







Consultant Team











Purpose of the Study

To study perimeter security issues with a focus on hostile vehicle mitigation.

To provide options that increase safety, are not visually intrusive, and are in keeping with the heritage character of the site.





Considerations in Addition to Safety & Consultation with City Departments

- City Manager's Office (Health, Safety & Wellness)
- Planning & Economic Development (Public Arts and Projects)
- Corporate Services (Clerks Office, Finance & Administration)
- Public Works (Horticulture, Parks, Landscape and Architectural Services, Facilities Management, Corporate Security)







Terry Hoffman, CPP, CBCP

Founder Zerobit1 Security Planning Consultants Inc.

www.zerobit1.com

Background

- 20+ years of experience as a consultant/adviser
- Certified Protection Professional (CPP administered by ASIS International 2001)
- Certified Business Continuity Professional (CBCP administered by DR International 2003)
- Crime Prevention through Environmental Design (CPTED Peel Region Police 2002)
- Expert Witness both Civil and Criminal Proceedings

Experience

- Engaged with over 11 municipalities since 2000 (Continual Risk Management Life Cycle)
- 2001-2005 Canadian Senate Committee CBSA Port Running Project 22 high risk Canadian border crossings developed and managed risk reduction strategies
- 2007 Dziekanski YVR Vancouver taser incident
- RIM, OPEN TEXT, Telus, Fido, Rogers, Hamilton, Vancouver Airports, North American Electric Reliability Corporation, Toronto, Newfoundland, Manitoba and Ontario Hydro







Assessment of HOSTILE VEHICLE ATTACK

- Assess current risk exposure "Hostile Vehicle Attack" an attack where an adversary deliberately rams a vehicle into a building, crowd of people, or another vehicle
- City Hall Forecourt "Crowded Space" potential extremism, copy cat, lone wolf, spontaneous, unstable individual type of criminal act
- No skill, little prep time and easy to do
- North York Street Attack (2018), Edmonton (2017) North America 2014-2017 -17 attacks 154 deaths
- Forecourt assessment was not challenging "layout simplified" "level of exposure"

No.	Asset Identification and Classification	Criticality/Impact	Motivation
1.	City Staff, Residents, Visitors/Tourists and Protestors An individual's life	High	Result of an act of ideological terrorism ¹ (terror) towards the City, a protesting group or an individual within the City Hall forecourt
2.	City Reputation The reputation of the City of Hamilton to attract residents and economic business growth	High	Unintentional or intentional act of terror, criminal intention, malicious damage, accidental or medical emergency within the City Hall forecourt





Risks & Considerations

Threat Event	Motivation	Capabilities	Vulnerability/Tactic
Penetrative Attack	Ideological Terror	Lone adversary or small group using extensive training and preparation	Hostile vehicle negotiates an attack through an incomplete line of defence to use the front or rear of the attack vehicle as a ram to inflict harm/injury/death to people or to breach a target within the City Hall forecourt
Penetrative Attack Deception	Ideological Terror	Lone adversary or small group using extensive training and preparation	Deception technique prey on human weakness by use of a trojan vehicle to conduct a penetrative hostile vehicle attack against persons and/or individual life asset within the City Hall forecourt (use of a vehicle which is a replica but familiar to the site occupants) eg: white City of Hamilton fleet vehicle with fake City of Hamilton vehicle decal





Risks & Considerations

Thi	eat Event	Probability of Occurrence	Assessment of Impact			
Penetrative Attack		Medium	High			
Penetrative Attack Deception		Medium	High			
Probability Definitions						
	There have been no reported incidents and there is a low probability that the threat					
Low	will occur					
	There have been reported incidents and indicators of the threat within 3 years and					
Medium there is some possibility that the threat will occur						
	There have been several reported incidents or indicators of the threat, and the threat					
High	High will most likely occur					
Very High	The threat is imminent					





BSI PAS 68

What is it?

- Specification for the performance of vehicle security barriers
- Best Practice comparisons to Life Safety CSA, UL and ULC

What does it involve?

 Physical impact testing of security barriers at varying speeds with different vehicles types, 7 test impact rating types

Why does it exist?

Enables the specification of engineered protection from a hostile vehicle







Impact test specifications for vehicle security barrier systems



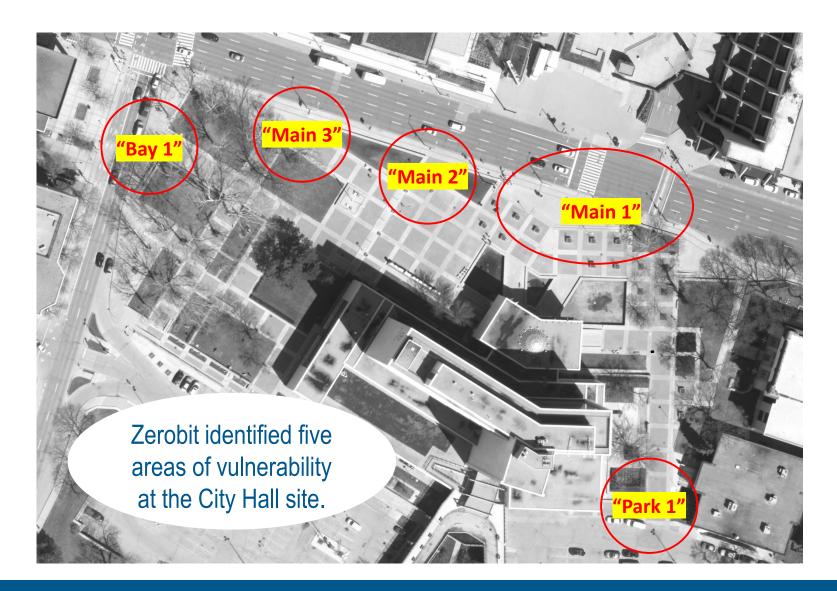


...making excellence a habit."













A number of options were explored.

Security bollards were chosen for the following reasons:

- Least visually intrusive
- Suitable for architectural style of building
- Able to perform security requirements
- Least amount of impact on pedestrian circulation space









VIEW OF MAIN 1 PROPOSED









VIEW OF MAIN 2 PROPOSED: REMOVABLE BOLLARDS



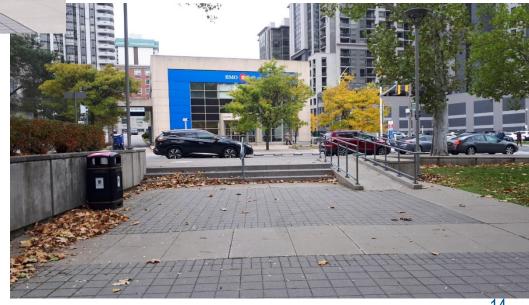




CITY HALL FORECOURT SECURITY: OPTION – MODIFY EXISTING PLANTERS



VIEW OF MAIN 3 EXISTING



VIEW OF BAY 1 EXISTING











VIEW OF PARKING 1 PROPOSED: REMOVABLE BOLLARDS









Summary:

Staff Recommendation: Bollards in all 5 locations

Alternative 1: Hybrid of Bollards at "Park 1", "Main 1" and "Main 2" and existing Planters at "Main 3" and "Bay 1"

Alternative 2: Modified Planters at all 5 locations







THANK YOU