



Temporary Construction and Customer Experience Requirements for GO Facilities

MX-STS-STD-001

Revision 000

Date: 10/06/2020

Temporary Construction and Customer Experience Requirements for GO Facilities

MX-STS-STD-001

Publication Date: October 2020

COPYRIGHT © 2020

Metrolinx,

an Agency of the Government of Ontario

The contents of this publication may be used solely as required for services performed on behalf of Metrolinx or for and during preparing a response to a Metrolinx procurement request. Otherwise, this publication or any part thereof shall not be reproduced, re-distributed, stored in an electronic database or transmitted in any form by any means, electronic, photocopying or otherwise, without written permission of the copyright holder. In no event shall this publication or any part thereof be sold or used for commercial purposes.

The information contained herein or otherwise provided or made available ancillary hereto is provided "as is" without warranty or guarantee of any kind as to accuracy, completeness, fitness for use, purpose, non-infringement of third party rights or any other warranty, express or implied. Metrolinx is not responsible and has no liability for any damages, losses, expenses or claims arising or purporting to arise from use of or reliance on the information contained herein.

Preface

The purpose of the Temporary Construction and Customer Experience Requirements is to ensure that a holistic approach is taken to coordinate and mitigate for customer, operational, access and infrastructure impacts at GO Facilities.

These requirements are to be followed when planning, designing, constructing and maintaining within an in-service GO Facility in order to uphold operational integrity and Metrolinx customer service principles.

Compliance with these requirements will ensure that Work performed provides seamless integration within the operational site while maintaining Customer Satisfaction (CSAT) and to support the goals of the GO Rail Station Access Plan Hierarchy of Access during construction. The applicability of the requirements of this standard will be determined by Metrolinx, based on project delivery model, scope and the specific requirements of the contract documents.

The Temporary Construction and Customer Experience Requirements is available for external users to download via the Metrolinx public download site at http://www.gosite.ca/engineering_public/

Suggestions for revision or improvements can be sent to Metrolinx Station Services, Attention: Senior Manager of Station Construction and Commissioning who shall introduce the proposed changes to Metrolinx Station Services. The Senior Manager of Station Construction and Commissioning ultimately authorizes the changes. A description of the proposed change shall be included along with information on the background of the application and any other useful rationale or justification. Proposals for revisions or improvements shall also include your name, company affiliation (if applicable), e-mail address, and phone number.

October 2020

Contents:

Preface	ii
1. Scope	1
1.1 Overview	1
1.2 Purpose	1
1.3 Core principles	1
2. Definitions, interpretation, codes and standards	4
2.1 Definitions	4
2.2 Abbreviations	13
2.3 Interpretation	15
2.4 Codes, standards and reference documents	16
3. Work planning and submittals	18
3.1 General	18
3.2 Customer Experience Management Plan	18
3.3 Communication and Resource Plan	19
3.4 Wayfinding and Signage Plan	23
3.5 Emergency Safety Plan	24
3.6 Investigative Work Staging Plans	24
3.7 Construction Staging Plans	25
3.8 Passenger Flow Modelling Report	26
3.9 Power Shutdown Plan	27
3.10 Arc Flash Study	27
3.11 Maintenance Plan	28
4. Temporary Metrolinx Infrastructure	30
4.1 General	30
4.2 Temporary fencing and hoarding	30
4.3 Temporary Wayfinding and Signage	33
4.4 Temporary walkways and paths	33
4.5 Temporary Bus Loop, Pick-Up and Drop-Off and Parking Lot	34
4.6 Temporary Rail Platform restrictions	35

4.7	Temporary Rail Platform	36
4.8	Temporary Mini-Platform	36
4.9	Temporary maintenance track crossing	38
4.10	Temporary ticket booth	38
4.11	Temporary washroom	40
4.12	Temporary Life Safety Equipment and identification Signage	42
4.13	Temporary back-up ancillary services	42
4.14	Temporary Electrical Systems	42
5.	Other Site requirements	46
5.1	Equipment and materials storage	46
5.2	Demolition, disposal and salvaging of assets	46
5.3	Protection of Existing Systems	47
5.4	Environmental impacts due to Construction Activities	48
5.5	Nuisance alarms	49
5.6	Asset Inspection and Maintenance Services	49
5.7	Cleaning Services	50
5.8	Snow and Ice Removal Services	51
5.9	Grounds Maintenance Services	53
5.10	Other Maintenance Services	55
6.	In-service readiness, handover and commissioning	57
6.1	In-Service Readiness Verification	57
6.2	Handover and commissioning	57
A	Appendix A - Station Access Protocol	58
A.1	Introduction	59
A.2	Engaging Station Services for GO Facility access	59
A.3	Additional requirements	61
B	Appendix B - Customer Experience Management Plan	62
B.1	Customer Experience Management Plan (template)	63
B.2	Sample Customer Experience Management Plan	68
C	Appendix C - Alternative Access Tactics	79

C.1	Alternative Access Tactics	80
D	Appendix D - Criticality Assessment and Lead Time	82
D.1	Criticality assessment and Required Lead Time	83
E	Appendix E - Sample Impacts and Preferred Mitigation	87
E.1	Introduction.....	88
F	Appendix F - Sample In-Service Readiness Verification Form	134
F.1	Sample In-Service Readiness Verification Form	135

List of Tables:

Table 2-1: List of definitions.....	4
Table 2-2: List of abbreviations	13

1. Scope

1.1 Overview

- 1.1.1 A holistic approach to coordinate and mitigate for Customer, operational, access, and infrastructure impacts shall be followed when constructing within an operational and in-service GO Facility. This standard sets out the criteria to embed Customer service requirements during construction to maintain Customer Satisfaction (CSAT) at GO Facilities.
- 1.1.2 Construction Activities within a Site containing GO Facilities that are in-service poses operational, safety and access constraints which drive the need for facility coordination and an understanding of GO Facility operations.
- 1.1.3 Thoughtful construction phasing plans, Customer impact assessment, planning and implementation of mitigation measures during construction will contribute to higher satisfaction for all Customers as well as GO Facility users and operators.
- 1.1.4 Compliance with the following requirements when planning, designing, constructing and maintaining GO Facilities will ensure the needs of all Customers and GO Facility staff are satisfied during construction.
- 1.1.5 The applicability of the requirements of this standard will be determined by Metrolinx based on project delivery model, scope and the specific requirements of the contract documents.

1.2 Purpose

- 1.2.1 The key objective of this standard is to maintain Customer experience and satisfaction at GO Facilities that are operational and in-service by establishing requirements to uphold safety, efficiency and convenience during construction.
- 1.2.2 These requirements shall be followed when planning, designing and, constructing and maintaining within an in-service GO Facility in order to uphold operational integrity and Metrolinx customer service principles.
- 1.2.3 Compliance with this standard during planning, design, construction and maintenance will ensure that Work is performed in conformance with Metrolinx Customer service requirements. The Contracted Party shall perform all Work in accordance with the requirements of this standard and shall support the Metrolinx Core Principles identified in Section 1.3 to provide seamless integration within GO Facilities and maintain satisfaction for Customers as well as facility users and operators during construction.

1.3 Core principles

1.3.1 Operating in the public interest

1.3.1.1 As an agency of the Province of Ontario, Metrolinx upholds its responsibility to safely operate and maintain the railway by having high consideration of Customer needs, good value, and life-cycle cost analysis for projects that impact Customers and operations. Requirements have been developed to mitigate hazards and injury, minimize Metrolinx operating costs, maximize operational efficiency and to provide lasting infrastructure solutions.

1.3.2 Metrolinx prioritizes safety

1.3.2.1 Metrolinx recognizes that all employees have the right to work in a safe and healthy workplace. Metrolinx and its employees are committed to preventing occupational illness and injuries to employees while rendering their services and to ensuring the safety of contractors, consultants, visitors and the public. To mitigate safety concerns related to the construction of infrastructure in a live rail corridor, safety policies and procedures for all work, and the work environment shall be developed for such Work. Metrolinx believes that:

- a) all accidents and incidents causing loss or injury can be prevented;
- b) it is possible to manage effectively all risks that may lead to injuries, occupational illness or property damage;
- c) everyone should respect safety while performing the Work;
- d) safety rules should be enforced during the performance of all Work, without qualification or compromise;
- e) problems related to health and safety at the Site should be resolved quickly and prudently; and
- f) no task, regardless of its urgency, shall be performed unless it can be done in full compliance with applicable safety policies.

1.3.2.2 Construction and Customer safety procedures, protocols and construction risk mitigation shall be provided in the early planning phase and continue through to the end of the project. Construction phasing and mitigation of Customer and operational impacts from construction shall prioritize Crime Prevention Through Environmental Design (CPTED) principles. Robust testing and commissioning of the new, temporary, relocated or replaced infrastructure at GO Facilities are all part of a project's lifecycle of safety.

1.3.3 Customer experience

1.3.3.1 In addition to Metrolinx's priority on safety, it is Metrolinx's mission to deliver a seamless and consistent Customer and information experience throughout all construction phases. In order to deliver on this mission, Metrolinx has developed the following priorities and principles:

- a) technology to serve and delight Customers and eliminate accessibility barriers;
- b) increased ridership and seamless travel across the GTHA;
- c) strong partnerships and retail offerings to enhance the Customer experience;
- d) improved internal and external communications and wayfinding;
- e) continued attention to safety; and
- f) providing station access in alignment with the Hierarchy of Access as established by the GO Rail Station Access Plan.

1.3.3.2 The Customer journey is a sequence of events. GO Facility infrastructure is intended to provide an integrated, seamless, harmonized, Customer-focused approach with related key brand touch points of interaction and wayfinding, which allows Customers to travel stress-free and intuitively. Through design, comfort and amenities, Metrolinx strive to make Metrolinx services the preferred choice for Customers. Projects shall be planned, designed, developed and constructed in a manner which is consistent with and promotes Metrolinx's Customer experience mission.

2. Definitions, interpretation, codes and standards

2.1 Definitions

2.1.1 Capitalized terms used in this standard shall have the meanings prescribed in Table 2-1.

Table 2-1: List of definitions

Term	Definition
"Accessibility for Ontarians with Disabilities Act" or "AODA"	Means the <i>Accessibility for Ontarians with Disabilities Act</i> , 2005, S.O. 2005, c. 11, as amended or replaced from time to time
"Accessibility Requirements"	Means the requirements to provide accessible services and infrastructure in accordance with the Metrolinx Standards and applicable legislation and municipal standards which are in place to enforce accessibility for all.
"Accessible Parking"	Means the requirements to provide Barrier-Free parking spaces in accordance with the DS-02 Universal Design Standard and the AODA.
Accessible Route	Means the safest and most convenient path for customers with disabilities, providing a continuous unobstructed, step-free, external and internal path connecting all accessible elements and services from major arrival areas through to the platform(s). Note that this is not necessarily always the shortest path –although for inclusion purposes, the travel distance should be as close to alternatives as possible.
"Accident"	Means an undesirable and unexpected event resulting in personal injury, property or environmental damage, or losses in the production process.
"Arc Flash Study"	Has the meaning given in Section 3.10.
"Asset Inspection and Maintenance Services"	Has the meaning given in Section 5.6.

Term	Definition
"Back of House Space"	Means collectively, all non-public service areas used to provide services to passengers for the operation and maintenance of Customer facing GO Transit facilities; all storage rooms; and all spaces used for retail operations.
"Barrier-Free"	Means that a building, structure or other improvement and its facilities can be approached, entered and used by persons with physical or sensory disabilities and meets Accessibility Requirements.
"Building Automation Systems" or "BAS"	Means systems that monitor and control Mechanical, Electrical and other Systems remotely.
"Bus Facility"	Means both Bus Layby and Bus Loop.
"Bus Layby"	Means a curb lane on a public road designated for buses to stop and is located outside of the active lanes on the road.
"Bus Loop"	Means a dedicated bus access route or roadway that provides for bus service to the Site from Municipal right-of-way(s) or drive aisles. The bus loop shall accommodate any combination of bus bays and laybys depending on Site-specific program requirements. It shall provide a continuous efficient bus route in and out of the Site and includes a raised bus platform.
"Business Day"	Means any day other than a Saturday, a Sunday, a statutory holiday in the Province of Ontario or any day on which banks are not open for business in the City of Toronto, Ontario.
"Cleaning Services"	Has the meaning given in Section 5.7.
"Communication and Resource Plan"	Has the meaning given in Section 3.3.
"Construction Act (Ontario)"	Means <i>Construction Act, RSO 1990, c C.30</i> as amended from time to time and any successor or replacement legislation.

Term	Definition
"Construction Activities"	Means construction, rehabilitation, reinstatement work, rectification work, Warranty work, and any other aspect of the Works that: (a) comprises the alteration, augmenting, upgrading, construction, completion, inspection, calibration, testing or commissioning of any part of the New Metrolinx Infrastructure and Temporary Metrolinx Infrastructure; and (b) comprises the assessment of any New Metrolinx Infrastructure and Temporary Metrolinx Infrastructure.
"Construction Staging Plan"	Has the meaning given in Section 3.7.
"Contracted Party"	Means the party responsible for the performance of the Work of the project assignment and under contract or agreement with Metrolinx (e.g. Contractor, Designer, Design-Builder, Project Co, Technical Advisor, or Developer).
"Crime Prevention Through Environmental Design" or "CPTED"	Means the principles of reducing crime through design of the facility by considering its environment in accordance with the approach outlined by Crime Prevention Through Environmental Design Ontario.
"Customer(s)"	Means all public users of the GO Facility services regardless of ability.
"Customer Appreciation Day"	Has the meaning given in Section 3.3.8.
"Customer Experience Management Plan"	Has the meaning given in Section 3.2.
"Decision Making Locations"	Means an intersection point of two or more pedestrian paths of travel. For clarity, these intersection points are locations at which Customers will make decisions on where to travel next.
"Designated Waiting Area" or "DWA"	Means the area on the Mini-Platform which is designated as being the safe waiting area that includes a means for a Customer to contact Metrolinx staff for assistance.
"Digital Fare Channels"	Means fare systems available through e-ticketing, Presto mobile or through open payment.

Term	Definition
"Digital Signage"	Means remotely managed and individually addressed electronic displays for the communication of digital content for various uses including traveller information, wayfinding, advertising, etc. to targeted audiences.
"Electrical Equipment"	Shall have the definition given by the Ontario Electrical Safety Code.
"Electrical Systems"	Means individually or collectively, the electrical and communications systems including devices, equipment, conductor pathways, structured cabling and power for Fare Devices, CCTV, PA, telephone, network, Digital Signage, Wi-Fi, distributed antenna, security, life-safety and two-way communication system.
"Emergency"	Means any incident that: (a) has caused death, injury or damage to property; (b) has a negative effect to Operations; or (c) is a potential threat to a person or system that is a life safety concern and includes security or environmental events that require Work to cease.
"Emergency Access"	Means the route at the GO Facility used by Emergency Service Providers to gain access to key points.
"Emergency Response Plan"	Means the written plan describing strategies for all aspects of Emergency response, communication with first responders, coordination with the community, information dissemination, recovery from major incidents, prerequisite employee training, standard operating procedures (SOPs), and the names and contact numbers of the work-site Emergency management supervisor and other designated individuals.
"Emergency Safety Plan"	Has the meaning given in Section 3.5.
"Emergency Service Providers"	Means any police service, firefighting service, ambulance service, armed forces or other authority with Emergency service authority which may require access to the Site from time to time.
"Environmental Assessment Act (Ontario)"	Means the Environmental Assessment Act, R.S.O. 1990, c. E18, as amended from time to time and any successor or replacement legislation.

Term	Definition
"Existing Metrolinx Infrastructure"	Means existing infrastructure located on the lands that is owned by Metrolinx, including, for clarity, railway tracks and signals.
"Existing Systems"	Means existing devices, equipment, conductor pathways, structured cabling and power for existing Electrical Systems and Mechanical Systems.
"Fare Devices" or "Fare System"	Means the fare collection and purchasing system equipment and network connections used by GO Transit.
"Final Confirmation Time"	Means the minimum number of days in advance Metrolinx require to be informed of the actual start of that Work (for example, a 30 day Final Confirmation Time for an impact schedule to start on July 01 would require confirmation of the start date by June 01).
"Fire Watcher"	Means a person designated to watch out for fire hazards on Site and to raise alarm in the event if a fire.
"GO Design Requirements Manual" or "DRM"	Means the standard created by Metrolinx that outline the technical details for the infrastructure requirements to design and build GO Facilities and is available on the Metrolinx website: http://www.gosite.ca/engineering_public/
"GO Facilities"	Means all GO Transit Customer facilities including GO rail stations, GO bus terminals, GO Transit carpool or park and ride lots as well as UP Express stations.
"Good Industry Practice"	Means using standards, practices, methods and procedures to a good commercial and safety standard, conforming to applicable law and exercising that degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.
"Grounds Maintenance Services"	Has the meaning given in Section 5.9.

Term	Definition
"In-Service Readiness Verification"	Means the sign-off process for determining in-service readiness completed in coordination with Metrolinx to put new, replaced, relocated or temporary assets in service and available for public use.
"Investigative Works Staging Plans"	Has the meaning given in Section 3.6.
"Lead Time"	Means the minimum number of days required to inform Metrolinx of a specific impact and allow enough time for review of the Customer Experience Management Plan and Construction Staging Plan based on the planned start of that Work (for example, a 90 day Lead Time for an impact schedule to start on July 01 would require notification to Metrolinx by 01 April the latest).
"Life Safety Equipment"	Means assets that are certified and identified as life safety equipment that can be utilized during Emergency events and that is in accordance with Ontario Building Code.
"Maintenance Plan"	Has the meaning given in Section 3.11.
"Maintenance Services Manager"	Has the meaning given in Section 3.11.
"Mechanical Systems"	Means, individually or collectively, the plumbing and drainage, snowmelt, heating, ventilation, air conditioning, and fire protection systems.
"Metrolinx"	Means Metrolinx, a non-share capital corporation continued under the <i>Metrolinx Act</i> , S.O. 2006, c.16 and a Crown Agency in accordance with the <i>Crown Agency Act</i> , R.S.O. 1990, c.48 and includes all operating divisions.
"Metrolinx Business Technology"	Means the Metrolinx Information Technology department, formally known as Metrolinx I&IT.
"Metrolinx Core Principles"	Has the meaning given in Section 1.3.
"Metrolinx Electrification Standards"	Means the specifications listed under the "Electrification" section of the Metrolinx website: http://www.gosite.ca/engineering_public/ .

Term	Definition
"Metrolinx Standards"	Means standards developed by Metrolinx as defined in Section 2.4.
"Metrolinx Track Standards"	Means the specifications listed under the "GO Transit Track Standards" section of the Metrolinx website: http://www.gosite.ca/engineering_public/ .
"Metrolinx Universal Design Standard"	Means the Metrolinx Standard of this name.
"Mini-Platform"	Means a raised platform area located on the existing platforms enabling Customers to board trains via a bridge plate that is deployed by the train Customer attendant. The Mini-Platform is part of the Accessible Route.
"Municipal"	Means the municipality having jurisdiction over the location of the Site.
"National Building Code of Canada"	Means the <i>National Building Code of Canada, 2015</i> , published by the National Research Council Canada and developed by the Canadian Commission on Building and Fire Codes.
"National Energy Code for Buildings"	Means the <i>National Energy Code for Buildings, 2017</i> , published by the National Research Council Canada and developed by the Canadian Commission on Building and Fire Codes.
"Net Loss of Parking"	Means the temporary or permanent loss of parking spaces due to construction.
"New Metrolinx Infrastructure"	Means all scope elements required for the completion of the Work.
"No Standing Zone"	Means areas on platforms where passengers are not allowed to wait for trains due to limited clearances between an obstruction and an edge of a platform that is adjacent to a track.
"Off-Peak Hours"	Means the hours outside of those considered to be Peak Hours.
"On-Site Commuter Counseling Event(s)"	An event to provide information and personalized travel advice to Customers about alternative means for accessing the station.

Term	Definition
"Ontario Building Code" or "OBC"	Means O.Reg. 332/12 (Building Code) made under the <i>Building Code Act, 1992</i> , as amended from time to time.
"Ontario Fire Code" or "OFC"	Means O.Reg. 213/07 (Fire Code) made under the <i>Fire Protection and Prevention Act, 1997</i> , as amended from time to time.
"Ontario Occupational Health and Safety Act" or "OHSA"	Means the <i>Occupational Health and Safety Act, R.S.O. 1990, C. o.1</i> , as amended from time to time.
"Other Maintenance Services"	Has the meaning given in Section 5.10.
"Parking Facility"	Means both Parking Lot and Parking Structure.
"Parking Lot"	Means an at-grade Parking Lot.
"Parking Structure"	Means a multi-story parking.
"Passenger Flow Modelling Reports"	Has the meaning given in Section 3.8.
"Peak Hours"	Means the hours from: (a) 6:15 a.m. to 9:15 a.m. every day for GO Trains, excluding weekends and statutory holidays; (b) 3:00 p.m. to 6:30 p.m. hours every day for GO Trains, excluding weekends and statutory holidays; and (c) 4:55 a.m. to 1:30 a.m. every day for UP Express at 15-minute intervals.
"Pick Up and Drop Off" or "PUDO"	Means an access facility at the GO Facility enabling passengers to be picked and dropped off at the GO Facility by automobile. Occasionally referred to as a "Kiss and Ride".
"Power Shutdown Plan"	Has the meaning given in Section 3.9.
"Presto" or "PRESTO"	Is a division of Metrolinx responsible for the administration of the contactless smart card fare payment system.
"Rail Platform"	Means any platform that is served by a track allowing passenger access to GO trains.

Term	Definition
"Rail Operations"	Means the operation of an active railway, including the passage of freight, passenger and non-passenger trains on the rail corridor.
"Railway Corridors"	Means the division within Metrolinx that is accountable for maintenance of the Metrolinx rail corridor.
"Reserved Parking"	Means the parking spaces within the GO Facility site that are signed as reserved for authorized GO Customers.
"Signage"	Means objects designed as symbols, emblems or words in static or digital format provided to communicate information.
"Site"	Means at any time and from time to time, that portion of the lands: (a) on which any Construction Activities are being performed; (b) on which any of the Works have been commenced but not completed in their entirety; (c) that are hoarded, cordoned, or otherwise fenced off, and any lands immediately surrounding such hoarding, cordons or fencing; or (d) within the active construction footprint of the Works.
"Site Ambassador"	Has the meaning given in Section 3.3 .
"Snow and Ice Removal Services"	Has the meaning given in Section 5.8.
"Standards and Guidelines"	Has the meaning given in Section 2.4.
"Standard Deviation Process"	Means the process of this name available on the Metrolinx website: http://www.gosite.ca/engineering_public/ .
"Station Building"	Means the GO station building(s) for the project that typically houses the ambassador office, Back of House Space, waiting room, washrooms, retail area, self-service kiosk/hub(s), platform access area(s) (stairs and elevators) and rooms for electrical, mechanical, communications and maintenance equipment.
"Station Services"	Means the division within Metrolinx that is accountable for performance of maintenance services at GO Facilities.

Term	Definition
"Substantial Completion"	In accordance with <i>Construction Act</i> (Ontario) definition.
"Temporary Metrolinx Infrastructure"	Means all temporary Metrolinx infrastructure required to be placed in-service for public use through the In-Service Readiness Verification process for the completion of the Work.
"Union Station"	Means the Union Station Headhouse, Union Station Trainshed, York Concourse, Bay Concourse, VIA Concourse, Lower Concourse, New South Concourse, York Street Bridge, Bay Street Bridge, Teamways, Atrium Box, Retail Level, Arcade, Bush Roof, Grand Canopy, New Canopies, platforms, track slab, all tracks, and all vertical access elements.
"UP Express" or "UPX"	Means the airport rail link that travels between Toronto Pearson International Airport and Union Station.
"Wayfinding"	Means the process by which visual, tactile, and auditory cues define routes throughout a built environment.
"Wayfinding and Signage Plan"	Has the meaning given in Section 3.4.
"Work"	Means the design, construction, installation, testing, commissioning and completion of the scope of the project assignment.
"Work Area"	Means any area on the Site within which Construction Activities are taking place.

2.2 Abbreviations

2.2.1 The abbreviations used in this standard shall have the meaning prescribed in Table 2-2.

Table 2-2: List of abbreviations

Abbreviation	Definition
AED	Means "automated external defibrillator".

Abbreviation	Definition
ATS	Means "automatic transfer switch".
AVM	Means "add value machine".
CCTV	Means "closed circuit television".
CMO	Means "Construction Management Office".
CPG	Means "Metrolinx Capital Projects Group".
CSA	Means "Canadian Standards Association".
CSAT	Means "Customer Satisfaction".
CSMP	Means "Construction Safety Management Plan"
EMC	Means "electromagnetic compatibility".
EMI	Means "electromagnetic interference".
GO	Means "Government of Ontario".
GTHA	Means "Greater Toronto and Hamilton Area".
HOV	Means "high occupancy vehicle".
HVAC	Means "heating, ventilation, and air conditioning".
I&IT	Means "information and information technology".
LED	Means "light emitting diode".
LOS	Means "level of service".
MCC	Means "motor control centre".
MSP	Means "Municipal transit service providers".
NFPA	Means "National Fire Protection Association".
NOC	Means "Network Operations Centre".
OBC	Means "Ontario Building Code"

Abbreviation	Definition
OCS	Means "overhead contact system".
PA	Means "public address".
PINS	Means "passenger information notification system".
PPE	Means "personal protective equipment".
SOP	Means "standard operating procedure".
SPOS	Means "station point of sale".
TNC	Means "transportation network companies".
TTC	Means "Toronto Transit Commission".
TVM	Means "ticket vending machine".
UPS	Means "uninterruptable power supply".

2.3 Interpretation

2.3.1 This standard shall be interpreted according to the following provisions, unless the context requires a different meaning:

- a) unless the context specifically states otherwise, all obligations included herein are the responsibility of the Contracted Party to undertake;
- b) wherever used herein the plural includes the singular, the singular includes the plural, and each of the masculine, feminine and neutral genders include all other genders;
- c) references to persons shall include their successors and permitted assigns. References to a public organization shall include their successors and assigns, and if a public organization ceases to exist or ceases to perform its functions without a successor or assign, references to such public organization shall be deemed to include a reference to any public organization or any organization or entity which has taken over either or both the functions and responsibilities of such public organization; and
- d) references containing terms such as "includes" and "including", whether or not used with the words "without limitation" or "but not limited to", shall not be deemed limited by the specific enumeration of items but shall, in all cases, be deemed to be without limitation and construed and interpreted to mean "includes without limitation" and "including without limitation".

2.4 Codes, standards and reference documents

- 2.4.1 All systems, equipment and materials required for Work relating to this standard, shall be provided in accordance with the most current edition of applicable federal, provincial, Municipal, and industry codes, standards, and guidelines (collectively, "Standards and Guidelines") including the following:
- a) Accessibility for Ontarians with Disabilities Act (Ontario);
 - b) American Society of Heating, Refrigerating and Air Conditioning Engineers Standards;
 - c) *Canadian Construction Safety Code*;
 - d) Canadian Centre for Occupational Health and Safety;
 - e) Clearing Our Path – universal design recommendations for customers with vision loss, CNIB;
 - f) Canadian Standards Association;
 - g) Crime Prevention Through Environmental Design Ontario;
 - h) Electrical Safety Authority;
 - i) *Electricity Act*;
 - j) *Environmental Assessment Act (Ontario)*;
 - k) *Environmental Protection Act (Ontario)*;
 - l) *French Language Services Act*;
 - m) Illuminating Engineering Society of North America Lighting Handbook;
 - n) Illuminating Engineering Society of North America Standards;
 - o) All Metrolinx/GO Transit standards (the "Metrolinx Standards"), including:
 - 1) all GO Facility documents on the GO Site (http://www.gosite.ca/engineering_public/);
 - 2) GO Rail Corridor Access Requirements;
 - 3) GO Rail Station Access Plan;
 - 4) Construction Safety Management Program (Revision 5.1);
 - 5) Metrolinx Portable Ticket Booth Specification (to be requested from Metrolinx); and
 - 6) Soil Cuttings and Purged Groundwater Disposal (Work Instruction);
 - p) National Building Code of Canada;

- q) National Energy Code for Buildings;
- r) National Fire Code and Fire Commissioner Canada Requirements;
- s) National Fire Protection Association standards;
- t) *Ontario Occupational Health and Safety Act*;
- u) *Ontario Building Code*;
- v) *Ontario Building Code Regulations*;
- w) *Ontario Fire Code*;
- x) *Railway Safety Act (Canada)*;
- y) Technical Standards and Safety Authority;
- z) Transport Canada;
- aa) Transportation Association of Canada; and
- bb) Transportation Safety Board of Canada.

3. Work planning and submittals

3.1 General

- 3.1.1 The submittals of this section shall be prepared by the Contracted Party and submitted for Metrolinx review during preliminary/ concept design and thereafter during detailed design development and during pre-construction for Metrolinx review.

3.2 Customer Experience Management Plan

- 3.2.1 A comprehensive Customer impact assessment shall be conducted to identify all the Customer and operational impacts that the planned construction project will have on the facility, its staff, Customers, third parties (including MSP) and the surrounding community as a whole and shall include respective mitigation plans based on the requirements of this standard (the "Customer Experience Management Plan").
- 3.2.2 The Customer Experience Management Plan shall be developed and submitted during preliminary design stages and updated as the design is developed and into construction stages of the project.
- 3.2.3 A template Customer Experience Management Plan is included in Appendix B.1 - Template Customer Experience Management Plan.
- 3.2.4 A sample Customer Experience Management Plan including a detailed overview that captures potential construction impacts and mitigation plans for each phase of a construction project is included in Appendix B.2 - Sample Customer Experience Management Plan.
- 3.2.5 Tactics to provide alternative access options to mitigate access impacts on CSAT and to support the goals of the GO Rail Station Access Plan Hierarchy of Access are identified in Appendix C - Alternative Access Tactics.
- 3.2.6 An overview of impact definitions and required Metrolinx submittal review times that shall be followed for the Customer Experience Management Plan submittal is included in Appendix D - Criticality Assessment and Required Lead Times.
- 3.2.7 An extensive list of sample impacts and preferred mitigation strategies that shall be identified within the Customer Experience Management Plan and executed on-Site during construction are identified in Appendix E - Sample Impacts and Preferred Mitigations.
- 3.2.8 The Customer Experience Management Plan shall clearly identify the expected level of Customer or operational impact and mitigation strategies shall be designed accordingly for the following:

- a) the number of impacted Customers (Contracted Party shall obtain existing ridership and passenger count information from Metrolinx during project planning stage);
- b) impact to local communities and other transit service providers;
- c) the anticipated duration of disruption including a linear timeline of phased approach to Customer experience;
- d) where there is impact to multi-modal station access:
 - 1) vehicular and bike parking as well as PUDO and Bus Loop shall be maintained through the provision of Temporary Metrolinx Infrastructure in accordance with the requirements of Section 4 unless otherwise approved by Metrolinx. Total provisions shall be in accordance with Customer demand and the GO Rail Station Access Plan; and
- e) where there is impact to Customer Accessibility:
 - 1) an Accessible Route shall be provided in accordance with the Metrolinx Universal Design Standard; and
 - 2) The removal of accessible services is only permitted in extreme conditions and constraints at the discretion of and in consultation with Metrolinx. Any removal of accessible service shall include a comprehensive sub-plan within the Customer Experience Management Plan for Alternative Service Arrangements and this sub-plan shall be submitted to Metrolinx for review.

3.3 Communication and Resource Plan

- 3.3.1 A comprehensive communication and resource plan (the “Communication and Resource Plan”) shall be developed and submitted for each construction phase of the project to minimize disruptions and maintain positive Customer engagement.
- 3.3.2 All communications to Customers, adjacent residents and the community shall be timely, transparent, accurate and in accordance with Metrolinx Standards. All public communication materials shall be submitted to Metrolinx for review a minimum of 30 calendar days in advance of intended issuance to customers.
- 3.3.3 Site Customer service ambassador shall be provided to assist with directing vehicles and pedestrians through the Site before and after each construction phase change to help users get familiar with the new construction phase layout (each a “Site Ambassador”). For clarity, Site Ambassadors shall be provided by the Contracted Party in accordance with Section 2.3.1. Site Ambassadors are required for major impacts as identified in Appendix D - Criticality Assessment and Lead Time and shall be provided in accordance with the following requirements:

- a) Site Ambassadors shall have undertaken GO Transit Customer service on-boarding in the past six months;
- b) Site Ambassadors shall be knowledgeable of all parts of the GO Facility and the surrounding major highways, bus and train schedules and the scheduled phases of construction and associated impacts to the GO Facility;
- c) Site Ambassadors shall wear safety vest and hard hat with business casual clothing including black pants and black shoes. GO Transit high visibility vest shall be provided for use and returned to Metrolinx at the end of the shift;
- d) Site Ambassadors shall be provided on-Site daily to inform Customers of the upcoming construction and mitigations seven calendar days immediately prior to Site impact. These Site Ambassadors shall be available for four hours per day at hours selected by Metrolinx. The number of Site Ambassadors provided shall be in line with the level of impact and number of rider's impacted taking into consideration ridership during peak periods and planned special events. For areas affected by the construction, the minimum provision of Site Ambassadors shall be as follows:
 - 1) two Site Ambassador's for each Rail Platform access point;
 - 2) one Site Ambassador at the Bus Loop; and
 - 3) one Site Ambassador at the GO Station Facility;
- e) Coordinate with local transit service providers (e.g. TTC) to determine additional Site Ambassador requirements at access points where applicable.
- f) Site Ambassadors shall be provided on-Site daily to assist with Wayfinding and answering Customer questions for a minimum of seven calendar days immediately following impact of a new construction phase. These Site Ambassadors shall be available for four hours per day at hours selected by Metrolinx. The number of Site Ambassadors provided shall be in line with the location and level of impact and number of rider's impacted taking into consideration ridership during peak periods and planned special events. At a minimum, there shall be:
 - 1) one Site Ambassador per two entrances/egresses from the Station Building;
 - 2) one Site Ambassador on each Rail Platform for every 500 passenger boardings (customer boarding information shall be provided by Metrolinx for the GO Facility);
 - 3) one Site Ambassador in the Parking Lot for every access point;
 - 4) two Site Ambassadors for each floor of the Parking Structure;

- 5) one Site Ambassador at each main Decision-Making Point along pedestrian walkways;
- 6) one Site Ambassador at each side of a pedestrian bridge access;
- 7) one Site Ambassador at each side of a tunnel access;
- 8) one Site Ambassador for every two platforms in the Bus Loop for GO and MSP;
- 9) one Site Ambassador at grade separations; and
- 10) one Site Ambassador for PUDO.

3.3.4 Major impacts to internal vehicular circulation routes that result in congestion or vehicle queuing that is expected to impact Municipal roads shall require paid duty police officers to facilitate the smooth operation of the Site during construction. For clarity, paid duty police officers shall be retained and paid for by the Contracted Party in accordance with Section 2.3.1.

3.3.5 Customer information showing the Site plan with impacted areas and mitigations as well as detours shall be prepared in accordance with Metrolinx Standards. Following Metrolinx review, this information shall be distributed by handouts or windshield drops completed prior to construction commencing and prior to impact to areas of the Site from construction staging.

3.3.6 Communication notices shall be provided along the Customer journey and from major arrival areas to platforms. Communication notices that are no longer required at the completion of each stage of construction shall be removed.

3.3.7 A minimum of three On-Site Commuter Counseling Events shall be held, and technical staff provided to support such public engagements to inform impacted Customers of alternative access options to the GO Facility. For clarity, On-Site Commuter Counseling Events shall be provided by the Contracted Party in accordance with Section 2.3.1. These events shall be held where there is significant impact to station access including, but not limited to: major track changes, a Net Loss of Parking Spaces or changes to GO Facility access or station accessibility due to construction:

- a) events shall be held on Tuesday, Thursday and Saturday prior to the impact in a visible, highly trafficked public area on-Site;
- b) events shall be of four hour duration at hours selected by Metrolinx;
- c) promote tools and mode-specific information available on the Metrolinx website or the MSP's website that will encourage the use of alternative modes of transportation to/from the station (such as walking, cycling, transit, and carpooling);
- d) banners and Signage shall be designed and provided on-Site to notify Customers of the event on the day of the event; and

- e) any furniture required to be setup for the event shall not impede passenger flow.
 - f) On-Site Commuter Counseling Events shall comply with requirements for accessible formats and communication supports under the Accessibility for Ontarians with Disabilities Act (Ontario)
- 3.3.8 After major GO Facility construction including new facility construction and significant rehabilitation work; and when reaching a major construction milestone at a GO Facility, e.g. opening of new GO Facility or new GO Services, an event shall be held to demonstrate Customer appreciation, with a "Customer Appreciation Day". The requirement for a Customer Appreciation Day shall be determined by Metrolinx and where required shall include the following:
- a) technical staff shall be provided to support the event;
 - b) events shall be of four hour duration at hours selected by Metrolinx;
 - c) events shall be held in a visible, highly trafficked public area on-site;
 - d) banners and Signage shall be designed and provided on-Site to notify Customers of the event on the day of the event;
 - e) fruit, pastries, coffee, tea and other healthy items shall be provided for Customers based on typical ridership at the GO facility;
 - f) waste and recycling receptacles shall be provided;
 - g) any furniture required to be setup for the event shall not impede passenger flow. Canopies shall be provided as necessary; and
 - h) any relocation of existing furniture required shall be coordinated with Metrolinx a minimum of 14 calendar days in advance.
- 3.3.9 Monthly photographic updates shall be provided with associated non-technical language describing the progress of construction intended to be readily understood by the public. This information will be used by Metrolinx to share with Customers and the public for regular construction updates.
- 3.3.10 As part of the regular construction progress meetings, bi-weekly communication meetings shall be held with Metrolinx to review and identify construction impacts, efficiency of mitigations and other relevant topics. Minutes of these meetings shall be distributed within five Business Days for Metrolinx review.
- 3.3.11 Customer feedback shall be obtained and improvements to the Temporary Metrolinx Infrastructure, constructions phasing and staging implemented at Metrolinx request to ensure the safe, effective and convenient flow of passengers to maintain CSAT.
- 3.3.12 With respect to any complaints or feedback from a Customer or a community member, including any complaints or feedback related to or arising in any way from the performance of the Work:

- a) Metrolinx shall be informed of the complaint or feedback immediately following receipt thereof; and
- b) analyses, responses, and resolutions associated with any Customer or community member claim or complaint shall be conducted in cooperation and consultation with Metrolinx.

3.4 Wayfinding and Signage Plan

- 3.4.1 For any stage of the work impacting existing Customer navigation and accessibility or negating functionality of existing Wayfinding and Signage, a complete Wayfinding and Signage solution (the "Wayfinding and Signage Plan") shall be designed and implemented with both static and Digital Signage that delivers comprehensive, clear, simple and direct Wayfinding for all users regardless of ability in accordance with Metrolinx Standards.
- 3.4.2 Customer navigation, accessibility and safety shall be supported throughout the Site with temporary Signage during construction until the permanent final Site condition is delivered.
- 3.4.3 Clear Wayfinding and Signage solutions shall be implemented to allow Customers to navigate through facilities that are under construction and, where necessary, provide information describing temporary routes that are provided as alternative travel paths throughout the Sites including Site maps.
- 3.4.4 A comprehensive Wayfinding and Signage Plan shall be submitted for Metrolinx review for all phases of the work in accordance with Metrolinx Standards for Signage. The Wayfinding and Signage Plan for temporary Signage during construction shall:
 - a) comply with Metrolinx Standards for sign designs, content and placement;
 - b) comply with Metrolinx Standards for fabrication, installation, mounting details, mounting methods, removal and disposal of Signage;
 - c) identify Wayfinding and Signage for each construction phase of a project that is fully integrated with the pedestrian and vehicular travel paths at the facility, offering a seamless wayfinding experience;
 - d) include Wayfinding and Signage at Decision Making Locations throughout the duration of the project;
 - e) identify all Accessible Routes and accessible amenities and facilities, that customers with disabilities usually rely on to access transit services at the GO Facility;
 - f) direct Customers to all amenities and services at the GO Facility including elevators, rail and bus platforms, washrooms, ticket sales, PUDO, Parking Lots and Structures and bike parking provisions; and

- g) direct Customers to retail partners and other third-party services open for revenue service throughout construction.

3.4.5 The effectiveness of the temporary Signage in accordance with the Wayfinding and Signage Plan shall be assessed, at minimum as part of the bi-weekly communication meetings with Metrolinx and revised as necessary to address Customer behaviors, safety or ridership and service changes.

3.5 Emergency Safety Plan

3.5.1 Metrolinx will provide the existing Fire Safety Plan for existing assets. Prior to Construction Activities commencing, a Site specific emergency safety plan (the "Emergency Safety Plan") shall be submitted to Metrolinx for review identifying the following for all areas accessible to the public and GO Facility staff during all stages of construction:

- a) all processes for contacting the appropriate Emergency Service Provider and providing timely Site access to the Emergency Service Provider during an emergency scenario;
- b) all processes for allowing Metrolinx access to the Site in the event of a Customer Emergency, maintenance Emergency, or other incident;
- c) the Emergency evacuation route for Customers and GO Facility staff if the route has been altered or impacted;
- d) the location of all Life Safety Equipment; and
- e) a spill response plan identifying locations of spills response equipment and contact information in response to a spill.

3.5.2 The Emergency Safety Plan shall be updated as construction progresses, and these updates submitted to Metrolinx for review.

3.6 Investigative Work Staging Plans

3.6.1 All Site visits and notification of planned work shall be conducted in accordance with the requirements of Appendix A - Station Access Protocol.

3.6.2 Prior to intrusive Site visits, investigative works staging plans (the "Investigative Works Staging Plans") shall be submitted for Metrolinx review. Plans shall be submitted in accordance with the requirements of the Metrolinx Construction Safety Management Program and shall include details of:

- a) planned access locations;
- b) equipment and materials storage areas including spoil materials; and
- c) any other barriers for each stage of the investigation.

- 3.6.3 The Investigative Work Staging Plans shall demonstrate how staging and sequencing of intrusive Site work shall achieve uninterrupted operational services and seamless Customer access.
- 3.6.4 Material disposal from investigative work shall be disposed of in accordance with the requirements of Section 5.2.

3.7 Construction Staging Plans

- 3.7.1 Construction staging drawings and documentation that describes and illustrates steps and various stages that shall be taken during construction (the "Construction Staging Plans") shall be submitted for Metrolinx review including details of:
- a) construction boundary lines with minimal Site footprint that places emphases on Customer safety and Customer convenience;
 - b) planned locations of fencing and hoarding;
 - c) equipment and materials storage areas;
 - d) any other barriers for each stage during construction;
 - e) strategic placement and relocation of GO Facility amenities such as Fare Devices, facility furniture, and communication equipment; to minimize impacts to GO Facility operations and passenger flow; and
 - f) alternative accesses (universal, pedestrian, bike, bus, parking infrastructure); suitably located to minimize impacts to GO Facility operations and passenger flow.
- 3.7.2 The Construction Staging Plans shall be developed in accordance with the principles and priority established by the Hierarchy of Access within the GO Rail Station Access Plan.
- 3.7.3 The Construction Staging Plans shall demonstrate how staging and sequencing of Construction Activities shall achieve uninterrupted operational services and seamless Customer accessibility.
- 3.7.4 The Construction Staging Plans shall be designed in accordance with the Passenger Flow Modelling Reports in Section 3.8. Construction Staging Plans shall be developed for the safe passage of Customers throughout the Site and GO Facility while meeting or exceeding the pre-construction level of service e.g. pedestrian and vehicle queuing and queue clearing time.
- 3.7.5 The Construction Staging Plans shall include sufficient Temporary Metrolinx Infrastructure for the anticipated passenger volumes using ridership for the year(s) of construction and in accordance with the Metrolinx Standards LOS and OBC.
- 3.7.6 The Construction Staging Plans shall include all aspects of the systems and device protection where it is known that impact to systems could be a possibility. Proposed protection measures may include hoarding, relocation of systems and

devices, or the provision of temporary trailers / kiosks to house electronic and communications equipment.

- 3.7.7 The Construction Staging Plans shall be aligned with the project construction safety management plans and shall be updated if changes arise as construction progresses, and these updates submitted to Metrolinx for review.

3.8 Passenger Flow Modelling Report

- 3.8.1 For major impacts as identified in Appendix D - Criticality Assessment and Lead Time reports analyzing the passenger flows and counter flows for each construction phase before and after New or Temporary Metrolinx Infrastructure is put in-service (the "Passenger Flow Modelling Reports") shall be prepared and submitted for Metrolinx review.
- 3.8.2 Passenger flow modelling shall be completed and submitted to Metrolinx for review for the following areas:
- a) all rail and bus platforms;
 - b) vertical access points;
 - c) tunnels;
 - d) pedestrian bridges;
 - e) Pick-Up and Drop-Off;
 - f) sidewalks and pathways; and
 - g) Parking Lots.
- 3.8.3 Passenger movement shall be analyzed for all construction phase changes to demonstrate the safe passage of Customers throughout the Site and GO Facility while meeting or exceeding the pre-construction level of service e.g. pedestrian and vehicle queuing and queue clearing time.
- 3.8.4 All circulation elements including all platforms, walkways, vertical circulation, waiting areas, Accessible Routes and access/egress routes shall be evaluated for impacted areas as follows:
- a) detailed static and dynamic modelling analysis for the peak 15 minute period during the AM and PM peak for all stages of the Work;
 - b) detailed static and dynamic modelling analysis for emergency evacuation for all stages of the Work in accordance with the most stringent requirements of OBC and NFPA 130;
 - c) the most conservative scenario, including concurrent train arrivals, shall be used for the purpose of the station evaluation;

- d) Fruin LOS queuing shall be used to evaluate platforms, elevators and escalators;
 - e) Fruin LOS stairs shall be used to evaluate stairs; and
 - f) Fruin LOS walkways shall be used to evaluate walkways, circulation areas and ramps.
- 3.8.5 Determine the amount of queuing space required at each of the following elements within the designs to meet the level of service required in each area, however the queuing spaces provided in the designs shall be not less than those indicated below:
- a) queuing/runoff space on both sides of the entry and exit doors shall be a minimum of 3000 mm;
 - b) queuing/runoff space at the top and bottom of public stairs shall be a minimum of 5000 mm;
 - c) queuing space in front of an elevator shall be a minimum of 3000 mm;
 - d) queuing space for all fare vending equipment shall be a minimum of 3000 mm; and
 - e) where two or more elements listed above converge, the surge or runoff spaces shall be cumulative.

3.9 Power Shutdown Plan

- 3.9.1 Prior to each planned power shutdown, a power shutdown plan (each a “Power Shutdown Plan”) shall be prepared and submitted to Metrolinx for review. This Plan shall include the following:
- a) details of the areas, users and loads impacted by the shutdown, the process of shutting down the impacted systems, and any required safety procedures or perceived risks as a result of the shutdown;
 - b) a detailed outline of the duration and scope of work to be performed during the shutdown as well as the steps involved in restoring and verifying full functionality of the impacted systems; and
 - c) for critical or major Impacts, a back-up power plan shall be provided to restore power to critical systems within the timeframe allocated. This procedure shall be in place and approved by Metrolinx.

3.10 Arc Flash Study

- 3.10.1 An arc flash study (the “Arc Flash Study”) shall be performed and submitted to Metrolinx for review that meets the latest requirements of OBC, Workplace Electrical Safety CSA Z462 and Standard for Electrical Safety in the Workplace

NFPA 70E for all temporary Electrical Equipment required in accordance with Section 4.14.

3.11 Maintenance Plan

- 3.11.1 Where the Contracted Party is maintaining infrastructure being used by Customers, a plan setting out the Contracted Party's plan for complying with all of its obligations with respect to GO Facility maintenance services shall be submitted for Metrolinx review (the "Maintenance Plan") in accordance with the requirements of this standard and specific contract document requirements, including;
- a) a description of communication and notification protocol to ensure efficient coordination of activities with Metrolinx;
 - b) a delineation and demarcation drawing and process descriptions for all GO Facility maintenance services to be provided throughout the Works;
 - c) a description of all inspections, testing and preventative maintenance related to GO Facility Maintenance Services in accordance with the requirements of Section 5.6;
 - d) a description of the type, frequency, and location of Cleaning Services to be provided in accordance with the requirements of Section 5.7;
 - e) colour coded drawings that illustrate the locations in which the Snow and Ice Removal Services will be performed in accordance with the requirements of Section 5.8;
 - f) colour coded drawings that illustrate the locations in which the Grounds Maintenance Services will be performed in accordance with the requirements of Section 5.9; and
 - g) a description of the type of all inspections, testing and preventative maintenance, frequency and location of Other Maintenance Services to be provided in accordance with the requirements of Section 5.10.
- 3.11.2 A pre-condition survey shall be constructed and submitted to Metrolinx for review for the existing GO Facility to serve as a baseline condition to assess maintenance service requirements. The pre-condition survey shall include photographs documenting the existing conditions of structures and surface conditions.
- 3.11.3 As part of the pre-condition survey, the Contracted Party shall arrange an on-site service review meeting with Metrolinx before the Contracted Party deploys on-site. All parties shall conduct a technical review of the current state of all devices, existing site conditions pertinent to the project, and the process, lead times, and contact information from each party in the event of planned and un-planned service outages.
- 3.11.4 Maintenance service manager(s) shall be provided to oversee all maintenance services performed as part of the Work with a minimum of 15 years of experience

- in managing snow and ice removal services, cleaning services, grounds maintenance and asset management (the "Maintenance Service Manager(s)").
- 3.11.5 The Maintenance Service Manager(s) shall be available 365 days per year, 24 hours a day for communication and coordination with Metrolinx with respect to maintenance and operational emergencies such as a disruption to service or a health or safety impact to an individual, The Maintenance Service Manager, or their delegate as approved by Metrolinx, shall:
- a) within 30 minutes of receiving the initial communication from Station Services, respond to Station Services; and
 - b) within two hours of receiving the initial communication from Station Services, be on-Site in order to address the issue as directed by Metrolinx Station Services.

4. Temporary Metrolinx Infrastructure

4.1 General

- 4.1.1 Temporary Metrolinx Infrastructure requirements shall be determined by Metrolinx based on project delivery model, scope and the specific requirements of the contract documents.
- 4.1.2 All Temporary Metrolinx Infrastructure shall be designed and constructed to the same specification, quantity and quality outlined in Metrolinx Standards, unless requirements are otherwise outlined in this standard; or a deviation is approved by Metrolinx through the Standard Deviation Process.
- 4.1.3 In order to put Temporary Metrolinx Infrastructure of Section 4 in-service, the Appendix F - In-Service Readiness Verification Form, shall be completed and signed-off by Metrolinx. Multiple walk throughs shall be required at preliminary review, final review and to confirm correction of deficiencies.
- 4.1.4 Conducted as part of the In-Service Readiness Verification, Site walk-throughs shall be conducted with Metrolinx in accordance with the following requirements:
- a) sufficient notice shall be provided to Metrolinx to attend Site walk-throughs in accordance with the Customer Experience Management Plan and Appendix D - Criticality and Required Lead Time; and
 - b) any deficiencies identified during the Site walk-throughs that may negatively impact operations, maintenance or Customer experience, as determined by Metrolinx, shall be remedied prior to Temporary Metrolinx Infrastructure being placed in-service.
- 4.1.5 If there is a pause or blackout greater than four weeks during the construction a site walk through shall be completed with Metrolinx to ensure the Site footprint is minimized and Customer safety is protected. Any deficiencies shall be addressed within 30 calendar days of site walk through.

4.2 Temporary fencing and hoarding

- 4.2.1 Fencing and hoarding shall provide a clear construction boundary located to minimize impacts to GO Facility Customers and staff:
- a) Work in publicly or staff accessible areas of the Site shall be scheduled to occur outside of service hours, during Off-Peak Hours, on weekends, and outside of special events to minimize Customer impacts.
- 4.2.2 Any alternatives to fencing and hoarding proposed by the Contracted Party shall be subject to Metrolinx review and approval.

- 4.2.3 The location and placement of the fencing and hoarding to delineate the Work Areas from the public and operational areas shall be coordinated with Metrolinx prior to undertaking any Work in accordance with the following requirements:
- a) location shall be marked out on-Site and accepted by Metrolinx prior to installation;
 - b) all Work Areas including construction staging areas shall have a fully secured perimeter;
 - c) fencing and hoarding shall be designed using CPTED principles to provide natural surveillance and safe travel through the Site. This includes safe routes for pedestrians and cyclists;
 - d) fencing and hoarding shall not interfere with sightlines or pose a tripping hazard to the public;
 - e) placement of fencing and hoarding shall provide a clear walkway at least 1800 mm wide;
 - f) the base of the barriers and guards shall be protected against damage from snow clearing equipment and eliminate trip hazards within pedestrian paths;
 - g) any hoarding adjacent to the Customer path of travel, walkway or sidewalk shall be 70% colour contrasted to flooring and surroundings surfaces and shall be cane detectable; and
 - h) fencing shall be anchored in such a way as to avoid all tripping hazards. If base plates are utilized, they shall be parallel to fence lines of travel to ensure no projections into the path of travel.
- 4.2.4 Interior hoarding shall be designed, constructed and installed in accordance with the following requirements:
- a) solid hoarding shall be supplied within interior public spaces and finished to blend into interior environment;
 - b) hoarding shall be floor to ceiling height, for floor to ceiling heights greater than 3.0 metres, hoarding the first 3.0 metres is permitted; and
 - c) hoarding shall take into consideration air flows, fire control and Emergency Access and be designed accordingly.
- 4.2.5 Exterior hoarding and fencing shall be designed, constructed and installed around the perimeter of work to add security and prevent accidents to the public in accordance with the following requirements:
- a) hoarding and fencing shall be secure, climb-resistant, cut-resistant, and vandal-proof;
 - b) fencing shall include dust and privacy control mesh with grommets;

- c) hoarding and fencing shall be secure and include dust and privacy control mesh with grommets;
 - d) hoarding and fencing shall meet the height requirements in accordance with Low, Medium and High Risk Facilities fencing provisions as referenced in Metrolinx Standards;
 - e) hoarding and fencing on the Rail Platform shall:
 - 1) meet the requirements of Metrolinx Track Standards as well as Railway Corridors operational requirements;
 - 2) be secured to prevent fouling the track;
 - 3) be accompanied with safety and directional signage to warn and guide Customers; and
 - 4) prevent public access into restricted areas near the platform curb while maintaining the rail clearance envelopes; and
 - f) hoarding and fencing with potential of vehicle impacts shall resist vehicle impact loads with additional protection measures (e.g. temporary concrete barriers) designed and provided.
- 4.2.6 All hoarding shall be solid hoarding with “good” plywood on public facing sides. “Good” sides shall be primed and painted with exterior grade paint:
- a) plywood sheets shall be new and full size; and
 - b) damaged plywood shall not be used.
- 4.2.7 All fencing and hoarding shall be installed and as needed repaired to withstand weather conditions, wind gusts due to passing trains, vandalism and impact loads until completion of the project or specific task as required.
- 4.2.8 All fencing and hoarding shall be complete and secure with gates and doorways allowing for construction access, equipment access and material deliveries to separate Work Areas from the public and operational areas for each construction stage.
- 4.2.9 All material and equipment stored outside of the project area shall be returned to the designated hoarding area at the end of the Work day, or following use.
- 4.2.10 All fencing and hoarding shall be inspected at the end of every shift, including the repair of any damages to secure access.
- 4.2.11 Temporary fencing and hoarding that is no longer required at the completion of each stage of construction shall be relocated or removed as part of in-service readiness.

4.3 Temporary Wayfinding, Signage and Digital Signage

- 4.3.1 Temporary Wayfinding and Signage including static and Digital Signage shall be provided in accordance with the Metrolinx reviewed Wayfinding and Signage Plan (Section 3.4).
- 4.3.2 Existing or temporary Signage including Digital Signage that is irrelevant or inaccurate at completion of each stage of construction shall be modified, relocated or removed.
- 4.3.3 All new temporary Signage and Digital Signage shall be installed prior to the opening of any portion of the Works to the public.
- 4.3.4 Temporary Signage and Digital Signage shall be fully integrated to reflect all current temporary facility conditions and closures across the Site for continuity.
- 4.3.5 Any damage caused by Signage or Digital Signage removals, installation or associated Site Work shall be repaired.

4.4 Temporary walkways and paths

- 4.4.1 Where the Site walkways and paths are impacted by construction staging, temporary walkways and paths shall be provided in accordance with the requirements of this Section 4.4.
- 4.4.2 Temporary walkways and paths shall be designed, constructed and maintained in accordance with the Metrolinx Standards with the following exceptions:
 - a) minimum walkway and path widths shall be:
 - 1) designed according to the anticipated life of the element based on the horizon year for the completion of construction; and
 - 2) a minimum of 1800 mm;
 - b) for temporary walkway paths adjacent to access roads or with potential for vehicle impacts, delineation and protection measures (e.g. temporary concrete barriers) shall be designed and provided.
- 4.4.3 Seating areas shall be provided in accordance with Metrolinx Standards to replace lost seating due to construction related activities and located in accordance with the Construction Staging Plans reviewed by Metrolinx.
- 4.4.4 Waste bins shall be provided in accordance with Metrolinx Standards to replace lost waste bins due to construction related activities and located along main pedestrian circulation routes in accordance with the Construction Staging Plans reviewed by Metrolinx.

- 4.4.5 Digital Signage and static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3.

4.5 Temporary Bus Loop, Pick-Up and Drop-Off and Parking Lot

- 4.5.1 Where the Bus Loop, PUDO or Parking Lot are impacted by construction staging, temporary replacement facilities shall be provided in accordance with the requirements of this Section 4.5 with prioritization of these temporary facilities based on the GO Rail Station Access Plan Hierarchy of Access and Appendix E - Sample Impacts and Preferred Mitigations.
- 4.5.2 Temporary Bus Loop, PUDO and Parking Lot shall be designed, constructed and maintained in accordance with the Metrolinx Standards with the following exceptions:
- a) temporary Bus Loop, PUDO and Parking Lot, shall have a design service life suited to the anticipated service life and usage required and shall be no less than five years;
 - b) temporary Bus Loop, PUDO and Parking Lot pavement design shall be based on recommendations by a geotechnical engineer, licensed to practice in the province of Ontario. The Temporary Bus Loop shall be designed and constructed for bus weight rating and any damages to Existing Metrolinx Infrastructure shall be maintained throughout the use of the temporary Bus Loop;
 - c) line-marked island between access roads and PUDO area or parking shall be a minimum 2.5 metres wide including a 1.0 metre wide section for vehicle overhang;
 - d) pavement relining shall be completed annually outside of operational hours and with no impact to Customers;
 - e) temporary Bus Loop, PUDO and Parking Facilities shall be designed to be accessible as described in the Metrolinx Universal Design Standard:
 - 1) the Accessible Route to and from the temporary Bus Loop, PUDO and Accessible Parking shall be separated from vehicular traffic by a raised curb and provide Barrier-Free PUDO in accordance with Metrolinx Standards;
 - f) temporary Parking Lot shall maintain the number of Accessible Parking spaces as per the existing Site conditions. Accessible Parking shall be provided to meet the Metrolinx Universal Design Standard;
 - g) Bus Bays, PUDO, Reserved Parking, staff parking, carpool parking and electric-vehicle parking shall be maintained in equal number to those taken

for the construction purposes and in preferred locations within the remaining existing or temporary Parking Lot;

- h) a percentage reduction in standard parking stall spaces shall be permitted based on the utilization of the existing parking lot provided by Metrolinx as well as maintaining below 80% reserved parking cap within the lot as follows:
 - 1) < 80% utilization, shall be permitted a 20% reduction in standard parking stalls;
 - 2) 80-90% utilization, shall be permitted a 15% reduction in standard parking stalls;
 - 3) 90-100% utilization shall be permitted a 10% reduction in standard parking stalls; and
 - 4) > 100% utilization, shall be permitted a 5% reduction in standard parking stalls;
- i) temporary Bus Loop shall provide a minimum of one passenger shelter per two bus platforms;
- j) temporary Electrical Systems for the temporary Bus Loop, PUDO and Parking Lot shall be in accordance with the requirements of Section 4.14;
- k) GO Facility furniture (waste and recycling receptacles, waste bins, benches, newspaper boxes, static sign display cases etc.) that are in areas impacted by the Work shall be relocated to the relevant Temporary Metrolinx Infrastructure or replaced with new on a like for like basis; and
- l) Digital Signage and static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3.

4.6 Temporary Rail Platform restrictions

4.6.1 Temporary Rail Platform restrictions shall not be permitted unless approved by Metrolinx:

- a) where existing rail infrastructure are impacted by construction staging, Temporary Metrolinx Infrastructure shall be provided in accordance with Sections 4.7, 4.8 and 4.9.

4.6.2 Where approval has been provided by Metrolinx, Rail Platform temporary restrictions shall be provided in accordance with GO Rail Corridor Access Requirements and the following:

- a) duration of platform restrictions shall be minimized, with temporary platform restrictions and train car closures being considered for approval by Metrolinx in the following order:
 - 1) no restrictions;

- 2) restrictions on weekends only;
 - 3) restrictions during Off-Peak Hours only;
 - 4) restrictions during Peak Hours with eight train cars available for access; and
 - 5) restrictions during Peak Hours with six train cars available for access.
 - b) temporary Rail Platform restrictions shall be coordinated with other projects on the same rail corridor to avoid overcrowding on train consists and at Union Station.
 - c) passenger flow modelling shall be conducted in accordance with Section 3.8 and mitigation measures implemented to avoid overcrowding on Rail Platforms.
- 4.6.3 If train car access restrictions are permitted by Metrolinx a Site walkthrough with Metrolinx shall be arranged to determine train positioning, Mini-Platform location, hoarding locations, passenger volume risks, accessibility impacts and furniture placement.

4.7 Temporary Rail Platform

- 4.7.1 Where Rail Platforms are impacted by construction staging, temporary Rail Platforms shall be provided to allow train service to continue in accordance with the requirements of Section 4.7.
- 4.7.2 Temporary Rail Platforms shall be designed, constructed and maintained in accordance with the Metrolinx Standards with the following exceptions:
- a) design shall be suited to the anticipated service life and usage required and shall be no less than five years;
 - b) platform foundation design shall be based on recommendations by a geotechnical engineer, licensed to practice in the province of Ontario;
 - c) temporary Rail Platform does not require snowmelt equipment to be installed, however mitigation of snow on temporary Rail Platform is to be carried out including snow removal and storage in accordance with Section 5.8;
 - d) temporary Electrical Systems for the temporary Rail Platform shall be in accordance with the requirements of Section 4.14;
 - e) canopies are not required for temporary Rail Platforms; and
 - f) Digital Signage and static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3.

4.8 Temporary Mini-Platform

- 4.8.1 Where Mini-Platforms are impacted by construction staging, temporary Mini-Platforms shall be provided to allow train service to continue at an existing or new Rail Platform that is under construction in accordance with the following requirements:
- a) only one Mini-Platform per rail platform shall be permitted to be in operation at any time;
 - b) during construction of non-operational temporary or new Mini-Platform, this construction shall not be permitted to impact train car operations unless otherwise approved by Metrolinx;
 - c) temporary Mini-Platform shall be designed for equipment weight rating, such as Bobcat, Kubota and scissor-lift;
 - d) temporary Mini-Platform shall be decommissioned and removed from Site on commissioning of the permanent Work; and
 - e) temporary Mini-Platforms shall be located along the Accessible Route and maintain accessibility, convenience and safety of customers with disabilities when boarding the trains in accordance with Metrolinx Standards.
- 4.8.2 Temporary Mini-Platforms shall be designed, constructed and maintained in accordance with the Metrolinx Standards with the following exceptions:
- a) design shall be suited to the anticipated service life and usage required and shall be no less than five years;
 - b) temporary Electrical Systems for the Temporary Mini-Platform shall be in accordance with the requirements of Section 4.14;
 - c) temporary Mini-Platform and the train stopping location shall be aligned to ensure the correct stopped location of the accessible coach;
 - d) temporary Mini-Platform does not require snowmelt equipment to be installed, however mitigation of snow on temporary Mini-Platform is to be carried out including snow removal and storage in accordance with Section 5.8;
 - e) temporary Mini-Platform shall be made of exterior grade pressure treated wood with a superficial non-slip coating. Provide tactile attention indicators conforming to requirements of the OBC and Metrolinx Standards:
 - 1) non-slip coating shall be applied annually outside of operational hours and with no impact to Customers; and
 - 2) regular inspections and maintenance shall be performed to ensure that the tactile attention indicator tiles are flush with the finished surface (non-slip coating) of the Mini-Platform;
 - f) Digital Signage and static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3; and

- g) exterior pressure treated wood shall not be permitted for handrails supports. Handrails shall be galvanized or stainless steel and round in profile. Railings shall be designed and constructed to withstand loads in accordance with OBC and in conformance with Metrolinx Standards.

4.9 Temporary maintenance track crossing

- 4.9.1 Maintenance track crossings that are in areas impacted by the Work shall be replaced with an at-grade rail platform access within the GO Rail Station limits to provide platform maintenance for the transfer of materials, tools and equipment across the tracks.
- 4.9.2 Temporary maintenance track crossings shall be designed, constructed and maintained in accordance with the Metrolinx Standards and the following requirements:
 - a) a dedicated, gated, hatched, protected and signed area shall be provided from station side to platform access in accordance with Metrolinx Standards; and
 - b) careful consideration shall be given to ensure corridor access requirements do not disrupt Customer access to amenities.

4.10 Temporary ticket booth

- 4.10.1 Where GO Facility ticket booths are impacted by construction staging, a temporary ticket booth shall be provided in accordance with the requirements of this Section 4.10.
- 4.10.2 Temporary ticket booths shall be designed, constructed and installed in accordance with the Metrolinx Portable Ticket Booth Specification reference document and the following requirements. In the case of contradictions between the Metrolinx Portable Ticket Booth Specification reference document and this section, the requirements of this section shall take precedence.
- 4.10.3 Temporary ticket booth shall be mechanically ventilated and air-conditioned by means of the most cost-effective energy source available at the Site. Daytime design temperatures (with nighttime setbacks) for the rooms inside the temporary ticket booth shall be in accordance with the acceptable ranges set in the Metrolinx Standards.
- 4.10.4 Temporary ticket booth shall be OBC and AODA compliant and designed to be accessible for all GO Facility users. Design of the temporary ticket booth shall conform to Metrolinx Standards.
- 4.10.5 Temporary Electrical Systems for the temporary ticket booth shall be in accordance with the requirements of Section 4.14.

- 4.10.6 Temporary ticket booth shall be fully serviced with sanitary and domestic cold water (potable water) connections. Holding tanks shall not be permitted unless otherwise approved by Metrolinx:
- a) where approval has been provided by Metrolinx for a holding tank, these tanks shall be housed outside of the temporary ticket booth trailer and cleaned in accordance with Section 5.7.
- 4.10.7 Power and water to the Temporary Metrolinx Infrastructure shall be provided and where holding tanks are permitted, the removal of sewage and solid/liquid waste from the holding tanks shall occur on a daily basis. Records of the removal shall be kept on file and available for review by Metrolinx upon request. Records shall include tracking of waybills detailing the date of removal, tonnage/volume removed, and destination (landfill, incineration, recycling).
- 4.10.8 All temporary services and connections shall be removed and permanently capped after dismantling and removing the temporary ticket booth. The relevant utility company shall be contacted for full and complete discontinuation of metering and billing. Records confirming termination of services shall be provided to Metrolinx immediately following removal of the utility service.
- 4.10.9 Digital Signage and static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3.
- 4.10.10 Temporary ticket booth(s) shall include:
- a) service counters in conformance with Metrolinx Standards;
 - b) kitchenette complete with millwork, sink with plumbing fixture in conformance with Metrolinx Standards, water cooler, and an under-counter fridge;
 - c) first aid kit (located in the kitchenette);
 - d) staff washroom (gender neutral);
 - e) durable and easy to maintain interior finishes;
 - f) interior lighting and exterior entrance lights in conformance with Metrolinx Standards;
 - g) exterior canopy for weather protection over the service counters;
 - h) waterproof outdoor LED display(s);
 - i) public address system;
 - j) exterior Signage in conformance with Metrolinx Standards;
 - k) mechanical room to house HVAC equipment, and water meter etc., as per mechanical system proposed;

- l) maintenance room to house mop sink and mop and broom hangers etc. in conformance with Metrolinx Standards;
 - m) shared electrical and communications room;
 - n) recessed wall safe complete with reinforced concrete base;
 - o) rolling security door; and
 - p) millwork cabinets with locksets for coats, general storage, and required equipment.
- 4.10.11 Design of the temporary ticket booth shall be modular to allow for flexibility in the number of service counters.

4.11 Temporary washroom

- 4.11.1 Where GO Facility washrooms are impacted by construction staging, temporary washrooms shall be provided in accordance with the following requirements:
- a) washrooms (including accessible washrooms) shall be provided on a 1:1 ratio for the full duration of construction; and
 - b) a universal washroom shall also be provided.
- 4.11.2 Temporary Electrical Systems for the temporary washroom(s) shall be in accordance with the requirements of Section 4.14.
- 4.11.3 Temporary washrooms shall be fully serviced with sanitary and domestic cold water (potable water) connections. Holding tanks shall not be permitted unless otherwise approved by Metrolinx:
- a) where approval has been provided by Metrolinx, a holding tank shall be provided with minimum 160 gallon (fresh water) and minimum 240 gallon (wastewater) holding capacity and cleaned in accordance with Section 5.7.
- 4.11.4 Power and water to the Temporary Metrolinx Infrastructure shall be provided and where holding tanks are permitted, the removal of sewage and solid/liquid waste from the holding tanks shall occur on a daily basis. Records of the removal shall be kept on file and available for review by Metrolinx upon request. Records shall include tracking of waybills detailing the date of removal, tonnage/volume removed, and destination (landfill, incineration, recycling).
- 4.11.5 All temporary services and connections shall be removed and permanently capped after dismantling and removing temporary washrooms. The relevant utility company shall be contacted for full and complete discontinuation of metering and billing. Records confirming termination of services shall be provided to Metrolinx immediately following removal of the utility service.
- 4.11.6 Static Signage relocation shall be in accordance with the Metrolinx reviewed Wayfinding and Signage Plan and Section 4.3.

- 4.11.7 Temporary washroom(s) shall include:
- a) fully enclosed individual washroom(s) complete with a toilet, sink with plumbing fixture in conformance with Metrolinx Standards, mirror, paper towel dispenser, soap dispenser, toilet paper dispenser (double roll), sanitary napkin disposal, and a waste receptacle;
 - b) heating and air conditioning;
 - c) durable and easy to maintain interior finishes;
 - d) interior lighting and exterior entrance lights; and
 - e) retractable chrome checker plate porch and steps complete with porch lighting.
- 4.11.8 Temporary universal washroom(s) shall be OBC compliant and include:
- a) all required fixtures and accessories in accordance with OBC requirements for a universal washroom;
 - b) heating and air conditioning;
 - c) be located adjacent or connected to an Accessible Route;
 - d) fold-up rails and ramps (as required) from a sidewalk in conformance with OBC requirements that secure directly to the temporary washroom unit;
 - e) a door that opens to the outside that provides a clear width of not less than 850 mm when the door is in the open position;
 - f) automatic door opener;
 - g) durable and easy to maintain interior finishes; and
 - h) interior lighting and exterior entrance lights.
- 4.11.9 Temporary washroom(s) shall be regularly cleaned and maintained:
- a) as a minimum, cleaning and maintenance shall include the following every four hours during GO Facility opening hours:
 - 1) removal of waste;
 - 2) recharging toilet tank with deodorant; and
 - 3) restocking toilet paper; and
 - b) the Interior and exterior of temporary washroom units shall be high-pressure washed twice per year (spring and fall).

4.12 Temporary Life Safety Equipment and Identification Signage

4.12.1 Where existing Life Safety Equipment and Signage in publicly accessible areas of the Site, are impacted by construction staging, replacement Signage and Life Safety Equipment shall be provided in accordance with the following:

- a) emergency evacuation route Signage for Customers and GO Facility staff if the route has been altered or impacted;
- b) location on-Site shall include an overhead or projecting sign visible from a minimum of 10 metres in every direction along public travel paths; and
- c) identification Signage shall be installed including Signage for:
 - 1) automated external defibrillator stations;
 - 2) first aid boxes;
 - 3) eye wash stations;
 - 4) Emergency two-way call systems;
 - 5) fire extinguishers and fire hose cabinets; and
 - 6) assembly areas.

4.13 Temporary back-up ancillary services

4.13.1 Ancillary services shall remain functional at all time unless accepted by Metrolinx through a controlled shut-down in accordance with Section 3.9.

4.13.2 Temporary back-up ancillary services shall be provided if requested by Metrolinx.

4.14 Temporary Electrical Systems

4.14.1 Electrical Systems shall be provided in accordance with Metrolinx Standards for the operation of all Temporary Metrolinx Infrastructure systems including the following:

- a) hydro utility connection, dedicated to the Temporary Metrolinx Infrastructure:
 - 1) there can only be one utility connection per property. Any Temporary Metrolinx infrastructure system requirements must be supported by the capacity of the existing Electrical System in accordance with the Electrical Safety Authority requirements. If the existing infrastructure does not have the capacity to carry the Temporary Metrolinx Infrastructure, then the Electrical System must be upgraded to meet the new load requirements. This does not

apply to intermittent loads used for a very short time, a dedicated standby generator can be used to support this load directly;

- b) power distribution system dedicated to the Temporary Metrolinx Infrastructure and not shared with any other party's distribution system;
- c) standby power system, including diesel generators, automatic transfer switches, and uninterruptable power supplies;
- d) grounding system, including grounding for future electrification system;
- e) lightning protection system; and
- f) lighting and lighting control system.

4.14.2 Communication systems shall be provided in accordance with Metrolinx Standards for the operation of all Temporary Metrolinx Infrastructure, including the following:

- a) communication network with communications room for connectivity;
- b) Bell service connection to the communications room, in accordance with Metrolinx Standards;
- c) public address system;
- d) closed circuit television system;
- e) intercom system;
- f) two-way communication devices;
- g) voice and data system;
- h) telecommunications utility connection;
- i) security and access control system;
- j) fire alarm system;
- k) network clock system;
- l) non-public Wi-Fi; and
- m) Digital Signage.

4.14.3 Temporary illumination and CCTV provisions shall be in accordance with Metrolinx Standards, except that direct buried wood poles and aerial cabling can be used:

- a) poles shall provide load and wind resistance performance for intended function.

4.14.4 Fare Systems shall be provided in accordance with Metrolinx Standards for the operation of all Temporary Metrolinx Infrastructure, including the following:

- a) Fare Systems that are in areas impacted by the Work shall be:

- 1) relocated to the relevant Temporary Metrolinx Infrastructure;
 - 2) replaced with new on a like for like basis; or
 - 3) replaced with Digital Fare Channels if supported by GO Station wi-fi capabilities and as approved by Metrolinx; and
 - b) temporary Fare Systems shall be decommissioned and removed from Site upon completion of the related Construction Activities unless otherwise directed by Metrolinx and the original/new Fare Systems reinstated/commissioned.
- 4.14.5 Building Automation Systems shall be provided in accordance with Metrolinx Standards and integrated with the existing BAS at the GO Facility for the operation of all Temporary Metrolinx Infrastructure, including the following:
- a) BAS systems shall be installed to monitor and control technical systems and services such as air conditioning, ventilation, lighting and other critical systems;
 - b) BAS shall provide business continuity, remote access to various systems and allow a consistent approach to collect asset data for analyses;
 - c) provisions shall be provided to eliminate voltage fluctuations and spikes, radio frequency interference, power failures, and surges;
 - d) system components shall communicate using BACnet protocol in accordance with ASHRAE 135 including systems and building controllers specified within Metrolinx Standards;
 - e) the BAS shall include a communications link that permits access and information transfer between points within the Metrolinx network;
 - f) general equipment alarms shall have a common alarm sent back via the connected supervisory Chubb system point as redundancy; and
 - g) appropriate connections and control logic shall be configured for the status and alarm of plumbing pumps including sump pumps.
- 4.14.6 In the event the Temporary Metrolinx Infrastructure will be in operation when the electrification of the rail corridor begins, the grounding and bonding system for the Temporary Metrolinx Infrastructure shall be compliant with the Metrolinx Electrification Standards.
- 4.14.7 All Electrical Systems shall meet the EMI and EMC requirements in the Metrolinx Standards.
- 4.14.8 For any Work or access required into manholes, junction boxes, manifold chambers and handwells, the Contracted Party shall ensure the safety of staff and the public and upon completion shall fully secure covers with all bolts and locking mechanisms engaged.

5. Other Site requirements

5.1 Equipment and materials storage

- 5.1.1 Passenger routes shall be free from obstruction and clearly signed for all public areas and platforms open for revenue service throughout construction.
- 5.1.2 Construction shall interfere as little as possible with Customer activities and limit material delivery to Off-Peak Hours.
- 5.1.3 Equipment and material shall be fenced and secured. Storage of materials and equipment shall be determined in conjunction and coordination with Metrolinx.

5.2 Demolition, disposal and salvaging of assets

- 5.2.1 Disposal of all waste materials shall be in accordance with the Environmental Protection Act (Ontario).
- 5.2.2 Disposal of soil cuttings and purged groundwater from soil investigations or subsurface work shall be in accordance with the Metrolinx Work Instruction for Soil Cuttings and Purged Groundwater Disposal. All waste temporarily stored on-Site shall be clearly labelled including the date of waste generation.
- 5.2.3 All waste materials shall be removed within 14 calendar days following waste generation by a licensed waste hauler.
- 5.2.4 Waste shall be removed under a Hazardous Waste Identification Number (HWIN) taken out specifically for the construction project by the Contracted Party:
 - a) for projects that will be run and operated by Metrolinx post-construction, a Metrolinx contact shall be included on the account; and
 - b) for projects that are under an operations and maintenance contract (e.g. DBFOM), the Contracted Party shall be included on the account.
- 5.2.5 Demolition and re-routing of all services shall be coordinated with Metrolinx and relevant stakeholders:
 - a) all decommissioned, temporary, unused, or superseded Mechanical Systems and Electrical Systems (including low voltage systems, Signage, devices, lighting systems, cable trays, conduits, baggage handling devices, framing, and similar appurtenances) shall be removed and disposed of unless otherwise directed by Metrolinx;
 - b) a minimum of 90 calendar days notice, unless otherwise permitted by Metrolinx, shall be provided prior to any demolition activities that require relocation or removal and disposal of any Metrolinx services or infrastructure including Temporary Metrolinx Infrastructure; and

- c) updates to Environmental Compliance Approval shall be required prior to removal of any existing oil-grit separators from Site.
- 5.2.6 Mitigation measures shall be implemented to protect Existing Metrolinx Infrastructure not designated for demolition and ensure the safe and continued operation of the Existing Systems and structures.
- 5.2.7 GO Facility waste and recycling receptacles shall not be permitted for the disposal of any construction materials.
- 5.2.8 Items containing materials slated for salvage shall be carefully removed and dismantled and delivered to maintenance yard locations directed by Metrolinx between 08:00 – 14:00 Monday to Friday (excluding holidays).
- 5.2.9 All Site services and utilities that are no longer required shall be decommissioned. The relevant utility company shall be contacted for full and complete discontinuation of metering and billing.
- 5.2.10 Where existing elements such as architectural finishes, mechanical or electrical services are altered, cut, or damaged to interface with New or Temporary Metrolinx Infrastructure, the existing elements shall be patched, replaced, and otherwise made good to be indistinguishable from the adjacent existing elements.

5.3 Protection of Existing Systems

- 5.3.1 All Existing Systems shall be protected for the duration of the Work and all systems shall remain operational in all areas that are accessible to Customers and staff. This includes systems that are in both public and non-public Metrolinx facilities and buildings.
- 5.3.2 During construction it is the Contracted Party's responsibility to ensure all Electrical Systems and devices in and around the Work Areas are protected.
- 5.3.3 Where Existing Systems are planned to be impacted, replacement systems shall provide coverage throughout construction that is equivalent to the existing coverage.
- 5.3.4 Electrical and Mechanical Systems shall be increased as necessary to maintain Customer safety and the convenience of fare handling. The quantity and placement of these systems shall be in accordance with CPTED requirements and the Customer Experience Management Plan.
- 5.3.5 If an Electrical or Mechanical System is accidentally impacted during construction, Metrolinx shall be informed immediately, and repairs completed to ensure operational service is not interrupted.
- 5.3.6 Conditions where protection need is identified during construction to existing Electrical Systems and devices shall be communicated to Metrolinx Business Technology through updates to the Construction Staging Plans before commencing work in the area.

- 5.3.7 Sufficient notice shall be provided to Metrolinx for planned Electrical System outages and decommissioning of services or devices, either permanent or temporary, in accordance with the Customer Experience Management Plan and Appendix D - Criticality and Required Lead Time. The Contracted Party shall be responsible for ensuring service continuity of the IT related systems during the construction period.
- 5.3.8 Prior to any Existing System planned power shutdown, a Site walk-through with Metrolinx shall be completed to identify any Existing System deficiencies. A further Site walk-through shall be completed after the shutdown to identify any subsequent Electrical and Mechanical System deficiencies, rectify deficiencies and confirm system readiness in accordance with the In-Service Readiness Verification process.

5.4 Environmental impacts due to Construction Activities

- 5.4.1 Measures shall be implemented to manage Work-related air emissions including fugitive dust and odour to meet all applicable regulatory requirements.
- 5.4.2 Measures shall be implemented to manage Work-related noise and vibration impacts to meet all applicable regulatory requirements:
- a) mitigation shall include measures to protect areas adjacent to space occupied by Customers; and
 - b) quiet, commercially available generators contained within noise insulated barriers or enclosures shall be used to minimize noise from such equipment.
- 5.4.3 Measures shall be implemented to maintain construction equipment and minimize spill events or other releases of liquid chemicals, fuels and lubricants, and manage or otherwise mitigate the effects of any such spills. Areas where bulk chemicals are stored, or liquid fuel transfer is completed shall be equipped with spill containment and have a spill kit available.
- 5.4.4 Measures shall be implemented to avoid damage to adjacent areas from overspray during paint spraying applications. Any damage caused shall be immediately repaired.
- 5.4.5 At no time, shall temporarily lighting for Construction Activities be directed towards adjacent properties or in such a manner that will impede or deter the safe passage of rail traffic.
- 5.4.6 Monitoring wells installed in support of Construction Activities that are no longer needed shall be decommissioned in accordance with the contract documents, but no later than 30 calendar days following project completion.

5.5 Nuisance alarms

- 5.5.1 A Site meeting shall be held with Station Services (including Chubb security) to review alarm protocol and to review the planned Work to take place on systems with alarm points.
- 5.5.2 Measures shall be implemented to manage Work-related air emissions to protect existing Electrical Systems and Mechanical Systems to avoid false activations, false alarms and damage.
- 5.5.3 Construction Work and relocation or reconfiguration of Electrical Systems and Mechanical Systems shall not trigger any nuisance alarms or impact other building functions.

5.6 Asset Inspection and Maintenance Services

- 5.6.1 The following obligations with respect to Asset Inspection and Maintenance Services shall be performed until Substantial Completion unless otherwise directed by Metrolinx in the contract documents:
 - a) monthly testing and inspection shall be completed to ensure full functionality of all new and temporary assets until Substantial Completion;
 - b) regular maintenance, repair and replacement of all new and temporary assets within the Site shall be performed until Substantial Completion;
 - c) monthly testing and inspection of all existing assets within the Site in accordance with the contract documents shall be performed until Substantial Completion;
 - d) regular maintenance, repair and replacement of all existing assets within the Site in accordance with the contract documents shall be performed until Substantial Completion;
 - e) all testing, inspection, maintenance and cleaning activities performed shall be logged and submitted to Metrolinx for review on a monthly basis;
 - f) routine inspection, cleaning and upkeep of any existing, new or temporary assets shall be performed to ensure a safe and secure environment in accordance with:
 - 1) manufacturer's requirements;
 - 2) warranty requirements;
 - 3) regulatory requirements;
 - 4) Good Industry Practices; and
 - 5) as a minimum on a monthly basis;

- g) broken, damaged, vandalized or deficient assets shall be immediately repaired; and
- h) access shall be allowed to Metrolinx vendor(s) when required to conduct any necessary services.

5.7 Cleaning Services

5.7.1 The following obligations with respect to Cleaning Services shall be performed on the Site for all New Metrolinx Infrastructure, Temporary Metrolinx Infrastructure and Existing Metrolinx Infrastructure until Substantial Completion unless otherwise directed by Metrolinx in the contract documents:

- a) cleaning of all liquid spills within 24 hours from time of identification;
- b) removal of any litter, rubbish or debris within 24 hours from time of identification;
- c) removal of graffiti deemed offensive in nature by Metrolinx within 24 hours from time of identification;
- d) removal of graffiti within five Business Days from time of identification;
- e) ensuring external areas are free from vandalism, chewing gum, streaks, residue, spots and marks, cigarette butts, vermin and pests at all times;
- f) ensuring that internal walls are free from marks caused by furniture, equipment or end users at all times;
- g) ensuring that current and future interior areas are free from residue, grease, dirt, dust, grit, soil, film, smudge marks, fingerprints, vermin, pests, and cobwebs at all times;
- h) spot cleaning all glass surfaces daily; and
- i) power washing:
 - 1) after service hours;
 - 2) on a monthly basis between May and September annually;
 - 3) once immediately prior to placing asset in-service; and
 - 4) once immediately prior to Substantial Completion.

5.7.2 Cleaning Services for access roads, PUDO, Bus Loop, Parking Lot and station plaza areas shall be completed as required, but no less than every three days.

5.7.3 Cleaning Services for Rail Platforms, shelters, waste and recycling receptacles, Station Building and circulation areas including pedestrian tunnels, bridges, stairs and elevators shall be completed on a daily basis or more frequently as required.

- 5.7.4 Cleaning Services shall be provided for interior and exterior areas of the new Station Buildings, waste removal from the sites waste and recycling receptacles when 50% capacity has been reached.
- 5.7.5 All Cleaning Services required for health and safety purposes shall be provided in a timely manner and in accordance with the project specific health and safety requirements in the contract documents.
- 5.7.6 Cleaning Services shall be performed with proper tools, equipment and materials in accordance with Good Industry Practice.

5.8 Snow and Ice Removal Services

- 5.8.1 The following obligations with respect to Snow and Ice Removal Services shall be determined by Metrolinx based on project delivery model, scope and the specific requirements of the contract documents and performed until Substantial Completion unless otherwise directed by Metrolinx in the contract documents:
 - a) equipment and labour shall be available at all times to respond and undertake the Snow and Ice Removal Services;
 - b) all platforms shall be cleared of snow and de-iced as required throughout the day;
 - c) snow and Ice Removal Services shall be proactively informed by current and forecast weather conditions using Environment Canada's Meteorological Services to determine the local weather conditions for the Site (www.weatheroffice.gc.ca);
 - d) appropriate track protection shall be arranged for snow and ice removal services within the rail corridor in consultation with Metrolinx;
 - e) new or existing snow melting system on-Site can be used but any deficiencies in these systems shall not alleviate responsibility for Snow and Ice Removal Services;
 - f) non-commissioned snow melt system areas that are used temporarily shall be maintained for Snow and Ice Removal Services using de-icing products in accordance with manufacturer's recommendations;
 - g) pavement and platform areas shall be inspected for areas affected by snow and ice accumulation when temperatures are expected to drop below two degrees Celsius, every night, three hours prior to the start of service every morning and appropriate actions shall be taken to address any conditions or forecasted conditions related to snow and ice:
 - 1) all areas shall be cleared to bare pavement condition and de-iced without notification by Metrolinx at least 30 minutes prior to the start of passenger rail service in the morning and cleared throughout the day in order to allow clear and safe passage;

- h) when this is not possible due to late precipitation falling near GO rail station service hours, clear and de-ice the first six feet from the platform curbs (exposing the yellow line or tactile), elevator and tunnel entrances, exterior staircases and ramps, Fare Devices and shelter entrances, then return to the remaining affected areas after the peak period to complete the snow and ice control services;
- i) Rail Operations, Customers, other members of the public and station operations shall not be obstructed or delayed when carrying out Snow and Ice Removal Services;
- j) snow piles shall not be stored on-Site, unless approval from Metrolinx is provided. Where approval is provided by Metrolinx, snow piles shall be removed within next 24 hours following the end of the snow fall:
 - 1) ice patches shall not be permitted to form from the snow pile runoff due to any thaw freeze cycle that may occur of snow stored on-Site; and
 - 2) snow and ice accumulation areas shall be kept away from catch basins and other drainage systems, where feasible.
- k) Metrolinx shall retain the right to advise when de-icing agent or direct liquid application is to be applied and when snow is to be removed from GO Facility platforms;
- l) it shall be acknowledged that there may be unforeseen incidents or developing circumstances such as snow drifting into a tunnel stairway which may necessitate immediate reaction for Snow and Ice Removal Services:
 - 1) response time to be on-Site with all necessary equipment and labour shall be no later than one hour following awareness of such incident or circumstances;
- m) snow and ice accumulation shall be prevented by de-icing GO Facility platforms before accumulation. Snow and ice that may pose a public safety hazard, such as accumulation that can fall on passers-by or later melt and refreeze onto the pedestrian pathway creating an additional slip and fall hazard shall be removed. If a snow event should occur during GO Facility Peak Hours, extreme caution shall be exercised in the performance of the Snow and Ice Removal Services to ensure public safety;
- n) certification in the Smart About Salt program (<http://www.smartaboutsalt.com/>) is required and all salt provisions and applications shall be in accordance with the following requirements:
 - 1) salt used for winter maintenance shall conform to OPSS 2502;

- 2) salt shall be spread as required to maintain bare pavement conditions, being mindful of the adverse environmental effects of over-salting;
 - 3) certification is required to be held in the Smart About Salt program (<http://www.smartaboutsalt.com/>); and
 - 4) salt boxes shall be provided for platforms and near station buildings only in locations agreed with Metrolinx. Salt boxes shall be fully stocked at all times throughout November 1st to April 30th each year;
- o) visibility and access to fire hydrants and meters shall be maintained at all times; and
 - p) any damage caused by the Snow and Ice Removal Services shall be repaired and any damage rectified as directed by Metrolinx or no later than 30 calendar days after the end of the winter season.

5.9 Grounds Maintenance Services

5.9.1 The Grounds Maintenance Services shall include the following services on the Site for all Existing Metrolinx Infrastructure, Temporary Metrolinx Infrastructure and New Metrolinx Infrastructure until Substantial Completion unless otherwise directed by Metrolinx in the contract documents:

- a) Winterizing:
 - 1) winterizing of plants shall be conducted once annually in accordance with good horticultural and arboricultural practice.
- b) Tree care:
 - 1) tree trimming shall be completed twice annually, not less than 3 months apart;
 - 2) damaged limbs shall be repaired as required;
 - 3) any limbs that cannot be repaired as required shall be removed;
 - 4) pruning and other preventative maintenance activities shall be conducted in accordance with good horticultural and arboricultural practice as and when necessary to maintain natural habit of the tree; and
 - 5) annual check shall be carried out.
- c) Lawn care:
 - 1) lawn height shall be no less than 5 cm, and no greater than 15 cm with grass cutting occurring at minimum every two weeks; and

- 2) lawn care shall include mowing, edging, and fertilizing as required.
- d) Planting maintenance shall include reinstatement of any disturbed soil as required.
- e) Irrigation:
 - 1) irrigation shall occur at regular intervals to maintain the health of all plantings; and
 - 2) commissioning and decommissioning of all irrigation systems shall occur on an annual basis as weather dictates.
- f) Vegetation control including trimming hedges, shrubs and trees:
 - 1) pruning activity shall be completed as required to maintain orderly appearance in accordance with good horticultural and arboricultural practice;
 - 2) planting disease inspection shall be completed once annually, and treatment started immediately in accordance with good horticultural and arboricultural practice; and
 - 3) removal of weeds and invasive Species including weeds that may grow along curbs shall occur at a minimum of every two weeks.
- g) Landscape maintenance including flower beds, planters and GO Facility access roads shall be completed from May to October as required.
- h) Concrete and asphalt repairs to any degradation of concrete or asphalt during construction including:
 - 1) alligator cracks;
 - 2) warping due to heavy vehicle use;
 - 3) drainage issues;
 - 4) concrete cracks >6.35 mm;
 - 5) sinkage/erosion; and
 - 6) crumbling/cracked curbs.
- i) Replacement of any damaged glass on platforms, including shelters, tunnel entrance/exits, vestibules and door glass.
- j) Site sweeping:
 - 1) after service hours;
 - 2) twice per day of roads and sidewalks during construction;
 - 3) twice per year of entire Site (spring and fall);

- 4) immediately prior to placing an asset in-service; and
 - 5) immediately prior to Substantial Completion.
- k) Pavement line painting:
 - 1) after service hours;
 - 2) twice per year (spring and fall) after entire Site sweeping services; and
 - 3) immediately prior to placing an asset in-service; and
 - 4) immediately prior to Substantial Completion.

5.10 Other Maintenance Services

5.10.1 The Other Maintenance Services shall include the following services on the Site for all Existing Metrolinx Infrastructure, Temporary Infrastructure and New Metrolinx Infrastructure until Substantial Completion unless otherwise directed by Metrolinx in the contract documents:

- a) Pest control measures shall be implemented during construction in accordance with Municipal requirements to ensure that all public areas are free from construction rubbish, vermin and pests including:
 - 1) proper Site drainage;
 - 2) minimizing entry points into the Site;
 - 3) reducing areas of pest harborage and bird nesting;
 - 4) waste management;
 - 5) Site hygiene protocols;
 - 6) spider control undertaken three times a year; and
 - 7) other mitigation measures as required.
- b) Signage shall be inspected weekly and immediately repaired or replaced as required to be legible including:
 - 1) new, temporary and existing Metrolinx Signage on the Site (including Digital and static Signage);
 - 2) construction Signage on the Site; and
 - 3) Municipal Signage on the Site.
- c) Inspect and clean the following assets at least monthly and ensure that infrastructure functions as intended:
 - 1) catch basins;

- 2) oil-grit separators and interceptors;
 - 3) storm sewers; and
 - 4) sanitary sewers.
- d) Site lighting fixture outages shall be repaired within 24 hours of outage:
 - 1) light bulbs shall be replaced as required to maintain lighting levels in accordance with Metrolinx Standards.
- e) Generator testing and maintenance shall be conducted monthly including the following with all required repairs and refueling shall be made within 48 hours of discovery:
 - 1) generator testing;
 - 2) generator fuel level check; and
 - 3) transfer switch test.
- f) HVAC filter check shall be completed monthly, filter shall be replaced within 24 hours of identification of requirement.
- g) Fire extinguisher check shall be completed monthly, fire extinguisher shall be replaced within 24 hours of identification of requirement or as otherwise required in accordance with Municipal by-laws.
- h) Automated external defibrillator machine shall be checked monthly, AED machine or batteries shall be replaced within 24 hours of identification of requirement.
- i) First aid kit shall be checked after each use and as a minimum monthly, first aid kit shall be restocked within 48 hours of identification of requirement.

6. In-service readiness, handover and commissioning

6.1 In-Service Readiness Verification

- 6.1.1 In-Service Readiness Verification shall be completed in coordination with Metrolinx and the In-Service Readiness Verification Form shall be signed-off by Metrolinx prior to placing any new, temporary, relocated or replacement asset in-service.
- 6.1.2 Any portion of the Site opened or re-opened to the public shall be cleaned to the extent that it is free of dirt, dust, oil, garbage, construction materials, and any other construction debris prior to opening to the satisfaction of Metrolinx.
- 6.1.3 Debris, stored material, dust, and soil shall be removed from all surfaces affected by the Work by vacuuming, damp mopping, washing, sweeping and scrubbing as required without damaging finishes.
- 6.1.4 All equipment and appurtenances shall be clean.
- 6.1.5 All temporary labels, protective coatings, markings, and tags shall be removed, and adhesive residue cleaned off surfaces.
- 6.1.6 Surrounding surfaces shall be free from contamination including cleaning fluids. If required, temporary protection shall be installed for cleaning operations and removed immediately upon completion.
- 6.1.7 Finishes shall be cleaned in accordance with the finish manufacturer's recommendations.
- 6.1.8 Soaps, detergents, waxes, and other cleaning materials and methods shall be used as recommended by the manufacturer of the finish surface material.
- 6.1.9 A heavy-duty type industrial machine (complete with HEPA filtration) shall be used for all vacuum cleaning.
- 6.1.10 Care shall be taken with abrasive and chemical cleaning agents and their compatibility shall be verified with the finish and material to be cleaned.

6.2 Handover and commissioning

- 6.2.1 Final handover of all new assets to Metrolinx shall follow the Handover and Commissioning Protocol standard.
- 6.2.2 All equipment and appurtenances shall be clean prior to final handover.

A **Appendix A - Station Access Protocol**

A.1 Introduction

- A.1.1. The below protocol is required by Metrolinx to identify which personnel or representatives are visiting GO Facilities and to promote a high degree of safety and due diligence. For information regarding Metrolinx's legal responsibility during construction as well as methods and protocols required during construction, reference shall be made to the Construction Safety Management Plan (CSMP) administered by the Construction Management Office (CMO).
- A.1.2. As various project assignments progress through the stages of planning, design and ultimately implementation, there has been an increasing need for Contracted Parties to access station properties for multiple reasons. This access shall be coordinated through the Metrolinx Project Delivery Team on the Contracted Parties behalf.
- A.1.3. Since Metrolinx facilities are open to the public and in operation, it is prudent that any site visit be responsibly coordinated. This is required to ensure adequate communication is in place, minimize Customer and operational impacts, and certify the safety of all persons and infrastructure on Metrolinx property.
- A.1.4. Metrolinx is equipped with a diverse range of Customer and facility knowledge, skills and experience. As the asset operator, Metrolinx Station Services is pleased to assist the Metrolinx Project Delivery Team and can:
- a) assign subject matter experts;
 - b) review various plans;
 - c) provide authorization to access the site for inspections and studies (traffic, utility, surveying, etc.);
 - d) provide access into restricted spaces (electrical, communication, mechanical rooms);
 - e) share site specific information (historical, asset condition surveys, logbooks);
 - f) help conduct non-fare revenue site assessments;
 - g) authorize property use requests; and
 - h) assist with special events (Fire Safety Week, Lookout Worker).

A.2 Engaging Station Services for GO Facility access

- A.2.1. Nonintrusive Site visits
- A.2.1.1. Any Contracted Parties requiring access to GO Facility sites to complete nonintrusive investigations such as traffic studies, utility locates, visual condition assessments and other similar activities are required to notify Metrolinx Station Services through the Metrolinx Project Delivery Team.

A.2.2. Intrusive Site visits

A.2.2.1. Any Contracted Parties requiring access to GO Facility sites to complete *intrusive* work that will impact the infrastructure or Customer experience such as borehole testing, parking impacts, in-depth condition assessments and other similar activities must send a request 30 calendar days in advance through the Metrolinx Project Delivery Team to the Station Operations Controller. Station Operations Controller will work to expeditiously process Contracted Party requests and if required, will ensure appropriate site preparation and staff are available to meet the needs of the requestor. (For clarity this does not include flagging protection.)

- a) As part of the email notification or request, Contracted Parties shall clearly define the work required and identify the following:
 - 1) main point of contact;
 - 2) description of the work required;
 - 3) projected schedule or duration of the work;
 - 4) proposed list of staff attending the site; and
 - 5) station resources required for the completion of the task (if any).
- b) Contracted Parties are encouraged to request the Metrolinx Project Delivery Team contact Metrolinx Station Services early to allow pro-active management of the approval process, Metrolinx Station Services resources and to facilitate the project schedule.
- c) GO Facility properties includes rail stations, bus terminals, park and ride lots, parking lots and structures. If Contracted Parties require access to a rail layover, rail maintenance yard or the rail corridor (beyond the rail corridor limits as determined by the Rail Corridor Access team), requests shall be directed through the Metrolinx Project Delivery Team to the Rail Corridor Access & Control department.
- d) Site visitors must sign in and sign out at the time of each visit. During normal station work hours sign-in and sign-out shall take place with a Metrolinx representative or at the station attendants' booth at the station, and the maintenance office at Union Station. After hours, if a station attendant is not present, an email to the Station Operations Controller is required (StationOperationsNOCAll@metrolinx.com).
- e) Each entry should include the following:
 - 1) first and last name of the visitor;
 - 2) date and time of arrival;
 - 3) date and time of departure;
 - 4) type of work performed; and
 - 5) completion status or additional work anticipated.

A.3 Additional requirements

- A.3.1. Safety is a priority to Metrolinx. While performing the site visit, work must be done in a manner that ensures the safety of staff and the public.
- A.3.2. When on-Site, all personnel or representatives shall wear full PPE, including safety vest, protective footwear, safety glasses and hard hat in accordance with Metrolinx Construction Safety Management Plan.
- A.3.3. Access to the Rail Platform shall at all times be subject to the direction of Metrolinx Station Services, Rail Corridor Access and any applicable railway operating rules.
- A.3.4. It is mandatory that personnel working within the rail corridor complete all training requirements in accordance with the GO Rail Corridor Access Requirements and perform work in accordance with Metrolinx Construction Safety Management Plan.
- A.3.5. Disruption to the movement of any pedestrian and vehicular traffic in or through the station site shall not be permitted except where approved by Metrolinx.
- A.3.6. Site visits shall be scheduled during Off Peak Hours (if possible) and work shall be performed in a manner that does not interfere with morning and afternoon rush hours, rail traffic or bus movements.
- A.3.7. Vehicles shall be parked in an available regular parking spaces and avoid congesting the PUDO;
- A.3.8. Full co-operation shall be provided to Metrolinx Station Services staff in order to ensure the efficient operation of the Site.
- A.3.9. Contracted Party staff or representatives visiting the site are to behave in a courteous manner at all times toward staff and Customers.
- A.3.10. For any investigation work or access required into manholes, junction boxes, manifold chambers and handwells, the Contracted Party shall ensure the safety of staff and the public during the investigation and upon completion shall fully secure covers with all bolts and locking mechanisms engaged.
- A.3.11. If for any reason the visitor must leave the Site without restoring normal operation, the visitor must email the Station Operations Controller (StationOperationsNOCall@metrolinx.com and provide an estimated time to restore normal operation.

B Appendix B - Customer Experience Management Plan

B.1 Customer Experience Management Plan (template)

Station:

Project:

PROJECT OVERVIEW

PROJECT OVERVIEW									
Project Name		[click here to enter text]			Construction Start Date			[click here to enter a date]	
Operational Region		[East, West, Central]			Construction End Date			[click here to enter a date]	
Station/Terminal/Site		[click here to enter text]			Project Delivery Type			[AFP, DBB, DBFOM, etc.][AFP, DBB, DBFOM, etc.]	
Stations C&C Contact		[click here to enter text]			CPG Project Manager			[click here to enter text]	
Operations Manager		[click here to enter text]			CPG Team Contact			[click here to enter text]	
Partnering Agencies		[TTC Station, VIA, MiWay, etc.]			Delivering Contractor / Project Co / Developer			[click here to enter text]	
Project Description and Scope, including Project Phasing and Key Milestones:									
KEY SITE ATTRIBUTES - PRE-CONSTRUCTION									
Average Daily Boardings		[click here to enter text]			MX Owned Land			[yes / no]	
Average Daily Transfers		[click here to enter text]			Rail Corridor			[i.e. LSW, LSE, KIT, etc.]	
Service Frequency		[15mins, 30mins, 1 hr]			Rail Corridor Ownership			[i.e. MX, CN, CP]	
Parking Capacity	Total # of Spaces	[#]	Parking Structure		[#]		Reserved Parking		[#]
Barrier-Free Access Available to		Station	[yes / no]		Platform(s)		[yes / no]		Bus Loop
# of Platforms		[click here to enter text]			# of Heated Platforms			[click here to enter text]	
Lessee On-Site		[click here to enter text]			Station Operational Hours				
Other Service(s)		[i.e. TTC Station, VIA Bus Route etc.]							

Impact							Mitigation			
							Contracted Party		Customer Change Readiness/ Stations Services	
Item #	Impact Start Date	Impact End Date	General description of impact	Number of Customers impacted	Types of Customers impacted	Level of impact	List of mitigations performed by Contracted Party- As applicable	Contracted Party Owner	List of mitigations performed by Metrolinx - OCRC teams - As applicable	Internal Owner

--	--	--	--	--	--	--	--	--	--	--

Impact							Mitigation			
							Contracted Party		Customer Change Readiness/ Stations Services	
Item #	Impact Start Date	Impact End Date	General description of impact	Number of Customers impacted	Types of Customers impacted	Level of impact	List of mitigations performed by Contracted Party - As applicable	Contracted Party Owner	List of mitigations performed by Metrolinx - OCRC teams - As applicable	Internal Owner

*The above table shall be duplicated if more items need to be included.

- 1. Station Key Map
- 2. Station Site Plan
- 3. Station Site Plan – Impacted Area(s)

- 4. Station Site Plan - Impacted Accesses
- 5. Facility Building Plan - Impacted Area(s)
- 6. Facility Building Plan - Impacted Assets and Equipment

B.2 Sample Customer Experience Management Plan

Station: Burlington GO Station

Project: Off-Corr ESI

1. Project Overview

PROJECT OVERVIEW			
Project Name	Early Stations Improvements	Construction Start Date	October 21, 2019October 21, 2019
Operational Region	West	Construction End Date	TBDTBD
Station/Terminal/Site	Burlington GO Station	Project Delivery Type	Design-Build
Stations C&C Contact	[XXX]	CPG Project Manager	[XX]
Operations Manager	[XXX]	CPG Team Contact	[XXX]
Partnering Agencies	Burlington Transit	Delivering Contractor / Project Co	[XXX].
<div>Project Description and Scope, including Project Phasing and Key Milestones:</div> <div>The ESI project consists of a variety of discreet station improvements at 29 existing stations in the GO rail system. The project will deliver the following scope of work elements while maintaining full operation of the stations and navigating active customer flow. These modifications allow for critical improvements to be undertaken immediately, in advance of future RER projects. Improvements include, but are not limited to:</div> <div><ul style="list-style-type: none">• Installation of tactile tiles along rail platform edges at 19¹ stations to increase safety measures;• Rail platform edge repairs as needed, where edge tile is to be installed;• Bus and Rail service information digital signage installation at 23 stations to elevate customers’ experience and support multi-modal first and last mile options;• Electrical capacity and electrical room upgrades at 5 stations to support new improvements and expanding capacity;• Elevator modernization at 6 stations to enable operational reliability; and• The installation of secure bike rooms at 13² stations to support increasing ridership and multi-modal station access.</div> <div>At the Burlington GO Station, the following improvements are proposed:</div> <div><ul style="list-style-type: none">• New Secure Bike Storage Room to accommodate 48 bicycles. The room is to be located on the south side of the rail corridor, east of the GO Station Building.• Upgrade three elevators; the elevator from the west tunnel to platform 2/3, the elevator from the west tunnel to platform 1, and the elevator from the west tunnel to the north Bus Loop Area.</div> <div>The work will be undertaken immediately and over the next three (3) years.</div>			

¹ award memo states 20 stations, but looking to descope tile at Oakville

² award memo states 15 stations, but removing bike room from Oakville and Bloor

KEY SITE ATTRIBUTES - PRE-CONSTRUCTION												
Average Daily Boardings		[click here to enter text]			MX Owned Land		YES					
Average Daily Transfers		[click here to enter text]			Rail Corridor		LSW					
Service Frequency		All Day including weekends with up to 15 min frequency			Rail Corridor Ownership		MX					
Parking Capacity	Total # of Spaces	2135	Parking Structure		736		Reserved Parking		44			
Barrier-Free Access Available to			Station	yes		Platform(s)		yes		Bus Loop	yes	
# of Platforms		2 Platforms and 3 Tracks			# of Heated Platforms			1 - South Platform				
Lessee Onsite		[click here to enter text]			Station Operational Hours			M-F: 05:00-21:00 S/S: 06:15-21:00				
Other Service(s)		Burlington Transit										

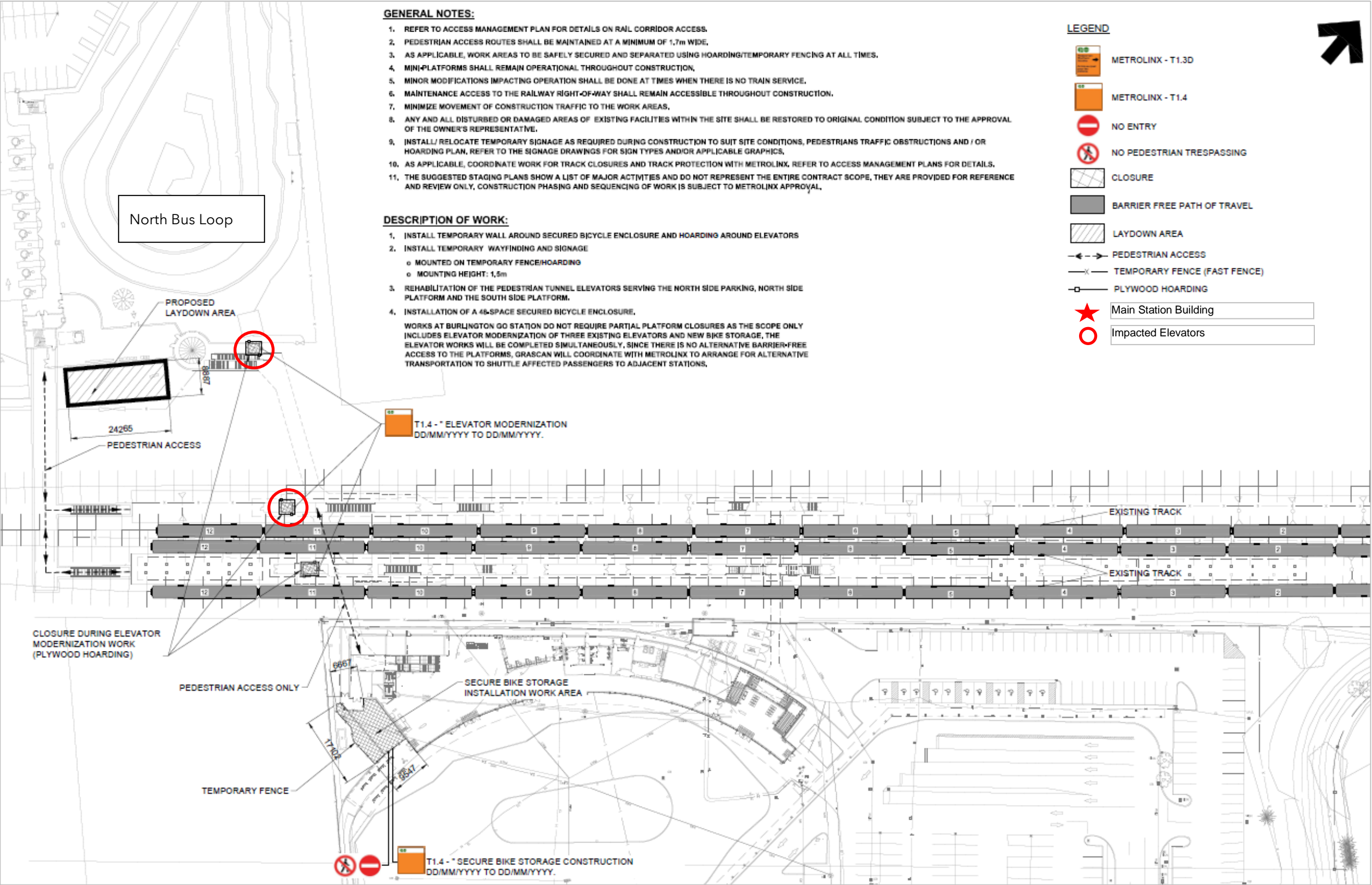
2. Project Impacts On Customers Or Operations & Mitigations

Impact							Mitigation			
							Project Co.		Customer Change Readiness/ Stations Services	
Item #	Impact Start Date	Impact End Date	General description of impact	Number of customers impacted	Types of customers impacted	Level of impact	List of mitigations performed by Project CO. - As applicable	Project Co. Owner	List of mitigations performed by Metrolinx - OCRC teams - As applicable	Internal Owner
1	October 21, 2019	TBD	Elevator modernization will render the station inaccessible	Identify number of customers impacted. Sources: Customer Analytics, Market Research (GO Bus/Rail Survey Report). Ex. 1,200 customers impacted. (not sure of #)	Identify major customer groups impacted by station access mode. Use checkboxes: <input type="checkbox"/> Drive/park x <input type="checkbox"/> PPUDO x <input type="checkbox"/> Local transit x <input type="checkbox"/> GO Bus/Train x <input type="checkbox"/> Bicycle <input type="checkbox"/> Carpool x <input type="checkbox"/> Walk x (potential to impact all customer groups) Those customers with accessibility needs will be negatively impacted by the elevator works. The estimated duration of works is 10 weeks, so for this duration there will not be an accessible path of travel through the station.	Identify level of impact Low/Med/Hi. This is subjective based on a balance of # of customers affected and amount of service/station closed and if there are alternatives. HIGH Given the duration and nature of the impact, this is deemed HIGH. In addition, this is the first time a station has been rendered inaccessible for such a duration to facilitate this type of work.	Project Co will procure and secure Dignity Transportation to provide accessible shuttle service. Project Co will manufacture and install signage at Appleby, Burlington and Aldershot Project Co will hoard off impacted elevators	[XXX]	Station Services will pay for and coordinate accessible taxi shuttle service between Burlington and Appleby or Aldershot 1. For customers who have registered (duration of accessible impact). 2. During rush hours (M/F) for 2 weeks. a. Stationed at Burlington in the AM from: 06:00-09:35 b. Stationed at Appleby in the PM from: 16:00-20:10 3. On-demand (duration of impact, however response time will vary and can be up to 1 hour). Customer Communications and Marketing to complete survey and outreach Customer Communication, Market Research and Stations will assist with customer registration. Station Services and NOC to provide station and train announcements	Station Services Marketing and Research Customer Communications NOC

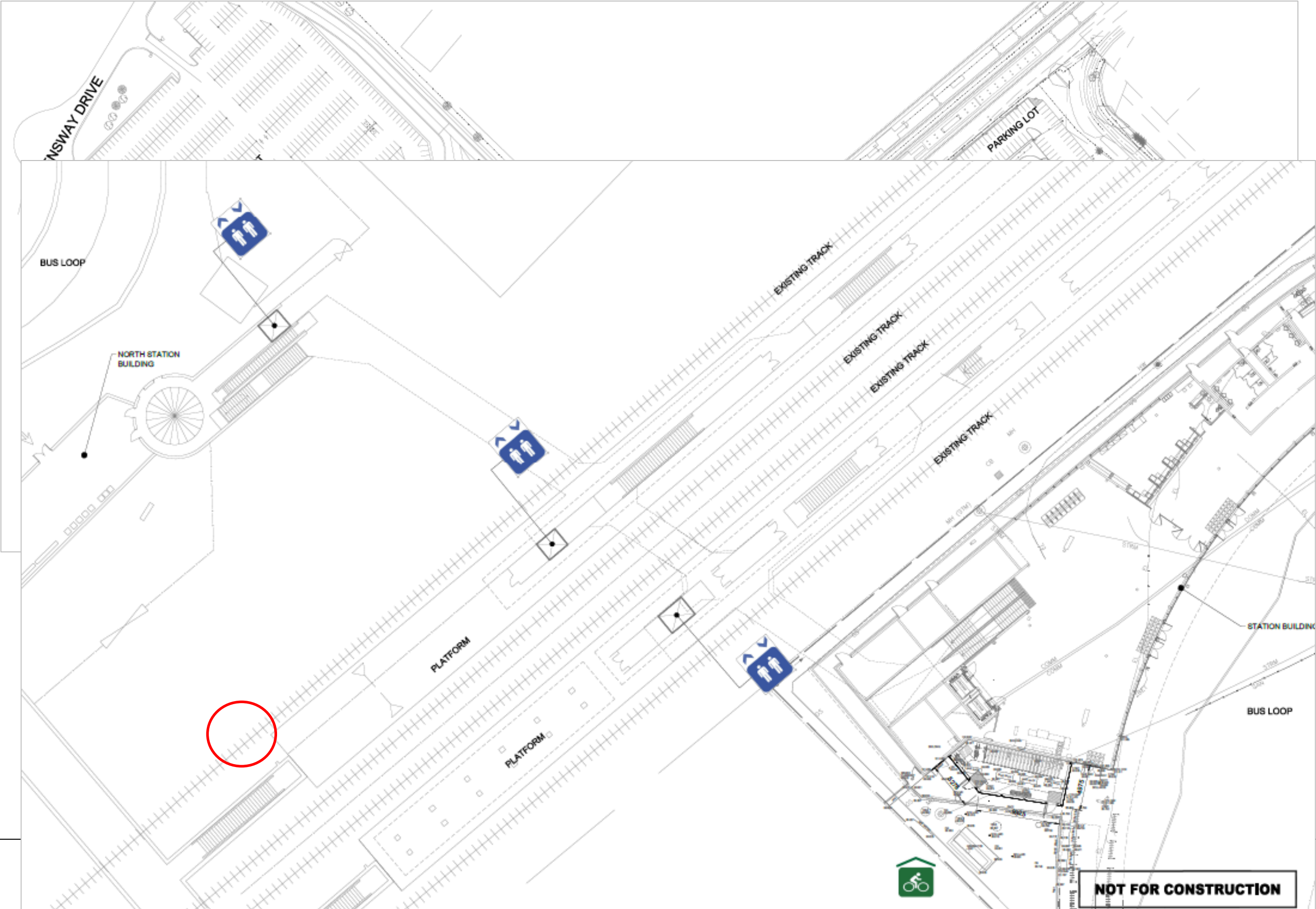
Impact							Mitigation			
							Project Co.		Customer Change Readiness/ Stations Services	
Item #	Impact Start Date	Impact End Date	General description of impact	Number of customers impacted	Types of customers impacted	Level of impact	List of mitigations performed by Project CO. - As applicable	Project Co. Owner	List of mitigations performed by Metrolinx - OCRC teams - As applicable	Internal Owner
2	TBD)	(TBD)	Customer confusion during construction - work at the bus loop and at the elevators will render parts of the station inaccessible. While there will be wayfinding signage on Site and proper communications launched, there is still the potential that the messages will not be understood by all passengers.	Identify number of customers impacted. unknown	Identify major customer groups impacted by station access mode. Use checkboxes: <input type="checkbox"/> Drive/park <input type="checkbox"/> PPUDO <input type="checkbox"/> Local transit <input type="checkbox"/> GO Bus/Train <input type="checkbox"/> Bicycle <input type="checkbox"/> Carpool <input type="checkbox"/> Walk (all) Potentially any customer reaching the station by any means.	Identify level of impact Low/Med/Hi. This is subjective based on a balance of # of customers affected and amount of service/station closed and if there are alternatives. LOW Mitigations measures are being employed to ensure proper wayfinding signage and messaging is provided, so the level of this impact is low				

*Please copy the table if more items need to be included

3. BURLINGTON STATION SITE PLAN

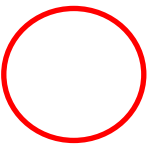


Burlington Station Site Plan - Impacted Area

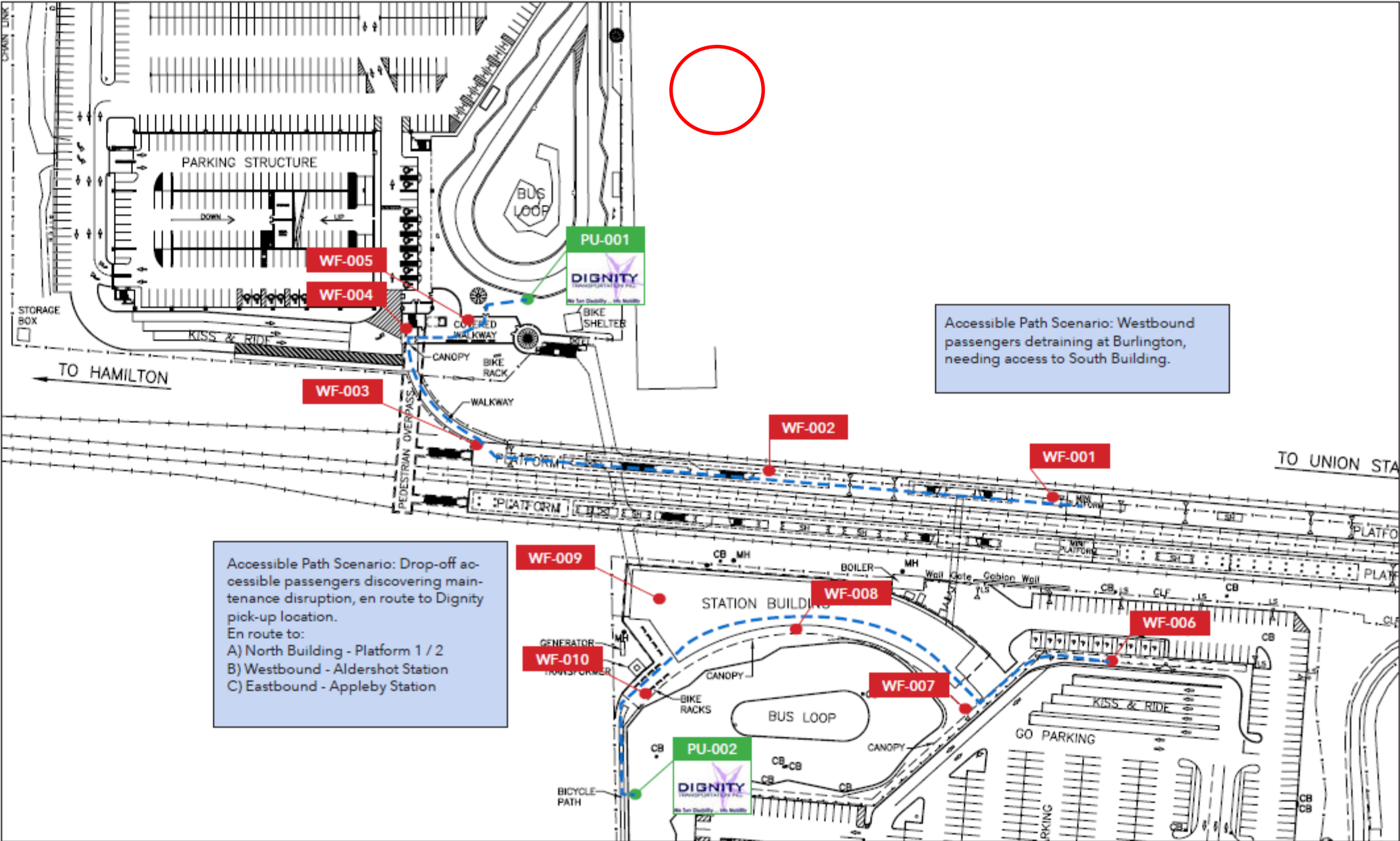


Site

Burlington Station
Plan - Impacted
Elevators



Burlington Station



Taxi

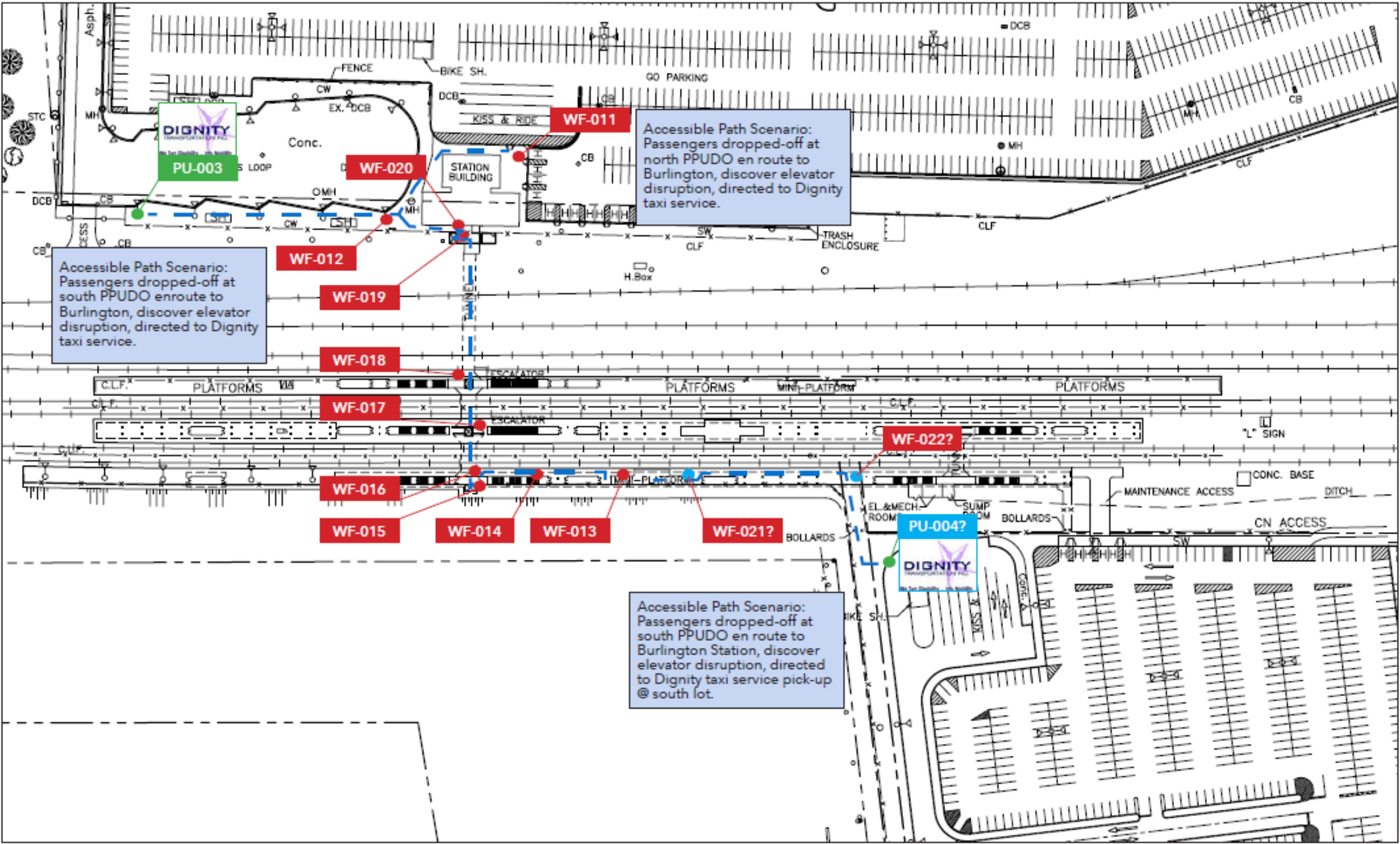
Shuttle Site Plan - Burlington GO Station

LEGEND

- Accessible Path to Pick-Up Location
- WF-001 WAYFINDING SIGN
- PU-001 PICK-UP LOCATION

Taxi Shuttle Site Plan - Burlington Station

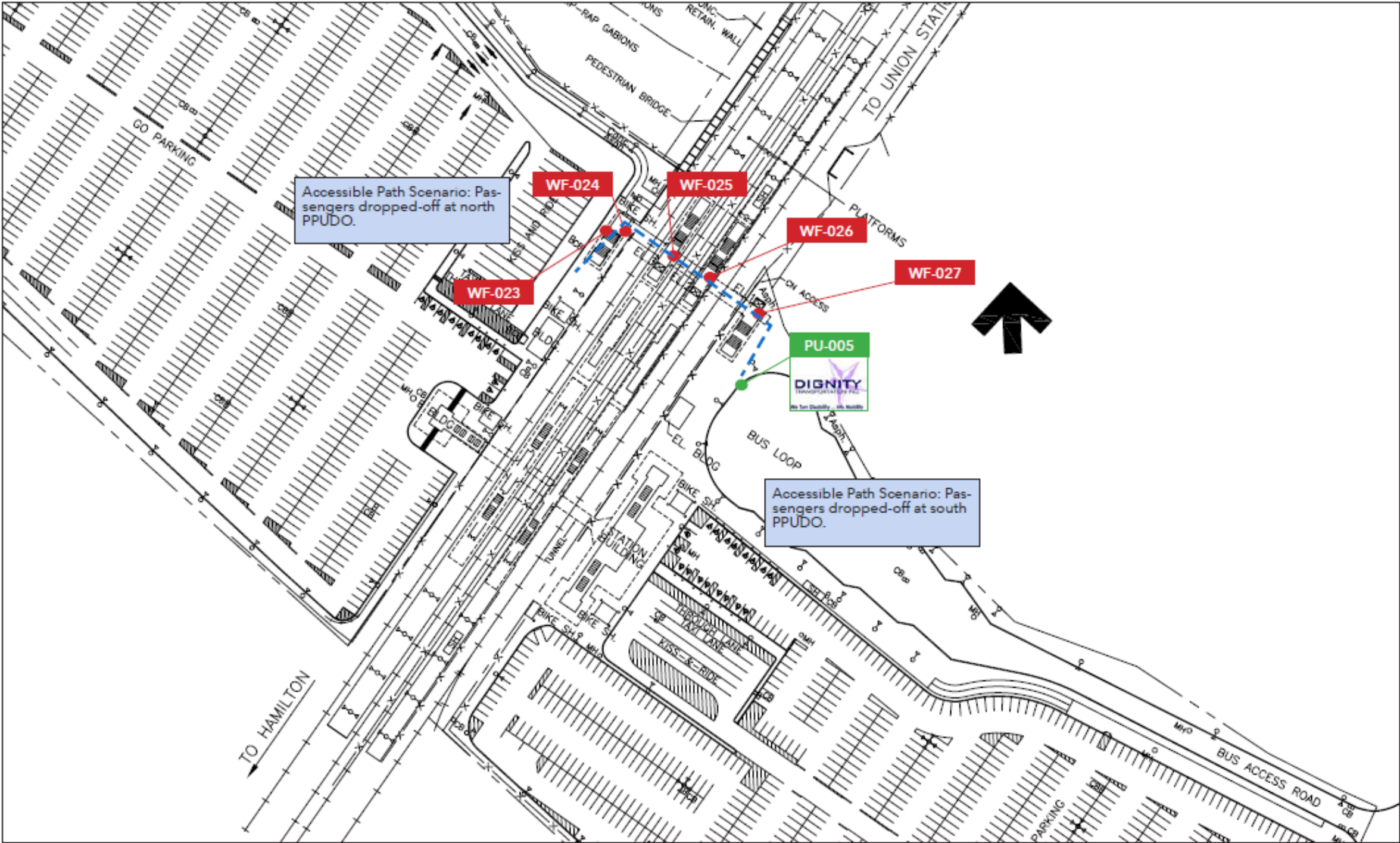
Aldershot Station



Taxi Shuttle Site Plan - Aldershot GO Station

LEGEND

- Accessible Path to Pick-Up Location
- WF-001 WAYFINDING SIGN
- PU-001 PICK-UP LOCATION



Taxi Shuttle Site Plan - Appleby GO Station

C Appendix C - Alternative Access Tactics

C.1 Alternative Access Tactics

C.1.1. Tactics to mitigate access impacts and provide alternative access options are identified in the following table and shall be considered in the development of the Customer Experience Management Plan.

Mode	Proposed tactics for alternative access
Travel planning	On-Site engagement, customized travel planning support, surveying, development and distribution of flyers and postcards (see Section 3.3).
Walking and cycling	Minimize disruption during construction; provide unobstructed and additional access routes; provide infrastructure for bike parking and Wayfinding.
	Minimized disruption during construction to Customers and local community; provide unobstructed or additional access.
	Provision of additional cycling facilities (secure and covered bike shelters) as outlined in the GO Rail Station Access Plan.
Carpool	Achieve four percent carpool allowance and program marketing.
	Grow carpool parking beyond the four percent allowance and continued marketing to promote the program.
Public transit (MSP)	Increased frequency and schedule of MSP and evaluate optimal bus stop placement.
	Offer Presto voucher to supplement existing co-fare when transferring from the MSP to GO Transit or UPX (where applicable).
	Offer "Try Transit Program" Presto voucher for Customers that currently drive to try transit to raise co-fare offer to 100% for construction period.
Microtransit	Provide MSP micro-transit service that may use HOV access where available.
	Partnership with TNC (Uber, Lyft etc.).

Mode	Proposed tactics for alternative access
	Trade reserved parking for free TNC rides (currently at \$98/month).
	Provide PRESTO voucher discounts to eligible Customers in exchange for their reserved parking spot.
Pick-Up and Drop-Off	Expand PUDO to accommodate higher number of pick-ups and drop-offs.
	Direct Customers to alternative PUDO locations (if available).

D Appendix D - Criticality Assessment and Lead Time

D.1 Criticality assessment and Required Lead Time

- D.1.1. An overview of impact definitions and required Metrolinx submittal review times that shall be followed for the Customer Experience Management Plan submittal and is included in the table that follows.
- D.1.2. It shall be acknowledged that a change of scope to any Work that results in a significant change to the identified impact and mitigations will reset the Lead Time to its original number (for example, a 90 day Lead Time for an impact schedule to start on July 01 would require notification to Metrolinx; by April 01; if on May 01 the scope changes significantly, it will require an additional 90 calendar days notice, meaning that the Work cannot begin until August 01).

Tier	Impact	GO Facility impact	Lead Time (calendar days prior to impact to GO Facility)	Final Confirmation Time (calendar days prior to impact to GO Facility)
1	<u>Major (Union Station Campus including GO, UP Express and Union Station Bus Terminal)</u>	<p>The loss of Life Safety Equipment and fire protection systems, communication systems including multiple fare devices, multiple PINS (Digital Signage), departure boards and PA systems, data, control & telephone systems.</p> <p>Power shutdowns, lighting impacts, network (Wi-Fi, cellular) and signal impacts.</p> <p>Loss of Universal Access.</p> <p>Loss of multiple access points (including vertical access) or infrastructure that causes platform or concourse crowding or an extended and inconvenient detour for Customers.</p> <p>Other critical assets required to adequately perform Customer service and facility operations such as utilities, back-up power, water supply, HVAC, security and safety systems (Chubb, CCTV, magnetic door locks).</p> <p>Drainage including storm and sanitary management infrastructure.</p> <p>Impacts requiring amendments to existing Metrolinx Service Contracts.</p> <p>Platform impacts or restrictions which modify number of train car doors available for Customers.</p> <p>Modifications to emergency evacuation routes.</p> <p>Significant impacts to municipal service providers and other third party services (VIA Rail, City of Toronto).</p> <p>Closure of any Teamways or connections between transit services.</p>	120	30

Tier	Impact	GO Facility impact	Lead Time (calendar days prior to impact to GO Facility)	Final Confirmation Time (calendar days prior to impact to GO Facility)
2	<u>Major</u> <u>(All other GO Facilities)</u>	<p>The loss of Life Safety Equipment and fire protection systems, communication systems including multiple fare devices, multiple PINS (Digital Signage), departure boards and PA systems, data, control & telephone systems.</p> <p>Power shutdowns, lighting impacts, network (Wi-Fi, cellular) and signal impacts.</p> <p>Loss of Universal Access.</p> <p>Loss of multiple access points (including vertical access) or infrastructure that causes platform or concourse crowding or an extended and inconvenient detour for Customers.</p> <p>Other critical assets required to adequately perform Customer service and facility operations such as utilities, back-up power, water supply, HVAC, security and safety systems (Chubb, CCTV, magnetic door locks).</p> <p>Drainage including storm and sanitary management infrastructure.</p> <p>Impacts requiring amendments to existing Metrolinx Service Contracts.</p> <p>Platform impacts or restrictions which modify number of train car doors available for Customers.</p> <p>Modifications to emergency evacuation routes.</p> <p>Significant impacts to municipal service providers and other third party services (MiWay, ZUM, VIA Rail).</p> <p>Closure of any connections between transit services.</p> <p>Impacts to Bus Loop, PUDO, Parking Facilities, walkways, bike parking, pedestrian bridges, pedestrian tunnels, or Station Building which restricts pedestrian, cyclist or vehicular access or requires a temporary relocation to support the goals of the GO Rail Station Access Plan Hierarchy of Access during construction.</p>	90	30

Tier	Impact	GO Facility impact	Lead Time (calendar days prior to impact to GO Facility)	Final Confirmation Time (calendar days prior to impact to GO Facility)
3	Minor (with operations or Customer impact)	<p>The partial loss of redundant communication systems including localized fare devices, redundant PINS (Digital Signage), departure boards and localized PA Systems.</p> <p>Controlled power outages outside of GO Facility operating hours or impacts to non-essential assets.</p> <p>Loss of redundant Universal Access and localized access points outside of peak periods (including vertical access) or infrastructure that causes localized gatherings at platform or concourse locations or a limited inconvenient detour for Customers.</p> <p>Platform impacts or restrictions which do not include modification of the number of train car doors available for Customers.</p> <p>Impacts to municipal service providers and other third party services (MiWay, ZUM, VIA Rail).</p> <p>Impacts to Bus Loop, PUDO, Parking Facilities, walkways, bike parking, pedestrian bridges, pedestrian tunnels, or Station Building which may impede pedestrian, cyclist or vehicular access.</p>	60	30
4	Minor (no operations or Customer impact)	<p>The partial and short-term loss of some communication systems during Off-Peak Hours.</p> <p>Controlled, short-term power outages or impacts to non-essential assets outside of service hours.</p> <p>Impacts to maintenance staff and contracted services.</p> <p>Any Work on assets outside of GO Facility operating hours.</p>	30	14

E Appendix E - Sample Impacts and Preferred Mitigation

E.1 Introduction

E.1.1. An extensive list of sample impacts and preferred mitigation strategies that shall be identified within the Customer Experience Management Plan and executed on-Site during construction are identified in this appendix.

E.1.2. A typical GO Facility has been segmented into the following nine key areas, each playing a vital role in connecting the Customer with GO Transit services and MSPs, and where construction can impact the Customer experience:

- a) Station Building;
- b) Rail Platforms;
- c) Parking Lot - vehicle and bike parking;
- d) Parking Structure;
- e) walkways;
- f) pedestrian bridge;
- g) tunnels;
- h) Bus Loop - GO and MSP; and
- i) grade separation.

E.1.3. The following 10 primary categories* address a specific piece of the Customer journey within each segment:

- a) Accessibility;
- b) access;
- c) amenities;
- d) connection to MSP off-Site and adjacent to GO Facilities;
- e) safety and security;
- f) Wayfinding, Signage and advertising;
- g) lighting;
- h) Fare Devices and Digital Fare Channels;
- i) site conditions during construction; and
- j) hoarding.

*Note that the impact and mitigation of the top eight primary categories varies depending on the key areas they are associated with. The last two categories have the same impact and require the same mitigations regardless of the segment they are impacting and are therefore shown separately.

- E.1.4. Within the tables, when more than one mitigation option is shown, they are listed in hierarchical order of preference for implementation. Meaning if the first mitigation cannot be implemented due to project specific constraints, the following mitigation would be the next preferred alternative.
- E.1.5. It shall be acknowledged that a change of scope to any Work that results in a significant change to the identified impact and mitigations will reset the Lead Time to its original number (for example, a 90 day Lead Time for an impact schedule to start on July 01 would require notification to Metrolinx; by April 01; if on May 01 the scope changes significantly, it will require an additional 90 calendar days notice, meaning that the Work cannot begin until August 01.

Table E.1 Station Building impacts and mitigations

The following impacts and mitigations pertain to all Station Buildings at GO Facilities:

Accessibility Impact on Station Building	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative elevator on-Site.	Contracted Party			
	Provide transport or shuttle service for Customers who require elevators to get to adjacent accessible station(s). Provide on-Site personnel assistance to redirect Customers to shuttle service throughout duration of the impact.	Service to be provided by Metrolinx and funded by Contracted Party			
Planned disruption to the Accessible Route to the Station Building	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative, unobstructed, step-free, path of travel as defined under the Metrolinx Universal Design Standard.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Planned disruption to accessible amenities including service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan	90	30
	Provide alternative	Contracted			

counters, accessible washrooms, signage and fare vending and validating devices or essential programing elements providing an accessible service	accessible arrangements including New or Temporary Metrolinx Infrastructure.	Party	Communication and Resource Plan		
Impact on Station Building access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to station access	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	For partial closure - ensure that passenger flow is not impeded.	Contracted Party			
	For full closure - provide alternative temporary ticket booth and washroom facility on-Site, as well as alternative climate controlled waiting space for Customers.	Contracted Party			
Visual obstruction to station amenities and access points	Ensure there are no safety concerns and accommodate CPTED requirements.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Impact on Station Building	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior	Final Confirmation Time (calendar

amenities				to impact start)	days prior to impact start)
Full or partial closure to conditioned waiting area	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	For partial closure - ensure that sufficient space is provided.	Contracted Party			
	For full closure - Provide alternative climate controlled waiting space for Customers.	Contracted Party			
Closure of washroom facilities	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	For partial closure - redirect Customers to an alternative washroom.	Contracted Party			
	For full closure - provide alternative accessible public washroom trailer on-Site.	Contracted Party			
Closure of service counter and Back of House Space	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Provide alternative temporary ticket booth and accessible staff washroom trailer on-Site.	Contracted Party			
Changes or closure of retailers or third-party services	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan Wayfinding and	90	30

(including advertising assets)	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party	Signage Plan Communication and Resource Plan		
Impact on connection to MSP off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Planned disruption to connecting third party services (TTC, MiWay, Specialized Transit (paratransit) etc.)	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative, unobstructed, step-free, path of travel as defined under the Metrolinx Universal Design Standard	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Impact on Station Building safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to AED access	Provide alternative location on-Site with signage to suit for new location.	Contracted Party	Customer Experience Management Plan	30	30
	New location shall be accessible by Customers in a heated space that is monitored by CCTV.		Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan		
Changes to fire extinguisher access	Provide alternative location on-Site with signage to suit for	Contracted Party	Customer Experience Management Plan	30	30

	new location(s). New locations to abide by Fire Code regulations.		Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan		
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Impacts to CHUBB security system (sensors, equipment, FOB, security pin pads, etc.)	Provide alternative location on-Site and maintain uninterrupted services. When approved by Metrolinx, disconnect equipment and decommission the asset within the central Chubb system.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan	90	30
Changes to Two-Way Communication Systems	Provide alternative location on-Site and maintain uninterrupted services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan	90	30
Changes that affect Transit Safety Back of House Space	Provide alternative location on-Site and maintain uninterrupted service.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Changes or disruptions to BAS	Provide alternative location on-Site and maintain uninterrupted services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or disruptions to back-up power	Back-up Power to be maintained at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or disruptions to fire suppression systems	Systems shall be maintained at all times.	Contracted Party	Customer Experience Management Plan	90	30
	If system needs to be deactivated notify fire department and designate a Fire Watcher to be present on-Site at all times at the impacted area.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan		
Impacts on Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to Station Building signage	Provide temporary signage and wayfinding to assist Customers to navigate to all services and public areas.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes to GO Facility Hours (attendant on	Provide signage advising Customers of service changes.	Contracted Party	Customer Experience Management Plan	90	30

duty)	Provide signage to direct Customers to Fare Systems.		Wayfinding and Signage Plan Communication and Resource Plan		
Changes to CCTV signage	Provide signage to advise Customers that CCTV cameras are on.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or obstructions to Digital Signage	Provide temporary Digital Signage.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.2 Rail Platforms impacts and mitigations

The following impacts and mitigations pertain to all Rail Platforms at GO Facilities:

Accessibility Impacts on Rail Platform	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative elevator on-site.	Contracted Party			
	Provide transport or shuttle service for Customers who require elevators to get to adjacent accessible station(s).	Service to be provided by Metrolinx and funded by Contracted Party.			
Changes or disruptions to Designated Accessible Boarding Area (Mini-Platform)	Mini-platform shall be available at all times through a permanent or temporary Mini-Platform in accordance with Metrolinx Standards.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90 (not including Rail Operations requirements within Rail Access Planning phase)	30
Full or partial closure of Rail Platform	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Access to the Mini-Platform shall remain in place at all times	90 (not including Rail Operations requirements within Rail Access Planning phase)	30
	For partial closure - ensure that passenger flow on the platform is not impeded and can accommodate passenger volume without causing an	Contracted Party	Provide minimal train car restrictions and only close the platform area that aligned with Rail Corridor Access		

	unsafe environment. For high passenger volumes, a temporary platform extension shall be provided.		requirements Relocate existing waste and recycling receptacles and platform furniture to platform area open to the public		
	For full closure - provide alternative universally accessible temporary platform (if needed). For high passenger volumes, a temporary platform shall be provided.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Changes or obstructions to the Accessible Route to the Rail Platform	Complete Work outside of service hours with no disruption to station users.	Contracted Party	Provide minimal train car restrictions and only close the platform area that aligned with Rail Corridor Access requirements	90	30
	Accessible Route to accessible boarding areas at the platform shall remain in place at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Shelters adjacent to Mini-Platform obstructed or removed	Passenger shelter within 30 metres of mini platform shall be provided. Shelter doors shall be power operated.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan. Communication and Resource Plan	90	30
Impacts on Rail Platform access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial	Complete Work out-	Contracted	Access to the Mini-	90	30

closure of Rail Platform	side of service hours with no disruption to platform users.	Party	Platform shall remain in place at all times		
	For partial closure - ensure that passenger flow on the platform is not impeded and can accommodate passenger volume without causing an unsafe environment. For high passenger volumes, a temporary platform extension shall be provided.	Contracted Party	Provide minimal train car restrictions and only close the platform area that aligned with Rail Corridor Access requirements Relocate existing waste and recycling receptacles and platform furniture to platform area open to the public		
	For full closure - provide alternative platform to accommodate Customers. For high passenger volumes, a temporary platform shall be provided.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Platform restrictions and isolated impacts	Provide Line Painting, Signage and Communication to designate "No Standing Zones". Redirect Customers to adjacent train coaches through PA announcements, signage and on-Site support	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Impacts on Rail Platform amenities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to shelters	Complete Work outside of service hours with no disruption to platform users.	Contracted Party	Customer Experience Management Plan Wayfinding and	90	30

	If multiple shelters on the same platform are impacted, temporary shelters (minimum 1:2) shall be provided.	Contracted Party	Signage Plan Communication and Resource Plan		
Changes or disruption to PA system	PA system remains operable in all areas that are accessible to Customers throughout construction to provide coverage that is equivalent to or exceeds existing coverage.	Contracted Party	Customer Experience Management Plan	90	30
Changes or disruptions to existing snowmelt system	Complete Work outside of winter months.	Contracted Party	Customer Experience Management Plan Maintenance Plan	90	30
	Maintain functionality of system to ensure safe operations of platforms.	Contracted Party			
	If system disruption is required, isolate disrupted area to ensure partial functionality is maintained and provide snow and ice control for the impacted area(s) as per Metrolinx Standards. Provide pressurization test before and after construction. Decommission and re-commission snowmelt boiler system.	Contracted Party			
	If full disruption, provide snow and ice control for the entire platform as per Metrolinx Standards. Provide pressurization test before and after construction.	Contracted Party			

	Decommission and re-commission snowmelt boiler system.				
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party			
Impacts on Rail Platform connection to MSPs off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure of Rail Platform	Provide convenient alternative access as required.	Contracted Party	Customer Experience Management Plan	90	30
	If alternative access is not feasible, work with MSP to relocate service to a feasible connection point.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Impacts to Rail Platform safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to back-up power	Back-up Power to be maintained at all times.	Contracted Party			
Changes or	Relocate equipment	Contracted	Customer	90	30

obstructions to CCTV coverage	to ensure there is clear and unobstructed coverage at all times.	Party	Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on Rail Platform Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to all Rail Platform access signage	Platform access signage shall be provided at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes to train spotting markers (5, 10 or 12)	Train spotting markers shall be provided at all times at the locations determined by Metrolinx and location of Mini-Platform.	Contracted Party to provide at the locations determined by Metrolinx.	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Rail and Rail Platform safety signage	Provide safety signage to advise Customers to keep back of the yellow line, stay off the tracks, no standing and other safety signage as per Metrolinx Standards.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.3 Parking Lots - vehicular and bike parking impacts and mitigations

The following impacts and mitigations pertain to all (surface) Parking Lots, including the PUDO at GO Facilities:

Accessible Impacts on Parking Lot	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to parking areas impacting access to designated Accessible Parking	Complete Work outside of service hours with no disruption to Parking Lot users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Relocate but maintain existing number of accessibility parking spaces. Alternative designated Accessible Parking spaces shall be provided adjacent and connected to the Accessible route without crossing a driveway aisle or placing Customers in areas unprotected from vehicular routes. Curb-cuts shall be maintained as per Metrolinx Universal Design Standards.	Contracted Party			
	If reduction is required minimum AODA legislated number of Accessible Parking Spaces shall be maintained. Alternative designated Accessible Parking spaces shall be provided adjacent and connected to the Universal Access	Contracted Party			

	without crossing a driveway aisle or placing Customers in areas unprotected from vehicular routes. Curb-cuts shall be maintained as per Metrolinx Universal Design Standards.				
Changes to accessible drop-off area including maintenance of curb cuts	Complete Work outside of service hours with no disruption to Parking Lot users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Accessible alternative shall be provided and be located away from any traffic flow so that users avoid entering any adjacent vehicular routes and drive aisles.	Contracted Party			
Impacts on Parking Lot access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure of access to Parking Lot, bike parking area, secured bike rooms or Customer pick-up and drop-off areas	Complete Work outside of service hours with no disruption to Parking Lot users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Provide alternative routing to fully operationalize portion of the impacted infrastructure and avoid turn arounds, dead ends etc. Relocate impacted bike racks, bike shelters or secured bike room on-Site so	Contracted Party			

	they remain accessible throughout construction.				
Impacts on Parking Lot and parking programs	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to parking spots (GO owned or leased) or Customer PUDO areas	Complete Work outside of service hours with no disruption to Parking Lot or PUDO users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90 (if 1:1 parking replacement is secured) 180 (if 1:1 parking replacement is not secured)	30
	Provide 1:1 parking or Customer access replacement for impacted spots beyond the reduction permitted in accordance with 4.5.2h).	Contracted Party			
	If 1:1 parking space replacement is not feasible for impacted spots beyond the reduction permitted in accordance with 4.5.2h), expand PUDO area and pursue partnerships with third party agencies to implement additional transit services including dynamic routing, micro-transit, etc. Increase carpool and other station access options for Customers during construction (via coordination with Station Services and Customer Communications).	Contracted Party			

Full or partial closure to parking spots associated with a parking program such as Reserved Parking and carpool parking	Complete Work outside of service hours with no disruption to parking.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90 (if 1:1 parking replacement is secured) 180 (if 1:1 parking replacement is not secured)	30
	Relocation of all impacted parking spots associated with a parking program during non-operational hours (potentially overnight); timing and new locations of parking spots to be determined by stakeholders.	Contracted Party			
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Provide alternative locations on-site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party			
Impacts on Parking Lot connection to MSPs off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to GO Parking Lot or Customer pick-up and drop-off areas	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	If parking access is required for third party services, ensure alternative is	Contracted Party			

	provided.				
Impacts on Parking Lot safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to Emergency Vehicle Access	Designated or signed access for Emergency vehicles to the GO Facility shall be maintained on-Site at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan	90	30
Changes or disruptions to Back-up Power	Back-up Power to be maintained at all times	Contracted Party	Customer Experience Management Plan	90	30
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Impacts on Parking Lot Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or additions to Accessible Parking signage, Parking Lot or Customer pick-up and drop-off area signage	Install signs as needed and new locations to be determined in collaboration with Metrolinx's stakeholder.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Changes or additions to Parking Lot signage associated with a parking programs such as Reserved Parking or carpool parking	Relocate signs as needed and new locations to be determined in collaboration with Metrolinx's stakeholder.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
--	--	------------------	---	----	----

Table E.4 Parking Structure (including secured bike rooms) impacts and mitigations

The following impacts and mitigations pertain to all Parking Structures and secured bike rooms at GO Facilities:

Accessible Impacts on Parking Structure	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to Parking Structure impacting access to designated Accessible Parking	Complete Work outside of service hours with no disruption to users.	Contracted Party	All Accessible Parking shall be in close proximity to elevators Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Accessible Parking capacity shall not be reduced. Alternative designated Accessible Parking shall be provided adjacent to the elevator(s) with direct access to the designated accessible boarding areas. All temporary spaces shall comply with provincial AODA guidelines and legislation.	Contracted Party			
Changes to Parking Structure impacting accessible pedestrian circulation paths	Complete Work outside of service hours with no disruption to users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Accessible pedestrian circulation paths shall be provided and shall be clearly marked on the road surface to indicate the pedestrian priority zone.	Contracted Party			
Changes to accessible drop-off area	Complete Work outside of service hours with no disruption to	Contracted Party	Customer Experience	90	30

including maintenance of curb drop	users.		Management Plan		
	Accessible alternative drop-off area shall be provided and located away from any traffic flow so that users avoid entering any adjacent vehicular routes and drive aisles.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Customers directed to alternative Accessible Route On-Site including surface parking (PUDO or Reserved Parking). At Parking Structures where Accessible Parking is provided on an upper level, Barrier-Free parking shall be provided on the ground floor.	Contracted Party			
Impacts to Parking Structure access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure of access to Parking Structure and secured bike rooms	Complete Work outside of service hours with no disruption to platform users.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative routing to functioning access (if any) to Parking Structure and secured bike rooms. Provide clear direction to alternative parking if	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		

	<p>it is being provided elsewhere in close proximity to access point to avoid turn arounds etc.</p> <p>Provide solution to increased traffic or restricted passenger flow including traffic report for analysis and documentation of existing and future drive aisle conditions.</p>				
Impacts on Parking Structure amenities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to car counting system	Complete Work outside of service hours with no disruption to platform users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Maintain functionality of car counting system at all times.	Contracted Party			
	If system disruptions are unavoidable ensure that Reserved Parking remains functional.	Contracted Party			
	If broader disruptions are required deactivate the system entirely.	Contracted Party			
Full or partial closure to parking spots associated with a parking program such as Reserved Parking and carpool parking, as	Complete Work outside of service hours with no disruption to users.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan	90	30
	Relocation of parking spots associated with a parking program or secured bike rooms (to a temporary	Contracted Party	Communication and Resource Plan		

well as secured bike rooms (including all secured bike rooms located outside of Parking Structures).	secured structure) during non-operational hours (potentially overnight); new locations of parking spots to be confirmed by relevant stakeholders.				
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party.	Wayfinding and Signage Plan Communication and Resource Plan		
Impact on Parking Structure safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes to fire extinguisher access	Provide alternative location on-Site with signage to suit for new location(s). New locations to abide by OFC regulations.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety	30	30

			Plan		
Changes or disruptions to Fire Suppression Systems.	Systems shall be maintained at all times.	Contracted Party	Customer Experience Management Plan	90	30
	If system needs to be deactivated notify fire department and implement Safety Watch On-Site at all times at the impacted area.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan		
Impacts on Parking Structure Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or additions to Accessible Parking signage and other areas of Parking Structure.	Ensure car counting system signage is updated to reflect any closures to parking stalls.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or additions to Parking Lot signage associated with a parking programs such as Reserved Parking or carpool parking	Relocate signs as needed and new locations to be determined in collaboration with Metrolinx's stakeholder.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	60	30

Table E.5 Walkways impacts and mitigations

The following impacts and mitigations pertain to all walkways at GO Facilities:

Accessible Impacts on walkway	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Disruption or closure of Accessible Routes	Complete Work outside of service hours with no disruption to accessible walkways.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	<p>A continuous, unobstructed, step-free, path of travel connecting accessible elements and services from major arrival areas through to the platform(s) as defined under the Metrolinx Universal Design Standard shall remain in place at all times.</p> <p>A safe and accessible pathway with a minimum width of 1800 mm and 2100 mm clear headroom shall be provided throughout circulation paths of the Site which remain open to the public.</p> <p>For secondary accessible paths of travel or verified Site constraints exist, 1600 mm is permissible.</p> <p>Any change of level which is over 6 mm height shall be provided with a smooth, non-tripping transition and</p>	Contracted Party			

	temporary ramps cannot exceed a slope of 1:15.				
Impacts on walkway access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure of pedestrian connections, sidewalks or pathways leading to Municipal connections, through the Site to the GO Facility	Complete Work outside of service hours with no disruption to retail and third-party services	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Preserve pedestrian access, particularly at GO Facilities with high walking mode share or high number of Customers within one kilometre. Provide alternative on-Site - walkways as required and to Metrolinx Universal Design Standards. Provide solution to increased crowding or restricted passenger flow.	Contracted Party			
Impacts on walkway amenities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to amenities such as waste and recycling receptacles and benches, etc.	Relocate amenities along alternative or temporary walkways so they continue to be available to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Changes or closure of retailers or third-party services (including advertising assets).	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party.	Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on walkway connection to MSPs off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to sidewalks, walkways or paths to third party providers' interest.	Complete Work outside of service hours with no disruption to walkways.	Contracted Party	Communicate with third party and redirect Customers Customer Experience Management Plan	100	30
	Provide alternative access walkways on-Site as required.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on walkway safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to CCTV coverage.	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Impacts on walkway Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or additions to walkways.	Provide temporary directional wayfinding and signage along walkways as well as advanced warning of obstructions.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.6 Pedestrian bridge impacts and mitigations

The following impacts and mitigations pertain to all pedestrian bridges at GO Facilities. These bridges may connect different areas or buildings within a GO Facility or connect the GO Facility with a third-party access point.

Accessible Impacts on pedestrian bridge	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative elevator or access point on-Site.	Contracted Party			
	Provide transport or shuttle service for Customers who require elevators to get to adjacent accessible GO facilities.	Service to be provided by Metrolinx and funded by Contracted Party.			
Impacts on pedestrian bridge access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to pedestrian bridges leading to Station Building, Rail Platform, etc.	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan	90	30
	Redirect Customers to alternative access point(s) on-Site.	Contracted Party	Communication and Resource Plan		
Impacts on pedestrian bridge	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar	Final Confirmation Time

amenities				days prior to impact start)	(calendar days prior to impact start)
Changes or disruptions to amenities such as waste and recycling receptacles and benches, etc.	Relocate amenities along alternative or temporary access points so they continue to be available to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party.	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on pedestrian bridge connection to MSPs Off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to access from MSP drop-off and pick-up area via bridge	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Communicate to MSPs and other relevant third parties the need to provide alternative access	100	30
	Relocate and provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and		

			Resource Plan		
Impacts on pedestrian bridge safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or disruptions to Back-up Power	Back-up Power to be maintained at all times.	Contracted Party	Customer Experience Management Plan	90	30
Impacts on pedestrian bridge Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to pedestrian bridge signage	Provide temporary directional wayfinding and signage within pedestrian bridge as well as advanced warning of obstructions.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.7 Tunnels impacts and mitigations

The following impacts and mitigations pertain to all tunnels at GO Facilities. These tunnels may connect platforms with other areas within a GO Facility or connect the GO Facility with a third-party access point.

Accessible Impacts on tunnel	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative accessible tunnel access on-Site.	Contracted Party			
	Provide transport or shuttle service for Customers who require elevators to get to adjacent accessible GO Facilities,	Service to be provided by Metrolinx and funded by Contracted Party.			
Impacts on tunnel access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to pedestrian tunnels leading to Station Building, Rail Platform, etc.	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative access point(s) on-Site.	Contracted Party			
Impacts on tunnel amenities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)

				to impact start)	days prior to impact start)
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan	90	30
	Provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Relocation to be completed by third party/retailer and funded by Contracted Party.	Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on tunnel connection to MSP off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to access from MSP drop off area via tunnel	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Communicate with third party and redirect Customers Solicit feedback from MSP for staging plans and timelines	100	30
	Relocate and provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan. Communication and Resource Plan		
Impacts on tunnel safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to	Provide alternative	Contracted	Customer	30	30

Fire Extinguisher access	location on-Site with signage to suit for new location(s). New locations to abide by OFC regulations.	Party	Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Emergency Safety Plan		
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Changes or disruptions to Back-up Power	Back-up Power to be maintained at all times.	Contracted Party	Customer Experience Management Plan	90	30
Impacts on tunnel Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or addition to tunnels	Provide temporary directional wayfinding and signage within tunnel(s) as well as advanced warning of impact(s).	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.8 Bus Loop impacts and mitigations

The following impacts and mitigations pertain to all on-Site Bus Loops (including bus bays) that serve GO buses and MSP.

Accessible Impacts on Bus Loop	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to Accessibility of bus loop or bus bays	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan	100	30
	Redirect Customers to alternative accessible bus route on-Site.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Changes or obstructions to accessible boarding area at bus platforms or bus bays	Complete Work outside of service hours with no disruption to Customers. Redirect Customers to alternative accessible bus platforms on-Site.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
Impacts on Bus Loop access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure of access to bus loops or bus bays, including stand-alone bus driver facilities	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan	100	30
	Provide and redirect bus drivers to alternative access to bus services (including layover bays); if existing Bus Loop offers dedicated bus access the	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		

	alternate location shall offer the same to avoid mixed traffic with Customer vehicles. Provide temporary bus driver facilities on-Site and nearby Bus Loop.				
Impacts on Bus loop amenities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to shelters	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan	100	30
	Relocate and provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Changes or closure of retailers or third-party services (including advertising assets)	Complete Work outside of service hours with no disruption to retail and third-party services.	Contracted Party	Customer Experience Management Plan	100	30
	Relocate and provide alternative locations on-Site that are in close proximity to key access points and passenger flows.	Contracted Party	Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on Bus Loop connection to MSPs Off-Site adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Full or partial closure to bus loops or bus	Complete Work outside of service hours with no disruption to	Contracted Party	Customer Experience	100	30

bays, effecting third party service providers	<p>Customers.</p> <p>Provide and redirect passengers and third party to alternative bus loops or bus to bus services (including layover bays); if existing Bus Loop offers dedicated bus access the alternate location shall offer the same to avoid mixed traffic with Customer vehicles. Provide temporary bus driver facilities on-Site and nearby Bus Loop.</p>	Contracted Party	<p>Management Plan</p> <p>Wayfinding and Signage Plan</p> <p>Communication and Resource Plan</p>		
Impacts on Bus Loop safety and security	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to CCTV coverage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	<p>Customer Experience Management Plan</p> <p>Wayfinding and Signage Plan</p> <p>Communication and Resource Plan</p>	90	30
Impacts on Bus Loop Signage and Wayfinding	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to bus loop or bus bays	Provide temporary directional wayfinding and signage within bus loop as well as advanced warning of impact(s).	Contracted Party	<p>Customer Experience Management Plan</p> <p>Wayfinding and Signage Plan</p> <p>Communication and Resource Plan</p>	100	30

Changes or obstructions to Digital Signage	Relocate equipment to ensure there is clear and unobstructed coverage at all times.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	100	30
--	---	------------------	---	-----	----

Table E.9 Grade separation impacts and mitigations

The following impacts and mitigations pertain to all grade separations at GO Facilities:

Accessible Impacts on grade separation	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or obstructions to Accessibility	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan	100	30
	Redirect Customers to alternative Accessible Route.	Contracted Party	Communication and Resource Plan		
Planned disruption to elevator service	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30
	Redirect Customers to alternative elevator on-Site.	Contracted Party			
	Provide transport or shuttle service for Customers who require elevators to get to adjacent accessible GO Facilities	Service to be provided by Metrolinx and funded by Contracted Party.			
Impacts on grade separation access	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to access	Complete Work outside of service hours with no disruption to Customers.	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan	90	30
	Redirect Customers to alternative	Contracted Party	Communication		

	Universal Access.		and Resource Plan		
Impacts on grade separation connection to MSPs off-Site and adjacent to GO Facilities	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes or disruptions to existing MSP connections	Complete Work outside of service hours with no disruption to third party services.	Contracted Party	Communicate with third party and redirect Customers	90	30
	Relocate and provide alternative connections on-Site that are in close proximity to key access points and passenger flows.	Contracted Party	Solicit feedback from MSP for staging plans and timelines Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan		
Impacts on grade separation Wayfinding and Signage	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to access	Provide temporary directional wayfinding and signage within bus loop as well as advanced warning of impact(s).	Contracted Party	Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan	90	30

Table E.10 Mechanical, Electrical, Communication, Safety and Other Systems Impacts and Mitigations

The following impacts and mitigations pertain to mechanical, electrical, communication, safety and other systems and apply to all of the key GO Facility areas identified in this Appendix E.

Impacts across GO Facility	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Impacts to Mechanical, Electrical, Communication, Safety and other systems	Keep all systems operational during service hours throughout construction at all areas that are accessible to Customers and staff.	Contracted Party	Adjust the quantity and placement of equipment in areas throughout construction to suit changing conditions.	90	30
	If full operations are not feasible, provide Temporary Metrolinx Infrastructure such that systems provide coverage through-out construction that is equivalent to or exceeds the existing coverage.	Contracted Party	Customer Experience Management Plan Power Shutdown Plan		
Impacts to electrification system such as grounding	Restore grounding continuity such that systems provide equivalent to existing.	Contracted Party	Adjust the quantity and placement of equipment in areas throughout construction to suit changing conditions Customer Experience Management Plan Power Shutdown Plan	90	30

Impacts to electrification components e.g. OCS	Maintain proper clearances from OCS. EMI/EMC mitigation. Corrosion and pollution mitigation.	Contracted Party	<p>All equipment impacts and shutdowns are to be coordinated and approved by relevant Metrolinx stakeholders.</p> <p>Adjust the quantity and placement of equipment in areas throughout construction to suit changing conditions.</p> <p>Customer Experience Management Plan</p> <p>Power Shutdown Plan</p>	90	30
---	--	------------------	---	----	----

Table E.11 Fare Devices and Digital Fare Channel impacts and mitigations

The following impacts and mitigations pertain to all Fare Devices including TVM, AVM and Presto equipment and Digital Fare Channels and apply to all of the key GO Facility areas identified in this Appendix E:

Impacts across GO Facility	Mitigations (in order of preference)	Responsible party	Support actions to be implemented (all apply)	Minimum Lead Time (calendar days prior to impact start)	Final Confirmation Time (calendar days prior to impact start)
Changes to locations or access to existing Fare Devices	Provide temporary or replacement Fare Devices and provide network infrastructure and power as per Metrolinx Standards. Relocate impacted devices and provide network infrastructure and power as per Metrolinx Standards. Replacement with Digital Fare Channels if supported by GO Station wi-fi capabilities and as approved by Metrolinx.	Contracted Party	Allow access to Metrolinx and relevant 3rd parties required for Site assessments, Site readiness verification and device relocations Customer Experience Management Plan Wayfinding and Signage Plan Communication and Resource Plan Power Shutdown Plan	120	30
Interruptions to service of fare devices and operating system	Service shall be maintained at all times during service hours	Contracted Party	Customer Experience Management Plan Power Shutdown Plan	90	30

Table E.12 General Site conditions during construction impacts and mitigations

The following impacts and mitigations pertain to general Site conditions during construction and apply to all of the key GO Facility areas identified in this Appendix E.

Impacts across GO Facilities	Mitigations
<p>Excessive Dust and Debris</p> <p>Dirt and Debris entering catch basins and drainage systems</p> <p>Snow and Ice accumulation</p> <p>Excessive or disruptive Noise and Vibrations</p> <p>Tripping hazards throughout</p> <p>Material and equipment deliveries and storage</p>	<p>All public areas are to be free of construction dust and debris at all times. In case of any accumulation or complaint being received, cleaning including water applications for dust control shall take place within 24 hours of original request.</p> <p>Filter fabric shall be provided on all exterior fence hoarding to mitigate dust transfer from construction Site.</p> <p>Exterior hoarding shall be bolted down with no trip hazards or obstructions to walkways and withstand wind loads</p> <p>Filter fabric shall be maintained in all catch basins and drains with regularly scheduled inspections and cleaning. Any accumulation of debris that impacts positive water penetration shall be cleaned immediately.</p> <p>All Customer walkways, pathways and platforms shall be cleared of snow and ice to bare pavement at all times.</p> <p>Access points to GO Facilities from Municipal roadways shall be kept clear of snow and ice to bare pavement at all times.</p> <p>Snow and ice accumulation areas shall be kept away from catch basins and other drainage systems, where feasible.</p> <p>Deliver equipment and materials during Off-Peak Hours and away from vehicular or pedestrian flow.</p> <p>Interior hoarding shall be floor to ceiling in height and sealed to mitigate the egress of dust into areas accessed by staff and Customers.</p> <p>Interior hoarding shall be finished to blend within the interior environment and be kept in good condition and made more aesthetically pleasing through communications and advertising wraps.</p> <p>Ensure solutions such as tapered corners and security mirrors shall be used to eliminate CPTED issues.</p> <p>All material and equipment stored outside of the project area shall be returned to the designated hoarding area at the end of the Work day, or following use.</p>

Table E.13 Hoarding Impacts and Mitigations

The following impacts and mitigations pertain to hoarding and barriers and apply to all of the key GO Facility areas identified in this Appendix E.

Impacts across GO Facilities	Mitigations
<p>Closing off sections of the GO Facility</p> <p>Hoarding footings that impede accessible path</p> <p>Any hoarding that effects third party service providers' interest</p> <p>Strong winds and unintended access to construction areas</p>	<p>Prior to undertaking any work, coordinate the location and placement of the fencing and hoarding with Metrolinx or third party to delineate the construction Site from the public and operational areas.</p> <p>All fencing or hoarding required to separate construction from the public shall be provided for each stage.</p> <p>Design and construct the base condition for barriers and guards to protect against damage from snow clearing equipment and eliminate trip hazards within pedestrian paths.</p> <p>Fencing and hoarding along platforms shall not interfere with rail sightlines or pose a tripping hazard to the public.</p> <p>Design and install all fencing and hoarding to withstand weather conditions, wind gusts due to passing trains, vandalism, impact loads (i.e. guard rails), etc., until completion of the project or specific task as required.</p> <p>Inspect all fencing and hoarding throughout the day and at the end of every shift, including repairing any damages.</p>

F Appendix F - Sample In-Service Readiness Verification Form

F.1 Sample In-Service Readiness Verification Form

- F.1.1. The sample In-Service Readiness Verification form provided below is to be completed during Metrolinx walkthroughs to determine if assets are ready to be put in-service. This form shall be modified on a project assignment specific basis to reflect the Work. Multiple walk throughs shall be required at preliminary review, final review and to confirm correction of deficiencies.

In-Service Readiness Verification		Sign-off (signature, date)
Project name and Number		
GO Facility location		
Walkthrough date		
Proposed in-service date		
CPG lead		
Station Services lead		
I&IT lead		
Engineering and design standards lead		
Design division lead		
Communication lead		
Other Metrolinx stakeholders		
Time of walkthrough and weather conditions		

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
GO Facility access	Pedestrian walkway and multiuse path	Yes	No	(ex: uneven surfaces, lack of signage and wayfinding, insufficient lighting) • Rectify deficiencies and inform all stakeholders via pictures prior to opening		No
	Dedicated cyclist path and bike parking	Yes	Yes		<ul style="list-style-type: none">Update Customer Experience Management PlanProvide three vehicular and pedestrian Traffic controllers during peak Monday to Friday<ul style="list-style-type: none">Install digital communication at access roadsOvernight turnover	Yes
	Vehicular access (at Municipal boundary line) and internal circulation					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					
Rail Platform access buildings (pedestrian bridge or tunnel)	Accessible Route					
	Elevators: including life safety, lighting, communications for information or assistance and security					
	Stairs: including railings, anti-slip, nosing, tactile					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified	Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")	
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	lighting etc.					
	Life safety: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power etc.					
	Electrical heat tracing					
	Hose bib at tunnel entrances					
	Connection to Station Building and secure bike parking					
	Storage, service and utility rooms: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Fare devices and self-serve equipment					
	Digital Signage, static signage and communications (PA, S4 Digital Signage)					
	Mechanical equipment for Customer comfort including radiant heaters					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
Rail Platform	Rail Platform surface, length and width					
	Curbs and tactile					
	Train spotting markers					
	Accessible Route					
	Mini-Platform or designated waiting area					
	Connection from pedestrian bridge or tunnel					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power, manholes etc.					
	Electrical heat tracing					
	Communication: including CCTV, PA, intercom, Wi-Fi, fixtures, equipment, manholes, security etc.					
	Mechanical: including, HVAC, plumbing, valves, fittings, fixtures, equipment etc.					
	Life safety: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Rail Platform snowmelt including sensors, manifolds, valves, fittings, controls, connections					
	Canopies including lighting, rainwater leaders, drains, heat trace, etc.					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	Passenger shelters including benches, information, heaters door operators etc.					
	Signage and Wayfinding					
	Digital signage and static signage					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					
	Maintenance track crossing					
	Hose bib: every 60 metres and at least 30 metres from the platform ends					
	Furniture and amenities					
Bus Loop	Bus access and circulation					
	Bus platforms					
	Curbs and tactile					
	Bus shelters including benches, information, heaters door operators etc.					
	Accessible Route					
	Traffic control measures including signage and pedestrian circulation					
	Canopies including lighting, rainwater leaders, drains, heat trace, etc.					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	Fare Devices					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power, manholes etc.					
	Electrical heat tracing					
	Communication: including CCTV, PA, intercom, Wi-Fi, fixtures, equipment, manholes, security etc.					
	Digital Signage and static Signage					
	Hose bib: every 60 metres					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					
Pick-Up and Drop-Off	Vehicular access (at Municipal boundary line) and internal circulation					
	Barrier-Free PUDO zone					
	Temporary Parking Lot and waiting areas					
	Ride sharing and taxi area					
	Through lane					
	Hose bib: every 60 metres					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					
Surface Parking	Vehicular access (at Municipal boundary line) and internal circulation					
	Parking: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Accessible parking and circulation					
	Ride sharing parking					
	Reserved Parking					
	Line painting including symbols and stop bars					
	Traffic control measures including signage and pedestrian circulation					
	Secure manhole, manifold chamber, handwell and junction box covers					
Parking Structure	Vehicular access (at Municipal boundary line) ingress and egress					
	Vehicular ramps and internal circulation					
	Parking levels: partial or full functionality, describe restrictions, boundaries					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified	Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")	
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	and barrier locations					
	Accessible parking and circulation					
	Reserved parking					
	Car counting system					
	Mechanical equipment					
	Emergency stairs: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Elevator vestibule: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Life safety: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power, manholes etc.					
	Electrical heat tracing					
	Connection to pedestrian bridge or tunnel					
	All service and utility rooms: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Hose bib: every floor and every 60 metres					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	Storm and sanitation pump system					
	Line painting including symbols and stop bars					
	Traffic control measures including signage and pedestrian circulation					
	Fare Devices					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Secure manhole, manifold chamber, handwell and junction box covers					
Station Building	Accessible Route					
	Waiting room including CP24 monitor, benches etc.					
	Ticket booth and ambassador office					
	Public washrooms					
	Maintenance room including racking, plumbing, supplies, equipment					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power, etc.					
	Electrical heat tracing					
	Communication: including intercom, Wi-Fi, PA, CCTV, fixtures, equipment,					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	racking, security etc.					
	Mechanical: including HVAC, plumbing, valves, fittings, fixtures, equipment, hose bibs, etc.					
	Life safety: partial or full functionality, describe restrictions, boundaries and barrier locations					
	Life safety equipment					
	Digital and static Signage					
	Fare Devices					
	Furniture and amenities (benches and waste and recycling receptacles)					
	Retail					
	Connection to Rail Platform access building, pedestrian bridge or tunnel					
	Connection to secure bike parking					
Public Washrooms	Accessible Route					
	Life safety and emergency communications					
	Electrical: including lighting systems, fixtures, equipment etc.					
	Venting including other HVAC and mechanical requirements					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	Fixtures and fittings including hose bib and waste and recycling receptacles					
	Consumables with inventory					
Ticket Booth	Secure access including key and Chubb (FOB)					
	Life safety and Emergency communications					
	Life safety equipment					
	Electrical: including lighting systems, lightning protection, fixtures, equipment, panels, UPS, back-up power etc.					
	Electrical heat tracing					
	Communication: including I&IT, computers, phone, PA, CCTV, intercom, Wi-Fi, fixtures, equipment, racking, security etc.					
	Mechanical: including HVAC, controls, plumbing, valves, fittings, fixtures, equipment etc.					
	Fare Systems and I&IT Equipment including SPOS, Computer, Printer, etc.					
	Service counter or ambassador office: including all fixtures and fittings, millwork, glass, communications, equipment, supplies, inventory, float, etc.					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	Security: including alarm, panic button, CCTV, Chubb (Fob), Safe etc.					
	Controls: including thermostat, CCTV monitor, PA, lighting etc.					
	Back of House Space: including lockers, kitchenette, washroom and balancing area					
	Staff washroom: including all fixtures and fittings, cloth hooks, consumables and inventory					
	Kitchenette: including plumbing, sink with water fixture, water filtration, fridge, table, chairs or stools					
	Balancing area: including privacy, table, safe, supplies, CCTV and inventory					
	Lockers, bench and wall hooks					
	Fixtures and fittings including all millwork, cash drawers, chairs, closets, lockers, tables, chargers, fridge, etc.					
	Unobstructed sightlines to waiting area, elevators, fare devices, washroom and GO Facility entrance.					
Maintenance Room	Secure access including key and Chubb (FOB)					
	Life Safety and Emergency communications					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.						
	Electrical: including lighting fixtures, receptacles, and electrical components (switchboards, switchgear, MCC etc.)					
	Communication: including I&IT, fixtures, equipment, security etc.					
	Mechanical: including HVAC, controls, Gas, plumbing, valves, fittings, fixtures, slop sink with plumbing fixture,, water filtration, equipment etc.					
	Fixtures and fittings including, racking, cabinets, lockers, table, chair, etc.					
	Stores and inventory supplies: including consumables, maintenance cart, ladder, hose, brooms, shovels etc.					
	Equipment: including walk behind floor scrubber, vacuum, power washer etc.					
Ancillary Service Buildings & Utilities	Secure access including key and Chubb (FOB)					
	Life Safety and Emergency communications					
	Site security: including CCTV, Chubb etc.					
	Electrical rooms: including secure access, security, meters, controls, equipment, fixtures and fittings					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	Mechanical rooms: including gas, water meters, secure access, life safety, Site security, controls, equipment, fixtures and fittings					
	Boiler rooms: including meters, secure access, life safety, Site security, controls, equipment, fixtures and fittings					
	Communication rooms: including meters, secure access, life safety, Site security, controls, equipment, fixtures and fittings					
	Back-up power generator: including meters, secure access, life safety, Site security, diesel holding tank, controls, ATS, switchboards switchgears, panels, load bank, equipment, fixtures and fittings.					
	Hose bib: every 60 metres					
Electrification	OCS poles, grounding and bonding, ability to withstand EMI and EMC, corrosion protection, electrical arc resistance, vegetation obstruction, OCS line zone.					
Landscaping	Accessible Route					
	Hose bib: every 60 metres					
	Electrical: including lighting fixtures, receptacles					

In-Service Readiness Verification						
New, temporary, replaced and or relocated elements to be verified		Acceptable in quantity ("No"/"Yes")	Acceptable in quality ("No"/"Yes")	If "No", provide comments including description of deficiency as well as action plan with schedule	If "Yes", provide action plan required to put elements In-Service including resource and change management	Ready for in-service status ("No"/"Yes")
<i>The following shall be considered for each of the below elements: user safety and convenience, Site security (Chubb, BAS, CCTV), Accessible Route throughout the Customer journey, Customer communication (Digital Signage, PA), Signage and Wayfinding, pedestrian and vehicular flow, lighting, surface condition (trip hazards, water ponding), water and snow/ice management, operability and maintainability.</i>						
	Furniture and amenities (benches and waste and recycling receptacles)					
	Low maintenance vegetation					
	Sod and elevation differences (unsafe slopes)					
	Water retention and bio-swale					
	Dedicated snow piling					
	Location and placement of trees and other vegetation					

Sign off requirements

Department	Name	Signature	Date