

38mm Occupant Use Hose Removal

Removing hose that no one will use

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City of Toronto





Agenda

Overview

What is occupant use hose?

Maintenance requirements?

Who's using it?

Removal approval

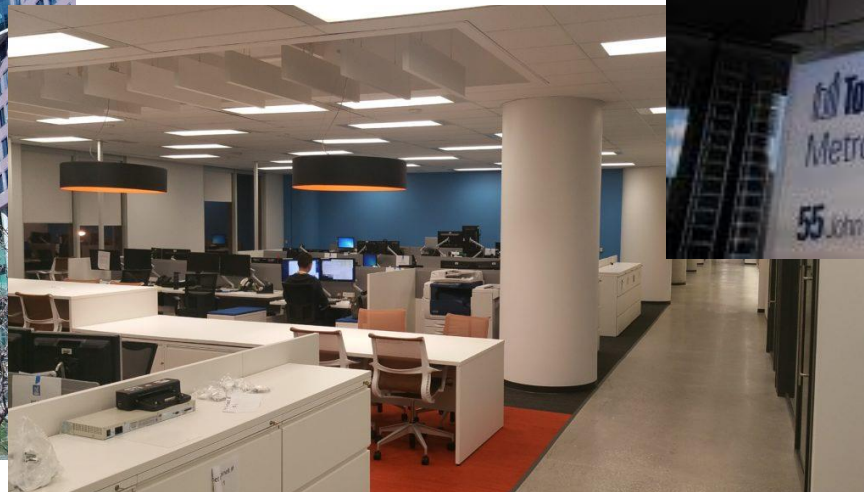
Compensatory Features

Next Steps

38mm Occupant Use Hose Removal

Overview

Metro Hall - 55 John Street



38mm Occupant Use Hose Removal

Project Overview

- Metro Hall, 55 John Street – Largest Municipal Office Building
- 27 story + 3 parking level Group D (office) building
- Fully sprinklers, addressable fire alarm system, equipped with both 38mm and 65mm hose connections (Class III)
- Two independent water supplies, 2 @ 50,000L tanks on the roof
- Two listed 750 GPM @ 140 PSI standpipe pumps
- Accessible from three streets, King, John and Wellington
- 250+ hose stations each with 30M of hose (7.5KM+)

38mm Occupant Use Hose Removal

Project Overview

Completed:

- Long Term Care Homes – Group C
- Exhibition Place – Group A2

Underway:

- Union Station – A2
- City Hall – D
- Community Centers – A2

38mm Occupant Use Hose Removal

What is occupant use hose?

I've got...

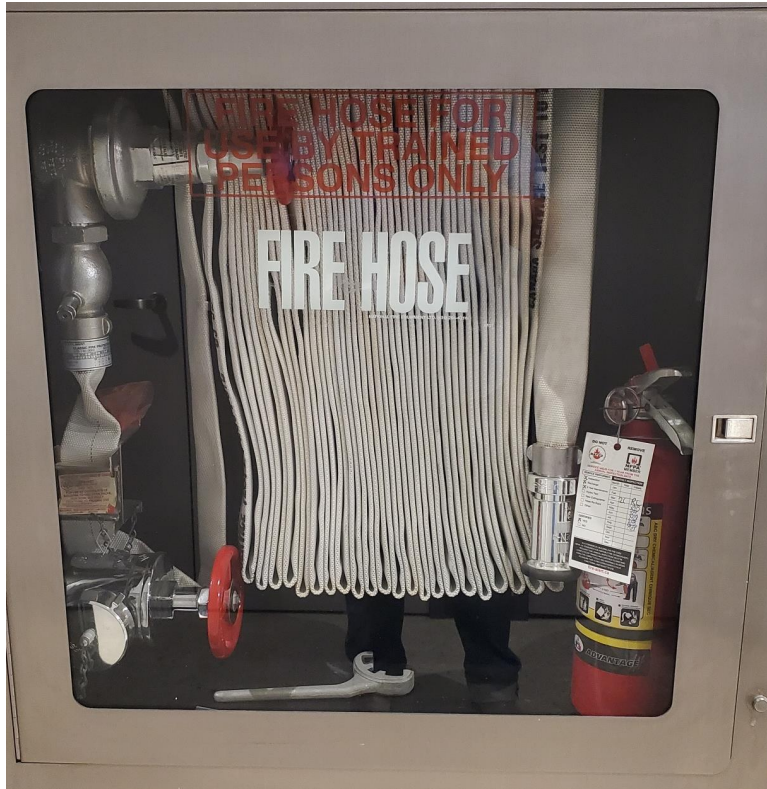


in different...



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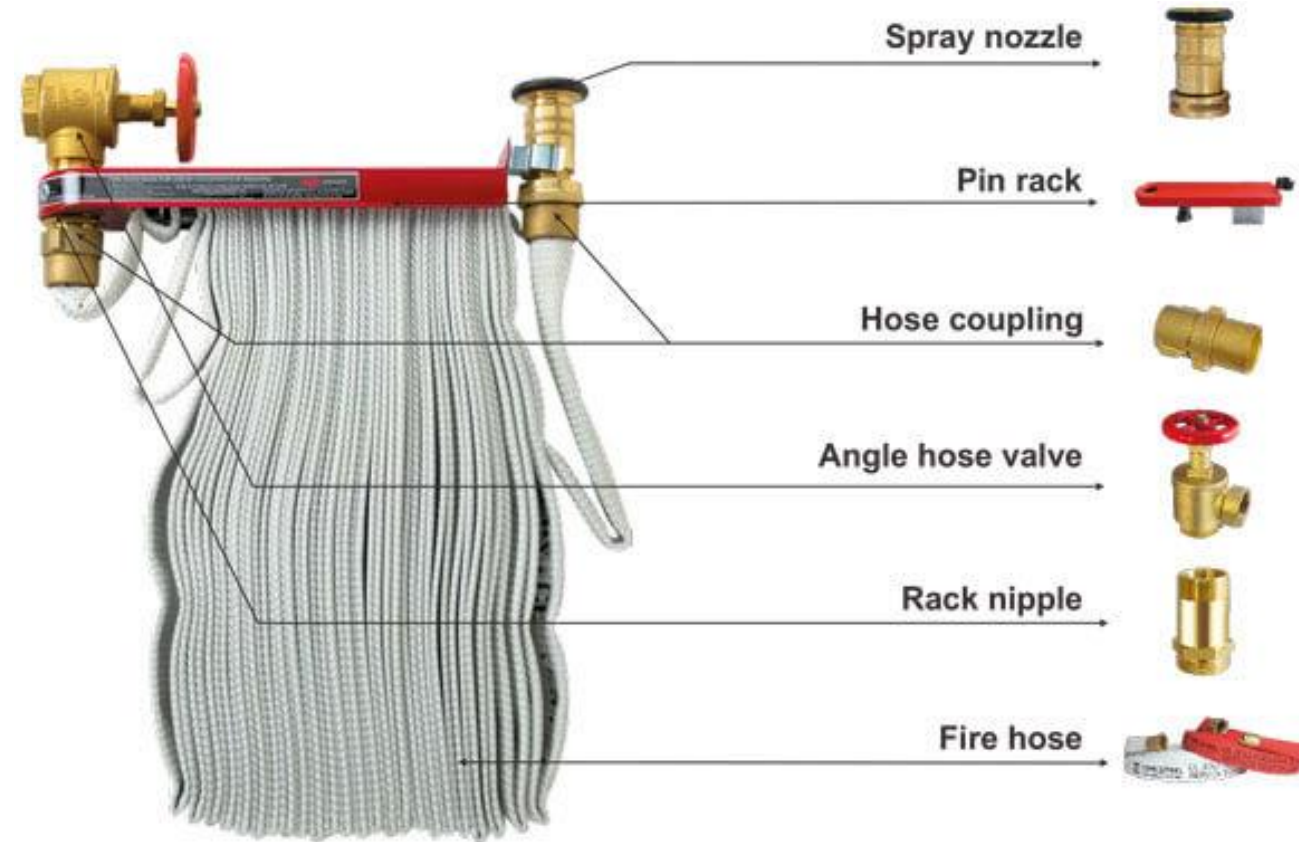
What is occupant use hose?



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What is occupant use hose?

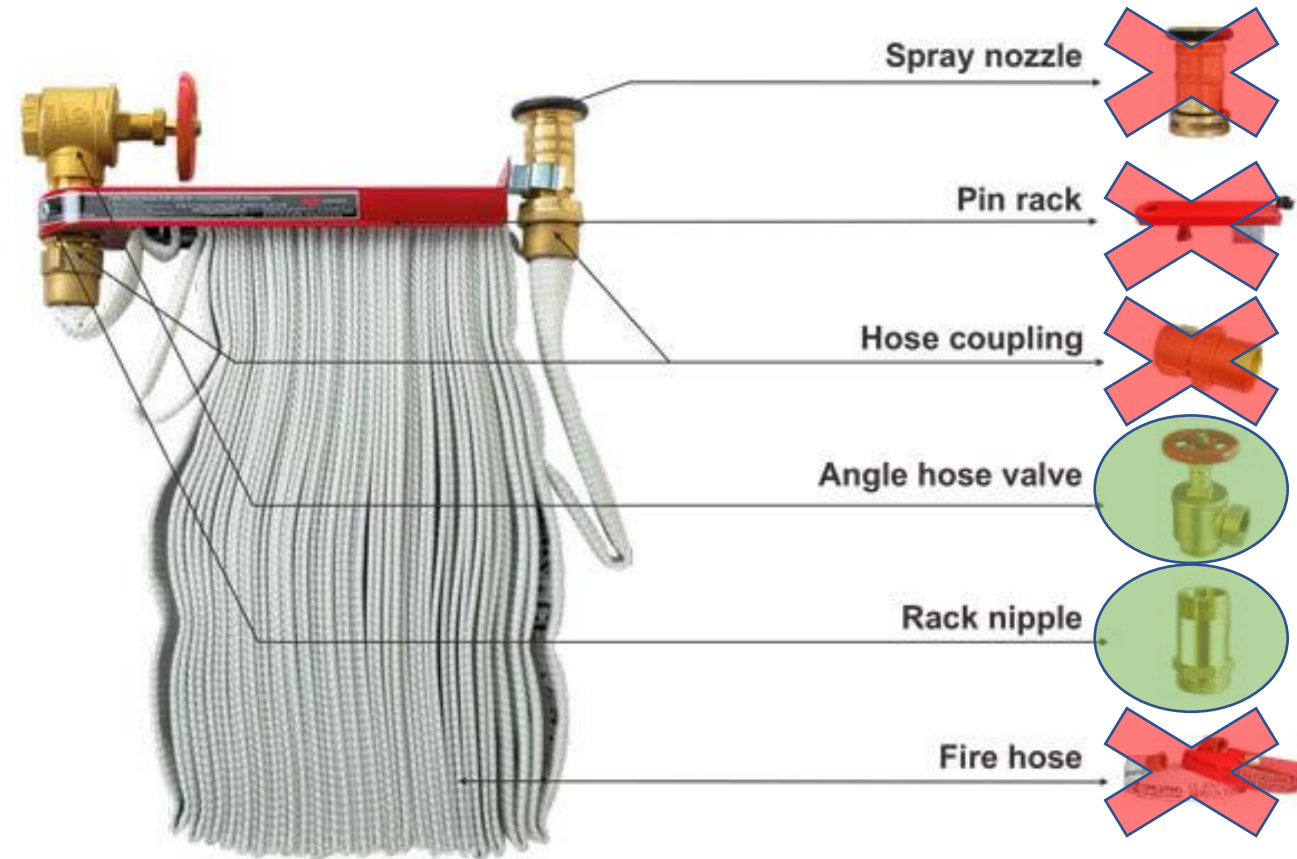
What we have:



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What is occupant use hose?

What we want:



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Maintenance requirements?

- OFC:
 - Monthly - Hose in proper position
 - Cabinet clear of obstructions
 - Annual - Unrack & rerack hose, move folds
- NFPA 25:
 - Annual - Cabinet, hose, connection, nozzle, rack, pipe
 - H Test the hose 5 years after manufacturer date
 - Every 3 years thereafter (NFPA 1962: 4.2.2)

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Maintenance requirements?

Budget Impact:

- Annual Inspection: \$3,000
- 3 or 5 Year H-Test: \$32,000
- 3 or 5 Year Replacement: \$35,000

- Annualized Total Budget Impact: \$14,600

Other Impacts:

- Access/Scheduling
- Hose disposal
- Environmental

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Who's using it?

Occupants

Who is trained to use them?

- Reactive force?
- Wild hose hazard?

Any PPE requirements?

- Bunker Gear, SCBA,

Chief Coroners Inquest

- Self-directed firefighting led to death
- 'For Use by Trained Persons Only' decal



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Who's using it?



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Who's using it?


Firefighters

No longer use 38mm PAL packs

- 65mm Hose Pack & Standpipe Kit (HPSK)

Unreliable hose

- Prohibited by TFS Training Note 101.1.5

 **TORONTO** Fire Services
Training Division

Training Note

FROM: Fire Chief EFFECTIVE DATE: November 23, 2020

FILE IN TFS TRAINING MANUAL UNDER:		
GROUP:	100	Firefighting Knowledge and Skills
SECTION:	101	Buildings
SUB-SECTION:	101.1	High-Rise Buildings
UNIT:	101.1.5	Standpipe Operations

WARNING!

DO NOT utilize the light-weight single jacket hose and nozzle present in Class 2 and 3 systems. This hose has repeatedly proven to be unreliable and is for occupant use only. Using it jeopardizes the safety and efficiency of the fire attack team. TFS personnel shall only use TFS hose lines and nozzles.

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Who's using it?

Firefighters

Hose Pack & Standpipe Kit (HPSK)

High-Rise / Standpipe Operation Equipment

Apparatus at a high-rise incident or standpipe operation will carry the following:

- Three 15m (50 foot) 65mm Hose Packs
 - Two 15m (50 foot) supply sections
 - One 15m (50 foot) nozzle section
 - Nozzle section equipped with a 1003 L/min @ 350 kPa smooth bore nozzle
- Standpipe Kit (Elkhart Brass Bag)
 - 65mm In-line pressure gauge
 - 45-degree elbow with drain
 - 60-degree elbow
 - Two hose spanners
 - 18" Aluminum Pipe Wrench
 - Two 2" Spring Clamps
 - 3mm T-handle Allen key
 - Two 38mm female to 65mm male adapters (increaser)
 - 22 feet of webbing tied into a loop with a water knot
 - 65mm gate valve

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Who's using it?

Firefighters

400 Commissioners St
Toronto Solid Waste Facility
October 3, 2023



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Who's using it?

Vandals/Thieves

Malicious use resulting in property damage

- 'Play' Firefighter when no fire present
- Open valve and walk away
- \$1+ million in damage in 15+ years

Damaging/disabling equipment

- Cutting off couplings for scrap (~\$10)
- Selling brass nozzles for scrap (\$20-\$50)



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Removal Approval

- Toronto Fire is the AHJ
 - Formal Alternate Solution Proposal (\$902.34)
 - Identify existing building resources
 - Sprinklered? Fire Alarm? Monitored?
 - Redundant Water Supplies? FDC? # Streets?
 - FLS PM Program
 - Formal program/schedule or is it when TFS issues NOV/IO?
 - All PM is up to date and deficiencies clear
 - Provided a minimum of 2 years of records
 - 8 Compensatory Features

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Compensatory Features

Compensatory Feature #1

Verify a minimum clearance of 50 mm is provided between the hose connection and a cabinet

Rationale

Firefighters have room to connect a 38mm X 65mm hose adapter



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Compensatory Features

Compensatory Feature #2

Existing 'FIRE HOSE FOR USE BY TRAINED PERSONS ONLY' decals are removed and replaced with 'FIREFIGHTER HOSE CONNECTION' decals

Rationale

Clearly identify the purpose of the valves



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Compensatory Features

Compensatory Feature #3

All 38mm hose valves, which are listed and utilize NPSH threads, will be fitted with a threaded cap.

Rationale

Protect the threads from damage and debris.



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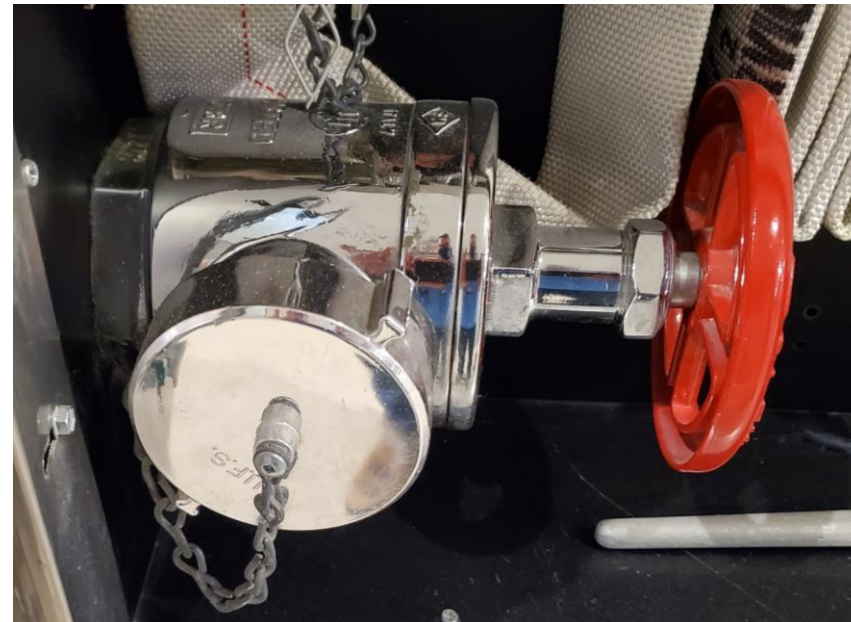
Compensatory Features

Compensatory Feature #4

All 65mm hose valves, which are listed and utilize CSA threads, will be maintained with a threaded cap.

Rationale

Protect the threads from damage and debris.



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Compensatory Features

Compensatory Feature #5

Fire extinguisher coverage and travel distance will be maintained as per code.

Rationale

6.2.6.6 Hose Stations in lieu of extinguishers

Up to one half of the number of portable extinguishers required in Table 6.2.6.A. may be replaced by hose stations.

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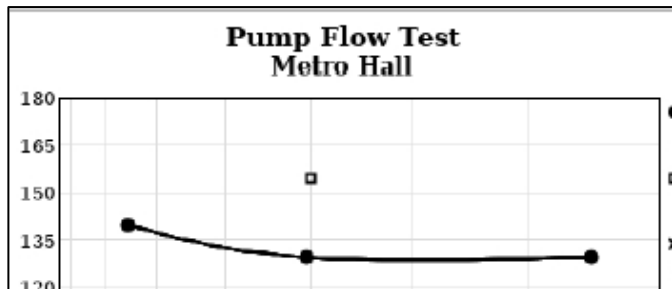
Compensatory Features

Compensatory Feature #6

The standpipe system is capable of achieving a flow and pressure of 1890 LPM @ 450 kPa (500 @ 65 PSI) from the two most remote hose connections.

Rationale

Verify and validate standpipe system performance



<i>Pump Rating</i>		
Net Pressure	Gallons Per Minute	Rotations Per Minute
155	500	3530

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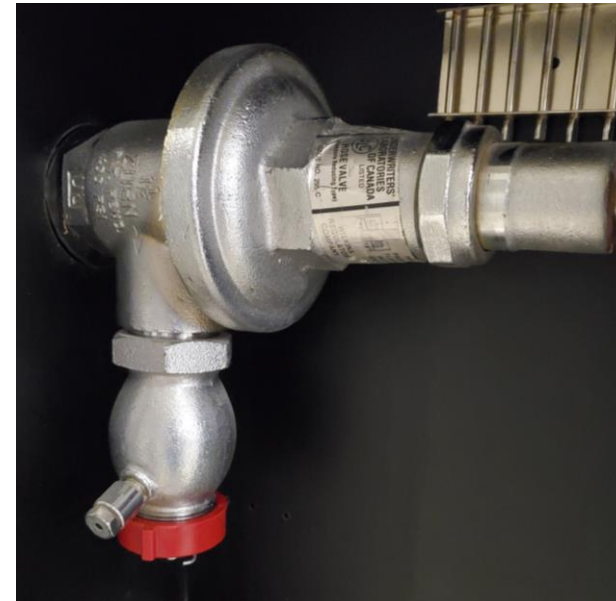
Compensatory Features

Compensatory Feature #7

Pressure reducing valves will be noted by manufacture and model number and will be maintained to provide reduced pressure from the connections.

Rationale

To maintain a controlled pressure outlet for firefighting if necessary



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Compensatory Features

Compensatory Feature #8

The fire safety plan must be updated and approved to reflect the removal of the hoses under an approved ASP.

Rationale

Document and validate the removal was done with AHJ approval



Fire Safety Plan

Metro Hall
55 John Street
Toronto, Ontario
M5V 3C6



Standpipe System

Each of the fire hose cabinets contains:

38mm (1½ inch) fire hose connection.

65mm (2½ inch) fire hose connection (capped valves).

100 ft (30 m) lengths of (1½ inch) lined fire hose.

Variable stream nozzle.

Fire Hose Cabinet Locations

Fire hose cabinets are located at each above-grade and below-grade exit stair as well as throughout the facility as required to achieve fire hose coverage.

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Next Steps

- Donate? Sell? Dispose?
 - 250 @ 30 M, 7.5KM of fire hose

Canada

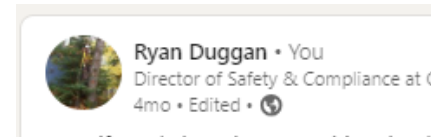
Barrington Lake blaze in Nova Scotia is the largest wildfire ever recorded in provincial history

The fire now covers more than 200 square kilometres

The Canadian Press

Published Jun 02, 2023 • Last updated Jun 02, 2023 • 1 minute read

12 Comments



line response, I can support them with
I'm pulling out of my driveway bound for
donation to help them fight the 5 headed

ITM, RSE at [The Fire Sprinkler Podcast](#) for
my home town!

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Next Steps

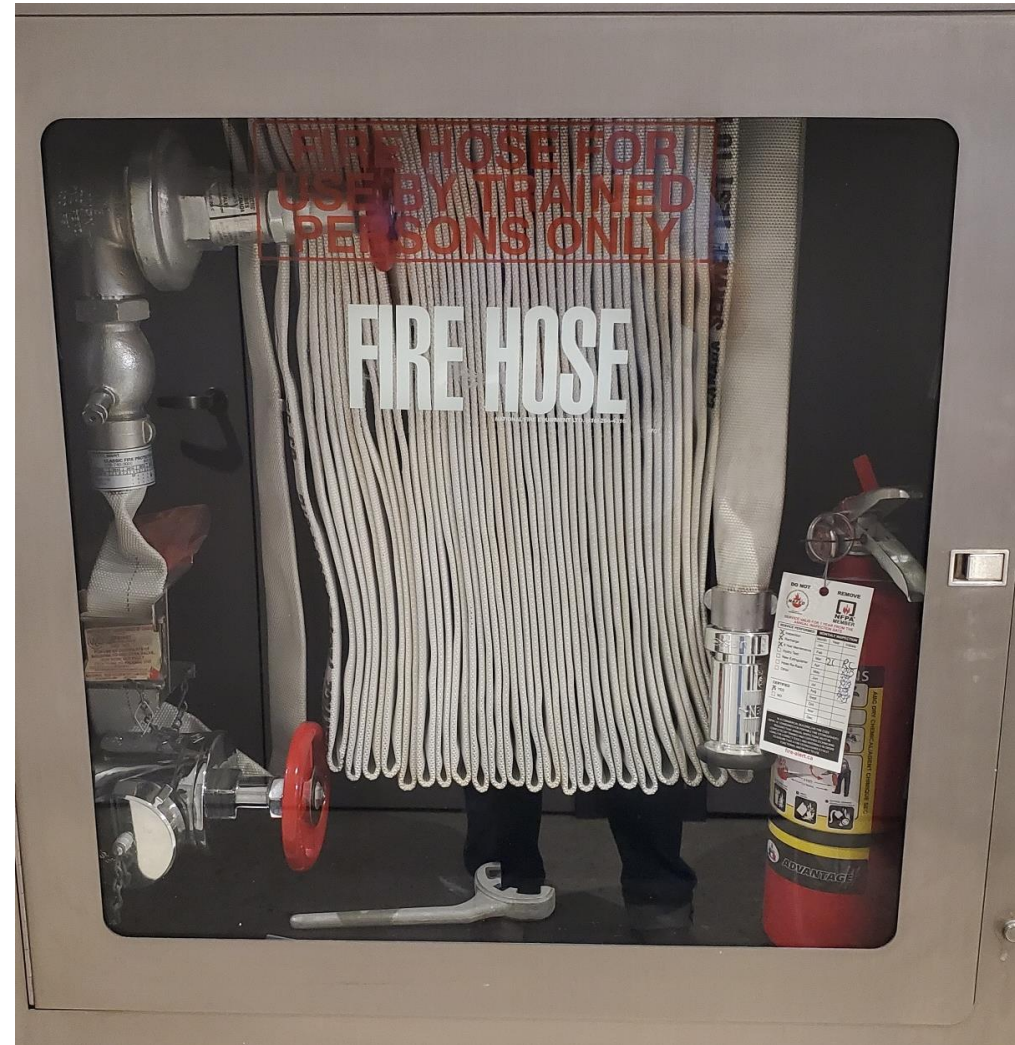
Goal:

- Remove 38mm occupant use hose from ALL City buildings
- Develop a schedule, full removal by 2025
- Continued annual ITM
- Defer 3/5 year H-Testing
- Continue to work in partnership with Toronto Fire.

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Next Steps

Goal:



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Questions?

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Thank You!

