

Vacant Building Safety Risks

Analysis of research conducted by the US based National Fire Protection Agency (NFPA) notes that there are several safety risks related to vacant buildings. As noted in the research, the main safety risks to vacant or abandoned buildings include; fire, vandalism, theft and extreme weather.

Fires

The most prominent and costly risk facing a vacant building is fire. The Calgary Fire Department has advised that fires in vacant buildings are more likely to have been intentionally set and to spread beyond the building than are fires in other structures. They also cause a disproportionate share of firefighter injuries. 50% of vacant building fires are intentionally set compared to 10% of all structure fires. Securing the property does not eliminate fires from occurring in vacant buildings and the risk of arson remains high. A larger percentage of fires in vacant buildings spread to nearby structures compared to all structure fires (*NFPA Report, Fires in Vacant Buildings 2018*).

Hazards that are presented to firefighting in vacant buildings:

- Delayed access for firefighting
- Delayed access for forcible entry
- Egress and exiting structure once entry has been gained
- Hazard of vagrant activities inside the building
- Increased risk to fire growth beyond area of origin and to adjacent structures

Factors affecting increased fire growth before firefighter arrival:

- Tampering of fire protection systems by vagrants gaining entry
- No power to fire alarm system – disconnected services
- Fire alarm system not monitored
- Fire alarm system is not maintained

Other factors that will affect firefighter safety:

- Structural integrity of the remaining structure
- Structural integrity of the remaining structure when exposed to extreme heat due to increased risk of fires to occur and develop beyond area of origin
- Should a fire occur any airborne particulate would also pose significant risk to the surrounding community and Calgarians

Vandalism and Theft

The NFPA research shows that approximately 90% of all theft in vacant buildings involves copper, electrical or plumbing materials. The Calgary Police Service has advised that a vacant building not only becomes an attractant for nefarious activity but also presents a significant safety risk to any first responders due to the structural integrity.

In the case of Kensington Manor, theft of copper and electrical wiring has already occurred resulting in the fire alarm and any suppression services of the building being rendered inoperable.

Extreme Weather

Building maintenance in vacant buildings is usually non-existent. This exposes the public to the risk of rooftop equipment or pieces of the building exterior to dislodge in a wind storm becoming airborne. The lack of rooftop inspections may also lead to a roof collapse during a heavy rainstorm because clogged drains may cause excessive loading.

Analysis and conclusion of risk factors

Although the building is being patrolled at night by a private security service, monitored on an ongoing basis by a City of Calgary Safety Codes Officer, an engineering firm and the contractor who installed the shoring system, the building is in an unsafe condition. The building contains a significant amount of asbestos and because of the risk of structural failure, the Calgary Fire Department has advised that in order to protect the safety of firefighters, they would not enter the building in the event of a fire. The building has been boarded up and fencing exists to limit the ability of break-ins but it is not feasible to eliminate the risk of theft, vandalism and fire.