



2026 Airport Construction Code v11.1

Toronto Pearson 

Copyright Information

© 2025 by Greater Toronto Airports Authority. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (photocopying, electronic, mechanical, recording, or otherwise) without the prior written permission of the copyright holder.

Greater Toronto Airports Authority
P.O. Box 6031
3111 Convair Drive
Toronto AMF, Ontario L5P 1B2
416-776-3000
www.TorontoPearson.com

Document Governance

The GTAA reserves the right to amend the content of Airport Construction Code (this *Code*) on a regular basis. When issued, this *Code* and any amendments are valid and effective on the date of issue as noted below in the Version Control. The current version of this *Code* is available on the Toronto Pearson “Construction” page: <https://www.torontopearson.com/en/operators-at-pearson/construction>

All requests for clarifications of any information contained in this *Code* can be directed to the Construction Compliance & Permits Office constructioncompliance@GTAA.com

Version Control

Version	Date Issued	Changes	Prepared by	Reviewed by	Issued Under ADTS
11.1	02-16-2026	Amended edition	Sam Adile	Nafeez Ahmed	Bill Fullerton
11.0	12-03-2025	Eleventh edition	Sam Adile	Nafeez Ahmed	Brian Tossan
10.0	11-29-2024	Tenth edition	Sam Adile	Nafeez Ahmed	Bernardo Gogna
9.0	11-10-2023	Ninth edition	Sam Adile	Stuart Bricknell	Bernardo Gogna
8.0	10-31-2022	Eighth edition	Sam Adile	Stuart Bricknell	Pat Neville
7.0	11-16-2020	Seventh edition	Sam Adile	Stuart Bricknell	Pat Neville
6.0	11-20-2019	Sixth edition	Sam Adile	Stuart Bricknell	Pat Neville
5.0	03-21-2018	Fifth edition	Sam Adile	Stuart Bricknell	Pat Neville
4.1	06-28-2016	Amended edition	Sam Adile	Mark Turpin	Pat Neville
4.0	12-08-2014	Fourth edition	Sam Adile	Mark Turpin	Pat Neville
3.0	01-04-2006	Third edition	-	-	-
2.0	04-01-2002	Second edition	-	-	-
1.0	12-01-1997	First edition	-	-	-

Acknowledgements

Special thanks to everyone who continue to support CCPO with their time and efforts to update this *Code* which serves as reliable resource for current *Airport* requirements. This year’s review was a collaborative effort led by the Construction Compliance & Permits Office and with input from:

- **Airport Development & Technical Services**
 - Airport Development & Construction PMO – Abu Sanneh & Lift Teams
 - Airport Planning & Engineering - Nelson Oliveira & Engineering Teams
 - Airside & Infrastructure Engineering - Diana Turavani & Team
 - Facilities Systems Engineering – Anna Fallavollita, Neb Ljubojevic & Team
 - Architectural Services – Hasan Wahab & Team
 - Engineering Data – Mike Robertson & Team
 - Environment Services – Stefania Sottile, Aroni McCutcheon, Tracy Brown & Team
 - ADTS Technical Performance – Andrew Graham & Team
 - CCPO ISCC Team - Jack Papadopoulos, Navneet Gill & Team
 - Cover Photo provided by – Jennifer Alonzi & Bridgecon Team
- **Finance & Commercial**
 - Customer Experience & Development – Christina Iacovino, Kathy Saliba & Team
 - Risk Management – Victoria Mansaku, Pauline Leloudas & Team
- **Governance, Corporate Safety & Security**
 - Construction Security Planning – April McConkey & Team
- **Airport Operations**
 - Operations Delivery Airside Coordination – Neal Samuel, Nick Matveev & Team
 - Fire Prevention – Sandra Duncan & Team

In addition, we also thank the many individuals and groups who on an on-going basis provide feedback and updates for GTAA requirements, policies, and procedures aimed at ensuring safety and security compliance while minimizing disruptions to normal on-going operations.

2025 National Construction Codes Effective Date

The Canadian Board for Harmonized Construction Codes (CBHCC) announced the launch of their new 2025 Model Codes for Construction on December 22, 2025.

The new codes include the 2025 National Building Code, National Fire Code, National Plumbing Code, and National Energy Code of Canada for Buildings.

Mandatory compliance with the 2025 National Model Codes will be in effect for all new project designs commenced after April-30-2026.



Part

1. Code Terminology.....	1-1
1.1 Terms and Definitions	1-1
1.1.1 Words and Terms Not Listed.....	1-1
1.1.2 Defined Terms	1-1
1.2 Airport Construction	1-13
1.2.1 Construction Types.....	1-13
1.2.2 Development Area Types	1-13
2. Application, Roles, and Responsibilities	2-1
2.1 Scope.....	2-1
2.1.1 <i>Design & Construction Activities</i>	2-1
2.1.2 New Buildings.....	2-1
2.1.3 Existing Buildings.....	2-2
2.1.4 Change of Use and Occupancy.....	2-2
2.1.5 Other Types of Structures	2-2
2.1.6 Interpretation and Clarification.....	2-3
2.2 GTAA Organization for Airport Construction.....	2-3
2.2.1 General.....	2-3
2.2.2 GTAA Responsibilities.....	2-3
2.2.3 Consultant Responsibilities	2-5
2.2.4 Contractor Responsibilities	2-5
2.3 Design and Review Services.....	2-7
2.3.1 Qualifications of Service Providers.....	2-7
2.3.2 Provision of Design Services.....	2-7
2.3.3 General Review	2-8
2.4 Permits and AHJ/GTAA Inspections	2-10
2.4.1 Permits	2-10

2.4.2	Site Documents	2-11
2.4.3	Notices and Inspections	2-12
2.4.4	Fire and Emergency Services Inspection	2-16
2.4.5	Environmental Services Inspection	2-16
2.4.6	Inspection by Outside AHJ Independent of GTAA.....	2-17
2.4.7	Security Inspection	2-17
2.5	Occupancy/Use of Construction	2-17
2.5.1	Conditions for Occupancy/Use.....	2-17
2.5.2	Occupancy/Use of Unfinished Construction	2-18
2.6	Defect Liability Period	2-19
2.6.1	General	2-19
2.6.2	<i>Tenant Construction</i>	2-19
2.6.3	Warranty Period Inspection	2-20
2.6.4	<i>As-Built and Record Documents</i>	2-20
2.7	Insurance Requirements	2-21
2.7.1	Tenant Initiated Construction	2-21
2.7.2	GTAA-Initiated Construction	2-21
2.8	Independent Code Compliance Consultant	2-21
2.8.1	Scope and Application	2-21
2.8.2	Design Review	2-22
2.8.3	Construction Review	2-22
2.8.4	Occupancy Review.....	2-23
3.	Approvals	3-1
3.1	Environmental Review	3-1
3.1.1	General Review	3-1
3.1.2	Impact Assessment Review	3-2
3.2	Preliminary Stakeholders' Design Review.....	3-2
3.2.1	Review Process.....	3-2
3.2.2	Process Requirements.....	3-3
3.3	Facility Alteration Permit (FAP).....	3-4
3.3.1	General Requirements	3-4
3.3.2	Construction Documents.....	3-4
3.3.3	Applying for a Facility Alteration Permit (FAP).....	3-8

- 3.3.4 Obtaining a Facility Alteration Permit (FAP) 3-9
- 3.3.5 Terms and Conditions of the Facility Alteration Permit..... 3-10
- 3.3.6 Changes to the Work..... 3-11
- 3.3.7 Revocation of Permit..... 3-12
- 3.3.8 Obtaining an Occupancy/Use Permit and FAP Closeout..... 3-12
- 4. Design Requirements..... 4-1**
 - 4.1 Applicable Codes and Standards..... 4-1
 - 4.1.1 Application 4-1
 - 4.1.2 Limitations..... 4-2
 - 4.1.3 Conflicting Requirements..... 4-3
 - 4.1.4 List of Publications..... 4-3
 - 4.2 Airport Technical Information..... 4-11
 - 4.2.1 Responsibilities..... 4-11
 - 4.2.2 Land Parcels..... 4-11
 - 4.2.3 Building Spaces..... 4-12
 - 4.2.4 Existing Information 4-12
 - 4.3 The Airport 4-12
 - 4.4 Design Requirements for Development Areas 4-13
 - 4.4.1 Scope 4-13
 - 4.4.2 Type 1—Land Parcels 4-13
 - 4.4.3 Type 2—Building Spaces 4-16
 - 4.4.4 Type 3—All Other Airport Areas 4-17
 - 4.4.5 Type 4 —All Other Non-Airport Surrounding Areas..... 4-17
 - 4.5 Sustainable Design 4-18
 - 4.5.1 Minimum Requirements 4-18
 - 4.5.2 Exceptions 4-19
 - 4.6 Design Requirements for Buildings..... 4-19
 - 4.6.1 Architectural Design 4-19
 - 4.6.2 Construction to Match Existing..... 4-23
 - 4.6.3 Fire Safety Equivalents 4-24
 - 4.6.4 General Requirements 4-24
 - 4.6.5 Access Control and Security Systems 4-29

4.6.6	Primary Security Line Design and Construction	4-30
4.6.7	Structural Design	4-34
4.6.8	Building Mechanical Systems	4-38
4.6.9	Building Electrical Systems	4-42
4.6.10	Fire Alarm Systems	4-43
4.6.11	Grounding and Lightning Protection Systems	4-45
4.6.12	Alternative Design Solutions and Test Standards	4-46
4.6.13	Airport Technology Services	4-48
4.6.14	Airport Industrial Control Systems (ICS)/Operational Technology (OT) Security Policy and Standards	4-49
4.6.15	People Moving Devices (PMD)	4-49
5.	Environmental Requirements.....	5-1
5.1	GTAA Environmental Review	5-1
5.1.1	General	5-1
5.1.2	Archaeological Protection	5-1
5.2	Storm Water Management	5-2
5.2.1	Policy	5-2
5.2.2	Requirements	5-2
5.2.3	Erosion and Sediment Control	5-2
5.2.4	Dewatering	5-4
5.2.5	Oil/Water Separators for Storm Sewers	5-4
5.3	Sanitary Sewer	5-4
5.3.1	Effluent Limits.....	5-4
5.3.2	Oil/Water Separators for Sanitary Sewers	5-4
5.4	Waste Management	5-4
5.4.1	Requirements	5-4
5.4.2	Material Exchange Program	5-5
5.5	Hazardous Waste and Materials Management	5-5
5.5.1	Hazardous Materials Definition.....	5-5
5.5.2	Requirements	5-5
5.5.3	Designated Substance Survey	5-6
5.5.4	Moisture Management	5-6
5.6	Chemical Storage and Distribution	5-6

5.6.1	Aboveground and Underground Storage Tanks.....	5-6
5.6.2	Fueling Practices.....	5-7
5.7	Environmental Emergency Response Plan	5-7
5.7.1	Requirements	5-7
5.7.2	Hazardous Material Spill-Control/Containment/Clean up.....	5-8
5.7.3	Disposal of Material	5-8
5.8	Soil Management	5-8
5.8.1	Requirements	5-8
5.8.2	Soil Import/Export Requirements	5-9
5.9	Air Quality	5-9
5.9.1	Outdoor Air Quality	5-9
5.9.2	Indoor Air Quality	5-10
5.10	Noise & Vibration.....	5-10
5.11	Odour Management	5-10
5.12	Equipment Maintenance	5-10
5.13	Natural Heritage.....	5-11
6.	Security and Access Control Procedures	6-1
6.1	Scope.....	6-1
6.2	Accessing the Restricted Area.....	6-1
6.3	Airport Restricted Area Access Clearance Program.....	6-2
6.3.1	Accessing the Critical Area	6-2
6.3.2	<i>License to Operate</i>	6-2
6.3.3	Establishing a New Employer Account with GTAA Pass Control Office	6-3
6.3.4	Transportation Security Clearance (TSC) and Restricted Area Identity Card (RAIC) Application Procedures	6-3
6.3.5	Temporary Passes	6-4
6.3.5.1	iLobby System.....	6-4
6.4	Security Keys	6-5
6.4.1	Keys Control	6-5
6.4.2	Daily Issuance	6-5
6.4.3	Long Term Issuance.....	6-5
6.4.4	Contractor' Responsibilities	6-6

6.4.5	Keycard Access Requests.....	6-6
6.5	Vehicle Permits	6-7
6.5.1	Types	6-7
6.5.2	Vehicle Marker Approval Process	6-7
6.6	Return of Security Items	6-7
6.7	Security Escort.....	6-8
6.8	Contractor’s Responsibility	6-8
6.9	Security Barriers.....	6-9
6.9.1	Security Barriers - Along the PSL.....	6-9
6.9.2	Security Barriers - Within the Restricted/Sterile Area	6-9
6.10	Daily Security Duties by Contractors.....	6-9
6.11	Non-Compliance Penalties and Enforcement	6-10
6.12	Cybersecurity and Data Incident Reporting.....	6-10
7.	Contractor Health and Safety Requirements.....	7-1
7.1	Scope.....	7-1
7.2	GTAA Reporting Systems	7-2
7.2.1	Emergency Dispatch System	7-2
7.2.2	Reporting <i>Unsafe Conditions, Near Misses and Incidents</i>	7-3
7.2.3	Reporting <i>Unsafe Conditions and Incidents to AOC</i>	7-3
7.2.4	<i>Incident</i> Reporting to Project Manager or Contract Administrator	7-3
7.2.5	<i>Occurrence</i> Investigation and Reporting to CCPO.....	7-3
7.3	Emergency Response Planning	7-4
7.3.1	Emergency Plan and Mandatory GTAA Safety & Security Training.....	7-4
7.4	Contractor Health and Safety Submittals	7-5
7.4.1	General Requirements	7-5
7.4.2	GTAA Contractor Safety Pre-Qualification and COR™ or Equivalent Requirements.....	7-5
7.4.3	Submissions Required for Construction Projects.....	7-6
7.4.4	Pre-FAP Meeting	7-7
7.4.5	Roles and Responsibilities	7-7
7.5	Contractor Safety Audit	7-9
7.5.1	Scope	7-9
7.5.2	Procedures	7-10

7.6	Contractor Safety Standards	7-11
7.6.1	Compliance Requirements	7-11
7.6.2	Fire Safety.....	7-11
7.6.3	Mobilization Plan and Phasing Plan	7-17
7.6.4	Housekeeping.....	7-18
7.6.5	Personal Protective Equipment.....	7-20
7.6.6	Work Area Hoarding and Barriers	7-20
7.6.7	Canvas/Tarpaulins	7-23
7.6.8	Surface Penetrations	7-23
7.6.9	Protection of Property and Work in Progress	7-24
7.6.10	Access to Areas of Work.....	7-25
7.6.11	No Smoking Policy	7-25
7.6.12	Confined Spaces	7-25
7.6.13	Working at Heights.....	7-26
7.6.14	Material Handling Safety.....	7-27
7.6.15	Energy Control.....	7-31
7.6.16	Enclosed Spaces	7-32
7.6.17	Trenching and Excavations.....	7-32
7.7	Airport Systems Disruptions	7-33
7.7.1	General.....	7-33
7.7.2	Fire Protection System Shutdowns	7-34
7.7.3	Utility Damage Prevention Program	7-34
7.8	Movement of Equipment and Materials	7-38
7.8.1	Groundside Parking and Deliveries Permits at Terminals	7-38
7.8.2	Delivery of Equipment and Materials	7-39
7.9	Special Procedures for Work in Terminals.....	7-41
7.9.1	General Requirements	7-41
7.10	System Shutdowns and Modifications.....	7-42
7.10.1	Service Room Access.....	7-42
7.10.2	Roof Access.....	7-42
7.10.3	Contractors Working in Terminal Buildings	7-42
8.	Airside Construction Requirements	8-1

8.1	General.....	8-1
8.1.1	<i>Contract Requirements</i>	8-1
8.1.2	<i>Role of the GTAA Project Manager (GTAA Projects)</i>	8-1
8.1.3	<i>Role of the GTAA Project Manager (Non-GTAA Projects)</i>	8-2
8.1.4	<i>Role of Aviation Regulatory Programs Group</i>	8-2
8.1.5	<i>Role of the Officer, Construction Security Planning</i>	8-2
8.1.6	<i>Role of the Airside Construction Coordinator</i>	8-3
8.1.7	<i>Airside Operations</i>	8-3
8.1.8	<i>Critical Area Operations</i>	8-3
8.2	<i>Construction Vehicle Operation</i>	8-4
8.2.1	<i>Compliance Requirements</i>	8-4
8.2.2	<i>Airside Vehicle Operators Permit</i>	8-4
8.3	<i>Construction Operations</i>	8-5
8.3.1	<i>Airside Areas</i>	8-5
8.3.2	<i>Unserviceable Airside Areas</i>	8-9
8.3.3	<i>Runway, Taxiway and Apron Construction Zones</i>	8-10
9.	Technical Data Records and Handover/Takeover Management	9-1
9.1	<i>Scope</i>	9-1
9.2	<i>Submissions to GTAA</i>	9-1
9.2.1	<i>General Requirements</i>	9-1
9.2.2	<i>Submission Requirements</i>	9-3
9.2.3	<i>Substantial Performance</i>	9-4
9.2.4	<i>Total Performance</i>	9-4
9.3	<i>Operation and Maintenance Manuals</i>	9-5
9.3.1	<i>Scope</i>	9-5
9.3.2	<i>Contractor General Requirements</i>	9-5
9.3.3	<i>Contractor Shop Drawings</i>	9-5
9.3.4	<i>Contractor Warranties and Guarantees</i>	9-6
9.4	<i>GTAA’s Enterprise Asset Management (EAMS) System (Maximo)</i>	9-6
9.4.1	<i>Scope</i>	9-6
9.4.2	<i>General Requirements</i>	9-6
9.5	<i>Testing, Commissioning, Acceptance and Turnover (TCAT) Guidelines</i>	9-7
9.5.1	<i>Scope</i>	9-7

9.5.2 General Requirements 9-7

9.6 Technical Training Requirements 9-8

9.6.1 Scope 9-8

9.6.2 General Requirements 9-9

9.7 Operational Readiness, Activation, Transition (ORAT) Program 9-10

9.7.1 Scope 9-10

9.7.2 General Requirements 9-10

Appendix A - Airport Processes - Links and Contact Information

Appendix B - Airport Property Boundaries Drawing

Appendix C - Allowable (In Terminal) Hoarding Signage

- 7.6.6.3 - Detail A – Permitted Hoarding Signage & Placement
- 7.6.6.4 - Detail B – Bilingual “Authorized Personnel Only” Signage
- Bilingual FAP Placard Sample

Appendix D - Airport Critical Area with NPSV Locations Drawing

Appendix E - Toronto Pearson Fire & Emergency Services – Response Boundry Map



The *Airport Construction Code* (this *Code*) is published by the *Greater Toronto Airports Authority* (*GTAA*) to provide a comprehensive set of compliance requirements for *Design*, *Construction* and other *Contractor* activities that are ongoing at *Toronto Pearson Airport* (*Airport*). This *Code* has been prepared to assist *GTAA* and *Tenant* employees, *Consultants*, and *Contractors* with established *Airport* requirements for the planning/execution of *Construction* and/or applicable *Contractor* activities on *Airport Lands*.

The *Construction Compliance & Permits Office* (*CCPO*) represents the principal *Authority Having Jurisdiction* (*AHJ*) and is responsible for regulating compliance by applying this *Code* for applicable activities at the *Airport*. For the purposes of applying this *Code*, the *CCPO* is considered an autonomous entity operating independently of the *GTAA*. Adherence to this *Code* and any herein referenced documents is mandatory for all *Airport Design*, *Construction* initiatives and any other activities where specific requirements are determined to be relevant to the scope of *Work*. Understanding and observing the procedures and requirements outlined in this *Code* by the *Project Initiators*, *Applicants*, *Consultants* and/or *Contractors* will expedite the undertaking of all applicable activities at the *Airport*.

Guide to the Use of the Code

This *Code* specifies the compliance requirements to be included and utilized in the *Designs* for the range of *Construction Projects* conducted at the *Airport*. This *Code* also serves as the central information source for other activities related documents originating within the *GTAA*, and other *AHJs*, which should be applied with the understanding that the latest edition of all documents, codes and standards should be used.

This *Code* is to be read in conjunction with the *National Building Code*, *National Fire Code*, *National Plumbing Code*, the *National Energy Code for Buildings*, TP312E *Aerodrome Standards* and *Recommended Practices for Airside Areas*, and other referenced codes and standards related to specific *Project* types.

This *Code* is divided into nine parts and uses a decimal numbering system similar to that used by the *National Building Code*. The numbering structure is as follows:

3	Part
3.5	Section
3.5.2	Subsection
3.5.2.1	Article
3.5.2.1(2)	Sentence
3.5.2.1(2)(a)	Clause
3.5.2.1(2)(a)(i)	Sub Clause

Summary of the Contents of this Code

Note that [any text that appears in blue](#) reflects new language or requirements from the previous issued version of this *Code*.

Part 1: Code Terminology

Part 1 contains listings of terminology unique to *Construction* at the *Airport*. Subsection 1.1.2 is a listing of all defined terms that appear in **italics** throughout this *Code*. Section 1.2 lists the Construction Classifications and Development Area Types used at the *Airport* as defined by the *GTAA*.

Part 2: Application, Role and Responsibilities

Part 2 contains administrative provisions for all *Construction Projects*. It sets out the expected responsibilities not only of *GTAA* and respective departments, but also of *Consultants* and *Contractors* working at the *Airport*. It sets the requirements for the required inspections and acceptance of *Contractor* completed *Work*, and the required reviews by *GTAA's Independent Code Compliance Consultant (ICCC)*.

Part 3: Approvals

Part 3 contains the requirements for reviews and/or approvals for various stages of *Construction*. *Construction* approval involves a process of submissions and reviews prior to commencing *Construction*.

All *Construction*-related *Work* involving *Airport Facilities* requires the *Project Initiator* of the *Work* to obtain a *Facility Alteration Permit (FAP)* from the *Construction Compliance & Permits Office (CCPO)*. The requirements and conditions for issuance of a *FAP* are stated in this part.

Part 4: Design Requirements

Part 4 contains *GTAA* specific compliance requirements for the *Design* of the entities, systems, and spaces that make up the *Airport* and includes a compendium of acts, regulations, codes, and standards related to *Airport Design* and *Construction*. [One component of the environmental policies of the *GTAA* is the promotion of sustainable Design and Construction, which the *GTAA* has implemented through the adoption of the Canada Green Building Council - Leadership in Energy and Environmental Design \(LEED®\) Green Building Rating Systems. Another component is energy conservation in facilities incorporated in *Design* solutions that reduce consumption and the carbon footprint while operating.](#)

Part 5: Environmental Requirements

Part 5 contains the basic requirements that affect *Design* and *Construction* at the *Airport* with respect to the environment. It deals with the environmental review of *Construction Projects* prior to authorization, regulatory compliance requirements [and mitigation measures required](#) for managing environmental concerns, and monitoring by the *GTAA*.

Part 6: Security/Access Control Procedures

Part 6 contains the requirements for security and access control with respect to *Construction*. *Restricted Area Identity Cards (RAIC)*, *Temporary Security Passes*, *Temporary Construction Passes*, key cards, *Airside Vehicle Operation Permits (AVOP)*, escort services, and surveillance requirements are set out in this part.

Part 7: Contractor Health and Safety Requirements

Part 7 contains *Construction* requirements as they apply to all *Contractors* engaged in *Construction*-related activities at the *Airport*. It sets out requirements for such items as *Incident* reporting and *Emergency* response procedures, protection of property, material handling, locating utilities, disruption of services and *Construction* safety provisions. The section on special procedures outlines those procedures unique to the *Terminals*. Finally, it addresses the roles and responsibilities of all parties involved in coordinating *Airport* operations with *Construction* activities.

Part 8: Airside Construction Requirements

Part 8 contains the requirements for *Airside Construction* in addition to Part 7. It outlines *Contractor* responsibilities, with respect to operating vehicles, height restrictions, and protecting underground services.

Part 9: Technical Data Records and Handover/Takeover Management

Part 9 contains the requirements for providing technical data records to the *GTAA* at the completion of a *Project* for its infrastructure and asset management. The requirements for submitting *Contractor's As-built Documents*, *TCAT* Requirements which include warranties, maintenance manuals, *Enterprise Asset Management System (EAMS)*, and Technical Training Requirements as well as *Consultant's Record Drawings*, and *ORAT Operational Readiness, Activation, Transition Program requirements* are defined and addressed here.

Code Terminology

1.1 Terms and Definitions

1.1.1 Words and Terms Not Listed

- 1 Terms used but not defined in this *Code* shall have their meaning determined in accordance with the following order of priority:
 - a. meaning given to them in the National Building Code,
 - b. meaning commonly understood in the airport construction industry,
 - c. meaning commonly understood in the trade and profession in which the terminology is used, or
 - d. plain English meaning.

1.1.2 Defined Terms

- 1 Definitions provided in Section 1.1.2.2 shall apply only to terms used in this *Code* and not to terms used in other *GTAA* documents, unless such other *GTAA* documents expressly incorporate such definitions by reference.
- 2 The words or terms in *italics* used in this *Code* have the following meanings:

Abandoned means any system or equipment which has become redundant, not in use.

Activity Notice means the notice, or the form completed by the *Contractor* or the *GTAA Project Manager* containing all the information required and authorized by the respective *Airside, Groundside and/or Terminal Construction Coordinator* for the area of the *Airport* involved.

Airport means all lands and facility improvements within the geographical boundaries of Toronto Pearson International Airport.

Airport Areas means those parts of the *Airport Lands* that consist of the following land use zones: *Airside, Groundside* and *Terminals*.

Airport Lands means those parcels of land leased to the *GTAA* by *Her Majesty* pursuant to the terms of the *Ground Lease*, as amended from time to time, and all *Buildings, Facility* improvements and *Structures* now or hereafter located thereon.

Airport Land Use Plan means the land use plan prepared by the *GTAA* pursuant to the *Ground Lease*, as amended from time to time.

Airport Operations includes the Operations and Passenger Experience, Customer and Agency Development, Airport Operations, Airside Ground Operations, Baggage Services, De-icing Operations, Programs & Compliance, Operations Planning, and Fire & Emergency Services departments of the *GTAA*.

Airport Operations Centre (AOC) means the *Airport Space* designated as the *GTAA* command hub for receiving and dispatching all day-of-operations information related to *Airport* activities and *Incidents* and is responsible for notifying and recording events and results.

Airport Space means all areas within *Buildings* operated or maintained by the *GTAA* and specifically designated as *Public Space* and *Service Space*.

Airside means all areas contained within the *Restricted Area* delineated by the *Primary Security Line* allocated to aeronautical activities, and under direct operating control by NAV Canada and the *GTAA*. These areas include, but are not limited to, lands used for runways, taxiways, aprons, *Clear Zones*, access roads, agricultural areas, separation areas, attendant drainage, electrical and electronic systems, as well as *Building* areas identified to be in the *Restricted Area*.

Airside Activity Program means the *GTAA* program that covers *Airside* activities including *Construction/rehabilitation Projects*; routine *Maintenance*; obstacle limitation surface obstructions (e.g., cranes/aerial lifts); and special events (e.g., airshows).

Airside Construction Coordinator means the *Person(s)* designated by the *GTAA* to assess and mitigate *Airside* impact, assess Obstacle Limitation Surface (OLS) impact for aerial devices being used on and outside of *Airport Lands*; to coordinate the planned activities of *Construction* within *Airside* respecting schedules, closures, notifications and tracking of events to mitigate their impact on the normal operation of the *Airport*.

Airside Vehicle Operators' Permits (AVOP) means the certification process which authorizes *Airport* workers to operate vehicles *Airside*, and which involves training and testing of *Airport* workers who must demonstrate a need to operate vehicles *Airside*.

Applicable Codes and Standards, means the *Airport* requirements established as detailed in Section 4.1 of this *Code* to control matters of *Airport Construction* and includes:

- a. the references to regulations, codes, and standards within this *Code*, which may be amended as directed by the *President and Chief Executive Officer*, and
- b. any other non-referenced regulations, codes, and standards applicable to the construction industry and best practices in the Province of Ontario.

Applicant means a *Tenant*, *GTAA* representative, or any other authorized *Person* named on an application submitted to the *Construction Compliance & Permits Office (CCPO)* to initiate the *Facilities Alteration Permit (FAP)* process for a specific *Project*. The *Applicant* can be the *Project Initiator* or a designated *Person* i.e., *Consultant*, *Contractor*, etc.

Application Review Notice (ARN) means the declaration by the *CCPO* indicating that the application for a *Facility Alteration Permit (FAP)* has been received, that the required reviews have been initiated and/or that additional information must be provided that was with not included with the initial *FAP* application submission.

Architect means a *Person* registered and licensed by the Ontario Association of Architects to practice architecture in the Province of Ontario under the *Architects Act* of Ontario, R.S.O. 1990, c. A.26.

As-Built Documents means the digital (PDF & CADD), 3D models using BIM and/or printed sets of the *Construction Documents*, marked up by the *Contractor* to reflect any changes from the *Construction Documents*.

Asset Hierarchy means the GTAA's 7 level Functional Hierarchy for *Physical Assets* and is based on parent/child relationships. All *Physical Assets* reside under its appropriate sub-system, the lowest level of the hierarchy.

Asset Inventory means the list of the *Airport's Physical Assets* and contains individual asset details and specifications along with *Physical Asset's* location.

Asset Life Cycle means the GTAA's 8 Phase Asset Life Cycle process which is intended to capture the full life of an asset, starting at the Front-end Engineering Phase, and ending with the Decommissioning Phase. The Asset Life Cycle is built around the GTAA's ISO55000 framework.

Asset Management Department (AMD) means the department under Technical Performance which is a Business Unit under Airport Development and Technical Services (ADTS).

Asset Onboarding means the process followed by the GTAA to capture new *Asset Inventory* for the purpose of loading into *Maximo* and developing *Maintenance Work Programs*.

Authority Having Jurisdiction (AHJ) means primarily the *Construction Compliance & Permits Office (CCPO)*, as well as any other external agency whose jurisdiction includes the *Airport Lands* and that is referred to in this *Code*.

Aviation Infrastructure means the department of the GTAA responsible for the care and performance of the *GTAA Airside Facilities*

Aviation Programs and Coordination means the department of the GTAA responsible for *Airside* operations and construction activities coordination.

Building means any *Structure* used or intended for supporting or sheltering any use or occupancy.

Building Information Modeling (BIM) is a process supported by various tools, technologies and contracts involving the generation and management of digital representations of physical and functional characteristics of places. BIMs are computer files (often but not always in proprietary formats and containing proprietary data) which can be extracted, exchanged, or networked to support decision-making regarding a built asset. BIM software is used by individuals, businesses and government agencies who plan, design, construct, operate and maintain buildings and diverse physical infrastructures, such as water, refuse, electricity, gas, communication utilities, roads, railways, bridges, ports, and tunnels.

Building Space means all areas within a *Building* operated by the GTAA and specifically designated as leased or leasable for *Tenant* improvement and use.

CATSA means the Canadian Air Transport Security Agency.

Civil Work means all above and below ground non-*Building Structures* and includes infrastructures such as road and bridge systems, landscaping, paving, utility systems and services, as it relates to *Construction* of the *Airport*.

Clear Zone means the area that is measured as 1 meter on the airside and 3 meters on the groundside of the PSL fence line that must be free of any fixed objects. Any temporary objects or construction within this space must be approved through Corporate Safety and Security.

Code means this *Airport Construction Code* published by the GTAA, as amended.

Competent Person means a *Person* who is qualified because of knowledge, training, and experience to organize the *Work* and its performance, is familiar with the *Occupational Health & Safety Act* and the regulations that apply to the *Work* and has knowledge of any potential or actual danger to health or safety in the *Place of Work*.

Construction means the process of building, erecting, altering, repairing, dismantling, demolishing, structural maintenance, painting, land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting, or concreting, the installation of any machinery or plant, and any *Work* or undertaking in connection with a *Project*.

Construction Compliance & Permits Office (CCPO) means the entity responsible for verifying compliance of *Airport Construction* and *Contractor* safety with relevant regulatory and GTAA compliance requirements. Under the *Ground Lease*, the CCPO is designated as the *Authority Having Jurisdiction (AHJ)* for all *Construction* on *Airport Lands*.

Construction Coordinator means the *Person(s)* designated by the GTAA to coordinate the planned activities of *Construction* in the active *Airport Area(s)* which includes *Airside*, *Groundside* and *Terminals* respecting schedules, closures, notifications and tracking of events to mitigate their impact on the normal operation of the *Airport*.

Construction Documents means the drawings, BIM 3D models, specifications, permits, plans, reports, assessments, etc., prepared for *Construction* purposes that form an integral part of the *Contract Documents* for the *Construction* of the *Work* by the *Contractor*.

Contractor means the *Person* who undertakes a *Project* and is responsible for ensuring that *Project* remains in compliance with applicable regulatory and GTAA requirements. Refer to Subsection 7.4.2.

Consultant means a *Person* identified in the *Contract* as being the party responsible for the provision of professional *Design* services in relation to a *Project*. The *Consultant* is the *Architect*, *Professional Engineer*, other designer, or their authorized representatives.

Contract means a binding agreement between parties to perform *Construction* or other services and works to which this *Code* applies. For this *Code*, a *Contract* also means a portion of a “master” contract which is subject to distinct *Substantial Performance* and *Total Performance* dates.

Contract Administrator means the *Person* designated by the GTAA as the principal liaison between the GTAA and the *Tenant Project* representative and can include the GTAA business agent/representative, or a GTAA functional manager.

Contract Documents means those documents listed in the *Contract*, as amended, and agreed upon by the parties to the *Contract*.

Contractor means the *Person* identified in the *Contract* with the GTAA, the *Tenant* or any agency operating at the *Airport* for undertaking and performing the responsibilities of *Construction* activities.

Contractor Activities means any tasks that fall under the definition of *Construction*, *Maintenance* or *Project* and/or that have potential safety, security, or operational impacts.

Critical Restricted Area (CRA) means the actively used area surrounding the *Terminals* and any other area established by the *GTAA* to control vehicle and personnel access onto the apron area.

Data Provision means the assembly of technical documents and drawings to support *Airport Construction* related to specific *Projects* or areas of *Work* prepared by the Engineering Data department upon request.

Dedicated Locates Contractor (DLC) means the *Person* retained by the *GTAA* to oversee *GTAA's* Utility Damage Prevention Program which includes the monitoring of soil disturbance activities by *Contractors* on *Airport Lands*, and to provide locating services for *GTAA* buried utilities in accordance with industry best practices.

Design means plans, drawings, specifications, etc., produced to show the appearance, functionality and/or workings of a *Building*, *building systems*, *Facilities* or *Structures*.

Designer means the *Person* or entity, including but not limited to an *Architect* or *Professional Engineer*, providing *Design* services within the intended scope of a *Project*.

Design Review Committee also commonly referred to as the "Technical Review Committee" or the "Stakeholders Committee" means the committee made up of representatives nominated by different *GTAA* departments to define and evaluate the *Design* requirements of a *Project*.

Emergency means a situation, event, or occurrence(s) that:

- a. constitutes or may constitute a hazard to the health and/or safety of persons,
- b. causes or may cause damage or harm to property, buildings, equipment, or the environment;
or
- c. materially interferes with or prejudices or **without intervention** materially interfere with or prejudice the safe operation of the *Airport* or any part thereof, and which, in the opinion of the *GTAA*, requires immediate action to prevent and/or mitigate the occurrence, or the risk of occurrence, of any of the foregoing.

Emergency Plan means the *Contractor's* established procedures for response to *Emergencies* with pre-assigned roles and responsibilities for implementation during an *Emergency*.

Engineering & Architectural Services (EAS) means the engineering department of the *GTAA Airport Development & Technical Services*, which includes Architectural Services, Facilities Systems Engineering, Airside and Infrastructure Engineering, Engineering Data, and Land Use Planning.

Enterprise Asset Management System (EAMS) means the application (software) used by the *GTAA* to manage *Asset Life Cycle* of *Physical Assets* at an enterprise level. The application is called *Maximo*.

Environmental Baseline Study means the environmental surveys and assessments to characterize and document the pre-development environmental baseline of an area prior to the development of a *Project*. The Environmental Baseline Study may include, but not be limited to, surveys and assessments of the following (as required): Soil and Groundwater (Phase I and/or Phase II Environmental Site Assessment), Natural Environment, Cultural Heritage, Archaeology, Air Quality, Noise.

Environmental Management Plan (EMP) means the *Contractor's* established mitigation procedures for environmental protection during the *Construction*.

Environmental Services means the environmental services department of the GTAA accountable for environmental matters at the *Airport*.

Environmental Management System (EMS) means the GTAA's environmental management system – ISO 14001.

Environmental Review means the review conducted by GTAA *Environmental Services* for each *Project* in compliance with the *Impact Assessment Act*, to define requirements to mitigate the impact of the *Project* and to confirm that the *Project* complies with applicable environmental legislation.

Facility means any [land feature](#) and man-made fixture resting on, over or below the *Airport Lands*, either existing or new, and comprises the *Airport*.

Facility Alteration Permit (FAP) means a written declaration issued by the CCPO authorizing *Construction* in accordance with this *Code*, and includes the permit referred to in any *Contract*, agreement, lease, or license of premises on *Airport Lands* and is commonly called a *FAP*.

Facility Request Form means the form to be completed by the *Tenant* who has or will have a lease, license, or agreement with the GTAA and is initiating a *Project* related to the assigned *Building Space* or *Land Parcel*.

Fire and Emergency Services (F&ES) means the entity of the GTAA responsible for responding to *Incidents* of fire and *Emergency* matters at the *Airport*.

Fire Chief means the chief of GTAA *Fire and Emergency Services*.

Fire Prevention means the division of the GTAA F&ES responsible for the enforcement of the *National Fire Code*.

Foreign Object Debris (FOD) includes any object found in a location that can damage equipment or aircraft or injure *Airport* personnel.

Functional Manager means the GTAA manager who is involved in the development of and is responsible for the execution of the *Maintenance Work Program* for a subset of *Physical Assets*.

General Contractor means the main *Contractor* responsible for: providing all materials, labour, equipment (vehicles & tools) and services necessary for the *Construction* of the *Project*; overseeing the day-to-day activities of a *Construction Place of Work*; management of vendors, trades, and subcontractors; and the communication of required information to all *Project* involved parties throughout the course of *Construction*.

General Review Commitment Certificate (GRCC) means the form provided by the CCPO to be completed by the *Registered Professional* or other *Designer* of the *Project* to indicate the areas of responsibility to be undertaken for the *Design* and for providing periodic review of the *Construction* within the scope of its discipline.

Ground Lease means the lease between *Her Majesty* as represented by the Minister of Transport, and the GTAA, made as of the second day of December 1996, whereby *Her Majesty* leased to the GTAA the *Airport Lands*, as same may be amended, reinstated, or supplemented.

Groundside means all lands and *Building* areas outside the designated *Airside* area allocated to the *Airport* and commercial transportation companies under contract with the GTAA to provide public and private transportation services into and out of the *Airport*.

Groundside Construction Coordinator means the *Person(s)* designated by the GTAA to coordinate the planned activities of *Construction* in the *Groundside Area(s)* respecting schedules, closures, notifications and tracking of events to mitigate their impact on the normal operation of the *Airport*.

Groundside Transportation Services means the GTAA department responsible for *Airport* ground transportation and *Groundside Construction* activities coordination.

GTAA means the Greater Toronto Airports Authority.

GTAA Contractor Safety Pre-Qualification Process means the GTAA process to confirm *Contractors* are meeting the GTAA-established levels of safety competence and which includes the review and verification of the *Contractor's* health & safety policies, procedures, and certifications.

GTAA-maintained means those parts of a *Facility* in *Airside*, *Groundside* and *Terminal* areas directly controlled by the GTAA to operate and maintain exclusively.

GTAA Project Manager means the *Person* designated by the GTAA who is responsible for the overall coordination of the *Project*, and who shall act as the principal liaison between the GTAA and the *Project Consultants* and *Contractors*.

GTAA Technical Training Standards means the set of standards for improving quality of training outcomes as referenced in 9.6.1.4 of this *Code*.

His Majesty means His Majesty the King in Right of Canada.

Hot Work means *Work* that could produce a source of ignition, such as heat, sparks, or open flame. Examples of hot work include welding, brazing, cutting, grinding, soldering, torch-applied roofing, or the use of an open flame of any type within the limits of the *Airport Lands*.

Hot Work Permit Process means the established *Contractors'* process of reviews and signoffs required prior to carrying out any *Hot Work*.

Incident means an unplanned event, condition, or situation that resulted in or could have resulted in injuries, illnesses, damage to health, fatalities, or property damage.

Include means "include, without limiting the generality of the foregoing", and "includes", "including" and similar terms having corresponding meanings.

Independent Code Compliance Consultant (ICCC) means a *Registered Professional* qualified in interpreting the application of the *National Building Code* and referenced standards as they apply to *Construction* and retained by the GTAA as required by the *Ground Lease* to provide independent third-party document reviews and inspections for such duly regulated *Construction*.

Independent Safety Compliance Consultant (ISCC) means the *Person* retained by the GTAA to provide independent third-party review of *Contractor* safety documents and monitoring of the *Construction* activity on *Airport Lands* in accordance with the applicable workplace health and safety regulations.

Industrial Control Systems (ICS): an information system used to control industrial processes such as manufacturing, product handling, production, and distribution. General term that encompasses several types of control systems, including supervisory control and data acquisition (SCADA) systems, human-machine interface (HMI), distributed control systems (DCS), and other

control system configurations such as programmable logic controllers (PLC) often found at GTAA. An ICS consists of combinations of control components (e.g., electrical, mechanical, hydraulic, pneumatic) that influence kinetic and physical operations within the airport campus. Examples include baggage systems, airfield lighting control systems, building management systems, fire control systems, and physical access control mechanisms to name a few. Also refer to the “*Operational Technology (OT)*” definition below and Subsection 4.6.14.

Inspector means the *Person(s)* designated by the GTAA for monitoring and verifying compliance with the approved *Construction Documents* and with the applicable requirements of this *Code* and conditions of the review completed under this *Code*. The Inspector can be designated GTAA staff, trades, *Consultant(s)* and/or *Contractor(s)* who act on behalf and under the jurisdiction of the CCPO.

Issued for Construction Documents refers to a set of bid drawings and specifications that have been modified to include all the changes in the documents due to relevant addenda, selection of alternate pricing options, and other negotiated changes. These are the final documents issued to the *Contractor* to be used during the completion of a *Construction Project*.

Land Parcel means all open land that is leased or leasable from the GTAA for exclusive *Tenant* improvement and use.

Land Use Committee means the group of GTAA representatives that determines the use of a *Land Parcel* prior to a *Project* being initiated that will comprise such *Land Parcel*.

Legal Documents means the printed copies and digital copies of both the *Construction Documents* and the *Record Documents* provided to the GTAA by the *Consultants* or *Contractors* to the GTAA *Project Manager* for the *Project* in accordance with the *Ground Lease*.

Letter of Undertaking by the Applicant means the form to be completed by the *Tenant Project Initiator* and submitted to CCPO with a *FAP application*, confirming that the services of a *Registered Professional(s)* or other *Designer(s)* to Design the same *Project* have been engaged.

License to Operate (LTO) means the license entered between the GTAA and a *Person* for such *Person* to provide services at the *Airport*.

Maintenance means activities that preserve the function of a [system or equipment](#) which may involve cleaning, adjusting, or *Minor Repair* and, does not both include activities mentioned in the definition of *Construction*, and those activities performed on objects mentioned in the definition of a *Project*.

Maintenance Work Program means the specific documented *Maintenance* requirements and tasks that are selected to be carried out on *Physical Assets* to prolong the useful life of the asset and to ensure its continuing functional operation.

Managed Dataset means the GTAA managed datasets, which are comprised of individual CADD files that are maintained as a record of the current condition for each system or engineering discipline on *Airport Lands*. There are *Building* managed datasets and site managed datasets, which are both, required as part of *Construction Project* submissions.

Maximo means the specific *Enterprise Asset Management System (EAMS)* application used by the GTAA.

Minor Repair include routine activities with a one-for-one part replacement without alteration, relocation or improvement to the system, equipment, or building. However, consideration must

be given to the scale, complexity, location, equipment/tools, and risks associated with all the activities required to achieve the repair which may impact worker and/or public safety and/or normal operations that would require the work to go through the FAP process before any work commences.

National Building Code means the National Building Code of Canada.

National Energy Code means the National Energy Code of Canada.

National Fire Code means the National Fire Code of Canada.

National Plumbing Code means the National Plumbing Code of Canada.

Near Miss means an unexpected event that did not cause injury or damage that time but had the potential to do so.

Occupancy/Use Permit means a written declaration issued by the CCPO indicating that the *Project* has reached a state of completion that will support the intended occupancy and/or use and has fulfilled the requirements of *FAP* issued and *this Code*.

Occurrence means an event where a person is critically injured, killed, or disabled from performing his or her usual work or requires medical attention because of an *Incident*, accident, explosion, fire, *Incident* of workplace violence at a workplace or any prescribed *Incidents* under O. Reg. 420/21.

Operational Technology (OT): programmable systems or devices that interact with the physical environment (or manage devices that interact with the physical environment). These systems/devices detect or cause a direct change through the monitoring and/or control of devices, processes, and events. Also refer to the “*Industrial Control Systems (ICS)*” above and new Subsection 4.6.14.

Order to Comply means an order issued by an *Inspector*, directing compliance with any provision of this *Code* or any other *Applicable Codes and Standards*, which in the opinion of the *Inspector*, has been contravened during *Construction* on *Airport Lands*. Such order may require an immediate response or a response within a specified period as indicated on the order.

Owner includes a trustee, receiver, mortgagee in possession, *Tenant*, lessee, or occupier of any lands or premises used or to be used as a workplace, and a *Person* who acts for or on behalf of an owner as an agent or delegate.

Person means any individual or entity, and includes any trustee, receiver, assignee, or other authorized representative thereof.

Physical Assets means all *Airport* physical assets managed and/or maintained by the *GTAA* including *Facilities*, infrastructure, equipment, and systems and excludes human resource assets, IT assets and security system assets.

Place of Work means the designated site or location of the *Work* (including office, storage, staging, laydown areas, etc.) for which a *FAP* is issued.

Preliminary Design Review means the process used by *GTAA Engineering & Architectural Services (EAS)* to provide the *Project Initiator* an initial assessment and defined requirements for the *Project* allowing the *Applicant* to proceed with the detailed *Design* for the application for a *FAP*.

President and Chief Executive Officer means the President and Chief Executive Officer of the GTAA, or the authorized designate.

Primary Security Line (PSL) means a physical security barrier used to prevent or deter access by unauthorized persons to a *Restricted Area*. The *PSL* separates the *Restricted Area* from *Public Spaces* accompanied by appropriate signage.

PSL Clear Safety Zone means the areas adjacent to *Primary Security Line (PSL)* fences and barriers where no vehicles, equipment, trailers, materials, or other obstructions of any kind are permitted to be placed.

Professional Engineer means a *Person* registered and licensed to practice as a *Professional Engineer* by Professional Engineers Ontario (PEO) under the *Professional Engineers Act*, (Ontario). The *Professional Engineer* is engaged by the *Project Initiator* to provide consulting services and where external to the GTAA shall possess a valid Certificate of Authorization issued by the PEO.

Project means an initiative to *Design* and/or construct an undertaken by GTAA or a *Tenant* within the *Airport Lands* and includes:

- the *Construction* or capital improvement of a *Building or Structure*, or any combination thereof,
- the moving of a *Building or Structure*,
- *demolition of a Building or Structure, or other specified capital improvement*, and
- any *Work* or undertaking, or any lands or appurtenances used in connection with *Construction*.

Project Initiator means the *Person* requesting or requiring the *Project* based on a need or opportunity and is either the *Tenant* named in a lease or license with the GTAA or the GTAA representative who initiates the *Project*. For GTAA *Projects* it may be the same *Person* named as the *Applicant* or the *Contract Administrator* or the *Project Sponsor*.

Project Program of Requirements Document means the document prepared by the GTAA containing the prescribed and specified requirements that are deemed to be specific and relevant to the *Project* being initiated.

Public Space means areas reserved for public circulation including aisles, corridors, concourses, and public conveniences including lounges, washrooms, and seating, within *Airport Buildings*. Such spaces may also include automated people movers, UP Express, elevators, escalators, moving walkways, stairs, and ramps.

Real Estate Development means the department of the GTAA responsible for business matters related to the *Airport*, including leases, licenses, and property agreements with *Tenants* of the GTAA.

Record Documents means the set of drawings, specifications, reports, meeting minutes, permits, testing results, surveys, etc., produced by the *Consultants* representing the total documented record of the final *Work* with the *Construction Documents* including change orders, submittals, bulletins, and RFIs, that prompt build change in the project, site instructions, *Contractors' As-Built Documents*, and any other variations from the *Construction Documents*.

Registered Professional means a person who is an *Architect* or a *Professional Engineer*.

Restricted Area means that area of the *Airport* restricted to authorized persons that have *Work* related purposes only and requiring a *Restricted Area Identity Card (RAIC)*, *Temporary Construction Pass*, *Temporary Picture Pass*, or *Temporary Security Control Pass* to access.

Restricted Area Identity Card (RAIC) means an identity card approved by Transport Canada entitling an individual to access the *Restricted/Critical Areas* of the *Airport* when a need and right is present.

Security Barrier means a physical structure or natural feature used to prevent or deter access by unauthorized persons to a restricted area.

Service Space means areas reserved in *Buildings* for rendering services [which includes](#):

- a. General Services - police, fire protection, first aid, communications, public telephones, lost and found, and public information,
- b. Special Services - air passenger security screening and international passenger clearance including immigration, public health, customs, and agricultural inspection, or
- c. *Building* Services - electrical, mechanical, telephone, public address and computer data equipment rooms, chases, and shafts.

Shop Drawings mean the drawings, diagrams, [BIM Models](#), illustrations, schedules, performance charts, brochures, product data and other data that the *Contractor* provides to illustrate details of portions of the *Work*.

Space Allocation Committee means the group of *GTAA* representatives that determines the use of space in *GTAA-maintained Buildings* prior to a *Project* being initiated.

Stakeholder means *Person(s)* forming all or part of a user group who occupy, operate, maintain, and/or service a *Building* or operational area, and represent either the *GTAA* or a *Tenant*.

Sterile Area means the *Restricted Area* of a *Terminal* beyond passenger screening points, access to which is restricted to *Persons* who have been screened.

Stop Work Order means a written declaration issued by a *GTAA Project Manager*, their delegate or an *Inspector* ordering the *Contractor* performing *Construction* to cease performing all or part of the *Work* until the noted transgression is corrected.

Structure means a type of improvement, whether it be permanent or temporary, resting in, on, under or over land or water, including runways, roads, pipelines, conduits, *Buildings* and all their component parts and features, freestanding fixtures, appurtenances, and equipment.

Substantial Performance means the substantial performance of the *Work* or the services as defined in a *Contract* and if not so defined, then shall be defined in accordance with the *Construction Act* of the Province of Ontario, as amended from time to time. For clarification refer to 9.2.3 of this *Code* for the specific *GTAA* requirements for achieving substantial performance.

Temporary Construction Pass means a temporary pass, which allows a *Construction* employee or [project consultant](#) under escort access to the *Restricted Areas*.

Temporary Security Control Pass means a temporary three-month pass issued by the *Pass Permit Control Office* that allows holders to access a *Restricted Area*, with restrictions. *Temporary Security Control Pass* holders require escort/surveillance within a *Construction* site or areas in which passengers are not authorized to enter.

Tenant means the *Person* (including the *GTAA*) named on any lease, license or permit originating from and executed by the *GTAA* or as assigned to the *GTAA* by *Her Majesty* in accordance with the *Ground Lease*, which allows the improvement and use of *Building Spaces, Land Parcels*, or any other areas of the *Airport*.

Tenant Co-ordinator means the *Person* who coordinates the *Tenant Requirements Definition Process* also known as the *Stakeholders' Review Process*.

Tenant Requirement Definition Process means the process where all applicable *GTAA Stakeholders* have an opportunity to review *Project Program of Requirements Documents* and provide their comments applicable to their *Airport* roles & responsibilities.

Terminal(s) means the *Buildings* at the *Airport* extending from the inner vestibule sliding doors to the fixed portion of the passenger loading bridges and from the service levels to the upper most level of each *Building* which includes Terminal 1 (T1), Terminal 3 (T3) and the Infield Concourse (IFC).

Terminal Infrastructure means the department of the *GTAA* responsible for the care and performance of the *GTAA Terminal Facilities and systems*.

Terminal Construction Coordinator means the *Person(s)* designated by the *GTAA* to coordinate the planned activities of *Construction* within the *Terminals* respecting schedules, closures, notifications and tracking of events to mitigate their impact on the normal operation of the *Terminals*.

Terminal Operations means the *GTAA* department responsible for *Terminal* operations and construction activities coordination.

Testing, Commissioning, Acceptance and Turnover (TCAT) means the defined program of standards / expectations to follow when performing specific *Project* activities related to new assets / systems at the *Airport*.

Threat/Hazard Identification and Risk Assessment (T/HIRA) means the assessment conducted by the *GTAA* to identify hazards that may occur due to a significant operational or organizational change. The T/HIRA is used to identify what the risks associated with those hazards would be and what the mitigations would be to reduce the risk to an acceptable level.

Three-Dimensional Scanning (3D Scanning) mean the process of capturing a real-world object or environment to collect data on its shape and its appearance with use of scanner equipment (LIDAR and laser, other methods). The collected data can then be used to construct digital 3D models to obtain the most current and reliable 3D existing condition models. A 3D scanner can be based on many different technologies, each with its own limitations, advantages, and costs.

Tools of the Trade means a prohibited item that is permitted to enter the restricted area while in the care and control of a person acting in the course of their employment and required to perform their duties at the airport.

Toronto Pearson Handbook for Business Partners means the *Airport* rules and regulations established and published by the *GTAA* as a document to govern the general conduct of all *Persons* while on *Airport Lands*.

Total Performance means the total performance of the *Work* or the services as defined in a *Contract* and if not so defined, then shall be defined in accordance with the Construction Act of

the Province of Ontario, as amended. For clarification refer to 9.2.4 of this *Code* for the specific GTAA requirements for achieving total performance.

Unsafe Condition means a condition where something exists that varies from a normal accepted safe condition and can result in injury, death, or property damage, if not corrected properly.

Unsuitable Worker means an individual working on Airport Lands who, in the GTAA's opinion, is found to have violated any Airport rules, practices or standards of conduct as noted in any Airport published documents which includes "The Pearson Standard: Rules & Regulations" and/or the "Airport Construction Code" and whose action or inaction, presents a risk to safety, security and/or had or may have had a detrimental operational impact to the Airport.

Work means the total *Construction* and related services required by the *Contract Documents* for which a *Facility Alteration Permit (FAP)* is issued.

1.2 Airport Construction

1.2.1 Construction Types

New Building—includes a standalone *Structure* with a specific use or occupancy.

Additions to an existing Building—include a standalone *Structure* to which a new *Structure* is added with independent and/or extended *Building* systems and services.

Alterations to an existing Building—includes a standalone *Structure* in which portions of the existing *Structure(s)* or system(s) is removed and replaced with new *Construction* for the purpose of a similar or new use.

Improvements in Terminals—includes interior alterations to an existing *Building Space* exclusive to portions of the *Terminal(s)*.

Additions to Building System(s)—includes alterations of or extensions to existing *Building* systems.

Groundside Civil—includes new installations, additions, or alterations to existing aboveground and underground *Structures*, road and bridge systems, utility systems, site grading, landscaping, and all other non-*Building Structures*.

Airside Civil—includes new installations, additions, or alterations to above-ground and underground utility systems, drainage systems, runways, aprons, taxiways, service roads, tunnels, site grading, landscaping or other non-*Building Structures* that facilitate aircraft activities in areas under direct operating control by Nav Canada and/or the GTAA.

Other—includes miscellaneous *Projects* such as signage, advertising, mobile *Structures*, [decommissioning of Structures including permanent fill or capping](#), etc.

1.2.2 Development Area Types

Type 1 includes *Land Parcels* for *Tenant* improvement and use.

Type 2 includes *Building Spaces* for *Tenant* improvement and use.

Type 3 includes all other *Airport Areas* controlled, operated, or maintained by the GTAA.

Application, Roles, and Responsibilities

2.1 Scope

2.1.1 Design & Construction Activities

- 1 This *Code* applies to all *Consultant Design* and *Contractor Construction* activities conducted at the *Airport* which shall include:
 - a. the *Design, Construction*, and occupancy/use of all *Buildings and Structures*,
 - b. the alteration, reconstruction, demolition, removal, relocation, and occupancy/use of existing *Buildings and Structures*,
 - c. the *Construction*, alteration, removal and use of any other spaces, areas, and systems of the *Facility*.
- 2 For *new buildings and structures* or altering an existing structure will require:
 - a. Approval for land use from *Engineering & Architectural Services (EAS)* Land Use Planning and Nav Canada. Questions with regards to this requirement should be forwarded to Manager, Land Use Planning.
 - b. An Operational Impact Assessments to establish capacity or flow impacts. The GTAA Operations Planning - Operations Delivery Group can assist with this requirement.

2.1.2 New Buildings

- 1 For new *Buildings* the applicable base codes as adapted by CCPO which are in effect as of September 1, 2022, include 2020 *National Building Code*, *National Fire Code*, *National Plumbing Code*, and *National Energy Code of Canada* to achieve compliance for the *Design, Construction*, and *Occupancy/Use* as applied to Subsection 1.2.1 and 1.2.2 of this *Code*. Other codes and standards may also be used if applicable and as determined by the CCPO.

2.1.3 Existing Buildings

- 1 For existing *Buildings*, the applicable base codes as adapted by CCPO which are in effect as of September 1, 2022, include 2020 *National Building Code*, *National Fire Code*, *National Plumbing Code*, and *National Energy Code of Canada* and this Code apply to the alteration, reconstruction, demolition, removal, relocation, and Occupancy/Use of all existing Buildings covered therein, to achieve compliance for the Design, Construction and Occupancy/Use of all such Buildings.
- 2 The *National Building Code* and this Code will not be retroactively applied to existing *Buildings* or portions thereof where no alterations are being made. Exceptions to this requirement may arise where a *Design* solution will require a necessary level of safety for the alteration of a *Building* and include such requirements considered favourable to both the *Consultant* and the *Authority Having Jurisdiction (AHJ)*. Refer to the *National Building Code*, Division A - Notes to Part 1 Compliance, A-1.1.1.1(1) Application to Existing Buildings, for further explanation.

2.1.4 Change of Use and Occupancy

- 1 Prior to a *Facility Alteration Permit (FAP)* being issued to authorize the change of use and/or occupancy for existing *Buildings* or *Building Spaces*, the *Project Initiator* shall have the following information reviews completed:
 - a. A Code compliance review of the necessary requirements for the new use in accordance with the *National Building Code*; all applicable standards; and
 - b. a physical condition review that notes variances from as-built drawings, defects, and deficiencies to be corrected to support the new use.
- 2 A separate *FAP* for change of use and/or occupancy is not required where the change in use of a *Building* or part will result from *Construction* and a *FAP* application submission will be made to the *Construction Compliance & Permits Office (CCPO)*.

2.1.5 Other Types of Structures

- 1 Part 4 of the *National Building Code* applies to a specific list of *Structures* that may be referenced when applicable.
- 2 The following types of *Structures* may be found in this Code where each may refer to a specific standard(s) and requirements:
 - a. roadways and parking lots used by vehicles,
 - b. bridges and tower structures,
 - c. runways, taxiways, and apron areas used for aircraft manoeuvring,
 - d. sub-grade storage tanks and structures,
 - e. storm water control and storage pond grading,
 - f. above-grade and sub-grade utility infrastructure,
 - g. airfield navigational and lighting systems,
 - h. fences, barricades, sound attenuation walls, jet blast barriers; and

- i. other miscellaneous structures.

2.1.6 Interpretation and Clarification

- 1 All requests for clarification of specific information in this *Code* shall be directed to the *CCPO* for determining the formal response to be provided.

2.2 GTAA Organization for Airport Construction

2.2.1 General

- 1 This Section identifies the organizational roles of *GTAA* departments that are responsible for providing *Stakeholders'* input and/or are responsible for the issuance of permits and permissions or are involved in the *Design/Construction and Maintenance Works* being executed at the *Airport*.
- 2 It is the responsibility of the *Person(s)* engaged in *Design, Construction or Maintenance* activities to contact the *Project Manager, Contract Administrator or the Project Initiator* where the level of understanding of the specific requirements needs to be clarified or confirmed before any such *Design, Construction or Maintenance* activity is started.

2.2.2 GTAA Responsibilities

- 1 The *GTAA* is responsible for providing comprehensive oversight of the daily movement and activity within all *Airport Areas* and to ensure safe, secure, and functionally continuous operations for all users of *Airport Facilities*.
- 2 The following departments of the *GTAA* are involved in all matters of *Airport Design and Construction*:
 - a. *Engineering & Architectural Services (EAS) and applicable engineers working for GTAA are responsible for participating in the GTAA Stakeholders review process to:*
 - i. *review and provide* an initial assessment and *Preliminary Design* of proposed *Projects to help establish the applicable GTAA* requirements,
 - ii. the review of *Project* documents for technical conformance,
 - iii. the review and assessment for land use compatibility with *Airport* height restrictions, wildlife hazards and electronic zoning protection, and
 - iv. review of completed *Work* for compliance with the *Contract Documents*.
 - b. The *CCPO* is responsible for issuing *Facility Alteration Permits (FAP)*, monitoring all activities carried out under the *FAP* in conjunction with *Airport* operations, and verifying compliance of the completed *Work* with this *Code*, all *Applicable Codes, and Standards* and other *Project* documents. The *CCPO* is also responsible for:
 - i. engaging the *Independent Code Compliance Consultant (ICCC)* in accordance with Section 2.8 of this *Code* for all Class A to E *Construction*.

- ii. engaging the *Independent Safety Compliance Consultant (ISCC)* in accordance with Section 7.4 of this *Code*.
 - iii. engaging the *Dedicated Locates Contractor (DLC)* in accordance with Subsection 7.7.3 of this *Code*.
 - iv. copying the respective *Airport Construction Coordinator(s)*, Fire and Emergency Services (F&ES), EAS Land Use Planning, and/or other external Authority Having Jurisdiction (AHJ) on applicable correspondence to make them aware of the *Construction* being planned under the *FAP*.
- c. *GTAA Energy and Utilities is responsible for review and assessment of provisioning the supply of power (medium voltage), natural gas, water and sewer.*
- 3 *GTAA Operations Planning* is responsible for ensuring that all *Construction* related activities comply with the operational regulations and requirements governing the *Terminals* in coordination with the GTAA Terminal Operations Group through the Terminal Work Permit (TWP) process. Refer to Section 7.9 of this *Code*. Also, are responsible for coordinating the Operational Readiness Acceptance, Testing (ORAT) processes.
 - 4 *Groundside Transportation Services* is responsible for ensuring that all *Construction*-related activities comply with the operational regulations and requirements governing *Groundside* through the Groundside Activity Notices process. Refer to Section 7.8 of this *Code*.
 - 5 *GTAA Airport Operations - Operations Delivery & Readiness - Airside Coordination* is responsible for ensuring that all *Construction*-related activities comply with the operational regulations governing *Airside* through the Airside Activity & Crane Permits processes. Refer to Part 8 of this *Code*.
 - 6 *Environmental Services* is responsible for monitoring all processes, and procedures involving environmental impacts of *Construction* and assuring adherence to all governing regulations. Refer to Part 5 of this *Code*.
 - 7 *Terminal Infrastructure* and *Aviation Infrastructure* are responsible for making provisions to support and integrate the requirements of *Construction* and coordinating *Airport* systems isolation and shutdown scheduling with *Contractor* requests. *Terminal Infrastructure* also has oversight and ownership of the *Testing, Commissioning, Acceptance and Turnover (TCAT)* program for *Terminal Projects*.
 - 8 *Corporate Safety and Security* is responsible for ensuring security plans for construction related activities comply with the regulations, policies, and practices for *Airport* security. They are also responsible for access control, security regulation governance and compliance, and administration of *Restricted Area Identity Cards (RAIC)*, *Temporary Security Control Passes* and *Temporary Construction Passes*. Security Operations Control is responsible for day of monitoring of *Airport* security posture, including access control. (Refer to Parts 4 & 6 of this *Code*).
 - 9 *Airport Development & Construction* is responsible for managing all capital *Projects* and ensuring that their *Consultants & Contractors* follow all requirements of this

Code for Project Design and Construction and for the engagement and reviews by all applicable *Stakeholders*.

- 10 *Airport Operations Centre (AOC)* acts as the GTAA's central communications, information management and dispatch/notification point, and assists in the overall coordination of emergency situations. The **AOC's Emergency Line** can be reached at **416 776 3033**. **Non-emergency** issues should be reported to **416 776 3055**.
- 11 *GTAA Energy and Utilities* is responsible for review and assessment of provisioning the supply of power (medium voltage), natural gas, water and sewer.

2.2.3 Consultant Responsibilities

- 1 *Registered Professionals* and other *Consultants* engaged for the purpose of providing professional services to the GTAA or its *Tenants* shall be responsible for:
 - a. all *Work* emanating from these services conforming with this *Code* and all other *Applicable Codes and Standards*,
 - b. all *Tenant* design work within *Terminal Facilities* must conform to the *Tenant Design Standards*. Refer to applicable links in Appendix A.
 - c. performing their duties providing reasonable standard of care, competence, knowledge, skill, and professional judgment, and
 - d. providing quality control assurance and professional review of the *Construction* in accordance with the performance standards of their respective governing professional association(s) as may apply, and as required under their *Contract* with the GTAA, or agreements with *Tenants*.
 - e. Signing and Sealing all design work going through the *FAP* process.
 - f. Providing regular site review, construction review and construction administration activities to protect the intent and quality of the design.

2.2.4 Contractor Responsibilities

- 1 *Contractors* engaged for the purpose of providing *Construction Work* to the GTAA or its *Tenants* shall be responsible for:
 - a. the health and safety of all those that may be engaged in activities within the *Place of Work*, or be impacted by the *Work* including, but not limited to noise, dust, etc., and includes workers directly employed, subcontracted, working adjacent to or near members of the public,
 - b. all *Construction* being in conformance with this *Code* and all other *Applicable Codes and Standards*,
 - c. ensuring the *Contractors'* employees, subcontractors, and suppliers conform with all GTAA requirements for performing *Work* at the *Airport*,
 - d. ensuring on-going and completed *Work* quality control prior to turning the area and systems over to the GTAA or *Tenant*, and

- e. inspecting and highlighting any issues that may alter the scope of *Work* provided by the *GTAA* or *Tenant* prior to accepting the proposed *Place of Work*.
 - f. *Where the CCPO has issued an Order to Comply under Sentence 2.4.3.5(1) and considers it necessary for the safety of the public, GTAA may cause the premises to be altered, repaired, or demolished to remove the Unsafe Condition, or take such other action, as it considers necessary for the protection of the public. The Contractor named on the FAP shall be responsible for paying all costs.*
- 2 In addition to a *FAP* as detailed in Section 2.4, *Contractors* may also need to obtain other permissions or permits: System Shutdowns, Crane Permits, Terminal Permits, Groundside Activity Permits, Airside Activity Notices, Roof Access, & Nav Canada Review & Approval for aerial devices & equipment. Specific requirements are included in the conditions for each *FAP* issued.
- 3 The coordination for access shall be undertaken as follows:
- a. The *Contractor*, prior to their application for the relevant permit to *Work* to take possession of a space, shall coordinate with *GTAA* to identify assets/spaces/systems. *GTAA* will require continued access to undertake said inspections or maintenance activities.
 - b. The *Contractor* will always maintain safe access to such assets/spaces/systems during *Construction* or provide an alternative safe access as deemed necessary by and coordinated with *GTAA*.
 - c. In accordance with the *Contractor's* site access process, the *GTAA* and/or their representative will provide a minimum of 24 hours notice to the *Contractor* prior to access being required which will include details/particulars of the activities they will undertake.
 - d. Prior to the *GTAA* and/or their personnel accessing the site at the pre-arranged time, they will provide the necessary confirmation to the *Contractor's* site supervisor or person in charge.
 - e. Personnel from the *GTAA* and/or their representative, that require access to the space to undertake inspections or maintenance activities will be required to attend and pass the *Contractor's* safety induction. The *GTAA* will coordinate with the *Contractor* to arrange such safety inductions, that are to be provided on a as required basis.
- 4 Emergency:
- a. The *GTAA* may suspend the *Work* and/or services at any time, with immediate effect, and/or take any protective action, and/or remedy any defect to the *Airport* and its systems or subsystems, if *GTAA* reasonably believes, in its role as the operator of the *Airport*, that the safety of the *Airport* or any persons is at risk, or the suspension or protective action is in the best interests of the operations or safety or security of the *Airport*.
 - b. The *Contractor* as part of their Project-Specific Safety Plan will provide to the *GTAA* a single, 24hr/7days per week, Emergency Contact Number for the full duration of the *Work*.

- c. If access is required in the case of an *Emergency*, the *Contractor* will be contacted, by *GTAA*, on the referenced Emergency Contact Number and access coordinated.
- 5 Testing and commissioning of assets and systems to be completed to the satisfaction of the *GTAA* and/or its designated representative.

2.3 Design and Review Services

2.3.1 Qualifications of Service Providers

2.3.1.1 Application

- 1 This Subsection applies to any *Architect*, *Professional Engineer* and/or other *Designer* engaged by the *GTAA*, a *Contractor*, or a *Tenant* for *Design*-related purposes related to *Airport Construction*.

2.3.1.2 Qualifications

- 1 **Lead Person** providing technical *Design* and/or review services shall have the applicable qualifications & licenses required by the Province of Ontario for the specific professional discipline and/or technical expertise being provided.
- 2 If requested by the *Construction Compliance & Permits Office (CCPO)*, such *Person* shall submit evidence of the qualifications referenced in Sentence (1) as part of the information submitted with the application for a *Facility Alteration Permit (FAP)*.

2.3.2 Provision of Design Services

- 1 *The Construction shall be designed and reviewed during Construction by a Registered Professional(s), their subordinates or others licensed as required by this Code, the National Building Code, the applicable laws, and obligations of each professional association.*
- 2 Where a *Building* or part thereof is designed by an *Architect* or a *Professional Engineer*, or a combination of both, all *Construction Documents* and any *design* changes thereto shall be prepared by and bear the signature and seal of the *Architect*, *Professional Engineer* or both as applicable and which is part of the information submitted with the application for a *FAP*.
- 3 The *CCPO* in its sole discretion may require a *National Building Code* report or *National Building Code* matrix be submitted to the *CCPO* prior to commencing the *Project* detailed *Design*. Such report or matrix once reviewed by the *ICCC* and accepted by the *CCPO* will form the agreement in principle for the **minimum** application of the *National Building Code* requirements being utilized for the *Project* detailed *Design* development.
- 4 The following elements are required by the *GTAA* to be designed by a *Professional Engineer* and *Architect* as applicable. *Construction Documents* and *Shop Drawings* for such elements submitted for approval shall bear the signature and seal of a *Professional Engineer*:

- a. all *Civil Work*, site services, or alterations thereto, determined by the *CCPO*,
- b. foundations of a *Building* or *Structure*, or alterations thereto,
- c. superstructure of a *Building* or *Structure*, or alterations thereto,
- d. mechanical and/or electrical systems, or alterations thereto,
- e. life safety systems, or alterations thereto,
- f. elements of a *Building* or *Structure* having imposed live and/or dead loads,
- g. elements that impose live or dead loads on a *Building* or *Structure* (including applied or attached elements such as signage), or
- h. condition assessment in existing *Buildings* that are to be altered.
- i. geotechnical, Protective Design.

2.3.3 General Review

2.3.3.1 Provision of Services

- 1 Except as permitted in Sentence (2), a *Person* who intends to construct or have constructed a *Building*, *Structure* or *Civil Work* required to be designed shall assemble a *Design* team with a designated lead *Designer* who shall ensure that each *Architect* and *Professional Engineer* will take responsibility for their *Design* and undertake the general review of the *Construction* of the *Building* in accordance with the performance standards of the Ontario Association of Architects and/or Professional Engineers Ontario.
- 2 The *Designer(s)* shall carry out sufficient periodic site visits at appropriate intervals during the various stages of *Construction* to determine if the *Work* is conforming with the *Contract Documents* and shall produce and submit Field Review reports in compliance with the requirements of the applicable professional associations to the *GTAA Project Manager* (as applicable) and to the *CCPO* who will distribute to *EAS* for their review.
- 3 Where the *Project* scope requires new surface penetrations of any concrete *Structures* including coring, drilling, chipping, cutting, etc., will require the assessment and sign-off of a structural engineer in compliance with the *GTAA Surface Penetration Guidelines*. Refer to Link in Appendix A – Item #25.
- 4 Where *Design* services are provided by a *Designer(s)* other than an *Architect* or a *Professional Engineer* where permitted by this *Code* and applicable laws and regulations, such *Designer(s)* shall carry out sufficient periodic site visits at appropriate intervals during the various stages of *Construction* to determine if the *Work* is conforming with the *Contract Documents* and shall produce and submit Field Review reports in compliance with the requirements of the applicable professional associations to the *GTAA Project Manager* (as applicable) and to the *CCPO* who will distribute to *EAS* for their review.
- 5 The *Project Designer(s)* shall include with the letters of assurance submitted to *CCPO* a consolidated or individual final defects and deficiencies report(s) for

notifying the *Contractor* of items to be corrected and for distribution by *CCPO* to *EAS* for their review.

- 6 Upon completion of the *Construction*, the *Registered Professional(s)* and/or other *Designer(s)* providing the general review, shall each submit letters of assurance to the *CCPO*, stating that to the best of their knowledge, the *Construction* has been performed in accordance with this *Code*, the *National Building Code* and all other *Applicable Codes and Standards*. Such letters of assurance shall be sealed and signed and dated by the *Registered Professional(s)*.
- 7 Where multiple *Design* disciplines are involved, an *Interdisciplinary Design Review (IDR)* shall be conducted by all *Designers* at a minimum of the 60% and 100% design stages to identify and resolve coordination issue.

In addition, where required by the Program Requirements or deemed necessary by the *GTAA*, a Peer Review shall be performed by a qualified *Professional Engineer* who is independent of the original *Design* discipline.

The Peer Reviewer may be internal to the *Design* team or a third party and shall assess discipline-specific *Design* integrity and compliance.

2.3.3.2 **Restrictions for General Review**

- 1 An *Architect* or those under direct supervision may carry out or provide the general review of the *Construction* of a *Building* within the limitations stated by the Ontario Association of Architects.
- 2 A *Professional Engineer* or those under direct supervision may carry out or provide the general review of the *Construction* of a *Building, Structure* or *Civil Work* within the limitations stated by the Professional Engineers of Ontario.

2.3.3.3 **Demolition**

- 1 Where the demolition of a *Building* or *Structure* (or any part thereof) may be involved, the *Project Initiator* of a *FAP* for such *Construction* shall retain a *Professional Engineer* to undertake the general review of the demolition if:
 - a. the *Building* exceeds three storeys in building height or 600 m² in building area,
 - b. the *Structure* includes pre-stressed or post-tensioned members,
 - c. it is proposed that the demolition will extend below the level of the footings of any adjacent *Building* or *Structure* and occur within the angle of repose of the soil, drawn from the bottom of such footings,
 - d. explosives are used, under strict approval from the *GTAA*,
 - e. a laser is to be used during demolition, under strict approval from the *GTAA*,
 - f. any hangar building or those areas with multistory height open areas, or
 - g. areas that include superstructure of existing buildings and structures.

- 2 The *Building* owner shall ensure that a Designated Substance Survey is completed and made available to the *Contractor*.

2.4 Permits and AHJ/GTAA Inspections

2.4.1 Permits

2.4.1.1 Requirement of a Facility Alteration Permit

- 1 A *Facility Alteration Permit (FAP)* as detailed in Section 3.3 is required for all *Construction activities* (as defined by this *Code*), or maintenance activities that fall under the definition of *Construction* and include:
 - a. *Projects* that are required to be designed by an *Architect* or *Professional Engineer* which includes new construction, renovation, alteration, demolition, repair, or restoration of any buildings, building systems, structures, roads, groundside & airside facilities (roads, parking lots, runways, taxiways, aprons, SWM facilities, etc.) and/or utilities on *Airport Lands*.
 - b. *Contractor* activities that include specific hazards, risks, or operational impact as determined by *CCPO* that requires detailed plans and mitigating measures to be in place for worker and public safety and to minimize operational impact.
 - c. *Work* required to bring a leased space back to base *Building* and make safe prior to returning the space back to the *GTAA*. Make safe *Work* includes all [Mechanical, Electrical, Plumbing, Fire Protection, Fire Alarm and Low Voltage](#). This may include removal of lighting fixtures, all electrical equipment, and dedicated circuits back to the electrical panel; removal of plumbing fixtures, branch piping and capping back at the lease line or at the main service supply line; purging and removal of gas appliances and branch piping and capping back at the lease line or at the main service supply line.
 - d. Demolition of a *Building, Structure or Airport Facility*. No *Person* shall commence demolition of a *Building* or any part thereof before the *Building* has been vacated by the occupants except where the safety of the occupants has been assessed by the *Contractor* as not being affected and reviewed by the *CCPO* and [applicable GTAA Stakeholders](#).

2.4.1.2 Partial Permit

- 1 The *CCPO* may issue a partial *FAP* for any stage of *Construction* if the following conditions have been established or satisfactorily completed:
 - a. compliance with applicable requirements of this *Code* has been achieved in respect of the stage being proposed to start *Construction*,
 - b. evidence, satisfactory to the *CCPO* has been presented establishing that unreasonable delays in such stage of *Construction* would occur if a partial permit were not granted, and
 - c. the *Applicant* agrees in writing with the *CCPO* to,

- i. assume all associated cost risk in commencing *Construction* without the benefit of a full review of the completed *Design* by the appropriate departments of the *GTAA*,
- ii. obtain all necessary approvals including *Activity Notices or other Permits* as may be required before any *Construction* commences,
- iii. submit plans and specifications of the complete *Building or Structure or multiple packages for phased work*, to the *CCPO*.
- iv. at the *Applicant's* expense, remove any part of the *Building or Structure* completed and restore the *Place of Work* in the manner specified in the *Contract or as negotiated with the owner* if authorization is not obtained or plans submitted in the time set out in the *Contract*, and
- v. comply with all other conditions as the *CCPO* considers necessary, including the provision of safety and security for compliance with Sub Clause (iv) above.

2.4.1.3 **Permit Posting**

- 1 Where a *FAP* has been issued pursuant to this *Code*, the *Contractor* who has been issued the *FAP* shall ensure that a *valid FAP* placard is posted for the duration of the *Construction* at each entrance to the *Place of Work*.
- 2 For *any mobile Work on Airport Lands, specific within a Terminal* such as conduit/cabling runs, signage *Work*, etc., and for exterior site activities, *Contractors* must ensure that a digital copy of the *FAP* placard can be produced (on cell phone, tablet, or laptop) upon request. Failure to produce a valid *FAP* placard will result in an immediate stoppage of *Work* until either a hard or digital copy of the *FAP* placard can be produced.

2.4.2 **Site Documents**

- 1 The *Contractor* to whom the *FAP* was issued shall be responsible for the actions of the *Person* in charge of the *Work* to keep and maintain at the *Place of Work* for review by a *GTAA Inspector* at any time:
 - a. *A valid hardcopy or digital copy of the FAP placard issued by CCPO.*
 - b. at least one copy of the set of drawings and specifications submitted and approved for the *FAP*,
 - b. a copy of all change orders and site instructions to the *Contract* in either hard or digital copy,
 - c. a copy of all reviewed *Shop Drawings*,
 - d. a copy of all *field reports* and inspection reports prepared by the *Registered Professional(s)*,
 - e. copies of all *Contractor's* Surface Penetration reviews including applicable documentation, and all completed *Hot Work Fire Safety Checklists* with properly executed applicable signoffs,
 - f. a copy of all reports and certificates provided by external agencies for the inspection, testing and verification of systems, equipment, products, and

assemblies of the *Work*, which shall also be submitted to the *CCPO* when requested, and as part of the *Project* close-out documentation,

- g. the as-built markings by the *Contractor* of any changes to the *Work* indicated on the *Construction Documents*; and
- h. a copy of the Project-Specific Safety Plan (PSSP) and all health and safety documents required by the *Occupational Health and Safety Act* (OHSA) and associated Regulations.

2.4.3 Notices and Inspections

2.4.3.1 Prescribed Notices

- 1 The *Contractor* to whom a *FAP* is to be issued shall notify the *CCPO* of their readiness to start the *Work*.
- 2 The relevant *Activity Notice(s)* or Permits for *Groundside*, *Airside* and *Terminals* shall be requested by the *Contractor* and issued by the *Construction Coordinator(s)* with a copy provided to the *CCPO*. Refer to Appendix A of this *Code* for a list of applicable *Activity Notices* or Permits.
- 3 The *Contractor* shall notify the *CCPO* by submitting a completed and signed Request for Inspection form provided on-line minimum of 5 business days' notice in advance of the date of any required inspection. Refer to Link in Appendix A – Item #5.
- 4 Further to Sentence (4), unless otherwise instructed, the *Contractor* shall notify the *CCPO* of:
 - a. the commencement date of the *Construction*,
 - b. the commencement of any form of soil disturbance for footings, foundations and other sub-grade *Structures* and services,
 - c. the readiness to commence the installation of underground services,
 - d. the substantial completion of the footings, foundations, and other sub-grade *Structures*,
 - e. the substantial completion of the installation of underground services,
 - f. the substantial completion of the structural framing,
 - g. the substantial completion of roughing-in of heating, ventilation, air-conditioning, and air-contaminant extraction equipment,
 - h. the substantial completion of insulation, vapour barriers and air barriers,
 - i. the substantial completion of all required fire separations and closures and all fire protection systems including standpipe, sprinkler, fire alarm and emergency lighting systems,
 - j. of the substantial completion of exterior cladding, fire access routes and site grading,
 - k. the substantial completion of the airfield navigation and lightning systems,
 - l. of the readiness for inspecting and testing of systems including:
 - i. *Building sewers* and *Building drains*,

- ii. water service pipes,
 - iii. fire service mains,
 - iv. drainage systems and venting systems,
 - v. water distribution system,
 - vi. plumbing fixtures and plumbing appliances,
 - vii. security systems,
 - viii. fire alarm & monitoring systems,
 - ix. fire suppression systems and equipment,
 - x. baggage systems,
 - xi. passenger boarding bridges, and
 - xii. as may be requested by *CCPO* and detailed in the conditions of the issued *FAP*.
- m. completing plumbing installations not located in a *Structure* before commencing backfilling activity, and
 - n. completing *Construction* and installation of components required for issuing an *Occupancy/Use Permit* under Section 2.5 if the *Construction* or part thereof to be occupied or used is not fully completed.
- 5 Also, further to Sentence (4), *Contractors* shall submit [look ahead schedules at a frequency that is agreed to between GTAA and the Contractor, to the CCPO and the GTAA Project Manager by Friday of the applicable week](#). The look ahead schedule shall include details of upcoming work activities, the location of the work, the number of workers, and the safety measures that will be implemented by the *Contractor* during the work.

2.4.3.2 **Prescribed Inspections**

- 1 An *Inspector* shall, after receipt of a notice given under Sentence 2.4.3.1(4), undertake the site inspection of the *Building* or other types of *Structure* to which the notice relates.
- 2 When undertaking an inspection required under Sentence (1) above, the *Inspector* may consider reports concerning whether the *Building* or a part of the *Building* or other types of *Structure* complies with this *Code*.
- 3 The period referred to in Sentence (1) may include off-hours if requests are submitted to *CCPO* with a minimum of 5 business days' notice to ensure that the required participants are available for the requested date and time.

2.4.3.3 **Rights and Duties of the Inspector**

- 1 An *Inspector* representing the *GTAA* may, for inspecting the *Work* in respect of which a *Facility Alteration Permit (FAP)* is issued or an application for such permit is made, enter the *Place of Work* at any reasonable time without advance notice provided:

- a. the *Contractor* is made aware of the presence of the *Inspector* upon their arrival by having direct contact with the site supervisor or the *Competent Person* appointed by the site supervisor,
 - b. all safety requirements of the *Contractor* are followed by the *Inspector* while at the *Place of Work*, and
 - c. the *Contractor* is made aware of when the *Inspector* departs.
- 2 An *Inspector* representing the *GTAA* may, for the purpose of inspecting the *Work*, undertake specific inspections related to compliance requirements of this *Code* and make assessments pertaining to quality of *Work* and materials, installation methods and practices, accident and hazard prevention, *Airport* operational impacts, etc.
 - 3 An *Inspector* representing the *GTAA* may, for the purpose of inspecting the *Work* prior to covering and accepting, undertake and /or request specific tests and demonstrations for foundations and other underground *Structures*, plumbing and pipe systems, HVAC systems, electrical systems, electronic and communications systems, life safety systems, and similar systems to determine the adequacy of the installations to perform as required.

2.4.3.4 **Posting an Order**

- 1 Where an *Inspector* issues an *Order to Comply*, *Stop Work Order*, or other order under this section, the *Inspector* shall verbally inform the *Contractor* for their **immediate action** and then follow-up by sending a digital copy of the order via email to the *Contractor*, *GTAA Project Manager* and/or the *Project Initiator*. Depending on the severity of the circumstance, the *Inspector* may also affix a copy of the order at the *Place of Work*. Once an order is posted no *Person*, except the *Inspector* shall remove the order once the order is lifted.

2.4.3.5 **Order to Comply**

- 1 Where an *Inspector* finds that any provision of this *Code* or any *Applicable Code or Standard* is being contravened, the *Inspector* may issue an *Order to Comply*, directing compliance with such provision and may require the order to be carried out immediately or within a reasonable specified period.
- 2 Prior to issuing such order, the applicable *GTAA* representative administering the *Contract*, lease or license related to the *Work* will be contacted to determine the conditions to be included in the order, unless immediate action of Sentence (1) needs to be carried out **as determined by the inspector**.
- 3 Where an *Inspector* gives an order under this Article, the order shall contain enough information to specify the identification of the *Applicable Code and Standard* being contravened, the nature of the contravention and its location.

2.4.3.6 **Stop Work Order**

- 1 **As solely determined by GTAA**, where *Work* is being carried out unsafely or without the proper safety measures being in place, or without a valid *FAP* in place or in situations where additional *Work* (not included in original *FAP*) is being carried out

without prior *Stakeholders'* reviews being carried out, an immediate verbal *Stop Work Order* may be issued unless the *Contractor* can immediately address and rectify the situation to the *GTAA's* satisfaction.

- 2 Where an *Order to Comply* is not complied with within the time specified therein or, where no time is specified, within a reasonable time, as determined by the *CCPO*, the *CCPO* may issue a *Stop Work Order* for all or any part of the *Work* shall be stopped.
- 3 Prior to issuing such order, the applicable *GTAA* representative administering either, the *Contract*, lease or license related to the *Work* will be contacted to determine the conditions to be included in the order, unless immediate action of Sentence (1) needs to be carried out.
- 4 Where a *Stop Work Order* is issued in accordance with Sentence (1), no person shall perform any act of *Construction* in respect of which the order is made, other than *Work* necessary to correct the circumstances, which led to the issuance of the order.

2.4.3.7 **Powers of a GTAA Inspector**

- 1 For the purposes of an inspection under Articles 2.4.3.5 or 2.4.3.6, and Section 2.8, the *Inspector* may:
 - a. require access to the drawings, specifications, *construction submissions*, *RFIs*, *etc.*, of the *Work* or any part thereof, for inspection purposes and may require information from any *Person* concerning any matter related to the *Work* or part thereof,
 - b. be accompanied by any *Person* who has special or expert knowledge of any matter in relation to the *Work* or part thereof,
 - c. alone or in conjunction with such other *Person(s)* possessing special or expert knowledge, make such examinations, tests, inquiries, request documentation or take such samples or photographs as are necessary for the purposes of the inspections, and
 - d. issue an *Order to Comply* or *Stop Work Order* depending on severity of a situation where a *Contractor* fails to comply with this *Code*, *Applicable Code and Standard* or safety regulations.

2.4.3.8 **Powers of a GTAA Inspector Respecting Unsafe Construction**

- 1 An *Inspector* may enter upon any *Airport Lands* or onto any premises on *Airport Lands* at any time without notice for inspecting any *Construction* to determine whether such *Construction* is unsafe and shall have the power to act as follows:
 - a. *Order to Remedy Unsafe Construction* - Where an *Inspector* finds that any *Construction* is unsafe, he or she may serve upon the *FAP* holder a *verbal*, *followed by written* *Order to Comply* setting out the reasons why the *Construction* is unsafe, and the remedial steps required to be taken to render the *Construction* safe and may require the *Order to Comply* to be carried out within such time as the *Inspector* specifies in the order.

- b. Prohibiting Occupancy/Use of Unsafe Construction - Where an *Order to Comply* issued under Sentences 2.4.3.5(1) or 2.8.3(3) is not complied with within the time specified therein, or where no time is specified, within a reasonable time from the noted circumstance(s), the *CCPO* may prohibit the use or occupancy of the *Work* by issuing a separate *Order to Comply*. Such *Order to Comply* shall be given to the *FAP* holder and a copy thereof shall be posted at the *Place of Work*.
 - c. For *Construction* safety the *Inspector* is to provide an initial verbal observation report prior to departure from the site and follow up with a formal report within 24 hours.
- 2 Prior to issuing such order, the applicable *GTAA* representative administering either, the *Contract*, lease or license related to the *Work* will be contacted to determine the conditions to be included in the order, unless immediate action of Clause (1)(a) needs to be carried out.

2.4.3.9 **Powers of CCPO Respecting Violations or Non-Compliance Incidents**

- 1 The *GTAA* expects the *Contractor* to immediately investigate any violation or non-compliance incident as per their applicable corporate policies and procedures. The *Contractor* shall implement applicable corrective actions to address and avoid recurrences and to hold the individual(s) involved accountable with appropriate disciplinary actions.
- 2 *Where, in the GTAA's opinion, violations or non-compliance incidents have not been satisfactorily investigated and/or lack adequate corrective actions by the Contractor, the GTAA may impose punitive actions which may include:*
 - a. *Request the Contractor to reinvestigate and provide missing information, corrective, and/or disciplinary actions.*
 - b. *Request additional applicable training for the individuals involved.*
 - c. *Suspend the Contractor from participating in the FAP process for a period of time to be determined by the GTAA.*
 - d. *Request the Contractor to remove from any Work on Airport Lands, the individual(s) who in the GTAA's opinion, is found to be an Unsuitable Worker.*
 - e. *Request from the Project or Work Owners, the removal of the Contractor from any current and/or future Work on Airport Lands.*

2.4.4 **Fire and Emergency Services Inspection**

- 1 Where *Fire and Emergency Services (F&ES)* has reviewed submitted *Construction Documents* for which a *FAP* has been issued, specific responsibility for the inspection of the *Construction* for fire safety conditions compliance with the relevant portions of this *Code* remains with *F&ES*.

2.4.5 **Environmental Services Inspection**

- 1 Where *Environmental Services* has reviewed submitted *Construction Documents* for which a *FAP* has been issued, specific responsibility for the inspection for

environmental conditions compliance with the relevant portions of this *Code* remains with *Environmental Services*.

2.4.6 Inspection by Outside AHJ Independent of GTAA

- 1 Where required by the *Applicable Codes and Standards*, a representative of an **outside Authority Having Jurisdiction (AHJ) (independent of the GTAA i.e., MOL, ESA, TSSA, etc.)** may inspect the *Work* or portions thereof for which a *FAP* has been issued, for compliance with *Applicable Codes and Standards* under its jurisdiction.
- 2 *Contractors* and their subcontractors shall provide access to the *Work* and render all assistance necessary to such *AHJ* for the purposes of inspection.
- 3 *Contractors* shall provide notification to the *GTAA Project Manager* and *CCPO* when such *AHJ* arrives on the *Project* site for the purpose of inspection.

2.4.7 Security Inspection

- 1 Where *GTAA Corporate Safety and Security Department* has reviewed and approved submitted *Construction Documents* for which a *FAP* has been issued, specific responsibility for the inspection of security conditions compliance with the relevant portions of this *Code* remains with *GTAA Corporate Safety and Security Department*.
- 2 Noncompliance of security regulations, or failure to adhere to the approved security plans, may result in, but not limited to suspension of *Construction* and/or *Work*, denial of access, monetary penalties issued by Transport Canada.

2.5 Occupancy/Use of Construction

2.5.1 Conditions for Occupancy/Use

- 1 Except as authorized by this *Code*, no *Person* shall occupy or use, or permit to be occupied or to be used, any *Construction Place of Work* or part thereof, until the following conditions have been met:
 - a. a final inspection of the *Construction* has been requested of the *CCPO*,
 - b. all testing and/or commissioning, demonstrations, and inspections, have been performed pursuant to such request,
 - c. all applicable documentation supporting satisfactory completion of Clause (b) prepared by the *Contractor* and the *Registered Professional(s)* and other *Consultants* **has been submitted to CCPO**,
 - d. all letters of assurance from *Registered Professionals* and/or other *Consultants* have been submitted,
 - e. any outstanding *Orders to Comply* issued by the *CCPO* under Articles 2.4.3.5, 2.4.3.6 or Subsection 2.8.3 have been complied with, and
 - f. an *Occupancy/Use Permit* or an equivalent authorization has been issued by the *CCPO*.
- 2 **For occupied Buildings the Building Owner, Tenant or their designate agent shall:**

- a. prepared and submitted to the *Airport Fire Chief* a Fire Safety Plan (FSP) as required by the *National Fire Code*. Once the plan is approved, the *Building Owner, Tenant* or their designate agent, will be responsible for implementing the FSP and ensuring that relevant staff complete all required training, including informing visitors and staff of their duties in case of fire. A copy of the approved Fire Safety Plan shall be provided to *GTAA Fire Prevention* for placement in the *Building's* Fire Safety Plan box.
- b. procure and install first aid kits and appropriate signage in compliance with applicable provincial and/or federal occupancy requirements.
- c. procure and install eye wash stations and appropriate signage as required based on hazard levels in appropriate areas.
- d. ensure that an Engineering report and/or qualified person's report, as per the OHSA Section 7 has been completed wherein equipment or machinery with movable parts has been installed.

2.5.2 Occupancy/Use of Unfinished Construction

- 1 Occupancy of a *Building* or part thereof, or use of other *Construction* such as *Civil Work*, which has not been fully completed, may only occur where the *CCPO* has issued a partial *Occupancy/Use Permit* for only the part of the *Work* that is finished for the intention to occupy or use.
- 2 The *CCPO* may issue a partial *Occupancy/Use Permit* where:
 - a. the structure of a *Building* is completed up to and including the roof,
 - b. all enclosing walls of a *Building* are completed up to and including the roof,
 - c. all walls, partitions, and guards enclosing the space(s) to be occupied are completed,
 - d. all required fire separations and closures are completed on all storeys to be occupied,
 - e. all required exits are completed and fire-separated including all doors, required door hardware, balustrades, and handrails from the uppermost floor to be occupied down to grade level (and below if an exit connects with lower storeys),
 - f. all shafts including closures are completed to the floor-ceiling assembly above the storey to be occupied and have a temporary fire separation at such assembly,
 - g. temporary closures and/or partitions have been installed to prevent access to parts of the *Building* and site that are incomplete or still under *Construction*,
 - h. floors, corridors, lobbies, and required means of egress are kept free of construction material, debris and/or other hazards,
 - i. where service rooms are in operation, required fire separations are completed and all required closures installed,
 - j. all water, plumbing and drainage, and HVAC systems are complete and tested as operational for the storeys to be occupied,
 - k. required lighting, heating and electrical supply are provided for the suites, rooms, and common areas to be occupied,

- l. required lighting in corridors, stairways and exits is completed and operational up to and including all storeys to be occupied,
 - m. required standpipe, sprinkler and fire alarm systems are complete and operational up to and including all storeys to be occupied, together with required proper connections for such standpipes and sprinklers,
 - n. required fire extinguishers have been installed on all storeys to be occupied,
 - o. garbage rooms, chutes and ancillary services thereto are completed to the storeys to be occupied,
 - p. required firefighting access routes have been provided and are acceptable to *Fire and Emergency Services (F&ES)*, and
 - q. a fire safety plan (as required by the National Fire Code) has been formulated and a copy submitted to *the CCPO* and accepted by *F&ES*.
- 3 Where a *Person* has occupied part of a *Building* or space(s) within a *Building* under this subsection, such *Person* shall notify the *CCPO* immediately upon completion of the remainder of the *Work* subject to the provisions of Sentence (2).

2.6 Defect Liability Period

2.6.1 General

- 1 Unless the *Contract* provides for a longer period, the minimum defect liability and warranty periods for *Construction* at the *Airport* will be one year from the date of *Substantial Performance* of the *Contract*, or from the date of rectifying defects or deficiencies that were detected during such periods, or subsequent periods, as applicable. The *Contractor* will be responsible for rectifying, or for paying the cost of rectifying, defects and deficiencies that were detected and notified to the *Contractor* during such periods. This Section will apply in addition, and will be without prejudice, to warranties, warranty periods and other applicable periods that are provided for in the *Contract* or by law.

2.6.2 Tenant Construction

- 1 Except as otherwise provided in the lease agreement or license with the GTAA, title to all permanent equipment, systems, components, fixtures and attachments to GTAA-maintained Buildings or Structures shall upon completion, be transferred to the GTAA by the Tenant without the execution of any further instrument. Such transfer of title shall be free and clear from all security interests, liens, or encumbrances whatsoever. The Tenant's warranty for such items shall pass to the GTAA at the date of Substantial Performance of the Contract.
- 2 If the transfer of title pursuant to Section 2.6.2.1 is not free and clear from all security interests, liens, or encumbrances, then the *Tenant* shall immediately upon request remove, release, and discharge such security interests, liens, or encumbrances. If the *Tenant* fails to do so within a reasonable time as determined by the *GTAA*, then the *GTAA* may remove and discharge the same, and the *Tenant*

shall pay all the GTAA's costs and expenses including administrative costs and legal fees.

- 3 Tenant *Buildings* constructed on *Land Parcels* at the *Airport* are not required to comply with Sentences 2.6.1.1 unless specified by the GTAA under the conditions of the relevant lease or license agreement.

2.6.3 Warranty Period Inspection

- 1 The *Work* completed under a *Facility Alteration Permit* shall be subject to routine preventive maintenance inspections by the GTAA within *GTAA-maintained Airport Areas*. Any *Work*, which does not comply with the warranties described in this *Code*, shall be reported by written notification to the respective *Contractor* through the *Consultant* or the *Facility Alteration Permit* holder. Within the time set forth in the notice, such defective or deficient item(s) shall be repaired, replaced, or otherwise corrected by the *Contractor*, or by the *Tenant* (as applicable), with action satisfactory to the GTAA.
- 2 Should the *Contractor* or the *Tenant* fail to act within the given time, the GTAA reserves the right to make the necessary repairs and replacements at the expense of the *Contractor*, or the *Tenant* once notice to this effect has been given.
- 3 If the GTAA determines that immediate action to make repairs, replacements or other corrections causing *Emergency* conditions or further loss or damage, the GTAA may proceed, if necessary, with such action without prior notice to the *Contractor* or the *Tenant*, at the expense of the *Contractor* or the *Tenant*.
- 4 The *Work* completed under a *Facility Alteration Permit* shall have a final warranty inspection by the GTAA of all *Construction* under warranty before the warranty period of the *Contract* expires. Should defective *Work* exist or be encountered at the time of final inspection, notification shall be given to the *Contractor* or the *Tenant* to rectify the defect(s) within a time specified by the GTAA.
- 5 If a *Tenant* or a *Contractor* does not agree with a determination of the GTAA concerning defective *Work*, they may submit such notice, together with a detailed explanation of their position to their GTAA Business Group representative administering their lease agreement or *Contract*, who will review such notice and advise on how to proceed.

2.6.4 As-Built and Record Documents

- 1 *Contractor's As-Built Documents* (red-lined drawings) and *Consultant's Record Documents* (final engineered drawings) for a *Building, Structure, Civil Work*, or any part thereof, must be provided by the *Project Contractor & Consultants* to the CCPO who will distribute to EAS for their review and acceptance.
- 2 Further to Sentence (1) above, designated representatives of the CCPO may enter the *Place of Work* and make requests for any additional records of the *Construction* in progress at any reasonable time and with the full cooperation from the *Contractor* to do so.
- 3 *Tenants shall maintain* in good condition a complete set of *Construction Documents* which shall include *Issued for Construction Documents, As-Built Documents,*

Operation and Maintenance Manuals, Warranties, and Shop Drawings as required in Part 9 of this *Code* for future use in making alterations to the existing *Facilities*.

2.7 Insurance Requirements

2.7.1 Tenant Initiated Construction

- 1 Any *Tenant* initiating authorized improvements to its *Building Space* or *Land Parcel* shall provide and maintain adequate insurance coverage in accordance with the respective insurance requirements of the *GTAA* and as further specified in any lease or license agreement with the *GTAA*.

2.7.2 GTAA-Initiated Construction

- 1 Where the *Work* is being performed pursuant to a *Contract* directly with the *GTAA*, the insurance provisions of the *Contract* shall prevail.

2.8 Independent Code Compliance Consultant

2.8.1 Scope and Application

- 1 The *Independent Code Compliance Consultant (ICCC)* is contracted by the *GTAA* to provide independent third-party professional code compliance assessment and inspection of the life safety aspects of *Airport Construction* as required by the *Ground Lease*.
- 2 The role provided by the *ICCC* serves as a direct and integral part of the *CCPO* for *Projects* that have a scope relevant to a *Building* or part thereof and as defined by the *National Building Code*.
- 3 The *ICCC* is notified of initiated *Projects* by the *CCPO* and on an as needed basis, may be requested by *CCPO* to attend preliminary meetings, or review preliminary documentation to help the *ICCC* become familiar with the Project scope. Once a *FAP* application is received with a fully developed *Design*, reviewed by *ICCC* and a *Code* compliance agreement is reached with the *Applicant*, the *ICCC* will then issue their recommendation for issuing the *Facility Alteration Permit (FAP)* to the *CCPO*.
- 4 The role of the *ICCC*, when engaged directly by the *CCPO*, is to perform *Project* examinations of the *Construction Documents* and field reviews of the *Construction* to verify compliance with the *National Building Code* and the *National Fire Code* including their referenced standards.
- 5 The responsibility of the *ICCC* is to represent the *Authority Having Jurisdiction (AHJ)* on behalf of the *GTAA* only for matters of the *National Building Code* and the *National Fire Code* in determining compliance with respect to *Construction*.
- 6 Where requirements stipulated by *Fire and Emergency Services (F&ES)*, the *GTAA* Corporate Risk, or *GTAA Engineering & Architectural Services (EAS)* exceed the requirements of the *National Building Code* and the *National Fire Code*, the

assessment of the *ICCC* related to these requirements shall not override such stipulations and the former shall govern.

- 7 In no event shall the *ICCC* or any action or inaction of the *ICCC* restrict, limit, affect, derogate from or in any way delegate to the *ICCC* any responsibility of a *Contractor* or a *Tenant* and their *Design Consultants* under this *Code*, a *Contractor's Contract* with the *GTAA*, a *Tenant's* lease or license agreement with the *GTAA* or any other contractual obligation of legal duty of care or *standard of care* or other obligation that such *Contractor* or *Tenant* and their *Design Consultants* has or may have to the *GTAA*.

2.8.2 Design Review

- 1 When engaged, the *ICCC* reviews the submitted final *Design Issued for Construction Documents* primarily for compliance of the design with fire protection and life safety provisions/requirements of the *Project* and prepares *Code* review comments independent of the *CCPO* and submits them directly to the *Applicant* for written responses.
- 2 Once agreement of these comments has been reached between the *ICCC* and the *Applicant*, the *ICCC* issues a recommendation letter to the *Applicant* and *CCPO*. As determined only by the *ICCC*, deferred agreement to specific comments may be permitted. This is limited to matters involving subsequent provision during the *Construction* stage, such as *Shop Drawings*, system testing and certification documentation by the *Contractor*.
- 3 The recommendation letter in Sentence (2) is a requisite part for *CCPO* issuing the *Facility Alteration Permit (FAP)*.
- 4 A list of the required documentation to be reviewed by the *ICCC* shall be determined by direct contact with the *ICCC* by the *Applicant*. All information submitted to the *ICCC* shall be copied to the *CCPO* for its records.
- 5 The *ICCC* will review *Construction Documents* submitted for partial or phased *Construction* assessment on a case-by-case basis. A complete submission of these documents and information for each phase is necessary for a review to commence.

2.8.3 Construction Review

- 1 When engaged, the *ICCC* will conduct periodic field reviews of the *Work* to verify that the *Construction* is in compliance with the relevant requirements of the *National Building Code*, with emphasis on the mandatory fire protection and life safety provisions to be completed by the *Contractor* prior to requesting occupancy/use.
- 2 A list of the required documentation to be reviewed by the *ICCC* during the *Construction* stage shall be determined by direct contact with the *ICCC* by the *Applicant*. All information submitted to the *ICCC* shall be copied to the *CCPO* for its records.
- 3 Where the *ICCC* finds any provision of the *National Building Code* is being contravened, the *ICCC* may recommend to the *CCPO* that an *Order to Comply* be issued in accordance with Article 2.4.3.5 of this *Code*.

2.8.4 Occupancy Review

- 1 When engaged, the *ICCC* will attend a final inspection meeting and a coordinated occupancy demonstration when requested and confirmed in writing by the *Registered Professional* and the *Contractor* that the *Construction* is ready, to witness and verify the completion and activation of all fire and life safety systems prior to occupancy or intended use.
- 2 A list of the required documentation to be reviewed by the *ICCC* during the final stage of construction shall be determined by direct contact with the *ICCC* by the *Applicant*. All information submitted to the *ICCC* shall be copied to the *CCPO* for its records.
- 3 Only after all the above requirements have been completed to the satisfaction of the *ICCC* will the *ICCC* provide a written recommendation to the *CCPO* to issue the *Occupancy/Use Permit* relative to the occupancy of the *Work* or part thereof.

Approvals

3.1 Environmental Review

3.1.1 General Review

- 1 All *construction* that occurs at the *Airport* will be subject to an *Environmental Review* by *Environmental Services*. This review ensures relevant environmental factors are integrated into the *Project* planning, design, *construction*, operation and maintenance phases and meet all environmental regulatory requirements including those of the Impact Assessment Act (IAA).
- 2 For the determination to be made, mitigation measures that will be implemented during the *Project* to ensure that no significant adverse effects to the environment will occur must be documented and submitted to *Environmental Services* in the form of an Environmental Management Plan (refer to Part 5 of this *Code* for detailed Environmental Requirements needed for all *Project* reviews). It is recommended that this occurs during the *Preliminary Design Review* stage before applying for a *FAP*.
- 3 Depending on the complexity of the project and the assessment required, a qualified environmental *Consultant*, on behalf of the *Project Initiator* may prepare the assessment. This assessment will be reviewed by *Environmental Services* in order for the final determination is made.
- 4 The Environmental Assessment prepared must meet all requirements of the IAA.
- 5 Designated *Projects* listed in the IAA's Physical Activities Regulation must undergo a full Environmental Assessment. Where the IAA requires a full Environmental Assessment, the *Project* will be referred to the Impact Assessment Agency who will then lead the assessment.

Environmental Services can provide further information respective to this requirement.

3.1.2 Impact Assessment Review

- 1 The IAA requires the GTAA to review all Projects and make a determination if the Project is likely to cause significant adverse environmental effects before a project can proceed and a Facility Alteration Permit (FAP) is issued. Environmental Services is responsible for this review and as a result may also need to post notices of these Projects on the Canadian Impact Assessment Registry site to allow for public comment. There is a minimum of 30 days between the Notice of Intent posting and the final Notice of Determination posting setting out the determination whether the Project is likely or unlikely to cause significant adverse environmental effects and whether or not it may proceed.
- 2 In order for the determination to be made, mitigation measures that will be implemented during the Project to ensure that no significant adverse effects to the environment will occur must be documented and submitted to Environmental Services in the form of an Environmental Management Plan (refer to Part 5 for Environmental Requirements). It is recommended that this occurs during the Preliminary Design Review stage before applying for a FAP.
- 3 Depending on the complexity of the project and the assessment required, a qualified environmental Consultant, on behalf of the Project Initiator may prepare the assessment. This assessment will be reviewed by Environmental Services in order for the final determination is made.
- 4 The Environmental Assessment prepared must meet all requirements of the IAA.
- 5 Designated Projects listed in the IAA's Physical Activities Regulation must undergo a full Environmental Assessment. Where the IAA requires a full Environmental Assessment, the Project will be referred to the Impact Assessment Agency who will then lead the assessment.
- 6 Environmental Services can provide further information respective to this requirement.

3.2 Preliminary Stakeholders' Design Review

3.2.1 Review Process

- 1 *Projects to be initiated on Airport Lands may be subject to a Preliminary Design Review by GTAA Engineering & Architectural Services (EAS) and/or applicable Stakeholders which must include Corporate Safety and Security who are the primary approver when Airport safety and security is affected by Construction or Contractor Activities.*
- 2 The purposes of the review are to validate the reasons and scope of the *Project* provided by the *Project Initiator* at the early initiation stage and to obtain the relevant acceptance, requirements, and information from the applicable GTAA departments to allow further defining of the composition and scope of the *Project*.

- 3 For *GTAA Projects*, the *Project Initiator*, *Project Manager*, and Toronto Pearson Safety (TPS) determine if a Threat/Hazard Identification and Risk Assessment (T/HIRA) is required. If yes, the *Project Manager* is expected to initiate and to coordinate the T/HIRA, with the support of the process owner and TPS who facilitates. Upon completion of the review, the *Project Manager* is to prepare the *Project Program of Requirements*.
- 4 For *Projects* initiated by *Tenants*, the *Project Initiator* is expected to initiate the review process through their *GTAA Business Partner* (Real Estate Development, Food & Beverage, Retail, etc.) by submitting a completed *Facility Request Form* plus supporting information to describe the request.

The *GTAA Business Partner Tenant Co-ordinator* must then complete a Threat/Hazard Identification and Risk Assessment (T/HIRA) intake form. If it is determined that a T/HIRA is required Toronto Pearson Safety will coordinate with the *GTAA Business Partner Tenant Co-ordinator* and lead the risk assessment with applicable *Stakeholders*, subject matter experts and risk control owners.
- 5 The *Project Initiators* may at this stage arrange a preliminary meeting with the *CCPO* to discuss and determine the specific requirements related to the *Facility Alteration Permit (FAP)* process for the proposed *Project*.

3.2.2 Process Requirements

- 1 For the preliminary *Stakeholders Design* review, *EAS* requires general information. The *Project Initiator* shall submit documentation to *EAS* that is comprehensive enough to describe and illustrate the major aspects of the *Project*.
- 2 Where the *Project* involves a *Consultant* engaged by the *Project Initiator*, documentation at this stage need only to represent a conceptual/schematic/ preliminary level of detail.
- 3 The following information shall be prepared by the *Project Initiator* for a *Project* involving a *Building(s)*:
 - a. conceptual sketches or drawings illustrating the proposed *Construction* and includes diagrams drawn to scale showing the location, plan and/or site context, size, height, and appearance, complete with dimensions and notes as required,
 - b. an outline specification of the materials, finishes, assemblies, systems, and equipment being considered in the *Design*, and
 - c. where applicable, submit a sample board indicating colour and finishes of interior and exterior *Building* materials to be used, clearly labelled, and referenced to the sketches.
- 4 The *Project Initiator* shall prepare information for a *Project* involving *Civil Work(s)* following the requirements of Clause (3)(a) above.
- 5 At this stage of requesting *Project* approval, an assessment by either the *Space Allocation Committee* or the *Land Use Committee* should be completed beforehand to ensure that the zoning criteria for the *Project on Airport Lands* has been considered and accepted.

- 6 The *Project Initiator* shall submit [the Project Design Documentation](#) to GTAA Corporate Risk to complete a risk assessment of the design. GTAA Corporate Risk may also submit the project to the GTAA’s Property Insurer to complete a review and provide recommendations.

3.3 Facility Alteration Permit (FAP)

3.3.1 General Requirements

- 1 No *Person* is permitted to engage in any *Construction* activity at the *Airport* without first obtaining a *Facility Alteration Permit (FAP)* from the *Construction Compliance & Permits Office (CCPO)*.
- 2 Commencing any *Work* on *Airport Lands* prior to the required reviews being completed and a *FAP* being issued is a serious contravention of this *Code*, the *FAP* process and any agreements with the *GTAA*. All unauthorized *Work* will be immediately issued a *Stop Work Order* by *CCPO*, and the *Contractor* will be held responsible for all costs associated with the *Work* stoppage.
- 3 An exemption from Sentence (1) may only be requested of the *CCPO* and only for *Work* that has marginal circumstances explained by a justification satisfactory to the *CCPO*.
- 4 The procedures for obtaining a *FAP* from the *CCPO* are outlined herein and all applicable forms, guides, and checklists available on-line. [Refer to Link in Appendix A – Item #1](#)

3.3.2 Construction Documents

- 1 Only *Construction Documents* submitted that are indicated, as being “Issued for Construction” will be accepted by the *CCPO* at the time of application for a *FAP*. “Issued for Construction” is determined as documentation with enough information and instruction describing the scope of the *Project* for the *Contractor* to be able to *Construct* it fully without having any questions or additional information related to what is to be completed.
- 2 When all the information is received and all review comments have been addressed, a *FAP* can be issued when all other conditions to be applied as determined by the *CCPO* and further to that of Subsections 3.3.3 and 3.3.4 have been met to the satisfaction of the *CCPO*.

3.3.2.1 *Submission Guidelines—General*

- 1 *Construction Documents* required to apply for a *FAP* shall comply with the *GTAA* CAD Standard & the American CAD Standard including the following:
 - a. All drawings shall:
 - i. be in a format specified by the *GTAA* at the start of preparing the *Construction Documents*,
 - ii. be sufficiently comprehensive in information for *Construction* purposes and drawn to scale,

- iii. be drawn and fully dimensioned in metric units,
 - iv. include defined requirements of the *GTAA* as established through the [GTAA Stakeholders review process](#),
 - v. include relevant requirements of this *Code* and all *Applicable Codes and Standards*,
 - vi. include the *Project* name, drawing title, location/address, date, scale, dimensions, and extent of new *Construction* relative to existing, and
 - vii. be legible in presenting the information with reproductions of original drawings retained by the *Applicant*.
- b. Location and site plans shall show True North and Construction North. All other plans, including floor plans, reflected ceiling plans, etc., shall show Construction North. Location and site plans shall also show lease lines, proposed *Construction* (bold and/or shaded) and existing base *Building* context where applicable.
 - c. Specifications and [Project Manual](#) shall be in the format specified by the *GTAA* and shall include all selected materials and systems for the *Construction*.
 - d. [Contractor, Designer, EOR and/or AOR](#) is responsible for confirming existing conditions; documentation and as-builts provided by *GTAA* and *Tenants* shall be confirmed and validated.

3.3.2.2 **Submission Guidelines—New Building**

- 1 The drawings and applicable reports shall be prepared, sealed, signed, and dated by an *Architect* and/or a *Professional Engineer* accompanied by a signed and dated *Letter of Undertaking* by the *Project Initiator, Owner, or Tenant*, as well as a sealed, signed, and dated *General Review Commitment Certificate (GRCC)* from the *Architect and/or Professional Engineer(s)* providing the *Design* and field review services.
- 2 Site plans referencing a current survey, certified by a registered Ontario Land Surveyor, shall show the dimensioned property lines including bearings and spot elevations, lease lines, fence lines, *Primary Security Line (PSL)*, *Airport* zoning setbacks, the boundaries of the *Construction*, new and existing, above and below grade services, new and existing.
- 3 The Building Code Report as described in Part 2 of this *Code* shall contain the building code analysis, exiting diagrams, and any other information as may be required by [CCPO](#); and shall be prepared by an *Architect and/or a Professional Engineer* who has proven experience in building code analysis and interpretation.
- 4 Outline specifications for the building envelope and spatial energy conservation performance including thermal transfer and transmission ratings; air infiltration, and active/passive energy generation methods; shall be prepared or coordinated by an *Architect* and/or a *Professional Engineer*.

- 5 Architectural drawings shall fully describe the *Building* elements of the proposed *Construction*, following the guidelines of the Canadian Handbook of Practice including but not limited to:
 - a. Key plan with north indication showing the proposed location of *Work* relative to the *Buildings* or base *Building*,
 - b. Floor plans showing lease lines, *Primary Security Line (PSL)*, room names, door numbers, fixtures, floor materials, wall assemblies, the location of major components of fire protection and exits with indication of fire resistance ratings by testing laboratory listings, built-in millwork, and detail cross references,
 - c. Reflected ceiling plans showing lease line, ceiling finishes and heights, bulkheads, fire rating, lighting layout, fire detectors, mechanical grilles, diffusers, sprinkler heads, access panels and any other device attached to the ceiling,
 - d. Elevation drawings, both exterior and/or interior as required, showing finishes, features, and fixtures, and
 - e. Detail and section drawings showing *Construction* as required.
- 6 Structural drawings shall describe all components and systems for supporting the proposed *Construction*, the location, size and material properties and specifications of all structural members, design criteria including applicable codes and the design loads used for the *Design*.
- 7 Mechanical drawings shall fully describe all HVAC, plumbing, drainage, and fire suppression systems for the proposed *Construction*, the location, size, capacity of all equipment and components, the location and specification of all fire protection items, connections to *Airport* systems, a summary of the energy conservation design approach, design loads used for heat loss/heat gain, and mechanical material and equipment specifications.
- 8 Electrical drawings shall include single-line diagrams and shall fully describe all lighting and power layouts, the location of electrical equipment, reflected ceiling plans, exit and emergency lighting, fire alarm and detection systems, connections to *Airport* systems, a summary of the energy conservation design approach, electrical load summary, electrical panel schedule, and electrical material and equipment specifications.

3.3.2.3 **Submission Guideline—Addition to Existing Building**

- 1 The same documents requirements of 3.3.2.2 shall apply and include the extent of new and existing *Construction*, the demolition and removal of existing *Construction*, condition assessment of existing building and the additions and modifications to existing *Building* systems shall be clearly identified.

3.3.2.4 **Submission Guidelines—Alterations to Existing Building**

- 1 The same documents requirements of 3.3.2.2 shall apply and include the extent of new and existing *Construction*, the demolition and removal of existing *Construction*, condition assessment of existing building and the additions and modifications to existing *Building* systems shall be clearly identified.

- 2 All aspects of the *Construction* alterations shall be fully illustrated and specified clearly for *Construction* purposes within the *Construction Documents* submitted but may not necessarily comprise all the 3.3.2.2 requirements.

3.3.2.5 **Submission Guidelines—Improvements in Terminals**

- 1 The same documents requirements of 3.3.2.2 shall apply and include the extent of new and existing *Construction*, the demolition and removal of existing *Construction*, and the additions and modifications to existing *Building* systems shall be clearly identified.
- 2 All aspects of leasehold improvement *Construction* shall be fully illustrated and specified clearly for *Construction* purposes within the *Construction Documents* submitted and shall at least include a location key plan, a floor plan, reflected ceiling plans and elevations when applicable, to show proposed alterations for architectural, structural, mechanical and electrical elements, as well as proposed effect on occupant loads, exiting requirements and the consideration of energy conservation methods in the *Design*.
- 3 Where connections for new electrical power, communication, plumbing, and HVAC requirements are beyond lease lines, show the connection points and the complete service routing on plan drawings.

3.3.2.6 **Submission Guidelines—Additions to Building Systems**

- 1 Floor plan drawings shall illustrate and specify the extent of new *Construction* relative to existing *Construction* in terms of new electrical power and lighting, plumbing, HVAC, data and communications, fire detection and suppression, baggage handling, hydraulic, fuelling and signage systems.
- 2 All schematic line diagrams and detail drawings shall show the location, size, capacity of all equipment and components, the location and specification of all fire protection items, the design loads applied, energy conservation methods, and material and equipment specifications to fully describe the *Construction*.
- 3 Depending on the scope of the *Construction*, the requirement to have drawings prepared, **sealed, signed and dated** by a *Professional Engineer* and/or an *Architect*, including a *Letter of Undertaking* from the *Project Initiator* and a *GRCC* from the *Professional Engineer* may be waived at the discretion of the *CCPO* in accordance with Part 2 of this *Code*.

3.3.2.7 **Submission Guidelines—Groundside Civil**

- 1 Site plans shall reference a current survey certified by a registered Ontario Land Surveyor and shall fully illustrate and specify the scope of the *Construction*, show all locations of new and existing above ground and underground services complete with invert elevations and above ground services, existing roadways, and placements relative to the *Construction* complete with dimensions and notes.
- 2 *Design* drawings including plans, profiles, cross-sections, detail drawings, schematic diagrams, legends, notes, and other information shall fully describe the *Civil Work*.

- 3 A *Project* manual including general requirements, *Construction* procedures, material and equipment specifications, standard drawings, geotechnical information, Subsurface Utility Engineering (SUE) Report, and all other supporting information and/or reports required to fully describe the *Civil Work* shall be included.
- 4 Traffic control and protection plans are required to ensure protection of the public and workers, ensure that vehicular and pedestrian traffic flow is properly maintained during the performance of the *Work*, and mitigate any negative impacts to *Groundside* operations including maintaining fire routes. In addition, a review should be undertaken to determine and properly mitigate any potential disruption to *Airside* operations (e.g., crane permits, access to *Airside*, etc.).
- 5 Where *Buildings* or *Structures* are included in the *Construction*, the requirements identified under the above guidelines, as applicable, shall also apply.
- 6 *Construction Documents* prepared, **sealed, signed and dated** by a *Professional Engineer* including a *Letter of Undertaking* by the *Project Initiator* and a *GRCC* from the *Professional Engineer* may be waived at the discretion of the *CCPO* in accordance with Part 2 of this *Code*, where the scope of the *Construction* would not require the above.

3.3.2.8 **Submission Guidelines—Airside Civil**

- 1 The same documents requirements of *Groundside* Civil shall apply, in addition to providing sufficiently detailed information, summarized in a *Project* work plan, identifying the measures to be taken during *Construction* activities to minimize disruption to *Airport* operations, including *Airport* zoning restrictions, airfield closures and phasing details, equipment and material storage areas, haul routes, access and security measures, and scheduling and communication of the *Work* with the *GTAA*.

3.3.3 **Applying for a Facility Alteration Permit (FAP)**

- 1 Applying to the *CCPO* for a *FAP* is based on receiving the following documentation from the *Applicant*:
 - a. an Application for *Airport Construction* properly completed with all applicable information requested on the application,
 - b. for *GTAA Projects* – a copy of the *GTAA Project Manager’s* confirmation of the final *Stakeholders’* sign-off and comments detailing their specific requirements to be included in the *Design* and executed by the *Project*,
 - c. for *Tenant Projects* – a copy of the *GTAA Business Representative’s* confirmation of the final *Stakeholders’* sign-off and comments detailing their specific requirements to be included in the design and executed by the *Project*,
 - d. all supporting and relevant documents **including** as outlined in Subsection 3.3.2 for the type of *Project* requested in Clause (a) to be constructed, and
 - e. where a *Consultant(s)* is engaged in the design of the *Project* and review of *Construction*, a completed *Letter of Undertaking* by the *Project Initiator*, and the *Consultants’ GRCC for each discipline*, in accordance with Sentence 3.3.2.5(3).

- 2 The information provided in Sentence (1) will be assessed by the *CCPO* for completeness of the application submission, from which an *Application Review Notice (ARN)* will be sent to the *Applicant* with details of the *FAP* review process and request for additional information as may be required.
- 3 The *FAP* application review process consists of a detailed review by *GTAA's Independent Code Compliance Consultant (ICCC)* for building code compliance and/or *GTAA's Independent Safety Compliance Consultant (ISCC)* for *Contractors'* health & safety compliance. The *Applicant* and any party acting in their interest remains responsible for fulfilling all *Code* and any other specified requirements of the *GTAA* and other external agencies to the *GTAA*.
- 4 *GTAA's ICCC* will review the contents of the documents submitted and verify that the scope of the *Construction* to be authorized by a *FAP* complies with the applicable fire protection and life safety requirements of the *National Building Code* and the *National Fire Code*. The *Applicant* will be contacted directly by the *ICCC* with review comments and observations.
- 5 *GTAA's ISCC* will review the *Project* in accordance with Part 7 of this *Code*. The *Contractor* shall contact the *ISCC* to discuss *Project* specific details and requirements related to workplace health and safety and submit the requisite documentation requested.
- 6 The instructions stated on the *Application Review Notice* email (*ARN*) sent by *CCPO* shall be completed fully by the *Applicant* as part of the advance preparation for obtaining the *FAP*, subsequent to the *Applicant* fulfilling Subsection 3.3.4.

3.3.4 Obtaining a Facility Alteration Permit (FAP)

- 1 Issuing of a *FAP* by the *CCPO* is based on receiving documentation subsequent of Subsection 3.3.3 from the *Applicant* as follows:
 - a. as applicable, a copy of the recommendation letter from *ICCC*, that indicates all building code items have been addressed satisfactorily by the *Applicant*,
 - b. a copy of an email acknowledgement from the *ISCC* that all safety requirements have been fulfilled by the *Contractor* and evidence that the documentation submitted is satisfactory,
 - c. the *Project* data and the additional information requested in the *Application Review Notice*, include the *Contractor's* emergency contact information (site supervisor/cell phone number) required for preparing the *FAP* placard; a copy of the initial three-week advance schedule of *Construction* activity by the *Contractor*, confirmation of payment of the assessed *FAP* Fees (as applicable), etc., and
 - d. a copy of the *Contractor's* certificate of insurance coverage as required by Section 2.7 of this *Code*, where the *Project* is initiated by a *Tenant*.
- 2 Once the provisions of Sentence (1) are completed by the *Applicant*, the *CCPO* will then prepare the *Facility Alteration Permit (FAP)* in the form of an "orange placard" and issue notice via email to the *Applicant* that it will be provided directly to the *Contractor* assigned to the *Project*.

- 3 After the issuance of the *FAP*, the *Contractor* must:
 - a. contact the *Independent Utility Locates Contractor (IULC)* where the scope of the *Project* involves soil disturbance to arrange for existing utilities to be located and marked on site.
 - b. contact the applicable *Airport Construction Coordinator(s)* to obtain the *Activity Notice* or Permit approval(s) as may be required.
 - c. *The Contractor shall be responsible for coordinating with the GTAA Fire Prevention to discuss concerns, general fire safety requirements for the Place of Work during the Construction.*

3.3.5 Terms and Conditions of the Facility Alteration Permit

- 1 No *Person* shall *Construct* or cause to be constructed a *Building* or any other *Structure* or system on *Airport Lands* except in accordance with the supporting documents, *Construction Documents* and/or any other information on the basis for which a *Facility Alteration Permit (FAP)* is issued.
- 2 The *FAP* authorizes the *Work* to be carried out in accordance with the drawings and/or specifications as reviewed by the *GTAA* and which accompanied the application for the *FAP*, and the requirements stipulated therein. Submitting the application for the *FAP* with the supporting documents constitutes agreement by the *Applicant* to comply with, and be bound by, all written conditions of the *FAP* authorization, the requirements of this *Code*, requirements of the *CCPO*, and all other terms stated in any lease, license, or agreement between the *Applicant* and the *GTAA*.
- 3 Issuing of a *FAP* by the *CCPO* signifies that the *Project* has been accepted by the *GTAA* and that the specified *Construction* may proceed, subject to the conditions represented by the *FAP*, the attachments thereto and the requirements of this *Code*. Issuing this *FAP* shall not be considered as an evaluation of the adequacy, quality, or completeness of the *Project* design and the *GTAA* assumes no responsibility for such matters. *Construction* may begin only after a *FAP* "orange placard" has been issued by the *CCPO* and the *Contractor* shall adhere to all conditions of the issued *FAP* which are detailed on page 2 of the *FAP* placard.
- 4 All *Construction* shall be performed in accordance with the construction safety requirements of the *Occupational Health and Safety Act R.S.O 1990, C. 0.1*, and *O. Reg. 213/91 Regulations for Construction Projects*, by exception of the *Contractor*, the *Canada Labour Code - Part II Occupational Health and Safety*, and the *Construction* safety monitoring requirements under Part 7 of this *Code*.
- 5 All *Construction* shall be performed in accordance with the applicable requirements of this *Code* as determined by the scope of the *Project*, except where in such application a satisfactory justification for a compliance alternative has been prepared that demonstrates by describing, explaining, and documenting technical equivalency and/or compliance alternative(s) to the requirements of this *Code* and has been accepted by the *CCPO* and/or the *ICCC*.
- 6 Persons completing the *Work* shall comply with all rules, regulations and requirements issued by the *GTAA* relating to security, safety, health, preservation

of property, environment, energy conservation, the maintenance of good and orderly appearance of the *Airport*, and the continuous and efficient operation of the *Airport*.

- 7 Only approved materials (as per specifications) and specified quality of *Work* shall be used in the performance of the *Work*, and such *Work* shall be performed in accordance with the *Contract Documents* approved for such *Construction* and to the satisfaction of any *GTAA Inspector* reviewing the *Work*. Any part of the *Work* which does not comply with this *Code*, or which is not accepted by the *GTAA* with reason shall be removed and replaced at no expense to the *GTAA*.
- 8 The *GTAA* reserves the right to order, by its own means, an immediate halt to any *Construction* being carried out under a *FAP* for any circumstance that dictates that it would not be in the best interest of the *GTAA* to permit the *Construction* to proceed. Under such circumstances the *GTAA* shall not be responsible for paying any costs associated with the halting of the *Construction* or cancellation of the *FAP* as warranted.
- 9 The *Contractor* shall pay all costs for damages and *Unsafe Conditions* duly created outside the limits of the *Place of Work* during *Construction* that the *GTAA* is forced to rectify due to the *Contractor's* performance inability or unwilling conduct.
- 10 [Schedule shall be reviewed by the GTAA and shall take into consideration Airport Operations. For alterations to or Work adjacent to current Airport Operations, this shall be coordinated with affected stakeholders and approved according to Project requirements and this Code.](#)
- 11 Copies of all conditions and requirements of the *FAP* and all amendments to it shall be made available in advance to all *Persons* completing the *Work*. Issuing future *FAPs* may be denied if the conditions identified in this Article are not adhered to and/or performed by such *Person* to the satisfaction of the *GTAA*.
- 12 All permits, passes, or licenses from *GTAA* departments and external agencies that are required by the *Applicant or Contractors* before use or occupancy of the *Work* is permitted shall be obtained.
- 13 *As-Built Documents* and *Record Documents* of all finished *Construction* shall be submitted to the *GTAA* within the agreed upon timeframe following the completion, use or occupancy of the *Work* in accordance with the requirements of Part 9 of this *Code*.

3.3.6 Changes to the Work

- 1 All required documentation for changes to the *Work* shall be submitted to the *CCPO*, prior to commencing any *Work* of such change affecting:
 - a. *Airport* operations,
 - b. the *Primary Security Line (PSL)*, or other aspects of public safety and/or security at the *Airport*,
 - c. the structural components of a *Building or Structure*,
 - d. the life safety aspects or components of a *Building or Structure*,

- e. any major system (fire alarm, sprinklers, plumbing and drainage, HVAC, electrical, communications, security, etc.) of a *Building* or *Structure*,
- f. hard and soft retail zones and/or lease lines,
- g. any *Civil Work*, or
- h. any *Work* within the *Airside* area.

3.3.7 Revocation of Permit

- 1 The *CCPO* may revoke a *FAP* which requires the immediately stoppage of all *Work* once a notice is provided to the *Applicant* or *Contractor* on the basis that:
 - a. the *FAP* was issued based on mistaken or false information,
 - b. the *Work* being undertaken or any part thereof, is not being performed in accordance with the terms and conditions of the *FAP* including as set out in Subsection 3.3.5,
 - c. the *Work* being undertaken, or any part thereof, is not of the same type or scope of *Work* as that contained in the *Construction Documents* submitted for the *FAP*,
 - d. the *Work* has not, in the opinion of the *CCPO*, commenced within 30 days of the scheduled *Construction* commencement date, or the issuing date of the *FAP*, or
 - e. the *Work* is, in the opinion of the *CCPO* substantially suspended or discontinued for a period of more than three months and without satisfactory explanation given by the *Contractor* completing the *Work*.

3.3.8 Obtaining an Occupancy/Use Permit and FAP Closeout

- 1 The *Contractor* & *Consultant* must notify *CCPO* that their work has reached completion by submitting a signed Request for Final Inspection. The request must be submitted a minimum of **5 business days** prior to the required inspection date to ensure the availability of required *AHJ* Representatives from *CCPO*, *ICCC* and *GTAA* Plumbing. Copies of the Request for Inspection form, the *FAP* Closeout Checklist, etc., can be found on the Construction on-line. [Refer to Link in Appendix A – Item #5.](#)
- 2 The Permit Holder, *Consultants* and/or the *Contractor* must provide all the required final documentation before an occupancy can be granted by the *CCPO*. Refer to the *FAP* Close-Out Documentation Guide and Checklist which summarizes the required final documentation required for *Occupancy/Use Permit* & the *FAP* Closeout.
- 3 The *Occupancy/Use Permit* will be granted once the *CCPO* and our *ICCC* are satisfied with the site review conditions, all life safety systems have been demonstrated and functioning properly and all required documentation has been submitted as required by the *FAP* closeout requirements established. This will also close the *FAP* which is a requirement for every *FAP* issued.

Design Requirements

4.1 Applicable Codes and Standards

4.1.1 Application

- 1 The National Building Code, National Fire Code and the National Energy Code are the primary governing regulations, including all statutes, codes, and standards referenced therein, for the Design and Construction of Buildings at the Airport. [Design and Construction activities shall utilize the latest version of all referenced codes and standards within the primary governing regulations where applicable.](#)
- 2 The TP312E Aerodrome Standards and Recommended Practices is the primary governing standard for the Design and Construction requirements of the Airside area of the Airport. Refer to Appendix A for link to Transport Canada's web page. [In addition to TP312, the requirements of latest version of this Code shall be considered by a Contractor in all cases.](#)
- 3 Federal labour regulations apply to all areas, Buildings and spaces occupied by federal employees and/or GTAA representatives and where a Contractor with a federal designation performs Construction.
- 4 The *Construction Compliance & Permits Office (CCPO)* is the *Authority Having Jurisdiction (AHJ)* at the *Airport* for all matters of *Construction* pursuant to the processes, procedures, and compliance requirements as they relate to the *Design* requirements and *Applicable Codes and Standards* of this Subsection.
- 5 Any external agency that is recognized by the *GTAA* as having specific jurisdiction over parts of any *Construction* shall be responsible for overseeing compliance of such *Construction* with its own regulations.
- 6 The responsibility in Sentence (2) shall be coordinated with the *CCPO* as it relates to notice of compliance, authorization, inspection and acceptance matters, and any communication with and by the *Applicant* and holder of a *Facility Alteration Permit (FAP)* respective to the *Construction*.
- 7 The *Airport* is subject to several *Authorities Having Jurisdictions* having authority to apply relevant regulations, statutes, codes, laws, and standards to specific

occupancies, use and to the methodology and practices of *Construction*. All such authorities are recognized and supported by the *GTAA* for the mandatory application and adherence of their requirements as part of any *Airport Construction*.

- 8 Provincial labour regulations only apply in any *Construction* area under the control of a provincially regulated *Contractor* under contract to the *GTAA* or to a *Tenant* of the *GTAA*.
- 9 Where identified in this *Code*, certain provincial regulations and statutes or parts thereof have been elected and adopted by the *GTAA* where they are more stringent than, or absent within related federal regulations and statutes, for governing specific aspects of *Construction* at the *Airport*.
- 10 Respective regulations and standards of municipal authorities and utility providers shall apply where roadwork and utilities in their jurisdiction are part of the *Construction*. All *Airport* roadwork shall follow applicable municipal and provincial codes, standards, and practices.
- 11 Security regulations and measures set out by the *GTAA*, which are detailed in Part 6 of this *Code*, apply for all *Construction* occurring at the *Airport*.
- 12 [Any code or regulation set out in project requirement, project definition or technical requirements for a specific project.](#)

4.1.2 Limitations

- 1 This *Code* and referenced documents apply only to *Buildings* and other types of *Structures* permitted on *Airport Lands*. Refer to Appendix B for the drawing showing the extent of the *Airport Lands* property limits.
- 2 The *GTAA* reserves the right to adopt and specify the requirements of the most recent edition of any applicable codes and/or standards, in part or, which demonstrate more stringent requirements than those within the current regulations, or for which requirements are absent from or not specifically expressed in the current regulations.
- 3 The documents referenced in this *Code* shall include all amendments, revisions, and supplements effective on the date pursuant to Sentence 4.1.2(4) below, unless otherwise specified.
- 4 The effective date for applying any of the *Applicable Codes and Standards* is the *Contractors/Consultants Contract* effective date. Any subsequent stage, phase, addition and/or alteration associated with previously completed *Construction* shall be subject to an assessment of applicability by the *GTAA* and/or any external governing authority enforceable by law.
- 5 Where the *GTAA* applies a more recent or stringent regulation before the effective date of application referred to in Subsection 4.1.1(8) above, such change shall be implemented by the *Project Initiator* at no additional cost to the *GTAA* where it is a *Project* initiated solely by a *Tenant*.

4.1.3 Conflicting Requirements

- 1 In the case of conflict between the provisions of this *Code* and those of a referenced document, the provisions of this *Code* shall govern unless enforceable by law. The *GTAA* will have sole discretion in determining which provisions are applicable under this *Code* on a **Project-by-Project** basis.

In the event of a conflict, the *Contractor* or *Designer* shall advise the *GTAA* of the conflict details for review and direction.

4.1.4 List of Publications

4.1.4.1 *Application*

- 1 The latest edition and all amendments thereto of any of the following regulations, statutes, codes, and standards in this *Code* shall apply to the *Design* and *Construction of Airport Projects*. It is the *Designers'* responsibility to ensure that their *Designs* comply with all *Applicable Codes & Standards* and with good engineering practices.
- 2 The following list is not exhaustive, and any other regulations, statutes, codes, and standards that are relevant to the *Design* and *Construction of Buildings, Structures, or Civil Work* not listed here, are also deemed applicable.

4.1.4.2 *Federal Agencies and Governing Regulations*

Canada Green Building Council

Certification and credentialing body, exclusively administering Canadian project certifications for Zero Carbon Building Standards, Leadership in Energy and Environmental Design (LEED®), Investor Ready Energy Efficiency (IREE), and Total Resource Use and Efficiency (TRUE). Refer to Link in Appendix A – Item #27a.

Canadian National Institute for the Blind

Clearing Our Path—Accessibility Recommendations for the Built Environment

Canadian Standards Association

Canadian Electrical Code

[NECB 2020 - National Energy Code of Canada for Buildings](#)

CAN/CSA-B72-M87—Installation Code for Lightning Protection Systems

CAN/CSA-B651—Accessible Design for the Built Environment (latest version)

CAN/CSA-B651.1—Accessible Design for Automated Banking Machines (latest version)

CAN/CSA B836—Storage Handling and Dispensing of Aviation Fuel at Aerodromes (NFPA 407—Standard for Aircraft Fuel Servicing)

CAN/CSA-Z204—Guideline for Managing Indoor Air Quality in Office Buildings

CAN/ULC-S524—Standard for the Installation of Fire Alarm Systems

CAN/ULC-S536—Inspection and Testing of Fire Alarms
CAN/ULC-S537—Verification of Fire Alarm Systems
[CSA B44-Safety Code for Elevators and Escalators](#)
[CSA B52-2023 Mechanical Refrigeration Code.](#)
CSA B149—Natural Gas and Propane Installation Code
CSA B651.2—Accessible Design for Self-Service Interactive Devices (latest version)
[CSA C22.21 Canadian Electrical Code, Part I: Safety Standard for Electrical Installation](#)
[CSA C22.2 Canadian Electrical Code, Part II: Standards for Electrical Equipment](#)
CSA S350—Code of Practice for Safety in Demolition of Structures
CSA-S413—Parking Structures
CSA-S478—Guideline on Durability in Buildings
CSA-Z432—Safeguarding of Machinery
CSA-Z460—Control of Hazardous Energy-Lockout and Other Methods
CSA-Z462—Workplace Electrical Safety Standards

Canadian Transportation Agency

Canada Transportation Act
Persons with Disabilities Regulations
Accessible Canada Act
Canada Transportation Act
Accessible Transportation for Persons with Disabilities Regulations

Environment and Climate Change Canada (ECCC)

Impact Assessment Act
Canadian Environmental Protection Act
Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products
Federal Halocarbon Regulations
Fisheries Act
Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments
[Migratory Birds Convention Act](#)
Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands Regulations
[Hazardous Products Act](#)

Health Canada

[Hazardous Products Act](#)

[Hazardous Products Act Amendment - Workplace Hazardous Materials, Information System \(WHMIS\)](#)

Human Resources and Skills Development Canada

Canada Labour Code - Part II Occupational Health and Safety

Canada Occupational Health and Safety Regulations

Fire Commissioner of Canada Standards

National Research Council – National Code Documents

National Energy Code of Canada for Buildings

National Building Code of Canada

National Fire Code of Canada

National Plumbing Code of Canada

Office of the Commissioner of Official Languages

Official Languages Act—Part IV Communications with and Services to the Public

Official Languages Regulations

Royal Canadian Mounted Police

Transportation Association of Canada

Canada Border Services Agency

Citizenship and Immigration Canada

Federal Identity Program Manual

Manual of Uniform Traffic Control Devices of Canada

Treasury Board of Canada Secretariat

Transport Canada

Aeronautics Act

Aerodrome Security Measures - Restricted Document

Canadian Airport Traffic Regulations

Canadian Air Transport Security Authority Act

Canadian Aviation Regulations—Part III

Canadian Aviation Security Regulations

Going Places—Access Needs of Visually Impaired Travellers in Transportation Terminals: Design Guidelines (TP12940)

Public Safety Act, 2002

Toronto Pearson International Airport Zoning Regulations

Transportation of Dangerous Goods Act

Transportation of Dangerous Goods Act – Transportation of Dangerous Goods Regulations

TP312—Aerodrome Standards and Recommended Practices

TP1247—Land Use in the Vicinity of Airports

TP11500—Wildlife Control Procedures Manual

TP12233—Airport Water Quality Manual

TP13459—Sharing the Skies—An Aviation Industry Guide to the Management of Wildlife Hazards

TP621 Obstruction Marking and Lighting

4.1.4.3 **Provincial Agencies and Governing Regulations**

Electrical Safety Authority

Ontario Electrical Safety Code

Ministry of Labour, Immigration, Training and Skills Development - Ontario (“MOL”)

Occupational Health and Safety Act

Occupational Health and Safety Act—Designated Substance—Asbestos on Construction Projects and in Buildings and Repair Operations

Occupational Health and Safety Act—Regulations for Construction Projects

Occupational Health and Safety Act—Regulations for Industrial Establishments

Workplace Safety and Insurance Act

Ministry of Natural Resources (Metro Toronto Region Conservation Authority)

Conservation Authorities Act

Ministry of Transportation Ontario

Highway Traffic Act

Ontario Provincial Standards for Roads and Public Works

Ontario Traffic Manual

MTO’s Ontario Structure Inspection Manual (OSIM)

MTO’s Structure Rehabilitation Manual

Geometric Design Standards for Ontario Highways, Ministry of Transportation Ontario (MTO)

Roadside Safety Manual, Ministry of Transportation Ontario (MTO)

Ontario Ministry of Environment, Conservation and Parks

Environmental Protection Act

Fish and Wildlife Conservation Act

General Waste Management Regulations - EPA
Guidelines for Use at Contaminated Sites in Ontario
[On-site and Excess Soil Management Regulation](#)
Ozone Depleting Substances – General
Refrigerants

Other Ontario Legislation

Lightning Rods Act
Occupiers’ Liability Act
Power Corporation Act
The Accessibility for Ontarians with Disabilities Act (AODA)

Technical Standards and Safety Authority (TSSA)

Guidelines for Excavations in Vicinity of Gas Lines
Liquid Fuels Regulations
[Ontario Regulation 209/01 for Elevating Devices](#)
Technical Standards and Safety Act

4.1.4.4 ***Municipal Agencies and Governing Regulations***

Bell Canada

City of Mississauga

By-law 1036-81—Fire Routes and Fire Hydrants

City of Toronto

Design Criteria for Sewers and Watermains
By-law 457 (Chapter 681 of the City of Toronto Municipal Code)

Eversource/Hydro Mississauga

Eversource Hydro Mississauga Work Protection Code

Enbridge Gas

Support of Gas Pipelines in the Vicinity of Excavations

Peel Regional Health

Peel Regional Police

Regional Municipality of Peel

Public Work Design, Specifications & Procedures Manual
Sanitary Sewer Use By-law 90-90

Prevention of Backflow into Municipal Drinking Water System of the Regional Municipality of Peel - By-law 10-2017

4.1.4.5 **Other Agencies and Governing Standards**

[Air Conditioning, Heating and Refrigeration Institute \(AHRI\)](#)

American Association of State Highway and Traffic Officials (AASHTO)

American Petroleum Institute

American Petroleum Institute Standards

[American Public Transportation Association \(APTA\)](#)

[RT-EE-RP-001-02, Heavy-Duty Transportation System Escalator Design Guidelines](#)

American Society of Heating, Refrigeration and Air Conditioning Engineers

[ANSI/ASHRAE Standard 135-2016, BACnet™ - A Data Communication Protocol for Building Automation and Control Networks.](#)

[ANSI/ASHRAE/IESNA 90.1—2022—Energy Standard for Buildings Except Low-Rise Residential Buildings](#)

American Society for Testing and Materials, (ASTM)

Federal Aviation Association

Apron and Terminal Building Planning Manual

FM Global

[FM New Construction Specification Guidelines v2.0 April-2025 \(Prepared for GTAA\)](#)

Greater Toronto Airports Authority

Airport Emergency Plan

Airport Traffic Directives

Airside Activity Program Version 2.0

Communications Cabling Specifications and Procedures

Electronically Monitored Door Assemblies—Design and Construction Requirements

Emergency Services Fire Safety Plan

Engineering Design Requirements—Exterior Building Materials Guideline

Engineering Design Requirements—High Performance Building Policy (LEED)

[Environmental Emergency Contingency Plan](#)

Environmental Emergency Contingency Program

Environmental Management System Manual (ISO 14001:2015)

Facilities Guide for Contractors to Provide Data for All Assets Requiring Maintenance

Facilities Shutdown Procedures Manual

Facilities Utilities Locates Request Procedures

GTAA CADD Standard Guide (*supersedes United States National CAD Standard® if conflicts are present*)

GTAA Contractor Safety Pre-Qualification Guidelines

[GTAA Energy Modelling Guidelines v1.1](#)

[GTAA Environmental Policy \(2021\)](#)

GTAA Facilities Systems Engineering Design Standards – M&E 2024

GTAA ICS/SCADA Operational Technology Security Policy

GTAA ICS/SCADA OT Standards Overview

GTAA IT Cabling Specification Standard

GTAA IT Telecommunication Room Standard

GTAA IT Technology Standard

[GTAA Roofing and Envelope Guideline v1.1](#)

GTAA Surface Penetrations Guidelines

[GTAA Sustainable Design & Construction Guidelines v1.0](#)

GTAA Technical Training Standards

Hot Work Fire Safety Sign-off Checklist

Identification and Labelling Standards Manual

Information Technology and Telecommunications Electronic Safety and Security Specifications

Logistics Program

Metering Policy

Materials Movement Permit

Roof Assess Permit

Signage Standards and Guidelines Manual

Tenant Design Standards

Testing Commissioning Acceptance and Turnover Manual

Toronto Pearson Handbook for Business Partners

Wildlife Management Plan

Insurance Bureau of Canada

Fire Underwriters Survey—Water Supply for Public Fire Protection – A Guide to Recommended Practice

International Civil Aviation Organization

Aerodrome Design Manual (Doc. 9157)

Annex 14, Volume 1—Aerodrome Design and Operations

National Fire Protection Association

NFPA 10—Standard for Portable Fire Extinguishers

NFPA 13—Installation of Sprinkler Systems

NFPA 14—Standard for the Installation of Standpipe and Hose Systems

NFPA 17—Wet Chemical Extinguishing Systems

NFPA 20—Standard for the Installation of Stationary Pumps for Fire Protection

NFPA 24—Installation of Private Fire Service Mains and their Appurtenances

NFPA 30—Flammable and Combustible Liquids

NFPA 33—Spray Application Using Flammable and Combustible Liquids

NFPA 70—National Electric Code

NFPA 96—Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

[NFPA 110 - Standard for Emergency and Standby Power Systems](#)

NFPA 407—Standard for Aircraft Fuel Servicing

NFPA 409—Standard on Aircraft Hangars

NFPA 415—Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways

NFPA 502—Limited Access Highways, Tunnels, Bridges, Elevated Roadways, and Air Right Structures

NFPA 780—Standard for the Installation of Lightning Protection Systems

[NFPA 2001 - Standard on Clean Agent Fire Extinguishing Systems](#)

Nav Canada

NC-210—Design for Control Tower

National Institute of Standards and Technology (NIST)

[NIST SP 800-53 Security and Privacy Controls for Information Systems and Organizations](#)

[NIST SP 800-82 Guide to Operational Technology \(OT\) Security](#)

Sheet Metal and Air-Conditioning Contractors National Association (SMACNA)

NC-210—Design for Control Tower

United States Department of Homeland Security

USCBP Design Standards

United States

United States National CAD Standard®

4.2 Airport Technical Information

4.2.1 Responsibilities

- 1 [When initiating a Project, general technical information shall be obtained](#) from EAS Engineering Data for planning and *Design* purposes. Access may be provided to records currently on file and any subsequent updating of information necessary for the needs of the *Project* shall be the responsibility of the *Person* preparing the *Construction Documents*.
- 2 The *GTAA* takes no responsibility for, nor warrants in any way, the adequacy, completeness or accuracy of information, record drawings, and other documents or records provided for the purposes of *Design* or *Construction*.
- 3 The accuracy of such information, records and drawings is the responsibility of the *Person* preparing the *Construction Documents* to verify during the *Design* phase, and that of the *Contractor* during *Construction*.
- 4 All survey information prepared for *Construction/3D Scan* shall use monuments, benchmarks or control points that are recognized by the *GTAA* as references to the *Airport* datum and geodetic system. Before any field surveys are undertaken, contact EAS Engineering Data to obtain the proper *Airport* information to base the survey upon, and the *GTAA Site Survey and Control Requirements* document which must be followed.
- 5 It is the responsibility of the *Person* preparing *Construction Documents* to follow the mandatory format requirements set out in the *GTAA CADD Standards Guide* in accordance with Part 9 of this *Code* and the US National CAD Standard for the Architectural & Engineering drafting principles.
- 6 [All compiled information](#) for the purposes of *Construction* shall be recorded to show as-built conditions and submitted to the *Construction Compliance and Permits Office (CCPO)* and the *GTAA Project Manager* when completed for updating the *Airport* technical data base files, in accordance with Part 9 of this *Code*.
- 7 It is mandatory for all *GTAA Projects* that the *Design* drawing naming and numbering follow the *GTAA* naming convention. The *Designer* is required to make a request in writing to EAS Engineering Data to obtain drawing numbers.
- 8 Projects which are required to be delivered in BIM, shall follow the *GTAA BIM Standards* documents available on-line: [Refer to Link in Appendix A – Item # 26c](#).

4.2.2 Land Parcels

- 1 Soils and survey data, road, and utility layouts, to the extent that they are shown on current *Airport* property plans, are available through EAS Engineering Data as reference for planning purposes by the *Person* preparing the *Construction Documents*. The *Person* preparing the *Construction Documents* shall verify this

information and be responsible for preparing all necessary legal and conditions surveys to gather and record all necessary and pertinent information to base the proposed design upon and for *Construction*. These surveys shall include areas adjacent to those proposed for *Construction* where necessary for describing the proposed design.

4.2.3 Building Spaces

- 1 Within existing *Buildings*, spatial parameters and utility service data shall be provided from respective compiled documents on file as may be available through EAS Engineering Data. The *Person* preparing the *Construction Documents* shall be required to conduct and be responsible for conducting necessary conditions surveys to gather pertinent information to base the proposed *Design* upon for the purpose of *Construction*. These surveys shall include where necessary for describing the proposed design, areas adjacent to those proposed for *Construction*.
- 2 Any *Design* that involves the creation of new or modification of existing *Building Spaces* and/or the addition or removal of doors must contact EAS Engineering Data to obtain new room and/or door numbers.
- 3 Where possible, *Design* should avoid creating new confined spaces. If a new confined space must be created, appropriate controls should be included in the *Design* i.e., access/egress, lighting, ventilation, communication system coverage, etc., that will reduce hazardous conditions for entering, working in, and exiting these spaces.

4.2.4 Existing Information

4.2.4.1 GTAA CADD Standards Guide

- 1 EAS Engineering Data provides upon requested the GTAA CADD Standard Guide for reference in organizing digital site data and settings files. [Contractors, Project Initiators or Designers can request applicable files that are pertinent to the Area of Work.](#)

4.2.4.2 Information Available from EAS Engineering Data

- 1 Major *Building Projects* - digital site and *Building* data and settings files, if available for the specific area.
- 2 Minor *Building Projects* - digital site and *Building* data and settings files, if available for the specific area.
- 3 Major *Civil Projects* - digital site and *Building* and settings files, if available for the specific area.
- 4 Minor *Civil Projects* - scaled drawings for the area the *Construction* encompasses, digital site data and settings files, if available.

4.3 The Airport

(Reserved)

4.4 Design Requirements for Development Areas

4.4.1 Scope

- 1 All proposed uses of *Airport Lands* shall be subject to the land use zoning and planning requirements and processes of the *GTAA*.

4.4.2 Type 1—Land Parcels

4.4.2.1 *Planning Requirements*

- 1 **Scope:** Development of *Land Parcels* of the *Airport* shall be governed by the following planning requirements and shall be subject to the *GTAA Land Use Committee's* authorization prior to any *Project* being initiated.
- 2 **Site Plan Development:** All leased *Land Parcels* shall be developed within the guidelines expressed in the site plan development documents submitted by the *Tenant* to the *GTAA* for approval. The plan shall be prepared by the *Tenant* according to professional planning practices and standards, and conform to the *Airport Land Use Plan*, an *Environmental Baseline Study* and requirements specified in this *Code*. The plan shall indicate all existing and proposed *Structures* and open space improvements, including applicable portions of adjacent properties, roads and taxiways that provide access to or impose limitations on the *Land Parcel*.
- 3 **Open Space Development:** Spaces generated between *Structures* and other improvements shall be developed with complete landscaping. Such landscaping shall serve as an integrating element between areas of varying uses both within the *Land Parcel* and those contiguous thereto. No fruit-bearing trees or vegetation are to be used in any landscape *Design*.
- 4 **Building Placement:** Location and orientation within the *Land Parcel* of all proposed major *Buildings* or *Structures* shall be governed by consideration of intended functions, vehicular and pedestrian access, parking requirements, *Building* size and massing, open space allowances, and aeronautical zoning limitations. *Design* of *Structures* shall consider massing elements, aesthetics, materials, and climatic exposures. Placement of minor *Structures* shall be integrated into the overall site planning and its attendant open spaces.

4.4.2.2 *Zoning Requirements*

- 1 **Scope:** All *Structures* on leased *Land Parcels* shall be installed according to the following general requirements or, where more restrictive, to governing regulations as determined by the *GTAA* and/or Nav Canada.
- 2 **Setbacks:** *Structures* shall be set back 6.0 m from *Airport* property lines, 3.0 m from demising lease lines and 7.5 m from lease lines bordering taxiways. **Major or minor axis of *Buildings* shall be parallel or aligned to roads fronting the lease line unless approved by *GTAA* otherwise.** The above setbacks are considered minimum and shall be subject to review and possible amendment by the *GTAA* for all site

plan proposals. Consideration shall also be given to setback requirements for the *Primary Security Line (PSL)* where it becomes applicable.

- 3 **Height Restrictions:** Overall *Building* heights, including roof mounted equipment, enclosures, or any other *Structure*:
 - a. shall not exceed the Obstruction Limitation Surfaces of the Toronto Pearson International Airport Zoning Regulations and other standards of Nav Canada and the *GTAA*, and
 - b. shall be reviewed on a case-by-case basis where they may occur.
- 4 **Fire Routes:** All *Land Parcels* shall make provisions for adequate fire routes for emergency response vehicles in accordance with the *National Building Code* and the requirements of *Fire and Emergency Services (F&ES)*. See Article 7.6.2.9 for requirements.
- 5 In addition to Sentence (4) the following fire route sign requirements shall be provided to be:
 - a. in accordance with Mississauga's By-law No. 1036-81 for Fire Routes and Fire Hydrants.
 - b. two-sided and permanently mounted on a rigid signpost, pole, or structure.
 - c. erected at a height of between 1.9 m and 2.5 m, as measured from the edge of the travelled portion of the designated route, to the bottom edge of the sign.
 - d. installed at between 0.3 m and 3 m from the travel edge of the designated route.
 - e. installed along the route at approximately 30 m intervals or as frequently as is necessary to identify the route in the judgement of the *GTAA Fire Chief* or his/her designate.
 - f. installed at 90-degree angle in relation to the edge of the travelled portion of the designated route in such a manner as to allow both faces of the sign to be visible to traffic from either direction.
- 6 **Boundary Fences:** All *Land Parcels* and other *Airport Areas* specifically assigned a use shall be adequately fenced to prevent access by any unauthorized *Person(s)* where there is an apparent danger or allurement that requires a physical separation to prevent injury and any other requirements, as regulated by the *Occupiers' Liability Act*.

4.4.2.3 **Building Requirements**

- 1 **Design Guidelines:** All *Buildings* proposed for the *Airport* shall be assessed on appearance, form and materials conforming to any master plan, guideline, and sustainability standards of the *GTAA*, and/or as approved by the *GTAA*.
- 2 **Foundations:** *Design of Structures* for foundations shall be performed by a *Professional Engineer* and based on recent soil testing reports, subsurface utility engineering (SUE) survey, borehole records and an *Environmental Review* for contaminated soils submitted to the *GTAA Environmental Services*.

- 3 **Building Types:** *Construction* shall be limited to occupancy classifications as defined in the *National Building Code* and shall include only Group A2, B1, C, D, E, F2 and F3 as defined therein, all of which shall support an *Airport*-related use acceptable to the *GTAA*.
- 4 **Utilities:** Power, water, sewage, storm drainage, natural gas, liquid fuel, and communication systems shall be installed and connected in accordance with the *Applicable Codes and Standards* for the specific utility and where specified in this *Code*. The *Design* of each system shall be based upon actual recent readings to determine supply capacities for each utility to be connected and on subsurface utility engineering (SUE) survey to confirm actual locations & depths.
- 5 **On-Grade Placements:** All exterior grade surface treatment for vehicular traffic shall be hard surface pavement (concrete, asphalt, unit pavers, etc.). Walking surfaces shall be textured for slip resistance, sloped for drainage, and protected from sharp grade changes. Roads and parking surfaces shall be adequately sloped for drainage to area catch basins and ditches in accordance with Part 5 of this *Code*. **Curbs shall be constructed of approved, durable materials and designed to suit their intended function.**

shall be provided and be constructed of cast-in-place concrete, as a minimum, and where necessary. Road and parking dimension standards shall be equivalent to those adopted by the City of Mississauga.

- 6 **Landscaping:** All areas of *Land Parcels* allocated for open space development shall be landscaped and maintained regularly by *GTAA* or the *Tenant* as established in their lease or licence agreement. Planting shall be installed and maintained according to the requirements specified by *Environmental Services as follows*.
- a. Unpaved areas and slopes shall be erosion protected with suitable ground cover, with the minimum provision being maintained grass.
 - b. Landscape planting shall be provided in areas that border a public roadway commensurate with the proposed land use and the physical environment to support plant life.
 - c. Seeding/planting of grass to have a specific mix as specified in *GTAA* standard specifications which can be confirmed by *EAS* Airside and Infrastructure Engineering.
 - d. Except for requiring that no fruit-bearing trees or vegetation be used in any landscape design, *GTAA* does not require specific plants, but *GTAA's* Wildlife *Contractor* will review projects as part of scope of work to determine if there are any additional threats posed to aviation safety as part of proposed plantings.
- 7 **Fences:** The use of chain-link fencing in the immediate vicinity of *Buildings* shall be permitted only in cases of obvious safety and security requirements, and where location and conditions preclude reasonable alternatives. Wire-disguising devices and screen materials shall not be attached to chain-link fencing unless necessary by specific limiting conditions and shall be installed only with the prior approval of *Corporate Safety and Security*.

- 8 **Signage:** Location of proprietary signs for *Tenant* identification shall be mounted on *Building* exterior walls only and shall be designed in a manner that can be regularly maintained. Freestanding directional signs shall be permitted within the lease lines and subject to review by the *Real Estate Development, EAS* Land Use Planning and NAV Canada for: signage height, size, proportion, materials, colours, fabrication, and illumination characteristics shall be subject to the requirements of the Signage Standards & Guidelines Manual and *GTAA* signage requirements of the Tenant Design Standards and *GTAA* approval on an individual basis. Elaborate multi-coloured, moving or flashing signs with exposed lamps are prohibited. Manual and Standards can be requested from *Terminal Operations* and/or *EAS* Architectural Services.
- 9 **Illumination:** Exterior lighting and illuminated signage installations shall be approved by the applicable *Stakeholders* who can include *EAS* Land Use Planning and Nav Canada on an individual basis for visual and electronic compatibility with *Airport* aviation regulations and standards.
- 10 **Retail:** When a *GTAA Project* affects change within a *Terminal*, and affects an existing retail unit, or creates a new retail unit, it is the responsibility of the *Project Architect* to provide drawings to match the format of those in the *Tenant Design Standards*, section 7. These drawings must include the Floor Plan of the Hard Retail Zone, Soft Retail Zone (if applicable), the elevation and section of the base building portal.

4.4.2.4 **Provisions by the GTAA**

- 1 Services and systems serving *Land Parcels* that are in place or that shall be provided to the *Tenant* are defined and stipulated in the terms and conditions offered by *Real Estate Development*. This information is defined in the *Tenant* lease or license agreement and therefore is not prescribed in this *Code*.

4.4.3 **Type 2—Building Spaces**

4.4.3.1 **Building Space Requirements**

- 1 **Scope:** *Construction* of a *Building Space* shall be reviewed and authorized by the *GTAA Space Allocation Committee* prior to *Design* being initiated and is also governed by the following requirements.
- 2 **Building Envelope:** No *Construction* of a *Building Space* shall be permitted that modifies the exterior of a *Building* envelope maintained by the *GTAA* except as permitted by the *GTAA Design Review Committee* and under conditions specifically described in Sentence (3) below.
- 3 **Exterior Alterations:** Such *Construction* and appurtenances of Sentence (2) that are external to the *Building* shall be limited to alterations directly related to passenger, baggage, and cargo handling functions, and to provisions for handling and servicing aircraft as follows:
 - a. **Equipment Connections:** Apron equipment such as aircraft loading bridges shall be approved by the applicable *Stakeholders* on an individual basis.

- b. **Utility Connections:** Electrical, plumbing, and mechanical equipment routing shall only interface with the *Building* envelope between the walls enclosing the *Building Space*, and where said space is restricted from public access.
 - c. **Miscellaneous Attachments:** Vertical or horizontal pipe and duct runs along any exterior surfaces shall not be permitted except with the approval of *EAS*. Aircraft gate signs, guidance equipment, antennas, clocks, CCTV monitors, changeable message signage and special lighting shall be permitted on an individual case approval basis.
- 4 **In-Apron Fuelling:** Excavation, backfilling and paving related to the installation and alteration of pipelines and pits shall conform to *GTAA* specifications and in accordance with the requirements of the Pearson International Fuelling Facility Consortium (PIFFC).
- 5 **Interior Alterations:** All interior areas are classified either as *GTAA-maintained Airport Space* or leased *Building Space*.
- a. *Airport Space:* No *Construction* of either temporary or permanent nature shall be permitted within the *Airport Space* when performed by a *Tenant* except for limited connection to and extension of utilities, communications, and baggage spaces. All such *Construction* must conform to the standards related to the *Building* and must be authorized by a *Facility Alteration Permit (FAP)*. Included in the *Airport Space* are *Public Spaces* and *Service Spaces*.
 - b. *Building Space:* *Construction* by a *Tenant* of either temporary or permanent nature shall be permitted within the *Airport Space* and be afforded provisions by the *GTAA* as may be stipulated in the terms and conditions of the *Tenant's* lease agreement with the *GTAA*, and subject to all terms and conditions of a *FAP*.

4.4.3.2 Provisions by the GTAA

- 1 Services and systems serving *Building Spaces* that are existing or that shall be provided by the *GTAA* to the *Tenant* are defined and stipulated in the terms and conditions of the *Tenant* lease agreement.

4.4.4 Type 3—All Other Airport Areas

- 1 *Structures* and systems serving other *Airport Areas* that are existing or that shall be provided by the *GTAA* to the *Tenant* are defined and stipulated in the terms and conditions of the *Tenant* lease agreement.

4.4.5 Type 4 —All Other Non-Airport Surrounding Areas

- 1 Any developments including, but not limited, to *Buildings*, *Structures*, towers, or antennae that are affected by Obstacle Limitation Surfaces, ICAO Type A Surfaces, or any *Airport Areas*, must be reviewed by *EAS* Land Use Planning for compliance with height restrictions and applicable noise guidelines. As well, any developments that meet NAV Canada criteria for land use reviews will be assessed concurrently and forwarded by *EAS* Land Use Planning to NAV Canada for their review and comment.

- 2 Submissions to the *EAS* Land Use Planning for these reviews should include:
 - a. Site Plan in CAD format (preferred) or PDF drawing showing the *Building* or *Structure* footprint and orientation and the coordinates of the outside corners of the proposed *Building* or *Structure*. If coordinates are not available, *Building* or *Structure* dimensions must be provided to nearby permanent roads or adjacent structure to enable an approximate location and orientation within the site.
 - b. Finished floor elevation or ground elevation (Above Sea Level).
 - c. Total height of all the *Structures* including any rooftop HVAC units, ladders, railings, or architectural features.
 - d. For *Projects* on *Airport Lands* or in the immediate vicinity of the *Airport*, details will be required with respect to exterior walls and roofing materials being used; technical specifications of solar roof panels; exterior lighting/illumination systems; antennas; radio transmitters; cell towers; etc., to determine compliance with restrictions associated with Nav Canada’s aeronautical facilities and telecommunication systems and flight procedures.

4.5 Sustainable Design

4.5.1 Minimum Requirements

- 1 The *GTAA* recognizes the impact of our *Airport* and associated *Construction* activities on the environment and embraces our corporate responsibility as a steward of the environment to manage the impacts of growth and development through regulatory compliance, employing sustainable best practice, and being innovative in reducing our environmental impact. The *GTAA* has developed Sustainable Design & Construction Guidelines (v1.0) which shall be used by *Designers*, *Consultants* and *Contractors* working on *Projects* owned and operated by the *GTAA* to support sustainability priorities in line with the *GTAA* Environmental Policy (2021) and our Environmental Action Plan. Refer to *GTAA Environmental Services* for the Sustainable Design & Construction Guidelines (v1.0).

The Sustainable Design & Construction Guidelines (v1.0) are supplemental to this *Code* and does not replace the requirements identified within. The Sustainable Design & Construction Guidelines (v1.0) work in compliment to the *GTAA* Roofing and Envelope Guideline (v1.1) and Energy Modelling Guidelines (v1.1).

The *GTAA* is developing *Tenant* sustainability guidance which will provide requirements for new and existing *Tenants* to align *Construction*, renovations and operations with the *GTAA*’s sustainability priorities.
- 2 The following are the requirements for the *Design* and *Construction* of all *Buildings* on *Airport Lands* pertaining to Section 2.1.1 of this *Code* except for *Buildings* listed under Subsection 4.5.2:
 - a. The energy efficiency design of *Buildings* is required to meet the Performance Requirements outlined in the *GTAA* Roofing and Envelope Guideline (v1.1).

4.5.2 Exceptions

- 1 Any *Building Space*, which uses energy at a rate less than 12 W/m² under peak conditions.
- 2 Temporary structures such as *Construction* trailers, tents, air-supported *Structures*, and portable classrooms.
- 3 Warehouses and storage rooms where the design indoor temperature does not exceed 10°C.
- 4 Unheated storage garages and unheated storage rooms except as noted below.

Note: Conditioned spaces of *Buildings* exposed to unheated storage garages and unheated storage rooms shall meet the *Building* envelope requirements ANSI/ASHRAE/IESNA Standard 90.1.

4.6 Design Requirements for Buildings

4.6.1 Architectural Design

4.6.1.1 Accessibility

- 1 To establish and maintain inclusive environments, *Buildings* at the *Airport* shall be designed in such a manner as to allow for an accessible environment for all users. *Universal Design* principles shall be applied to ensure that new and redeveloped public spaces appropriately serve the needs of all users, including children, seniors, parents with strollers, and people with a wide variety of additional needs, to the greatest extent possible.
- 2 *Design* of spaces within *Buildings* shall conform to the latest editions of the following:
 - a. *National Building Code*, Section 3.8 Accessibility regulations that establishes detailed technical and administrative requirements as well as minimum standards for building construction.
 - b. CAN/CSA-B651 (latest version); Accessible Design for the Built Environment. If more rigid regulations than NBC or additional accessibility requirement referenced in NBC to CSA, then comply with CSA.
 - c. CAN/CSA-B651.1 (Latest version); Accessible Design for Automated Banking Machines
 - d. CSA B651.2 Accessible Design for Self-Service Interactive Devices
 - e. CNIB; Clearing Our Path – Accessibility Recommendations for the Built Environment
 - f. CHS - Canadian Hearing Services
 - g. *Accessibility for Ontarians with Disabilities Act (AODA)*. If more rigid regulations than NBC or CSA B651 standard, then comply with OBC Barrier Section 3.8 Barrier-Free Design.

- h. *The Accessible Canada Act*
- i. *Canada Transportation Act - Accessible Transportation for Persons with Disabilities Regulations*
- j. Transport Canada
 - i. Going Places—Access Needs of Visually Impaired Travellers in Transportation Terminals: Design Guidelines (TP12940)
 - ii. Making Transportation Accessible—A Canadian Planning Guide
- k. [V4 Rick Hansen Foundation Accessibility Certification™ \(RHFAC\) survey criteria. Ideally, projects are to achieve at minimum RHF Accessible Gold Certified.](#)

The foregoing is not an exhaustive list and *Consultants; Contractors and Tenants* are responsible for ensuring that they comply with all applicable laws pursuant to their *Contract* or lease agreement with the *GTAA*.

4.6.1.2 **Wildlife Control**

- 1 The configuration of elements and components of *Buildings and Structures*, including all associated landscaping and vegetation (non-fruit-bearing trees or plants) shall be designed and arranged in such a manner as to prevent or discourage bird nesting and perching or habitats that might attract wildlife.
- 2 *Consultants* shall contact the Manager, Airside Systems and Compliance for the requirements and limitations for *Design* with respect to wildlife at the *Airport*. For general guidance in *Design*, refer to the following publications:
 - a. Canadian Aviation Regulations; Part III, Sub-part 2 – Airport Wildlife Planning and Management,
 - b. Toronto Pearson International Airport Zoning Regulations, SR99/123. For Transport Canada site [refer to Link in Appendix A – Item #27b](#).
 - c. TP11500 - Wildlife Control Procedures Manual,
 - d. TP13459 – Sharing the Skies – An Aviation Industry Guide to the Management of Wildlife Hazards, and
 - e. *Ontario Fish and Wildlife Conservation Act*.
- 3 Refer to Section 5.12 of this *Code*.

4.6.1.3 **Health Agency Approval**

- 1 Peel Regional Health is the *Authority Having Jurisdiction* for issues regarding public health at the *Airport* and in that capacity, shall be notified by the [Project Owner of the Construction including any of the following](#):
 - a. New food establishments,
 - b. Modifications to an existing food establishment,
 - c. Offering for sale of any pre-packed food products,
 - d. Vending machine operations,
 - e. Proposal for the establishment of any water recreation facilities,
 - f. Hair salon or barber shop,

- g. Nurseries or childcare facilities, and
 - h. Any other health-related facility.
- 2 The proposed *Construction* shall be clearly shown, noted, and specified on drawings submitted for review and approval by Peel Regional Health prior to commencing *Construction*.
 - 3 To avoid *Project* delays, *Tenants* are advised to make required submissions to Peel Regional Health as early as possible to obtain the necessary approval.
 - 4 The *Construction Compliance & Permit Office (CCPO)* requires a copy of the Letter of Compliance from Peel Regional Health, as proof of review and acceptance of the *Construction* as part of the *Facility Alteration Permit (FAP)* requirements, to be submitted prior to requesting the occupancy/use of the *Project* and authorization being given.
 - 5 **The Project Owner shall** contact Peel Regional Health directly to arrange the above requirements with the representative for the *Airport*.

4.6.1.4 ***Airport Establishments Liquor License Sign-off Requirements***

- 1 As a requirement for obtaining a liquor license, the Alcohol and Gaming Commission of Ontario (AGCO) requires the signoffs from Building, Fire, and the Health authority. For all establishments located on *Airport Lands* requiring liquor license signoffs for AGCO, completed & signed “Agency Letter of Approval” letters must **be obtained from each of the following authorities**:
 - a. *Construction Compliance & Permits Office (Airport AHJ - Building authority)*
 - b. *GTAA Fire Prevention (Airport Fire authority)*
 - c. Region of Peel (Health authority)
- 2 Request for Agency Letter of Approval signoff by *CCPO* must include:
 - a. Filled in copy of the Agency Letter of Approval with the completed establishment’s information.
 - b. *Consultant’s* Floor Plan drawing (8 ½ x 11) highlighting the specific floor area being licensed, with square footage and calculated total occupant load.
 - c. Sign-off letter or email from *GTAA Fire Prevention* confirming that they agree with the occupant load calculated by the *Consultant*.
- 3 Once this information **is provided by the applicant**, *CCPO* will then complete filling in the Agency Letter of Approval, sign & date the letter and email it back to the establishment’s representative.

4.6.1.5 ***Security and Inspection Services***

- 1 *Terminals* and cargo facilities constructed for the purpose of screening passengers, non-passengers, goods, and other items at the *Airport* shall be designed to conform to the requirements provided through the *GTAA*, supplemental to government inspection service requirements.

- 2 *Design* of such spaces shall conform to the identified and provided standards based on impacted or associated government agency. Standard documentation is restricted and shall be requested through the *GTAA* business relationship member.

4.6.1.6 **Demolition and Abandoned Building Systems or Equipment**

- 1 The *Applicant* for a *Facility Alteration Permit (FAP)* for the partial or complete demolition of a *Building* or other type of *Structure* shall refer to Article 2.3.3.3 for the applicable requirements of the *National Building Code*. Also, a designated substance survey must be submitted prior to the demolition of any *Buildings* and/or *Structures* to ensure that if there are hazardous materials present, that they have been removed appropriately in compliance to the *Applicable Codes and Standards*.
- 2 The *Contractor* shall provide all protection such as barriers, hoarding, bracing, supports, shoring and underpinning as required by applicable regulation and Subsection 7.6.6 to ensure safety to *Persons*, vehicles, adjacent structures, and property prior to commencing demolition. The *Contractor* shall maintain all such protection in good order during the demolition and remove when finished.
- 3 Where any such protection specified above is required to be engineered, such engineering shall be performed by a *Professional Engineer* registered in the Province of Ontario. All engineering drawings of such protection shall bear the seal and signature of the *Professional Engineer* engaged to design the protection and must be submitted to the *CCPO* for review prior to commencement of demolition operations.
- 4 Where demolition includes alterations to or occurs adjacent to the *Primary Security Line (PSL)* the *Contractor* shall review and have the demolition approved by *GTAA* Corporate Safety and Security Department prior to commencing any demolition activities.
- 5 Repair or replacement of damage to any *Building* or *Structure* to remain caused by the demolition shall be at the expense of the *Contractor* and to the satisfaction of the *GTAA*.
- 6 The *Contractor* shall dismantle and remove all *Abandoned Systems*, equipment, etc., that are redundant due to the demolition. [If removal is not feasible, *GTAA* permission is required to abandon the system in place. Proposals detailing how the system will be treated, filled with acceptable material, and abandoned in place must be submitted for *GTAA* review on a case-by-case basis](#)
- 7 The area of demolition shall remain free of accumulation of demolished materials and rubbish, by an orderly removal of material from the same area, placing it into dumpsters, segregated by waste stream, and then removing the debris from the *Airport* on a regular basis, in accordance with Subsection 7.6.4 of this *Code*.
- 8 As a general practice, demolition operations shall be completed before preparations for new *Construction* can commence to limit the quantity of materials on site at any given time, unless specific circumstances determine otherwise.
- 9 The *Contractor* shall coordinate the removal requirements for removing any material, fixture and equipment that are identified during the design review as

property of the *GTAA* before commencing demolition. The *Contractor* shall take the necessary precautions to prevent damage to such items until turned over to the *GTAA*.

- 10 The *Contractor* responsible for demolition shall provide a Waste and Material Separation Management Plan that is acceptable to the *GTAA* and compliant with Section 5.5 of this *Code* for all materials to be removed from the *Construction* site.
- 11 Decommissioning of all utility services to the *Building(s)* shall be the responsibility of the *Contractor* and include coordination of shutdowns, lockouts, capping, and termination of services with the respective utility owners and *EAS* at least one month in advance of starting to schedule decommissioning of utility services. Refer to Section 7.7 for procedures for interruptions or shutdowns of *Airport* systems.
- 12 The *Contractor* shall prepare & submit a closeout report based on the designated substance survey to *GTAA Environmental Services* which must include information on the quantity of material removed, location of where material was taken and copies of waybills, manifests etc. that confirm this information.
- 13 Utilities and services shall be de-energized prior to commencing demolition activities. Where site conditions allow for prolonged work, the contractor shall investigate and isolate the site from existing services to limit the risk of damages. This may include electrical, domestic cold and hot water, and fire protection services.

4.6.2 Construction to Match Existing

- 1 All new materials, fixtures, devices, systems, equipment, and components where modifications, infill and extensions of the existing components are required shall match the look, feel and functionality of the existing materials, fixtures, devices, systems, equipment, and components.
- 2 The *Contractor* shall be responsible for making good all materials and finishes of walls, floors, and ceilings to match existing walls, floors and ceilings within all adjacent areas damaged and affected by the *Construction* of the *Building Space*.
- 3 Where new materials are unable to match existing materials, the *Contractor* shall notify the *GTAA Project Manager* and alternative materials, and design solutions shall be determined prior to any installation.
- 4 The *Contractor* shall maintain or improve all existing fire ratings, separations, and performance where *Construction* affects fire ratings. Capacity and distance shall be coordinated with the applicable codes.
- 5 The *Contractor* shall seal and make watertight all roof penetrations in a manner acceptable to the *GTAA* with approved materials.
- 6 Where the *Construction* causes an abandonment of existing floor penetrations, a satisfactory infill method to match existing floor penetrations and to maintain existing fire resistance ratings shall be applied. Repair or replacement of finish flooring material shall match existing.

- 7 All abandoned floor penetrations that are to be repaired by infilling shall first be surveyed by the *Contractor* prior to covering or concealing and provide dimensional data on the as-built drawings submitted to the *CCPO* and *EAS* Engineering Data.
- 8 All abandoned roof penetrations shall be infilled and re-roofed.
- 9 Provide drawings showing the location of any proposed roof penetration and the roofing details.
- 10 Where the *Construction*, or previous *Construction* causes a ceiling access panel to not be required, it shall be removed.
- 11 Structural member fireproofing damaged or removed during *Construction* shall be repaired in an equivalent manner with *GTAA* approved material.

4.6.3 Fire Safety Equivalents

- 1 *Buildings*, their fire compartments, and other fire safety components shall be designed to meet the requirements of the *National Building Code*, *National Fire Code*, and tested designs published by accredited testing companies or as published by Underwriters Laboratories Canada using fire safety equivalents based upon industry accepted engineering practice.
- 2 Division C, Section 2.3 of the *National Building Code* shall be used to achieve the requirements of acceptable compliance alternatives.
- 3 Submission of the required documentation as part of Sentence (1) shall be made to the *Independent Code Consultant (ICCC)* and *CCPO* prior to any activity commencing at the *Place of Work* to allow for adequate review and processing.

4.6.4 General Requirements

4.6.4.1 *Materials, Appliances, Systems and Equipment*

- 1 All installed materials, appliances, systems, and equipment must comply with the Contract specifications and, at a minimum, adhere to the applicable requirements of this *Code*.
- 2 For systems and equipment/machinery with moving parts, appropriate guarding (i.e. physical barriers or engineered barriers such as guards) shall be installed to prevent inadvertent contact with moving machinery parts.

4.6.4.2 *Recycled or Used Materials, Appliances and Equipment*

- 1 Unless otherwise specified in this *Code*, recycled materials may be utilized, and used materials, appliances and equipment may be utilized when they meet the requirements of this *Code* for new materials, appliances and equipment demonstrate their warranty, safety and whole life cost benefit and are satisfactory to the *GTAA* for the intended use in a *Building* and other types of *Structure*.

4.6.4.3 ***Bollards and Guards***

- 1 Perimeter of *Terminals* in *Airside* areas shall be protected against damage from vehicular movement. Bollards and guards shall be designed and installed to standards specified by *EAS*.
- 2 Each side of door openings and placements of mechanical and electrical equipment shall be protected by bollards installed to standards and accessibility requirements specified by *EAS* where vehicle movement is likely to damaging such items.
- 3 All placements projecting above grade level that are bordering vehicle traffic areas including gas valves, water hydrants, post indicator valves, loading bridge pylons, critical equipment, boarding bridges, and guard booths shall be adequately protected from impact using methods acceptable to the *GTAA*.

4.6.4.4 ***Exterior Envelope and Cladding***

- 1 *Building Envelopes* for new *Buildings on Airport Land* shall comply with the *GTAA Sustainability Design & Construction Guidelines (v1.0)* under section 5.2.3.3 requirements for 'Optimal Energy Performance' and section 5.2.3.4 requirements for 'Durability' as well as the *GTAA Roofing and Envelope Guideline (v1.1)*. Where conflicting requirements arise, the more stringent requirements shall apply. The Aesthetic of the *Building Exterior* shall be studied for each *Building* to comport well with the surrounding environment and shall be reviewed with *EAS Architectural Services* and other *GTAA Stakeholders* early in the design stages where different design options shall be presented and evaluated.
- 2 All steel components exposed to weather, water, and condensation conditions shall be protected from corrosion by hot-dip zinc galvanizing and/or high-performance coating applications.

4.6.4.5 ***Glazing Systems***

- 1 Glazing systems shall comply with the building enclosure & roofing design guidelines & energy modelling guidelines published by *GTAA*, the following points shall be considered unless they are conflicting with the former mentioned guidelines
- 2 All *Design* and installation shall incorporate thermally broken aluminum frames with rain screen drainage and sealed insulated glass units.
- 3 Where glazing systems are exposed to *Airside Areas* and susceptible to jet blasts of aircraft, both the supporting frame and glass panels shall be designed to withstand these forces without failure. *EAS* may review design loads of such systems.

4.6.4.6 ***Interior Finishes***

- 1 Selected materials shall be durable, suitable for the intended use, comply with *GTAA's* sustainability requirements outlined under Section 4.5 of this *Code* and have a Flame Spread Rating in compliance with the *National Building Code*. The composition of the materials shall be capable of providing adequate resistance to breaking, denting, chipping, scratching, peeling, staining, and marking, as well as

being easily repaired and cleaned as required due to the above. Materials shall be subject to the GTAA's approval of the above qualifications for all areas within the *Terminals*.

- 2 Detailing of exposed materials shall have edges, surfaces, corners, and fixtures configured in a manner that does not create hazards, such as slipping, impact and snagging for all building occupants.
- 3 Samples of proposed interior finish materials accompanied by all physical characteristics and performance test data shall be submitted to EAS for approval for use prior to actual installation.
- 4 Exposed poured-in-place concrete intended as a final finish material shall have all voids filled, be ground smooth of defects, and sealed before applying any other finish.
- 5 If new finish material is to be installed on existing surfaces, then all existing finish materials, glues, bonding agents, and the like shall be removed prior to installation of any new materials.

4.6.4.7 **Wall Base and Wall Protection**

- 1 Wall base in *Terminals* along walls and columns of *Public Spaces* shall have a height of 250mm in Terminal 1, 200mm in Terminal 3, [composed of highly durable and cleanable materials such as stainless steel to match the standards specific to the Building](#). Whenever possible in Terminal 3, the base should be 250mm if it is in a renovated area that is not adjacent to an area with a wall base of 200mm, where the height difference would be noticeable.
- 2 Where movement of materials and wheeled apparatus is part of the use of the *Building* floor area including service areas, corridors, freight elevators, and loading docks, heavy-duty wall protective devices and materials shall be specified to resist wall damage and deterioration.
- 3 Corner protection of wall materials subject to damage by baggage carts shall be provided as determined by the GTAA. Wall protection of gypsum board in areas used for baggage carts shall have adequate base and crash rail devices installed to match standard for the area.

4.6.4.8 **Flooring Materials**

- 1 A minimum Dynamic COF of 0.6 is required for all flooring.
- 2 The ANSI A137.1-2012 Specifications for Ceramic Tile standard shall be followed.
- 3 The ANSI A1264.2-2006 Provision of Slip Resistance on Walking/Working Surfaces standard shall be followed.
- 4 Provide copies of all current test results under wet, dry, and treated conditions on all the specified flooring as per Standard ANSI A137.1-2012 for review and approval by Corporate Risk.
 - a. Hard surface flooring should be properly installed, in a stable, firm and slip resistant manner.

- b. The tile supplier should provide details, procedures and/or training for the proper maintenance and floor care of their products, which should be followed by the *Tenant* going forward.
- 5 All transitions between the different flooring types need to be smooth and level in conformance with the *National Building Code*, to ensure no tripping hazard is created.

4.6.4.9 **Ceiling Heights**

- 1 *Design* of high ceilings in *Public Spaces* shall consider lighting levels, ease of re-lamping fixtures, equipment servicing, material replacement and refinishing, and the capability of achieving other maintenance operations.
- 2 *Design* of suspended ceiling systems shall consider the requirements for accessing ceiling spaces to perform maintenance and future installation *Work*.
- 3 All equipment, piping, conduit, raceways, and any other suspended *Building* assemblies and components installed in ceiling spaces over vehicle routes within the *Terminals* shall maintain an overhead minimum clearance above the road surface in accordance with the height restrictions established specific to the *Building*.
- 4 Finished ceiling height must be a minimum of 2400 mm.

4.6.4.10 **Access Doors/Panels**

- 1 Access doors and removable panels in ceilings and walls to provide service access to valves, pull boxes, dampers, and control devices shall be considered in the design, and provided at locations coordinated with the *Contractor's* mechanical and electrical trades and the architectural/interior designer.
- 2 All access doors and panels shall be fully lockable and tamper-proof where accessible in *Public Spaces* and *Restricted Areas*.
- 3 All access doors should be constructed square and plumb to adjacent surfaces.

4.6.4.11 **Doors and Frames**

- 1 Steel doors specified shall be commercial grade hollow metal fabrications, adequate for the specific use and durability intended, reinforced, and prepared for hardware.
- 2 Steel frames specified and installed shall be commercial grade welded fabrication, adequate for the specific use and durability intended, and reinforced and prepared for hardware. Knockdown frames are not permitted in the *Terminals* or anywhere installed as a security door (Article 4.6.6.2).
- 3 Aluminum doors specified and installed shall be commercial grade extruded aluminum fabrication, reinforced and prepared for hardware. Exterior doors shall be **insulated and thermally broken**.

- 4 All door openings installed in *GTAA-maintained Buildings* shall be labelled with a door tag with the door number that shall be assigned by the *GTAA* and installed in accordance with the standards specific to the *Building*.
- 5 Door swings shall not be permitted to encroach into corridors and concourses, unless recessed or protected by a barrier to prevent interference with immediate pedestrian circulation.
- 6 Entry doors shall be designed to minimize air infiltration during operation by including energy conservation solutions acceptable to the *GTAA*.
- 7 Automatic entry door devices shall be designed and installed to minimize unnecessary door openings including energy conservation solutions acceptable to the *GTAA*.
- 8 Sliding doors shall be top-rail supported only for all *GTAA-maintained Buildings* with threshold detailing that will not create a tripping hazard and be in conformance with the *National Building Code*.

4.6.4.12 **Electromagnetic Locking Devices**

- 1 The design and installation of all electromagnetic locking devices within the *Airport* shall be reviewed by Corporate Safety and Security and *CCPO* for code compliance.
- 2 Electromagnetic locking devices and the primary door opening hardware shall be designed and installed in conformance with CAN/ULC-S533 - Standard for Egress Door Securing and Releasing Devices; and the locks and its associated hardware are labelled and listed by a testing laboratory accredited by the Standards Council of Canada.
- 3 A separate drawing shall be submitted to *CCPO* for all electromagnetic locking devices proposed to be installed at the *Airport*. The drawing shall include the following information:
 - a. specifications specific to the electromagnetic locking devices proposed for installation, including product cut sheets,
 - b. the sequence of operation for the electromagnetic locking devices,
 - c. the egress path(s) to an exit in the rooms/areas where the electromagnetic locking devices are proposed to be on egress and/or exit doors,
 - d. dimensioned drawings to indicate the locations of manual pull stations, signage, card swipes, and card readers, and
 - e. single line diagrams to indicate the wiring method of the electromagnetic locking device, controller, manual pull station, and other electrical components.
- 4 Upon completion of the installation of the electromagnetic locking device, the following items shall be submitted prior to final inspection and demonstration to the *CCPO* and the *ICCC*:
 - a. sign-off from both the *GTAA* ITM and Corporate Safety and Security,
 - b. a fire alarm verification report that includes all new devices (e.g., manual pull stations, electromagnetic locks), and

- c. confirmation in writing from the Engineer of Record that the demonstration was successful, and the devices have been installed and verified as per CAN/ULC-S524-01, Standard for the Installation of Fire Alarm Systems and CAN/ULC-S537-04, Standard for the Verification of Fire Alarm Systems, and as per the Construction Drawings.
- 5 Upon receipt and acceptance of all final documentation, a final inspection and acceptance test shall be scheduled with the *Construction Compliance & Permits Office (CCPO)* and the *ICCC*. The final inspection and acceptance test will include the full demonstration of the operation of the electromagnetic locking devices.
 - 6 Upon completion of an electromagnetic locking device an inspection certificate from the Electrical Safety Authority and the *GTAA* are required before it is activated and placed into operation.

4.6.4.13 **Locking Devices**

- 1 All doors & key switches under *Construction* must have a Medeco construction black core. These temporary construction cores can be obtained from any authorized Medeco dealers.
- 2 The *Project* must provide an updated version of the hardware schedule to the Access Control Specialist for review three months before turnover.
- 3 Medeco cores must be ordered immediately by the *Project* after review & accepted by the Access Control Specialist [as it can take between 8 to 16 weeks for Medeco supplies to be delivered.](#)
- 4 The Access Control Specialist will provide all pinning codes to Medeco directly.
- 5 Ensure that all *Project* cores ordered are returned to the Access Control Specialist for installation at least two weeks before testing and before handing over to *GTAA*.

4.6.5 **Access Control and Security Systems**

4.6.5.1 **Scope**

- 1 The requirements of this Subsection pertain to the *Primary Security Line (PSL)*, inspection services areas, *Sterility Areas*, safety/security areas, and the *Design*, fabrication, installation and/or *Construction* of components forming any part of these areas or as determined by Corporate Safety and Security.

4.6.5.2 **General Requirements**

- 1 Any new installations of access control and security systems including devices, components, etc. shall meet the current standards as established by *Corporate Safety and Security*.
- 2 The *GTAA Corporate Safety and Security Department* shall review and approve any new systems, alterations and/or substitutions of devices and components of existing systems prior to installation.

- 3 Electromagnetic lock, key card systems, CCTV systems, door contacts, sound alarms, etc., that are monitored by the *Airport Security Operation Centre*, shall require final connections to the monitoring system to be performed by the designated *Contractor* of the *GTAA*.
- 4 All electromagnetic lock installations, where not part of a *Construction Contract*, require a *Facility Alteration Permit* before commencing such installations.

4.6.6 Primary Security Line Design and Construction

4.6.6.1 Walls and Windows

- 1 All *Construction* shall conform to current *GTAA* Standards.
- 2 Any changes must be coordinated with Corporate Safety and Security and Transport Canada.
- 3 Permanently installed walls and partitions forming part of the *PSL* shall be designed and constructed as follows:
 - a. full height from the floor to the underside of the floor or roof deck structure above where they form part of a required smoke or fire rated separation in the *Building*, or
 - b. partial height from the floor to 150 mm above the underside of a suspended ceiling assembly with heavy gauge 19 mm expanded steel mesh supported on 92 mm steel studs at 400 mm spacing extending to the underside of the floor or roof deck structure above where they are not part of a required smoke or fire rated separation in the *Building*.
 - c. partitions in either of the above applications shall be constructed of one of the following:
 - i. minimum 140 mm concrete block wall, or
 - ii. gypsum board partition assembly comprised of 92 mm steel stud framing at 400 mm spacing with 16 mm gypsum board screw-fastened to public side, and heavy gauge 19 mm expanded steel mesh screw-fastened directly to the studs (full height of partition) on the restricted side and finished with 16 mm gypsum board.
 - iii. [any other proposed construction than the above shall be approved by GTAA Architectural Services and Construction Security Planning.](#)
- 4 Any opening or penetration made through either assembly in Subsection 1 greater than **51 mm x 51 mm** in size shall be protected by a steel grille or mesh fastened from the *Restricted Area* side.
- 5 At no time will the overall physical integrity of the existing *Primary Security Line (PSL)* wall *Construction* be impacted or altered without the approval of Corporate Safety and Security.
- 6 Within *Terminals*, high-risk and secure areas containing systems, activities and procedures classified as “sensitive operations” by the *GTAA*, security shall not be

provided by any means of visual surveillance by *Persons* from the non-restricted side of the *PSL* wall.

- 7 Windows permitted to form part of the *PSL* wall shall be specified to have pressed steel or aluminum frames fastened to the wall assembly from the restricted side. Glazing shall meet current *GTAA* Security Standards and be secured in the frame from the restricted side.
- 8 Windows in secure areas requiring an access opening(s) to serve persons shall have a security screen in place and a closure panel mounted on the restricted side locked by hardware acceptable to Corporate Safety and Security.

4.6.6.2 **Doors and Frames within the PSL Wall**

- 1 All door types shall be reviewed by Corporate Safety and Security to determine the level of security required for the areas they serve.
- 2 Doors and frames forming part of the *PSL* shall be designed and constructed in accordance with the following:
 - a. *GTAA* Electronically Monitored Door Assemblies – Design and Construction Requirements,
 - b. *GTAA* IT&T Electronic Safety and Security Specifications, and
 - c. Requirements of the Corporate Safety and Security.
 - d. All doors must receive all required regulatory signage in accordance with the requirements of the *National Building Code*.
- 3 Doors designated as exits from rooms, areas, and the *Building* itself shall be equipped with hardware suitable and compatible for both functions of life safety and *Airport* security and installed in accordance with the applicable regulations and the *GTAA* standard security door types.
- 4 Overhead and sliding type doors shall have rail and track designs and hardware that prevents the door from being removed and is secured on the secure side.

4.6.6.3 **Security Door Hardware**

- 1 Swing type doors forming part of the *PSL* shall have not less than 1.5 pairs of heavy-duty, stainless-steel ball bearing type hinges or butts having concealed and tamper-proof (irremovable) pins and are designed and fabricated to resist intentional forced entry when the door is in the secured position.
- 2 Electromagnetic locks on non-exit doors shall be installed to the *GTAA* standard for doors. For door release requirements on exit doors, electromagnetic locks shall comply with the *National Building Code*, *NFPA 100* and 2009 IBC. All such doors shall be inspected and operationally demonstrated in conjunction with the *Building* fire alarm system to *CCPO*, *ICCC* and Corporate Safety and Security prior to being put into use.

4.6.6.4 **Security Screens**

- 1 Openings required in *PSL* walls greater than 150 mm x 150 mm in size shall be protected with a security screen to prevent intentional entry into the *Restricted Area*.
- 2 Security screens shall be fabricated using one of the following methods:
 - a. welded steel grille using 15 mm diameter round, or 15 mm x 15 mm square solid bar stock arranged in a square grid pattern with clear spacing not larger than 50 mm, welded to a 50 mm x 50 mm x 6 mm welded perimeter steel angle frame. The frame shall be fastened into the wall assembly opening with a minimum of 2–6 mm diameter steel screws in each side of the frame (eight total) and the screw heads tack welded to the frame,
 - b. 3.65 mm heavy-duty steel welded mesh with no opening larger than 50 mm and screw fastened directly to the wall framing forming the opening with non-removable type screws.

4.6.6.5 **Roof Access and Floor Openings**

- 1 All *Building* roof areas that overlook adjacent *Restricted Areas* shall have controlled access for authorized persons only. In such case, the roof assembly and any openings, hatches, and penetrations larger than 150 mm x 150 mm in size form part of the *PSL* and shall be an adequate security barrier.
- 2 Openings shall be protected using a security screen method specified in Article 4.6.6.4.
- 3 Hatches and doors leading to hatches in roof assemblies shall be equipped and secured by hardware approved by Corporate Safety and Security.
- 4 All other *Building* roof areas shall have hatches and doors that are secured by lockable hardware in accordance with the controlled access provisions of Corporate Safety and Security.

4.6.6.6 **Service Tunnels and Maintenance Holes**

- 1 All underground chambers and/or maintenance tunnels forming part of or crossing the *Primary Security Line* shall be designed and constructed to have controlled access for authorized persons only. In such cases, any openings, hatches, and penetrations larger than 150 mm x 150 mm in size shall be protected with an adequate security barrier, or security screen method specified in Article 4.6.6.4.
- 2 Openings for underground chambers and maintenance holes in non-*Restricted Areas* that allow access to *Restricted Areas* via underground maintenance tunnels shall have their covers secured by welding to cover frames, or other tamper-proof means acceptable to the *GTAA*.

4.6.6.7 **Primary Security Line Fencing**

- 1 Where fencing is designed to form part of the *PSL* contact *Corporate Safety and Security* for the current Fencing Design and Installation Standards.

- 2 The *PSL Safety Clear Zones* which includes the area 1000mm on the *Groundside* and 3000 mm, shall be kept clear of objects such as parked vehicles, trailers, cargo containers, equipment, material stockpiles, snow, vegetation, and soil piles, etc. Such objects may be removed by the *GTAA* without notice at the expense of the *Persons* responsible.
- 3 Perimeter Intrusion Detection systems can be utilized along fence lines within proximity to critical facilities/infrastructure. For installation guidelines refer to Corporate Safety and Security.

4.6.6.8 ***Airside Access Gates in Fences***

- 1 Design and fabrication of gates and the support structures and installation methods shall follow the requirements of the *GTAA* standard drawings for each type specified and/or approved by Corporate Safety and Security.
- 2 Automatic gate operators shall be in accordance with the *GTAA* standard and installed to the manufacturer's specifications that includes a 220 V, 1 phase, 60 Hz reversible motors internally protected for overload and under voltage during start and run windings and controlled by an adjustable internal timer. Control unit shall have additional capacity for other features and a manual disconnect for manual operation of the gate. Install operator unit on a concrete pad at a location and height above grade as specified on the *GTAA* standard drawings.
- 3 Vehicle detection and sensing unit shall be specified using manufacturers' that have standard units that operate in a temperature range from -40°C to 71°C and have electrical grounding and lightning protection features. Units shall be capable of automatically self-tuning after the initial set up and include a vehicle safety edge.
- 4 Operation and arrangement of equipment at access gates shall permit in-bound drivers of vehicles entering the *Restricted Area* to stop at a card reader unit and enter their personnel identification number to activate the gate opener.
- 5 An intercom unit beside the card reader unit placed on the in-bound and out-bound sides of the gates shall be mounted on a painted hot-dip galvanized HSS post and base plate, bolted to a concrete pad. Incoming calls shall be automatically announced with a soft chime from speakers with permanent magnets.
- 6 CCTV surveillance will be provided at in-bound vehicle, out-bound vehicle, and pedestrian access points. Adequate lighting for these areas that provides natural colour rendition and clarity of the objects to be identified as part of the surveillance shall be specified. The photometric data for the fixtures shall include the lamp type and the lumen level and distribution pattern in accordance with IESNA testing standards.
- 7 Refer to *GTAA* ITM Electronic Safety and Security Standards for specifications for card readers, vehicle gate position sensor, intercoms, and CCTV equipment.

4.6.6.9 **Manned Gates in PSL Fence**

- 1 Guard booth units and gate operator mechanism shall be designed, fabricated, and installed in accordance with the *GTAA* standard drawings.

4.6.6.10 **Security Lighting**

- 1 *PSL* fence lines extending at least 150 m away from the face of *Terminals*, on apron areas at passenger boarding points and at *Restricted Area* access control points, inclusive of ad hoc gates, shall be provided with security lighting.
- 2 Lighting shall be designed and installed in such a manner to aid security guards and camera surveillance equipment in verifying the details of persons and vehicles being monitored.
- 3 Placement of light fixtures shall not interfere with night visibility nor create glare for the Air Traffic Control Tower operators and pilots.
- 4 Placement of light fixtures shall illuminate the entire area it is serving without dark spots.
- 5 Power requirements shall provide for an emergency power circuit with both circuits in a duct bank routed inside the *Restricted Area*.

4.6.7 Structural Design

4.6.7.1 **General Requirements**

- 1 All *Buildings* and other types of *Structures* used for supporting floor areas, roofs, and equipment within all Airport Areas shall be designed by a *Professional Engineer*. Drawings, specifications, and calculations prepared by the *Professional Engineer* shall conform to all *Applicable Codes and Standards* for such *Structures*. [Issued For Construction version of such documents should be signed, sealed and dated by the Professional Engineer, and be submitted to the CCPO for review before erecting.](#)
- 2 Notwithstanding the *CCPO's* review set out in Sentence (1), the *GTAA* is not responsible for the adequacy, correctness or completeness of any structural design prepared by a *Professional Engineer*. All such responsibility remains with the *Professional Engineer* designing and/or inspecting the *Structure* and adjoining *Construction* on behalf of the *Tenant* or the *GTAA*.
- 3 All surface penetrations in any existing concrete *Structure* shall be kept to a minimum and shall be planned in accordance with the *GTAA* Surface Penetrations Guidelines regarding coring, drilling, anchoring, chipping, cutting, etc. Where possible, installations shall utilize existing penetrations. If new penetrations are unavoidable, layout locations shall be clearly identified on the project drawings and reviewed by the *Project* Structural Engineer in accordance with the *GTAA* Surface Penetration Guidelines. Where required the location of the coring, etc., must be revised to avoid damage to embedded structural components and building services. All coring locations or other large openings shall be accurately located and recorded on as-built drawings. Any openings needed in new construction should be

planned in advance to prevent unnecessary modifications to newly completed components.

- 4 [Coring is not permitted on load bearing columns and walls unless reviewed, assessed and approved by the Professional Engineer and approved in advance by EAS. Where coring is permitted, the voids must be patched with non-shrink materials that match or exceed the strength of the existing materials.](#) Testing must be conducted by the *Contractor* of the replacement material to verify that the required material strength has been achieved. [All repair materials shall be reviewed and approved by the Professional Engineer and submitted to GTAA for review.](#)
- 5 [Any bracing of new structures to existing structures shall be reviewed, assessed and designed and approved by a *Professional Engineer*. Welding or drilling into existing structural steel shall be avoided and not permitted unless accepted by GTAA Engineering. Where bracing is required, it should be achieved using clamps or other non-invasive methods whenever practicable. Stamped *Design* drawings shall be submitted for this *Work to CCPO and GTAA Engineering*.](#)
- 6 Further to 4.2.3.1., the *Project* Structural Engineer is responsible for conducting sufficient site inspections of existing structures and elements impacted by the proposed work to ensure that they align with the as-built drawings used as the basis for design and to generally assess their physical condition. Before modifications or additional loads are imposed, the *Project* Structural Engineer must confirm in writing that these requirements have been completed. They must also provide a report outlining any as-built drawing discrepancies identified and any visible defects, deficiencies, or deterioration found that, in the Engineer's judgement, could reduce or compromise structural integrity of any member. The Engineer must also confirm in writing that the existing structure can safely sustain and support any new loads or modifications.

Where all or portions of the structure are not visible or reasonably accessible prior to commencement of work, these requirements must be carried out at the preliminary stages of construction activities and before modifying or imposing new loads on the existing structure or its elements.
- 7 The *Project* Structural Engineer is responsible for assessing how new or modified structures will affect adjacent buildings, facilities, and operational activities, considering factors such as but not limited to snow, wind loads, including wake effects, [and ground water drainage](#). The findings from this analysis will be submitted to GTAA upon completion, including calculations if requested. Additionally, for any proposed work near the Automated People Mover (APM), the APM's safety zone and any constructability challenges posed by its restrictions must be considered in *Design*.
- 8 *Design* documents, including calculations and drawings, must clearly specify the applicable codes, standards, and design criteria used for the intended purpose.
- 9 The structural *Design* must also consider an *Airport* environment, particularly due to the proximity to maneuvering surfaces. This includes but is not limited to evaluating potential *Design* impacts due to factors such as aircraft jet blast and

wake effects, for both aircraft and the structure itself. *Designers* are to exercise their engineering judgment and consider increasing minimum code requirements where appropriate and reasonable to enhance security and protection in an airfield environment including prevention of Foreign Object Debris (FOD). Any recommendations exceeding the minimum code requirements shall be submitted to GTAA for review including an assessment of the impacts of implementation.

4.6.7.2 **Loading of Structures**

- 1 Existing *Structures* shall be reviewed by a *Professional Engineer* for any proposed changes to structural loading, of use or occupancy. The structural review shall include any analyses deemed necessary by the Engineer to thoroughly evaluate the existing structures and should follow the latest version of the Professional Engineers Ontario Structural Condition Assessments of Existing Buildings and Designated Structures Guideline as applicable. The *Professional Engineer* is required to provide written verification that the existing Structure will safely sustain and support the new loads or change in use or occupancy. If the evaluation reveals that the structure cannot support the proposed adjustments, any necessary modifications for structural reinforcement must be designed and clearly indicated on the drawings, along with appropriate details and specifications. All modifications must be accompanied by calculations prepared, signed, and sealed by a *Professional Engineer*. Additionally, the design criteria including structural loads and applicable codes and standards used in the analysis, shall be included on submitted drawings and requested reports.
- 2 Where modifications to an existing structure involve the addition of mass, the existing structure shall be evaluated in accordance with the latest revision of the *National Building Code of Canada (NBC), Part 4 and Commentary L* to determine potential irregularities resulting from the added mass. If the added mass introduces irregularities that could adversely affect the seismic performance of the building, a seismic evaluation shall be performed to verify the adequacy of the existing Seismic Force Resisting System (SFRS).
- 3 Temporary loading of existing or under-construction structural elements or systems, (such as but not limited to concrete slabs, columns, suspended floors and roofs) by construction vehicles, equipment, stockpiled materials and /or debris, while performing the *Construction* in such a manner that imposes loads beyond the design capacity of such *Structure*, are prohibited. The *Contractor* shall be responsible for obtaining calculations prepared by a *Professional Engineer* along with written confirmation that the capacity of existing or under-construction elements or systems will not be exceeded. This documentation must be provided to GTAA, and the *Contractor* must obtain authorization from the GTAA in advance of such loading requirements. Any resultant damage to the *Structure* caused by excessive unauthorized loading and all costs incurred for any repairs of such damage is the responsibility of the *Contractor*.
 - a. *Construction* which involves applying new or additional loads to existing Structures (including Buildings, vehicular and pedestrian bridges, tunnels, overhead sign structures, and utility bridges) resulting from the installation or removal of assemblies and equipment at a concentrated point or area by

lifting apparatus shall be verified in writing by a *Professional Engineer* that the Structure will safely sustain and support the new or additional loads.

- b. To ensure safe temporary loading in terminals or any suspended floors, the load capacity of the existing floors from the entry point of the temporary load to the work location must be assessed by a *Professional Engineer* to avoid any potential damage and ensure load limits are not exceeded along the entire travel path. This assessment must consider the impact of wheel loads from equipment including both the weight of the equipment alone and the combined weight of the equipment with any materials or other loads being lifted or moved.
- 4 Expansion joints shall remain free to always move without restriction during construction activities. All debris shall be removed from the joints, and any damaged or deteriorated sealant shall be repaired or replaced to maintain proper joint function.
- 5 All attachment to the ceiling should be evaluated by a Professional Engineer to ensure that they do not exceed the superimposed loads considered for the design of the existing structure.

4.6.7.3 **Expansion Joints**

- 1 Expansion joints shall be designed, installed, and constructed to *Applicable Codes and Standards*.
- 2 Where existing expansion joints are present and /or where new expansion joints are required as part of the *Construction*, care shall be taken to properly detail floors, ceilings, and walls adjacent to such joints to allow for the calculated movements of the *Structure*, and to ensure the safe transition of vehicles, pedestrians of all types, and carts, as well as *Building* systems from one side of the joint to the other.
- 3 Expansion joints shall be designed with consideration for component strength and durability, and shall be coordinated with life safety, architectural and interiors for fire separation requirements.

4.6.7.4 **Attachments to Structures**

- 1 Suspended ceiling assemblies may be supported by, or fastened directly into, metal floor decking provided all utilities buried or concealed within roof or floor deck assemblies have been identified and located in accordance with the procedures set out in Subsection 7.10.1 and Article 7.7.3.6 of this *Code*.
- 2 Suspended ceiling assemblies shall not be suspended from the bottom flutes of metal roof decking but be suspended from the *Structure* by direct or indirect methods.
- 3 All mechanical and/or electrical equipment including associated piping, ductwork, conduit, devices, suspended appliances and/or any other similar installation shall not be supported by, or fastened directly into, metal roof or floor decking. Such

assemblies shall be supported by supplemental support systems attached only to structural framing members.

4.6.8 Building Mechanical Systems

4.6.8.1 *Water Main and Hydrant Systems*

- 1 All *Design* and installations for the *Airport* water main and hydrant system must comply with all *Applicable Codes and Standards* for such *Construction* and must be prepared and reviewed by a *Professional Engineer*. The basis of such *Designs* shall include obtaining a recent (within the last 12 months) system flow test within the vicinity of any extension or alteration proposed.
- 2 The *Design* and installations of *Airport* water main supplies must follow the Region of Peel By-law Number 10-2017 - A by-law respecting the prevention of Backflow into Municipal Drinking Water System of The Regional Municipality of Peel.
- 3 Drawings, specifications, calculations, and *Shop Drawings* for the water main system shall be signed and sealed by a *Professional Engineer* and submitted to *EAS* for review prior to installation.
- 4 Hydrants shall be installed in accordance with the Region of Peel Public Works Watermain Design Criteria and the requirements of *F&ES*.
- 5 Hydrants are to be installed on 150mm diameter or larger water mains with the maximum allowable spacing measured along the right-of-way not to exceed 100m.
- 6 Hydrants that may be subject to vehicle damage shall be protected with 100mm diameter, concrete-filled, steel pipe bollards.
- 7 Refer to the 2024 *GTAA* M&E Engineering Design Standards for more detailed information and specifications.

4.6.8.2 *Fire Suppression, Sprinkler and Standpipe Systems*

- 1 Automatic sprinkler protection shall be installed for all new *Construction* and/or renovated *Building* areas where required by this *Code*. Sprinkler protection must be designed, installed, and maintained in full compliance with the following:
 - a. *National Building Code* and *National Fire Code* requirements, and
 - b. National Fire Protection Association (NFPA) standards.

- 2 Portable fire extinguishers shall be selected and installed in conformance with the *National Fire Code* and NFPA 10 and must be reviewed and approved by *F&ES*.

Note: Portable fire extinguishers for all *GTAA* owned, occupied, and operated facilities will require a minimum rating of **6A 80BC**.

- 3 All fire protection system installations must be performed by established sprinkler systems *Contractors* with a minimum of ten years related experience in the industry and/or are members of the Canadian Automatic Sprinkler Association and/or employ personnel who have been trained and licensed by the Sprinkler Fitters' Union.

- 4 All automatic sprinkler systems shall be supervised by a central monitoring facility in accordance with the *National Building Code* and National Fire Protection Association (NFPA) requirements.
- 5 All incoming water mains supplying fire suppression systems shall be controlled by a Post Indicator Valve (PIV) that is electrically supervised through the *Building* fire alarm panel.
- 6 All sprinkler system *Design* and equipment specifications and *Shop Drawings* shall be signed and sealed by a *Professional Engineer* and submitted to the *CCPO* for review.
- 7 [Refer to NFPA 415 for location of required exterior deluge coverage.](#)
- 8 Only hydraulically designed systems are permitted complete with hydraulic calculations and supply flow data. Submissions require manufacturer specification data, brochure cuts of system components, and *Shop Drawings* that indicate all system information, hydraulic design areas and reference points, flow data information, piping layouts with pipe sizes, equipment locations, sections, and details, and other relevant or required information.
- 9 Hydraulically designed systems shall be based on the actual static pressure and flow data of water available to the *Airport* as verified by a recent (within the last 12 months) pressure test report as specified by the *EAS* for the specific area. Fire pumps intended to increase the system pressure [or flow](#) shall only be used where deemed necessary by the *GTAA*.
- 10 Provide enough isolation valves and individual check valves for each *Building* module and system zone to achieve localized shutdowns for system drain-downs and re-filling when required for maintenance and alterations.
- 11 [Shut off valves shall be in designated valve rooms at grade level. Exceptions to grade location shall be approved by the GTAA.](#)
- 12 Sprinkler alarm valves and flow switches shall be piped separately to an indirect drainage point in the system.
- 13 All dry pipe system drum drip auxiliary drains shall be heat traced and insulated.
- 14 All new and altered sprinkler, standpipe, fire hose and Siamese pipe systems in *GTAA*-maintained *Buildings* shall be painted and have coloured banding labels.
- 15 Upon completion of all fire protection system installations, and prior to acceptance testing by the *GTAA*, the fire protection system *Contractor* shall provide the *CCPO* and the *ICCC* with completed *Contractor's* Materials and Test Certificates. This is required for both above ground and underground fire protection systems.
- 16 All new fire suppression systems shall undergo testing and acceptance demonstrations by the *GTAA* and the *ICCC*. *Environmental Services* must be notified prior to testing any systems containing foam or glycol to ensure that the testing procedures proposed follow all environmental requirements. In addition, a detailed disposal plan on how the spent material will be collected and disposed of shall be provided to *Environmental Services*.

- 17 Testing shall be performed by a licensed independent sprinkler/fire suppression testing company acceptable to the GTAA.
- 18 Any addition to sprinkler system piping may be subject to pressure testing to 200 psi for a period of two hours [and an additional Contractor's Material and Test Certificates shall be](#) provided.
- 19 As built and *Record Documents* shall be submitted to the CCPO and EAS Engineering Data in accordance with Part 9 of this *Code*.
- 20 Prior to conducting final inspection and acceptance testing of a fire protection/suppression system, a signed *Maintenance Contract* must be in evidence and presented to the GTAA outlining the maintenance and testing agreement between the *Building owner, Tenant, lessee, or other party* and an approved sprinkler system testing *Contractor*.

4.6.8.3 **Heating, Ventilation and Air Conditioning Systems**

- 1 All HVAC equipment designs, and installations must comply with the latest editions of all *Applicable Codes and Standards*, ASHRAE, ASME and ASTM and meet GTAA sustainability requirements.
- 2 All HVAC equipment *Design* and installation within *GTAA-maintained Buildings and Structures* shall also comply with the GTAA Engineering Design Standards.
- 3 Selection and sizing of systems, equipment and controls shall take energy conservation and performance into consideration during the development of specifications.
- 4 For all GTAA owned and maintained *Buildings*, the installation and *Maintenance* of HVAC systems must adhere to [Federal Halocarbon Regulations, 2022](#). Required forms and equipment tags can be obtained from the GTAA.
- 5 Submit heat gain/heat loss calculations prepared by a *Professional Engineer* to the *Construction Control & Permits Office (CCPO)* for review where alterations to, extensions of, or additions to existing *Building* systems are contemplated.
- 6 All new HVAC equipment in *GTAA-maintained Buildings* shall be equipped with direct digital controls (to match existing HVAC equipment) and connected to the Building Management system (BMS). Pneumatic controls are not permitted.
- 7 Food and Beverage spaces with cooking appliances shall provide appropriate kitchen exhaust system including ULC listed hood, exhaust ductwork, make up air and fire suppression system conforming to NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. Calculations indicating the exhaust system is sized according to the cooking needs must be submitted. This system shall always maintain the space in negative pressure to guarantee the food and cooking odours do not migrate outside the food and beverage space. All new cooking systems and equipment must be designed and installed to be easily accessible for *Maintenance* and cleaning. If access cannot be safely achieved from the floor level, work platforms and/or other safety measures must be provided as detailed in NFPA 96. Cooking equipment and systems will not

be allowed to be put into operation until it is demonstrated to the CCPO that safe access has been achieved.

Prior to final demonstration of the system, *GTAA Fire Prevention* shall be provided with a copy of the signed cleaning and maintenance contract between the system owner or tenant and the authorized cleaning/maintenance company.

- 8 If the HVAC system is operational during *Construction*, clean the ductwork and replace existing filters to ensure proper operation of the HVAC system during *Construction* and prior to occupancy.
- 9 A certified balancing *Contractor* approved by the GTAA shall balance the HVAC system. Hydronic systems shall be balanced for specified design flow rate at a system head. The final balancing report including schematic diagram of each system shall be submitted to the CCPO as part of the *FAP* Closeout documentation.
- 10 Provide identification to all new HVAC equipment including valves, ductwork and piping as per GTAA Identification and Labeling Standards Manual. Labels shall be permanently affixed to the equipment and piping. Refer to Link in Appendix A – Item #26a.
- 11 All exposed moving machinery parts, such as belt drives, chains, sprockets, fan blades and rotating shafts, shall be provided with safeguards to prevent potential workplace accidents and injuries.
- 12 Provide the greater of 1,200 mm (48 inch) or the manufacturer's recommendation for mechanical equipment service clearance to allow for a proper operation and maintenance.

4.6.8.4 **Plumbing Systems**

- 1 The design and the installation of the plumbing system shall be in accordance with *National Plumbing Code* and specific requirements as may be determined by the GTAA.
- 2 All plumbing installations within *GTAA-maintained Buildings* and *Structures* shall comply with the 2024 GTAA M&E Engineering Design Standards.
- 3 All piping shall be flushed thoroughly to Region of Peel Standards before connecting to existing *Building* services and prior to putting the system or section of the system into service.
- 4 All domestic hot and cold-water supply piping shall be Type “L” copper.
- 5 All equipment, appliances and controls connected to the *Building* plumbing systems shall be in areas and spaces easily accessible for servicing and inspection.
- 6 All plumbing installations shall be tested and inspected at the rough-in and final stages of completion by the GTAA Plumbing Inspector as arranged through the *Construction Control & Permits Office (CCPO)*.
- 7 Fixtures in a food and beverage areas that discharges sewage that includes fats, oils or grease shall discharge through a fully automatic grease interceptor also known as grease recovery device. Where permitted by this *Code*, dishwasher discharge

shall also be connected to a grease recovery device. The installation, testing, maintenance, and performance of the interceptor shall comply with CAN/CSA B-481 and manufacturer requirements.

- 8 Provide identification to all new piping and utility systems as per GTAA Identification and Labeling Standards. Labels shall be permanently affixed to the equipment and piping.
- 9 The design and the installation of drainage and venting systems shall be provided in accordance with the National Plumbing Code and specific requirements as may be determined by the GTAA.

4.6.9 Building Electrical Systems

- 1 The Canadian Electrical Code shall be applied to the *Design* of all *Airport Areas* except for connections to utility services, which shall also comply with respective utility provider standards.
- 2 All electrical construction is subject to inspection and acceptance by the Electrical Safety Authority (ESA) for Canadian Electrical Code regulations. *Contractors* are responsible for arranging, obtaining, and paying for all necessary permits. Such inspections shall be arranged before installations are covered and concealed.
- 3 An Electrical Safety Authority (ESA) inspection certificate is required with a copy submitted to the *CCPO* before use or occupancy is granted. The ESA Certificate must indicate the appropriate *Project* number, location, and *Project* description, which must be provided to the *ESA Inspector* by the requesting *Contractor*.
- 4 Refer to 2024 GTAA M&E Engineering Design Standards for guidance in the design of electrical systems for *GTAA-maintained Buildings and Structures*.
- 5 Selection and sizing of systems, equipment, controls, devices, and fixtures shall take energy conservation and performance into consideration during the development of specifications.
- 6 All electrical equipment/fixtures must be CSA, ULC, cUL or an approved equivalent.
- 7 Provide identification to all power distribution equipment as per GTAA Identification and Labeling Standards.
- 8 All custom-designed electrical panels, including control cabinets, PLC, HMI, and RIO cabinets, shall have a CSA or cUL or an approved equivalent inspection certificate.
- 9 For new or modified electrical equipment, conduct Arc Flash evaluation, and provide arc flash and shock hazard warning labels that comply with the latest edition of CSA-Z462 (Workplace Electrical Safety) on switchgears, switchboards, transformers, motor control centers, panel boards, motor controllers, disconnect switches, and other electrical equipment.

The maximum allowable incident energy, to ensure appropriate mitigation of electrical hazards, in accordance with formal engineering incident energy analyses shall be 75 cal/cm².

Arc Flash analysis shall be completed by a Professional Engineer and shall include at minimum:

- a. Computer modeling of electrical system,
 - b. Arc flash working distance,
 - c. Required PPE FR clothing category,
 - d. Permanent arc flash labeling compliant with CSA-Z462,
 - e. Coordination Studies performed with GTAA pre-approved software,
 - f. Electronic copies of the model and report delivered to GTAA.
- 10 With regards to Power Quality – Harmonics – comply with IEE519 for total harmonics distortion; (THD shall be less than 5% with no single harmonic exceeding 5%). Verify compliance once the system is in operation by carrying out harmonic analysis. Submit study details to EAS Facilities Systems Engineering for review.
- 11 At the completion stage, both Electrical *As-Built Documents*, *Record Documents* and updated *Single Line Diagrams (as applicable)* shall be submitted as defined in Section 9.2.

4.6.10 Fire Alarm Systems

4.6.10.1 Systems Design

- 1 Fire alarm and emergency voice communications systems and associated field devices shall be [ULC Listed or any other Canadian equivalent standard](#) as per applicable standards. Ancillary devices, cables, wires, conduits, standard electrical back boxes, etc. shall be CSA-approved.
- 2 Fire alarm system *Design* and equipment data proposed shall be submitted to the CCPO and the ICCC for review. The submittals shall include equipment lists, manufacturer specification data, brochure cuts of system components including the make and model number, fire alarm panels, all detection devices, and all alarm supervisory and transmitting devices, etc.
- 3 Drawings and specifications indicating the layout of the fire alarm system and devices, including single-line diagrams, sequence of operation and connections to *GTAA-maintained* systems, etc. shall be reviewed by EAS Facilities Systems Engineering before starting any installations.
- 4 Additions and alterations to fire alarm systems and any other systems that are interconnected to it shall use components and devices manufactured by the same supplier of the *Building* system within a *GTAA-maintained Building* to ensure compatible connections and integrity of the system in accordance with the *National Fire Code*.
- 5 Prior to installation, Corporate Safety and Security shall review and approve access control systems forming part of the *PSL* connected to the fire alarm system.
- 6 Automatic External Defibrillators (AEDs) in *GTAA* buildings are monitored by the base building fire alarm system. To prevent false activation, all AEDs within construction sites shall be bypassed on the fire alarm system. A sign indicating “Out of Service” shall be posted on the AED cabinet. The contractor shall contact *Airport Operations Centre* at 416-776-3055 to advise of the specific location of the AED and

request a message be relayed to *F&ES* for unit retrieval and safe keeping until the project is completed.

- 7 AED relocation, if required, shall be conducted in consultation with *F&ES*.

4.6.10.2 **Verification—General**

- 1 All Fire Alarm Systems shall be inspected, tested, and verified by the *Contractor*.
- 2 Verifications are to be performed by and/or supervised by fire alarm technicians registered by, and in good standing with, the Canadian Fire Alarm Association, in accordance with the following:
 - a. One-person verifications are not acceptable.
 - b. Trainee technicians (maximum of two per technician) may assist the supervising technician.
 - c. If the system is of conventional design, the supervising technician must be knowledgeable on the specific equipment to be verified.
 - d. If the system is of addressable design, or is software driven, or is a network system – then the supervising technician must have received factory-authorized training, and must be current on that training, related to the specific equipment to be verified.
- 3 A verification report shall be issued upon successful completion of the verification. The report is not to be issued to the *CCPO* and the *ICCC* until the system is clear of all deficiencies. The report is to be signed by the supervising technician. (CFAA registration # is required).
- 4 For fire alarm systems with Graphic Workstations (*GWS*) where *Projects* include extensive addition to or reconfiguration of the floor area, the *GWS* screens must be updated to reflect the current architectural layout of the *Building* area. All new devices must be programmed and verified on both the fire alarm system and the *GWS* and included in the final verification report submitted with copies of any new screens programmed to the *CCPO*.
- 5 The installing *Contractor* shall issue a certificate or letter stating that the installed materials and methods are in accordance with the applicable requirements contained in CAN/ULC-S524, Standard for The Installation of Fire Alarm Systems, and in accordance with the applicable Electrical Code.
- 6 The System Design Engineer shall provide periodic inspections and final site review, in accordance with the *Professional Engineers* Guideline for General Review of Construction. The System Design Engineer shall provide a letter confirming that the installation has been completed in general conformance with the *Construction Documents*.
- 7 Where the *CCPO* has approved a phased occupancy/use, all devices within the specified phase are required to be verified in accordance with CAN/ULC-S537, prior to issuance of an *Occupancy/Use Permit*. Upon completion of all subsequent phases, the entire fire alarm work within all phases is required to be re-verified in accordance with CAN/ULC-S536.

4.6.10.3 **Verification—New Systems**

- 1 New fire alarm systems shall be tested in conformance with the current standard, CAN/ULC-S537 and CAN/ULC-S536, to ensure satisfactory operation after completed.

4.6.10.4 **Verification—Modifications to Existing Systems**

- 1 Prior to commencement of any fire alarm work, the existing fire alarm system, within the *Place of Work*, is required to be reviewed by a *Professional Engineer* to determine the existing condition, design basis and scope of the *Work*.
- 2 Modifications to fire alarm systems shall be tested in conformance with the applicable requirements of CAN/ULC-S537, to ensure satisfactory operation.
- 3 An operational test of all devices connected to the affected data communication link shall be performed or, in lieu of this operational test, a comparison of the “before” and “after” software utilizing mediums such as a printout or compare programs to confirm the correct sequence may be considered. A comparison must be accompanied by a letter of explanation from the *Professional Engineer* of record for the *Project*.

4.6.11 **Grounding and Lightning Protection Systems**

4.6.11.1 **Grounding for Structures and Systems**

- 1 All metallic structures exposed to the exterior shall be provided with a grounding system that complies with the Canadian Electrical Code specific to the application and to the acceptance requirements of the Ontario Electrical Safety Authority (ESA).
- 2 All metallic structures exposed to the exterior such as light poles, aerial structures, manhole covers, and any other in-ground fixtures shall be bonded to the grounding conductor and grounded to separate electrodes.
- 3 Fence enclosures around or adjacent to electrical substations shall be grounded to electrodes with flexible braid at 15 m intervals with bonding jumpers at gates and fence openings to provide metallic continuity.
- 4 Apron ground connections for aircraft refuelling shall be connected to ground rods driven at each parking area or hydrant fuelling pit. All grounding test points shall be accessible for verification.
- 5 A separate ground bus connection shall be provided between communication room equipment and the associated ground grid using insulated wire.
- 6 A separate grounding conductor shall be provided in all raceway and conduit systems containing power circuits for indoor lighting fixtures and receptacles. The ground conductor shall be insulated, and colour coded green, sized in accordance with the Canadian Electrical Code. EMT shall not be used as a substitute grounding conductor.
- 7 A grounding conductor shall be provided for all power circuits over 600 V.

4.6.11.2 **Lightning Protection for Buildings and Structures**

- 1 Where established through the *GTAA Stakeholders'* review process, lightning protection systems shall be supplied and installed in accordance with the Ontario Lightning Rods Act, CAN/CSA-B72 - Installation Code for Lightning Protection Systems and National Fire Protection Association (NFPA) 780 – Standard for the Installation of Lightning Protection Systems.
- 2 The *Consultant* shall determine the requirements for lightning protection for all permanent and/or temporary *Buildings and Structures*, for acceptance by the *Construction Compliance & Permits Office*.
- 3 Lightning protection conductors shall be installed in conduit if routed inside *Buildings*. The preferred method is to run lightning conductors down at the periphery of a *Building* rather than the interior.
- 4 Lightning warning and protection system is required for all apron and ramp operations areas.
- 5 *Design* and install lightning conductor system so as not to cause interference with *Airport* data and communication systems.
- 6 All connections shall be made using CSA-approved compression type connectors.
- 7 Grounding rods shall be minimum 20 mm diameter and 3 m long of copper or copper-clad steel material. Top connections shall be contained in precast concrete maintenance holes with a lid, and be accessible for inspection, in accordance with *GTAA* standard details. All underground connections shall be made using CSA-approved compression type connectors installed using tools and methods recommended by the manufacturer.
- 8 Maintain 2 m between lightning rod conductors and building electrical conductors and equipment. Lightning rod conductors shall connect to separate ground electrodes. Where separation is not possible, electrodes of two systems shall be connected at or below ground level.

4.6.12 **Alternative Design Solutions and Test Standards**

4.6.12.1 **Application**

- 1 *Contractors* are encouraged to consider and propose to *CCPO* and the *Project Manager* or the *Contract Administrator* innovations and industry best practices when choosing materials, systems, or *Building Designs*. [Approval for the use of any alternative materials, systems or Building Designs proposed may be granted if in the opinion of the respective GTAA technical authority, the proposal provides a level of performance that is equal to or exceeds that which would have been achieved by conforming with the requirements of this Code.](#)
- 2 Where the *GTAA* allows the use of alternative materials, systems or *Building Designs*, a record of the decision shall be retained that includes:
 - a. the decision and the basis for allowing the use of the material, system or *Building Design*,

- b. all documents in support of the request provided to the *CCPO* by the *Person* requesting the use of the material, system, or *Building Design*, and
- c. [A signed, sealed and dated letter of compliance of intent of code and standard of care by the *Architect* or *Engineer* of Record.](#)

4.6.12.2 **Acceptance**

- 1 Materials not specifically described in Division B, Parts 3, 5, 6, 7, 8 and 9 of the *National Building Code*, or which vary from the specific requirements in those Parts, or for which no recognized test procedure has been established, may be used if the *Person* requesting the use of such material can establish on the basis of past performance, tests described herein, or other evaluation methods, that the use of the proposed material will provide the level of performance that would be achieved by conformance with the requirements of the *National Building Code* and [the *Project* technical requirement](#).
- 2 Systems not specifically described in Division B Parts 3, 5, 6, 7, 8 and 9 of the *National Building Code*, or for which no recognized test procedure has been established, may be used if the *Person* requesting the use of such system can establish on the basis of past performance, tests described herein, or other evaluation methods, that the use of the proposed system will provide the level of performance that would be achieved by conformance with the requirements of the *National Building Code*.
- 3 *Structural Designs* not specifically described in Division B; Part 4 of the *National Building Code* may be used if the *Person* requesting the use of such *Building Design* can establish that the use of the proposed *Building Design* will provide the level of performance that would be achieved by conformance with the requirements of the *National Building Code*.
- 4 Documentation of an alternative solution shall be provided to the *ICCC* and the *CCPO* prior to any installation of the Work related to it in accordance with the Division C, Section 2.3 - Alternative Solutions of the *National Building Code*, and with the intent statements in Appendix A of the *National Building Code* being part of this Article.
- 5 Where no published test method to establish the suitability of a material or system proposed exists, then the tests used for the purposes of those articles shall be designed to simulate or exceed anticipated service conditions or shall be designed to compare the performance of the material or system with a similar material or system that is known to be acceptable.
- 6 The results of tests or evaluations based on test standards other than as described in the *National Building Code* may be used for the purposes of Sentence 4.6.12.2(1) if the alternative test standards provide comparable results.

4.6.12.3 **Material Evaluations and Rulings**

- 1 The following body is designated as a materials evaluation body for the *National Building Code* and for the purposes of this *Code*:

Canadian Construction Materials Centre
Institute for Research in Construction
National Research Council of Canada
Montreal Road
Ottawa, ON K1A-0R6

- 2 Any evaluation and authorization reports obtained from either body mentioned in this Article, resulting from a specific request for such, shall be in writing on the letterhead of the respective body.
- 3 Documents received in Sentence (2) above shall be submitted to the *CCPO* and accompanied by a letter from the *Consultant* for the *Work* describing the purpose, the scope of application and referencing the related part of the drawings and specifications, for which an application and issuing of a *FAP* is made.

4.6.13 Airport Technology Services

GTAA IT Department is the owner of the standards noted below and is accountable for the lifecycle management of technology and all work performed on systems by third parties. *Contractors* requiring copies of these standards can obtain the current versions from GTAA Director, IT, Airport Development Program.

4.6.13.1 Airport Communication Cabling

Any *Work* related to the installation, termination, testing, decommissioning, design, shop drawings and as build drawings provision for (of) airport communication cabling (copper, fiber, hybrid) shall be completed in accordance with GTAA IT Cabling Specification Standard and associated appendices; only the *Work* compliant with this standard will be accepted for GTAA IT operations and use.

4.6.13.2 Airport Electronic Security Systems

Any *Work* related to *Design*, installation, configuration, testing, activation, decommissioning of airport electronic security systems (including but not limited to CCTV, Access Control Public Address, and Intercom Systems) shall be completed in accordance with GTAA IT Electronic Security Systems Standard (ESS) and associated appendices; only the *Work* compliant with this standard will be accepted for GTAA IT operations and use.

4.6.13.3 Telecommunication Rooms

GTAA telecommunication rooms and MCRs shall be designed, built, and commissioned in accordance with GTAA IT Telecommunication Room Standard.

4.6.13.4 IT Technology Standards

Any *Work* related to *Design*, installation, configuration, testing, activation, decommissioning of GTAA technology systems and services shall be completed in accordance with GTAA IT Technology Standard and associated appendices; only the *Work* compliant with this standard will be accepted for GTAA IT operations and use.

4.6.14 Airport Industrial Control Systems (ICS)/Operational Technology (OT) Security Policy and Standards

Any designer or *Contractor* working with existing or new OT/ICS assets at GTAA shall adhere to the GTAA ICS/SCADA Operational Technology Security Policy and GTAA ICS/OT Standards. Contractors or designers requiring copies of these standards can obtain the current versions from their respective GTAA Project Manager.

4.6.14.1 GTAA ICS/SCADA Operational Technology Security Policy

The requirements for GTAA's OT Cyber Security are documented in the *GTAA ICS/SCADA Operational Technology Security Policy*. This policy defines the standards to further the operational cyber security goals of safety, availability, integrity, and confidentiality for those tasked with administering, managing, handling, and operating GTAA operational technology (OT)/ Industrial Control Systems (ICS) assets and supporting IT infrastructure.

4.6.14.2 GTAA ICS/SCADA Operational Technology Controls System Guidelines

All OT network designs must be secure by *Design*, adhere to the Purdue Enterprise Reference Architecture (PERA) model for both regulated and non-regulated systems, and follow industry best practices for cybersecurity. Applicable references:

- GTAA Purdue Enterprise Reference Architecture (PERA) Model - Non-Regulated Systems
- GTAA Purdue Enterprise Reference Architecture (PERA) Model - Regulated Systems

4.6.15 People Moving Devices (PMD)

1. PMDs are to be designed, built or refurbished to a condition in accordance with the most recent revision of CSA B44, Safety Code for Elevators and Escalators.
2. PMDs are to be licensed for operation under TSSA Ontario Regulation 209/01 for Elevating Devices with a copy provided to GTAA prior to use.
3. Escalators & walkways & their components shall meet the duty-cycle recommendations, outlined in the American Public Transportation Association (APTA) Heavy-Duty Transportation System Escalator Design Guidelines: RT-EE-RP-001-02.
4. Where applicable, the PMD product class shall be chosen for heavy-duty, commercial operations assuming 24/7 use to ensure reliability & minimal downtime.
5. All escalators and walkways shall be at minimum, Ingress Protection (IP) rated IP55 against dust & moisture.

Environmental Requirements

5.1 GTAA Environmental Review

5.1.1 General

- 1 *Designers, Consultants and Contractors* working on *Projects* owned and operated by the *GTAA* shall meet the minimum requirements of the *GTAA Sustainable Design & Construction Guidelines*.
- 2 Prior to the start of construction, the *GTAA* requires information on how *Projects* will impact the environment and what mitigation measures will be put into place to reduce negative effects on the environment.
- 3 An *Environmental Management Plan* must be created and include the mitigation measures that will be implemented for all relevant sections below (5.1 to -5.13) based on the *Project* scope. This plan must be submitted to *Environmental Services* at Environment@gtaa.com for review and approval before construction can begin.
- 4 Details on the required *Environmental Review* process are outlined in Part 3.1 of this Code.

5.1.2 Archaeological Protection

- 1 A *Contractor* who discovers any relics, antiquities, and/or other items of historical, archaeological, or scientific interest, such as artifacts, cornerstones, commemorative plaques, inscribed tablets and other similar objects during *Construction*, shall stop any *Work* without further disturbance, and immediately notify the *GTAA Project Manager*, *Environmental Services* and the *CCPO* of the discovery.
- 2 Until a visual inspection and removal arrangements for further investigation and evaluation by the appropriate expert have been completed and written permission to proceed has been given by the same to the *Environmental Services*, the *Contractor* shall not recommence *Work* at the discovery area.

- 3 The *Contractor*, if required by the *GTAA*, shall be responsible for retaining an archaeologist for services described in Sentence (2) above, in consultation with *Environmental Services*.
- 4 All such items described in Sentence (1) above shall, upon discovery, become the responsibility of the *GTAA* until proper disposition of the item can be ascertained. The *Contractor* shall not remove any items from, nor further disturb the discovery site. Failure to comply will result in the *GTAA* reporting the *Contractor* to the appropriate authorities, and the immediate removal of the *Contractor*, and/or the employee(s) involved in the removal from the *Place of Work*.

5.2 Storm Water Management

5.2.1 Policy

- 1 *Construction* activities have the potential to create environmental damage by causing soil erosion and high levels of sedimentation. Additionally, chemical, fuel, or lubricant discharges from equipment and systems, and contamination by improper storage, use and/or disposal may have detrimental effects on the surrounding environment and nearby bodies of water.
- 2 *Project* Initiators undertaking development in areas not previously developed and/or where permeable surfaces are to be made impermeable shall ensure that post-drainage conditions are equivalent to or better than pre-conditions. This includes, but not limited to, water quantity and quality controls. Low impact development as a storm water management strategy to mitigate the impacts of increased runoff by managing runoff as close to the source as possible must be implemented unless approved otherwise. Information on Low Impact Development (LID) practices is available from the Toronto Region Conservation Authority. Refer to Link in Appendix A – Item #27c.

5.2.2 Requirements

- 1 The *Airport* has the potential to affect watersheds located within the adjoining municipal jurisdictions. The *GTAA* has a Master Stormwater Plan that assists with identifying how to manage stormwater at the airport to ensure that contaminants are contained and collected and to ensure flooding of infrastructure and neighbouring communities are minimal as a result of increasing excess precipitation events and shall be followed for projects on *Airport* Lands.
- 2 Discharge into local waterways must adhere to Federal regulations, municipal guidelines and by-laws, along with *GTAA* guidelines, including notification to *Environmental Services*. Contact *Environmental Services* for guidance.

5.2.3 Erosion and Sediment Control

- 1 Sediment runoff and soil erosion must be controlled by the *Contractor* to comply with applicable codes and standards. Erosion and sediment control measures must be included in the *Environmental Management Plan* involving any surface, soil or vegetation disturbance. It shall outline the mitigation measures to be implemented during *Construction*. All measures to control sediment and soil

erosion must be put in place by the *Contractor* prior to the start of *Construction*. At a minimum, the following information should be included:

- a. Site Location
 - b. Existing Site Conditions (i.e., land cover and use, vegetation, general topography, etc.),
 - c. Proposed Site Alteration (description and location of permanent and/or temporary stormwater management (SWM) measures and LID details if applicable, including types, locations, and any controls / methods applied to prevent sedimentation),
 - d. *Construction* Phasing (describe boundary of *Work* zone(s), *Work* proposed during each stage, and approximate time to complete each stage),
 - e. Design details for Erosion and Sediment Control Mitigation,
 - f. Inspection and Maintenance (inspection frequency, documentation and reporting protocols, anticipated repair/maintenance timelines),
 - g. Restoration details at conclusion of *Work* (seeding, hydroseeding, etc.).
- 2 The *Contractor* shall inspect the sediment and erosion control measures on an ongoing basis including before and after any major precipitation event to ensure their effectiveness. It is the responsibility of the *Contractor* to continually maintain such measures. If any control measure is damaged or its condition has deteriorated, it shall be repaired or replaced by the *Contractor* at their own expense. If the measure used is ineffective, the *Contractor*, at its own expense, shall implement another measure acceptable to the *GTAA*.
 - 3 All sediment and erosion control measures shall remain in place until vegetation is established. If vegetation re-application is required, all seed mix must comply with *GTAA* standards.
 - 4 During *Construction*, water trucks shall be used as needed to reduce dust. *Construction* traffic shall enter and exit the *Place of Work* at a rock entrance or a zone that has been established to have such things as a mud mat to minimize the amount of soil and mud that is tracked onto existing streets and if required truck washing or wheel washing stations shall be set up in a designate area of the work site. These stations shall only use water and have a system in place to control and manage any water run off so that it does not directly enter any ditches, storm or sanitary system. If tracking does occur, the *Contractor* shall ensure that the accumulations of sediment are removed at an adequate frequency to minimize off site impacts. Any vehicle carrying materials (soil, concrete, sand etc.) must be tarped to avoid airborne transfer to any roadways.
 - 5 All stockpiled materials on site shall be covered when not in use for periods of 24 hours or longer. Stockpiles shall be covered prior to any precipitation and located in such a manner that runoff or erosion into natural environment is prevented.

5.2.4 Dewatering

- 1 If dewatering activities are required for the *Construction*, the *Contractor* must ensure that no water containing elevated levels of sediment pollutant, or any other physical or chemical contaminant, is pumped directly or allowed to run-off indirectly into storm or sanitary drains. Water must be treated by physical means to control the amount of sediment being discharged and shall not exceed environmental guidelines. Proposed chemical processes must be approved through *Environmental Services* prior to implementation.

5.2.5 Oil/Water Separators for Storm Sewers

- 1 Oil/water separators provide a method of removal of sediment and free-phase hydrocarbon product from water prior to discharge to the storm sewer. Buildings, Structures or surfaces with activities generating these effluents could potentially contaminate storm sewer systems. Designs for such *Projects* shall include oil/water separators.
- 2 Operation and Maintenance of oil/water separators or equivalent are the responsibility of the *Project Initiator*.

5.3 Sanitary Sewer

5.3.1 Effluent Limits

- 1 The surrounding municipalities have developed sanitary sewer effluent limits to control the level of contamination entering sanitary sewers and local waste treatment plants. These limits are enforced through local by-laws and bilateral discharge agreements with municipalities.
- 2 For any *Airport* development that would affect drainage, consultation with *GTAA* and/or *Environmental Services* would be required to provide all relevant information with regards to specific areas.

5.3.2 Oil/Water Separators for Sanitary Sewers

- 1 Oil/water separators shall be designed and included in the *Construction of Facilities* that may produce free phase hydrocarbon product, oil and grease from kitchens, and vehicle washing and repair *Facilities*.
- 2 *Contractors* shall ensure that no chemicals are used in any operation that could adversely affect the operation of an installed oil/water separator and any subsequent uses by a *Tenant*.

5.4 Waste Management

5.4.1 Requirements

- 1 The *GTAA* is committed to reducing, reusing and/or recycle *Construction* waste resulting from construction, alterations and demolition. This includes materials such as concrete, glass, metal wood, cardboard, plastic, etc.

- 2 In addition to regulatory requirements, no garbage or hazardous materials from *Construction* activities shall be disposed of on *Airport Lands*. Storing and transporting of materials shall be done in accordance with best management practices and in agreement with *Environmental Services*. Requirements will be dictated based on specific *Project* requirements.
- 3 The *Contractor* shall conform to the regulatory requirements for separation and disposal of *Construction* waste.
- 4 A waste management plan shall be developed and implemented by the *Contractor* prior to starting any *Work* and included in the *Environmental Management Plan for Construction*.
- 5 Complete records of all *Construction* waste metrics (including that which is reused/recycled) must be maintained throughout the *Construction* period and submitted on either a monthly basis or upon completion of *Project*.

5.4.2 Material Exchange Program

- 1 Material Exchange is an online platform that facilitates the exchange of materials between organizations and service providers to divert resources from landfill, lower operating costs and promote the move towards a circular economy.
- 2 In collaboration with Partners in Project Green, *Contractors* who have material that can be re-purposed, recycled and/or reused are encouraged to list items on the Partners in Project Green Material Exchange website to divert items from landfill. Refer to Link in Appendix A – Item #24.

5.5 Hazardous Waste and Materials Management

5.5.1 Hazardous Materials Definition

- 1 For the purposes of protecting the environment and human health at or near the Airport, “Hazardous Material” is defined in terms of existing legislation and includes:
 - a. “Dangerous Goods” as defined under the Transportation of Dangerous Goods Act.
 - b. "Hazardous Materials" as outlined under the Workplace Hazardous Materials Information System (WHMIS) as established by the Hazardous Product Amendment Act
 - c. Other materials posing a threat to public safety and/or the environment as regulated under the Canadian Environmental Protection Act.

5.5.2 Requirements

- 1 Hazardous waste and materials must be disposed of in strict accordance with the relevant requirements of the Applicable Codes and Standards.

- 2 Proper identification, handling, and control, of hazardous materials must be followed. The *Contractor* is responsible for all such identification and handling measures, including temporary storage, and shall submit a hazardous waste plan as part of the overall *Environmental Management Plan to Environmental Services* for acceptance where *Construction* contains or uses such material.
- 3 Disposal of hazardous waste and materials on the *Construction* site shall be performed by the *Contractor* in compliance with the applicable guidelines and regulations including those specified herein. Detailed records of disposal must be kept by the *Contractor* and provided to *Environmental Services* upon request.

5.5.3 Designated Substance Survey

- 1 A designated substance survey of the *Building(s)* included in the *Project* may be required to meet the requirements of the Ontario Occupational Health and Safety Act. If required, a copy of the designated substance survey and a plan of how substances will be managed, removed and disposed of is required to be included in the overall *Environmental Management Plan* and provided to *Environmental Services*.
- 2 In addition, a closeout report must be provided at the completion of the *Project* that identifies what materials were removed, quantities and disposal record.

5.5.4 Moisture Management

- 1 The *Contractor* shall make every effort to prevent the growth of mould during *Construction* and should develop a material moisture management plan as part of the *Environmental Management Plan*.
- 2 The *Contractor* shall provide all temporary heat and/or ventilation, as well as all temporary enclosures necessary to prevent moisture intrusion and build-up in areas where potential mould-growth surfaces are present.
- 3 The *Contractor* shall prevent any organic refuse material from being left in wall cavities or other concealed spaces.
- 4 If mould is discovered within a *Project* area, *Work* must stop, the area isolated, and *GTAA*, including *Environmental Services*, must be notified.
- 5 Where materials are found to exhibit mould growth, such material shall be removed and replaced at the expense of the *Contractor* in strict accordance with the relevant requirements of the Applicable Codes and Standards.
- 6 A closeout report must be provided at the completion of the *Work* that identifies what materials were removed, quantities and disposal records.

5.6 Chemical Storage and Distribution

5.6.1 Aboveground and Underground Storage Tanks

- 1 Petroleum products and allied petroleum products can be found in older underground storage tank systems, above ground storage tank systems and fuel distribution systems located on *Airport Lands*.

- 2 The installation of new tanks and their operation on the *Airport* must meet the requirements of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations SOR 2008-197 and Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (CCME 2023).
- 3 Details of all tanks shall be provided to *Environmental Services* confirming registration of the tank with Environment and Climate Change Canada.
- 4 *Environmental Services* shall be notified of the installation and/or removal of any storage tank.
- 5 If removal of an underground tank or system results in the discovery of contaminated soil, *Environmental Services* must be contacted. The *Project Initiator* will be responsible for ensuring that a reputable, qualified environmental consultant is present to properly delineate the extent of contamination, and that the affected soil is removed to an off-site licensed facility. All records of sampling and disposal must be provided to *Environmental Services* in a close-out report.

5.6.2 Fueling Practices

- 1 To minimize the amount of contamination generated from fueling operations during *Construction*, the following provisions shall be implemented by the *Contractor*:
 - a. All fixtures, hoses, nozzles, and storage tanks shall be in good repair with no leaks, and
 - b. Refilling operations and storage tanks shall not be located within 30 m of a waterway or catch basin.

5.7 Environmental Emergency Response Plan

5.7.1 Requirements

- 1 An Environmental Emergency Response Plan shall be developed by the *Contractor* performing *Construction* acceptable to *Environmental Services*, to cover all potential environmental emergencies that may occur at the *Place of Work* and included in the *Environmental Management Plan*.
 - a. Specific spill response procedures for each type of material that may be spilled during the Work, and identification of the environmental media that may be affected by such a release. This includes but is not limited to local water sources, soil/ground, atmosphere, etc.
 - b. All procedures and plans for clean-up and restoration of any surfaces or environmental media affected by a spill.
 - c. All procedures for notification and reporting of a spill event to the *GTAA* and to any applicable Governmental Authorities.
- 2 Regardless of quantity, a Spill Report must be prepared and submitted to *Environmental Services* at Environment@GTAA.com after every occurrence of a

spill. The Spill Report shall summarize how all spill prevention measures were followed, and detail how the spill was managed. The report must list all response activities implemented during the response and determine the root cause and corrective actions to be taken to ensure further spills do not occur. If remediation is required as a result of a spill, consultation with *Environmental Services* shall occur in order to ensure remediation is addressed adequately.

5.7.2 Hazardous Material Spill-Control/Containment/Clean up

- 1 In the event of a fuel or hazardous spill/accident, *GTAA Fire & Emergency Services (F&ES)* shall have overall command of the Incident. *F&ES* has primary responsibility for identifying the spilled material and for determining its relative danger. *Person(s)* encountering a spill of hazardous material must notify the *Airport Operations Centre (AOC)* immediately upon discovery.
- 2 It is the responsibility of *Constructor, Contractor* and/or the *Person(s)* responsible for the spill to remove the material and to repair any damage, at their expense.
- 3 Where *F&ES* determines that it is most expedient, the *GTAA* can clean up the spill, remove the material and repair any damage. The costs of such clean up and repair will be charged to the *Person(s)* responsible for the spill.

5.7.3 Disposal of Material

- 1 Following a spill event, all material in contact with the hazardous substance shall be considered hazardous. The *Contractor* is responsible for proper disposal of materials in accordance with all regulations.
- 2 Documentation on disposal must be included in the Spill Report outlined in 5.7.1.2.

5.8 Soil Management

5.8.1 Requirements

- 1 All site investigations and remediation as part of the *Construction* shall be conducted in accordance with the relevant requirements of the Applicable Codes and Standards.
- 2 Contaminated soils including but not limited to hydrocarbons, glycol, PFAS/PFOS and other potential contaminants of concern, shall be managed in accordance with the relevant requirements of the applicable guidelines and regulations for storage or disposal off-site.
- 3 Contaminated soils shall not be used in other *Projects* (either on or off the *Airport Lands*), stockpiled within 30 m of any watercourse, nor buried below any other material. Where contaminated soil is discovered during *Construction*, the *Contractor* shall contact *Environmental Services* for direction and to ensure that applicable legislation is being met.

5.8.2 Soil Import/Export Requirements

- 1 Only clean, non-contaminated soil (topsoil/fill) shall be used for *Construction* on the *Airport Lands*.
- 2 Prior to its import for use, certification of soil quality by a laboratory analysis and a qualified consultant's report shall be submitted to *Environmental Services* detailing source, sampling program and estimated quantities of soil material.
- 3 Soil exported from *Airport Lands* must be accompanied by a qualified consultant's report demonstrating compliance with all applicable regulations. The report should detail the sampling program used to characterize the material and indicate the quantity being exported and recommended land uses. Soil exported from *Airport Lands* must be documented and include a letter from the receiver accepting the material at the receiver's site.

5.9 Air Quality

5.9.1 Outdoor Air Quality

5.9.1.1 Requirements

- 1 All air emissions shall comply with federal and provincial legislation respecting air quality. The *Contractor* shall be primarily responsible for determining the nature and applicability of any such legislation in the choice of measures and methods used in the *Construction*.
- 2 The *GTAA* encourages all *Contractors* to use low emissions vehicles, *Construction* equipment and machinery, and low emission products to reduce air emissions and contaminants associated with *Construction*.

5.9.1.2 Outdoor Dust Control

- 1 The *Contractor* shall develop a plan to ensure the control of dust generated by *Construction* activities to prevent soil loss, reduce visibility and to prevent the presence of potentially harmful airborne substances. This plan should be included in the *Environmental Management Plan*. The *Contractor* shall be responsible for providing watering equipment and/or other dust control measures acceptable to the *GTAA* during *Construction* and shall always maintain all such equipment and measures on site during *Construction*. Water is the only measure allowed for dust control at the *Airport*.
- 2 Should the *Contractor* fail to control dust emissions, the *GTAA* reserves the right to order the *Contractor* to cease all operations at the *Contractor's* expense until adequate measures have been taken.

5.9.1.3 Ozone-Depleting Substances

- 1 Ozone-Depleting Substances (ODS) are chemical substances that deplete the ozone layer found in the earth's upper atmosphere. The depletion of the ozone layer results in higher levels of harmful solar radiation reaching the earth's surface.

- 2 The *Contractor* shall comply with all federal and provincial legislation for all activities involving refrigerants.
- 3 For *GTAA Projects*, the *Contractor* shall comply with the *GTAA Halocarbon Release Reporting Procedures*. The latest version of the *Release Reporting Procedures* can be obtained from *Environmental Services*. For other *Projects*, the *Contractor* shall comply with the *Project Owner's* reporting procedures.

5.9.2 Indoor Air Quality

5.9.2.1 Dust Control

- 1 The *Contractor* shall be aware of the release points and the control measures in effect and shall be required to submit a dust management plan as part of the *Environmental Management Plan* which shall identify all sources of dust generated by the *Construction* operation and describe dust control measures to be taken for all sources
- 2 The *Contractor* shall conduct regular inspection and maintenance of indoor air quality measures with respect to dust including ventilation system protection. Detailed records of inspection and maintenance must be kept.

5.10 Noise & Vibration

- 1 The *Contractor* shall minimize additional noise and vibration from construction activities to protect workers, the public and adjacent *Tenants* from exposure to disruptive sound levels.
- 2 Mitigation measures shall include the provision and use of engineering controls and work practices and should be documented in the *Environmental Management Plan*.

5.11 Odour Management

- 1 The *Contractor* shall take all measures reasonably necessary in the circumstances to protect workers, the public and adjacent *Tenants* from exposure to odours during *Construction*.
- 2 Mitigation measures shall include the provision and use of engineering controls and work practices and should be documented in the *Environmental Management Plan*.

5.12 Equipment Maintenance

- 1 During *Construction*, equipment may require maintenance and repair (i.e., changing oil on bulldozers, excavators, and other motorized equipment). Such maintenance and repairs are only permitted on the *Airport Lands*, with prior notification to and approval by the *GTAA Project Manager*, if all necessary precautions are put in place to protect the natural environment.

- 2 Where heavy civil equipment is brought onto *Airport Lands* that could possibly leak fuel or oil, the *Contractor* shall take the following special precautions:
 - a. Designate an area on the *Construction* site where all equipment will be stored when not in use or to conduct maintenance and repairs. Such area must not be closer than 30 m from a watercourse or catch basin.
 - b. Locate and grade the area so that surface runoff will not flow out of the area.
 - c. Provide the area with enclosed containers for the disposal of all refuse and non-hazardous waste resulting from the equipment maintenance.
 - d. Provide the area with a spill control kit for prompt clean up of hazardous materials spills.
 - e. Post instructions at the site outlining spill response procedures, and names and phone numbers of persons and agencies to be contacted, including the *Airport Operations Centre (AOC)*.

5.13 Natural Heritage

- 1 *Construction* activities may impact natural vegetation and species found at the Airport. Although the *GTAA* regards wildlife on the *Airport Lands* as a potential hazard to *Airport* operations and aircraft safety, measures still must be taken to minimize negative impacts. The *GTAA* aims to *Design, Construct, maintain, and operate* the *Airport* and its facilities in a manner that will minimize these hazards.
- 2 Vegetation clearing, when possible, should be conducted outside of the breeding season for migratory birds. *Contractor* is responsible to check for wildlife nesting or habitat before *Construction* begins.
- 3 All disturbed areas must be restored to the same or better condition following completion of the *Work*. This includes seeding, sodding and planting in accordance with 4.4.2.3(6).
- 4 Apply best practices for the management of invasive species ensuring that they are not introduced on site with equipment or materials. Removal of any invasive species from *Airport Lands* must follow best management practices and all applicable guidelines. At no time is herbicide, pesticide or any other chemical for the purpose of removing vegetation, invasive species etc. permitted on *Airport Lands*.
- 5 All *Construction* sites shall be kept clean and clear of all organic garbage, piles of cleared vegetation, wood, and fibrous materials, standing water or any source of food that may attract wildlife. Where standing water cannot be avoided due to *Construction* site topography, pumps shall be deployed by the *Contractor* to remove such water.

Security and Access Control Procedures

6.1 Scope

- 1 All *Persons* engaged in *Design* and *Construction* at the *Airport* shall adhere to all security and access control procedures, *GTAA* Policies, regulatory compliance, and requirements of this Part of the ACC. Security procedures may be amended by the Corporate Safety and Security to address changing concerns and/or operations within the *Airport* and the aviation industry.
- 2 Corporate Safety and Security shall be notified by the *GTAA Project Manager* or *Contract Administrator* in advance of all *Projects* start dates.
- 3 It is the responsibility of all *Contractors* and *Consultants* requiring access to the *Restricted Area* or an area within the *Restricted Area* designated as a *Critical Area* for *Design* and/or *Construction* purposes to apply for, and obtain all required passes, permits and other documentation through the *GTAA* Pass Permit Control Office and prior to commencing any activities or *Work*.
- 4 It is the responsibility of all *Contractors* and *Consultants* requiring access to the *Restricted Area* or an area in the *Restricted Area* designated as a *Critical Area* for *Design* and/or *Construction* purposes to ensure that all employees understand and comply with the security requirements at the *Airport*.

6.2 Accessing the Restricted Area

- 1 Authorized access to the *Restricted Area* or an area in the *Restricted Area* designated as a *Critical Area* may be granted through a document of entitlement on a need and right of entry basis as determined by approved *Construction* site parameters set out by the *GTAA Project Manager*.
- 2 Entry into the *Restricted Area* without a need (*Work* related duties) and right (possession of a valid *Restricted Area Identity Card (RAIC)*, *Temporary Construction Pass* or *Temporary Security Control Pass*) is strictly prohibited. *RAICs*, *Temporary Security Control Passes* or,

Temporary Construction Passes must always be displayed and visible within the *Restricted Area*.

6.3 Airport Restricted Area Access Clearance Program

6.3.1 Accessing the Critical Area

- 1 The *Critical Area* is the actively used area surrounding the *Terminals* and any other area established by the *GTAA* to control vehicle and personnel access onto the apron area. Vehicles and *Persons* requiring access into the *Critical Area* must go through one of the Non-Passenger Screening Vehicle (NPSv) locations which are located on the perimeter of the *Critical Area*. All those entering from the Terminal must go through a Non-Passenger Screening point.
- 2 To access the *Critical Area* for performing *Work* related duties, a *RAIC*, *Temporary Security Control Pass*, or *Temporary Construction Pass* is required.
- 3 All *Persons* in a vehicle must be verified by an access control guard at a Non-Passenger Screening Vehicle (NPSv) or through a *Terminal* NPS location. Refer to Appendix D – Critical Area with NPSV Locations drawing for the NPSv locations available.
- 4 All *Persons* must be presented for security screening and as directed at any NPSv. All *Persons* must submit to the screening process of their person, personal items in their possession, and the vehicle they are travelling in.
- 5 *RAIC* holder(s) that are escorting *Temporary Security Pass* holder(s) and/or *Temporary Construction Pass* holder(s) are required under the *Canadian Aviation Security Regulations* to present the *Temporary Security Pass* holder(s) and *Temporary Construction Pass* holder(s) for screening prior to entering the *Critical Area*.
- 6 Anyone who leaves the *Critical Area* must restart the entire process of entering through the NPSv.
- 7 *RAICs*, *Temporary Security Control Passes* or *Temporary Construction Passes* must always be displayed and visible within the *Critical Area*.

6.3.2 License to Operate

- 1 Any *Person* providing *Construction* or other services on *Airport Lands* and who is not currently under *Contract* to the *GTAA* (either directly or indirectly via subcontract) is required to obtain a *License to Operate*. An application and additional information can be obtained online. [Refer to Link in Appendix A – Item #6.](#)
- 2 The application contains a Certificate of Insurance that is to be completed along with the application for the *License to Operate*. *Contractor* insurance policies are reviewed and approved by the *GTAA* Corporate Risk and Finance Department.
- 3 An administration fee will be charged by the *GTAA* for the issuance of a new *License to Operate* and subsequent license renewals. A *License to Operate* is generally issued for the term of the *Contract*.

- 4 Processing time for a *License to Operate* may vary from approximately 2 to 10 working days, or longer, depending on the completeness of information provided on the application.
- 5 A *Contractor* and their subcontractors directly engaged by a *Tenant* requiring a *RAIC*, *Temporary Security Control Pass* or *Temporary Construction Pass* must first obtain a *License to Operate*.
- 6 Subconsultants or subcontractors requiring access privileges while engaged by the *Project* primary *Consultant* or *Contractor* to the *GTAA* must provide a copy of their *Contracts* under which they are appointed as subconsultants or subcontractors.

6.3.3 Establishing a New Employer Account with GTAA Pass Control Office

- 1 Once the two signing authorities have had training and have been registered in our system the Pass Office will set up the company profile in the Transport Canada system. [Refer to Link in Appendix A – Item #15.](#)
- 2 New employers at the *Airport* may establish an account for specific employees to access *Restricted Areas* by submitting their Article of Incorporation, Letter of Intent on company letterhead or Contract/LTO and two signing authorities with *GTAA* sponsorship for review and approval to the *GTAA* Pass Permit Control Office. If approved, an account will be set up and employees may apply for a *Transportation Security Clearance*, *Restricted Area Identity Card (RAIC)*, *Temporary Security Control Pass*, *Temporary Construction Pass*, *Keycard*, *Airside Vehicle Operators Permit (AVOP)*, and *Vehicle Markers*.

6.3.4 Transportation Security Clearance (TSC) and Restricted Area Identity Card (RAIC) Application Procedures

- 1 All new companies being on-boarded will reach out in person or by email (passp@gtaa.com) to the Pass office. This should be done well in advance in order to avoid delay in applying for their Transportation Security Clearance under the new Transportation Security System (TSS). [Refer to Link in Appendix A – Item # 16.](#)
- 2 The following procedures shall be undertaken by applicants to obtain a *Restricted Area Identity Card (RAIC)*:
 - a. The signing authority will onboard the applicant to access the TSS platform.
 - b. Applicants receive an invitation to complete setup on the TSS platform.
 - c. Applicants complete the TSC application, send it to the signing authority, who then certifies completion and sends it to the Pass Office.
 - d. Applicants complete national security awareness, local security awareness and Health and safety training.
 - e. Applicants obtain YYZ *RAIC* application on TP website, send to Signing Authority for endorsement along with training completion PDF.
 - f. Applicants book online appointments to attend Pass Office.

4. When signing the green form, the *Contractor* will also sign an attestation that they have never been refused a Transportation Security Clearance.

6.4 Security Keys

6.4.1 Keys Control

- 1 The process for the issuance of security keys at *GTAA Facilities* is controlled by Corporate Safety & Security and specifically by the *GTAA Access Control Specialist*. *GTAA Facilities* use high security Medeco hardware and keys. There are two types of key issuance, daily and long term. Both require the *Contractor* or security company requiring security keys must first possess a valid *RAIC*, be approved by the room owner and be in good standing with Corporate Safety & Security.

6.4.2 Daily Issuance

- 1 *Terminal 1* and *Terminal 3* have security key issuance locations on the public side. In *Terminal 1* ED2257 and in *Terminal 3* Central Screening are staffed by *GTAA* contracted security services 24hr 7 days a week.
- 2 For issuance of keys at these locations a *Contractor* must be pre-approved by the *Owner* of the room (communications, mechanical, electrical rooms, pipe chase, etc.) as well as by the *GTAA Access Control Specialist*. The *Contractor* is then added to the approved list for issuance based on the type of key.
- 3 Security keys may be issued for no more than 24 hours at a time and must be signed in and out within the duration of that timeframe.

6.4.3 Long Term Issuance

- 1 Permission to access *GTAA* assets whether it be telecommunications rooms (IT&T), mechanical rooms (ADTS), electrical rooms (ADTS), pipe chases (ADTS), offices (Specific Departments), etc. must be made in advance to the occupier of such assets. The asset ownership information can be found by using the QR code located above the door. Download the QR App to your phone via Google Play App store or Apple App store.
- 2 *Contractors* and the *Project Manager* then must submit the required information to the *Owner* of the room and the *GTAA Access control Specialist* as to what *Place(s) of Work* they need access to, for what purpose, and for how long.
- 3 A formal written request is required from the *Contractor* and the *Project Manager* identifying the types and numbers of security keys required with appropriate justification for the same. Attached to the letter shall be a copy of the liability insurance certificate.
- 4 Upon approval of a security key request, a representative of the *Contractor* shall formally sign for receipt of security keys at the designated pick-up point and acknowledge agreement to the terms and conditions of issuance for such security keys.

- 5 Corporate Safety and Security routinely monitors the issuance of security keys to ensure compliance with all terms and conditions of issuance and will conduct audits on an ad hoc basis to account for the possession of issued security keys.

6.4.4 Contractor' Responsibilities

- 1 The *Contractor* is responsible for the control, storage, issuance, recovery and return of all security keys and/or key cards obtained and shall further ensure that such security keys and/or key cards are never duplicated.
- 2 Security keys and/or key cards are issued for the *Contractor's/Project Manager's* sole use and shall not be loaned to any other *Person(s)*. Keys and/or key cards shall be properly secured in a safe place during non-working hours.
- 3 All security key holders and/or key card holders are responsible for safeguarding keys and/or key card holders while in their possession. Security keys and/or key cards will be signed in and out for the indicated duration of the Work and will be accounted for using a Key Sign out Form. Security keys issued for more than one day at a time must be secured on site in a safe place during non-working hours and not removed from Airport property.
- 4 If a security key and/or key card is stolen, lost, or misplaced it must be immediately reported to the Corporate Safety and Security, and the *Contractor* shall pay the costs associated with the replacement of such security keys and/or key cards or re programming of all affected locks.

6.4.5 Keycard Access Requests

- 1 Employees that have been issued a *RAIC* or a *Temporary Security Control Pass* are eligible for Keycard access within the *Restricted Area* of the *Airport* depending on the scope of their work and employment. Keycards are only activated and issued by the *GTAA* Pass Permit Office based on general access assigned to the *Contractor*.
- 2 Permission to access *GTAA* assets whether it be telecommunications rooms (IT&T), mechanical rooms (ADTS), electrical rooms (ADTS), pipe chases (ADTS), offices (Specific Departments), etc. must be made in advance to the owners of such assets. The asset ownership information can be found by using the QR code located above the door. Download the app to your phone via Google Play App store or Apple App store.
- 3 *Contractors* and the *Project Manager* then must submit the required information to the Owner of the room and the Security Systems Activation Specialist at least 3 business days before required entry as to what *Place(s) of Work* they need access to, for what purpose, and for how long.
- 4 Upon approval the *GTAA* Security Technical System Specialist will coordinate access to the locations submitted on a temporary basis through the *Airport* access control system.
- 5 Corporate Safety and Security routinely monitors the issuance of key cards to ensure compliance with all terms and conditions of issuance and will conduct audits on an ad hoc basis to account for the additional access privileges that are assigned.

6.5 Vehicle Permits

6.5.1 Types

- 1 A “*Restricted Area Vehicle Permit - Vehicle Marker*” is a temporary marker issued by the GTAA which authorizes designated vehicles access to the *Restricted Area* on a need and right-of-entry basis. Refer to Link in Appendix A – Items #18
- 2 A “*Permanent Vehicle Marker*” is permanently affixed to a vehicle which has a continuous or frequent need to access the *Restricted Area*.
- 3 For vehicle pass requirements refer to Section 8.2 of this *Code* or directly to Toronto Pearson AVOP web page for more detailed information regarding vehicle markers and insurance requirements. Refer to Link in Appendix A – Items #13.

6.5.2 Vehicle Marker Approval Process

- 1 For vehicle marker approval, written application shall be made to the GTAA Pass Permit Control Office by the *Person* applying on company letterhead stating the following:
 - a. contracting authority, *Contract* title, *Contract* duration.
 - b. details as to why vehicle access is required to enter *Restricted Areas*.
 - c. proof of D or DA certification for employee(s). If requesting Temporary Vehicle Plates, the names of escorting agency/drivers shall be provided.
- 2 Upon approval:
 - a. The *Person* or a representative of the *Person(s)* applying for vehicle passes shall be designated as “signing authority” in charge of authorizing vehicle markers and shall register as such with the GTAA Pass Permit Control Office.
 - b. Vehicle Marker/Plate certificates shall be issued.

6.6 Return of Security Items

- 1 Immediately following completion of the *Work* or when directed by the GTAA, the *Contractor* shall return all Security Items (*RAIC's*, *Temporary Security Control Passes*, *Temporary Construction Passes*, key cards, security keys and vehicle markers) issued for the performance of the *Work* to the GTAA Pass Permit Control Office.
- 2 Failure to comply with the above may result in the GTAA invoking its right to deny the issuance of *RAICs*, *Temporary Security Control Passes*, *Temporary Construction Passes*, key cards, security keys and vehicle markers privileges for future *Contracts* with such *Contractors*, in addition to the costs identified below.
- 3 *RAICs*, *Temporary Security Control Passes*, *Temporary Construction Passes*, key cards, security keys and vehicle markers not returned to the GTAA upon completion or termination of a *Contract* will result in applicable fees payable to the GTAA by the *Person(s)* to which the items were issued and to the Employer that sponsored the issuance

of the security items, in addition to all costs associated with re-keying/re-programming of all affected locks. Refer to [Link in Appendix A – Item #15](#).

6.7 Security Escort

- 1 The *Contractor* is responsible for providing valid *RAIC* holders assigned and designated to perform escort duties within the *Restricted Area* for employees who do not have a valid *RAIC*. A holder of a valid *RAIC* may escort a maximum of 10 people holding *Temporary Security Control Passes* or *Temporary Construction Passes* in the *Restricted Area*. Prior to the performance of escort duties, *Contractor* shall confirm escort ratios are not exceeded.
- 2 Valid *RAIC* holders may provide surveillance in the *Restricted Area* for a maximum of 20 people holding *Temporary Security Control Passes* or *Temporary Construction Passes*, provided they are all confined to a well-defined area and are always visible to the escort.
- 3 The *Contractors* working on *GTAA* funded *Project* must use *GTAA* pre-approved contracted security service vendors. If *GTAA* contracted security service vendors are not able to fulfill the *Contractors'* requirements, then the *Contractor* must notify Corporate Safety & Security via email zzl-governance-securityoperationalsupport@gtaa.com and advise of their need to utilize alternate authorized vendor.
- 4 *Contractors* requiring security services for other than *GTAA* funded *Projects* may utilize security service providers who have been approved and authorized by the *GTAA* to perform such functions. Under all conditions the *Contractor* shall notify Corporate Safety & Security of the security service provider contracted to perform security services.

6.8 Contractor's Responsibility

- 1 The *Contractor* shall be responsible for compliance with all aspects of security requirements for their personnel. This includes obtaining security clearances, *RAIC's* and *Temporary Passes* and providing personnel for performing escort duties for persons with *Temporary Security Control Passes* or *Temporary Construction Passes*.
- 2 The *Contractor* shall be fully responsible for all their and their subcontractors' *Construction* personnel and vehicles within the *Restricted Area*. If the subcontractor leaves a *Construction* site unlocked or does not follow the direction of a guard, the *Contractor* will be held responsible for their subcontractors' actions.
- 3 A *Tool of the Trade* is permitted to remain in the restricted area for the duration of an activity provided it is in use by the authorized *Contractor*, or when not in use is inaccessible to other *Persons* in the *Sterile Area* by being stowed and secured at the activity site under lock or by remaining under supervision of a valid *RAIC* holder (e.g. Guard). When an activity ceases, all *Tools of the Trade* associated with the activity must be removed from the *Restricted Area*.
- 4 The *Contractor* cannot override a directive or post order issued by the *GTAA*. They can work with Security to amend them if they have any concerns.
- 5 The *Contractor* shall designate a single point of contact (SPOC) as identified in the Project Security Plan, who shall be responsible for ensuring all aspects of security and operational

safety requirements are adhered to, and who shall have authority to take immediate action to correct any non-conformance. All such non-conformances or security incidents should be immediately called in through Security Operations **416-776-7381** or in emergency **416-776-3033**. Such *Person(s)* shall be available on a 24-hour “on-call” basis during *Construction*, and the *Contractor* shall post *Emergency* contact information for such *Person(s)* at the *Place of Work*. They will work with the Officer, Construction Security Planning to ensure Security Impact Permits, Post Orders and guard call ups are completed in a timely manner.

- 6 The *Contractor* shall be responsible for filling out a Project Specific Security Plan which will be provided to the Officer, Construction Security Planning.

6.9 Security Barriers

6.9.1 Security Barriers - Along the PSL

- 1 No less than **10 business days prior** to the start of *Construction* the *Contractor* shall be responsible for establishing with the *GTAA Project Manager* or the *Contract Administrator* and Corporate Safety and Security the specific requirements for moving *Primary Security Lines*.
- 2 *Security Barriers* such as fences, gates, etc. must be in place to prevent or deter access to the *Restricted Area* by unauthorized *Persons* and must be approved by Corporate Safety and Security before an official temporary change is started.

6.9.2 Security Barriers - Within the Restricted/Sterile Area

- 1 A *Place of Work* within the *Restricted Area* must be enclosed with temporary hoarding and/or fencing to the satisfaction of Corporate Safety and Security.
- 2 *Security Barriers* must prevent access into the *Construction* site by unauthorized *Persons* as all prohibited items must not be accessible within the sterile area. The access code must be not easily guessable.
- 3 The *Contractor* must ensure that the hoarding does not block any cameras within the area. The *Contractor* must contact the Security Systems Activation Specialist for confirmation if it will block camera view and they will provide guidance if the camera must be moved.

6.10 Daily Security Duties by Contractors

- 1 The *Contractor* shall ensure that access points to the *Restricted Area* are secured when not in use and at the end of each working shift, to the satisfaction of the *GTAA Project Manager* or *Contract Administrator* and Corporate Safety and Security.
- 2 During working hours, the *Contractor* shall ensure that access points to the *Place of Work* within the *Restricted Area* are controlled by measures acceptable to the *GTAA Project Manager* or *Contract Administrator* and Corporate Safety and Security to prevent access by unauthorized *Persons*.

6.11 Non-Compliance Penalties and Enforcement

- 1 Removal of security barriers that make up part of the *Primary Security Line* thereof without prior notice to Corporate Safety and Security or the *Contract Administrator* will result in the immediate confiscation and revocation of the *RAIC*, *Temporary Security Control Pass* or *Temporary Construction Pass* and any other passes and/or permits issued to the *Person(s)* responsible, and the immediate removal of such *Person(s)* from *Airport Lands* at the sole discretion of the *GTAA*. The *Contractor* will be responsible to pay for a guard to monitor the *PSL* until other arrangements are made.
- 2 Non-Compliance to any security regulatory requirement within the *Construction* site found or responded to by *GTAA* Public Safety Officers or Security Coordinators will generate a written report with photos and any other necessary evidence that completes their report. The report will be shared with the Officer, Construction Security Planning and a further review by the Security Operations and Security Regulations Team will be carried out to assess the severity of the *Incident* and to determine if any further action is necessary.

6.12 Cybersecurity and Data Incident Reporting

1. *Cybersecurity Responsibility*

Contractors and others working on *Airport* systems shall ensure that these digital systems and infrastructure are safeguarded and that *Airport's* Information Technology (IT) and Operational Technology (OT) cybersecurity standards and procedures are followed. This includes ensuring that systems are used, maintained, and developed in a way that supports strong security, operational continuity, and resilience against cyber threats.

2. *Cybersecurity and Data Incident Reporting*

To maintain the integrity, confidentiality, and availability of *GTAA* data, and *Airport* Cybersecurity, the *Contractor* shall report Data Incidents and Cybersecurity breaches to *GTAA* IT immediately.

- a. A data incident is defined as the actual, accidental, or suspected misuse of *GTAA* data. This includes, but is not limited to:
 - Loss or theft of *GTAA*-issued laptops, mobile devices, or storage media
 - Unauthorized access to or disclosure of confidential information
 - Sending sensitive information to unintended recipients
 - Receiving confidential information not intended for you
 - Discovering *GTAA* data on public websites or platforms
 - Phishing attempts or suspicious emails requesting login credentials
- b. Cybersecurity Incidents Include:

- Malware infections (e.g., ransomware, viruses, trojans)
- Unauthorized access to GTAA systems or networks
- Denial-of-service (DoS) attacks or other service disruptions
- Exploitation of system vulnerabilities
- Suspicious login attempts or brute-force attacks
- Compromised user accounts
- Use of unauthorized software or hardware
- Network intrusions or unusual traffic patterns
- Passwords that are written down, printed, or shared through unsecured channels (e.g., email, messaging apps, or unencrypted files) pose a significant security risk and must be strictly avoided.

c. Incident Response Protocol

If you suspect a cybersecurity incident has occurred, you must:

- a. Reporting a Suspected Incident to IT.Servicedesk@gtaa.com.
- b. Provide as much detail as possible, including:
 - Date and time of the incident
 - Description of what occurred
 - Any affected systems, devices, or data
 - Any actions already taken
 - Do not attempt to investigate or resolve the issue independently. Prompt reporting is critical to minimizing potential harm and ensuring compliance with GTAA's cybersecurity policies.

Contractor Health and Safety Requirements

7.1 Scope

- 1 This Part includes *GTAA* safety requirements and procedures applicable to *Contractors* while working within *Airport Lands*.
- 2 Notwithstanding all other requirements of the *Applicable Codes and Standards*, the specific requirements of this *Code* shall serve to ensure all *Work* proceeds in an orderly manner while maintaining maximum personal health and safety, and minimum disruption to *Airport* operations.
- 3 Potentially hazardous conditions inherent to the operations of an airport dictate that compliance with these requirements, as supplemented by any notices by the *CCPO* or any *GTAA Stakeholder* to the *Contractor* based on those requirements, shall be considered mandatory and mitigated, controlled, or ceased promptly.
- 4 *Airport* operations can be incidentally impacted and influenced by *Construction* that may occur in three distinct areas of the *Airport*: *Airside*, *Groundside* and *Terminals*.
- 5 As a requirement of an issued *Facility Alteration Permit (FAP)*, the corresponding *Activity Notice or Permit* shall be authorized by the respective *Groundside*, *Airside* and/or *Terminal Construction Coordinators* with a copy submitted to the *CCPO*. The same notification process applies to both *GTAA*, and *Tenant* initiated *Projects*. Refer to Appendix A for more information & applicable links.
- 6 To ensure that execution of the *Work* causes the least possible interference or disruption to the *Airport* operations, *Tenants*, employees, and the public as well as the normal use of premises, aircraft operating areas, roadways, parking areas, sidewalks or passageways, the *Contractor* may be required to perform the *Work* or portions thereof during off-hours or as prearranged with the *Airport Construction Coordinator*.
- 7 **The *Contractor* holds primary responsibility and compliance for safety on their *Construction sites* and activities including safety to people, structures, equipment and assets.** The *GTAA* or its designate shall monitor *Contractors* to verify compliance with applicable health and safety requirements as referred to in 7.1.10.

- 8 The GTAA reserves the right to retain the services of an *Independent Safety Compliance Consultant (ISCC)* to monitor the safety performance of *Contractors* performing *Work* at the *Airport*.
- 9 It is the duty of the *Contractor*, the *Contractor's* supervisor and every *Person* at the *Place of Work* and areas affected by the *Work* to follow proper procedures, to observe all regulations, government and otherwise, pertaining to the *Work* and to operate with the objective of *Occurrence-free* performance.
- 10 The *Contractor* shall always ensure and demonstrate compliance with all *Applicable Codes and Standards* related permits and conditions, and the Project-Specific Safety Plan (PSSP) and treat the same as minimum standards for the *Work*. Refer to Subsection 4.1.4 of this *Code*.
- 11 The *Contractor* shall not store *Construction* or other materials, tools, etc., within *Service Spaces* in contravention of the *National Fire Code*. **Materials storage and laydown areas shall be coordinated with the GTAA and applicable stakeholders.**
- 12 The *Contractor* shall follow best industry health and safety practices while performing the *Work*.
- 13 All *Persons* entering a *Place of Work* that is under the charge of a "*Constructor*" shall obtain approval from the *Constructor* and shall comply with the stipulated conduct and requirements of the *Constructor*. This rule applies except for *GTAA Inspectors*, who follow the notification process outlined in Article 2.4.3.3 of this *Code*.

7.2 GTAA Reporting Systems

7.2.1 Emergency Dispatch System

- 1 All emergencies and *Occurrences* within the Toronto Pearson Fire & Emergency Services response boundary (refer to Appendix E Map) must be reported by the *Contractor* through the AOC for immediate dispatch of *Airport* medical, fire, and/or police assistance by calling **(416) 776-3033**. **DO NOT CALL 911**. An AOC operator is accessible 24 hours a day, 7 days per week including holidays. The caller must specify the location and nature of the *Emergency*, any personal injury, and their name and telephone number. The caller must remain on the phone and follow all instructions provided until advised otherwise.
- 2 The *Airport* emergency number **(416) 776-3033** must be conspicuously posted by *Contractors* on their Health and Safety Bulletin Boards and in areas that may be utilized by *Contractors* for *Emergency* reporting within the *Place of Work*. *Emergency* number **(416) 776-3033** must be included in and communicated to workers during the *Contractor* induction process.
- 3 All emergencies and *Occurrences* **not** within the Toronto Pearson *Fire & Emergency Services* response boundary (refer to **Appendix E Airport Map**) must be reported by the *Contractor* directly to the **911** emergency number.
- 4 The *Contractor* shall print and provide each worker a hardhat sticker with the *Airport* emergency reporting telephone number **(416-776-3033 or 911 Emergency Number)** as applicable based on the *Airport Work* location upon completion of the *Contractor's* induction process. Hardhat stickers provided to measure 25mm x 50mm, with white lettering on green background.

**Emergency calls
416-776-3033**

or

**Emergency calls
911**

7.2.2 Reporting *Unsafe Conditions, Near Misses and Incidents*

- 1 The *Contractor* shall establish and have in place clear plans and procedures for workers to report and track *Unsafe Conditions, Near Misses and Incidents* as part of the *Project-Specific Safety Plan (PSSP)*. Refer to Article 7.4.5.3 of this *Code*.
- 2 The *Contractor* must maintain a record of these events and make this record available to the *GTAA* for review upon request.
- 3 *Contractors* shall report to the *GTAA Project Manager* or the *Contract Administrator* any unsafe conditions found within enclosed spaces such as ceiling spaces or behind walls **revealed or uncovered** during the *Work*.
- 4 Non-*Project* related safety concerns found on *Airport Lands* can be reported by completing a Reporting Form. **Refer to Link in Appendix A – Item #17.**

7.2.3 Reporting *Unsafe Conditions and Incidents to AOC*

- 1 *Contractors* shall report to the *Airport Operations Centre (AOC)* all *Unsafe Conditions* that may result in a fire or other type of *Incident* causing property or facility damage, damage to *Building* services, or have the potential to disrupt *Airport* operations, by calling **416-776-3055**. An AOC operator is accessible 24 hours a day, 7 days per week including holidays.

7.2.4 Incident Reporting to Project Manager or Contract Administrator

- 1 The *Contractor* shall report all *Incidents* to the *GTAA Project Manager* or the *Contract Administrator* in the following timeframes:
 - a. an immediate telephone call, and
 - b. an emailed *Incident* summary within 24 hours.

7.2.5 Occurrence Investigation and Reporting to CCPO

- 1 The scene of an *Occurrence* or property damage *Incident* shall be secured and not be disturbed until the appropriate *Authorities Having Jurisdiction* give permission.
- 2 All *Occurrences* or property damage *Incidents* at the *Place of Work* shall be investigated by the *Contractor* and reported in writing to the *GTAA Project Manager* or *Contract Administrator* and to *CCPO* via email, constructioncompliance@gtaa.com. *CCPO's ISCC* will review the report and may attend or assess the situation at its discretion.
- 3 The *Contractor* shall **notify the** *CCPO* if an incident requires reporting to the Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD). Applicable incidents shall be reported to the MLITSD by the *Contractor* with a copy of the incident report and all incident

correspondence forwarded to the *CCPO* and the *GTAA Project Manager* or Contract Administrator.

- 4 The *Contractor* shall report all *Occurrences* or property damage *Incidents* to the *CCPO* in the following timeframes:
 - a. an immediate telephone call to *CCPO's ISCC*,
 - b. an emailed *Occurrence* summary within 24 hours to *CCPO* and *CCPO's ISCC*,
 - c. any notices submitted to the appropriate *Authority Having Jurisdiction*, within the timeframe prescribed,
 - d. any orders issued by an *Authority Having Jurisdiction*, as received,
 - e. a detailed investigation report and any other pertinent information or documentation regarding the causes of the event within 48 hours of the event. This report shall include a root cause analysis and appropriate corrective measures. Where a report may not be provided within the 48 hours timeframe, written notice via email should be sent to the *CCPO* and *GTAA Project Manager* or *Contract Administrator* outlining the reason for delay, and
 - f. The *GTAA* at its discretion and/or the *Authority Having Jurisdiction* may require the submission within 14 days after the *Occurrence*, of a professional engineer's written opinion stating the cause of the *Occurrence*.
- 5 In the case of such an *Occurrence*, the *GTAA* may at its discretion, conduct its own investigation, or oversee the *Contractor's* investigation.

7.3 Emergency Response Planning

7.3.1 Emergency Plan and Mandatory GTAA Safety & Security Training

- 1 The *Contractor* must develop and implement an *Emergency Plan* that addresses all potential *Emergency* vulnerabilities, procedures for reporting, procedures for evacuation, communications, special assistance, training, gathering points and roll call as part of the Project-Specific Safety Plan (PSSP).
- 2 The *GTAA* Facility Control Measures & Evacuation Plan is a mandatory training program, with an annual recertification requirement. This is a two-part training program that reviews *Airport* Facility Control Measures and *Building* Evacuation protocols for *GTAA* owned and operated *Buildings*. It is the responsibility of all *Persons who Work* at the *Airport* to complete this course annually and be able to provide the completed certificate upon request by a *GTAA* Representative. Failure to complete this training and/or provide certificates may result in a *Stop Work Order*. The training can be accessed using this link:

The *Contractor* must ensure that all personnel, including subcontractor personnel, working on *Airport Lands* have completed the Facility Control Measures & Evacuation Plan training and have the associated completion certificate.
- 3 The *GTAA* has developed an online 'Active Assailant Awareness' training program. This training is not mandatory but strongly encouraged for all workers. [Refer to Link in Appendix A – Item #7.](#)

7.4 Contractor Health and Safety Submittals

7.4.1 General Requirements

- 1 All *Contractors* and *Persons* engaged in *Construction* at the *Airport* require an Ontario Ministry of Labour, Immigration, Training and Skills Development Registration of Constructors and Employers Engaged in Construction (Form 1000).
- 2 A Notice of Project (NOP) must be filed by the *Contractor* with the Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) for all *Construction Work as per O. Reg. 213/91, s. 6* and under any of the following conditions:
 - a. The *Project* has a total cost of labour and materials expected to exceed \$50,000, or
 - b. The *Project* is required to be designed by an *Architect* or *Professional Engineers* which includes new *Construction*, renovation, alteration, demolition, repair, or restoration of any buildings, building systems, structures, roads, groundside, airside facilities (roads, parking lots, runways, taxiways, aprons, stormwater management facilities, etc.) and/or utilities, or
 - c. The *Project* activities include specific hazards, risks, or potentially high operational impact as determined by the *CCPO* that requires detailed plans and mitigating measures to be in place for worker and public safety, or
 - d. The *Project* activities include penetration of rated floor or wall surfaces, or ground excavations (trenching, tunnelling, etc.), or other specific activities as determined by *CCPO* with safety and/or potentially high operational impact.

The *GTAA* at its discretion may ask a *Contractor* to amend, remove or apply for a NOP. The *Contractor* understands that they are a *Constructor* as defined by the OHSA regardless of the *Project* value and the requirement to file a Notice of Project (NOP).

- 3 The NOP must include a clear description of the exact *Place of Work* location on *Airport Lands* under the Description of Project section. The Project number issued by the *GTAA* must also be clearly listed in this section.
- 4 The *Contractor* must amend the NOP with a new expiry date and submit copies of the amended NOP to the MLITSD and CCPO if *Work* needs to continue past the original NOP expiry date.

7.4.2 GTAA Contractor Safety Pre-Qualification and CORTM or Equivalent Requirements

- 1 All *Contractors* working for the *GTAA* shall be prequalified under the *GTAA Contractor Safety Pre-Qualification Process*. The *GTAA Contractor Safety Pre-Qualification Process* guidelines and application form available on-line. [Refer to Link in Appendix A – Item #20.](#)
- 2 Safety pre-qualification applies to all *Contracts* entered by or on behalf of the *GTAA*, and, at the discretion of the *GTAA*, may be applied to any airline, *Tenant*, or other *Contractors* whose *Work* is deemed by the *GTAA* to have the potential to impact *Airport* operational areas.
- 3 *Contractors* taking on the role of **Constructor** for *GTAA Projects* greater than \$5 million in value must have a certified occupational health and safety management system i.e., Certificate of Recognition (COR[®]) 2020, ISO 45001:2018. These *Constructors* must confirm their certification by submitting their IHS issued COR[®] certificate and Letter of Good Standing for COR[®] certification,

or their ISO certificate issued by an accredited certification body that is recognized by the International Accreditation Forum (IAF). This certification demonstrates the *Contractor's* health and safety management system has been developed, implemented, and will be evaluated on an annual basis through comprehensive internal and external audits and checks.

- 4 All *GTAA* Safety Pre-Qualified *Contractors* shall submit their Occupational Health and Safety Policy and Program when updated to the *CCPO* for our records.

7.4.3 Submissions Required for Construction Projects

- 1 As a requirement of obtaining a *Facility Alteration Permit (FAP)* and prior to commencing the *Work*, each *Contractor* shall provide to the *CCPO* a Project-Specific Safety Plan (PSSP) that integrates *Construction* specific risks and hazards and this *Code's* requirements with the *Contractor's* existing safety programs and procedures.
- 2 The *Contractor* must submit the PSSP to the *GTAA Project Manager* or *Contract Administrator* to verify the full scope of *Work* and concerns noted in the *Project Threat/Hazard Identification and Risk Assessment (T/HIRA)* as applicable have been addressed prior to submission to the *CCPO*.
- 3 The PSSP is subject to the review and comments of the *ISCC* and at a minimum shall include the following:
 - a. Notice of Project (to Governing Authorities) as required &/or if requested by *CCPO*,
 - b. "MOL" Form 1000 (including tiered contractors),
 - c. Scope and areas of *Construction Work*,
 - d. Risk Assessment (project safety risks, impact/interference with *Airport* operations),
 - e. Hazard Assessment (potential and activity-based hazards),
 - f. *Project* Personnel and Responsibilities (including tiered contractors, disciplinary and corrective actions, etc.),
 - g. Training and Competency,
 - h. Communications (JHSC, Meetings, Postings, etc.),
 - i. Standards and Procedures,
 - j. Permits for *Work*,
 - k. Mobilization and Phasing Plan,
 - l. Induction and Orientation,
 - m. Compliance Assurance Plan (i.e., inspections, audits, etc.),
 - n. Emergency Plan,
 - o. *Incident* Reporting, Investigation and Tracking,
 - p. Subcontractor Management Plan,
 - q. Health and Hygiene.

The *Contractor* shall submit an electronic copy of the PSSP to the *CCPO*, which clearly identifies the *Project* description, *Project* number and any revision number.

- 4 Comments regarding the PSSP may be provided by the *CCPO* at its discretion. The *Contractor* must revise the PSSP to address any comments provided.

- 5 The *Contractor* is required to provide updates of the PSSP based on phased *Work*, revisions based on changes in the scope of *Work and changes to Project personnel* to the *CCPO*.
- 6 The *GTAA* Project-Specific Safety Plan (PSSP) Review guideline offers further clarification of the requirements of a PSSP. [Refer to Link in Appendix A – Item #21.](#)
- 7 The *GTAA* has developed a Work-Specific Safety Plan (WSSP) template as an option for *Contractors* undertaking smaller scale tenant or miscellaneous projects. *Contractors* are encouraged to develop and use their own safety plan templates for FAP application submissions. This template is not intended to absolve *Contractors* of any statutory or regulatory duties, responsibilities or requirements relating to the safe performance of their *Work* activities. *Work* must be planned and executed in compliance with all applicable regulatory requirements. [Refer to Link in Appendix A – Item #21.](#)

7.4.4 Pre-FAP Meeting

- 1 A meeting and/or *Place of Work* review may be requested at the discretion of the *GTAA/ISCC* to review health and safety submissions prior to the issuance of a *FAP*.

7.4.5 Roles and Responsibilities

7.4.5.1 *GTAA Review*

- 1 The *ISCC* monitors, at its discretion, all contracted *Work* at the *Airport* for compliance with all health and safety requirements on behalf of the *CCPO* and the *GTAA*.
- 2 The *GTAA* and/or its representatives shall have the right to photograph, videotape, film, or otherwise document the progress of any contracted *Work* at any time and to use such documentation for its own purpose.

7.4.5.2 *Contractors Responsibilities*

- 1 The following responsibilities apply to *Contractors* performing *Work* at the *Airport*:
 - a. promote workplace safety as a core value in keeping with the expectations of an operational *Airport*,
 - b. establish, communicate, and maintain a written safety program and Project-Specific Safety Plan (PSSP),
 - c. establish, communicate, and maintain and monitor a subcontractor management plan to ensure subcontractors are trained and competent,
 - d. include safety on the agenda of all meetings,
 - e. ensure competent supervisors have been appointed and advise the *CCPO* and *GTAA Project Manager* or *Contract Administrator* of any personnel changes,
 - f. ensure adequate resources for safety and health are provided to all workers,
 - g. ensure adequate training for all workers has been provided,
 - h. provide first aid facilities and trained personnel, and
 - i. [Promptly report all hazards, near misses and incidents in accordance with section 7.2.](#)
 - j. immediately notify the *Project Manager* or *Contract Administrator* and the *CCPO* where there is conflict with another *Contractor*, *Project* or *Owner's* forces related to work separation. The

Project will stand down until an alternative remedy or agreement is reached. Constructor coordination protocols are to be developed by the affected *Contractors*, formally documented, and must address maintaining separation regarding all *Project* areas and appurtenances, for example:

- i. Security,
- ii. Access/Egress (no travel across another *Project* for the purposes of access and egress),
- iii. Material Movement [and Traffic Control](#)
- iv. Parking,
- v. Laydown Areas,
- vi. Washroom Facilities,
- vii. Electrical [and Mechanical](#) Installations,
- viii. [Environmental and Industrial Hygiene](#),
- ix. Waste Disposal Areas,
- x. Emergency Procedures (must not share resources or equipment),
- xi. Work Schedules, and
- xii. Communication Protocol.

This protocol may require notification to and approval from the Ontario Ministry of Labour, Immigration, Training and Skills Development (MLTSD) [by submitting a Request for Designation of Separate Projects](#). Refer to MLTSD web site for the Constructor Guidelines for more information [Refer to Link in Appendix A – Item #27d](#).

- 2 As determined by the *Contractor* or upon the *GTAA*'s request, the *Contractor* shall, at its cost, remove from *Airport Lands* any *Unsuitable Workers* as defined by this *Code* which are employed by the *Contractor* or any Subcontractors and shall ensure that any removed individuals not be return to the *Place of Work* or perform *Work* on *Airport Lands* for any reason unless first agreed to by the *GTAA*.

7.4.5.3 **Health and Safety Performance**

- 1 The *Contractor* is responsible for continuously evaluating and documenting safety performance.
 - a. For *GTAA Projects*, the *Contractor* must provide copies of their monthly safety reports to the *GTAA Project Manager* or *Contract Administrator* detailing their health and safety performance for the preceding month for each *Project*. The report must be submitted during the first week of the succeeding month.
 - b. For *GTAA or Tenant Projects*, the *Contractor* shall provide copies of their monthly safety reports to the *CCPO* upon request.
 - c. The *CCPO* may request for review copies of any project safety audits completed by the project's health and safety representatives, committees, or third-party representatives.
- 2 [Report any issued AVOP infractions and/or violations while operating vehicles airside.](#)
- 3 The *GTAA* Typeform link can be used to submit your project health & safety performance data [Refer to Link in Appendix A – Item #26f](#)

The monthly report must include:

- a. Lost-Time Injuries (LTI),

- b. Non-Lost-Time Injuries (NLTI),
- c. *Near Miss Incidents*,
- d. *Property Damage Incidents*,
- e. Summary of Incidents, Injuries, *Near Misses* and Property Damage,
- f. Number of Workers (including subcontractors),
- g. Number of Supervisors (including subcontractors),
- h. Hours Worked by month (including subcontractors),
- i. Number of Workplace Inspections,
- j. Number of worker orientations completed by month,
- k. Number of safety meetings conducted by month,
- l. Number of hazard assessments conducted by month, and
- m. Number of “MOL”, TSSA, or ESA Orders.

7.4.5.4 **Contractor Supervisor Responsibilities**

- 1 The *Contractor* shall include as part of their Project-Specific Safety Plan (PSSP), detailed and *Work*-specific responsibilities for their “project supervisor” and other *Persons* acting in a supervisory capacity.
- 2 The *Contractor* shall include a list of *Project* supervisors, relevant training, and all contact information as part of the PSSP submission.

7.4.5.5 **Worker Responsibilities**

- 1 [The *Contractor* shall include detailed and *Work* specific responsibilities for their workers as part of their safety program.](#)
- 2 The *Contractor* shall include as part of their Project-Specific Safety Plan a disciplinary and corrective action policy for all workers on their *Project*. This must include as a minimum, procedures for violation of high-risk activities, violence and harassment, intoxication and fitness for duty, and violations of this *Code*.

7.5 Contractor Safety Audit

7.5.1 Scope

7.5.1.1 **Application**

- 1 The *GTAA* is committed to ensuring that all *Contractors* provide a safe, secure, and healthy workplace for every *Person* associated with the *Construction*, through the evaluation of Project-Specific Safety Plans (PSSP).
- 2 The *CCPO* observes *Contractor* safety performance through PSSP Audits and Site Safety Reviews. The purpose of these reviews is to motivate *Contractors* to attain a higher safety benchmark for conducting *Work* at the *Airport*.

7.5.1.2 **Limitations**

- 1 *Contractor's* implementation of their PSSP and *Work* activities may be reviewed on a random basis based on factors such as *Contract* value, risk and/or duration. These evaluation reviews have been established to ensure compliance with this *Code* as part of a quality assurance system of the GTAA. These reviews in no way reduce, restrict, limit or in any way affect the autonomy of each *Contractor's* responsibility as an employer or Constructor to ensure the *Work* complies with legislative requirements and this *Code*.
- 2 These reviews may identify physical and procedural deficiencies that must be corrected by the *Contractor* to ensure compliance with legislative requirements, the Project Specific Safety Plan (PSSP) and this *Code* prior to continuing with the *Work*. Some components of the evaluations are based on construction industry "best practice".

7.5.2 **Procedures**

7.5.2.1 **Pre-FAP**

- 1 During the pre-FAP meeting, the ISCC will discuss *the* process for *Contractor Site Safety Reviews and Audits* during *Construction*.

7.5.2.2 **Work in Progress**

- 1 The ISCC will make random visits to the *Place of Work* on behalf of the CCPO, as warranted by the type of *Work*, to conduct reviews of the *Work* in progress.
- 2 For Site Safety Reviews the ISCC may invite the *Contractor's* site supervisor, safety representative, GTAA Project Manager or Contract Administrator to tour the *Place of Work* while making observations of *Work* in progress respecting health and safety practices and procedures.
- 3 The ISCC will issue an Observation Report for each Site Safety Review and will request confirmation from the *Contractor* that noted deficiencies are acknowledged and are corrected immediately.
- 4 Where circumstances exist that may result in harm or damage, the ISCC may issue an *Order to Comply or Stop Work Order* requiring corrective actions prior to the continuation of the *Work*. Refer to Articles 2.4.3.5 and 2.4.3.6 of this *Code*.
- 5 Depending on the size and complexity of the scope of the *Work*, the ISCC may conduct more formal PSSP Audits. PSSP Audits will be coordinated through the GTAA Project Manager or Contract Administrator where applicable or directly with the *Contractor*.
- 6 Where a formal review has been conducted, the *Contractor* PSSP Audit report will be provided to the respective *Contractor* and to interested departments of the GTAA, where requested.

7.5.2.3 **Completion Stage**

- 1 At the completion of the *Work*, *Contractor Site Safety Reviews and Audits* may be used during the *Contractor's* performance evaluation.

7.6 Contractor Safety Standards

7.6.1 Compliance Requirements

- 1 The *Contractor's* Project-Specific Safety Plan (PSSP) shall include policies and/or procedures that are amended to address the requirements of this Section.
- 2 When access or traffic control, special fire hazards, or other public safety issues arise because of contracted *Work*, the *GTAA* may require the presence of fire or police personnel, overtime operations and/or special equipment services. The *Contractor* shall plan to use the appropriate process and pay for such services directly or through the *GTAA*.

7.6.2 Fire Safety

- 1 The *Contractor's* Project Specific Safety Plan (PSSP) shall address the requirements of this Section where the *Work* or *Place of Work* may include or affect:
 - a. open flames,
 - b. smoke,
 - c. heat or sparks, not limited to welding, brazing, cutting, grinding, soldering, thawing pipe, torch applied roofing, etc.
 - d. explosives,
 - e. compressed gases,
 - f. natural gas,
 - g. flammable liquids,
 - h. spray painting,
 - i. temporary heat,
 - j. temporary disabling of a life safety system,
 - k. fire routes, fire hydrants, firehose cabinets or extinguishers, or
 - l. other hazards as may be determined from time to time by the *GTAA*.
- 2 The *Contractor* shall conduct a hazard assessment and establish written procedures that include:
 - a. *Hot Work*
 - b. housekeeping/disposal,
 - c. material storage,
 - d. isolation of *Work* or *Place of Work* from occupants or public,
 - e. protection of equipment, plant, or facilities,
 - f. fire extinguishing equipment and fire watch, and
 - g. *Emergency* response.

7.6.2.1 Hot Work

- 1 The *GTAA* requires that the *Contractor* who has been issued a *FAP* for a *Project* has established their own *Hot Work Permit Process* and shall be fully responsible for all *Hot Work* activities carried out under the *Contractor's* scope of *Work*. [The *Contractor* shall implement fire-resistive](#)

protective barrier(s) or shield(s) to protect other workers and/or pedestrian traffic from contact with sparks and shield rays emitted from hot work.

- 2 The *Contractor* will issue all *Hot Work Permits (HWP)* required to complete the scope of *Work* (including sub-contracted *Work*). Each *HWP* issued by the *Contractor* must have an expiry date which cannot exceed 30 days from the date of issue at which time the *HWP* shall be reviewed and reissued as required.
- 3 By issuing a *HWP*, the *Contractor* must understand, incorporate, and maintain all applicable mitigating fire safety measures as detailed in the *PSSP* which forms part of the conditions for the issued *FAP*.
- 3 As a reference for the *Contractors'* use, the *CCPO* has developed a sample *Hot Work Permit Checklist* and *Sign-off form* that can be used in the *Contractor's* process or the *Contractor* can develop their own form, which must be equivalent or better for their use. Where the *Contractor* elects to use its own form, it must be submitted to the *CCPO* for review prior to it being used. The *Hot Work Sign-off Checklist* can be accessed on-line. Refer to Link in Appendix A – Item #23.
- 4 A *Competent Person* employed by the *Contractor* must review and assess each applicable site where *Hot Work* will be carried out and then fully complete, sign and post the *HWP* on site near the immediate location of the *Hot Work*.
- 5 The *Contractor's Competent Person* must have fire extinguisher training and specific knowledge and understanding of:
 - a. fire hazards and fire safety,
 - b. requirements of the *National Fire Code*,
 - c. requirements of this *Code*,
 - d. cutting and welding practices,
 - e. the *Contractor's* safety policies and procedures, and
 - f. the *PSSP* submitted to the *CCPO* for the *Hot Work* being carried out.
- 6 Upon mobilization on site, the *Contractor's Competent Person* may contact *GTAA Fire Prevention Office* (416-776-4515) to discuss any specific fire safety questions or concerns.
- 7 Prior to commencing any *Hot Work* activities each day or shift, each worker must have read, fully understood, and have checked that all the required precautions as detailed in the posted *HWP* are in place, and that it is safe to proceed with the *Hot Work*.
- 8 Digital copies of each issued *HWP* must be emailed to *GTAA Fire Prevention* and *CCPO* at hotwork@gtaa.com for the *Project* records and for potential follow-up/random audits.
- 9 Hard copies of all current & past *HWP's* must be kept on file by the *Contractor* and must be produced when requested by *GTAA Fire Prevention* or the *CCPO*.
- 10 *GTAA Fire Prevention* and/or *CCPO* will conduct random site audits to ensure that the *Contractor's Hot Work Permit Process* is being implemented and followed for all *Project* activities involving *Hot Work*.
- 11 Failure of the *Contractor*, their sub-contractor(s), or individual employee(s) to follow the *Contractor's Hot Work Permit Process*, or failure to implement, maintain and/or follow all fire safety precautions, will result in the immediate stoppage of all *Work* under the applicable *FAP*. *Work* will then not be allowed to re-commence until the *Contractor* submits an *Incident* report to

CCPO detailing the noncompliance with the *Hot Work Permit Process*; and the corrective actions taken to remedy the noncompliance.

7.6.2.2 **Fire Watches**

1 Application

Where heat, sparks or flame from considerations listed under Article 7.6.2.1. of this *Code* may come in contact with combustible, flammable or explosive materials or where life safety systems, *Emergency* or fire routes are affected, the *Contractor* shall provide a designated *Competent Person* (other than the *Person(s)* doing the *Work*) to be present at all times and to act as a fire watch.

2 Designation of Fire Watch Personnel

The *Contractor* shall:

- a. Provide a designated *Competent Person* to perform fire watch who must always be present and must not perform other duties.
- b. Ensure the requirements of the *National Fire Code* respecting a fire watch are maintained and perform inspections for smouldering materials or other potential sources of fires at regular intervals following the *Hot Work* and at the end of each work shift.
- c. Ensure the fire watch is trained in the operation of a fire extinguisher, fire extinguisher practices, fuel spills and fire alarm procedures, and is instructed in the response required in the event of a fire, including notifying the *Airport Operations Centre (AOC)*.
- d. The number of *Persons* required to act as fire watch personnel shall be specified in the *Contractor's Project-Specific Safety Plan (PSSP)* as reviewed and authorized as acceptable by *GTAA Fire & Emergency Services (F&ES)*.
- e. Ensure that the site is monitored by the fire watch for the required time after completion of all *Hot Work* as indicated on the *GTAA Contractor's Hot Work Fire Safety Sign-off Checklist*.

7.6.2.3 **High Risk Activities, Locations and Systems Shutdown**

- 1 Where the *Work* compromises the performance of any fire protection system, where the system is temporarily shut down or inoperable, fire watch shall be provided and conducted according to the *National Fire Code* and the requirements of *F&ES*.
- 2 Where a significant area of a *Building* is subject to the requirement of a fire watch approach, the *Independent Code Compliance Consultant (ICCC)* shall be invited to provide review and assessment of building code requirements and interventions affording equivalent levels of life safety provisions for the temporary duration. Such assessment will be conveyed to *F&ES* to administer it further.
- 3 *F&ES will provide stand-by, if deemed necessary by the FAP process where the nature of the Work has extreme and potentially high-risk fire hazard conditions.* Such provision requires the approval of the *Fire Chief* and may be subject to costs payable by the *Contractor* involved.

7.6.2.4 **Open Burning/Flame Operations**

- 1 No open burning of any material is permitted at the *Airport*.

- 2 No open flames from *Construction* activities involving tar kettles, torches, welders, salamanders, barbecues, smudge pots or similar equipment shall be allowed unless a *FAP* has been issued, and a *Hot Work* permit is in place as detailed in the *Contractor's* Project-Specific Safety Plan (PSSP) and Article 7.6.2.1. of this *Code*.

7.6.2.5 **Explosives**

- 1 The use of explosives is prohibited at any *Place of Work* unless written prior permission is obtained from the *GTAA* Corporate Safety and Security Department and the *GTAA Fire Chief* and *F&ES* are on site to monitor the operation.
- 2 The use of **explosive** actuated fastening **tools** is prohibited at any *Place of Work* at the *Airport* unless prior written permission is obtained from the *CCPO*, *GTAA Operations* and Corporate Safety and Security.
- 3 The use of **explosive** actuated fastening **tools** must be included in the *Contractor's* Project-Specific Safety Plan (PSSP) with details of how these tools will be stored and secured while on *Airport Lands*, the process for issuing these tools to authorized/trained employees prior to their use and how the activity will be monitored by the *Contractor's* site supervisor.

7.6.2.6 **Fire Extinguishers**

- 1 Type **6A 80BC** fire extinguishers (minimum rating) shall be provided by the *Contractor* readily available at signed/defined areas throughout the *Place of Work* and at each location where *Hot Work* is being performed in compliance with the *NFC & NFPA 10* and as reviewed with *GTAA F&ES*.
- 2 They shall be properly maintained and inspected and be visible within the maximum travel distance of 22.5m in any area under *Construction*.
- 3 Each extinguisher shall have a valid inspection data tag affixed.
- 4 For large *Construction* sites, two separate fire extinguisher staging areas shall be identified and signed "empty extinguishers" and "full/spare extinguishers".
- 5 The *Contractor* shall provide and mount a fire extinguisher on all mobile equipment.

7.6.2.7 **Fire Hose Cabinets**

- 1 Fire hose cabinets shall always be kept clear of obstructions and be accessible.
- 2 Wherever an existing fire hose cabinet is obstructed by *Construction*, the *Contractor* shall provide access acceptable to the *F&ES* without the use of a key. Where access cannot be provided, the *Contractor* must submit a mitigation plan to *F&ES* for review and approval.

7.6.2.8 **Fire Hydrants**

- 1 Fire hydrants must always be kept clear of obstructions and be accessible. Where access cannot be provided, the *Contractor* must submit a mitigation plan to *F&ES* for review and approval.
- 2 No parking is permitted within 3m on either side of a fire hydrant.
- 3 Fire hydrant use by *Contractors* is strictly prohibited unless *Facilities Department* authorizes permission for use in advance. Metering and back-flow prevention requirements for such use

shall be determined by and requires pre-authorization by the GTAA to use designated fire hydrants that are metered and have a back-flow prevention device installed.

- 4 The GTAA has several fire hydrants specifically equipped to load water trucks at the Contractor's expense for dust control purposes. *Contractors* may obtain a Fire Hydrant Permit by completing a GTAA Fire Hydrant Approval Form and submitting it no later than 72 hours prior to the date required for use. The form can be accessed on-line. [Refer to Link in Appendix A – Item #4.](#)

7.6.2.9 **Fire Routes**

- 1 All proposed and designated fire routes on *Airport Lands* shall comply with the City of Mississauga By-law 1036-81 – Fire Routes and Fire Hydrants. Refer to Sentences 4.4.2.2(4) & (5) for more details.
- 2 Fire routes to and from all *Buildings* shall be established and always kept clear. Vehicles, storage dumpsters, materials or other obstructions must not block fire routes at any time.
- 3 Surface gravel areas within a designated fire route shall be capable of supporting and withstanding live loads of responding fire apparatus in all weather conditions.
- 4 Fire routes shall be kept free of snow and ice accumulation during the winter months where designated within the *Place of Work*.

7.6.2.10 **Maintaining Exits**

- 1 All exits and access to exits shall be maintained free and clear of all obstructions and impairments that may restrict access and exiting.
- 2 Temporary fire separations and fire-rated construction assemblies must always remain in service during the *Work* or if practicable to prevent the unwarranted spread of fire.
- 3 Doors in fire separations must not be blocked in any manner or left open at any time during any phase of the *Work*.

7.6.2.11 **Compressed Gases**

- 1 Storage restrictions
 - a. No compressed gases shall be stored at the *Place of Work* unless such storage complies with *Applicable Codes and Standards* and approved by F&ES. Storage locations shall be identified in the *Contractor's* mobilization plan.
 - b. The storage of flammable gases within *Buildings* is strictly prohibited. Safety Data Sheets (SDS) shall be readily available at the *Place of Work*. All other storage shall comply with the requirements of Division B Part 3 of the *National Fire Code*.
 - c. The *Contractor's* name shall be clearly identified on all cylinders, storage, and transportation cages.
 - d. [Compressed gas cylinders must be stored in an upright position and secured while in the workplace and during transportation.](#)
- 2 Usage Restrictions
 - a. The use of flammable gases within *Buildings* shall conform to the requirements of the *National Fire Code*, and the *Occupational Health and Safety Act*.

- b. The use of flammable gases within below grade levels of *Buildings* or *Structures*, or within maintenance holes, service tunnels or similar locations shall conform to the requirements for confined spaces under the *Occupational Health and Safety Act* R.S.O 1990, C. 0.1, O. Reg. 213/91 Regulations for Construction Projects, and O. Reg. 632/05 Confined Spaces.

7.6.2.12 **Natural Gas Installations & Removals**

- 1 Installation of all-natural gas and propane systems and equipment at the *Airport* shall conform to the requirements of the following:
 - a. *National Fire Code*,
 - b. *Occupational Health and Safety Act*,
 - c. CSA B149; Natural Gas and Propane Installation Code, and
 - d. *Technical Standards and Safety Act*.
- 2 The installation or removal of natural gas and propane systems and equipment shall be performed only by *Persons* having a G.1 or G.2 certificate as issued by the Technical Standards and Safety Authority.

7.6.2.13 **Temporary Heat**

- 1 Temporary heating units exhibiting an open flame or any type of glowing element to be used within a *Building* must be specified in the *Contractor's* Project-Specific Safety Plan (PSSP) with provisions in compliance with *Applicable Codes and Standards* and approved by *F&ES*. Refer to Article 7.6.14.3 for Air Quality requirements.
- 2 Connection of temporary propane or natural gas heating units up to 400,000 BTU must be completed by a *Competent Person* who has a valid Record of Training for the applicable fuel type.

7.6.2.14 **Use, Handling, Storage and Disposal of Flammable Liquids**

- 1 General Restrictions
 - d. Storage of flammable liquids is prohibited within *Buildings* unless prior permission is granted by *F&ES* in accordance with the following requirements:
 - i. Storage and handling of flammable liquids and their containers shall conform to the requirements of Part 4 of the *National Fire Code*,
 - ii. Storage is not permitted in or near *Public Spaces*, and
 - iii. Storage of permitted liquids must be in ULC labelled containers stored within a ULC labelled flammable liquid storage cabinet.
 - b. The *Contractor* shall establish, implement, and provide training on written procedures for the safe use, handling, storage, transportation, and disposal of flammable liquids pursuant to current SDS procedures which shall be provided to their employees.
 - c. No rags contaminated with oils, fuels, solvents, paint products or other flammable substances shall be allowed to accumulate at the *Place of Work* unless they are stored in approved self closing metal containers.
- 2 Spray Painting/Paint Restrictions
 - a. Spray painting with flammable liquids, solvents, thinners, etc. is prohibited unless prior permission is obtained from *F&ES*.

- b. Paints and other associated products including solvents, thinners, urethanes, etc. must not be left in open containers where permitted to be stored during the *Work*. Covers shall be replaced to ensure that containers are properly sealed **at all times**.
- c. Specific restrictions that apply within and near *Terminals and Public Spaces* will be determined by *F&ES* in accordance with the *National Fire Code*.

7.6.2.15 **Offices, Trailers, and Temporary Workshops**

- 1 *Contractor* trailers and material/equipment trailers shall be identified on the *Contractor's* mobilization plan with a unique location identifier to assist *F&ES* during an *Emergency* response. The *Contractor* will be responsible for:
 - a. assigning and posting on each trailer a unique location identifier,
 - b. notifying the *Airport Operations Centre (AOC)* of the location information to be utilized for *Emergency* dispatching, and
 - c. notifying the *AOC* once a trailer(s) has been removed from the *Place of Work*.
- 2 Trailers must not be positioned to expose existing *Building* areas to fire exposure or safety hazards and shall be located a minimum of 3m clear from all *Building, Structures* and *Primary Security Lines (PSL)*.
- 3 All *Contractor* offices, trailers and temporary workshops shall be equipped with a minimum **6A80BC** fire extinguishers and emergency signage prior to occupying each trailer.

7.6.3 **Mobilization Plan and Phasing Plan**

- 1 The *Contractor* shall establish and implement a plan layout in a visual format for all phases of the *Work* and procedures for mobilization and phasing that identify as applicable the following:
 - a. assessment of existing site conditions,
 - b. trailer or office location with unique trailer location identifier,
 - c. source of any required power and/or communications service,
 - d. traffic plan,
 - e. material and machinery movement,
 - f. pedestrian safety measures,
 - g. parking,
 - h. laydown areas,
 - i. fire extinguisher staging areas for "empty" and "full/spare" fire extinguishers,
 - j. compressed gas storage,
 - k. fencing, hoarding and public way protection,
 - l. location of all waste containers,
 - m. access/egress routes,
 - n. fire, first aid, emergency facilities and evacuation gathering areas,
 - o. washroom facilities, and
 - p. lunchroom, break, and smoking areas **where permitted on Airport Lands**.

7.6.4 Housekeeping

7.6.4.1 Contractor's Responsibility

- 1 *Work* areas (including concealed spaces) shall be cleaned and maintained on a regular basis and at least daily to prevent the accumulation of waste or debris. Particular attention should be applied to the prevention of *Foreign Object Debris (FOD)*.
- 2 *Contractor* shall be responsible for the placement and maintenance of covered recycling and/or waste containers. The location of these containers must be authorized by the applicable *Airport Construction Coordinators* as part of the *Activity Notice*. Refer to Appendix A of this *Code* for applicable link.
- 3 Airport disposal systems of any type shall not be used at any time for *Construction* debris.
- 4 Dumping or burning of any material on *Airport Lands* is strictly prohibited.
- 5 *Public Spaces* in *Terminals* shall always be kept clean and clear of equipment and obstructions during normal operating hours. Prior to the start of the *Terminal's* operating day, any *Work*-related debris, materials, and equipment shall be cleared from all *Public Spaces*.
- 6 Where the *Work* occurs next to *Public Spaces*, walk-off mats shall be provided on the inside of all egress points from the *Place of Work* to minimize dirt and debris from tracking beyond the limits delineated for the *Work*. *Contractors* shall clean up all dirt and debris caused by such construction access, and repair/replace, at the *Contractor's* expense, any materials damaged by such *Contractor* access to match existing materials subject to the prior written approval of the *GTAA*.
- 7 Oils, grease, dust and other chemicals and materials which could cause a slip hazard, damage to the floor materials, the applied finish or otherwise reduce the friction coefficient of the surface of *GTAA-maintained* floors, shall be cleaned immediately upon contamination. Bilingual warning notices and/or barriers to divert traffic may be provided only on a temporary basis.
- 8 Hazardous waste shall be stored in appropriate containers and removed from the *Place of Work* at the end of each shift or as often as necessary as to not to create a hazard.

7.6.4.2 Cleaning

- 1 The *Contractor's* cleaning personnel shall supply its own equipment and materials.
- 2 The *Contractor's* cleaning personnel shall be responsible for final cleaning of the *Place of Work* and adjacent areas affected by the contracted *Work* before the *Work* will be accepted by the *GTAA* for occupancy/use.
- 3 The *Contractor* shall be responsible for cleaning up all areas during and after each shift, including washrooms and areas outside of the *Place of Work* affected by the contracted *Work*. Any garbage, dust, dirt, and spills not attended to by the *Contractor* requiring the cleaning staff of the *GTAA* to perform, shall be the cost responsibility of the *Contractor*.
- 4 The *Contractor* shall schedule cleaning activities so that the resulting dust and airborne debris will not affect any operation of the *Airport*. *Building* systems shall be isolated and the *Place of Work* sealed off from other parts of the *Building* when dust impacted activities, or activities generating offensive odours are being performed.

- 5 During final cleaning activities at the *Place of Work*, the following shall be the responsibility of the *Contractor* where it applies to the *Work*:
 - a. Remove grease, dust, dirt, stains, labels, fingerprints and other foreign materials from interior and exterior finished surfaces and fixtures including glass and other polished surfaces.
 - b. Clean lighting reflectors, lenses, bulbs, and other transparent surfaces.
 - c. HEPA vacuum all affected surfaces.
 - d. Broom clean paved surfaces and rake clean other surface areas of the *Place of Work*. Remove *Construction*-related waste, debris and surplus materials from the *Place of Work* and areas adjacent to it.
 - e. Flush and clean out maintenance holes and catch basins including gratings, where affected by the *Work*.

7.6.4.3 **Trash Chutes**

- 1 Trash chutes shall not empty into a *Building* but shall empty directly into an exterior dumpster unless adequate dust control and area separation measures are provided as detailed in the *Contractor's* Project-Specific Safety Plan (PSSP) and reviewed by the *CCPO*.
- 2 Trash chute openings shall be secured at the end of the day with a protective cover that will prevent the potential spread of fire into the *Building* via the chute.

7.6.4.4 **Maintenance of Road/Surfaces/Sidewalks**

- 1 The *Contractor* shall be responsible for the cleanliness of roads surrounding the *Place of Work* due to tracking of dirt, mud and other materials by vehicles leaving their *Place of Work*.
- 2 The *Contractor* shall be responsible to clear ice and snow from the *Place of Work* and accesses to such areas, and to remove and dispose of such accumulated ice and snow from *Airport Lands*.
- 3 Whenever the *Contractor* is hauling pavement base, dry fill or other granular material or debris on or across aprons, taxiways, runways or roads, vehicles shall have an appropriate cover to prevent *Foreign Object Debris (FOD)* and implement all other necessary precautions to prevent spillage or dropping of the vehicle content. Where spillage of material occurs, the *Contractor* shall immediately notify the *Airport Operations Centre (AOC)* and clean up the spillage immediately in accordance with this *Code*.

7.6.4.5 **Tripping Hazards**

- 1 Floor areas and other surfaces on which *Persons* must walk within *Work* areas and any other area(s) associated with the *Work* shall be regularly checked for any type of unsafe conditions, obstacles, materials, and details that could cause a *Person(s)* to trip while walking.
- 2 Temporary installations (i.e., power cords, pipes etc.) or activities that create an uneven floor surface shall require adequate transition strips and markings to prevent tripping hazards as detailed in the *Contractor's* Project-Specific Safety Plan (PSSP) and reviewed by the *CCPO*. Where possible the contractor will be expected to run temporary installations overhead.

7.6.5 Personal Protective Equipment

- 1 The *Contractor* shall establish and implement a procedure identifying the personal protective equipment required at the *Place of Work*, as well as its use, inspection, maintenance, limitations, and training requirements. This procedure shall be communicated to all workers and visitors.
- 2 All *Persons* working or accessing the *Airside*, who are outside the protection offered by a vehicle with an enclosed cab must wear high visibility garments (safety vest or other clothing) that conforms, at minimum, to the latest Class 2 version of one of the following standards: CSA Z96 or ANSI/ISEA 107 or EN 471.
 - a. Regardless of the standard selected from Article 2, the background colour of these garments shall be fluorescent (either red, orange/red, or yellow/green) and the garment must cover the full torso of the wearer.
 - b. For the purposes of this rule, the term “*Airside*” includes all baggage laterals, make-up, and baggage road areas; all terminals, hangar, cargo, maintenance, de-icing, and general aviation aprons; all vehicle corridors, as well as taxiways, runways, and open areas adjacent thereto.

7.6.6 Work Area Hoarding and Barriers

- 1 Each *Place of Work* shall be clearly identified and protected by a suitable barrier in accordance with Article 7.6.6.9 of this *Code* to restrict potential access by the public and other unauthorized *Persons* as the type of *Work* warrants and as authorized by the *CCPO*.
- 2 An engineered Hoarding Plan Drawing shall be provided indicating the location of the hoarding, details of the structural support, hoarding dimensions to adjacent wall(s) and fixed building structures or features, and dimensions of the clear widths surrounding the delineated *Construction* site available for passenger flow and emergency exiting. This plan must be included with all FAP submissions and will be reviewed for code compliance & structural stability. Any changes to the hoarding location, must first be submitted to *CCPO* for review.
- 3 Use of pre-engineered reusable hoarding products can be used for *Airport Projects* with the following conditions:
 - a. Hoarding engineered drawings must be submitted with the FAP application, stamped and sealed by a licensed *Engineer* in the province of Ontario confirming the structural integrity and compliance with all requirements of Subsection 7.6.6. Drawings must state the *Applicable Codes, Standards* and *Design* criteria used to provide sufficient evidence of its structural design for the intended use. Applicable codes are to include but are not limited to current versions of *National Building Code*, the *Airport Construction Code* and specifically Subsection 7.6.6.
 - b. Product supplier’s standard drawings with product typical details, conditions, and limitations of the product use as applicable must also be submitted.
 - c. Reusable hoarding products cannot be used for *Primary Security Line* hoarding or between sterility sectors as it doesn’t meet current security standards due to the type of material used.
- 4 The *Contractor* shall be responsible for providing and maintaining all temporary interior and exterior hoarding or barriers in accordance with Article 7.6.6.9 of this *Code*.

- 5 For *Work* within hoarded areas or dedicated rooms, the *Contractor* shall post a copy of the *Facility Alteration Permit (FAP)* Placard at every access point into the *Place of Work*. Refer to Appendix C - 7.6.6.5 - Detail A.
- 6 The *Contractor* shall post no other signage on any hoarding within the *Terminals* except for a bilingual "Authorized Personnel Only" sign. Refer to Appendix C - 7.6.6.6 - Detail B.
- 7 Where openings are required in the *Primary Security Line (PSL)* *Contractors* shall provide protection in accordance with the requirements of Section 6.10 of this *Code*.
- 8 When installing hoarding in the *Sterile Area* the *Contractor* is responsible for ensuring that access door locking systems are installed so no unauthorized access can be made to the *Place of Work*. Pin Pad locking systems if used, should utilize complex number combinations to avoid easy guessing and unauthorized access. For further information contact the *GTAA* Corporate Safety and Security Department.
- 9 The following requirements for hoarding and barriers shall apply:
 - a. Interior *Work Areas*
 - i. The *Contractor* shall submit hoarding drawings and details to confirm compliance with this section of this *Code*. The drawings shall be reviewed by the *Designer* and applicable *GTAA stakeholders*.
 - ii. Hoarding shall be freestanding and shall not be fixed to the base building walls, floors, bulkheads, or ceilings. Hoarding shall be adequately braced (or engineered) to ensure structural stability. The *GTAA* (at its sole discretion) may request a professional engineer's seal and signature for the hoarding design (depending on complexity).
 - iii. Shall be designed to maintain the existing sprinkler coverage. Reflected ceiling and elevations or sections showing the locations of the existing sprinklers on both sides of the hoarding or barrier shall be provided to the *GTAA* for review prior to the start of the *Work*. Where the existing sprinkler coverage cannot be maintained on both sides of the hoarding or barrier, additional sprinklers shall be provided by the *Contractor* as required.
 - iv. Shall be inspected daily by the contractor to ensure that the finished hoarding or barrier is structurally sound, free of all splinters, nails, or other protruding hazards. Records of the daily inspections must be kept on site and available for review by CCPO or any representatives upon request.
 - v. Shall be dust-tight, secure, and where required by the type of *Construction*, soundproof, weather tight, and constructed to provide the required fire resistance rating.
 - vi. Shall extend from floor to ceiling (or minimum 2440 mm high) and be constructed with 92mm steel studs at 400mm spacing and with 13mm gypsum board on the public side. Hoarding and barriers shall be neatly constructed. Gypsum board shall be taped, filled, and painted (2 coats) white. Damage to hoarding and barriers shall be promptly repaired.
 - vii. Where hoarding locations cause an obstruction to the current sprinkler cover, additional sprinklers shall be installed, or other measures implemented that are acceptable to *GTAA* Fire Prevention.
 - viii. The opening between the top of the hoarding wall and the bulkhead or ceiling shall be covered with 6 mil fire/flame retardant polyethylene sheeting to prevent *Construction* dust from escaping the worksite. Only sheeting printed with the fire-retardant standard

shall be used and shall be stapled and taped neatly to the inside of the hoarding and to the underside of the bulkhead or ceiling.

- ix. Hoarding to have a 100mm vinyl or rubber base – light grey in color.
 - x. Graphics on hoarding or barriers must comply with the Toronto Pearson Hoarding Wrap Guidelines and will be subject to GTAA's Passenger Programs and Marketing Communications Group's prior approval.
 - xi. The *Contractor* shall provide painted lockable steel doors and frames painted white for required access to and egress from hoarded *Construction* areas. The *Contractor* shall provide door lock codes to the *CCPO*.
 - xii. Hoarding and barriers shall not impair required access to or egress from adjacent areas, and doors should swing into the *Construction* site whenever possible.
 - xiii. Where hoarding or barriers must be placed in front of fire alarm pull stations, fire hose cabinets or other life safety equipment requiring access, openings in hoarding shall be provided for access to such items with appropriate signage to indicate their location.
 - xiv. The *Contractor* shall remove all hoarding installed for their project once their *Construction* activities are completed. No hoarding shall be left in place unless a GTAA Group/Individual assumes full responsibility for it to remain for temporary use & then its removal by notifying *CCPO* and the applicable GTAA stakeholders who include Security, Operations, Maintenance, Architectural Services, and Engineering Data for their information and/or signoff as applicable. The responsible GTAA Group/Individual must also post their contact information on the hoarding before the *Contractor* hands the area over to them & before the *FAP* can be closed.
 - xv. When the hoarding or barrier is removed, any damage to the base *Building* walls, bulkheads, ceilings, and/or floors shall be repaired immediately by the *Contractor* or the GTAA Group/Individual who assumed full responsibility at their expense.
 - xvi. Tack (walk-off) mats shall be used at each entrance/exit to minimize dust outside the hoarding or barrier.
- b. Exterior Work Areas
- i. The *Contractor* shall be responsible for providing and maintaining all fencing.
 - ii. Exterior *Construction Places of Work* shall always be secured by a minimum 1.8m high sturdy fence. Where there is the potential for FOD or the migration of dusts, filter cloth shall be installed. The installation of the filter cloth must be done with consideration to the wind load being applied and must consider the manufacturer's requirements for securing the fence under load.
 - iii. Fencing shall have a locked, gated entry to prevent access by unauthorized *Person(s)* to the *Place of Work* located within the *Restricted Area* using a method as determined by the GTAA Corporate, Safety and Security Department.
 - iv. For large sites where fire trucks may need access, the minimum gate width must be at least 4 metres wide, and the lock chain links shall not exceed 3/8".
 - v. The *Contractor* shall supply adequate "No Trespassing" or other appropriate bilingual danger or warning signage and the *Contractor's* contact information, which shall be placed conspicuously on the perimeter fencing.
 - vi. The *Contractor* shall have available upon request copies of the fence cut sheet and a method of installation that complies with the manufacturer's requirements.

- vii. The *Contractor* shall provide sturdy fencing that is installed in compliance with the manufacturer's recommendations with bracing in place as necessary to withstand any *Airport* conditions.
 - viii. A fence inspection log will be kept and updated as required. Inspections shall also be conducted where practicable before an adverse weather event and/or when site conditions change. Fencing shall be inspected at least weekly or more frequently before and after an adverse weather event or when altered.
- 10 Where short duration *Work* is required, the *Contractor* shall:
- a. provide and use solid barriers to prevent the unauthorized access of any Person, and
 - b. bilingual signage advising persons of the hazard.

Where the short duration *Work* is at heights, the *Contractor* shall provide 'Danger' signage specifying an overhead hazard, spotter and barriers situated at least 4.5 m from the actual *Work*. Where a 4.5m distance cannot be maintained from the actual *Work*, additional barriers and spotters may be required.

7.6.7 Canvas/Tarpaulins

- 1 All canvas and tarpaulins used to enclose either interior and/or exterior *Building* areas shall be ULC Listed fire-resistant material with a Flame Spread Rating of 150 or less.
- 2 All canvas and tarpaulins shall always be adequately secured against wind gusts and tarpaulins installed in *Airside* areas must be secured for potential jet blasts. The *Airside Construction Coordinator* may be able to provide guidance on conditions that can be expected around the *Airport*.

7.6.8 Surface Penetrations

The *Contractor* shall establish and implement written procedures for all exterior & interior surface penetrations to ensure the safety of workers and avoid *Airport* operational impacts by preventing damage to critical infrastructure or services buried, within, embedded or underneath the ground or structure being penetrated.

7.6.8.1 *Airport Exterior Ground Surface Penetrations*

- 1 The *Contractor* shall utilize the *GTAA* Utility Locates Request Procedures to obtain & have in hand *GTAA* issued Utilities Locates before commencing *Construction* activities that penetrates any exterior ground surface. Refer to Subsection 7.7.3 of this *Code* which details the requirements of the *GTAA* Utilities Damage Prevention Program.
- 2 All surface penetrations shall have appropriate barriers and bilingual signage placed around them in all directions to prevent the unauthorized access of any *Person*. Trenches and excavations that require entry by authorized *Person(s)* shall have an engineered system to protect such authorized *Person(s)* as prescribed in *O. Reg. 213/91 Construction Projects*. Refer to Subsection 7.6.17 for Trenching and Excavation requirements.

7.6.8.2 **GTAA Buildings Interior Surface Penetrations – Coring, Drilling, Chipping, & Cutting**

- 1 *Contractors'* activities involving any interior surface penetrations (coring, drilling, chipping, or cutting) of any structural members including concrete floor slabs, concrete/block walls, concrete columns, etc., within any GTAA buildings or facilities must follow the specific requirements of the GTAA Surface Penetrations Guidelines (SPG) and utilize the Surface Penetration Checklist & Signoffs Form (SPCS) to ensure that the activities are properly planned, reviewed and the required signoffs are obtained before commencing the surface penetration activities..
- 2 The SPG details the roles and responsibilities of the *Project* owner, the *Contractor*, the *Project* or Independent Structural Engineer (SE) and/or the GTAA Designated Structural Engineer (DSE), the Independent Safety Compliance Consultants (ISCC), GTAA Engineering, and the CCPO. Refer to the SPG and the SPCS which are available on the CCPO web page: Refer to Link in Appendix A – Item #25
- 3 General guidelines for executing surface penetrations includes:
 - a. All surface penetration through any concrete floor, wall, or structure shall be kept to a minimum and shall be planned in accordance with the Surface Penetration Guidelines. **Where possible, installations shall utilize existing.**
 - b. Where any surface penetrations are planned, a structural assessment must be completed by the *Project* or a competent structural engineer. Further, where large numbers of surface penetration are planned, a sealed, signed and dated report of the findings shall be submitted to CCPO and GTAA Engineering & Architectural Services for review prior to any work proceeding.
 - c. Prior to any surface penetrations commencing, the *Contractor* must confirm that all applicable reviews have been completed, all applicable reports are available and that the SPCS form has been fully completed and signed by all the applicable parties including the *Contractor*, and CCPO's ISCC.
- 4 For coring activities within GTAA Buildings and Facilities where the public or *Airport* employees are present, the *Contractor* shall provide bilingual signage, barricades, and spotters at the level of coring and at the area below the core and will require a pre-start inspection and signoff by the ISCC before any coring commences.
- 5 The *Contractor* shall scan the area at all proposed surface penetration locations for obstructions that are embedded/surface mounted. The scanning should be carried out during the time when most services are active i.e., overnight

7.6.9 **Protection of Property and Work in Progress**

- 1 The *Contractor* shall take all necessary precautions for the safety of occupants and shall provide all reasonable protection to prevent damage, injury, or loss to:
 - a. any materials, equipment, systems, fixtures, and furnishings to be incorporated in the *Work*, whether in storage at the *Place of Work* or not, under the care, custody or control of the *Contractor*, and their subcontractors, and suppliers,
 - b. other property at the *Place of Work* or adjacent thereto, including but without limitation, lawns, walkways, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement during the *Work*, and
 - c. other *Contractors* contracted *Work* in the adjacent areas.

- 2 The *Contractor* shall give all notices and comply with all applicable laws, ordinances, codes, rules, regulations, and lawful orders of the *GTAA's* Insurer and any external authority bearing on the safety of property or its protection from damage, injury, or loss and further, shall cooperate and keep *Tenants*, the *GTAA* and other *Contractors* informed of all the *Contractor's* precautions for the protection of the respective property.
- 3 The *Contractor* shall be solely responsible for the design, installation, and maintenance of all temporary *Structures* such as, but without limitation to, all necessary fencing, bracing, framing and structures or structural elements to prevent the failure of materials or temporary *Facilities* required in the execution of the *Work* that could result in [adverse conditions including Airport operational delays](#), damage to property, or the injury or death of persons.
- 4 The *Contractor* shall take all reasonable precautions to ensure that no part of any *Structure* of any description is loaded beyond its rated bearing capacity.
- 5 The *Contractor* shall not permit open fires within any *Building* or any exterior area at the *Place of Work*. Refer to Article 7.6.2.4 of this *Code* for permitted open flame restrictions.

7.6.10 Access to Areas of Work

- 1 At the expense of the *Contractor*, all provisions for access to *Work* areas such as roads, bridges or culverts for drainage channels shall be installed, as may be necessary at locations authorized by the *CCPO*. All such temporary measures shall be removed by the *Contractor* to the extent required upon completion of the *Work*, to reinstate the area to its original condition if it is not part of the *Work* to do otherwise.
- 2 There may occasionally be the need for *Contractors* to access areas under a *Tenant's* control or area under *Construction* by *Contractors* working on other scopes of *Work*. Affected *Tenants* and *Contractors* shall fully cooperate and coordinate the *Work* with other *Projects* to the maximum extent possible to avoid or mitigate any delay or hindrance of *Work* activities by either party. Refer to Article 7.4.5.2 of this *Code*.
- 3 There may occasionally be the need for *GTAA* Maintenance Staff or *Contractors* to access areas under a *Contractor's* control or area under *Construction* for scheduled routine maintenance or emergency repairs. Affected *Contractors* shall fully cooperate and coordinate the *Work* with *GTAA* Maintenance to the maximum extent possible to avoid or mitigate any delay or hindrance of *Work* activities by either party. Refer to Article 7.4.5.2 of this *Code*.

7.6.11 No Smoking Policy

- 1 The *GTAA* has a policy of NO SMOKING or VAPING at the *Airport* except in designated areas subject to authorization by the *GTAA*.
- 2 Smoking or vaping is not permitted at the *Place of Work* or in areas of *Construction* access.
- 3 For specific requirements for *Airside* areas, refer to Article 8.3.1.5.

7.6.12 Confined Spaces

- 1 The *Contractor* shall establish and implement written procedures that conform to the requirements for confined space entry as per O. Reg. 632/05 Confined Spaces.

- 2 The *Contractor* shall conduct a full assessment of their Place of Work including the reassessment of any areas currently designated as a confined space.
- 3 The *Contractor* shall identify where their *Work* could create a confined space as defined by the applicable regulations.
- 4 The *Contractor* shall establish and implement *Work* site-specific procedures for confined space assessment, monitoring, entry, *Work*, and rescue.
- 5 All *Persons* supervising, entering, monitoring, attending, or providing rescue from a confined space shall possess a valid Record of Training by a qualified confined space training provider.

7.6.13 Working at Heights

- 1 General Requirements
 - a. The *Contractor shall establish and implement* procedures that address working at heights.
- 2 Fall Protection
 - a. The *Contractor* shall establish and implement a written safe work procedure to identify all potential fall hazards and the methods of fall protection with fall prevention and/or fall arrest measures to be provided to protect all *Persons* who may be exposed to a fall hazard.
 - b. All *Construction* personnel who may be exposed to a fall hazard must possess a valid Record of Training (ROT) complete with work-specific fall prevention procedures detailing the use, inspection, maintenance and limitations of equipment and the rescue procedure to be followed.
 - c. The fall prevention procedure shall address as a minimum and at each stage of the *Work*:
 - i. guardrails/handrails (location, type, required rating, inspection, and maintenance),
 - ii. floor coverings (location, type, required rating, inspection, and maintenance),
 - iii. travel restraint (location, type, personal protective equipment, approved anchor points),
 - iv. personal protective equipment (type, inspection, maintenance, and limitations), and
 - v. barriers and signage.
 - d. The fall arrest procedure shall address at a minimum and at each stage of the *Work*:
 - i. fall restraint (location, type, personal protective equipment, approved anchor points),
 - ii. fall arrest (location, type, personal protective equipment, approved anchor points),
 - iii. personal protective equipment (type, inspection, maintenance, and limitations), and
 - iv. rescue procedure.
- 3 Ladders, Scaffolds and Work Platforms
 - a. The *Contractor* must establish and implement written procedures that address the selection, design, use, maintenance and inspections of ladders, scaffolds, and work platforms.
 - b. All scaffolding and work platforms shall have a visible identification system that denotes whether they are safe to use for the current work shift.

- c. Where frequent access or *emergency* egress is required to a *Work* area above or below ground scaffold stairs shall be provided and must be detailed as part of the Project-Specific Safety Plan (PSSP).
- 4 Falling Materials
- a. The *Contractor* must establish and implement written procedures to prevent equipment, materials, or tools from falling.
 - b. Where *Work* is performed adjacent to or above a public thoroughfare or access to the *Place of Work*, overhead protection shall be provided.
- 5 Roof Access
- a. *Contractors* must establish and implement procedures to restrict, control and monitor access to roof areas.
 - b. Access to *roof areas in all GTAA buildings* is restricted. *Contractors* must obtain a Roof Access Permit. Roof Access request can be submitted on-line. [Refer to Link in Appendix A – Item #9.](#)
 - c. Roof Access requests must include a Roof Work Procedure that addresses:
 - i. Access Point and Method (provide visual aid),
 - ii. Fall Protection Plan (fall prevention or fall arrest),
 - iii. Confirmation of *GTAA* anchorage point use,
 - iv. Records of Training, and
 - v. Emergency Plan
 - vi. [Scope of Work,](#)
 - vii. [Identify the materials and equipment required, and](#)
 - viii. [Identify the method\(s\) for transporting materials and equipment to the work area.](#)
- 6 Floor and Roof Openings
- a. [All floor and roof openings shall be protected to prevent a worker from falling through. The opening shall be adequately guarded or covered per O. Reg. 213/91, s. 26.3\(2\).](#)
 - b. [A worker must be adequately protected and warning signs posted if any guards or coverings are removed by the Contractor to complete work within their scope. These guards or coverings must be replaced immediately upon completion of the activity.](#)
 - c. [If the guards or coverings cannot be replaced \(i.e., prior to break\), a worker must be left in charge of the work area until adequate controls have been implemented.](#)

7.6.14 Material Handling Safety

- 1 Asbestos Containing Material
 - a. Where removal of Asbestos-Containing Material (ACM) forms part of the *Construction*, the *Contractor* shall follow [all regulatory requirements and submit a plan of how the substance will be managed, removed and disposed of to Environmental Services.](#)

- b. Where ACM is disturbed due to *Construction*, the existing protocol for “Asbestos Incident Response Procedures” as outlined in the Environmental Emergency Contingency Plan [Section 3.5](#).
 - c. If ACM is unexpectedly found to be present at the *Place of Work*, all *Work* shall stop within the room or floor area where the ACM is found, and the affected area cordoned off by a barricade until appropriate authorities are notified.
- 2 Workplace Hazardous Materials Information System (WHMIS)
- a. The *Contractor* shall comply with requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials, and regarding labelling and provision of material safety data sheets (WHMIS).
 - b. Maintain copies of the Safety Data Sheets (SDS) or the former Material Safety Data Sheets (MSDS) at the *Place of Work* readily available for review by workers, emergency personnel, and the *ISCC*.
 - c. Hazard-specific procedures must be established for the use, handling, storage, and disposal of hazardous materials.
 - d. All *Persons* at a *Place of Work* must have a valid Record of Training for WHMIS that has been updated or reviewed within the previous 12 months.
- 3 Air Quality
- a. The *Contractor* shall establish and implement procedures to eliminate or control the generation of dusts, mists, fumes, vapours, smoke, and offensive odours created by their *Work*.
 - b. The *Contractor* shall monitor and document oxygen levels as well as the levels of potential airborne contaminants to ensure they do not exceed acceptable limits.
 - c. The Project-Specific Safety Plan (PSSP) should include *Competent Worker* and procedures for testing and maintaining records.
- 4 Lighting
- a. The *Contractor* shall always maintain adequate lighting for the *Work* in progress. *Contractors* may be required to provide additional task lighting depending on the nature of the *Work*.
- 5 Storage and Laydown of Materials and Equipment
- a. The *Contractor’s* Mobilization Plan should clearly identify material and equipment laydown areas. The location of these areas must be reviewed and authorized by the applicable *Airport Construction Coordinator* through an Activity Notice. Refer to Appendix A for applicable links.
 - b. All material and equipment laydown areas must have appropriate barriers and a copy of the *FAP* Placard posted to identify the *Contractor* and the supervisor’s contact information.
 - c. Materials and equipment must be maintained within the barriers and not become a hazard to the public or the occupants.
- 6 Equipment, Tools, and Machinery
- a. The *Contractor* shall establish and implement a procedure to ensure that all equipment, tools and machinery are inspected and certified as required by a *Competent Person* prior to arrival at the *Place of Work* and by the operator prior to each use. The procedure must be accompanied by:

- i. applicable manufacturers' specifications,
- ii. Engineers' drawings and specifications,
- iii. logbooks,
- iv. operator's manuals,
- v. other safe operating instructions applicable to the equipment or machinery, and
- vi. Lockout procedures.

Such documentation shall be maintained at the *Place of Work*.

- b. All *Persons* operating equipment, tools or machinery shall have readily available a valid Record of Training (ROT) as required for the equipment, tools and machinery used and particular to the manufacturer and model if requested. All persons providing rigging for or signalling for a crane must have a ROT.
 - c. All mobile equipment being used within *Terminal* areas must come equipped with:
 - i. signage clearly identifying the owner of the equipment along with contact information,
 - ii. non-marking wheels and/or wheel covers,
 - iii. drip containment absorbent pads, and
 - iv. must have a locking mechanism which shall be incorporated to avoid unauthorized use by others when the equipment is being stored and not in use by the owner.
- 7 Use of Crane and Aerial Devices
- a. The *Contractor* shall establish and implement written procedures that address the use of cranes and aerial devices. Procedures must consider the ground conditions and address the protection of the crane swing zone and lift area.
 - b. The *Contractor* shall develop a Critical Lift plan for all hoisting over 75% of crane capacity or requiring the use of multiple cranes. The Critical Lift plan must be reviewed by a *Professional Engineer*.
 - c. All cranes and aerial devices on *Airport Lands* and near the *Airport* shall be authorized in advance by *Aviation Programs and Coordination* for specific requirements and scheduling of their use. *Contractors* shall allow at least 10 working days notice to obtain such authorization. The Cranes and Aerial Devices permit request form available on-line. [Refer to Link in Appendix A – Item #3.](#)
 - d. If possible, *Aviation Programs and Coordination* may accept a minimum of 72 hours notice, provided the conditions for the equipment use are not complex and do not involve other authorizing agencies.
 - e. Further to Sentences c) and d) above, each crane use request is assessed for compliance with the Obstruction Limitation Surface (OLS). The *GTAA* may also request [the Contractor complies with the requirements and approvals](#) from Transport Canada and Nav Canada. Jointly, certain restrictions may be stated regarding dates, times, and height so that the lift(s) can proceed with the least impact on aeronautical operations.
 - f. Information to be provided with each crane request includes:
 - i. location of each crane,
 - ii. maximum height of each crane projection above ground elevation using "Above Sea Level",
 - iii. maximum horizontal turning arc of crane boom,

- iv. date(s), time(s) and duration(s) of lift, and
 - v. contact name and cell phone number of the *Person* directing the crane operation at the *Place of Work*.
- g. Once the crane use is authorized, the crane operator will be issued written notice with specific conditions from the GTAA to commence operating the crane. All requirements and restrictions stated in the notice shall be followed without exception, including the *Airport Operations Centre (AOC)* being contacted prior to starting the *Work*, and again upon its completion.
 - h. Whether on *Airport Lands* or not, a violation of Airport Zoning Regulations is a federal offence, and *Persons* may be subject to arrest, fines, and/or imprisonment on summary conviction.
 - i. Crane operations are monitored, and *Persons* found not complying with the above requirements will be ordered to take down the crane. *Contractors* working on *Airport Lands* may be subject to being removed from the *Airport* after a first offence.

8 Traffic Control

- a. All temporary traffic or lane closures must at minimum meet the Ontario Traffic Manual (Book 7) requirements. The GTAA retains the right to request augmented traffic controls to suit the circumstance. Depending on the complexity of the temporary requirements, a Traffic Protection Plan *designed by a Professional Engineer* may be requested.
- b. The *Contractor* shall establish and implement a Traffic Protection Plan to ensure that all equipment and vehicles are operated in a safe manner at the *Place of Work*, and any other area associated with the *Work* as part of the Project-Specific Safety Plan (PSSP). The plan shall:
 - i. minimize the backing up at the *Place of Work*,
 - ii. identify overhead or other hazards,
 - iii. ensure adequate delineation and signage,
 - iv. ensure safe access and egress from the *Place of Work*,
 - v. ensure vehicles are equipped with the appropriate protective and warning devices,
 - vi. ensure traffic control/signal persons have the appropriate equipment and are trained, and
 - vii. address pedestrian traffic routes to minimize the interaction between construction workers, materials, and equipment with the public and occupants.
 - viii. provide a plan layout in a visual format illustrating the applicable controls, and
 - ix. written instructions with respect to setting up and removing the traffic control measures.

Work on or adjacent to an internal or external roadway (i.e. parking garages, baggage roadways, ramp areas, etc.) will at minimum require delineation by flexible drums (TC-54 barrels).

- c. All persons operating vehicles shall have a valid driver's license or certification for the type of vehicle operated.
- d. All *Persons* providing traffic control or signalling of vehicles or cranes must have readily available a valid ROT and must understand the *Work* site-specific procedures.
- e. The *Contractor* will submit the project Traffic Protection Plan with the Activity Notice request with copy to the CCPO. Obstruction of any *Airport* traffic lane or any interruption of roadway traffic for any duration because of *Work* shall be authorized by the GTAA as notified by the *Airport Construction Coordinator* through the approved *Activity Notice*. Provision of and payment for any

special services required by the Traffic Protection Plan that may be required shall be the responsibility of the *Contractor*.

- f. Existing traffic control systems such as street signs, traffic signals, traffic lane markings and any other equipment or facilities that aid in the control of traffic shall be protected. The *Contractor* shall be liable for any damage to these systems or any injury or damages to *Persons* and property, which might result from failures in the traffic control system caused by the *Contractor's* operations.

9 Equipment, Tools, and Material Movement

- a. The *Contractor* shall establish and implement a procedure for the movement of equipment, tools, and materials. This procedure shall include:
 - i. Use of spotters,
 - ii. Route selection to minimize exposure to the public, and
 - iii. Scheduling during non-peak passenger travel times.
- b. Carts, buggies, or similar devices shall be designed and rated for the weight capacity and stability of the intended load.
- c. The contents of the cart, buggy or similar device shall be maintained within the device and covered.
- d. Fully loaded carts, buggies, and other similar devices shall consider the floor and slab loading to ensure structure and finishes are not affected, including floors, elevators, roofs, and apron areas. *Building Finishes shall be protected.*

7.6.15 Energy Control

1 Electrical Safety

- a. The *Contractor* shall establish and implement electrical safety procedures relevant to the *Work* or *Place of Work*. These procedures must address considerations such as:
 - i. clearance and identification of overhead power lines,
 - ii. *Work* near live electrical conductors,
 - iii. arc flash protection, and
 - iv. access to electrical rooms, vaults, or utilidors.
- b. All electrical tools, appliances and extension cords shall be CSA approved, and suited for their intended purpose.
- c. Ground fault circuit interrupters (GFCI) shall be provided for all electrical equipment and tools used outdoors or in damp atmospheres.
- d. Electrical appliances, tools and equipment shall be disconnected when not in use.
- e. All contracted *Work*-related wiring and equipment for lighting, heat or power shall be in accordance with the Canadian Electrical Code and inspected by the Electrical Safety Authority.
- f. When a *Tenant* moves out of a space an outgoing inspection will be required to ensure the safety of all electrical connections.
- g. No open wiring shall be present at the *Place of Work*. Wires must be capped with marottes, taped, and enclosed within a secured junction box complete with a cover.

2 Energy Control and Lockout Procedures

- a. Lockout requirements come into effect when a system or pieces of equipment represent a potential hazard to life and/or property, and apply to the following energy sources:
 - i. electricity,
 - ii. pneumatics,
 - iii. hydraulics,
 - iv. steam,
 - v. pressure pipelines,
 - vi. pressure vessels,
 - vii. gravity, and
 - viii. residual energy.

3 Lockout Procedures

- a. The *Contractor* shall establish and implement a *Work* specific lockout procedure to ensure the safety of its workers, all *Persons* affected by the *Work* and protection of equipment and installations.
- b. Procedures must be reviewed by the *GTAA*, prior to use, where the *Work* will affect operating systems. The *Contractor* shall submit a *Construction* activity request to the [Maintenance Operations Center \(MOC\)](#). Refer to Section 7.7.
- c. Procedures must comply with applicable regulations and standards including CSA–Z460-13; Control of Hazardous Energy-Lockout and Other Methods.
- d. Procedures must contain as a minimum, the concepts of; Isolate-Lock-Tag-Test; “First lock on - Last lock off”; and every worker affected by the energy source; must utilize a lock and tag to control the energy source.
- e. [Lock out of the airfield electrical equipment will require approval and review from the Airfield Electrical Maintenance department and/or may involve specific Shutdown Guarantees.](#)

7.6.16 Enclosed Spaces

- 1 The *Contractor* shall be responsible for assessing and documenting the condition of any enclosed ceiling or wall spaces before any worker enters these areas to perform *Work*. Refer to Subsection 7.2.2 for reporting *Unsafe Conditions*, *Near Misses* and *Incidents*.
- 2 Any unsafe conditions found within these spaces must be addressed prior to the performance of any *Work*.

7.6.17 Trenching and Excavations

- 1 The *Contractor* shall establish and implement written procedures for trenching and excavation to ensure the safety of its workers, and all *Persons* affected by the *Work*.
- 2 Every trench or excavation must be adequately protected to prevent any unauthorized or inadvertent entry by persons, equipment, machinery, or vehicles.
- 3 Trenches and excavations that require entry by authorized *Person(s)* shall have an engineered system to protect such authorized *Person(s)* as prescribed by O. Reg. 213/91 Construction Projects.

7.7 Airport Systems Disruptions

7.7.1 General

7.7.1.1 Application

- 1 The following procedures to perform a shut-down as part of the *Work* apply only to *Airport* systems controlled and monitored by the *GTAA*, and to *Tenant* systems that would affect, impair, or otherwise disrupt *GTAA* systems in any way.
- 2 The following *Airport* systems for which the shut-down procedures apply include:
 - a. HVAC, plumbing, sprinkler and standpipe, fire alarm, access control, communication, baggage handling, aircraft bridges, elevator/escalator/moving walkway/Automated People Mover (APM)/UP Express, power supply, lighting, aircraft fuelling, gas, water, and fire main, storm and sewage systems.
- 3 *Work* requiring modifications and/or additions to *GTAA* systems and requiring shut-down procedures shall perform the following steps before starting such *Construction*:
 - a. The *Contractor* shall have a valid *Facility Alteration Permit (FAP)* with a valid expiry date to cover all activities required to fully complete all *Work*.
 - b. The *Contractor* shall notify the Maintenance Technical Center at least five business days in advance of the *Work* and request specific assistance to perform the required actions by the *GTAA*.
 - c. The *Contractor* shall provide at this time, the system, the type of action needed, location(s) of the *Work*, the purpose, date, and time required, duration and name of requesting *Contractor*.
 - d. The *Contractor* shall be responsible to protect, relocate if required, and maintain existing active services when encountered. Inactive services shall be capped off and/or removed as determined as part of the requirements and design for the *Work*. Permission to perform such *Work* shall be obtained from the *GTAA* by confirming a system shutdown authorization prior to commencement.
- 4 At the end of each shift, all life safety building systems are required to be reinstated until the start of subsequent shifts on the system whereby another shutdown may be required as part of the original request.
- 5 At the completion of the modification or additions to the *Building* system(s) the *Contractor* shall notify the Maintenance Technical Center to reactivate the system(s) to allow for testing and verification of system(s) provided by the *Contractor*.
- 6 At the end of a shut-down if there are any possible or known impacts to the security system as determined by the *GTAA* Security Operations Centre the *Contractor* must arrange and provide for any mitigations or measures which may include guards, equipment or other necessary methods until the system is back up and running.

7.7.1.2 **Systems Shut-down Procedure**

- 1 *Contractors* requiring shutdowns of major systems, shall complete and submit a Construction Activity Request to the Maintenance Technical Center at least 5 business days in advance of the required shut-down. The Construction Activity Request Form available on-line. [Refer to Link in Appendix A – Item #1.](#) Status enquiries for submitted requests should be forwarded to: Maintenance.Planning@gtaa.com.
- 2 No shut-down shall commence until the request has been authorized by the GTAA.
- 3 On the day of the required shut-down, the *Contractor* shall report to the Maintenance Technical Center prior to commencing *Work*, to discuss the necessary arrangements for system shut down and start up with respect to the *Contractor's Work*. The *Contractor* shall identify the nature of the *Work*, expected duration, and exact location. The *Contractor* shall identify all personnel to be involved in the *Work*, and where the *Work* is in the *Restricted/Critical Area* such personnel shall produce for verification the required *RAIC* and escort and surveillance provisions.
- 4 The *Contractor* making the request shall not leave the *Place of Work* until the system has been put back in service which must be confirmed by the GTAA.

7.7.2 **Fire Protection System Shutdowns**

- 1 No fire protection impairment due to the *Work* shall take place in any *Building* unless a minimum of 72 hours advanced notice is given to *F&ES*. Where shut-down of fire protection systems is unavoidable, refer to Article 7.7.1.2 for systems shut-down procedures.
- 2 For suppression system shutdowns (sprinklers, etc.), isolation valves must be locked out & tagged (LOTO) by GTAA & the *Contractor*. *Contractors* must add their own locks on the system isolation valves. A LOTO station has been installed in the Sprinkler Fitter lock up area in the Terminal 1 Trade shop where the chains, gang hasps and tags can be obtained/signed out for suppression system shutdowns. *Contractors/Project Managers* are to coordinate with Terminal Infrastructure team on this requirement.
- 3 A LOTO station has been installed in the Sprinkler Fitter lock up area in the Terminal 1 Trade shop where the chains, gang hasps and tags can be obtained/signed out for suppression system shutdowns. *Contractors/PMs* are to coordinate with Terminal Infrastructure team on this requirement.
- 4 Fire protection impairments in existing *Buildings* will require that a fire watch be provided in compliance with Article 7.6.2.2 of this *Code* at the expense of the *Contractor* for the full-time duration of the impairment. The preservation of existing fire protection systems or an equivalent thereof, is essential during all phases of the *Work* in occupied *Buildings*.
- 5 Expenses for false alarms, caused by any *Contractor Work* activity after failing to perform the above procedure, may be charged to the *Contractor* by the GTAA.

7.7.3 **Utility Damage Prevention Program**

7.7.3.1 **Scope**

- 1 The *Construction Compliance & Permits Office (CCPO)* has implemented a Utility Damage Prevention Program with an established set of policies and procedures to oversee safe ground

surface penetrations practices and methods to avoid damage to buried utilities on or near the *Airport Lands*.

- 2 Each excavating *Contractor* must obtain and provide to the equipment operator locates for all utilities within, and adjacent to the *Place of Work* involving any ground penetration per O. Reg. 213/91 section 228.
- 3 The *GTAA* maintains a zero-tolerance policy for damages to utilities caused by any *Person* engaged in *Work on Airport Lands*. The *Contractor* will be held responsible for all costs associated with the immediate repairs of all damages to the *GTAA*'s satisfaction.
- 4 The *GTAA* provides the services of a *Dedicated Locates Contractor (DLC)* who provides project *Contractors* the locates for *GTAA* buried utilities. The *DLC* is engaged through notifications by the email address locates@gtaa.com. Additionally, *Contractors* are required to engage PIFFC to acquire fuel line and equipment locates through notification by their email address locates@fsmgroup.ca.
- 5 The *GTAA* does not guarantee the validity of information provided for the locations of any utilities, whether such information is provided by the *GTAA* or other utility owner sources.
- 6 *GTAA*'s requirements for any ground penetrations and utility protection requires that all *Contractors* use non-destructive methods when within one metre of utilities or where the location of a utility is not known.
- 7 Utility damages resulting from *Contractor Work* must be reported to the *Airport Operations Centre (AOC)* and the *CCPO* and must be fully restored to original conditions by the *Contractor* at their expense. Such *Incidents* shall be subject to a investigation by the *GTAA* and the *Contractor* responsible may be subject to additional costs for operational impact, as determined by the *GTAA*. Refer to Subsection 7.2.4. of this *Code*.
- 8 All repairs made to damaged utilities must be completed to *GTAA* standards, and all information regarding the repair must be fully documented and submitted to the *CCPO*.
- 9 The planning or *Design* of a *Project* that involves any ground penetration must include a subsurface utility engineering (SUE) survey. The *Project* will be responsible for all costs associated with obtaining the services of a reputable utility locator to help with the SUE survey to locate all subsurface utilities prior to finalizing the *Design*.

7.7.3.2 **Roles and Responsibilities**

- 1 The *DLC* is responsible for providing visual markings and stakes to locate all utilities owned by the *GTAA* that may be impacted by *Work* involving any ground surface penetrations.
- 2 The *DLC* is responsible for locating only those utilities for which the *GTAA* has provided information records that indicate the existence and approximate location of each utility and that are possible to locate using current instrumentation. Non-metallic pipes and fibre-optic cables, unless installed with a copper trace wire, cannot be located.
- 3 Where any ground penetration takes place beyond or adjacent to the boundaries of the *Airport Lands*, Ontario One Call Ltd. provides notifications to its participating members to initiate locating their utilities at the peripheral areas of the *Airport*. It is the responsibility of the *Person* requiring utility locates to contact all other utility owners suspected of being in the area(s) of soil disturbance to obtain required locates prior to digging. Neither the *GTAA* nor Ontario One Call

Ltd. are responsible for conducting such contact on behalf of any *Person* performing any ground penetrations.

- 4 The *GTAA* is responsible for initially locating and physically marking its own utilities for *Contractors* performing the soil disturbance. The subsequent loss or destruction and time lapsing beyond 30 days of such placed markings by any *Contractor* working in the area(s) of soil disturbance will be the responsibility of such *Contractor* to contact the *DLC* directly to have the markings restored where they are required again.
- 5 *Contractors* must notify the *DLC* prior to commencing any subsurface utility engineering (SUE).
- 6 *Contractors* engaged in *Work* involving ground penetration on *Airport Lands* are responsible for obtaining Utility Locates Report from the *DLC* and PIFFC Locator prior to penetrating the surface and abiding by the policies and procedures related to soil disturbance.

7.7.3.3 **Utility Locates Procedures**

- 1 Utility locate requests shall be submitted by email by the excavating *Contractor* directly at least 5 business days in advance of commencing any surface penetrations when the location of the *Work* is identified as “at or near Toronto Pearson Airport”. Requests are submitted by sending one email addressed to locates@gtaa.com, locates@fsmgroup.ca, and constructioncompliance@gtaa.com that includes the following:
 - a. *Facility Alteration Permit (FAP)* number,
 - b. Contact Person Name and Contact Information,
 - c. Full Address of the Requesting Company, and
 - d. Location of *Work* (include drawing of the area).
- 2 When the *DLC* has completed the locates, the *DLC* will meet with the excavating *Contractor* and *Project Constructor* (as applicable) to explain the content of the locate document and review the specific safe practices required for each area marked. The requesting *Contractor* will receive a copy of the locate document following the issuance of the *FAP* (orange placard).
- 3 A meeting place and time with the *DLC* shall be requested that is closest to the area of soil disturbance. This meeting will facilitate the sharing of information and does not imply that locates will be performed at that time.
- 4 Unless otherwise determined by the *DLC*, *Contractors* shall use hydro-vacuum equipment to expose all underground utilities below and crossing points to be excavated.
- 5 *Contractors* shall maintain the continuous operation of all utilities and care of *Structures* identified by visual markings and adequately protect them from damage.
- 6 Where buried utilities or *Structures* are encountered during excavating that were not known or shown to exist, the *DLC* shall be contacted to review the site. *Engineering and Architectural Services (EAS)* and the *CCPO* may become involved to provide direction for removing or rerouting such utilities.
- 7 Where the relocation or removal of a conflicting utility or *Structure* is required, a change of scope to the *FAP* shall be submitted to the *CCPO* with supporting information for review prior to any physical action taken by the *Contractor*.
- 8 It is the responsibility of *Contractors* to record the location or relocation of such utilities and *Structures* and provide them to the *CCPO* when requested to do so.

- 9 Any damage to utilities and *Structures* shall be reported immediately to the *Airport Operations Centre (AOC)* **416-776-3055** and the *CCPO*. Refer to Subsections 7.2.3 & 7.2.5 for additional requirements.

7.7.3.4 **Confidentiality of Information**

- 1 All information concerning *Airport* utilities that is shared with *Contractors* and their employees for the purposes of *Work* is strictly confidential and shall not be reproduced, communicated, or transmitted to any *Person* not involved in the *Work*. The *GTAA* retains ownership of all Utility Locates Reports and any supplemental information and may request their return at any time during *Construction*. Upon completion of the *Construction*, or when requested by the *DLC*, all *Persons* in possession of Utility Locates information provided by the *GTAA* must return all such information to the *CCPO*.

7.7.3.5 **Utility Information Mapping**

- 1 As part of the Utility Damage Prevention Program the *GTAA* is committed to maintaining current and accurate location records for its buried utilities as a means of preventing damage while working on or around buried utilities.
- 2 It is the responsibility of all *Contractors* installing buried utilities to ensure that accurate horizontal and vertical control dimensions, taken at turning points, intersections, and termination points, are completed as part of the *As-Built Document* requirements of the *Facility Alteration Permit*.
- 3 As part of the utility inspection requirements carried out by the *CCPO*, routine auditing of required control dimensions may be completed by the *DLC* to verify the accuracy and completion by the *Contractor* of *As-Built Documents* to be submitted.
- 4 *Contractors* are required to have available at the *Place of Work* the drawings used for compiling the *As-Built Documents* of all buried utilities complete with field notes and location dimensions taken of the final installations. *Contractors* shall submit a copy of the *As-Built Documents* to the *CCPO* immediately upon completion of the installation.
- 5 Failure to provide such information to the *CCPO* when requested may result in an order being issued to have any part of the installation uncovered at the cost of the *Contractor* to verify horizontal and vertical control dimensions as well as to inspect the quality of *Work*.
- 6 After laying down any underground utility installations, the *CCPO* shall inspect and record the installations for this stage by taking photographs and using other recording methods where necessary for obtaining current technical data base information and assessing the quality and compliance of the installation.
- 7 Before backfilling, the *Contractor* is required to perform by a registered Ontario Land Surveyor, a survey of the buried installations in the open trench with an accuracy of ± 10 mm using the *Airport* geo-referenced coordinates and prepare drawings as part of the *As-Built Documents* required under Part 9 of this *Code*. Prior to completing such *Work*, the installation is subject to the audit requirements of Section 5.8 of this *Code*.
- 8 Legal survey information shall include location dimensions, geodetic elevations, size(s) and type of material. Drawings showing all survey and utility information shall be submitted as part of the *Project* close-out documentation provided by the *Contractor*.

- 9 All *As-Built Drawings* are to be compiled and digitized in CADD format complying with the *GTAA CADD Standards Guide* and submitted to the *GTAA* as part of the required final *Record Drawings*.
- 10 As a coordinated function to the above, *Contractors* are required to notify the *CCPO* at least two business days in advance of the readiness of the *Work* for inspection by the *GTAA Inspector* prior to covering.

7.7.3.6 **X-Ray and Scanning Detection**

- 1 *Contractors* performing x-raying or scanning of embedded services and reinforcing within or below concrete structures shall notify the *CCPO* 72 hours in advance of performing such *Work*.
- 2 X-ray and scanning detection activities as well as subsequent coring, cutting and chipping operations shall be carried out in compliance with *GTAA's* Surface Penetration Guidelines and in accordance the *Contractor's* Project-Specific Safety Plan (PSSP) as submitted to the *CCPO* for the issuance of their *FAP*.
- 3 Adequate safety procedures shall be taken by the *Contractor* while using this equipment ensuring that no *Person* is above, below or nearby any area, including ceiling spaces, where and when this equipment is in operation. Refer to O. Reg. 861 X-Ray Safety.
- 4 Costs associated with this activity, including the provision of *GTAA* approved security guards at the perimeter of affected areas, shall be the responsibility of the *Contractor*.
- 5 A digital copy of all scanning reports, engineers' reviews, and coring sign-off reviews shall be included with all other required *FAP* closeout & occupancy documentation submitted to the *CCPO* upon completion of the *Work*.
- 6 Refer to Subsection 7.6.8 for additional requirements for surface penetrations of concrete floor slabs within the *Terminals*.

7.8 Movement of Equipment and Materials

7.8.1 Groundside Parking and Deliveries Permits at Terminals

- 1 *Contractors* shall coordinate their parking and delivery requirements for *Work* within *Terminals* with *Groundside Transportation Services*. In general, parking allocation will not be provided or authorized by the *GTAA* without prior approval.
- 2 A minimum of 72 hours notice is required but longer notice may assure parking assignment more closely situated to the *Work* area access.
- 3 *Contractor* material and equipment deliveries at the *Terminal* curbs are reviewed on a case-by-case basis.
- 4 Only clearly marked vehicles from the following groups are authorized to park at *Terminal* curbs when, they are responding to an *Emergency* or operational *Incident* and alternate arrangements cannot be readily made:
 - a. Police
 - b. *GTAA* K9 Unit
 - c. *GTAA* Security
 - d. *GTAA* Groundside Transportation

- e. GTAA Terminal Operations
 - f. GTAA Duty Managers
 - g. GTAA and Mississauga Fire and Emergency Services
 - h. Emergency Medical Services
- 5 Other *Airport Areas* have specific vehicle usage requirements depending on the area, residing operations, and varying conditions from time to time. *Groundside Transportation Services* may need to review *Contractor* parking and delivery requirements prior to starting *Work* for special operations during *Work*.
 - 6 There are controlled area parking lots near the *Terminals* where parking may be authorized for companies and individuals that can demonstrate a valid operational need that cannot be properly accommodated through public parking areas.
 - 7 Controlled area parking permits may be authorized upon application and on a case-by-case basis. Applications and terms and conditions for these permits may be obtained from *Groundside Transportation Services*.

7.8.2 Delivery of Equipment and Materials

7.8.2.1 Logistics Program

- 1 *Contractor Work* areas not within a *Terminal*, which can be established as entirely *Groundside*, are subject to the delivery requirements of *Groundside Transportation Services*.
- 2 *Contractor Work* areas not within a *Terminal*, which are *Airside*, are not subject to the delivery requirements of *Groundside Transportation Services* but are subject to the RAIC and escort provisions under Part 6 of this *Code*.
- 3 *Contractors* shall advise the *Airside Construction Coordinator* and the *GTAA Project Manager* or *Contract Administrator* (where one is engaged) if additional coordination is required beyond the approved Permit or *Activity Notice* in advance of all *Airside* deliveries of equipment and materials.
- 4 Under no circumstances shall *Contractor* equipment or vehicles be permitted *Airside* without a proper escort, all of which are subject to AVOP regulations detailed in Section 8.2 of this *Code*.

7.8.2.2 Contractor Responsibilities

- 1 *Contractors* requiring deliveries of materials and/or equipment to a *Terminal* shall schedule such deliveries to neither delay the progress of the *Work* nor cause unnecessary accumulation of material for later use.
- 2 *Contractors* shall follow the GTAA Material Movements Process for all material movement in the *Terminals*. The Material Movements Form available on-line [Refer to Link in Appendix A – Item #8](#).
- 3 *Contractors* wishing to schedule deliveries of materials and/or equipment through the Logistics Service Provider may do so by scheduling such deliveries directly with the Logistics Service Provider. Such deliveries are subject to the availability of the Logistics Service Provider.

- 4 Where stockpiling of materials or storage of any *Work* equipment is required within *Land Parcels*, the location shall be assessed by the *GTAA* and included in the Project-Specific Safety Plan (PSSP).
- 5 Storage of materials [within buildings and/or outside areas](#) will be limited to strictly defined *Contractor* staging areas as established by the [applicable Construction Coordinators \(Airside, Groundside &/or Terminals\)](#) where specified as a requirement or a condition of the FAP.
- 6 The *Contractor* shall take all necessary precautions to ensure materials and debris are protected from wind and do not become airborne *FOD*.
- 7 *Contractors* will be required to develop a site-specific Traffic Control and/or Material Delivery Plan for all *Terminal Airside* and *Groundside* deliveries, and this plan must be submitted with the Activity Notice Request Form. Refer to 7.6.14.5 Storage and Laydown of Materials and Equipment.
- 8 Prior to the parking of any equipment and/or storage of materials within the *Terminals*, the area must be reviewed and authorized by *Terminal Operations* or the *Terminal Activity Coordinator* through an *Activity Notice*. Once approved, the *Contractor* must have each piece of equipment and/or stored materials clearly labeled and identified with the *Contractor's* company name and a 24-hour contact name and phone number.

7.8.2.3 **Protection of Buildings and Property**

- 1 *Terminal* passenger elevators shall not be used for the removal of *Construction* debris or the delivery of equipment or materials unless permitted by the *GTAA* and adequate provisions and protection of the elevator are assumed by the *Contractor*. Designated freight elevators may be provided for this purpose during off-hours, arranged with the *GTAA* in advance. Handcarts used for material deliveries must conform to the requirements of the Logistics Program. No handcarts, dollies or similar devices shall be permitted on escalators and moving walkways. [Contractors will be responsible for all costs to repair all damage caused by their non-compliance.](#)
- 2 Adequate protection of floor and wall finishes and all existing installations during the transportation of materials to access the *Place of Work* is required. Floor surfaces and pediments shall be protected by acceptable methods for distributing the loads of heavy transported materials and equipment. No hard-wheeled carts/buggies are permitted on the *Terminal* surfaces and either white rubber or socked tires must be used.
- 3 Acceptable soft-wheeled carts or buggies shall be checked before each use to remove any embedded hard contaminants (stones, metal, etc.) from the wheels.
- 4 Any marking or damage to *GTAA* property will be the responsibility of the *Contractor* to clean, repair, refurbish, and/or replace at its expense.
- 5 Where the *Work* impacts existing *Building Spaces*, advertising placements, signage, telephones, and *Tenant* facilities, whether located inside the *Place of Work* or not, a minimum of forty (40) days' notice shall be provided to Commercial and Business Partnerships and Real Estate Development.
- 6 All salvageable *Building* components, equipment and other material removed as part of demolition requirements of the *Construction* shall be provided to the *GTAA Project Manager* or *GTAA Contract Administrator* after careful removal, in accordance with an authorized salvage plan where specified by the *GTAA*.

- 7 The *Contractor* may utilize approved areas of existing *Airport Lands* for hauling equipment, materials, or other operations, provided it does not impact *Airport* operations or assets including:
- interfering with aircraft and *Airport* operations,
 - posing hazards to aircraft or *Airport* activities, or
 - causing damage to pavements, drainage systems, above and below ground structures, lighting, navigational equipment, or other installations.

Any intended use or occupancy of these areas must receive prior *GTAA approval*. If any aspect of the use is deemed objectionable by the *GTAA*, the *Contractor* is required to modify the arrangements at their own expense.

- 8 Any such use or occupancy in Sentence 7.8.2.3.7 is subject to prior approval by the *GTAA*. Should it prove to be objectionable for any reason, the *Contractor* shall, at its expense, modify the arrangements to eliminate the objection.

7.8.2.4 **GTAA Transportation Systems**

- People moving devices include trains, busses, Automated People Mover (APM), conventional passenger elevators, escalators, walks, express walks and passenger boarding bridges between the aircrafts and the *Terminal Buildings*. Refer to existing safety protocols which include: the Toronto Pearson Handbook for Business Partners and Working Near the Automated People Mover guidelines for more information. Refer to Links in Appendix A – Item #22.
- People moving devices are meant for the use of passengers and *Airport* personnel travelling between *Terminals*, or to and from designated parking areas.
- Such devices may be used for the general movement of *Contractor* personnel between designated parking areas and a *Terminal*.
- Such devices shall not be used for the movement of *Construction* debris, tools, equipment of any type, supplies or materials used for *Work* or *Work*-related activities. For these requirements *Contractors* shall only use freight elevators.
- As directed by *GTAA* Passenger Operations and Maintenance, all applicable individuals who have a need to use freight elevators must first complete the mandatory Freight Elevator training offered by the *GTAA*, or they will no longer have access to any freight elevators. Employers are requested to sign up their employees for a training session by contacting Marc Levis marc@ediselevator.com for more information.

7.9 Special Procedures for Work in Terminals

7.9.1 General Requirements

- Contractors* shall submit a *Construction Activity Notice* request form at least 5 business days prior to the start date of the work activity. *Work* areas requiring government agency approvals require an additional 7 business days notice.

7.10 System Shutdowns and Modifications

- 1 *Contractors* requiring shutdowns of major systems, shall follow *GTAA's Construction Activity Notice* request process as detailed in Article 7.7.1.2 of this *Code*. Refer to Appendix A for applicable links.
- 2 Modifications and additions to fire alarm systems as part of the *Work* by a *Tenant* shall be performed by the *Tenant's Contractor*, with final testing and verification of the system performed by the *GTAA* designated Blanket Purchase Agreement (BPA) *Contractor* for fire alarm systems and paid for by the *Tenant*.
- 3 Where site conditions allow for prolonged work, the contractor will investigate and isolate the site from existing services to limit the risk of injury to workers and damages to the building. This shall include electrical, domestic cold and hot water, and fire protection services.

7.10.1 Service Room Access

- 1 *Contractors* performing *Work* requiring High Voltage (HV) Substation access will be permitted entry only by having *GTAA Facilities* Electrical Department unlock the HV locations, securing them at the completion of each shift, and securing them at the completion of the *Work*.
- 2 Where access to other mechanical or electrical service rooms is required, keys may be signed out to the *Contractor* from Corporate Safety & Security after permission is granted from the *GTAA* room owner.
- 3 All keys must be returned upon completion of the *Work*. The requirements of Article 6.4.3.4 and Section 6.6 of this *Code* will apply to lost or unreturned keys.

7.10.2 Roof Access

- 1 *Contractors* performing *Work* at the *Terminals* requiring access to roof areas will be permitted such access as described below, upon submission and authorization of a Roof Access Form:
 - a. When accessing through an unguarded *Primary Security Line* door, approval must be obtained in advance, from Corporate Safety and Security. The Roof Access Form must be submitted to the *GTAA* 72 hours in advance of the required access. On the day of the requested access, Corporate Safety and Security must be notified prior to entering and upon exiting the *Restricted Area*. A *GTAA*-approved security guard must be stationed at the door while the *Contractor* is conducting *Work* on the roof if not in possession of a valid *RAIC*.
 - b. When accessing a roof area outside the *Primary Security Line*, any normal route can be followed. A Roof Access Form must be submitted 72 hours in advance and authorized by Corporate Safety and Security.
 - c. Roof Access requests can be submitted online. Refer to Link in Appendix A – Item #9.

7.10.3 Contractors Working in Terminal Buildings

- 1 *Contractors* performing *Work* in or around a *Terminal* shall have:
 - a. applied for and received a *FAP* orange placard, which must be posted as applicable or can be produced by the contractor digitally upon request, and

- b. submitted a completed *Construction* Activity Request form and received confirmation of approval prior to commencing any *Work*.

Airside Construction Requirements

8.1 General

8.1.1 Contract Requirements

- 1 *Contractors performing Construction Airside shall comply with all applicable requirements of this Code, in addition to the requirements of the Airside Activity Program and this Code. Refer to Appendix A for applicable process links.*
- 2 *Non-Passenger Vehicle Screening (NPSv) is carried out by CATSA and verification of Documents of Entitlement, in addition to the regular inspection at the gate are done by a GTAA Access Control Certified guard. Vehicles and the occupants will be screened when entering the Airside from the perimeter. Contractors shall allow time in their daily work schedule for complying with these screening requirements.*
- 3 *All GTAA Construction within Airside shall be assigned a GTAA Project Manager. In addition, certain non-GTAA Construction within Airside may be assigned a GTAA Project Manager.*
- 4 *Individual Contract Documents may contain further general restrictions, conditions, and observations particularly relevant to the Work of the Contract, in addition to those stipulated herein.*

8.1.2 Role of the GTAA Project Manager (GTAA Projects)

- 1 *The GTAA Project Manager shall be responsible for the overall coordination of the Project and shall act as principal liaison between the GTAA and the Consultants and Contractors.*
- 2 *The GTAA Project Manager shall also be the principal liaison between the GTAA and Nav Canada, in conjunction with the Airside Construction Coordinator.*
- 3 *The GTAA Project Manager shall be responsible for monitoring the Contractor's overall schedule during all stages and activities of the Work, and for providing information to the Consultant and/or Contractor concerning Airport operation requirements, in conjunction with the Airside Construction Coordinator.*

- 4 The *GTAA Project Manager* shall monitor that the *Contractor* is complying with all safety requirements and has the *Place of Work* secured for *Airside* operations prior to commencing any *Work*.
- 5 The *GTAA Project Manager* shall verify that all *Contractors* working *Airside* have received training on the *Airside Activity Program* and have been signed off on the training.
- 6 The *GTAA Project Manager* shall coordinate and schedule all necessary infrastructure closures as coordinated with Nav Canada.

8.1.3 Role of the *GTAA Project Manager (Non-GTAA Projects)*

- 1 The *GTAA Project Manager*, in an advisory role, shall be responsible for acting as principal liaison between the *GTAA* and the *Project Consultants* and *Contractors*.
- 2 The *GTAA Project Manager* shall also be the principal liaison between the *GTAA* and Nav Canada, in conjunction with the *Airside Construction Coordinator*.
- 3 The *GTAA Project Manager* shall provide information to the *Consultant* and *Contractor* concerning *Airport* operation requirements, in conjunction with the *Airside Construction Coordinator*.

8.1.4 Role of *Aviation Regulatory Programs Group*

- 1 All *Projects* with potential to impact the *Airside* must consult with *Aviation Regulatory Programs* group beginning at project approval stage to ensure designs align with Canadian *Aviation Regulations* and *Standards*.
- 2 The *Aviation Regulatory Programs Specialist* will:
 - a. Review all designs with impact to *airside* for compliance to applicable standards within the Canadian *Aviation Regulations*, *TP312 Aerodrome Standards* and *Recommended Practices*, appropriate *Transport Canada Advisory Circulars*, etc.
 - b. Conduct inspections and audits of *airside* sites during construction as necessary.
 - c. Conduct *Return to Service* inspections to ensure design/build alignment with above standards and regulations.
 - d. Provide input to any *Design* or *Project* changes to ensure alignment with above standards.

8.1.5 Role of the *Officer, Construction Security Planning*

- 1 All *Construction* activities that touch, come close to or are in the *Restricted, Critical* and/or *Sterile Areas* of the *Airport* shall be coordinated through the *Officer, Construction Security Planning* who is responsible for: coordinating security related activities, *Primary Security Line (PSL)* movements, hoarding compliance and issuing *Temporary Construction Passes*.

8.1.6 Role of the *Airside Construction Coordinator*

- 1 All *Construction* activities within the Primary Security Line (*PSL*), other than within the *Terminals*, shall be coordinated through the office of the *Airside Construction Coordinator*. The *Airside Construction Coordinator* shall:
 - a. in collaboration with [GTAA Construction Security Planning](#), coordinate and schedule *Contractor* access to *Airside* areas under *Construction*,
 - b. in collaboration with [GTAA Airfield Electrical](#), coordinate and schedule all necessary airfield lighting shutdowns,
 - c. notify the *Airport Operations Centre (AOC)* of all *Construction*, when required.
 - d. grant final authorization to the *Contractor* that allows the *Airside Work* to commence.
- 2 Final authorization for *Airside Work* lies with *Airport Operations - Operations Planning through the Airside Coordination*.

8.1.7 Airside Operations

- 1 The *Contractor* shall not disrupt *Airport* operations in any way without the written permission of *GTAA Project Manager* and the *Airside Construction Coordinator*. Anything outside of the scope of *Work* approved by the *Airside Construction Coordinator* will not be approved.
- 2 The *Contractor* must follow the guidelines within the *Airside Activity Program* and complete the online training prior to requesting access.
- 3 All *Airside Construction* must be reviewed and approved by *GTAA Project Manager* and the *Airside Construction Coordinator*. The *Airport Operations Centre (AOC)* must be notified in advance of all *Airside Construction*.
- 4 The on-line *Airside Activity Notice* request form must be completed and submitted to the *Airside Construction Coordinator* no less than 3 business days before the activity for an Apron or Taxiway, and no less than 5 days before the activity for a Runway. The *Contractor* may help the *GTAA Project Manager* with the submission details however, submissions will only be accepted from the *GTAA Project Manager* who must ensure that the submission is complete with all appropriate information. The on-line form is available. [Refer to Link in Appendix A – Item #2.](#)
- 5 The *Contractor* shall provide, maintain, and remove all temporary protection for the safe management of public, personnel, pedestrian, and vehicular traffic in accordance with Book 7 of the Ontario Traffic Manual.

8.1.8 Critical Area Operations

- 1 When entering the *Critical Area* at a *Critical Area* access point all *Contractors* must have their Document of Entitlement and *RAIC* validated by a guard and all *AVOP* and escort ratios must be adhered to.
- 2 All *Temporary Security Control Pass* holders must be presented to *CATSA* for mandatory screening.

- 3 When transiting between the *Restricted Area* and *Critical Area* everyone must attend a *Critical Area* access point for Document of Entitlement and RAIC verification and CATSA screening.
- 4 Prior to making any changes to the *Critical Area* Security Line, authorization must be obtained from Corporate Safety and Security.

8.2 Construction Vehicle Operation

8.2.1 Compliance Requirements

- 1 The *Contractor* shall be responsible for adhering to all the following procedures, rules and regulations as may be applicable to the *Place of Work*.
- 2 It is the responsibility of the *Contractor* to arrange at their expense for the necessary training and testing of their personnel that will be required to drive *Airside*. Details of GTAA's Airside Vehicle Operators Permit Program can be found on-line - [Refer to Link in Appendix A – Item #13](#).
- 3 Refer to Part 6 of this *Code* for requirements of the *Restricted Area* security and access control procedures.
- 4 Personal vehicles of *Consultants, Contractors*, sub-contractors, and suppliers shall be parked in the *Contractor's* parking lot, or in other designated *Groundside* areas. Only vehicles required for the execution of the *Work* will be permitted *Airside*.
- 5 All vehicles accessing *Airside* must be approved, equipped, marked, and insured according to the terms of the AVOP Program. Personal vehicles are only allowed airside if under escort per AVOP rules or if they have been modified to conform to the requirements of the AVOP program. Refer to Appendix A for applicable process links.

8.2.2 Airside Vehicle Operators Permit

8.2.2.1 Issuing Requirements

- 1 *Persons* applying for an AVOP may obtain an AVOP application and study material available on-line. Refer to Appendix A for applicable process links.
- 2 All *Persons* applying for an AVOP shall complete the AVOP learning, and testing procedures set out in the AVOP Program.
- 3 The GTAA issues three types of AVOP permits: DA, GA/DA, and D. Each permit authorizes driving in specific areas of the *Airport*. The Airport Traffic Directives set out the definitions of these permits and is incorporated herein by reference. Refer to Appendix A for applicable process links.
- 4 The AVOP is issued under the authority of the *President and Chief Executive Officer* or his/her designated representative, who may rescind authorization to drive *Airside* for failure to comply with the Airport Traffic Directives.
- 5 All vehicles operating *Airside* shall be registered and licensed by the GTAA prior to operating *Airside*, unless they are under escort of a vehicle registered and licensed to operate *Airside*. New *Tenants* shall establish credentials and requirements to operate

Airside by request in writing to the Manager, AVOP Program. Application forms are available at the GTAA Pass Permit Control Office.

- 6 All vehicles must be specifically insured to operate *Airside*. *Airside* insurance for *Contractors* may be arranged through the GTAA Risk Management Office.
- 7 Questions arising from the Airport Traffic Directives may be forwarded to the Manager, AVOP Program.

8.2.2.2 **Vehicle Operation Regulations**

- 1 All vehicles with two-way radios approved to operate on the *Airside* manoeuvring area shall have GTAA assigned identification (Call Sign). Application forms are available by contacting the AVOP office at 416-776-2867 or avop@gtaa.com.
- 2 All drivers operating vehicles *Airside* shall be in possession of a valid *Restricted Area Identity Card (RAIC)* and a valid AVOP or be escorted by a vehicle registered and licensed to operate *Airside*. All drivers operating vehicles must have a valid provincial driver's license.
- 3 Escort services are provided by a designated GTAA authorized escort services agency for all GTAA *Contractors*. *Tenants* requiring escort services may also utilize this service or select other authorized companies providing this service. List of available companies can be requested from the Officer, Construction Security Planning, via email: zzl-governance-securityoperationalsupport@gtaa.com
- 4 All AVOP holders responsible for escorting vehicles *Airside* are required to familiarize themselves with the rules and regulations involving escorting vehicles in Chapter 3 of the Airport Traffic Directives AVOP DA section 3.6.8 page 39.
- 5 All directions or signals from the Air Traffic Control Tower must be obeyed immediately.
- 6 All vehicles operating *Airside* shall have safety equipment and be equipped with an amber Beacon.
- 7 Comply with all speed limits for vehicles on *Airside* movement areas, as listed in Chapter 3 of the Airport Traffic Directives AVOP DA section 3.4 page 27. [Refer to Link in Appendix A – Item #13.](#)

8.3 Construction Operations

8.3.1 Airside Areas

8.3.1.1 **Contractor's Responsibilities**

- 1 All individuals accessing airside including *Consultants* and *Contractors* must complete the mandatory *Airside Activity Program* training available on-line. [Refer to Link in Appendix A – Item #2.](#)
- 2 Prior to the commencement of *Work*, and before return to service inspections, checklists demonstrating compliance to applicable standards within the Canadian Aviation Regulations, TP312 Aerodrome Standards and Recommended Practices,

appropriate Transport Canada Advisory Circulars, etc., shall be provided to the *GTAA Project Manager* and Aviation Regulatory Programs group by *Contractor*. Ongoing compliance to CARs is required throughout all *Projects* where applicable.

The *Contractor* shall inform the *GTAA Project Manager* immediately where any *Work* is at risk of regulatory non-compliance.

- 3 Before any large earth or turf turning activities begin *Airside*, the *GTAA* must be advised to have Wildlife Control Officers standing by to control wildlife that can be attracted by such activity (birds looking for worms, etc.). Falcon Environmental Services can be contacted by email: FES.Pearson@falconenvironmental.com or by phone: 416-606-3528.
- 4 *Airport* operational restrictions may affect the scheduling of the *Work*. Any *Construction* that may interfere with aircraft operations on the runways, taxiways and aprons shall be scheduled during periods when these operating surfaces are not in service as arranged by the *GTAA Project Manager* and the *Airside Construction Coordinator*.
- 5 The *Contractor* shall comply with all operational, safety, security, and other applicable requirements in the execution of the *Work* including when performing tasks near live runways, taxiways, and aprons.
- 6 The *Contractor* shall always maintain, the integrity of all electronic and visual navigational aids associated with live aviation activities on *Airside* areas for aircraft operations, which take precedence over *Construction* operations.
- 7 *Construction* operations and equipment shall not impair the visual acuity or line-of-sight of air traffic controllers operating from the Air Traffic Control Tower, or the Airport Surface Detection Equipment (ASDE). *Construction* operations will be authorized by the *GTAA Airside Construction Coordinator*.
- 8 Physical and visual impediments to apron, runway, and taxiway operations shall be avoided when manoeuvring surfaces are in service. These include but are not limited to the following:
 - a. Physical intrusions, such as cranes, backhoes, scrapers, trucks, bulldozers, stockpiled materials, etc., must comply with Obstacle Limitation Surfaces (OLS) in both horizontal and vertical directions.
 - b. Excavated surplus overburden stored at the *Place of Work* must be placed in areas and to maximum heights as stipulated by the *Airside Construction Coordinator* and directed by the *GTAA Project Manager*.
 - c. Other visual impediments such as reflective glare, fixed objects or excessive airborne dust, smoke, and/or steam must not interfere with the line of sight from the Air Traffic Control Tower to airfield operations, or the electronic equipment for aircraft navigation.
- 9 Unavoidable violations during the *Work* must be authorized by the *Airside Construction Coordinator*. Authorized physical intrusions shall have their highest points marked by red obstruction lights.
- 10 All use of cranes or aerial devices during *Construction* shall be coordinated with *Aviation Programs and Coordination* in accordance with Article 7.6.14.7 of this *Code*.

- 11 Cranes and other *Construction* equipment cannot penetrate the Obstruction Limitation Surfaces (OLS) without prior authorization from GTAA Cranes, shall be lowered during hours of darkness, and must be equipped with obstruction lighting in accordance with current GTAA requirements.
- 12 Cranes and/or any aerial devices shall have a GTAA Crane Permit issued prior to being used. In areas that impede Nav Canada facilities will also require a Land Use Submission to Nav Canada prior to operation commencing. Any equipment that penetrates the OLS must be coordinated with Transport Canada. Contractor must allow for adequate lead times for external parties when planning these activities.
- 13 Open flames and flammable fuels required for the execution of the *Work* are permitted on *Airside* areas only as detailed in the contractor's PSSP which was reviewed by CCPO and in compliance with all the applicable requirements detailed in Section 7.6 of this *Code*.
- 14 *Construction* involving the use and operation of any type of asphalt and/or tar kettle shall be restricted on roof areas where directly adjacent to, or overhead of ramp and apron areas as follows:
 - a. *Contractors* are required to establish their own *Hot Work Permit Process* and to contact *GTAA Fire Prevention* to discuss potential fire hazards and general fire safety issues prior to placing such kettles. Refer to Fire Safety Work Permit Requirements in Subsection 7.6.2 of this *Code*.
 - b. Kettles shall be placed in such a manner that airborne smoke and odour will not interfere with *Airport* operations, nor bring discomfort to airline staff and/or passengers.
 - c. Where smoke causes a visual impairment to *Airport* operations or where airborne smoke and odour causes discomfort to airline staff and/or passengers, the *Contractor* will be required to remove the kettle and/or delay roofing operations until conditions improve.
 - d. Tar kettle operations shall be conducted in safe locations away from *Building* air intake louvers, fuelling operations and flammable liquids and materials as reviewed by the GTAA.
- 15 All underground services and *Structures* near any *Airside Construction* areas shall be located, identified, and protected prior to any excavation. The *Contractor* shall be responsible for arranging with *GTAA's Independent Utility Locating Contractor (IULC)* to provide such locates in accordance with the Utility Damage Prevention Program described in Part 7 of this *Code*.
- 16 The *Contractor* shall comply with both the Equipment Lockout for *Construction* and Systems Shut-down Procedures described in Part 7 of this *Code*.
- 17 Emergency Services mobility shall always be preserved. Response routes shall be reviewed by the *GTAA Project Manager* and the *Airside Construction Coordinator* on a predetermined regular basis to ensure that access is always maintained. Alternative and authorized routes shall be established if *Construction* is anticipated to interfere with such access.

- 18 Low visibility maneuvering areas must be made sterile prior to the *Airport* commencing Low Visibility Operations. When “low visibility operations” are in effect, all *Construction* in these affected areas must stop and equipment and personnel must leave the affected area immediately. It is the *Contractor’s* responsibility to confirm with the *GTAA Project Manager* and *Aviation Programs and Coordination* what areas will be affected and coordinate its schedule prior to commencement of *Construction* with the *Airside Construction Coordinator*.
- 19 The *Contractor* shall obtain authorization from Corporate Safety and Security, *GTAA Project Manager*, and the *Airside Construction Coordinator* regarding any changes to the *Primary Security Line* and/or any related barriers, partitions, doors, security equipment, hardware, and signage, as well as impacts on *Clear Zones*.

8.3.1.2 **Parking of Equipment and Stockpiling**

- 1 Parking of equipment and stockpiling of materials on *Airside* areas by the *Contractor* shall be in accordance with TP312 requirements and shall be authorized in advance by the *Airside Construction Coordinator* with the following restrictions and requirements:
 - a. Do not park any equipment or stockpile any material on the extended centerline of an active runway.
 - b. Do not park any equipment or stockpile any material within the minimum taxiway separation distance as per TP312 Chapter 3.
 - c. Do not park any equipment or stockpile any material within any active runway transitional surfaces as per TP312 Chapter 4. All stockpiles and equipment storage are to be located ONLY in areas authorized by the *Airside Construction Coordinator*.
 - d. Mark the highest projections of equipment and materials with red obstruction lights where determined by *Aviation Programs and Coordination*.
 - e. Do not park any equipment or stockpile any material within 1.2 m (4 ft) of the PSL on the Restricted side and 3.0 m (10 ft) on the Groundside. TP312 available on-line. [Refer to Link in Appendix A – Item #27e.](#)
- 2 Parking of equipment and stockpiling of materials on *Airside* areas must be reviewed and authorized by the *GTAA Airside Construction Coordinator* prior to commencing the *Work*.

8.3.1.3 **Cleaning**

- 1 In addition to the requirements stated under 7.6.4.1 of this *Code*, the *Contractor* shall conduct cleaning and disposal operations to comply with *Foreign Object Debris (FOD)* free surfaces.
- 2 The *Contractor* shall always maintain at its cost adequate sweepers at the *Place of Work* to keep all runways, taxiways, aprons, aircraft exit crossings and *Airside* service roads clean from *Construction* related debris. As required, sweepers should utilize water to make sweeping effective and not circulate dust and dirt.
- 3 Failure to maintain surfaces clean will result in the *GTAA* carrying out such *Work*, and the resulting costs shall be the borne by the *Contractor*.

- 4 The *Contractor* shall always secure all equipment and loose items at the *Place of Work* to prevent it from getting onto operational surfaces on the apron or maneuvering area. Failure to secure the equipment and work tools may result in a serious aircraft damage or accident. Workers must be mindful of exposure to aircraft jet blast. Loose items on the worksite might cause an injury or aircraft damage when exposed to aircraft jet blast.
- 5 The *Contractor* shall inspect the worksite prior to returning the surface to the *GTAA* to ensure there are no tools or debris left behind.
- 6 All drivers operating vehicles *Airside* must ensure vehicles are free from loose debris and dirt and ensure all loose items have been secured prior to entering *Airside*.
- 7 When “high winds” advisory is in effect, the *Contractor* shall ensure all equipment, tools, portable potties, and other loose items have been secured prior to leaving the worksite. Failure to secure the equipment and tools may result in a serious aircraft damage or accident.
- 8 The *Contractor* shall notify the *GTAA* if created or observed *FOD* cannot be retrieved.
- 9 The *Contractor* shall assess the risk of construction activities in relation to *FOD* through the hazard identification and risk assessment process. Mitigations are to be communicated to the frontline employees and captured in their Site-Specific Safety Plan.
- 10 The *GTAA* is currently developing *FOD* training for all contractors working *Airside*. Once this training is available *Contractors* will be notified and be expected to participate in this *FOD* training and keep records of their workers’ training completion which must be provided to *GTAA* upon request.

8.3.1.4 **Trenching**

- 1 On pavements open to aircraft traffic, the *Contractor* shall obtain permission from *GTAA Project Manager*, and the *Airside Construction Coordinator* to undertake any trenching that cannot be completed, backfilled, and sealed within one working day.
- 2 Open trenches are not allowed adjacent to operational runways or taxiways.

8.3.1.5 **No Smoking Policy**

- 1 The *GTAA* has designated *Airside* areas as NO SMOKING, except as permitted in authorized areas specified by the *GTAA*. This policy applies equally to all *GTAA* staff, *Contractors* and any *Person* accessing *Airside* areas.
- 2 Smoking in vehicles in *Airside* areas is not permitted.
- 3 The *Contractor* shall bring this policy to the attention of all their employees, subcontractors and suppliers who will be required to *Work* on *Airside* areas and shall strictly enforce this policy.

8.3.2 **Unserviceable Airside Areas**

- 1 The *Contractor* shall mark off all areas made unserviceable for aircraft caused by the *Work* or authorized by *GTAA Project Manager*, and the *Airside Construction Coordinator*, by installing temporary red lights, retro-reflective markers, barricades, barriers, and

cones, and/or delineators in accordance with TP312 standards and the *Airside Activity Program*. All installations shall conform to the *GTAA Contract* specifications and standard drawings and details.

- 2 Due to the possibility of jet blast or turbulence from aircraft, installations of lights and/or markers must be rigidly fixed and tied down, and all barricades, barriers, cones, and delineators must be adequately weighed down or fixed by other acceptable means, authorized by the *GTAA Project Manager* and the *Airside Construction Coordinator*.
- 3 The *Contractor* shall be responsible for the maintenance and relocation of these temporary installations from time to time, and for their removal and repair of pavement surfaces acceptable to the *GTAA Project Manager* and the *Airside Construction Coordinator*.

8.3.3 Runway, Taxiway and Apron Construction Zones

8.3.3.1 General Requirements

- 1 Prior to commencing the *Work*, all runway, taxiway, and apron *Construction* zones must be reviewed for specific requirements, restrictions, and schedules, and authorized by the *Airside Construction Coordinator*.
- 2 At the end of every closure, the *Contractor* shall clean all runways, taxiways and apron areas which have been affected by the *Construction*, by flushing the surfaces with water and sweeping them free of *Foreign Object Debris (FOD)*. At the end of each shift, the *Contractor* shall inspect their entire *Place of Work* to ensure that no potential hazards exist that may affect Aircraft and/or *Airside* vehicles.
- 3 All vehicles leaving the *Place of Work* must be inspected for loose items or items that may become loose in transit.
- 4 *The Contractor shall coordinate final inspections with Airside Coordination to allow sufficient time for inspection and ensure surfaces can be reopened as scheduled without delay. Surfaces will not be reopened until they have been inspected and authorized by GTAA Field Maintenance, Airside Coordination, or a designated party such as the Contractor Administrator, as approved by the GTAA.*

8.3.3.2 Apron Construction Zones

- 1 Work within apron *Construction* zones shall be coordinated with the *Airside Construction Coordinator* and the *GTAA Project Manager* after consultation with the *Apron Management Unit* to minimize interference with *Airport* operations.
- 2 *Work in proximity to an aircraft stand taxi lane must comply with TP312 requirements and may only be undertaken when authorized by the Specialist, Airside Coordination, with the applicable lane closure or restriction in place.*
- 3 Work within apron *Construction* zones must also be reviewed and authorized by the *Airside Construction Coordinator* through the *Airside Activity Program* requests with notification given to the applicable *Tenants* and *Stakeholders*.

8.3.3.3 **Runway Construction Zones**

- 1 The *Contractor* shall undertake *Work* in runway *Construction* zones as follows:
 - a. *Work* within the runway strip requires a runway closure, with clearance limits provided by *Airside* Coordination.
 - b. *At the end of every closure, any portion of the Work abutting the edge of the runway must comply with TP312 requirements, including conditions within the runway safety area where it meets a paved surface.*
 - c. Any unpaved area of such granular base shall be stabilized with a well coated and bound asphalt tack coat application acceptable to the *GTAA Project Manager* and *Aviation Programs and Coordination*.
 - d. At the end of every closure, open excavations and sloping mounds are not allowed within an active runway strip. Beyond the active runway strip, any excavation that remains open, shall be shaped into a “bowl” with side slopes not exceeding a 4:1 horizontal distance to height ratio.
 - e. No object can project through an imaginary plane of an active runway transitional surface as per TP312 Chapter 4. At no point shall any *Work* occur in an area not authorized by the *Airside Construction Coordinator* or *Airside* Manager of Operations.

8.3.3.4 **Taxiway Construction Zones**

- 1 The *Contractor* shall undertake *Work* in taxiway *Construction* zones as follows:
 - a. *Work* within the taxiway centerline shall only be undertaken once authorized to do so by *Airside* Coordination, with the clearance limits provided.
 - b. *At the end of every closure, Work must be completed in accordance with TP312 requirements for the area relative to the affected taxiway centreline.*
 - c. Any unpaved area of such granular base shall be stabilized with a well coated and bound asphalt tack coat application acceptable to the *GTAA Project Manager* and *Airside* Manger of Operations in accordance with TP312 standards and the *Airside Activity Program*.

8.3.3.5 **Flagging Procedures for Construction Vehicles Crossing Taxiways**

- 1 *Construction* vehicles crossing taxiways must conform to the *GTAA* procedure for *Airside* flagging during construction and must comply with the requirements outlined in the *Airside Activity Program* document.
- 2 Where *Construction* activities require vehicles and equipment to cross taxiways on a regular basis, the *Contractor* shall provide flag *Person(s)* and vehicles through a *GTAA*-approved security escort company currently operating at the *Airport*.
- 3 *Construction* vehicles shall be limited to a predetermined *Construction* route to and from *Construction Place of Work* while being flagged across taxiways.

- 4 The *Contractor* shall always maintain a mechanical sweeper on site while *Construction* operations are underway. The sweeper must always maintain taxiways free of *Foreign Object Debris (FOD)*.
- 5 *Construction* vehicle operators must:
 - a. be briefed on flagging procedures prior to entering *Airside* areas,
 - b. **vehicles must not exceed posted speed limits at any time,**
 - c. always obey flag persons. If unsure of flagging procedures or restrictions, drivers shall stop and query the flag *Person* for permission to proceed,
 - d. report any observed *FOD* to flag *Persons* for immediate clean-up, and
 - e. report any vehicle malfunctions to flag *Persons* for immediate response by the *Contractor* and put out appropriate safety markers to alert other vehicles.

Technical Data Records and Handover/Takeover Management

9.1 Scope

- 1 All *Construction* must be captured and properly documented in accordance with the standards of the *GTAA* to allow the *GTAA* to compile and maintain up-to-date technical data for record and functional purposes.
- 2 The *GTAA* maintains records of all technical data, specifications, and drawings of *Facilities*. All drawings provided to the *GTAA* in digital files or hard copy media must adhere to the standards documented in the Greater Toronto Airports Authority CADD Standard Guide as published by the *EAS* Engineering Data from time to time and shall be accepted by *EAS*. The CADD Standard Guide is available online. [Refer to Link in Appendix A – Item #26b.](#)
- 3 The *GTAA* also maintains records of all *BIM* models and laser scan data of *GTAA Facilities*. All models provided to the *GTAA* in digital format must adhere to the standards documented in the *GTAA* BIM Standards as published by the *EAS* Architectural Services and Engineering Data and shall be accepted by *EAS*. [Refer to Link in Appendix A – Item #26c.](#)

9.2 Submissions to GTAA

9.2.1 General Requirements

- 1 At the *Substantial Performance* of the *Work*, complete technical records supporting the completion of the *Construction* shall be submitted to:
 - a. For all *Construction Projects*, submissions shall be made directly to the *CCPO* to satisfy the requirements of the *Facility Alteration Permit (FAP)* and for the issuance of the final *Occupancy/Use Permit*. Refer to the *FAP* Close-out Checklist and Guide which details the required documentation (as applicable) for *CCPO*'s issuance of an *Occupancy/Use Permit* which can be found on-line. [Refer to Link in Appendix A – Item #1.](#)
 - b. For *GTAA Projects*, submissions shall also be made directly to the *GTAA Project Manager* [who shall forward the submissions to the relevant internal and/or external](#)

stakeholders, to satisfy the requirements of the *Contract* with the *GTAA* which should include at a minimum:

- i. O&M Manuals
 - ii. Training Planning Documents, Manuals, Resources & Training
 - iii. *Contractor's* and Sub-contractors' Red Line Drawings
 - iv. *CCPO Occupancy/Use Permit* or *FAP* Close-out Confirmation
 - v. All Testing and Commissioning of systems completed and witnessed by the *GTAA* or their representatives
 - vi. Asset Inventory
 - vii. Contract list of all sub-contractors
 - viii. Finish schedules
 - ix. All applicable warranties not limited to, *Contractor*, Sub-Contractors
 - x. Roof, products listed in Contract
 - xi. Approved submittals and shop drawings
 - xii. All Change Orders, filed reports, photographs
 - xiii. *Substantial Performance* and *Total Performance* Certificates
- c. For *Tenant Projects*, submissions shall also be made directly to the *Tenant Coordinator* or the *GTAA Business Group Representative* to satisfy the requirements of the Stakeholders Review Process.
- d. At the *Total Performance* of the *Work*, the following additional documents shall be submitted as stipulated in the *Consultant's* or *Contractor's Contract* to *CCPO* (for all *Projects*) and the *GTAA Project Manager* (for *GTAA Projects*):
- i. *Consultants' As-built* Record Drawings
- e. For the successful design, implementation, and integration of *Operational Technology (OT)* and Controls Systems, the following documentation shall be provided for *OT* and Controls System Design:
- i. Functional Specification – detailed description of system functionality, performance requirements, and operational parameters.
 - ii. Controls Narrative – step-by-step outline of how the system components interact and operate under various conditions.
 - iii. Sequence of Operations – a comprehensive explanation of control strategies, logic, and system behavior.
 - iv. Controls Design Documentation – schematics, wiring diagrams, I/O lists, and configuration details for control hardware and software.
 - v. Operator Manual – user-facing documentation outlining system operation, troubleshooting, and maintenance procedures.
 - vi. System Architecture – high-level and detailed architecture diagrams for SCADA and Smart Manufacturing solutions, including network topology, data flow, and integration points.

9.2.1.1 **Contractor's Responsibilities**

- 1 At *Substantial Performance* of the *Contract*, the *Contractor* shall submit *As-Built Documents* in accordance with the *Contract*, this *Code*, and the Greater Toronto Airports Authority CADD Standard Guide.
- 2 The *Contractor* shall submit the *As-Built Documents* to the *Consultant* for review and comment, in accordance with the *Contract*, and shall make changes as per all noted amendments prior to submission to the *GTAA*.

9.2.1.2 **Consultant's Responsibilities**

- 1 The *Consultant* shall review the *As-Built Documents* for general completeness and accuracy **reflecting the as-built conditions** and shall note all deficiencies to the *Contractor* for amendment prior to their submission to the *GTAA*.
- 2 The *Consultant* shall then produce a complete set of *Record Documents* in electronic format, in accordance with the Greater Toronto Airports Authority CADD Standard Guide for submission to the *GTAA*.
- 3 The *Consultant* shall also submit one printed copy of the *Legal Documents* to the *GTAA* for its records if specified.

9.2.2 **Submission Requirements**

- 1 **Construction Documents:** shall be submitted to the *GTAA* by the *Consultant* in electronic file format **in compliance with GTAA BIM standard**.
- 2 **Contractor's As-Built Documents:** shall be submitted to the *GTAA* and where specified, to the prime *Consultant* by the *Contractor* in native design file format (CADD and/or *BIM*) and electronically generated or scanned PDF format at the *Substantial Performance* the *Project*.
- 3 **Consultant's Record Documents:** shall be submitted to the *GTAA* by the *Consultant* at the final acceptance stage of the *Project* as a component of the *Legal Documents*. including:
 - a. One scanned or electronically generated PDF format file and one native CADD format file of each sheet file,
 - b. One CADD format file meeting the standards laid out in the *GTAA CADD Standard Guide*, per discipline, representing all changes imposed by *Construction (Managed Dataset)*,
 - c. One *BIM* model for each discipline or as defined by *GTAA BIM Standards*, representing all changes imposed by construction, and
 - d. One printed copy of each sheet file, if requested.
- 4 **Technical Training Documents:** shall be submitted by the *Contractor* to the *GTAA Project Manager, Functional Manager, or other agreed operations Stakeholder* in editable electronic file format, with manuals submitted also in hardcopy format (if required by the contract).

9.2.3 Substantial Performance

- 1 For this *Code*, and in addition to any other requirement set out in this *Code*, *Substantial Performance* means when all the following have occurred as reasonably determined by the *GTAA*:
 - a. the *Work* has been performed in accordance with the *Contract* and if the *Contract* is silent, then in accordance with the Construction Act (Ontario),
 - b. the *Contractor* has obtained and delivered to the *GTAA* clear inspection reports from all Authorities Having Jurisdiction, with respect to all components of the *Work*, unless such inspection reports are not obtained because of any failure on the part of the *GTAA* to perform any action or take any step which is necessary to permit the authorities to perform any required inspection of the relevant component of the *Work* or required as a condition to such inspection or the issuance of an inspection report,
 - c. the *GTAA* has inspected and tested the *Work* and confirmed that all systems are in proper working order in accordance with the *Contract Documents*,
 - d. all commissioning is complete and the *GTAA* has confirmed its acceptance of the same by written notice to the *Contractor*,
 - e. all training materials, have been submitted to and accepted by the *GTAA*, and the associated training has been completed to the acceptance of the same by written notice to the *Contractor*,
 - f. the *GTAA* has received from the *Contractor* all operating manuals required to be provided under the *Contract*, all of which operating manuals shall be complete, current and to the acceptance of the *GTAA*, and
 - g. copies of all red line drawings, reviewed and approved by the *Designer* for the *Work*, have been submitted to and accepted by *GTAA*.
- 2 The *GTAA* may waive any of the above conditions for *Substantial Performance*. In case of conflict between this Section 9.2.3 and the *Contract*, then the *Contract* shall prevail. For clarity, any requirement in this Section in addition to the *Contract* shall not be deemed a conflict for the purpose of this sentence.

9.2.4 Total Performance

- 1 For this *Code*, and in addition to any other requirement set out in this *Code*, *Total Performance* means when all the following have occurred as reasonably determined by the *GTAA*:
 - a. all *Work*, except for warranty obligations, have been performed in accordance with the *Contract*, and if the *Contract* is silent then in accordance with the Construction Act (Ontario) and is so certified by the *Consultant*,
 - b. all turnover stock, materials and equipment is located at the *Place of Work* and has been inspected by the *GTAA* and the *GTAA* has confirmed its acceptance of the same by written notice to the *Contractor* and such turnover stock, materials and equipment shall have been effectively delivered to the *GTAA* by the *Contractor*,
 - c. the *Contractor* shall have provided to the *GTAA* copies of all guarantees and warranties received or to be received by the *Contractor* from any subcontractors and copies of such warranties and guarantees to the extent received, and

- d. copies of all *As Built Documents*, reviewed and approved by the *Designer* for the *Work*, alongside the associated *Record Documents*, have been officially submitted to and accepted by the *GTAA*.
2. The *GTAA* may waive any of the above conditions for *Total Performance*. In case of conflict between this Section 9.2.4 and the *Contract*, then the *Contract* shall prevail. For clarity, any requirement in this Section in addition to the *Contract* shall not be deemed a conflict for the purpose of this sentence.

9.3 Operation and Maintenance Manuals

9.3.1 Scope

- 1 An organized compilation of operating, maintenance and training data shall be submitted by the *Contractor* to the *GTAA* as part of the requirements for determining *Substantial Performance* of the *Contract*.
- 2 Such data shall include but not be limited to detailed technical information, documents and records describing the operation and maintenance of individual products, equipment, or systems, as specified in individual sections of the specifications, and as applicable to the scope of the *Work*.

9.3.2 Contractor General Requirements

- 1 Assemble, coordinate, bind and index required data into Operation and Maintenance Manuals.
- 2 Submit completed Operation and Maintenance Manuals to the *GTAA* to achieve reaching *Substantial Performance* of the *Contract*.
- 3 Submit the required number of copies in English as specified in the *Contract*.
- 4 Organize data into the same numerical order as the specifications.
- 5 Label each section with tabs protected with celluloid covers fastened to card paper dividing sheets.
- 6 Type all information.
- 7 Drawings, diagrams, and manufacturers literature must be legible.
- 8 One legible, electronic copy (scanned or electronically generated – PDF format) and one hard copy (if required by the contract) of all O & M manuals inclusive of all contained drawings, illustrations, and literature.
- 9 Follow all format requirements specified in the *Contract Documents*.

9.3.3 Contractor Shop Drawings

- 1 Bind as a separate volume of the Operations and Maintenance Manual, one complete set of reviewed final *Shop Drawings* and product data sheets.

- 2 One legible, electronic copy (scanned or electronically generated – PDF format) of each shop drawing and product data sheet assembled in a single indexed electronic file or as individual files with separate index file.
- 3 Follow all format requirements specified in the *Contract Documents*.

9.3.4 Contractor Warranties and Guarantees

- 1 Include original copies of all material, product and system warranty certificates duly signed and authorized by the appropriate manufacturers/suppliers for the periods specified by the Contract Documents [with GTAA agreed start of warranty dates](#).
- 2 Include original copies of all installation and quality of *Work* guarantees duly signed and authorized by officers of the company for the periods specified by the *Contract Documents*.
- 3 All warranties and guarantees provided for completed *Work* must include the company name, the contact person, their email address, and phone number.

9.4 GTAA’s Enterprise Asset Management (EAMS) System (Maximo)

9.4.1 Scope

- 1 The *GTAA* manages its *Airport’s* physical assets, parts/inventory and maintenance plans using an *EAM* system called *Maximo* (by IBM). *Maximo* is used by *GTAA* to deliver full *Asset Life Cycle* management as per the ISO55000 standard.
- 2 *Maximo* helps the *GTAA* realize industry best practices in relation to optimum planning, asset reliability, repair/replace decision making and maximizing the *Airport’s* resources.
- 3 The *Airport’s* assets are classified as per the *GTAA Asset Hierarchy Structure*. Only assets listed in the hierarchy are required to be documented. Examples of these assets are: Mechanical systems, Electrical systems, Building Architecture. Please contact the *GTAA Asset Management department (AMD)* for a copy of the *GTAA Asset Hierarchy Structure*.

9.4.2 General Requirements

- 1 The *Contractor* and *Consultant* shall work with the *AMD* to prepare an inventory for all applicable systems, structures, and equipment in accordance with the *Contract* requirements, and *GTAA Airport Development & Construction Department (AD&C)* and the *IT PMO’s* guidelines. Electronic templates will be utilized to facilitate this process and will be provided by the *AMD*.

The types of documentation required includes:

- a. Asset being Repurposed
- b. Asset being Decommissioned
- c. New Assets being Commissioned
- d. List of Spare Parts for new Assets

- 2 Provide inventory identification to all new systems and equipment components installed as per “GTAA Identification and Labeling Standards Manual”. Labels shall be permanently affixed to the system and equipment components. Copy of the manual is available on-line. [Refer to Link in Appendix A – Item #26a.](#)
- 3 The *Consultant* and/or *Contractor* shall submit the required number of copies of these forms in the appropriate format to the *GTAA* as per agreed plan.
- 4 Submitted information will be reviewed by the *Project* team and applicable Functional Maintenance team for accuracy and completeness. Data validity will be reviewed by the AMD who will provide final approval of the submitted data. The data will then be incorporated into the EAM system by the AMD.
- 5 For further details refer to the *GTAA Facilities* SOP FM-0055 “Guide to Providing Data for Assets Requiring Maintenance”.

9.5 **Testing, Commissioning, Acceptance and Turnover (TCAT) Guidelines**

9.5.1 **Scope**

- 1 The *GTAA Terminal Infrastructure* operate & maintain all *GTAA Building* systems excluding IT systems at the *Airport*.
- 2 The *TCAT* program outlines a rigorous program of steps/standards to follow when testing, commissioning, activating (Acceptance) and turnover of new *GTAA* systems.
- 3 The *TCAT* Standard contains testing/commissioning form templates as guides for *Contractors* and *Consultants*. It also spells out *GTAA* expectations associated with new *GTAA* systems acceptance and turnover. Any questions with regards to the *TCAT* Standard should be referred to the *GTAA Project Manager* or *GTAA Terminal Infrastructure*. [Refer to Link in Appendix A – Item #26d.](#)

9.5.2 **General Requirements**

- 1 The *Contractor / Consultant* shall work with the *Project Manager* and Terminal Infrastructure representative throughout all stages of the project starting with *Design* through to turnover on compliance with the standards and expectations spelled out within the *TCAT* Standard.
- 2 The *Contractor* shall provide draft testing / commissioning training plans and applicable checklists for review to the *Project Manager* and Terminal Infrastructure.
- 3 The *GTAA Terminal Infrastructure* group is to be included within all *Project TCAT* activities within the *Terminal* facilities.
- 4 The *Contractor* shall follow all applicable standards associated with document submissions and provide for review drafts of the following documents to the *GTAA Project Manager* and Terminal Infrastructure group:
 - a. Testing & Commissioning Reports

- b. As-built Drawings
 - c. Operations and Maintenance Manuals
 - d. Systems Operating Manual
 - e. System and Equipment Technical Training
 - f. Spare Parts
 - g. Warranty
 - h. *Asset Inventory* (reference section 9.4)
- 5 The *GTAA* has extensive requirements for activating and going-live with new systems. The applicable department must be engaged in all activation planning and implementation activities.

9.6 Technical Training Requirements

9.6.1 Scope

- 1 The *GTAA* Technical Performance team is responsible for ADTS operational performance and safety, along with specifications for quality of training provided by vendors to ADTS staff. Projects involving *Airport* Operations staff are supported by those same training standards, in addition to standards and safety oversight mechanisms that will be included as required.
- 2 *Design*, development, delivery, and evaluation of technical training is part of the scope of all *GTAA Project Contracts* (excluding IT), unless otherwise specified or negotiated. As such, technical training delivery is a requirement under the responsibility of the *GTAA Project Manager*. Additionally, for all *Projects* involving the procurement and supply of an asset, coordination of technical training shall involve a representative from Terminal Infrastructure. Where systems and equipment and facilities are expected to be operated by *Airport* Operations staff, a representative from that group shall also be included.
- 3 The Technical Training Program is a robust set of standards, processes, and activities to ensure technical training meets the *GTAA Technical Training Standards* and achieves the agreed learning needs (including reference material) of affected *GTAA* personnel.
- 4 The *GTAA Technical Training Standards* contains the process and standards applicable to *Contractors*, including the need for *Contractors* to demonstrate that the training they plan to provide is on target to achieve, and has achieved, the agreed learning outcomes. It also defines recommended professional qualifications for training designers. [Refer to Link in Appendix A – Item #26e.](#)
- 5 The Technical Training Program includes tools for *Contractors*, including examples/models of designs, agendas, and training assessments, and the *GTAA's* Vendor Training Checklist to support smooth delivery of the planned training. Some of the tools are required early in the process as they support higher quality submissions by vendors and improved planning. A vendor technical training package, including the Technical Training Standards, **shall** be included with the vendor package. For further information, the contract owner or project manager should contact ADTS Technical Performance, Manager, Health & Safety and Technical Training. Include a specific project reference.

- 6 Technical training must meet the needs (knowledge and skills) of all applicable personnel who will be interacting with the new facilities, equipment, or systems and who will be Supervising/Managing the activities of those personnel. Learning needs go beyond acquisition of knowledge to competent performance of related work tasks. Training evaluation tools must measure the success of the training in achieving intended knowledge and skill objectives.

9.6.2 General Requirements

- 1 The *Contractor* shall provide, prior to *Project* start, a draft high-level training plan/learning blueprint outlining a training solution that is expected to meet the anticipated (or stated) learning needs of *GTAA* personnel, including planned methods to assess success of the training.
- 2 The *Contractor* will review that learning blueprint/training plan with the relevant *GTAA* stakeholders for discussion and revision as needed, prior to approval.
- 3 *Contractors* shall plan, build and/or customize, and deliver technical training that adheres to the *GTAA Technical Training Standards*.
- 4 The *Contractor* shall follow all applicable standards associated with document submissions and provide, via the *Project Manager, Functional Manager, or other agreed operations stakeholder*, drafts of the following documents (details are contained in the *GTAA Technical Training Standards*):
 - Learning design document(s) reflecting *GTAA* needs
 - b. Leader’s outline(s) and/or detailed agenda(s)
 - c. An implementation/delivery plan
 - d. Vendor Training Checklist (completed with the *GTAA*)
 - e. All reference documents — in training and on the job
 - f. All training materials including participant materials and assessment tools, unless otherwise negotiated
 - g. Attendance sheets/lists
- 5 *Contractor* use of a Train the Trainer model is encouraged when it complies with stipulations further defined in the *GTAA Technical Training Standards*. Train the Trainer models must include opportunities for *GTAA* trainers to gain confidence, through practice and vendor feedback, delivering well-formed leader and participant materials provided by the *Contractor*. *Contractors* using a Train the Trainer model must demonstrate achievement of learning outcomes for both the trainers (to set them up for successful delivery) and an agreed, representative set of end-users/participants.
- 6 Where applicable, the *Contractor* to provide a video recording of the training to the *Project Manager* and to other agreed operations stakeholders.

9.7 Operational Readiness, Activation, Transition (ORAT) Program

9.7.1 Scope

- 1 The *GTAA* Operational Delivery team is responsible for turning over projects from the project team to operations.
- 2 The ORAT *program outlines the process required to be followed in the form of project readiness, trials, and activation.*
- 3 The ORAT program is a requirement of all projects at the *GTAA*. *Projects* must reach out to opsdelivery@gtaa.com to inform the ORAT team of projects to be delivered.

9.7.2 General Requirements

- 1 The *Contractor / Consultant* shall work with the *Project Manager* and an Operations Delivery representative throughout all stages of the *Project* starting with *Design* through to turnover on project readiness, activation, and transition.
- 2 The *Contractor* shall provide a project schedule that provides ample time to include training and trials for end users. The Operations Delivery Group will determine the period of time required for activation activities after reviewing the scope of the *Project*.
- 3 The *GTAA* Operations Delivery Group is to be included in all *Project* activation activities within the *Terminal* facilities, baggage facilities, and *Airside* areas.

PROCESSES LINKS AND CONTACTS

The following is a list of contact information and links to help *Contractors* and others working on *Airport Lands* navigate through the *GTAA* requirements identified in this *Code* which includes: approvals, notifications, training, passes, etc., from the applicable *GTAA* Departments.

Contractor Activities Information Guide & Links
<p>1. CCPO Forms & Guides on Toronto Pearson Construction web page Link: Pearson Airport Construction Approvals Pearson Airport Contact: CCPO - constructioncompliance@gtaa.com Note: All the applicable FAP process forms & guides should be used to help you complete & submit your applications plus the required supporting documentation for each FAP submission.</p>
<p>2. Work Authorization for Contractor Activities for Airside, Groundside &/or Terminals Link: Pearson Airport Construction – Contractor Activities Pearson Airport Contacts: <ul style="list-style-type: none"> • Airside Safety - airsidecoordination@gtaa.com • Groundside Permits - groundsideoperations@gtaa.com • Terminal Work Permits - activitynotice@gtaa.com • Security Permits – member of the Project Delivery Team (GTAA PM) needs to complete the SIP • Shutdown Permits - ZZG-MaintenancePlanning@gtaa.com Note: The forms must be completed & submitted on-line.</p>
<p>3. Crane and Aerial Devices Permit Link: www.torontopearson.com/en/operators-at-pearson/permits/cranes Contact: zzgcranes@gtaa.com Note: The form must be completed & submitted on-line. Allow a minimum of 3 business days for crane and aerial device assessments. Complex crane assessments may take up to 30 days depending on impact.</p>
<p>4. Fire Hydrant Use Request Link: Fire Hydrant Request Form Pearson Airport Contact: ZZG-Maintenance Planning@gtaa.com Note: Complete & submit the on-line form. Hydrant Request Form applies from April-1st to October 31st Pending Frost/Temperatures.</p>
<p>5. CCPO/AHJ Inspection Requests & FAP Closeout Link: Pearson Airport Construction - FAP Close-Out Pearson Airport Contact: constructioncompliance@gtaa.com Note: FAP Closeout must be initiated once the <i>Contractor</i>, <i>Consultant</i> and/or <i>Project Manager</i> agree that the <i>Construction</i> has reached completion by submitting to CCPO a completed & signed Request for Final Inspection. Note that five (5) business days' notice is required prior to the inspection date.</p>

6. License to Operate

Link: [Real estate space | Pearson Airport](#)

Contact: business.interest@gtaa.com

Note: Any *Person* providing *Construction* or other services on *Airport Lands* and who is not currently under *Contract* to the *GTAA* (either directly or indirectly via subcontract) is required to obtain a *License to Operate*.

7. Mandatory Airport Safety & Security Awareness, Facility Control & Evacuation Plan, Environmental Awareness

Links: [Courses and Training for Pearson Airport Employees | Pearson Airport](#)

Contacts: Airport Security - zzg-securitytraining@gtaa.com

Evacuation Plan - emergency.management@gtaa.com

Environmental Awareness – [GTAA Environment Services](#)

Note: Courses are available on-line.

8. Materials Movements

Link: www.torontopearson.com/en/operators-at-pearson/material-movements

Note: To move or transport materials at the *Airport*, complete and submit the on-line Material Movements Form.

9. Roof Access Requests

Link: [Roof Access Request Form | Pearson Airport](#)

Contact: RoofAccess@gtaa.com

Note: Complete & submit the form on-line.

10. Utilities Locates & Damage Prevention Program

Link for the form is under FAP Documents: [Pearson Airport Construction Approvals | Pearson Airport](#)

Contacts: construction.compliance@gtaa.com

Note: Each excavating *Contractor* shall obtain their own utilities locates by sending an email request with the completed form to constructioncompliance@gtaa.com, locates@gtaa.com, & locates@fsmgroup.ca at **least 5 business days** in advance of any soil disturbances to arrange for the utilities locates and site markings as may be required for the area of *Work*.

11. GTAA Airport Land Use Review & Crane Permits

Link: [Airport land use review | Pearson Airport](#)

Contact: landuse.planning@gtaa.com

Note: Complete & submit the forms on-line. Some *Airside* activities are governed by Transport Canada TP312. Applicable links available on-line.

12. Nav Canada Land Use Program Review

Link: [NAV CANADA Land Use Program](#)

Contact: landuse@navcanada.ca

Note: Nav Canada's reviews are independent of *GTAA's*, and their review times vary depending on the complexity of the project and the completeness of the submission. In general, Nav Canada attempts to respond within 8 to 12 weeks but be aware that review & response times can go up to 12 to 18 months pending necessary mitigations.

GTAA Safety and Security Requirements

13. *Airside Vehicle Operators' Permits (AVOPs)*

Link: [Pearson Airside Vehicle Operator's Permit – GTAA AVOP | Pearson Airport](#)

Contact: AVOP office at 416-776-AVOP (2867) or email: avop@gtaa.com

Note: As an AVOP applicant, you must show that you have both a need and right to drive airside. After assessing your application form, the AVOP Office will determine the need, as well as the locations and frequency of your requested airside access.

14. *Construction Temporary Passes Request*

Link: www.torontop Pearson.com/en/operators-at-pearson/construction/approvals/construction-temporary-passes-request-form

Contact: [GTAA Officer, Construction Security Planning](#)

Note: Complete & submit the on-line form with all mandatory fields (*) filled.

15. *Pass Permit Control Office - Establishing a New Employer Account*

Link: [Employee Passes and Permits | Pearson Airport](#)

Contact: pass.permits@gtaa.com

Note: The Pass Permit Control Office works with employers whose employees need access to *Restricted Airport Areas* to perform their jobs at *Pearson Airport*.

16. *Pass Permit Control Office – Transportation Security Clearance & RAIC's*

Link: [Security Passes for Airport Employees | Pearson Airport | Pearson Airport](#)

Contact: pass.permits@gtaa.com

Note: This web page provides information & links for: Passes, TSC, RAIC, Mandatory Training, and answers to frequently asked question.

17. *Reporting Non-Project Unsafe Conditions*

Link: <https://www.torontop Pearson.com/en/airport-employees/safety-and-security/reporting-a-safety-concern>

Contact: report_it@gtaa.com

Note: **Non-Project** related safety concerns found on *Airport Lands* can be reported by completing a Safety Concern Form or by sending an email to report_it@gtaa.com.

18. *Vehicle Permits & Markers/ ACC*

Contact: pass.permits@gtaa.com

Note: For vehicle marker approval, written application shall be made to the *GTAA Pass Permit Control Office* by the *Person* applying on company letterhead.

Contractors' Responsibilities

19. Contractor Coordination Protocol

Link: <https://www.ontario.ca/page/constructor-guideline>

Contact: constructioncompliance@gtaa.com

Note: *Contractors* must communicate and coordinate with each other where there is a conflict related to time and space. Refer to 7.4.5.2 & the Ontario Ministry of Labour, Immigration, Training and Skills Development (“MOL”) website for Constructor Guidelines on how to document this process.

20. GTAA Contractor Safety Pre-Qualification

Link: [Pearson Airport Construction – On-Boarding Contractors | Pearson Airport \(torontopearson.com\)](https://www.torontopearson.com/pearson-airport-construction-on-boarding-contractors)

Contact: constructioncompliance@gtaa.com

Note: GTAA Safety Prequalification is required for all contractors who are undertaking construction activities on Airport Lands and who are under direct contract with GTAA as the Constructor (General Contractor or Construction Manager).

21. GTAA Project Specific Safety Plan (PSSP) Review guideline

Link: [Pearson Airport Construction Approvals | Pearson Airport](https://www.torontopearson.com/pearson-airport-construction-approvals)

Contact: constructioncompliance@gtaa.com

Note: Look under the Guides & References Documents – “GTAA Contractor Safety Plan Review Guide”. This guide offers contractors further clarification of the requirements for their PSSP.

22. GTAA Transportation Systems – Contractors Use

Contact: zzl-shutdownsapm@gtaa.com

People moving devices include trains, buses, Automated People Mover (APM), conventional passenger elevators, escalators, walks and express walks may be used for the general movement of *Contractor* personnel, however, shall not be used for the movement of Construction debris, tools, equipment of any type, supplies or materials used for Work or Work-related activities. For these requirements Contractors shall only use designated freight elevators.

For individuals who have a need to use freight elevators, they must first complete the mandatory Freight Elevator training offered by the GTAA. Employers are requested to sign up their employees for a training session by contacting Marc Levis marc@ediselevator.com for more information.

23. Hot Work Permits

Link: [Pearson Airport Construction Approvals | Pearson Airport](https://www.torontopearson.com/pearson-airport-construction-approvals)

Contractors' HWP Submissions should be sent to: hotwork@gtaa.com

Note: The *Contractor* working under a *FAP* shall ensure that they and their sub-contractors follow the *Hot Work* policies and procedures as detailed in their Project-Specific Safety Plan submitted to the CCPO with their *FAP* application; and that they utilize the *GTAA Hot Work* Signoff Checklist Form to document their compliance with the conditions of their *FAP*.

<p>24. Materials Exchange Program</p> <p>Note: In collaboration with Partners in Project Green, <i>Contractors</i> who have materials that can be re-purposed, recycled and/or reused are encouraged to list items on the Material Exchange website to divert items from landfills.</p> <p>Link: partnersinprojectgreen.com/your-needs/waste-management/material-exchange/</p>
<p>25. Surface Penetrations Process</p> <p>Link: Pearson Airport Construction Approvals Pearson Airport</p> <p>Look under the Guides & Reference Documents for the Guidelines & form.</p> <p>Contact: constructioncompliance@gtaa.com</p> <p>Note: Each <i>Contractor</i> shall ensure that they follow the GTAA Surface Penetration Guidelines and utilize the Surface Penetrations Checklist & Sign-off form to fully comply with the process.</p>
<p>26. Misc. On-line ACC Referenced GTAA Standards</p> <p>Link: Pearson Construction Standards Toronto Airport Construction Pearson Airport</p>
<p>a. GTAA Identification and Labeling Standards</p> <p>Note: Labels shall be permanently affixed to all new equipment including valves, ductwork and piping as per GTAA Identification and Labeling Standards.</p>
<p>b. GTAA CADD Standard Guide</p> <p>Note: Before design teams start their work, they should review the CADD Standards Guide to ensure all submission requirements are understood and drawings and data produced will be in an acceptable format for submission to GTAA.</p>
<p>c. GTAA BIM Standards</p> <p>Note: All BIM models provided to the GTAA in digital format must adhere to the standards documented in the GTAA BIM Standards.</p>
<p>d. Testing, Commissioning, Acceptance, & Turnover Standards (TCAT)</p> <p>Note: This document details GTAA's requirements associated with new GTAA systems & equipment acceptance and turnover.</p>
<p>e. GTAA Technical Training Standards</p> <p>Note: These Standards contain the process and standards applicable to Contractors, including the need for Contractors to demonstrate that the training planned is on target to be achieved, and has achieved the agreed learning outcomes.</p>
<p>f. GTAA Typeform link – to be used for contractors' submission of their project health & safety performance data.</p> <p>Link: https://form.typeform.com/to/G1f4rf?typeform-source=imgtaa.sharepoint.com</p>
<p>27. Misc. ACC Referenced Non-GTAA Web Sites</p> <p>a. Canada Green Building Council - certification and credentialing body, exclusively administering Canadian project certifications.</p> <p>Link: https://www.cagbc.org/our-work/certification/</p>
<p>b. Transport Canada - Toronto Pearson International Airport Zoning Regulations, SR99/123</p> <p>Link: https://laws-lois.justice.gc.ca/eng/regulations/sor-99-123/FullText.html</p>

c. **Toronto Region Conservation Authority** - Information on Low Impact Development (LID) practices.

Link: <https://trca.ca/conservation/creating-green-infrastructure/low-impact-development/>

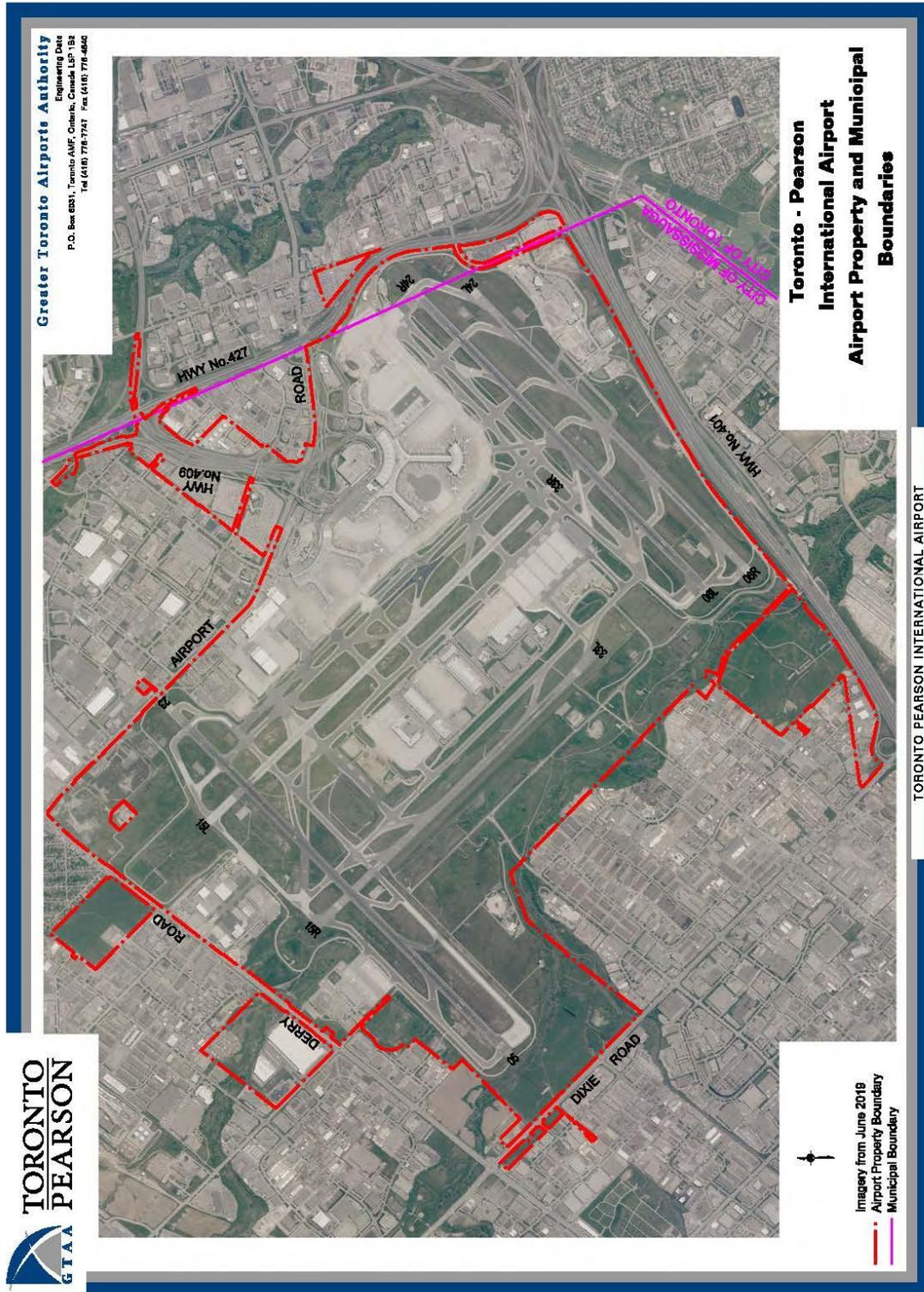
d. **Ontario Ministry of Labour, Immigration, Training & Skills Development (MLTSD)** – Constructor Guidelines & Contractors’ Separation Protocol assessment & approval for establishing a project within a project to avoid constructor issues.

Link: <https://www.ontario.ca/page/constructor-guideline>

e. **Transport Canada– Aerodromes Standards and Recommended Practices - TP312** – Restrictions for stockpiling materials on Airport Property.

Link: www.tc.gc.ca/eng/civilaviation/publications/tp312-menu-4765.htm

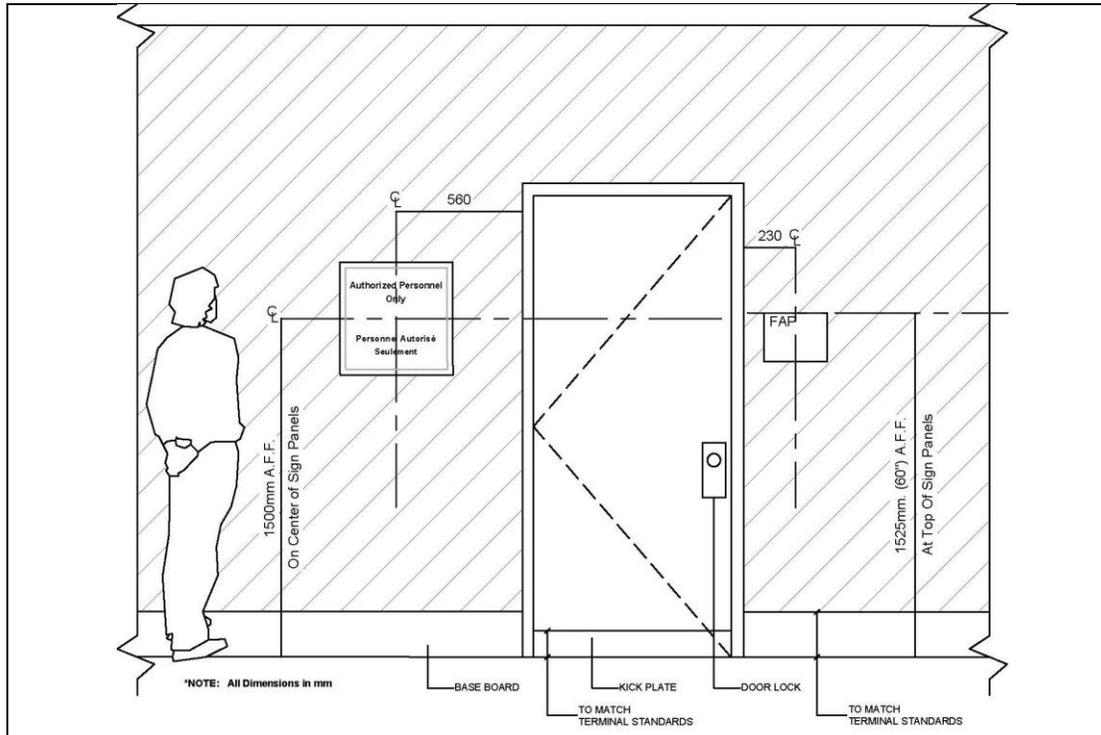
AIRPORT PROPERTY BOUNDARIES



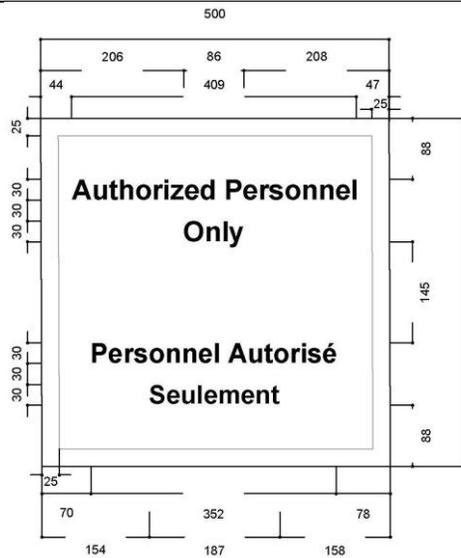
Error! No text of specified style in document.

APPENDIX C

ALLOWABLE (IN TERMINAL) HOARDING SIGNAGE



7.6.6.5 - Detail A – Permitted Hoarding Signage & Placement

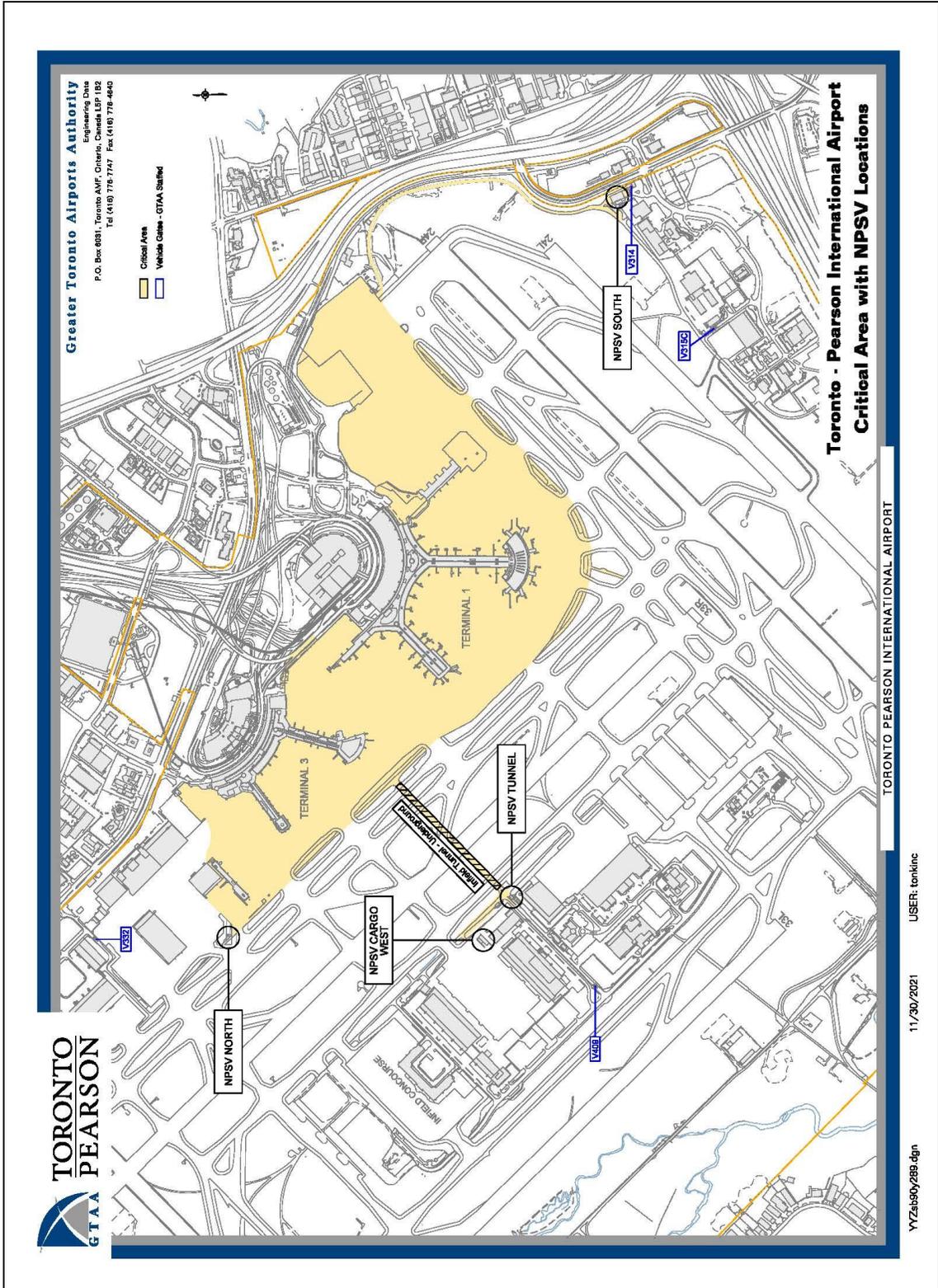


7.6.6.6 - Detail B – Bilingual “Authorized Personnel Only” Signage
(Note: All dimensions in mm)

Bilingual FAP Placard Sample

Error! No text of specified style in document.

CRITICAL AREA WITH NPSV LOCATIONS



Error! No text of specified style in document.

Error! No text of specified style in document.