

Infrastructure Security Assessments and Security Systems Design

As an established infrastructure engineering firm, LEA has developed a unique combination of security assessment, planning, and design expertise.

Through our expanding endeavors in the field of infrastructure security, LEA has developed an alliance with Globe Risk International (GRI) with a view to providing a comprehensive package of security services from Threat Risk and Vulnerability (TRVA) studies through to design and deployment of security systems including:

- Access control, alarm, and sensor systems
- CCTV Surveillance, video management, and recording systems
- Security lighting and control systems
- Emergency communications systems
- Security infrastructure systems including telecommunications and power distribution
- Parking systems
- Transit security systems including CCTV, panic alarms, and vehicle locking systems

LEA's security projects are integrated work efforts which can involve a multi-disciplinary team of security specialists, structural engineers, electrical engineers, and systems engineers expert in the design of counter measures such as specialized covert and overt, surveillance and detection systems. Our team's personnel have at least a "SECRET" level security clearance for this purpose.

As an engineering company with in-depth knowledge of infrastructure construction and electronic systems applications, LEA has found that a combination of engineering and

security personnel provide the right team balance to arrive at practical, thorough and cost-effective solutions for anti-terrorist infrastructure protection initiatives. By way of example, the fundamental framework of our studies is presently being incorporated into best practices for security assessments of Federal bridge assets in Canada.

In association with GRI, LEA have developed a specialized team that is a leader in this field in Canada. Alan Bell, President of GRI, and LEA's security assessment team lead, is a former British SAS Commando with extensive international counter-terrorist and special forces experience.

LEA's approach to security assessments is much more than a generic checklist audit of existing security measures and deficiencies. Our studies first focus on the goal of providing a comprehensive and thorough threat, vulnerability risk-cost assessment with a view to countering the plans specific to various adversarial paths and methods of terrorist attacks. In the course of this work, the risk of direct damage to the facility from domestic and trans-national threat sources is evaluated, as are the costs and time frame for replacement or repair of the infrastructure. Associated economic costs to commerce resulting from loss of the crossing are also determined, and used as an alternate comparator in the risk-cost assessment model.

Not all TRVA's justify counter measure treatments. But for those that are determined to be at risk, practical and focused measures are then developed and costed, with specific recommendations made in response to the higher risk-cost justified threat scenarios.



LEA has completed concept planning as well as preliminary and detailed design engineering for the deployment of security counter measures at a number of key US-Canada border crossings. This included complete design and contract administration for video management, access control, and lighting systems for border plazas, numerous administration buildings, and bridge structures.

PROJECT SUMMARY

Clients:

**Peel Regional Police.
Centennial College.
Bank of Canada.
Lethbridge City Hall.
York Region Transit.
Grand River Transit.
Transit Windsor.
Transport Canada.
Public Works Government Services Commission.
Federal Bridge Corporation Limited.
Michigan DOT, USA.
Thousand Islands Bridge Authority, Canada and USA.
Joint International Bridge Authority, Canada and USA.**

Location:

Canada and USA

Services Provided:

**Threat and Vulnerability Risk Assessment.
Systems Concept Planning.
Detailed Systems Design and Specifications Preparations.
Contract Supervision.**

Our firm is able to provide the full spectrum of design and construction supervision services required to implement the results of security assessment studies from simple detection installations to more complex centralized security systems that can also incorporate supplementary management features within the systems design and proposed operations as value-added provisions. These designs are in keeping with anti-terrorism intrusion detection, alarm systems, and emergency plan standards.

The details of LEA's work for border crossings are classified and cannot be disclosed with respect to individual sites for security reasons. However, further detail or references of these services may be provided by contacting our firm. Professional staff will be pleased to discuss your

infrastructure protection needs and outline a comprehensive, but practical approach to cost-effective anti-terrorist planning.

Highlights of other security related work that LEA has completed include:

- LEA was retained by the Peel Regional Police to design a digital recording and surveillance system for several Police facilities in Peel Region.
- LEA designed a centralized access control system for Centennial College's multi campus parking network in Toronto.
- LEA was retained to develop a TRVA and security plan for Lethbridge, Alberta City Hall.
- LEA was retained by several prominent Canadian transit agencies, including BC Transit and York Region Transit, to develop

comprehensive TRVA's and Security Plans as part of the Federal Government's Transit Secure program.

- LEA is currently developing specifications and overseeing the procurement of a comprehensive Self Audit Software application tool on behalf of York Region Transit's Security Department.
- GRI and LEA are currently undertaking a comprehensive TRVA and security review for the Bank of Canada which includes a complete review of the Bank's security program and infrastructure.

Contact:

John Greenough, M.Eng., P.Eng.
LEA Consulting Ltd.
625 Cochrane Drive, Suite 900
Markham, Ontario, Canada, L3R 9R9
Tel.: 905-470-0015 x 228
Email: jgreenough@LEA.ca

