



LEVEL 2 DEFENSIVE Standard Equipment Guide



This guidance document was developed to assist NWT fire departments with identifying the minimum equipment required for a **Standard - Level 2 Defensive** fire service as defined in MACA's Community Fire Protection Matrix.

It is recommended that community fire departments develop a program in accordance with NT safety legislation and recognized standards for the selection, care, and maintenance of protective firefighting ensembles, fire apparatus, and support equipment.

The NFPA standards referenced in this document contain additional information for community fire departments looking to:

- 1) Establish minimum levels of protection for firefighting personnel;
- 2) Establish basic criteria for the selection of **Protective Firefighting Ensembles**;
- 3) Identify minimum requirements for an **Initial Attack Fire Apparatus**;
- 4) Identify the minimum requirements for a **Pumper Fire Apparatus**;
- 5) Identify minimum requirements for a **Mobile Water Supply Apparatus**.

WSSC Firefighter Code of Practice

11.4 Personal Protective Equipment

Based on the hazard assessment the employer must ensure that required personal protective equipment (PPE) is available, maintained, tested, and used.

The employer must be able to demonstrate that acceptable protection levels for the hazards faced by their firefighters have been provided.

The use of clothing and equipment that complies with NT safety legislation and standards issued by CSA, ANSI, NFPA or other recognized agencies should be identified in departmental purchasing policies and procedures.

11 Equipment

All firefighters must be trained in the selection, pre-use inspection, use and limitations of all their equipment including PPE.

11.1 Inventions/Modifications

All fire department pumper apparatus, water tanks, ladder trucks, aerial devices, mini-pumpers, special services firefighting vehicles and combinations of these must be designed and constructed in accordance with a commonly accepted firefighting industry standard which is in compliance with the *Safety Act* and *OHS Regulations*.

Firefighter Protective Gear

- Coats
- Trousers
- Helmets
- Hoods
- Balaclavas
- Gloves
- Footwear

Standard - Level 2 Defensive Firefighter Training

includes training on firefighter turnout gear which consists of protective coats, trousers, helmets, hoods, balaclavas, gloves, and footwear.



NFPA 1851

Standard for Selection, Care, and Maintenance of Protective Ensembles

1.1.2 Scope

This standard specifies the selection of minimum firefighting protective ensembles that include garments, helmets, gloves, footwear, and interface components that are compliant with NFPA 1971.

4.1.1 General

The organization shall develop and implement a program for the selection, care, and maintenance of protective firefighting ensembles used by members of the organization in the performance of their assigned functions.

4.1.2

This program shall have the goal of providing protective firefighting ensembles that are suitable and appropriate for the intended use.

NFPA 1971

Standard on Protective Ensembles

1.1.2 Scope

This standard specifies the minimum design, performance, testing, and certification requirements for firefighting protective ensembles.

Initial Attack Apparatus

Standard - Level 2 Defensive Firefighter Training includes knowledge & skills training utilizing various tools and equipment stored on a fire truck.

The design specifications and equipment listing below is based on the NFPA 1901 standard for an initial attack fire apparatus.



NFPA 1901

Standard for Automotive Fire Apparatus

1.1 Scope

This standard defines the requirements for new automotive fire apparatus designed to be under emergency conditions to transport personnel and equipment.

NFPA 1901

6.1 General

If the apparatus is to function as an initial attack apparatus, it shall meet the requirements of this chapter.

6.8 Equipment Supplied by the Contractor

The contractor shall supply the equipment listed in 6.8.1 and 6.8.2 and shall provide and install such brackets or compartments as are necessary to mount the equipment.

<u>Subject</u>	<u>Design Specifications</u>	<u>NFPA 1901- 05</u>
Fire Pump	➤ Minimum rated capacity of 1000 L/min (250 gpm)	6.2
Foam Proportioning System	➤ If equipped, it shall meet the requirements of Chapter 20.	6.4
Water Tank	➤ Minimum certified capacity (combined, if applicable) of 750 L (200 gal)	6.5
Equipment Storage	➤ Minimum of 22 ft ³ (0.62 m ³) ➤ Enclosed and weather-resistant. <i>*May need to consider room for a <u>portable water tank</u> (see Page 14).*</i>	6.6
Hose Storage	➤ A minimum hose storage area of 10 ft ³ (0.8 m ³) for 2½ inch (65 mm) or larger fire hose. ➤ Two areas, each a minimum of 3.5 ft ³ (0.1 m ³), to accommodate 1½ inch (38mm) or larger pre-connected fire house lines.	6.7
<u>Subject</u>	<u>Equipment</u>	<u>NFPA 1901- 05</u>
Ground Ladders	A 12ft (3.7m) or longer combination or extension type ladder Step ladders and other types of multipurpose ladders are permitted	6.8.1
Suction Hose	Minimum of 20 ft (6 m) of suction hose or 15 ft (4.5 m) of supply hose. Where suction hose is provided, a suction strainer shall be furnished. <i>*May need to consider additional suction hose for nursing lines*</i>	6.8.2

Fire Hose and Nozzles	<p>300 ft (90 m) of 2½ inch (65 mm) or larger fire hose</p> <p>400 ft (120 m) of 1½ inch (38 mm), 1¾ in (45 mm), or 2 inch (52 mm) fire hose</p> <p>Two handline nozzles, 95 gpm (360 L/min) minimum</p>	6.9.3*
Miscellaneous Equipment	<p>One 6 lb (2.7 kg) pickhead axe</p> <p>One 6 ft (2 m) pike pole or plaster hook</p> <p>Two portable hand lights</p> <p>One approved dry chemical portable fire extinguisher with a minimum 80-B:C rating</p> <p>One 2½ gal (9.5 L) or larger water extinguisher</p> <p>* One SCBA for each assigned seating positing, but not fewer than two, mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer</p> <p>*One spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in specialty designed storage space(s)</p> <p>One first aid kit</p> <p>Two combination spanner wrenches</p> <p>One hydrant wrench</p> <p>One double female 2½ inch (65 mm) adapter with CSA threads</p> <p>One double male 2½ inch (65 mm) adapter with CSA threads</p> <p>One rubber mallet</p> <p>Two salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m)</p> <p>Two or more wheel chocks</p> <p>One traffic vest for each seating position</p> <p>Five fluorescent orange traffic cones</p> <p>Five illuminated warning devices such as highway flares, unless the five fluorescent orange traffic cones have illuminating capabilities</p> <p>One automatic external defibrillator (AED)</p>	6.9.4*

***Please Note:**

- 1) The equipment listed in 6.9.3 and 6.9.4 shall be available on the pumper fire apparatus before the apparatus is placed in service (NFPA 1901)**
- 2) SCBA is included in this equipment list to be in compliance with section 6.9.4 of the NFPA 1901 standard. NWT community fire departments, who have not adopted a level of service which permits the use of SCBAs, shall not have them in-service or stored on the apparatus.**

Pumper Apparatus

Standard - Level 2 Defensive Firefighter Training includes knowledge & skills training utilizing various tools and equipment stored on a fire truck.

The design specifications and equipment listing below is based on the NFPA 1901 standard for a pumper fire apparatus.



NFPA 1901

Standard for Automotive Fire Apparatus

1.2 Scope

This standard defines the requirements for new automotive fire apparatus designed to be under emergency conditions to transport personnel and equipment.

NFPA 1901

5.1 General

If the apparatus is to function as a pumper, it shall meet the requirements of this chapter.

5.8 Equipment Supplied by the Contractor

The contractor shall supply the equipment listed in 5.8.1 and 5.8.2 and shall provide and install such brackets or compartments as are necessary to mount the equipment.

<u>Subject</u>	<u>Design Specifications</u>	<u>NFPA 1901- 05</u>
Fire Pump	➤ Minimum rated capacity of 3000 L/min (625 gpm)	5.2
Foam Proportioning System	➤ If equipped, it shall meet the requirements of Chapter 20.	5.4
Water Tank	➤ Minimum certified capacity (combined, if applicable) of 1100 L (250 gal)	5.5
Equipment Storage	➤ Minimum of 40 ft ³ (1.1 m ³) ➤ Enclosed and weather-resistant. <i>*May need to consider room for a <u>portable water tank</u> (see Page 14).*</i>	5.6
Hose Storage	➤ A minimum hose storage area of 30 ft ³ (0.8 m ³) for 2½ inch (65 mm) or larger fire hose. ➤ Two areas, each a minimum of 3.5 ft ³ (0.1 m ³), to accommodate 1½ inch (38mm) or larger pre-connected fire house lines.	5.7
Aerial Device	➤ If equipped, the device shall meet the requirements of Chapter 19, NFPA 1901.	5.3
<u>Subject</u>	<u>Equipment</u>	<u>NFPA 1901- 05</u>
Ground Ladders	One straight ladder equipped with roof hook One extension ladder One folding ladder	5.8.1
Suction Hose	Minimum of 20 ft (6 m) of suction hose or 15 ft (4.5 m) of supply hose. Where suction hose is provided, a suction strainer shall be furnished. <i>*May need to consider additional suction hose for nursing lines.*</i>	5.8.2

Fire Hose and Nozzles	<p>800 ft (240 m) of 2½ inch (65 mm) or larger fire hose</p> <p>400 ft (120 m) of 1½ inch (38 mm), 1¾ in (45 mm), or 2 inch (52 mm) fire hose</p> <p>One handline nozzle, 165 gpm (750 L/min) minimum</p> <p>Two handline nozzles, 80 gpm (360 L/min) minimum</p> <p>One smoothbore or combination nozzle with 2½ inch shutoff that flows a minimum 250 gpm.</p>	5.9.3*
Miscellaneous Equipment	<p>One 6 lb (2.7 kg) flathead axe</p> <p>One 6 lb (2.7 kg) pickhead axe</p> <p>One 6 ft (2 m) pike pole or plaster hook</p> <p>One 8 ft (2.4 m) or longer pike pole</p> <p>Two portable hand lights</p> <p>One approved dry chemical portable fire extinguisher with a minimum 80-B:C rating</p> <p>One 2½ gal (9.5 L) or larger fire extinguishers</p> <p>*One SCBA for each assigned seating position, but not fewer than two, mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer</p> <p>*One spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in specialty designed storage space(s)</p> <p>One first aid kit</p> <p>Four combination spanner wrenches</p> <p>Two hydrant wrenches</p> <p>One double female 2½ inch (65 mm) adapter with CSA threads</p> <p>One double male 2½ inch (65 mm) adapter with CSA threads</p> <p>One rubber mallet</p> <p>Two salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m)</p> <p>Two or more wheel chocks</p> <p>One traffic vest for each seating position</p>	5.9.4*

	<p>Five fluorescent orange traffic cones</p> <p>Five illuminated warning devices such as highway flares, unless the five fluorescent orange traffic cones have illuminating capabilities</p> <p>One automatic external defibrillator (AED)</p>	
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***Please Note:**

- 1) The equipment listed in 5.9.3 and 5.9.4 shall be available on the pumper fire apparatus before the apparatus is placed in service (NFPA 1901)
- 2) SCBA is included in this equipment list to be in compliance with section 5.9.4 of the NFPA 1901 standard. NWT community fire departments, who have not adopted a level of service which permits the use of SCBAs, shall not have them in-service or stored on the apparatus.

Mobile Water Supply Apparatus

Standard - Level 2 Defensive Firefighter Training includes water supply training utilizing various tools and equipment stored on a water supply tanker.

The design specifications and equipment listing below is based on the NFPA 1901 standard for a mobile water supply apparatus.



NFPA 1901

Standard for Automotive Fire Apparatus

1.3 Scope

This standard defines the requirements for new automotive fire apparatus designed to be under emergency conditions to transport personnel and equipment.

NFPA 1901

7.1 General

If the apparatus is to function as a mobile water supply apparatus, it shall meet the requirements of this chapter.

7.8 Equipment Supplied by the Contractor

The contractor shall supply the equipment listed in 7.8.1 and 7.8.2 and shall provide and install such brackets or compartments as are necessary to mount the equipment.

<u>Subject</u>	<u>Design Specifications</u>	<u>NFPA 1901-05</u>
Fire Pump	➤ If equipped, the pump shall meet the requirements of Chapter 16.	7.2
Foam Proportioning System	➤ If equipped, it shall meet the requirements of Chapter 20.	7.4
Water Tank	➤ Water tank(s) shall meet the requirements of Chapter 18, NFPA1901, and have a minimum certified capacity of (combined, if applicable) of 1000 gal (4000 L).	7.5
Equipment Storage	➤ Minimum of 10 ft ³ (0.0.3 m ³) of enclosed weather-resistant compartmentation meeting the requirements of Section 15.1 shall be provided for the storage of equipment. <i>*May need to consider room for a <u>portable water tank</u> (see Page 14).*</i>	7.6
Hose Storage	➤ Hose bed area(s), compartments, or reels that comply with Section 15.1 shall be provided to accommodate a minimum hose storage area of 6 ft ³ (0.8 m ³) for 2½ inch (65 mm) or larger fire hose. ➤ If the apparatus is equipped with a pump, storage for a minimum of 100 ft (30 m) of 1½ inch (38mm) or larger hose for a protection line shall be provided.	7.7
<u>Subject</u>	<u>Equipment</u>	<u>NFPA 1901-05</u>
Suction Hose	<p>If equipped with a pump, the requirements in 7.9.1 through 7.9.3 shall apply.</p> <p>A minimum of 20 ft (6 m) of suction hose or 15 ft (4.5 m) of supply hose shall be carried.</p> <p>Where supply hose is provided, it shall have couplings compatible with the local hydrant outlet connection (where applicable) and pump intake connection.</p> <p>Where suction hose is provided, a suction strainer shall be furnished.</p>	7.8.2

Fire Hose and Nozzles	<p>200 ft (60 m) of 2½ inch (65 mm) or larger fire hose</p> <p>If equipped with a fire pump, 100 ft (30 m) of 1½ inch (38 mm), 1¾ in (45 mm), or 2 inch (52 mm) fire hose; one handline nozzle, 95 gpm (360 L/min) minimum.</p>	7.9.3*
Miscellaneous Equipment	<p>Two portable hand lights</p> <p>One approved dry chemical portable fire extinguisher with a minimum 3A-40B:C rating</p> <p>One first aid kit</p> <p>Two combination spanner wrenches</p> <p>One hydrant wrench (where applicable)</p> <p>One double female 2½ inch (65 mm) adapter with CSA threads</p> <p>One double male 2½ inch (65 mm) adapter with CSA threads</p> <p>Two or more wheel chocks</p> <p>One traffic vest for each seating position</p> <p>Five fluorescent orange traffic cones</p> <p>Five illuminated warning devices such as highway flares, unless the five fluorescent orange traffic cones have illuminating capabilities</p> <p>One automatic external defibrillator (AED)</p>	7.9.4*

***Please Note:**

- 1) The equipment listed in 7.9.3 and 7.9.4 shall be available on the pumper fire apparatus before the apparatus is placed in service (NFPA 1901)**

Small communities in the NWT do not possess municipal infrastructure, such as hydrants, and are challenged with maintaining a sustainable water supply for firefighting. One option available to assist with this reality are tanker shuttles. This is accomplished through modification of existing community tankers to include a dump valve and the purchase of porta-tanks to support firefighting efforts. The concept is that a porta-tank is set up for the fire truck to draft from, while the tanker shuttles water back and forth from their filling site. This allows the tanker travel time while the port-tank provides us water supply for firefighting. This water delivery concept provides additional safety for firefighters and residents.

The following demonstrates its application:

