

CAOFS20-002 - Appendix A

# Fire Station 2 Location Review

City of Peterborough

July 20, 2020

# Presentation Outline

- 1. Introduction**
- 2. Purpose of the Study**
- 3. Options**
- 4. Methodology**
- 5. Evaluation Results**
- 6. Conclusions**

# Introduction

- A Canadian, employee-owned professional consulting firm specializing in planning, engineering, environmental science and management.
- **Fire & Emergency Services Planning has been a specialized area for over 35 years.**
- **Claudio Covelli - Senior Fire Planning Specialist,** involved with all of the fire services planning studies Dillon has done
- Lead on this project



Platinum member



# Purpose of the Study

- **To evaluate options for the relocation of Fire Station 2 (one of three existing fire stations).**
- **Station 2 has reached the end of its useful lifecycle**
  - Located in a floodplain
  - Design of building not consistent with industry standards



# Options

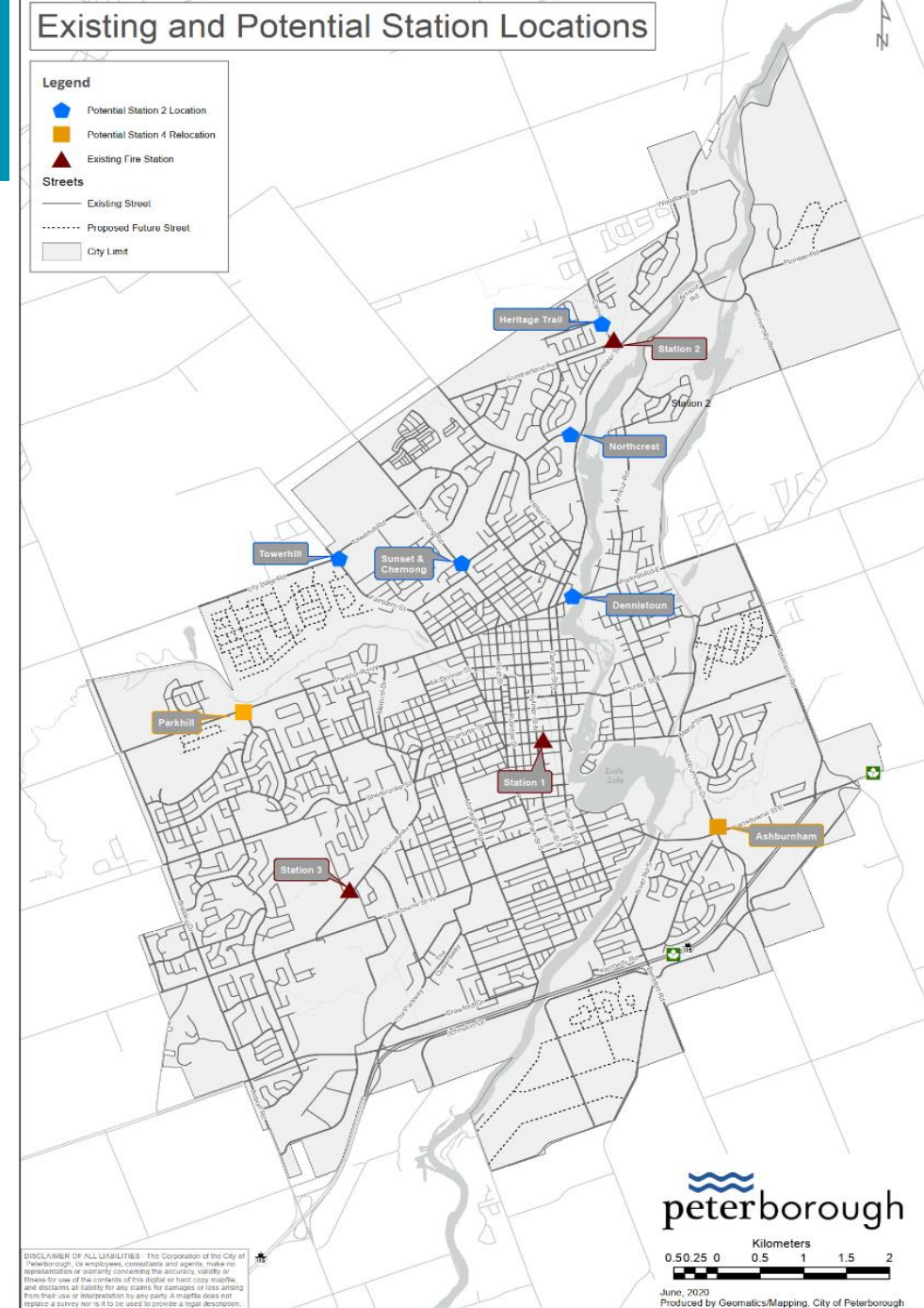
- **Five Station 2 location options:**

1. Dennistoun – Dennistoun Avenue / Parkhill Road
2. Northcrest – 100 Marina Boulevard
3. Towerhill – Towerhill Road/Fairbairn Street
4. Sunset – 916 Chemong Road
5. Heritage – 425 Heritage Trail

- **Recognizing the potential evolution to a four station model, looked at two Station 4 location options:**

1. Ashburnham Drive/Lansdowne Street East; and,
2. Parkhill Road West/Ravenwood Drive.

- **A total of 10 site combination options**



- **Undertook a Multi-Criteria Evaluation on the 10 site options**
  - **Four Station Model:**
    1. Initial Arriving Company (4 Firefighters (FF) in 4 min.)
    2. Second Arriving Company (8 FF in 6 min.)
    3. Initial Full Alarm Assignment (16 FF in 8 min.)
    4. Risk
    5. Cost
    6. Site Characteristics
    7. Land Use
- **Response modelling considered the future road network and planned development.**

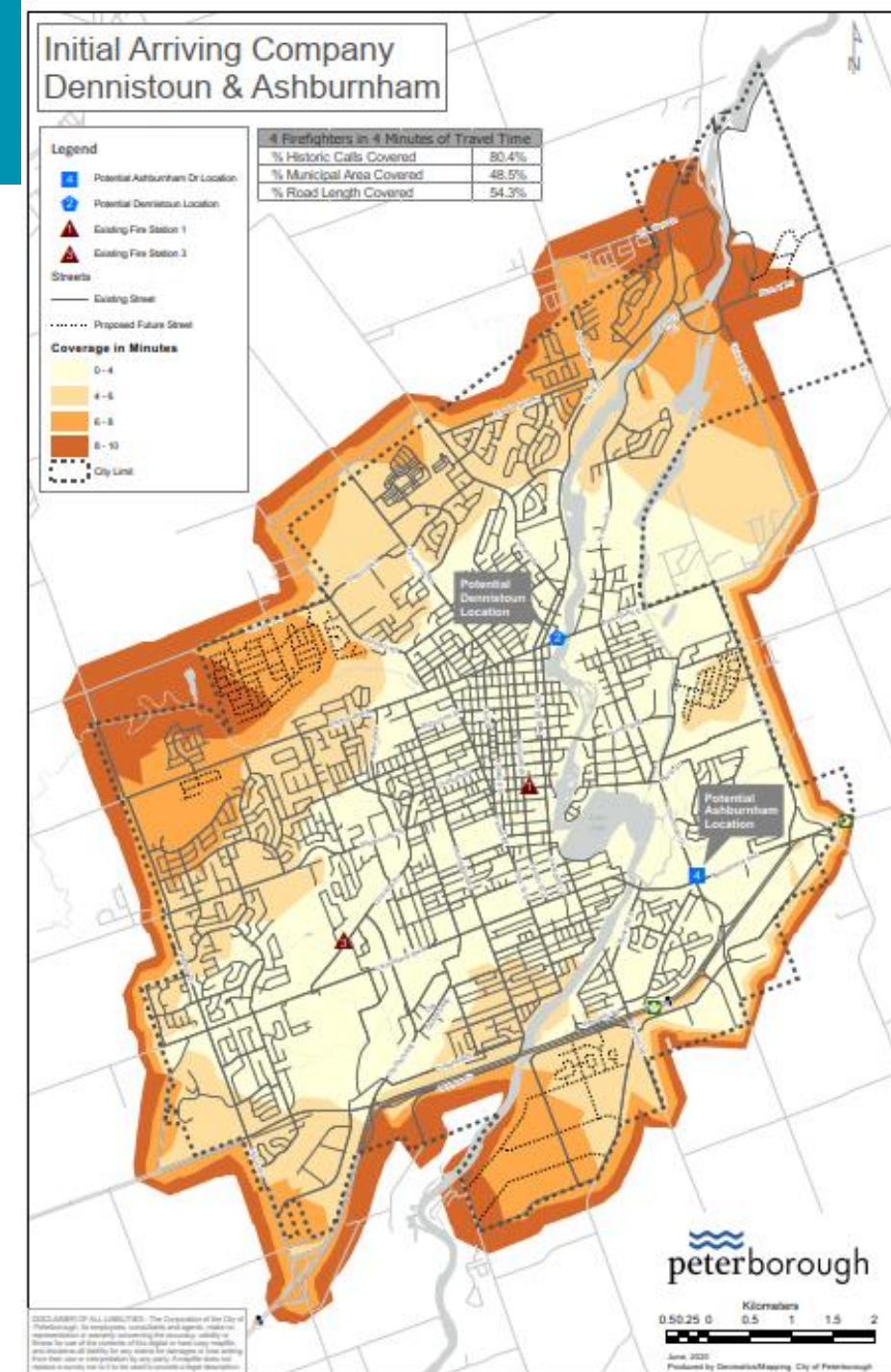
- **Minimum staffing used in modeling**
  - **Existing - 15 firefighters**
  - **Future with a four station model – 19 firefighters**
- **NFPA 1710 requirement, Single Family – Initial Full Alarm Assignment – 16 FF and 17 if an aerial is used.**
- **PFS sends an aerial on an Initial Full Alarm response – in a four station model they would send minimum 17.**

Station	Apparatus	Existing Minimum Staffing	Assumed Minimum Staffing
1	Pumper	4	4
	Command	2	2
	Aerial	1	1
2	Pumper	4	4
3	Pumper	4	4
4*	Pumper		4
# of Firefighters on Duty		15	19

\* Station 4 included for modelling future conditions only.

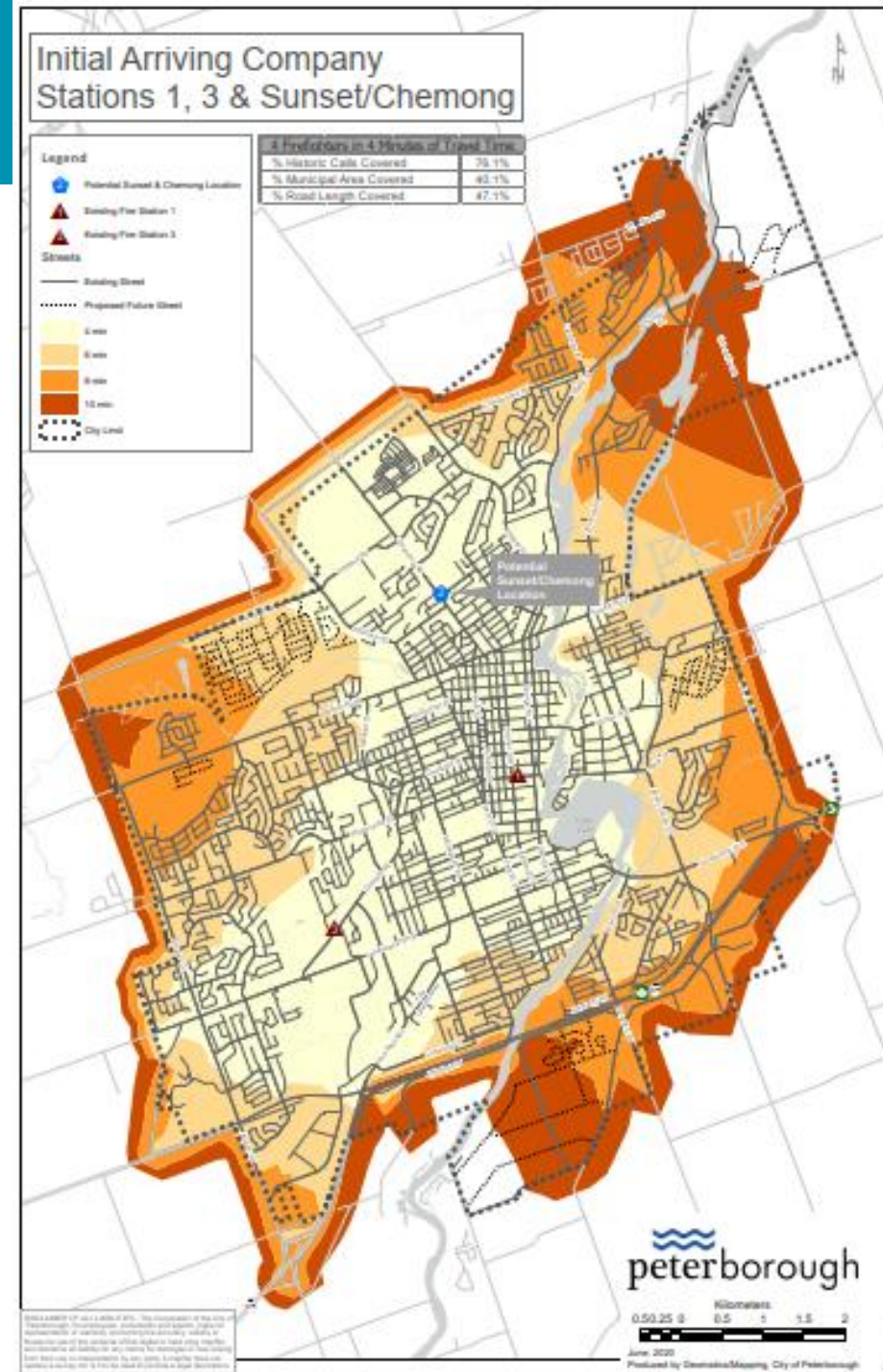
# Evaluation Results

- **Most highly ranked sites were:**
  - Dennistoun
  - Sunset
  - Northcrest
- **Purposefully did not zero in on one preferred site to provide flexibility at the next stage.**
- **All three sites would be suitable – each having their advantages.**
- **The three highly ranked sites work well in a four station model.**



# Evaluation Results

- Emergency response coverage is improved with the three highly ranked sites when compared to the existing Station 2 location.
- Emergency response coverage is improved with the three highly ranked sites when comparing a three station model to a four station model.



## Conclusion & Next Steps

- **Identified three highly ranked sites for a potential relocation of Station 2: Dennistoun, Sunset, and Northcrest.**
- **City will undertake a more detailed assessment to realize one of the sites (e.g. costing, servicing, approvals).**
- **Can be done with the knowledge that three sites improve existing response coverage in a three station model.**
- **The highly ranked sites will not compromise the evolution of the Peterborough Fire Services to a four station model.**

# Thank you