FINAL COPY

Fire Master Plan

FOR THE

Clearview Fire & Emergency Services

BY

Fire Protection Survey Services

FPSS

July 2014

Prepared By: **Michael G. McKenna,** F.P.T.
Senior Associate
Senior Fire Protection Specialist

Peter J. Rose, C.E.T., F.P.T.
Senior Partner
Senior Fire Protection Specialist
Senior Loss Control Specialist

Fire Protection Survey Services ™

P.O. Box 170

Longford Mills, Ontario, Canada, L0K 1L0
Telephone: (705) 689-6183 Fax: (208) 474-3520
Cell Phone: (705) 323-6248 E-mail: firepss@bell.net
Website: www.fpss.ca

Table of Contents

INTRODUCTION

Fire Protection Survey Services has been hired to undertake a Fire Master Fire Plan study for the Township of Clearview Fire & Emergency Services. This study encompasses the operations, staffing, fire stations, fire apparatus, training, communications, fire prevention and public education, and maintenance programs.

During our study we interviewed the career and part-time personnel, visited all five fire stations, looked at all apparatus, and visited the contract maintenance facilities. In addition, we drove virtually all roads in the Township to view risks and view conditions.

In general, we have found the Fire & Emergency Services to be well managed and equipped.

GENERAL REMARKS

The Township of Clearview was amalgamated in 1994. It consists of four (4) previous municipalities. These are the Town of Stayner, Village of Creemore, Sunnidale Township and Nottawasaga Township.

The present population of Clearview is approximately 14,000.

The land area is approximately 560 square kilometres.

The four (4) communities of Stayner, Creemore, New Lowell and Nottawa all have land set aside for development within each community.

The land use is primarily agricultural in the rural areas with a mix of institutional, commercial, industrial and multi-family residential in the urban and suburban areas.

CORE SERVICES

As per By-Law #14-22 the Fire & Emergency Services was found to be able to provide:

- Fire Suppression, for structural, vehicle and wild land type fires.
- Response to Motor Vehicle Accidents, including the delivery of first aid, and vehicle extrication.
- Water Rescue.
- Ice Water Rescue.

In Addition, in conjunction with outside agencies, it can provide:

- Structural Collapse Rescue.
- Rope Rescue
- Trench Rescue.
- Hazardous Material Response.
- Confined Space Rescue.
- Natural Gas Leaks.
- Carbon Monoxide Incidents.
- Response to High Angle and Low Angle Rescues.

ADMINISTRATION

The Fire Department administration consists of a Fire Chief and a Deputy Fire Chief. In addition, there is an Administrative Assistant.

The Fire & Emergency Services (hereafter referred to as the Fire Department) is regulated under township By-law # 14-22, a By-law to establish the Township of Clearview Fire Department.

The Fire Department was found to be well managed and generally very well organized.

STAFFING

In addition to the career Fire Chief and Deputy Fire Chief, the Fire Department consists of:

A career Administrative Assistant,

A career Fire Prevention Officer/ By-Law Enforcement Officer,

A part-time Training Officer,

In addition, the following part-time personnel are located at the five Fire Stations (at authorized strength):

Fire Station #1 (Stayner) – 5 captains, 1 lieutenant, and 19 firefighters.

Fire Station #3 (New Lowell) – 3 captains, 2 lieutenants, and 15 firefighters.

Fire Station #4 (Creemore) – 2 captains, 2 lieutenants, and 15 firefighters.

Fire Station #5 (Singhampton) – 2 captains, 2 lieutenants, and 15 firefighters.

Fire Station #6 (Nottawa) – 2 captains, 2 lieutenants, and 15 firefighters.

The number of part-time personnel appears to be adequate, however, attention should be regularly given as to the number actually able to respond, especially during the day-time hours.

The number of officers is considered to be adequate. However, consideration should be given to reducing the number of captains, through attrition. Each fire station should eventually have only one, who would be in charge of the station. Each station should also have a number of lieutenants, under the captain, to command vehicles, and groups of firefighters. Fire Station #1 should have four (4), as it operates three (3) apparatus, and the other fire stations three (3) each.

During the meeting with the Department's part-time personnel, comments were expressed to the need for a retention program. This could include a benefit program and minor pension plan.

Currently the lieutenants wear black helmets. The use of this colour is generally not endorsed for safety reasons, as it has a very limited visibility, especially in smoky situations, or at night. Fire departments with the rank of lieutenant have commonly used red helmets, with a front plate designating the rank, or using applied lettering on the crown sides of the helmet. Sometimes partially colouring the helmet partly in another colour, however, this method could make its warranty void. Another solution very frequently used by fire departments is to use orange helmets for lieutenants. The fire department currently uses a Cairns type 1044 helmet. At this time it is only available in white, red, yellow and black. However, a very similar type 1010 helmet is available in orange, and a variety of other colours.

.

TRAINING

Training is currently (since October 2013) conducted under a part-time Training Officer.

A good recruit training program is offered to prepare potential part-time firefighters for their positions. This consists of 21 sessions of eight hours each.

The regular sessions provide both continuing updating training in operating practices, as well as sessions on new equipment and techniques. Training is based on the requirements of the National Fire Protection Association, whose standards have been adopted in Ontario. Sessions are based on lesson plans and a training sheet. The Fire Department has a smoke-house, where simulated structural fire situations can be carried out.

Regular training is well set-up so that a firefighter missing a session at his/her own fire station may attend the same training at another station on another day. Some classroom session are held at the large training room at Fire Station #1, by the Training Officer. This is especially carried out on new techniques, subjects, and new equipment. Each station attends these sessions on their regular training night, and is covered by apparatus and personnel from another fire station during that time.

We recommend that the Training Officer be appointed to the rank of captain, to allow him better supervisory capability when dealing with suppression officers during training. He should also be used as an officer, and resource person at major incidents. .

As the preparation and training takes considerable time, and is essential for the successful completion of emergency operations, we also recommend that this position be made a career position as soon as possible.

FIRE OPERATIONS AND RESPONSE

Currently minor responses such as medical calls and traffic accidents are handled by a single station.

Structural responses are responded to by two or more stations (dispatched simultaneously) depending on the incident.

The Fire Department uses a computerized system that allows senior officers, as well as responding personnel at a fire station, to view the number of available responding personnel. This allows an officer to request additional fire stations to respond, if it appears that there are insufficient personnel available to handle the emergency.

The Department's part-time personnel were very concerned that the Township would consider reducing the Medical response from its present "Level A". As there is a need for this level, with the limited availability of the ambulance service to promptly respond we strongly recommend that this level be maintained.

In order to provide water to supress fire in the rural areas, a program should be set-up to provide additional dry hydrants.

FIRE PREVENTION AND PUBLIC EDUCATION

These programs are carried out by a Fire Prevention Officer, who also has By-Law enforcement duties as part of the position.

Presently pro-active fire prevention activities are to be limited to locations for care of the elderly or incapacitated in some way. This is a very good place to start, as these people are the most vulnerable in any emergency situation.

In addition, a limited program, as time allows is undertaken in other public education activities, such as schools, citizen groups, etc.

Currently all other inspections are carried out on a request or complaint basis only.

To have a pro-active program, there must be a regular inspection program carried out for all non-single residential properties. We strongly recommend that a regular inspection program be set-up. This would include at least annual inspections of all industrial, and commercial locations, as well as churches, schools and places of public assembly. Nursing and retirement homes should be inspected twice annually.

In this regard, we recommend that the Fire Prevention Officer's position be changed so that it no longer includes any By-Law Enforcement activities. This should occur within a time-frame of two (2) years.

COMMUNICATIONS

The Township of Clearview Fire Department is dispatched by the communication centre at the Barrie Fire Department. This is a modern and up-to-date facility staffed by trained career personnel.

Personnel are alerted by a radio pager system. All apparatus are radio equipped, and there are a sufficient number of portable radios available.

The Fire Department has initiated a pro-active upgrade of the radios, in order to meet their future requirements.

FIRE STATIONS

(Note that the small and inadequate one-bay garage structure at Sunnidale Corners, formerly used as Fire Station #2 was closed, as its response area can be covered from the new Fire Station #1)

The use of a fire station as an evacuation centre for the public is generally viewed as a very bad idea. In an emergency, emergency personnel and apparatus would still have to operate from these locations. A fire station is not equipped to provide for a number of people in excess of its designed complement. In addition, it does not have the capability to provide adequate washroom facilities, or food preparation for such a number. Housing a large number of people in an apparatus bay area, which would also have the emergency apparatus, would not provide them with the comfort they would require. The coming and going of emergency personnel and apparatus would also disturb the evacuees, In addition, the lower temperature of the apparatus bays in the colder weather would provide discomfort. Parking for evacuee vehicles would also be a major problem.

We strongly recommend that none of the fire stations continue to be designated an emergency evacuation centre, and rather the use be made of community centres where far better facilities are available to accommodate them.

One item that should be installed in all of the stations would be a facility to dry wet bunker gear. Wet bunker gear in the cold months could cause firefighters to be unable to respond to an emergency.

Another item lacking in all but Fire Station #1, is an auxiliary generator of sufficient capacity. We experienced a power outage while at a meeting at fire station #6, and the back-up generator capacity was clearly inadequate.

During our meetings with the part-time personnel, there was a general comment that all fire stations had inefficient heating systems in the apparatus bay area. The Township should look into the situation, and provide a corrective solution.

Fire Station #1 (6993 Highway #26, Stayner)

This station is of modern design and construction.

It contains the fire department's administrative offices. They consist of a lobby area occupied by the administrative assistant, and offices for the fire chief, deputy fire chief, fire prevention officer and training officer.

The station also contains a large training room/ classroom, which is used to train personnel from all five fire stations on various subjects.

The large apparatus area has three, double-deep, bays of large size, with large front and rear apparatus doors.

At the time of our visit, we noticed that the catch basin in front of the station needs servicing.

Fire Station #3 (5212 County Road #9, New Lowell)

This structure is the oldest station in the fire department. The bay size is too small to adequately house the apparatus, and allow work to be carried-out on them and the equipment they carry. The usable bay area is only 10 meters (33') long and 9.1 meters (30') wide. In addition, the bay doors are only 3.6 meters (12') tall by 3.6 meters (12') wide, rather than the current recognized 4.2 meters (14') by 4.2 meters (14'). This makes it difficult to for modern apparatus to enter or leave. This area also contains a hose tower, which is also used for storage, and a small room used to contain the staff's bunker gear.

The classroom space is of adequate size; however, it is located in what was a portable classroom. In addition, there is a small office.

The facility lacks a proper kitchen, and the station has only a small 2-piece washroom, containing a toilet and a sink, and lacks any type of shower. This makes it very difficult for the personnel to clean-up after a response, before returning home or to work.

Also note that when the school across the street is getting ready to close for the day, several school buses park adjacent to the station, completely blocking the firefighters' parking area, and limiting the egress of the vehicles.

We recommend that this structure be replaced with a modern one, of non-combustible construction, 2-bays wide by two deep. This will accommodate any required apparatus for the foreseeable future. The bay area should be a minimum of 6.1 meters (20') wide per bay by 24.4 meters (80') deep. It should have bay doors, 4.2 meters (14') wide by 4.2 meters (14') tall, on both the front and rear. There should be adequate space for the staff's bunker gear, and storage space for seasonal equipment (such as grass and bush firefighting equipment in the winter) and other items. It should have a classroom capable of holding chairs and tables for at least twenty (20) personnel, as well as lecture space at the front. The facility should have a kitchen, where meals can be prepared in the event of

a long response. An office should be provided where the officers can complete required paperwork. There should also be a small room for communications. Washroom facilities should be provided, with multiple sinks, and toilets, and at least two (2) showers. Locker facilities may also be desirable.

Fire Station #4 (7655 County Road #9, Creemore)

This is a fairly new structure. However, it lacks several essential requirements. The bays and bay doors are adequate in size. It contains a small office and a utility room, as well as a small kitchenette.

It only has two small washrooms, each with a single toilet, sink and shower. These small facilities make it difficult for personnel to clean-up after a response, as only two may use them at a time. In view of the size of the building, consideration should be given to constructing an additional larger facility, with at least three sinks, and two showers, as well as a toilet and a urinal.

The building lacks any type of meeting room/classroom where training sessions can be conducted. At present, an area at the rear of the bays is utilized. However, when the heating units are on, their noise makes it extremely difficult to hear and be heard. In addition, the bay area is too cool in the winter months to comfortably attend a lecture or meeting. We strongly recommend that a classroom be constructed at the rear of the bay area. There is easily sufficient space for one of 5.5 meters (18') front to back and 7.6 meters (25') wide, to the right of the rear door. This could also contain a enlarged kitchen area.

The station has a very inadequate vehicle exhaust system. Rather than being directly connected to the apparatus, as in the other fire stations, it exhausts the air from the station itself. In addition to leaving the building very cold (in fact it could be below freezing during the winter months) during cooler and cold weather months, it is extremely noisy for any personnel in the building. We recommend that it be replaced with a unit similar to those in the other fire stations.

Fire Station #5 (70403 County Road #124, Singhampton)

This is a fairly new structure. However, it lacks several essential requirements. The bays and bay doors are adequate in size. It contains a small office/ lounge, a utility room, as well as a small kitchenette.

It only has two small washrooms, each with a single toilet, sink and shower. These small facilities make it difficult for personnel to clean-up after a response, as only two may use them at a time. In view of the size of the building, consideration should be given to constructing an additional larger facility, with at least three sinks, and two showers, as well as a toilet and a urinal.

The building lacks a proper meeting room/classroom where training sessions can be conducted. At present, an area at the rear of the bays is utilized. However, when the heating units are on, their noise makes it extremely difficult to hear and be heard. In addition, the bay area is too cool in the winter months to comfortably attend a lecture or meeting. The large cistern in the left rear area of the bays makes it impossible to provide a classroom. However, there is a room, presently used as an office and lounge (with second hand sofas and chairs), which could be used for some purposes. While it is too small for both tables and chairs, it would be adequate for just chairs, when listening to a lecture, or viewing a training DVD or videos. We recommend that the present lounge furniture be removed from the fire station. This would leave room for chairs to be placed here when required.

Fire Station #6 (95 Batteaux Road, Nottawa)

Like Fire Stations #4 and #5, this is a fairly new structure. It contains a small office and a utility room, as well as a small kitchenette.

It only has two small washrooms, each with a single toilet, sink and shower. These small facilities make it difficult for personnel to clean-up after a response, as only two may use them at a time. In view of the size of the building, consideration should be given to constructing an additional larger facility, with at least three sinks, and two showers, as well as a toilet and a urinal.

The building lacks any type of meeting room/classroom where training sessions can be conducted. At present, an area at the rear of the bays is utilized. However, when the heating units are on, their noise makes it extremely difficult to hear and be heard. In addition, the bay area is too cool in the winter months to comfortably attend a lecture or meeting. We strongly recommend that a classroom be constructed at the right rear of the bay area. This area presently has a side bay door. However, there are only to be two apparatus located at this station in the future, and this area could be converted into a classroom. This room could also contain an enlarged kitchen area.

On the exterior, it was noticed that the downspout points directly at the ground, which could lead to foundation damage. A pipe should be attached to direct the water away from the building.

APPARATUS AND EQUIPMENT

As a general comment, the apparatus are all modern, with the exception of Pumper #42 and Rescue Truck #14. Both of these vehicles are scheduled to be replaced in the next two years. The apparatus are generally well equipped. We recommend that all pumpers carry at least 300 metres of hi-volume water supply hose. In addition, as there is no aerial ladder in the fire department, we recommend that the pumpers carry (35') extension ladders, instead of (24'), to enable the firefighters to conveniently reach the roofs of two story buildings.

The provision of crew cab units provides personnel to ride apparatus to emergencies, rather than respond in their own vehicles. However, the use of personal vehicles will never be entirely eliminated in a part-time fire department. Personnel arriving after the apparatus has departed will still have had to respond in their vehicles. Some departments have tried to avoid this with the purchase of crew cab pick-ups etc.; however, they have found that the expense was not really worth it, and regularly personnel still had to respond in their own vehicles. Other departments have adopted, successfully, a policy of "car-pooling" to reduce the actual number of vehicles responding.

Fire Station #1 (Stayner)

Pumper #12

2010 Pierce custom Contender 4-door crew cab, and chassis, with a Pierce Fire trucks body. 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 6,800 litre (1,500 Imp. gal.) water tank. Built-in foam system with a 136 litre (30 Imp. gal.) tank.

Squad (Pumper-Rescue) #15

2005 Freightliner 4-door crew cab, and chassis, with a American LaFrance Fire Trucks body. Waterous 5,000 litre /min. (1,050 Imp.g.p.m.) pump.3,900 litre (850 Imp. gal.) water tank. Built-in foam system with a 136 liter (30 Imp. gal.) tank.

Rescue #14

2001 International 2-door cab and a Oro Design body. This vehicle carries The heavier duty rescue equipment, as well as equipment to handle spills. This vehicle is very rusty, and in poor shape body wise. It is scheduled for replacement in 2016.

Tracked Bush Vehicle, capable of negotiating almost any terrain, and capable of carrying equipment, as well as a two man crew. It has its own trailer.

Fire Station #3 (New Lowell)

Pumper #32

2009 Kenworth 4-door crew cab, and chassis, with a Pierce Fire Trucks body. Waterous 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 5,455 litre (1,200 Imp. gal.) water tank. Built-in foam system with a 136 litre (30 Imp. gal.) tank.

Tanker #33

2014 Freightliner 4-door crew cab and chassis, with a Midwest Fire Trucks body. 6,800 litre (1,500 Imp. gal.) water tank. 25 cm (10") square rear and side dump valves. 6,800 litre (1,500 Imp. gal.) port-a-tank.

Fire Station #4 (Creemore)

Pumper #42

1989 Ford 2-door cab, and chassis, with a Hub Fire trucks body, equipped with a 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 4,500 litre (1,000 Imp. gal.) water tank. This vehicle is overage, and not suited to its primary role as the tanker unit for this fire station. It is scheduled to be replaced in 2015 with a modern tanker truck, with a 4-door crew cab.

Squad (Pumper-Rescue) #45

2008 Kenworth 4-door crew cab, and chassis, with a Pierce Fire Trucks body. Waterous 5,000 litre /min. (1,050 Imp.g.p.m.) pump.3,900 litre (850 Imp. gal.) water tank. Built-in foam system with a 136 litre (30 Imp. gal.) tank.

Fire Station #5 (Singhampton)

Pumper #52

2013 Pierce Responder 4-door crew cab, and chassis, with a Pierce Fire Trucks body. Waterous 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 3,900 (850 Imp. gal.) water tank.

Tanker #53

2014 Freightliner 4-door crew cab and chassis, with a Midwest Fire Trucks body. 11,400 litre (2,500 Imp. gal.) water tank. 25 cm (10") square rear and side dump valves. 11,400 litre (2,500 Imp. gal.) port-a-tank.

Fire Station #6 (Nottawa)

Pumper #62

1999 GMC C8500 2-door cab, and chassis, with a Superior Fire Trucks body. Hale 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 4,500 (1,000 Imp. gal.) water tank. Built-in foam system with a 136 litre (30 Imp. gal.) tank.
The port-a-tank should be removed from the hose bed, and additional 65mm, and hi-volume hose should be carried.

Tanker #63

2013 Pierce custom Contender 4-door crew cab and chassis, with a Pierce Fire Trucks body. Waterous 5,000 litre/min. pimp. 9,800 litre (2,150 Imp. gal.) water tank. 25 cm (10") square rear dump valve. 9,100 litre (2,000 Imp. gal.) port-a-tank.

Pumper #72 (Spare unit)

1999 GMC C8500 2-door cab, and chassis, with a Superior Fire Trucks body. Hale 5,000 litre /min. (1,050 Imp.g.p.m.) pump. 4,500 (1,000 Imp. gal.) water tank. This vehicle is normally kept at Fire Station #4 (Creemore) when not in use at another station to replace a vehicle temporarily out of service.

In addition, there are the required vehicles for the Fire Chief, Deputy Fire Chief and Fire Prevention Officer.

It is strongly recommended that a complete inventory of Apparatus, Equipment and Fire Stations be established and kept for use by the Fire Department to keep track for internal and insurance purposes.

MAINTENANCE PROGRAM

The apparatus are generally very well maintained. A good mechanical repair and service program is provided by Steer Enterprises, in Glen Huron. They have a modern, well equipped multiple bay facility, with a well-trained staff. In addition, they have three (3) large, well equipped service trucks, and a hoist truck.

Fire pump servicing and annual testing is provided by Darch Fire trucks under contract. This is a well respected firm in the fire industry.

THIS PAGE IS INTENTIONALLY LEFT BLANK

(USED AS A PROTECTION PAGE FOR THIS REPORT)