intellectual property that may derive from the research.

2. Where opportunities for co-development with commercial partners are available, that a clear policy be developed to allow participation, while at the same ensuring maximum benefit to the City.

3. To maximize the effectiveness of the partnerships, specific research areas should be limited to a) firefighter safety, b) interoperability, c) human factors, and d) fire prevention. However, nothing precludes establishing research opportunities with local partners such as the City's colleges and universities in specific areas relating to analysis of operational effectiveness and resource deployment.

Chapter 15: Financial Implications

This report has contained a number of recommendations, arguments and areas of study that support requests for funding in both the Fire Services annual Capital and Operating budget submissions. All of these items have been identified in previous requests, however, research and study undertaken as part of this report has identified the need for alternate time lines for some requests, particularly in the area of new station development.

The following tables contain current and future funding requests associated with this plan.

Table 15.1: Toronto Fire Services Master Fire Plan
Financial Implications - Capital

Project	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total 5 Yr Program	Total 10 Yr Program
New Station Development												
Station D (New Station 221) (Eglinton Ave & Midland Ave)	3,298.68	1,744.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	5,043.23	5,043.23
Station G (New Station 124) - Sunnybrook	0.00	4,352.04	1,635.48	0.00	0.00	0.00	0.00	0.00	0.00	0.0	5,987.52	5,987.52
Station B (New Station 144) (Keele St between Sheppard/Wilson)	0.00	0.00	3,797.64	1,912.68	0.00	0.00	0.00	0.00	0.00	0.0	5,710.32	5,710.32
Station A (New Station 414) (Hwy 27 & Rexdale Blvd)	0.00	0.00	0.00	2,042.04	1,811.04	0.00	0.00	0.00	0.00	0.0	3,853.08	3,853.08
Chaplin Fire and Ambulance Station (Station 135)	0.00	0.00	0.00	0.00	2,171.40	2,904.44	0.00	0.00	0.00	0.0	2,171.40	5,075.84
Co-location Stations 323 & 324 (Pape/Jones) - Recommended for deletion	0.0	0.0	0.0	0.0	0.0	4,581.0	1,883.1	0.0	0.0	0.0	0.00	6,464.11
Co-location 424 & 425 (Bloor West) - Recommended for deletion	0.0	0.0	0.0	0.0	0.0	0.0	6,102.1	1,922.8	0.0	0.0	0.00	8,024.94
Station 141 - Relocation for York University/York Region Subway expansion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,670.8	2,420.9	0.0	0.00	7,091.70
New Station - (King Street between Dufferin & Bathurst)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,758.6	2,679.6	0.00	7,438.20
Existing Station Maintenance												
Asset Management	1,916.00	2,650.00	3,650.00	2,989.00	3,275.00	3,367.00	3,462.00	3,560.00	3,652.00		14,480.00	28,521.00
Support Divisions												0.00
Toryork Bays Extension	1,585.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		2,585.00	2,585.00
Training Facilities Renovations	294.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		294.00	294.00
Replacement of HUSAR Equipment	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00		2,000.00	3,600.00
Training Simulators (TFA)	0.00	0.00	0.00	520.00	520.00	0.00	0.00	0.00	0.00		1,040.00	1,040.00
Water/Ice Rescue Simulator	0.00	0.00	0.00	0.00	1,101.00	0.00	0.00	0.00	0.00		1,101.00	1,101.00
Harbourfront-Public Education/Training Centre	0.00	0.00	0.00	0.00	0.00	0.00	2,356.00	1,871.00	800.00		0.00	5,027.00
Total	**7,493.68**	**10,146.59**	**9,483.12**	**7,863.72**	**9,278.44**	**11,252.44**	**14,203.21**	**12,424.66**	**12,031.48**	**2,679.60**	**44,265.55**	**96,856.94**

*Excludes the proposed Portlands Fire Station on Commissioner's Street to support Waterfront development scheduled for 2017

Table 15.2: Toronto Fire Services Master Fire Plan
Staff Requests to Support Recommendations

Request	# of Positions	Details	Rank
CAD - Radio Technician	1	To provide ongoing maintenance to 150 mobile workstations.	FF
Community Outreach Staff	2	To respond the increased demands for Fire staff to provide leadership and education. The failure to provide permanently for this need by using secondments is the subject of a number of grievances from Local 3888.	FF
Communications Quality Assurance Captain	1	To review call statistics and communication centre performance and develop management reports and strategies for improvement. Ensure that Fire Emergency Communications is responsive and performs well in all conditions.	Captain
Fire Fleet Maintenance - Storeroom Control	1	To ensure appropriate controls over inventory in the fleet maintenance stockroom at Toryork, as identified in the 2006 Auditor General's report.	FF
Fire Fleet Maintenance - Mechanics	5	To manage increased demand of maintenance required to compensate for major advancements in the componentry and technology used in modern fire apparatus and to offset substantial Technician overtime costs and the outsourcing of repairs in the TFS fleet.	FF
Fire Prevention - Fire Cause Determination	6	To develop a team of 5 inspectors and 1 captain to undertake fire cause determination as a full time activity, in support of the Council Priority to "Strengthen our at-risk neighbourhoods". Fire investigations assist in the identification of fire risks and support the development of fire safety legislation and fire prevention and public education programs.	1 Captain 5 FF
Total	**16**		

* Cost based on full year at 2006 salary rates incuding benefits calculated at 24.5%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TORONTO FIRE