January 2019

Ontario International Airport Authority

Design & Construction Handbook

ONTARIO
INTERNATIONAL AIRPORT

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Acronym Guide

Acronym	Definition
AC	Advisory Circular
AIP	Airport Improvement Program
AOA	Air Operations Area
ASR	Area Shutdown Request
BHS	Baggage Handling System
BIM	Building information Modeling
BMP	Best Management Practices
CADD	Computer Aided Design and Drafting
CASQA	California Storm Quality Association
CBC	California Building Code
CD	Change Directive
CEC	California Electrical Code
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRC	Criminal History Records Check
CW	Chilled-Water
CMC	California Mechanical Code
CO	Change Order
CoO	Certificate of Occupancy
CPC	California Plumbing Code
CRC	California Residential Code
DBE	Disadvantaged Business Enterprise
DBELO	DBE Liaison Officer
DIR	Department of Industrial Relations
DOT	U.S. Department of Transportation
DW	Domestic Water
EA	Environmental Assessments
EBE	Emerging Business Enterprise
EIS	Environmental Impact Systems
FLSS	Fire, Life and Safety
HCS	Hazard Communication Standard
HHW	Heating Hot Water
HVAC	Heating Ventilation and Cooling

IWC	Industrial Wage Commission
JBT	JBT Aero Tech
kVa	Kilo Volt Amperes
LID	Low Impact Development
LOTO	Lock-Out/Tag-Out Program
LRP	Legally Responsible Person
MS4	San Bernardino County Storm Sewer System Permit
MSDS	Material Safety Data Sheet
MUTCD	California Manual on Uniform Traffic Control Devices
NAD83	North American Datum of 1983 – FAA Standard for Horizontal Control Datum
NAICS	North American Industry Classification System
NAVD88	North American Vertical Datum of 1988 – FAA Standard for Vertical Control Datum
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
NPIAS	National Plan of Integrated Airport Systems
NTP	Notice to Proceed
O&M	Operations and Maintenance
OIAA	Ontario International Airport Authority
ONT	Ontario International Airport
ONT ARFF	Ontario Airport Aircraft Rescue and Fire Fighting
ONT-TEC	Ontario Terminal & Equipment Company
PACS	Primary Airport Control Station
PFC	Passenger Facility Charge
PRM	Project Request Manager
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RC	Race and Gender Conscious
RFI	Request for Information
RN	Race and Gender Neutral
SAAP	Secured Area Access Point
SACS	Secondary Airport Control Station
SBA	Small Business Administration
SBCFCD	San Bernardino County Flood Control District
SBE	Small Business Enterprise
SBO	Security Badge Office
SIC2	Standard Industrial Classification
SIDA	Security Identification Display Area
STA	Security Threat Assessment
SWPPP	Storm Water Pollution Prevention Plan

TCO	Temporary Certificate of Occupancy
TEC	Terminal & Equipment Company
TSA	Transportation Security Administration
TWY	Taxiway
UCP	California Unified Certification Program
USR	Utility Shutdown Request
WQMP	Water Quality Management Plan

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1.00: Preface

ONTARIO INTERNATIONAL AIRPORT

1.00 Preface

Since its inception in 2012, the Ontario International Airport Authority (OIAA) has seen considerable growth in passenger and cargo aircraft service at the Ontario International Airport (ONT). After taking over operational control of the Airport in 2016, OIAA has continued to reach new heights by adding new domestic and international passenger flights, introducing new concessionaires to enhance customer experience, and allowing private, app-based companies (i.e. Lyft, Uber) to provide services at the Airport.

As of November 2018, Ontario is the top U.S. market for shipments of outbound cargo, highlighting the OIAA's commitment to fostering an environment of growth by the three major U.S. integrator airlines: United Parcel Service, Federal Express, and Amazon Prime Air. ONT is one of two airports in Southern California with runways long enough to accommodate long-haul and trans-oceanic international passenger and freighter-flights.

With such rapid growth in Airport operations and partnerships, OIAA has worked tirelessly to put together clear, concise contracts and service agreements to create a simple, understandable process for all parties looking to work with the Airport.

Contracts vary in complexity and depth, but all go through similar stages of development, review, scope of work establishment, award, and approval. After award, there are many levels of administration required for each project: records review, insurance and bonding, security and badging, SIDA training, permitting, and many more.

This Design and Construction Handbook has been established to further simplify and standardize OIAA processes, taking readers through the steps needed to navigate a project from start to finish. This handbook breaks down an often-complicated procedure into manageable, easy to navigate instructions for both first time and seasoned participants.

OIAA is committed to improving processes and procedures at the Airport. We hope that you find this Design and Construction Handbook informational and look forward to working together to make "So Cal. So Easy."

Sincerely,

Keith Owens, PE
Director of Program Management

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2.00 Project Approval & Authorization Process

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2.00 Project Request

A. Introduction

Project Request Forms shall be completed by any Tenants or Concessionaires for any projects which they desire to perform at the Ontario International Airport. Ontario International Airport Authority (OIAA) staff will review the project request for approval.

B. Contact Information

Project Request Forms shall be emailed to the following email address:
Projects@flyontario.com

C. Process Overview

1. Tenants and Concessionaires with an existing contract or lease agreement with the OIAA may submit a project request for any project they wish to perform. Tenants and Concessionaires may not start any renovations or projects without prior approval from the OIAA.

2. The Tenant or Concessionaire must fill out the Project Request Form in its entirety, please refer to *Attachment 2.00-A, Project Request Form*. The Project Request Form requires information relating to the request including but not limited to: the project name, location, scope of work, estimated milestones, estimated construction cost, and impacts.

3. The Project Request Form shall be emailed to Projects@flyontario.com by the Tenant or Concessionaire to initiate the project review.

4. The Project Review Form will be distributed internally within the OIAA including Engineering, Maintenance, and Operations. Each department will review the project and will include any comments or provisions prior to approval/denial. The overall review period takes approximately 2-weeks; however, it could take up to 6-weeks for a response from the OIAA depending on the size and complexity of the project.

5. After the OIAA has completed their review, the OIAA will either approve or deny the project request. If the project request is approved, the OIAA will send the Tenant/Concessionaire a Project Approval Letter with any comments, conditions of approval, and/or OIAA requirements. If the project is denied, the Tenant/Concessionaire will be notified accordingly.

D. Website Links

Note applicable.

E. Attachments

2.00-A: Project Request Form

ONTARIO INTERNATIONAL AIRPORT

Project Request Form

Instructions: Project Request

The Project Request Form is to be completed by the Applicant/Tenant and emailed to Projects@flyontario.com in order to initiate a Project Review. To ensure timely processing, please ensure that all fields are completed and required documents attached. ***Note: No work may commence until the Applicant/Tenant has received a signed Notice to Proceed (NTP) from the Ontario International Airport Authority.***

Project Request Form – Page 1

Project Name: Enter a concise name for the project that clearly identifies the tenant and project scope, e.g. XYZ Airlines T1 Office Relocation.

Tenant Lease/Agreement Number: Enter your lease agreement number, if applicable.

Program or Project: Programs have a larger scope than projects. Programs may include several projects.

Project Location: Check the appropriate box to indicate the location and specify further, if applicable, i.e. Taxiway S, Terminal 1, Airport Drive, Hangar 20, etc.

Project Address: Enter a street address of project location, if applicable.

Tenant Contact Information: This field should indicate the Authorized Agent from the Tenant that will be copied on correspondence related to the program/project request.

Designated Representative Contact Information: This field should indicate the Program/Project Representative who will be the direct contact person and copied on correspondence related to the program/project request. Select the checkbox if Designated Representative is the same as the Tenant Contact.

Estimated Milestones: These estimates will be used to coordinate other construction and operations at the airport. Thus, any deviation from these estimates may be subject to further review and/or coordination. ***Please note that program/project review and approval will take approximately 2 to 3 weeks.***

Estimated Construction Cost and Funding Source: Provide the estimated cost for the program/project and funding source.

Project Scope: Provide a detailed and thorough description of the program/project requested. This narrative should describe existing conditions, identify what is being changed, and why the change is taking place.

Project Request Form – Page 2

Impacts: Check all boxes indicating possible areas of impact applicable to this program/project.

New Square Footage: Indicate if the program/project includes adding new building square footage. If yes, indicate the previous building area and the new building area after the addition is complete.

Laydown Area: Indicate if a laydown area outside of your leasehold will be requested to complete the project. If yes, indicate the approximate area (in square feet) that will be necessary.

Attachments

Please submit the following items with the completed Project Request Form (PDF files preferred). The forms and insurance requirements can be found at https://www.flyontario.com/corporate/project-request:

- CEQA Questionnaire
- Project Drawings and/or Exhibits
- Contractor/Sub-contractor's Ontario Business License
- Contractor/Sub-contractor's Certificate of Insurance (See Exhibit C for Insurance Requirements)
- Contractor/Sub-contractor's W-9 AND Supplier Information Form ***(if funding source is OIAA)***

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Project Request Form

Project Name: _____

Tenant Lease / Agreement Number: _____

This request is for a: ☐ Program ☐ Project

Project Location (Check all that apply):

Airside

- ☐ Runway _____
- ☐ Taxiway _____
- ☐ Apron _____
- ☐ Hangar _____
- ☐ Cargo Facility _____
- ☐ Other _____

Landside

- ☐ Terminal _____
- ☐ FIS Facility _____
- ☐ CONRAC _____
- ☐ Roadway _____
- ☐ Cargo Facility _____
- ☐ Other _____

Project Address (if applicable):

Address City State Zip Code

Tenant Contact Information:

Company Name

Name Title

Address

City State Zip Code

Email Phone Number

Designated Representative Contact Information:

Company Name

☐ **Check box if info is the same as Tenant**

Name Title

Address

City State Zip Code

Email Phone Number

Estimated Milestones:

Design Start Date: _____ Construction Start Date: _____

Design Completion Date: _____ Construction Completion Date: _____

Estimated Construction Cost and Funding Source:

Project Scope:

ONTARIO INTERNATIONAL AIRPORT

Project Request Form

Impacts (Please check all that apply):

Utilities:
- ☐ Electrical
- ☐ HVAC
- ☐ Telecommunication/IT
  - ☐ Tenant ☐ OIAA
- ☐ Life Safety System
- ☐ Water
- ☐ Sewer
- ☐ Gas
- ☐ Other _____

Special Equipment:
- ☐ Baggage Handling
- ☐ 400 Hz
- ☐ GSE Power
- ☐ Boarding (Jet) Bridge
- ☐ Preconditioned Air
- ☐ FIDS, GIDS, BIDS, etc.
- ☐ Crane – FAA7460
- ☐ Commercial Kitchen
- ☐ Other _____

Pavement:
- ☐ Service Roads
- ☐ Taxilanes
- ☐ Aircraft Apron
- ☐ Curb and Gutter
- ☐ Sidewalk
- ☐ Truck/Hydrant Fueling
- ☐ Other _____

Building:
- ☐ New Construction
- ☐ Temporary Facility
- ☐ Elevator/Escalator
- ☐ Roof
- ☐ Walls
- ☐ Windows
- ☐ Exterior Doors
- ☐ AOA Doors
- ☐ Structural
- ☐ Other _____

Environmental:
- ☐ Fuel Tanks
- ☐ Diesel/Propane/ Natural Gas/Gas-fueled equipment
- ☐ Refrigerants
- ☐ Fugitive Dust
- ☐ Asbestos
- ☐ Soil Contamination
- ☐ Noise
- ☐ Other _____

Interiors:
- ☐ Interior Remodel
- ☐ Fit & Finishes
- ☐ Furniture, Fixtures, and Equipment
- ☐ Other _____

Exteriors:
- ☐ Exterior Remodel
- ☐ Other _____

Signage:
- ☐ Static
- ☐ Dynamic
- ☐ Interior
- ☐ Exterior
- ☐ Other _____

Traffic:
- ☐ Traffic Impact
- ☐ Other _____

Affected Agencies/Tenants:
- ☐ TSA
- ☐ CBP
- ☐ FAA
- ☐ Airlines _____
- ☐ Concessions _____
- ☐ Other _____

Does the Program/Project include adding new building (structure/facility) square footage?

☐ No ☐ Yes If yes, previous area: _____ New area: _____

Note: This is NOT a request to add square footage to your leasing area. Programs/Projects shall be entirely within the lease limits.

Will the Program/Project require a laydown area outside of your leasehold?

☐ No ☐ Yes If yes, approximate area required: _____

Note: This is NOT a request for a laydown area. Programs/Projects shall be entirely within the lease limits.

For OIAA Use Only

Date Received: _____ **Project Number:** _____

Comments:

Documents Received:
- ☐ CEQA Questionnaire _____
- ☐ Certificate of Insurance _____
- ☐ Ontario Business License _____
- ☐ Exhibits/Drawings _____
- ☐ Other _____

2.01 Project Concept Approval

A. Introduction

Projects at Ontario International Airport (ONT) can vary greatly in size and scope. The Ontario International Airport Authority (OIAA) manages set procedures on how these projects are reviewed and approved. Contractors should use this section as a guide to determine what level of plan review is expected from OIAA per project.

B. Contact Information

1. For information or questions please contact the OIAA Owner's Representative assigned to the project.

2. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

C. Process Overview

1. A preliminary determination of project size will be made during the OIAA review of the submitted Project Request Form. Please refer to section *2.00, Project Request*.

2. Contractor is responsible to ensure the project complies with all applicable local, state, and federal regulations and for obtaining necessary permits as related to the project scope.

3. It is recommended that the Contractor use the applicable Project Plan Review Guidelines (see *Attachment 2.01-A Small Project Plan Review Guideline, Attachment 2.01-B Medium Project Plan Review Guideline,* and *Attachment 2.01-C Large Project Plan Review Guideline*) to determine design submittal requirements, unless otherwise stated by OIAA.

4. Contractor is responsible for addressing OIAA comments, conditions of approval, and/or requirements pertaining to the project prior to construction.

D. Website Links

None applicable.

E. Attachments

2.01-A: Small Project Plan Review Guideline
2.01-B: Medium Project Plan Review Guideline
2.01-C: Large Project Plan Review Guideline

SMALL PROJECT PLAN REVIEW GUIDELINE

100% Design Review Package	
Required Item	**Completed**
Scope of Work	
Required Drawings	
Anticipated Start Date	
List of Materials	
Badging Requests	
Survey Data (if applicable)	
Approved Permits (Building, Encroachment, Traffic, Fire, FAA Form 7460-1, et al.)	
Noise Management Compliance	
Hours of Operation	
Utility Shutdown Form	
Access Shutdown Form	

Note: Pre-Construction meeting may not be required by OIAA for small projects.

MEDIUM PROJECT PLAN REVIEW GUIDELINE

60% Design Review Package	
Required Item	**Completed**
Scope of Work	
Project Site Limits	
Survey Data	
60% Drawing Set and Specifications	
Estimated Start Date	
Anticipated Permits Required	
Expected Utility Shutdown Request	
Expected Access Shutdown Request	
Badging Requests	
Anticipated Access Requests	
Draft SWPPP and WQMP	
90% Design Review Package	
Final Scope of Work	
Draft Project Schedule	
100% Drawing Set and Specifications	
City of Ontario Permit Applications	
FAA Form 7460-1 Application	
Pre-Final SWPPP and WQMP	
Draft Contractor Safety Program	
Draft Construction Safety and Phasing Plan	
Utility Shutdown Request Forms	
Access Shutdown Request Forms	
100% Design Review Package	
Final Scope of Work	
Final Project Schedule	
City-Approved Drawing Set and Specifications	
Approved City of Ontario Permits	
Approved FAA Form 7460-1	
Final SWPPP and WQMP	
Final Construction Safety and Phasing Plan	
Contractor Safety Program	
Utility Shutdown Request Forms	
Access Shutdown Request Forms	
Hours of Operation	

Note: Pre-Construction meeting is required by OIAA for medium projects.

LARGE PROJECT PLAN REVIEW GUIDELINE

30% Design Review Package	
Required Item	**Completed**
Anticipated Scope of Work	
Project Location	
Draft Survey Information	
30% Drawing Set and List of Specifications	
Estimated Start Date	
Anticipated Access Needs (Secure/Non-Secure)	
Anticipated Utility Impacts	
Anticipated Permits Required	
60% Design Review Package	
Final Scope of Work	
Project Site Limits	
Final Survey Data	
60% Drawing Set and Specifications	
Estimated Start Date	
Anticipated Permits Required	
Expected Utility Shutdown Request	
Expected Access Shutdown Request	
Badging Requests	
Anticipated Access Requests	
Draft SWPPP and WQMP	
Draft Noise Compliance	
Draft Contractor Safety Program	
90% Design Review Package	
Final Scope of Work	
Draft Project Schedule	
100% Drawing Set and Specifications	
City of Ontario Permit Applications	
FAA Form 7460-1 Application	
Pre-Final SWPPP and WQMP	
Draft Contractor Safety Program	
Draft Construction Safety and Phasing Plan	
Utility Shutdown Request Forms	
Access Shutdown Request Forms	

Final Noise Compliance Approval	
100% Design Review Package	
Final Scope of Work	
Final Project Schedule	
City-Approved Drawing Set and Specifications	
Approved City of Ontario Permits	
Approved FAA Form 7460-1	
Final SWPPP and WQMP	
Final Contractor Safety Program	
Final Construction Safety and Phasing Plan	
Utility Shutdown Request Forms	
Access Shutdown Request Forms	
Final Noise Compliance Approval	
Worksite Security Plans	
Hours of Operation	

Note: Pre-Construction meeting is required by OIAA for large projects.

2.02 Building Permits & Plan Check

A. Introduction

The City of Ontario is the governing authority for building permitting, plan reviews, and inspections for projects at Ontario International Airport (ONT). Contractors are responsible for adhering to applicable local, state, and federal code requirements and for following proper permitting and plan check procedures. Required permits may include but are not limited to: building permit, grading permit, electrical permit, mechanical permit, and plumbing permit.

B. Contact Information

City of Ontario Building Department
Phone: (909) 395-2023

C. Building Permit and Plan Check

1. Once the Ontario International Airport Authority (OIAA) provides the Notice-to-Proceed (NTP), the Contractor is responsible for obtaining applicable permits as needed per the project scope and project schedule.

2. Contractor is responsible for ensuring that all plans comply with the following applicable codes:
   - 2016 California Building Code (CBC) / 2015 International Building Code (IBC)
   - 2016 California Residential Code (CRC) / 2015 International Residential Code (IRC)
   - 2016 California Electrical Code (CEC) / 2014 National Electrical Code (NEC)
   - 2016 California Mechanical Code (CMC) / 2015 Uniform Mechanical Code (UMC)
   - 2016 California Plumbing Code (CPC) / 2015 Uniform Plumbing Code (UPC)
   - 2016 California Green Buildings Standards Code (CalGreen)
   - 2016 California Energy Code

3. Contractor is responsible for paying all applicable permit and plan check fees as designated by the City of Ontario or other designated agency.

4. It is the Contractor's responsibility to notify the designated City Inspector when work is ready for inspection. Contractor shall provide the date and time of the final inspection to the OIAA Owner's Representative and send all applicable final inspection and approval documents via email after city inspection is complete.

D. Website Links

Website link to access the City of Ontario Building Permit Application:
https://www.ontarioca.gov/building/applications-forms

E. Attachments

2.02-A Example City of Ontario Building Permit Application

CITY OF ONTARIO BUILDING DEPARTMENT
PERMIT APPLICATION

303 E. "B" Street, Ontario, CA 91764, Telephone (909) 395-2023

Date: _____ Permit #: _____

Site Address: _____

Owner: _____ Phone #: _____

Address: _____ City: _____ State: _____ Zip: _____

Contractor: _____ Lic.#: _____ Class: _____ Phone No.: _____

Address: _____ City: _____ State: _____ Zip: _____

Arch/Engineer: _____ Lic.# _____ Phone No. _____

Address: _____ City: _____ State: _____ Zip: _____

Contact name _____ Phone or e-mail _____

Work Description: _____

_____

Construction Type: _____ No. of Units: _____ Occupancy(ies): _____ Stories: _____

Res. Sq.Ft.: _____ Garage Sq.Ft.: _____ Pool/Spa Sq.Ft.: _____ Non Res. Sq.Ft.: _____

Patio Cover Sq.Ft.: _____ T.I.- Sq.Ft.: _____ Valuation: _____

#	Electrical	New	Rep *	Plumbing	#	Mechanical
	New Single Family Residence			Drain Pipe Repair		Furnace < 100K BTU
	New Multi-Family Residence			Building Sewer		Furnace > 100K BTU
	Temp. Power			Private Sewage System		Floor Furnace
	Temp. Distribution System			Interceptor/Clarifier		Wall Heater
	Lighting Fixture			Rain Water Sys Drain		**Boilers and/or Compressors**
	Outlet/Switch			Water (Service, New, Re-pipe)		Less than 100K BTU: <3hp
	Outline Lighting/Signs			Water Heaters		101 to 500 BTU: 3 – 15hp
	Pole-Platform- Theater Lights			Gas Outlets		501 to 1000 BTU: 15-30hp
	Res. Appliance			Lawn Sprinkler System		1001 to 1750 BTU: 30-50hp
	Non-Res. Appliance			Backflow < 2"		Over 1750K BTU: >50hp
	Private Pool			Backflow > 2"		
	Carnival Generator			Pool/Spa – Private or Public		Air Handler / AC <10K CFM
	Carnival Rides			Automatic Clothes Washer		Air Handler / AC >10K CFM
	Display Lighting			Bathtub/Shower		Evaporative Cooler
	Pwr. Apparatus -1hp,kva,kw			Dental Unit		Ventilation Fan
	Pwr. App. - 10hp,kva,kw			Dishwasher		Ventilation System - duct work
	Pwr. App. - 50 hp, kva, kw			Drinking Fountain		Hood (commercial) Type I or II
	Pwr. App. - 100 hp, kva, kw			Floor Drains		Equipment Repair/Alteration
	Pwr. App. >100 hp, kva, kw			Floor Sinks		Misc. Appliance/Equipment
	Busway (length in feet)			Laundry Sinks		Process Piping (# of outlets)
	Service not over 200 amps			Lavatory		
	Service not over 1000 amps			Sink (service/mop)		
	Service over 1000 amps			Sink (food waste)		
	Subpanel			Urinal		
	Miscellaneous Equipment			Wash Sink (circular)		
	Signs			Toilet (hotel/motel/residential)		
				Toilet (commercial)		
				Miscellaneous		
				Medical piping (# of outlets)		

***Rep – Fixtures that are replacing an existing fixture.**

TO REQUEST FEE ESTIMATE: FAX TO 909-395-2180 OR EMAIL TO BUILDINGCOUNTER@ONTARIOCA.GOV

Plan check/Permit status is now available on-line at https://automation.ontarioca.gov/onlinePermits/

2.03 Stormwater Mitigation

A. Introduction

For all projects that disturb the existing landscape at or near the Ontario International Airport (ONT), stormwater management practices must be implemented to comply with local, state, and federal environmental regulations. Contractors are responsible for following proper permitting procedures and for implementing and maintaining best management practices of stormwater runoff.

B. Contact Information

1. OIAA Environmental Group
   Email: StormwaterOIAA@altaenviron.com
   Phone: (909) 544-5169

2. City of Ontario Engineering Department, Environmental Division
   Phone: (909) 395-2025

C. OIAA Stormwater Management Procedure

1. The Contractor is responsible for complying with all federal, state, and local stormwater regulations as applicable to the project.

2. If the project disturbs an area less than one acre, the State Construction General Permit does not apply and a State Storm Water Pollution Prevention Plan (SWPPP) is not required. However, the Contractor is required to follow Ontario International Airport Authority (OIAA) procedures to implement minimum construction Best Management Practices (BMPs) necessary to control runoff and prevent storm water pollutants from entering the storm sewer system.

3. OIAA maintains a National Pollutant Discharge Elimination System (NPDES) permit to comply with federal regulations requiring transportation facilities with discharges from vehicle maintenance shops, equipment cleaning operations, or airport de-icing to be covered under an industrial permit. Tenants and Contractors performing work at ONT shall apply to be included as a co-permittee under OIAA to obtain coverage from the OIAA NPDES permit and the statewide Construction General Permit.

4. The Contractor shall refer to the OIAA Guidance Manual for Construction Storm Water Pollution Prevention for direction on required SWPPP and Project Approval.

5. OIAA has selected the California Storm Quality Association (CASQA) Construction Storm Water Pollution Prevention Plan (SWPPP) Template for traditional sites to be the preferred template for all SWPPPs prepared for OIAA projects. It is the responsibility of the Qualified SWPPP Developer to download the most current version of the CASQA Template for preparation in accordance with CASQA policy and copyright requirements. The CASQA Template can be downloaded from their webpage. Additionally, please see *Attachment 2.03-A: Construction SWPPP Requirement Checklist.*

6. The Contractor is responsible for providing a Spill Prevention and Emergency Response Plan to address how the Contractor intends to manage materials and waste on the project site, please refer to *Attachment 2.03-B: Construction SWPPP Spill Response Plan*.

7. Tenants and Contractors working at ONT are responsible for implementing Best Management Practices (BMP) specific to the industrial activities conducted at their facilities or project site. The tenants must retain records of BMP implementation and maintenance and provide them to OIAA Pollution Prevention Team members for review. BMPs will be maintained regularly to ensure proper and effective functionality. If necessary, corrective actions will be implemented as soon as practicable of identified deficiencies and associated amendments to the SWPPP will be prepared and documented. BMP inspections will occur monthly by Pollution Prevention Team members utilizing the form in *Attachment 2.03-C, Monthly Dry Weather Visual Observations*. This form is due on the 5th of every month and can be emailed to StormwaterOIAA@altaenviron.com. For additional information, please review the Storm Water Pollution Prevention Plan Associated with Industrial Activities for OIAA.

D. City of Ontario Stormwater Management Procedure

1. For landside projects affecting areas outside of OIAA management, Contractors shall work with the City of Ontario to obtain NPDES permit coverage. The City of Ontario is a Co-Permittee of the San Bernardino County Flood Control District (SBCFCD), which manages the National Pollutant Discharge Elimination System (NPDES) Permit for the San Bernardino County.

2. The San Bernardino County NPDES Permit, otherwise known as the San Bernardino County MS4 Permit, requires all priority projects (defined in *section 17.01, Sustainability*) to complete the following:

   a. Water Quality Management Plan (WQMP) in compliance with the regional MS4 Permit and Statewide General Construction Permit.

   b. Storm Water Pollution Prevention Plan (SWPPP) in compliance with the regional MS4 Permit and Statewide General Construction Permit.

E. Website Links

City of Ontario Applications/Forms:
https://www.ontarioca.gov/building/applications-forms

OIAA Stormwater Webpage:
https://www.flyontario.com/corporate/environment/stormwater

City of Ontario Preliminary Water Quality Management Plan (PWQMP):
https://www.ontarioca.gov/sites/default/files/Ontario-Files/Engineering/environmental-services/preliminary_wqmp.docx

Storm Water Pollution Prevention Plan (SWPPP) Associated with Industrial activities for the Ontario International Airport:
https://www.flyontario.com/sites/default/files/ontario_swppp_10_31_2016-amended_02-2018_final_0.pdf

OIAA Guidance Manual for Construction Storm Water Pollution Prevention:

https://www.flyontario.com/sites/default/files/oiaa_construction_general_permit_guidance_manual.pdf

CASQA Webpage:
https://www.casqa.org/

F. ATTACHMENTS

2.03-A Construction SWPPP Requirement Checklist
2.03-B Construction SWPPP Spill Response Plan
2.03-C Monthly Dry Weather Visual Observation Form for ONT Discharge Locations & Erodible Areas

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
Title Page & Project General Information		
o Name of Project [Title Page]	Yes ☐ No ☐	
o Risk Level	Yes ☐ No ☐	
o Project Location (e.g. address) [Title Page]	Yes ☐ No ☐	
o City & State of Project [Title Page]	Yes ☐ No ☐	
o LRP Name [Title Page]	Yes ☐ No ☐	
o Address		
o City, State, Zip		
o Telephone and Fax		
o Title		
o QSD Name [Title Page]	Yes ☐ No ☐	
o Address		
o City, State, Zip		
o Telephone and Fax		
o Title/ Certification #		
o QSP Name [Title Page]	Yes ☐ No ☐	
o Address		
o City, State, Zip		
o Telephone and Fax		
o Title/ Certification #		
o SWPPP Preparation Date [Title Page]	Yes ☐ No ☐	
o Project Construction Dates [Title Page]	Yes ☐ No ☐	
o Table of Contents [General]	Yes ☐ No ☐	
o QSD Certification Page [General]	Yes ☐ No ☐	
o LRP Certification Page [General]	Yes ☐ No ☐	
o Amendment Log [General]	Yes ☐ No ☐	
Section 1 SWPP Requirements		
1.1 Introduction		
o Include suggested narrative from CASQA Template	Yes ☐ No ☐	
1.2 Permit Registration Documents (PRDs)		
o Identify the PRDs which shall be submitted	Yes ☐ No ☐	
1.3 SWPPP Availability and Implementation		
o Include suggested narrative from CASQA Template	Yes ☐ No ☐	
1.4 SWPPP Amendments		
o Provide direction regarding circumstances under which SWPPP amendments are required	Yes ☐ No ☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?		Comments
1.5 Retention of Records			
o Include suggested narrative from CASQA Template	Yes ☐	No ☐	
1.6 Required Non-Compliance Reporting			
o Include suggested narrative from CASQA Template	Yes ☐	No ☐	
1.7 Annual Report			
o Include suggested narrative from CASQA Template	Yes ☐	No ☐	
o Instructions for reporting info to OIAA included	Yes ☐	No ☐	
1.8 Changes to Permit Coverage			
o Include suggested narrative from CASQA Template	Yes ☐	No ☐	
1.9 Notice of Termination			
o Include suggested narrative from CASQA Template	Yes ☐	No ☐	
Section 2 SWPP Project Information			
2.1 Project and Site Description			
2.1.1 Site Description			
o Name of Project	Yes ☐	No ☐	
o Size of Project	Yes ☐	No ☐	
o Address and description of location with nearby major roads	Yes ☐	No ☐	
o Describe nearby water bodies	Yes ☐	No ☐	
o Project's Lat/Long	Yes ☐	No ☐	
2.1.2 Existing Conditions			
o Describe site previous land use	Yes ☐	No ☐	
o Describe site proposed land use	Yes ☐	No ☐	
o Describe potential or known contamination sources	Yes ☐	No ☐	"No known contaminants exist" is a response
2.1.3 Existing Drainage			
o Describe site topography	Yes ☐	No ☐	
o Describe site elevation range	Yes ☐	No ☐	
o Describe surface drainage courses, conveyance systems	Yes ☐	No ☐	
o Describe and list receiving water bodies	Yes ☐	No ☐	Project to ocean
2.1.4 Geology and Groundwater			
o Describe underlying soil, type, thicknesses and geologic conditions	Yes ☐	No ☐	
o Describe ground water depth	Yes ☐	No ☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?			Comments
2.1.5 Project Description				
o Describe construction activities	Yes ☐	No ☐		
o Describe limits of grading and show on site map	Yes ☐	No ☐		
o Describe stockpiling locations and show on site map	Yes ☐	No ☐	N/A☐	
o Describe construction phasing	Yes ☐	No ☐		
o Impervious % (after project?)	Yes ☐	No ☐		
2.1.6 Developed Condition				
o Describe post-construction surface drainage	Yes ☐	No ☐		
o Describe post-construction conveyance systems	Yes ☐	No ☐		
o Describe post-construction discharge locations	Yes ☐	No ☐		
o Owner of MS4 discharged to (if applicable)	Yes ☐	No ☐	N/A☐	
2.2 Permits and Governing Documents				
o List permits and other governing documents relevant to the Project and key requirements associated with Water Quality	Yes ☐	No ☐	N/A☐	
2.3 Storm Water Run-on From Offsite Areas				
o Describe if Project anticipates to receive offsite run-on	Yes ☐	No ☐		
o If so, describe sources, drainage area contributing	Yes ☐	No ☐	N/A☐	
o Describe proposed BMPs for run-on	Yes ☐	No ☐	N/A☐	
2.4 Findings of Risk Determination				
o Risk Level	Yes ☐	No ☐		
o Methods and Assumptions used	Yes ☐	No ☐		
o RUSLE Factors/Sediment Risk Summary	Yes ☐	No ☐		
o Receiving Water Risk Summary	Yes ☐	No ☐		
o NAL Table [Risk Level 2 Only]	Yes ☐	No ☐	N/A☐	
o NAL and NEL Table [Risk Level 3 Only]	Yes ☐	No ☐	N/A☐	
2.5 Construction Schedule				
o Start date	Yes ☐	No ☐		
o Grading and Land Development Phase	Yes ☐	No ☐	N/A☐	
o Streets and Utilities Phase	Yes ☐	No ☐	N/A☐	
o Vertical Construction Phase	Yes ☐	No ☐	N/A☐	
o Final Landscaping and Site Stabilization Phase	Yes ☐	No ☐	N/A☐	
o Completion date (NOT)	Yes ☐	No ☐		
2.6 Potential Construction Activity and Material Pollutant Sources				
o List Construction Activities	Yes ☐	No ☐		
o List Construction Materials	Yes ☐	No ☐		

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?			Comments
2.7 Identification of Non-Storm Water Discharges				
o List authorized non-storm water discharges	Yes ☐	No ☐		
o List activities for potential unauthorized non-storm water discharges	Yes ☐	No ☐		
2.8 Required Site Map Information				
o See Appendix B	Yes ☐	No ☐		
Section 3 Schedule BMP Implementation				
3.1 Schedule for BMP Implementation				
o Temporary soil stabilization BMPs	Yes ☐	No ☐		
o Temporary sediment control BMPs	Yes ☐	No ☐		
o Wind erosion control BMPs	Yes ☐	No ☐		
o Tracking control BMPs	Yes ☐	No ☐		
o Non-storm water BMPs	Yes ☐	No ☐		
o Waste management and material pollution control BMPs	Yes ☐	No ☐		
o BMP Implementation Schedule (CASQA Table 3.1)	Yes ☐	No ☐		
3.2 Erosion and Sediment Control				
o Use erosion and sediment control worksheets to determine applicable BMPs based on Project materials and activities	Yes ☐	No ☐		
3.2.1 Erosion Controls				
o Temporary Erosion Control and Wind Control	Yes ☐	No ☐		
o BMPs (CASQA Table 3.2)	Yes ☐	No ☐		
o Provide description of site-specific implementation for each BMP being used	Yes ☐	No ☐		
o Included BMPs are in Appendix B, H	Yes ☐	No ☐		
3.2.2 Sediment Controls				
o Temporary Sediment Control and Tracking Control BMPs (CASQA Table 3.3)	Yes ☐	No ☐		
o Provide description of site-specific implementation for each BMP being used	Yes ☐	No ☐		
o Projects shall provide linear sediment control along toe of slope, face of slope, and at the grade breaks of exposed slopes. [RL 2 and 3]	Yes ☐	No ☐	N/A☐	
o Included BMPs are in Appendix B, H	Yes ☐	No ☐		

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
3.3 Non-Storm Water Controls and Waste and		
o Materials Management	Yes ☐ No ☐	
o Use non-storm water, construction materials, and waste management worksheet to determine applicable BMPs based on Project materials and activities	Yes ☐ No ☐	
o Included BMPs are in Appendix B, H	Yes ☐ No ☐	
o Dewatering of excavations accounted for	Yes ☐ No ☐	
3.3.1 Non-Storm Water Controls		
o Temporary Non-Storm water BMPs (CASQA Table 3.4)	Yes ☐ No ☐ N/A☐	
o Provide description of site-specific implementation for each BMP being used	Yes ☐ No ☐	
o Included BMPs are in Appendix B, H	Yes ☐ No ☐	
o Dewatering of excavations accounted for	Yes ☐ No ☐ N/A☐	
3.3.2 Materials and Waste Management		
o Temporary Materials Management BMPs (CASQA Table 3.5)	Yes ☐ No ☐	
o Provide description of site-specific implementation for each BMP being used.	Yes ☐ No ☐	
o Waste management conducted in accordance with Projects Construction Waste Management Plan	Yes ☐ No ☐ N/A☐	
o Included BMPs are in Appendix B, H	Yes ☐ No ☐	
3.4 Post Construction Storm Water Management Measures		
o Include a written narrative to describe Post Construction BMPs and show locations on Site Maps	Yes ☐ No ☐ N/A☐	
o Is Project in an area subject to Phase I or Phase II MS4 permit approved Storm Water Management Plan	Yes ☐ No ☐	
o If yes, is post construction runoff reduction requirement satisfied (Municipal Permit provided)	Yes ☐ No ☐	
o List all applicable site design, source control, and treatment control BMPs	Yes ☐ No ☐ N/A☐	
Section 4 BMP Inspection, Maintenance, and Rain Event Action Plans		
4.1 BMP Inspection and Maintenance		
o Statement about BMP inspection and maintenance requirements	Yes ☐ No ☐	
o Provide blank inspection forms in Appendix I	Yes ☐ No ☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
4.2 Rain Event Action Plans (REAP) [RL 2 and 3]		
o Include requirement and procedure for preparing and implementing a REAP	Yes ☐ No ☐ N/A☐	
o REAP info:	Yes ☐ No ☐ N/A☐	
o Site Address	Yes ☐ No ☐ N/A☐	
o Calculated Risk Level	Yes ☐ No ☐ N/A☐	
o Site Storm Water Manager info (Name, Title, Company, 24-hr Phone Number)	Yes ☐ No ☐ N/A☐	
o Erosion and Sediment control provider info (i.e. Name, Title, Company, 24-hr Phone Number)	Yes ☐ No ☐ N/A☐	
o Storm water sampling agent info (Name, Title, Company, 24-hr Phone Number)	Yes ☐ No ☐ N/A☐	
o Activities associated with each construction phase	Yes ☐ No ☐ N/A☐	
o Trades active on the construction site during each phase	Yes ☐ No ☐ N/A☐	
o Trade contractor info	Yes ☐ No ☐ N/A☐	
o Recommended actions for each project phase	Yes ☐ No ☐ N/A☐	
Section 5 Training		
5.1 Training		
o Statement about training requirements and documentation	Yes ☐ No ☐	
o Provide training logs in Appendix K	Yes ☐ No ☐	
Section 6 Responsible Parties and Operators		
6.1 Responsible Parties		
o List Approved Signatories	Yes ☐ No ☐	
o Include LRP written authorization in Appendix L	Yes ☐ No ☐	
6.2 Contractor List		
o List all Prime Contractors for Project (Name, Title, Company, Address, 24-hr Phone Number)	Yes ☐ No ☐	
o List of all intended subcontractors in Appendix M	Yes ☐ No ☐	
Section 7 Construction Site Monitoring Program (CSMP)		

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
7.1 Purpose		
o Statement about objectives that the CSMP was developed to address the Risk Level	Yes ☐ No ☐	
7.2 Applicability of Permit Requirements		
o Include Project Risk Level and bullet the types of monitoring activities required and applicable to that particular Risk Level	Yes ☐ No ☐	
7.3 Weather and Rain Event Tracking		
o Statement about the weather and rain event tracking required based on Risk Level	Yes ☐ No ☐	
7.3.1 Weather Tracking		
o Identify tools QSP will use to track weather and precipitation.	Yes ☐ No ☐	
7.3.2 Rain Gauge		
o Identify number of rain gauges on site and locations.	Yes ☐ No ☐	
7.4 Monitoring Locations		
o Identify all upstream and downstream monitoring/sampling locations	Yes ☐ No ☐	
7.5 Safety and Monitoring Exemptions		
o Identify governing safety documents (e.g. Health and Safety Plan) N/A	Yes ☐ No ☐ N/A☐	
o A description of site safety hazards, particularly during visual monitoring and sample collection	Yes ☐ No ☐	
o Identify scheduled business hours	Yes ☐ No ☐	
o Identify permit-specified sampling/observation exemptions N/A	Yes ☐ No ☐ N/A☐	
7.6 Visual Monitoring		
o Include narrative describing visual monitoring requirements	Yes ☐ No ☐	
o Summary of Visual Monitoring and Inspections (CASQA Table 7.1)	Yes ☐ No ☐	
7.6.1 Routine Observations and Inspections		
o Provide narrative for 7.6.1.1 Routine BMP Inspections and 7.6.1.2 Non-Storm Water Discharge Observations	Yes ☐ No ☐	
7.6.2 Rain-Event Triggered Observations and Inspections		

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
o Include suggested narrative for when rain event observations and inspections are conducted (see CASQA template)	Yes ☐ No ☐	
7.6.2.1 Visual Observations Prior to a Forecasted Qualifying Rain Event		
o Include suggested narrative for how pre-storm observations will be made (see CASQA template)	Yes ☐ No ☐	
7.6.2.2 BMP Inspections During an Extended Storm Event		
o Include suggested narrative for inspections during an extended storm event (see CASQA template)	Yes ☐ No ☐	
7.6.2.3 Visual Observation Following a Qualifying Rain Event		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
7.6.3 Visual Monitoring Procedures		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
o List assigned and alternate inspectors and provide names, contact numbers and training qualifications in Appendix K	Yes ☐ No ☐	
7.6.4 Visual Monitoring Follow-up and Reporting		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
7.6.5 Visual Monitoring Locations		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
o Locations shown on Site Maps	Yes ☐ No ☐	
o Sampling locations at Site Drainage Areas (CASQA template Table 7.2)	Yes ☐ No ☐	
o Sampling locations at Storm Water Storage and Containment Areas (CASQA template Table 7.3) N/A	Yes ☐ No ☐ N/A☐	
o Sampling locations at Site Storm Water Discharge Locations (CASQA template Table 7.4)	Yes ☐ No ☐	
7.7 Water Quality Sampling and Analysis		

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
7.7.1 Sampling and Analysis Plan for Non-Visible Pollutants in Storm Water Runoff Discharges		
o Include narrative to list or describe all potential sources of non-visible pollutants for all construction materials, wastes or activities; existing site features; soil amendments; and off-site storm water run-on	Yes ☐ No ☐	
7.7.1.1 Sampling Schedule		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
7.7.1.2 Sampling Locations		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
o Non-visible Pollutant Sampling Locations – Contractor's Yard (CASQA template Table 7.6)	Yes ☐ No ☐	
o Non-visible Pollutant Sampling Locations – Soil Amendment Areas (CASQA template Table 7.7)	Yes ☐ No ☐ N/A☐	
o Non-visible Pollutant Sampling Locations – Areas of Historical Contamination (CASQA template Table 7.8)	Yes ☐ No ☐ N/A☐	
o Non-visible Pollutant Sampling Locations – Site Run-on (CASQA template Table 7.9)	Yes ☐ No ☐ N/A☐	
7.7.1.3 Monitoring Preparation		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Contractor sampling personnel name and telephone number	Yes ☐ No ☐ N/A☐	
o Effluent Sampling Field Logs and Chain of Custody forms	Yes ☐ No ☐ N/A☐	
o Laboratory or environmental consultant company name, address, telephone number, point of contact, name of samplers, name of alternates	Yes ☐ No ☐ N/A☐	
7.7.1.4 Analytical Constituents		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Potential Non-visible Pollutants and Water Quality Indicator Constituents (CASQA template Table 7.11)	Yes ☐ No ☐ N/A☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
7.7.1.5 Sample Collection		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.1.6 Sample Analysis		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Laboratory Name, address, telephone number, point of contact, ELAP certification	Yes ☐ No ☐ N/A☐	
o Sample Collection, Preservation and Analysis for Monitoring Non-visible Pollutants (CASQA template Table 7.12)	Yes ☐ No ☐ N/A☐	
7.7.1.7 Data Evaluation and Reporting		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.2 Sampling and Analysis Plan for pH and Turbidity in Storm Water Runoff Discharges [RL 2 and 3]		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.2.1 Sampling Schedule		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.2.2 Sampling Locations		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Turbidity and pH Runoff Sample Locations (CASQA template Table 7.13)	Yes ☐ No ☐ N/A☐	
o Turbidity and pH Run-on Sample Locations (CASQA template Table 7.14)	Yes ☐ No ☐ N/A☐	
7.7.2.4 Field Parameters		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Sample Collection and Analysis for Monitoring Turbidity and pH (CASQA template Table 7.15)	Yes ☐ No ☐ N/A☐	
7.7.2.5 Sample Collection		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.2.6 Field Measurements		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
o Field Instruments and include manufacturer's instructions (CASQA template Table 7.16)	Yes ☐ No ☐ N/A☐	
7.7.2.7 Data Evaluation and Reporting o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.3 Additional Monitoring Following an NEL Exceedance [RL 3] o Statement of non-applicability (i.e. RLI)	Yes ☐ No ☐ N/A☐	
7.7.3.1 Sampling and Analysis Plan for Suspended Sediment Concentration in Storm Water Runoff Discharges		
7.7.3.1.1 Sample Schedule and Locations o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.3.1.2 Monitoring Preparation o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.3.1.3 Sample Collection and Analysis o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Sample Collection and Analysis for Monitoring Suspended Sediment Concentration (CASQA template Table 7.19)	Yes ☐ No ☐ N/A☐	
7.7.3.1.4 Data Evaluation o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.3.2 Sampling and Analysis for pH, Turbidity, and SSC in Receiving Water		
7.7.3.2.1 Sample Schedule and Locations o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Receiving Water Sample Locations (CASQA template Table 7.20)	Yes ☐ No ☐ N/A☐	
7.7.3.2.2 Monitoring Preparation o Include suggested narrative from CASQA	Yes ☐ No ☐ N/A☐	

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
template		
7.7.3.2.3 Sample Collection and Analysis o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.3.2.4 Data Evaluation o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.4 Sampling and Analysis Plan for Non-Storm Water Discharges o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.4.1 Sampling Schedule o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.4.2 Sampling Locations o Include suggested narrative from CASQA template o Fill in sampling locations for Project runoff and run-on	Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ N/A☐	
7.7.4.3 Monitoring Preparation o Include suggested narrative from CASQA template o Contractor sampling personnel name and telephone number o Effluent Sampling Filed Logs and Chain of Custody forms o Laboratory or environmental consultant company name, address, telephone number, point of contact, name of samplers, name of alternates	Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ N/A☐	
7.7.4.4 Analytical Constituents o Include suggested narrative from CASQA template o Potential Non-Storm Water Discharge Pollutants and Water Quality Indicator Constituents (CASQA template Table 7.21)	Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ N/A☐	
7.7.4.5 Sample Collection o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.4.6 Sample Analysis		

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Sample Collection, Preservation and Analysis for Monitoring Non-Storm Water Discharge Pollutants (CASQA template Table 7.22)	Yes ☐ No ☐ N/A☐	
7.7.4.7 Data Evaluation and Reporting		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.5 Sampling and Analysis Plan for Other Pollutants Required by the Regional Water Board [RL 2 and 3]		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.5.1 Sampling Schedule		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.5.2 Sampling Locations		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Fill in sampling locations for Project runoff and run-on (CASQA Table 7.23)	Yes ☐ No ☐ N/A☐	
7.7.5.3 Monitoring Preparation		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Contractor sampling personnel name and telephone number	Yes ☐ No ☐ N/A☐	
o Effluent Sampling Field Logs and Chain of Custody forms	Yes ☐ No ☐ N/A☐	
o Laboratory or environmental consultant company name, address, telephone number, point of contact, name of samplers, name of alternates	Yes ☐ No ☐ N/A☐	
7.7.5.4 Sample Collection		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.5.5 Sample Analysis		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o Sample Collection, Preservation and Analysis for Monitoring Regional Board	Yes ☐ No ☐ N/A☐	

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
Required Pollutants (CASQA Table 7.24)		
7.7.5.6 Data Evaluation and Reporting		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.6 Training of Sampling Personnel		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
o List all sampling personnel, training courses taken, and storm water sampling experience for each	Yes ☐ No ☐ N/A☐	
o Include training records of all designated sampling personnel in Appendix K	Yes ☐ No ☐ N/A☐	
7.7.7 Sample Collection and Handling		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.7.1 Sample Collection		
o Include suggested narrative from CASQA template	Yes ☐ No ☐ N/A☐	
7.7.7.2 Sample Handling		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
o List laboratory company name, address, telephone number, point of contact	Yes ☐ No ☐	
7.7.7.3 Sample Documentation Procedures		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
7.8 Active Treatment System Monitoring [RL 2 and 3]		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
o Will an Active Treatment System (ATS) be deployed on site?	Yes ☐ No ☐	
o If yes, provide location for ATS Monitoring and Sampling Plan location	Yes ☐ No ☐ N/A☐	
7.9 Bioassessment Monitoring [RL 3]		
o Include suggested narrative from CASQA template	Yes ☐ No ☐	
7.10 Watershed Monitoring Option [RL 3]		
o Include suggested narrative from CASQA	Yes ☐ No ☐	

CASQA SWPPP Requirement	Requirement Satisfied?		Comments
template if Project is participating in a watershed monitoring option o If yes, include a summary of the watershed monitoring and Regional Board approval of the program	Yes ☐	No ☐	
7.11 Quality Assurance and Quality Control o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.1 Field Logs o Include suggested narrative from CASQA template	Yes ☐	No ☐	
o Include Visual Inspection Log, Effluent Sampling Field Log Sheet	Yes ☐	No ☐	
7.11.2 Clean Sampling Techniques o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.3 Chain of Custody o Include suggested narrative from CASQA template	Yes ☐	No ☐	
o Include Chain of Custody (CoC) Forms	Yes ☐	No ☐	
7.11.4 QA/QC Samples o Include suggested narrative from CASQA template	Yes ☐	No ☐	
o Include frequency required by each QA/QC method	Yes ☐	No ☐	
7.11.4.1 Field Duplicates o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.4.2 Equipment Blanks o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.4.3 Field Blanks o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.4.4 Travel Blanks o Include suggested narrative from CASQA template	Yes ☐	No ☐	
7.11.5 Data Verification o Include suggested narrative from CASQA	Yes ☐	No ☐	

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
template **7.12 Records Retention** o Include suggested narrative from CASQA template	Yes ☐ No ☐	
CSMP Attachments		
Attachment 1 Weather Reports o Printed NOAA or other source weather forecasts to be stored in this attachment	Yes ☐ No ☐	
Attachment 2 Monitoring Records o Completed BMP Inspection Forms, Visual Monitoring, Effluent Sampling Logs, Monitoring Exceptions, and NAL Exceedance Reports to be stored in this attachment	Yes ☐ No ☐	
Attachment 3 Example Forms o Example Rain Gauge Logs, Field Logs, Visual Monitoring, Effluent Sampling Logs, NAL Exceedance Reports and CoCs of lab named in Section 7 to be stored in this attachment	Yes ☐ No ☐	
Attachment 4 Field Meter Instructions o Field Meter Instructions to be stored in this attachment	Yes ☐ No ☐ N/A☐	
Attachment 5 Supplemental Information o Documents related to Regional Board required monitoring (if applicable), watershed monitoring option approval (if applicable) to be stored in this attachment	Yes ☐ No ☐ N/A☐	
Section 8 References		
8.1 References o Include CASQA template suggested narrative for any pertinent references for this Project's SWPPP document (i.e. General Construction Permit) o Project Spill Response Plan	Yes ☐ No ☐ Yes ☐ No ☐	
Appendix A Calculations		

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
A. Calculations o Calculations	Yes ☐ No ☐	Are there minimum required calculations? List.
Appendix B Site Maps		
B. Site Maps o Site Map (Multiple maps if necessary) o Vicinity Map o Site layout o Construction site boundaries o Drainage areas o Discharge locations o Sampling locations o Areas of soil disturbance (temporary or permanent) o Active areas of soil disturbance (cut or fill) o Locations of runoff BMPs o Locations of erosion control BMPs o Locations of sediment control BMPs o ATS location (if applicable) o Locations of sensitive habitats, watercourses, or other features which are not to be disturbed o Locations of all post-construction BMPs o Waste storage areas o Vehicle storage areas o Material storage areas o Entrances and Exits o Fueling locations o Haul Routes o Contained Storm Water Infiltration Areas o Water Pollution Control Drawings show phased implementation	Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐	
Appendix C Permit Registration Documents (PRDs)		
C. PRDs o Notice of Intent (NOI) o Risk Assessment o LS Calculation o R-value LEW print out o Signed Certification Statement o Post Construction Water Balance o MS4 Compliance Document o Copy of Annual Fee Receipt	Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ Yes ☐ No ☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
o ATS Design Documents (if applicable) o Site Map, see Appendix B o Waste Discharge Identification (WDID) confirmation	Yes ☐ No ☐ N/A☐ Yes ☐ No ☐ Yes ☐ No ☐	
Appendix D SWPPP Amendment Certification		
D. SWPPP Amendment Certifications o SWPPP Amendment Certification Statement	Yes ☐ No ☐ N/A☐	
Appendix E Submitted Changes to PRDs		
E. Submitted Changes to PRDs o Log of Updated PRDs	Yes ☐ No ☐	
Appendix F Construction Schedule		
F. Construction Schedule o Construction Schedule	Yes ☐ No ☐	
Appendix G Construction Activities, Materials Used, and Associated Pollutants		
G. Construction Activities, Materials, Pollutants o Include Construction Activities and Associated Pollutants from CASQA Template	Yes ☐ No ☐	
Appendix H CASQA Storm Water BMP Handbook Portal: Construction Fact Sheets		
H. CASQA BMP Fact Sheets o BMP Factsheets for all identified BMPs in Section 3 o BMPs shown on the Site Maps in Appendix B (as appropriate)	Yes ☐ No ☐ Yes ☐ No ☐	
Appendix I BMP Inspection Report		
I. BMP Inspection Report o BMP Inspection Report Form appropriate to RL	Yes ☐ No ☐	
Appendix J Project Specific REAP		
J. REAP [RL 2 and 3] o REAP	Yes ☐ No ☐ N/A☐	

Project: _____
Date: _____

CASQA SWPPP Requirement	Requirement Satisfied?	Comments
Appendix K Training Reporting Form		
K. Training Reporting Form o Trained Contractor Personnel Log	Yes ☐ No ☐	
Appendix L Responsible Parties		
L. Responsible Parties o Authorization of Approved Signatories o Identification of QSP & Certifications o Authorization of Data Submitters (optional) o QSD Certification	 Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ N/A☐ Yes ☐ No ☐	
Appendix M Contractors and Subcontractors		
M. Contractors and Subcontractors o Contractors and Subcontractors	Yes ☐ No ☐	
Appendix N Construction General Permit		
N. Construction General Permit o Copy of Construction General Permit Order and RL Attachment (C, D, or E)	Yes ☐ No ☐	
Appendix O Annual Report and Notice of Termination		
O. Annual Report and Notice of Termination o Copy of Annual Report (once filed) o Copy of Notice of Termination (approval notice from RWQCB)	 Yes ☐ No ☐ Yes ☐ No ☐	

SWPPP
Spill Response Plan

[Insert Date]

Ontario International Airport Authority

Prepared For:
[Insert Project Name]
[Insert Project Address]
[Insert Project Contact Person]
[Insert Project Contact Number]

Spill Response Personnel

Spill Response Coordinator

_____ , _____ is hereby designated as the
Signature Signature

Spill Response Coordinator for the _____ located at
[Insert Project Name]

_____ .
[Insert Project Address]

I acknowledge my responsibility as Spill Response Coordinator for the Project. I have reviewed the SWPPP and the Spill Response Plan, and I have sufficient knowledge and training to effectively implement the Spill Response Plan. The individuals named below, if any, will assist me in implementing the Spill Response Plan, and I have reviewed this responsibility with each named individual.

_____ _____
Signature Date

( ) Office

( ) Mobile

_____
Contact Telephone Number

Additional Spill Response Personnel

Name	Role	Phone Number
		Office: ( )
		Mobile: ( )
		Office: ( )
		Mobile: ( )
		Office: ( )
		Mobile: ( )

SECTION 1 Spill Risk Assessment

1.1 Introduction

This Spill Response Plan has been prepared at the request and direction of Ontario International Airport Authority with the objective of meeting the standards and requirements of the 2009 Construction General Permit (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ) for the Project located at [Insert Project Address]. Construction BMPs will be implemented in accordance with the Project SWPPP to prevent spills on-site. This plan identifies current construction activities and materials at the site that have the potential for a pollutant spill. This plan identifies equipment and materials that will be kept on-site to contain and clean up any spills associated with these activities and materials. This plan also includes a list of emergency spill response services in the event that a spill goes beyond that which can be effectively managed with the prevention, containment, and cleanup provisions of this plan.

1.2 Spill Response Checklist

Table 1.1- Construction Activities/Materials, Pollutants and Spill Response

Construction Phase	Construction Activity/Material	Will Activity/ Material be Used?	Pollutant	Spill Response	Equipment To Be Located on-site
Land Development/ Grading	Grading Equipment Fueling	Yes / No	Vehicle Fuel	Use dry cleaning methods. Use Absorbent on spill, remove and store in waste container.	Rags, Pads, Absorbent, Shovel, Containment Drum
	Grading Equipment Leak	Yes / No	Vehicle Fuel	Use dry cleaning methods. Use Absorbent on spill, remove and store in waste container.	Rags, Pads, Oil Absorbent, Shovel, Containment Drum
	Grading Equipment Leak	Yes / No	Vehicle Oil	Use dry cleaning methods. Use Absorbent on spill, remove and store in waste container.	Rags, Pads, Absorbent, Shovel, Containment Drum
	Grading Equipment Leak	Yes / No	Vehicle Fluids	Use dry cleaning methods. Use Absorbent on spill, remove and store in waste container.	Rags, Pads, Absorbent, Shovel, Containment Drum
	Grading Equipment	Yes / No	Greases	Use dry cleaning methods. Use Absorbent on spill, remove and store in waste container.	Rags, Pads, Absorbent, Shovel, Containment Drum
	Concrete Pouring of Footings and Pads	Yes / No	Form Release Agent	Use dry cleaning methods. Let form curing compounds dry and store in containment drum.	Rags, Pads, Broom, Shovel, Containment Drum
	Concrete Pouring of Footings and Pads	Yes / No	Concrete curing compounds	Use dry cleaning methods. Let form curing compounds dry and store in containment drum.	Rags, Pads, Broom, Shovel, Containment Drum
Utilities/Roads	Rupture, Leakage, Valve failure	Yes / No	Super Chlorinated water	Contain and Vacuum.	
	Water Line Discharge	Yes / No	Super Chlorinated water	Contain and Vacuum.	
	Asphalt paving	Yes / No	Asphaltic Emulsions	Use dry cleaning methods. Let asphalt dry and store in containment drum.	Rags, Pads, Absorbent, Shovel, Containment Drum
	Adhesives/ Epoxy Operations	Yes / No	Adhesives/ Epoxies		Rags, Pads, Shovel, Containment Drum
Vertical Structures	Painting Operations	Yes / No	Paints/Solvents		Absorbent, Containment Drum
	Mortar Mix	Yes / No	Mortar	Use dry cleaning methods. Let Mortar mix dry and store in containment drum.	Broom, Shovel, Containment Drum
	Stucco Operations	Yes / No	Stucco Plaster	Use dry cleaning methods. Let Mortar mix dry and store in containment drum.	Broom, Shovel, Containment Drum
	Drywall Operations	Yes / No	Drywall Plaster	Use dry cleaning methods. Let spill dry and store in containment drum.	Broom, Containment Drum
	Sealers	Yes / No	Sealers	Use dry cleaning methods. Let sealer dry and store in containment drum.	Rags, Pads, Absorbent, Shovel, Containment Drum

Table 1.1- Construction Activities/Materials, Pollutants and Spill Response					
Construction Phase	**Construction Activity/Material**	**Will Activity/ Material be Used?**	**Pollutant**	**Spill Response**	**Equipment To Be Located on-site**
	Grout	Yes / No	Grout	Use dry cleaning methods. Let Grout dry and store in containment drum.	Rags, Pads, Absorbent, Shovel, Containment Drum
Landscaping and Final Stabilization	Landscaping Operations	Yes / No	Hydroseed/ Soil-Binders	Use dry cleaning methods. Stop leak/spill, contain spill, and clean up spill.	Shovel
	Landscaping Operations	Yes / No	Mulches	Use dry cleaning methods. Stop leak/spill, contain spill, and clean up spill.	Shovel
	Landscaping Operations	Yes / No	Fertilizers	Use dry cleaning methods. Stop leak/spill, contain spill, and clean up spill.	Shovel
	Landscaping Operations	Yes / No	Herbicide	Use rags or pads to remove and store contaminated materials in containment drums	Rags, Pads, Absorbent, Shovel, Containment Drum

Additional items can be added as necessary.

1.3 Spill Cleanup

Clean up leaks and spills immediately. Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent materials for larger spills. If the spill is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry facility (i.e. rags) or disposed of as hazardous waste. Use dry cleanup methods ONLY. Never hose down or bury spills. For liquid spills, contain the spill and then utilize absorbent material. Clean up as much of the spill as possible (using dry cleanup methods) and dispose of the spent absorbent and spill material properly. If necessary, store spill and spent absorbent materials in a containment drum until they can be properly disposed of by a hazardous waste removal service.

Containment drums will be used for the storage of cleaned up spill and spent absorbent. These drums are only for temporary storage and will contain the spilled pollutant, any contaminated materials the spill came in contact with (i.e. soil) and any materials that were used to clean up the spill (i.e. rags, pads, and absorbent compound).

If a spill occurs on the soil, first contain the spill, then apply absorbent compound, and then shovel the contaminated soil and spent absorbent into a containment drum.

In the event a spill occurs and cannot be cleaned up and disposed of prior to a forecasted rain event, contain the spill and use tarps to cover the spill until it can be removed properly.

1.4 Spill Response Materials

Table 1.2- Spill Response Materials Required On-Site.		
Materials	**On-Site**	**Where Located**
Shovels	Yes / No	
Brooms	Yes / No	
Dust Pan	Yes / No	
Rags	Yes / No	
Pads	Yes / No	
Absorbent	Yes / No	
Containment Drums	Yes / No	
Tarps	Yes / No	

.

SECTION 2 Spill Response Agencies

2.1 Spill Response Agencies

Table 2.1 is a list of local agencies that provide emergency response and/or cleanup of spills on the Project site that are too large for the materials on-site to handle.

Table 2.1- Spill Response Agencies

Agency/Contact	Telephone Number	Address
[Insert Local] Fire Department	911; [Insert Phone Number]	[Insert Address]
[Insert Local] California Environmental Protection Agency	[Insert Phone Number]	[Insert Address]
[Insert County] Sanitation District	[Insert Phone Number]	[Insert Address]
State Office of Emergency Services	800-852-7550	3650 Schriever Ave Mather, CA 95655
The County of [Insert County Name] Hazardous Materials Management Division	[Insert Phone Number]	[Insert Address]
California Environmental Protection Agency, Santa Ana Regional Water Quality Control Board	909-782-4130	3737 Main Street, Suite 500 Riverside, CA 92501 [Remove if Project is not in this region]
National Response Center Environmental Response Team	513-569-7537	26 W. Martin Luther King Drive Cincinnati, OH 45268

Attachment 3

Contractor and Subcontractor Form (EXAMPLE)

Contractor/Subcontractor Name and Address	Contact Person/ Phone Number	Activity	Start Date	End Date
New Land Excavation and Grading	Paul Smith ###-###-####	Grading	6-15-15	8-31-15
Ditch Construction	Dave Lloyd ###-###-####	Water truck; Trenching; Paving	6-15-15	
BULB Electrical	John Paul ###-###-####	Civil; Electrical	7-20-15	
Planted Landscaping	Scott Jones ###-###-####	Landscaping	8-01-15	

Monthly Dry Weather Visual Observation Form

(Form due by the 5th of the month following the observation month)

Facility Name: _____ **Follow-up Requested? ☐**

Facility Address: _____

Observer Name: _____ **PPT ☐ or Alternate ☐** **Phone/email:** _____

Signature: _____ **Change in PPT or Alternate? Yes ☐** **Observation Date/Time:** _____

Are all impervious surfaces assessed regularly for spills, stains and other debris? Yes ☐ or No ☐

Has there been a change in Onsite Chemical Inventory? Yes ☐ or No ☐ (If Yes, complete and include Stored Material Checklist)

Has a spill occurred since the previous observation? Yes ☐ or No ☐

Was a Spill/Incident Report Form submitted? Yes ☐ or No ☐ (If "no", complete and include Spill/Incident Report Form)

Is Facility Map up to date? Yes ☐ No ☐; Is Spill Response Plan up to date? No ☐ or Yes ☐

Part I . Non-StormWater Discharge (NSWD) Observations. (Check All Applicable)

	Discharge Type	**A.** Discharge Observed?	**B.** Evidence of prior/ current/ potential/ source of NSWD and/or source? (Y/N)	**C.** Discharge occured in the facility? (Y/N)	**D.** Describe Pollutant Characteristics (Check If Present)					E. BMPs In Place? (Y/N)	F. Dates of Discharge, BMPs Utilized, Describe Discharge Observation. Include supplemental photos if applicable.
					Sheen	Turbidity	Floating Material	Odor	Other		
AUTHORIZED	Fire Hydrant Flushing										
	Potable Water Sources										
	Drinking Fountain Water										
	Atmospheric Condensates										
	Irrigation Drainage/ Landscape										
	Others										
UNAUTHORIZED	Rinse/Wash Water										
	Improperly Disposed/ Dumped										
	Spilled Material										
	Leaked Material										
	Illicit Connection										
	Possible Illicit Connection										
	Food Waste										
	Other										

Comments and Observations

MONTH AND YEAR _____

Part II BMP Observation, Implementation, Deficiencies and Corrective Actions

Description of BMPs (Reference BMP Fact Sheet Number); SWPPP Table 4.1 shows summary of the BMPs	A. Facility BMPs (Check All Applicable); Previously reported BMPs are located in Table 4.2 of the SWPPP	B. Change in BMP use on facility? New or Elimiated Use	C. Implementation Location (Check all Applicable)				D. Implementation Frequency	E. BMP Deficient?	F. BMP Comments (Corrective Actions); Attach Any Supporting Photos (including description)
			Outdoor Industrial Activities Areas	Outdoor Industrial Equipment and Storage Areas	Chemical Storage Areas	Others (Describe all other potential source of industrial pollutants)	Routine (Describe: Daily, Weekly, Monthly, Others, or As Needed)	Yes (describe in "Comments") or No or Not Applicable - NA	
Elimination of NSWD (SC1); Illicit Connection									
Aircraft, Ground Vehicle, and Equipment Maintenance (SC2)									
Aircraft, Vehicle and Equipment Fueling (SC3)									
Aircraft, Vehicle and Equipment Washing (SC4)									
Aircraft Deicing (SC5)									
Outdoor Material Handling (SC6)									
Outdoor Storage of Significant Material (SC7); Storage Tanks and Uncovered Outdoor Storage									
Waste Handling and Disposal (SC8); Housekeeping and Uncovered Dumptsters									
Building and Grounds Maintenance (SC9); Housekeeping									
Storm Water Pollution Prevention (SC10); Employee awareness training and recordkeeping Education									
Lavatory Service Operations (SC11)									
Outdoor Washdown/Sweeping (SC12); Stains on pavement/concrete									
Fire Fighting Foam Discharge (SC13)									
Potable Water System Flushing (SC14)									
Runway Rubber Removal (SC15)									
Oil/Water Separators (TC1)									
Emergency Spill Cleanup Plan (SR1); Spill kits and Plan Posted									
Contaminated or Erodible Surfaces (CASQA SC-40)									
Drainage System Maintenance (CASQA SC-44)									
Wet Pond (CASQA - TC-20)									
Extended Detention Basin (CASQA TC-22)									
Media Filter (CASQA TC-40)									
Gravity Separator (CASQA MP-51)									

Monthly Dry Weather Visual Observation Form For ONT Discharge Locations and Erodible Areas

Month: _____
Year: _____

Inspector Name: _____
Title: _____
Signature: _____

DEER CREEK	(Observed at the bottom of the rocky incline, inside a gated area, south of the east end of Service Road South located inside the airfield)				
	Discharge Observed:		Discharge Type/Source(s):		Discharge Characteristics:
Inspection Date:	□ Yes	□ No	Authorized	Unauthorized	Flow rate:
	Corrective Actions:				Color:
Inspection Time:					Odors:
					Sheen:
					Turbidity:
					Cloudiness:
					Suspended Material:
					Floating Material:

CUCAMONGA CHANNEL	(Observed from the east border of 2299 E. Avion Street)				
	Discharge Observed:		Discharge Type/Source(s):		Discharge Characteristics:
Inspection Date:	□ Yes	□ No	Authorized	Unauthorized	Flow rate:
	Corrective Actions:				Color:
Inspection Time:					Odors:
					Sheen:
					Turbidity:
					Cloudiness:
					Suspended Material:
					Floating Material:

N CUCAMONGA CHANNEL	(Observed from the service road running parallel on the north side of and midway through runway 26R-8L)				
	Discharge Observed:		Discharge Type/Source(s):		Discharge Characteristics:
Inspection Date:	□ Yes	□ No	Authorized	Unauthorized	Flow rate:
	Corrective Actions:				Color:
Inspection Time:					Odors:
					Sheen:
					Turbidity:
					Cloudiness:
					Suspended Material:
					Floating Material:

W CUCAMONGA CHANNEL	(Observed east of the Mildred Ave, Ontario Blvd and Mission Blvd junction)				
	Discharge Observed:		Discharge Type/Source(s):		Discharge Characteristics:
Inspection Date:	□ Yes	□ No	Authorized	Unauthorized	Flow rate:
	Corrective Actions:				Color:
Inspection Time:					Odors:
					Sheen:
					Turbidity:
					Cloudiness:
					Suspended Material:
					Floating Material:

Monthly Dry Weather Visual Observation Form For ONT Discharge Locations and Erodible Areas

Month:
Year:

Inspector
Name:
Title:
Signature:

Erodible Areas		
Evidence of Erosion:	□ Yes □ No	Location 1:
		Location 2:
		Location 3:
Potential for Erosion:	□ Yes □ No	Location 4:
		Location 5:
		Location 6:
BMP reccomendation:	Location :	
	Location :	
	Location :	

Other Areas of Concern:		
Location Description:		Issue:

2.04 FAA Form 7460-1

A. Introduction

The Federal Aviation Administration (FAA) has a responsibility to manage airspace safely and efficiently. In accordance with Title 14 of the Code of Federal Regulations (14 CFR) Part 77, the FAA requires Contractors performing work on or near an airport to submit a completed FAA Form 7460-1, Notice of Proposed Construction or Alteration. Contractors working on Ontario International Airport (ONT) property are responsible for ensuring each project has an approved FAA Form 7460-1 prior to commencing work.

B. Contact Information

OIAA Director of Program Management
Keith Owens, PE
Email: kowens@flyontario.com
Phone: (909) 544-5383
Address: 1923 E. Avion Avenue, Ontario, California 91761.

C. Procedure

1. Once OIAA sends the Notice-to-Proceed (NTP), the Contractor is responsible for submitting and obtaining FAA approval on a completed FAA Form 7460-1 application. The FAA must receive the completed application a minimum of forty-five (45) days before the start date of the proposed construction/alteration or before the date of file for a construction permit application.

2. Contractor shall send completed FAA Form 7460-1 application to the Ontario International Airport Authority (OIAA) Owner's Representative for review prior to submission to the FAA.

3. Contractor shall complete and submit FAA Form 7460-1 application at: https://oeaaa.faa.gov/oeaaa/external/portal.jsp

4. Contractor shall submit a separate case for each necessary temporary construction feature as well as each permanent feature above grade. Examples of permanent features requiring a submittal include but are not limited to: All objects above grade (at least two (2) feet) in the RSA or TSA, buildings, structures, fences, poles, railroad tracks, runways, taxiways, and aprons.

5. If applicable, it is recommended that the Contractor include exhibits to supplement the FAA Form 7460-1 application submission including the following:

    a. Overall site plan with point table including point number, latitude, longitude, site elevation (SE) in feet, and structure height (AGL) in feet. Latitude and longitude should be shown using horizontal datum of either NAD83 or NAD27. Notes should include a description of work to be completed, horizontal datum referenced, vertical datum referenced, and survey datum referenced. Please include a scale and north arrow on the exhibit. Additional

information to include are: runway northings, eastings, latitudes, longitudes, and one distance from the centerline of the nearest runway/taxiway to the nearest permanent point of the structure. Airside projects should include a table listing each runway and major taxiway, indicating whether the feature will open or closed during construction.

Example:

RUNWAY OR TAXIWAY	STATUS
Runway 8L-26R	OPEN
Runway 8R-26L	CLOSED
Taxiway N	OPEN

b. Contractor haul route should be shown on a separate drawing with points indicating each change in direction or change in road along designated route. The haul route shall begin where construction traffic enters Airport property or leaves existing roads, whichever is further from the airport. The standard height on haul routes is 15 feet unless project specific requirements are present. Point table should follow the same format as that of the overall site plan.

c. Contractor staging area should be shown on a separate drawing with each vertex of the staging area limits called out as a point. The standard AGL for staging areas is 15 feet unless project specific requirements are present (e.g. batch plant). Point table should follow the same format as that of the overall site plan.

d. Each phase of construction should be shown separately on different drawings and submitted as separated cases on the FAA Form 7460-1 application. The vertices of construction limits for each phase should be called out in a point table.

e. Crane height should be coordinated with project needs and requirements and should match specifications of equipment selected.

6. Further guidance on developing the FAA Form 7460-1 application can be found in *Attachment 2.04-A, FAA Form 7460-1 Instructions*.

D. WEBSITE LINKS

FAA Form 7460-1 Application Page: https://oeaaa.faa.gov/oeaaa/external/portal.jsp

E. ATTACHMENTS

2.04-A FAA Form 7460-1 Instructions

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

§ 77.7 Form and time of notice.

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

INSTRUCTIONS FOR COMPLETING FAA FORM 7460-1

PLEASE TYPE or PRINT

ITEM #1. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #2. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #3. New Construction would be a structure that has not yet been built.

Alteration is a change to an existing structure such as the addition of a side mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration shall be included in ITEM #21 "Complete Description of Proposal".

Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has never been studied by the FAA. The reason for the notice shall be included in ITEM #21 "Complete Description of Proposal".

ITEM #4. If Permanent, so indicate. If Temporary, such as a crane or drilling derrick, enters the estimated length of time the temporary structure will be up.

ITEM #5. Enter the date that construction is expected to start and the date that construction should be completed.

ITEM #6. Please indicate the type of structure. DO NOT LEAVE BLANK.

ITEM #7. In the event that obstruction marking and lighting is required, please indicate type desired. If no preference, check "other" and indicate "no preference" DO NOT LEAVE BLANK. NOTE: High Intensity lighting shall be used only for structures over 500' AGL. In the absence of high intensity lighting for structures over 500' AGL, marking is also required.

ITEM #8. If this is an existing tower that has been registered with the FCC, enter the FCC Antenna Structure Registration number here.

ITEM #9 and #10. Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second if known. Latitude and longitude derived solely from a hand-held G P S instrument is NOT acceptable. A hand-held GPS is only accurate to within 100 meters (328 feet) 95 percent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.

ITEM #11. NAD 83 is preferred; however, latitude and longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datum may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.

ITEM #12. Enter the name of the nearest city and state to the site. If the structure is or will be in a city, enter the name of that city and state.

ITEM #13. Enter the full name of the nearest public-use (not private-use) airport or heliport or military airport or heliport to the site.

ITEM #14. Enter the distance from the airport or heliport listed in #13 to the structure.

ITEM #15. Enter the direction from the airport or heliport listed in #13 to the structure.

ITEM #16. Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g. 17'3" rounds to 17', 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #20.

ITEM #17. Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include anything mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc.

ITEM #18. Enter the overall height above mean sea level and expressed in whole feet. This will be the total of ITEM #16 + ITEM #17.

ITEM #19. If an FAA aeronautical study was previously conducted, enter the previous study number.

ITEM #20. Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8-1/2" x 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, contact USGS at 1-888-275-8747 or via internet at "http://store.usgs.gov". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

ITEM #21.

- For transmitting stations, include maximum effective radiated power (ERP) and all frequencies.
- For antennas, include the type of antenna and center of radiation (Attach the antenna pattern, if available).
- For microwave, include azimuth relative to true north.
- For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).
- For each pole/support, include coordinates, site elevation, and structure height above ground level or water.
- For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials.
- For alterations, explain the alteration thoroughly.
- For existing structures, thoroughly explain the reason for notifying the FAA (e.g. corrections, no record or previous study, etc.).

Filing this information with the FAA does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation's and zoning authorities.

Paperwork Reduction Work Act Statement: This information is collected to evaluate the effect of proposed construction or alteration on air navigation and is not confidential. Providing this information is mandatory or anyone proposing construction or alteration that meets or exceeds the criteria contained in 14 CFR, part 77. We estimate that the burden of this collection is an average 19 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB control number associated with this collection is 2120-0001. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, ASP-110.

Please Type or Print on This Form

Form Approved OMB No.2120-0001
Expiration Date: 10/31/2017

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY

Aeronautical Study Number

1. Sponsor *(person, company, etc. proposing this action):*

Attn. of:

Name:

Address:

City: State: Zip:

Telephone: Fax:

2. Sponsor's Representative *(if other than #1):*

Attn. of:

Name:

Address:

City: State: Zip:

Telephone: Fax:

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (___ months, ____days)

5. Work Schedule: Beginning End

6. Type: ☐ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other

7. Marking/Painting and/or Lighting Preferred:

☐ Red Lights and Paint
☐ White-Medium Intensity
☐ White -High Intensity
☐ Dual - Red and Medium Intensity
☐ Dual - Red and high Intensity
☐ Other

8. FCC Antenna Structure Registration Number *(if applicable)*:

9. Latitude: ____0 ____ , ____, ____"

10. Longitude: ____0 ____ , ____ , ____

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other

12. Nearest: City: State

13. Nearest *Public-use* *(not private-use)* or Military Airport or Heliport:

14. Distance from #13. to Structure:

15. Direction from #13. to Structure:

16. Site Elevation ***(AMSL)***: ____ ft.

17. Total Structure Height ***(AGL)***: ____ ft.

18. Overall Height (#16 + #17) ***(AMSL)***: ____ ft.

19. Previous FAA Aeronautical Study Number *(if applicable)*:

-OE

20. Description of Location: *(Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey)*

21. Complete Description of Proposal:

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., Section 46301(a)

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date	Typed or Printed Name and Title of Person Filing Notice	Signature

2.05 Submittals Procedures

A. Introduction

For the Ontario International Airport Authority (OIAA) to receive and review submittals from all Contractor's, Tenants, or Concessionaires (otherwise referred to as "Contractor") in a timely, thorough, and expeditious manner to avoid delays in the work.

Submittals are required from Contractors to verify that materials to be furnished and/or installed comply with the project drawings, specifications, and the established design standards. Submittals can be in the form of shop drawings, material data sheets, and/or samples.

B. Contact Information

For information or questions regarding the submittal process, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

1. All project related submittals shall be prepared and transmitted promptly and in conformance with the approved construction schedule so as not to delay the progress of the work.

2. The Contractor shall issue a schedule of submittals to the OIAA, arranged in chronological order by dates at the beginning of the project. Time required for review, ordering, manufacturing, fabrication, and delivery (if applicable) shall be included on the schedule. Also include additional time required for making corrections or modifications to the submittals. The OIAA will review the submittal schedule and identify the submittals that require the OIAA's review and approval. The OIAA reserves the right to review any and all other submittals for inspection and other purposes.

3. The Contractor shall utilize *Attachment 2.05-A, OIAA Transmittal Form*, when issuing submittals to the OIAA for review. The Transmittal Form shall be filled out in its entirety, including the project number, permit number, number of copies and submittal description.

4. All submittals shall be individually packaged and transmitted to the OIAA using the OIAA's Transmittal Form. The submittal shall be delivered via email to the OIAA Owner's Representative. For physical submittals, such as samples and hard copies of shop drawings, the Contractor shall submit three (3) copies of the submittal for OIAA's review, unless otherwise indicated. The OIAA will return one (1) copy to the Contractor. Faxed submittals will not be accepted.

5. The OIAA will review each submittal, indicate corrections or modifications required, and return to the Contractor. The OIAA will reject and return submittals not complying with requirements. The OIAA will mark each submittal as follows:

    a. No Exceptions Taken: Indicates that the submittal complies with the drawings and

specifications. The Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

b. Make Corrections Noted: Fabrication, manufacture, or construction may proceed, provided submittal complies with the OIAA's notations and contract documents.

c. Revise and Resubmit: Fabrication, manufacture, or construction may not proceed. The submittal did not demonstrate full extent of all conditions, details, and coordination with other surrounding work and requires additional information as noted.

d. Rejected/Submittal Required: Submittal does not comply with the intent of the contract documents. Do not use submittals marked with this notation. Make revisions and resubmit for OIAA review.

6. The Contractor is required to keep an updated submittal log, identifying status, review and approval dates, and whether the OIAA's approval is required. The submittal log may be requested by the OIAA.

7. The Contractor shall prepare and ensure review and approval by its Design Team and the OIAA as applicable all shop drawings, product data, and samples in accordance with the Contract Documents and the approved submittal schedule to cause no delay in the work.

8. The OIAA review period may take up to ten (10) working days.

D. Website Links

Not applicable.

E. Attachments

2.05-A: OIAA Transmittal Form

ONTARIO INTERNATIONAL AIRPORT

TRANSMITTAL FORM

To _____ Date _____

_____ Project Name: _____

_____ Project# _____

_____ Permit # _____

_____ Via _____

Attention _____

Subject _____

Enclosed are the following:

No. of copies	Description and Remarks

Copies to:

ONTARIO INTERNATIONAL AIRPORT AUTHORITY

By _____

January 2019

Design & Construction Handbook

3.00 Badging Overview

ONTARIO INTERNATIONAL AIRPORT

3.00 Badging Process

A. Introduction

The Ontario International Airport Authority (OIAA) **Security Badge Office (SBO)** (also referred to as Security Credentialing Office) is responsible for issuing airport identification badges to all employees, tenants, or contractors, henceforth referred to as "Contractor" with a need to access non-restricted and secured areas of the airport. In accordance with the Transportation Security Administration (TSA), the SBO is also responsible for assigning and maintaining access to airport facilities and verifying that employees have cleared the required Criminal History Records Check (CHRC) and Security Threat Assessment (STA) prior to receiving their airport badge. The SBO ensures that badge holders follow the rules and regulations related to the possession and use of airport badges.

Authorized Signer: Any individual or designated representative authorized to sponsor individuals, collect and transmit biographical data to the SBO, and request airport identification media for sponsored individuals. The Authorized Signer also ensures and certifies that all sponsored individuals have completed required training.

Criminal History Records Check (CHRC): A search for an individual's past criminal history by submitting the individual's fingerprints and biographic information to the Federal Bureau of Investigation Criminal Justice Information System (CJIS), and a review of any criminal records that CJIS returns.

Security Threat Assessment (STA): A check conducted by TSA of databases relevant to confirming that an individual does not pose a security threat, that an individual possesses lawful status in the United States, and an individual's identity.

B. Contact Information

Address:
Ontario International Airport Authority Administration Building
1923 E. Avion Street
Ontario, CA 91761

Office Hours: Monday – Friday; 8:00AM-4:30PM

Main Office Line: (909) 544-5170
Office Fax: (909) 937-2513
Contact Email: ontsecuritybadgeoffice@flyontario.com

If a badge is lost or stolen, notify the SBO immediately at 909-544-5170 to deactivate the badge. If the SBO is closed, please contact the ONT Airport Police at (909) 986-6711.

C. FINGERPRINT AND BADGE FEES

Acceptable forms of payment include, Visa, M/C, Discover, American Express, company check, or money order made payable to OIAA. No cash will be accepted.

1. New Badge: $70.00
2. Badge Renewal Fee: $70.00
3. First Lost Badge: $70.00
4. Second Lost Badge: $100.00

D. PROCESS OVERVIEW

1. The OIAA requires all organizations conducting business at the Airport to apply for and maintain the appropriate permit, agreement, or lease. Upon execution of the permit, agreement, or lease, the SBO will be notified of the authorization to start the credentialing process, which can take up to 30 days to complete.

2. All companies and individuals must submit a Letter of Intent, a Letter of Verification, and a Letter of Authorization (if required) to the SBO prior to badge training. Please refer to *Attachment 3.00-B, Security Credentialing Program Enrollment*.

3. The Letter of Authorization will designate the company representative(s) that will be appointed as the Authorized Signer(s) and the Certified Security Trainer(s). The assigned company Authorized Signer must complete the required training by the OIAA SBO.

4. The Authorized Signer's primary responsibilities are the following:
    a. Ensure all fingerprinting and badge applications submitted to the SBO are accurate and complete;
    b. Maintain employee security files in accordance with ONT policies and procedures;
    c. Actively review information and keep abreast of any changes in the ONT SBO;
    d. Provide information as needed, in a timely manner, to the SBO;
    e. Provide written notice of any changes regarding the organization's contact information;
    f. Notify the SBO of any changes that have an effect on the information reflected on the ONT Security Badges, including but not limited to: mergers, corporate name changes, and entity separations;
    g. Notify the SBO of any changes to a badge holder's personally identifiable information such as name change, change in citizenship, home address, telephone number;
    h. Complete all badge audits issued by the ONT SBO.

5. Companies and individuals who require a badge are processed on a case-by-case basis. The SBO will issue a color-coded badge depending on the level of access needed. Badge icons/symbols and drivers permits may also be needed. Please contact the badging office for information.

E. WEBSITE LINKS

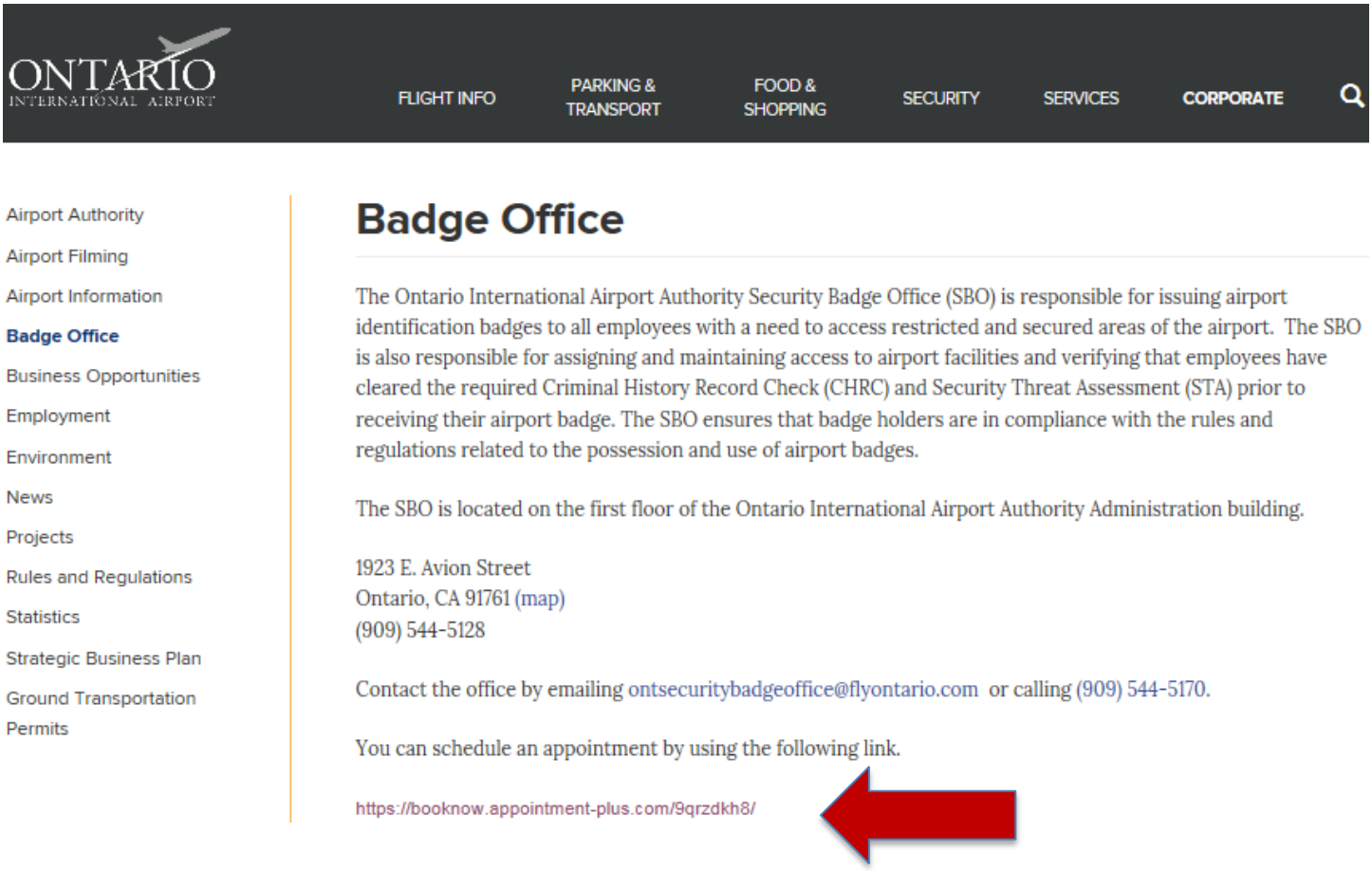
Ontario Badge Office Webpage:
https://www.flyontario.com/corporate/badge-office

F. ATTACHMENTS

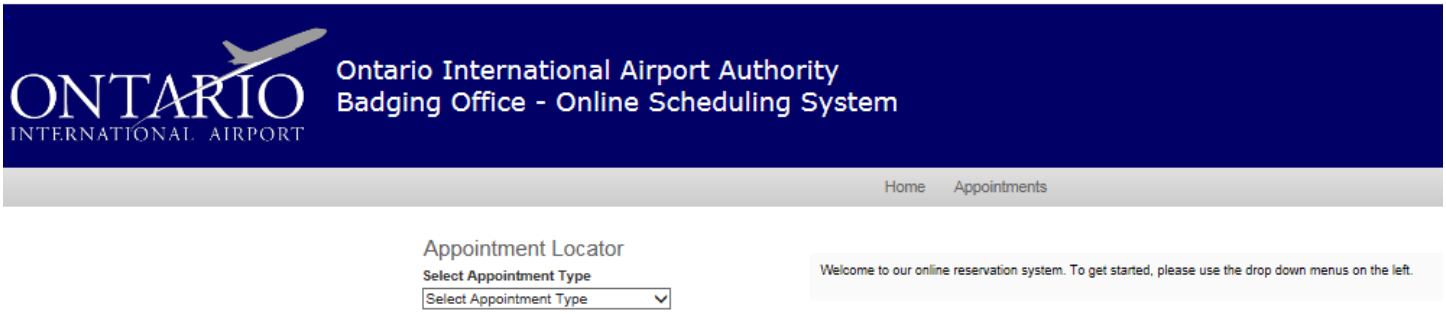
3.00-A: How to Make an Online Appointment
3.00-B: Security Credentialing Program Enrollment

LOGGING INTO THE SYSTEM

1. The Online Appointment System can be accessed by visiting the Ontario International Airport website underneath “Corporate” and selecting “Badge Office” or http://www.flyontario.com/corporate/badge-office and clicking on the link.



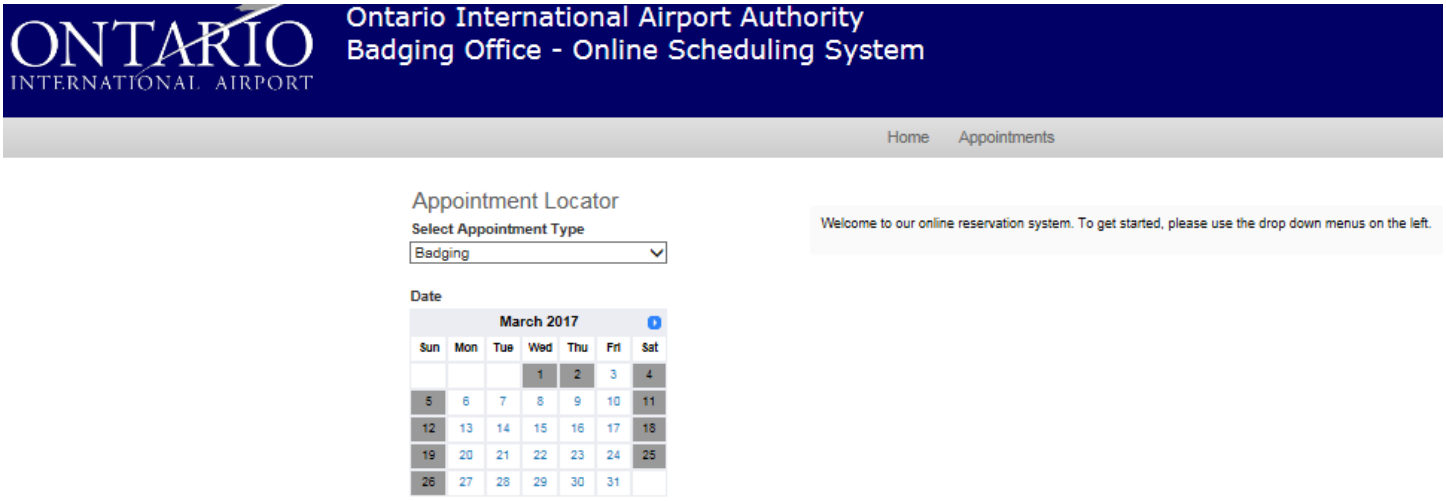
2. You should see a screen similar to the one below. If you do not, click the "Appointments" link on the top bar.



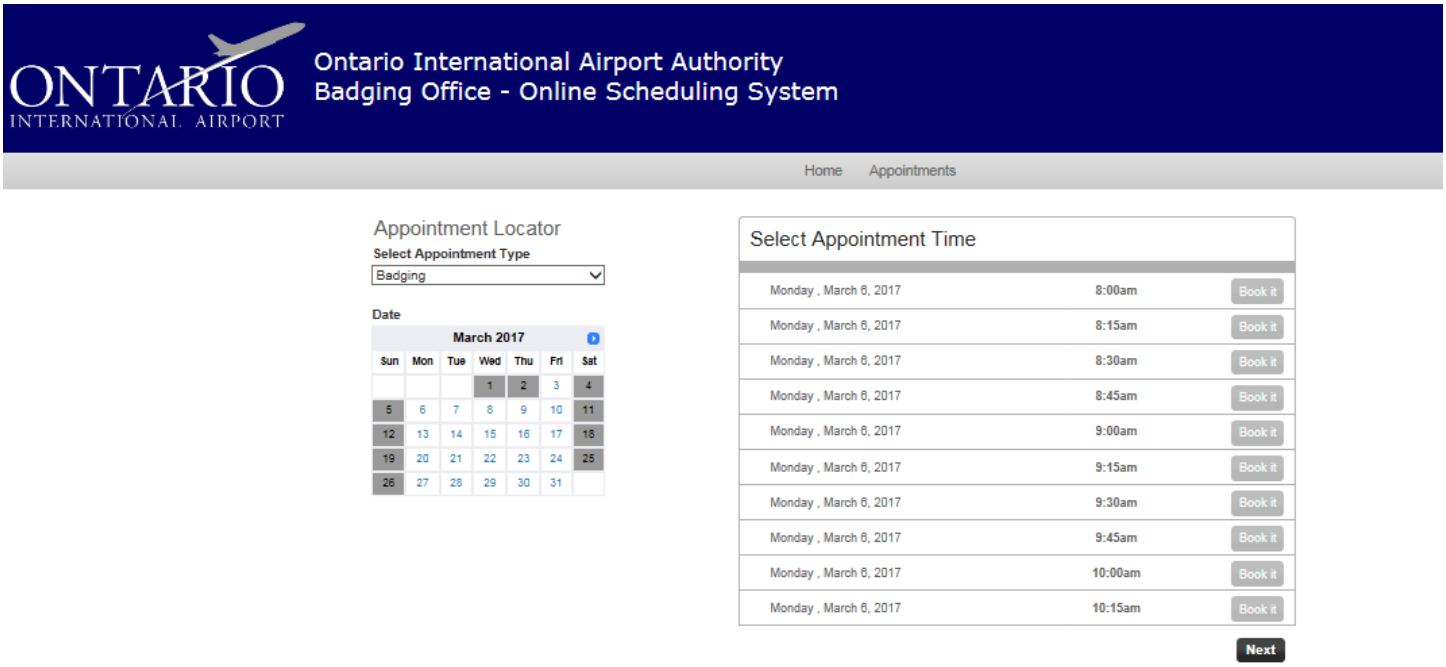
MAKING AN APPOINTMENT

1. Begin by selecting the drop down menu that says “Select Appointment Type” as shown below. Then select the service for either Badging or Fingerprinting. Badging appointments will continue to be available Monday through Friday and Fingerprint appointments will only be on Tuesday and Thursdays.

   The calendar below the “Select Appointment Type” box will show white boxes around the dates that are available. Use the arrows that are on either side of the Month/Year box to navigate to the month followed by the day you want to book. The arrow to the left of the Month/Year will take you to the previous month and the arrow on the right of the Month/Year will take you to following month.



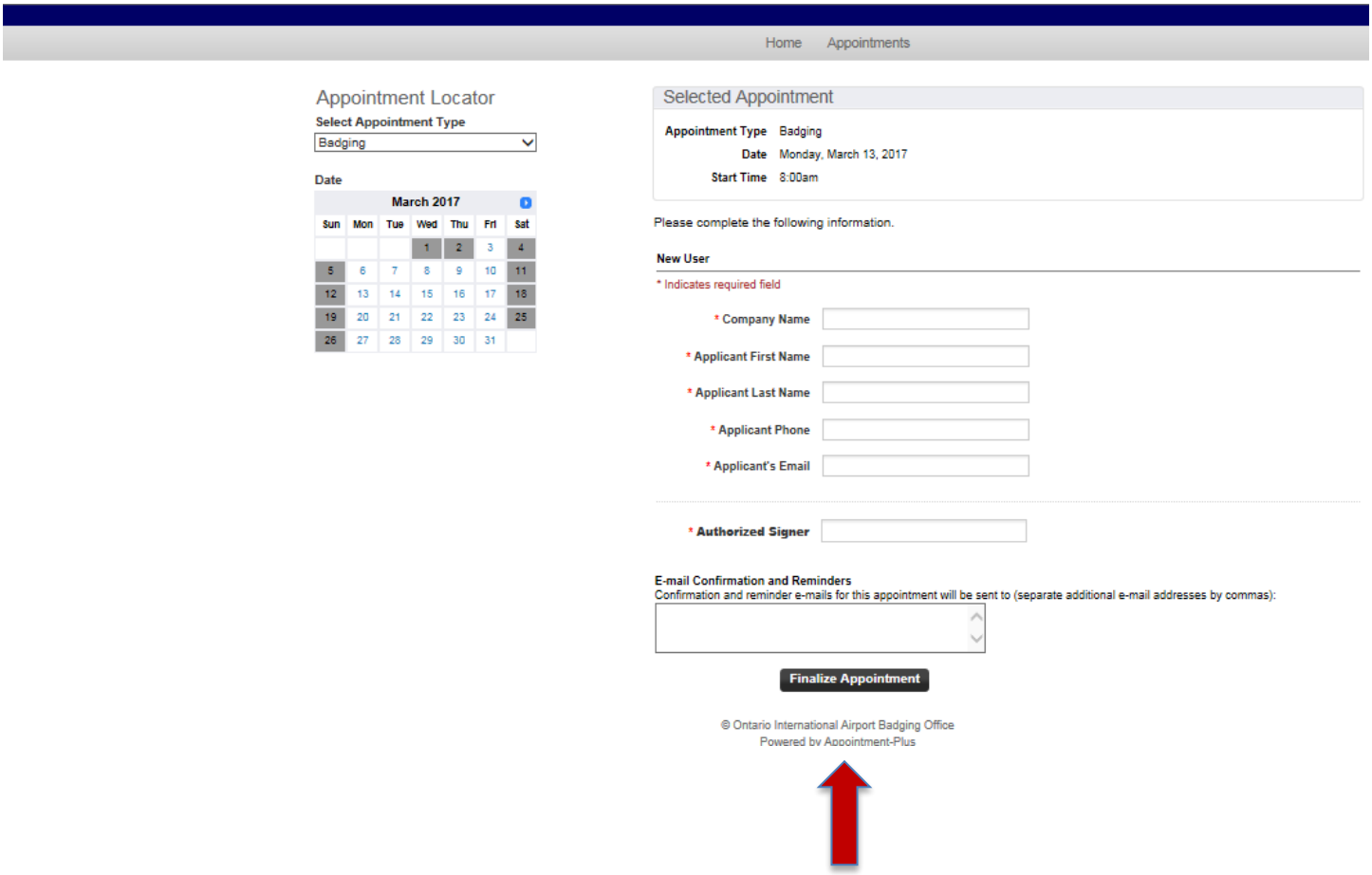
2. Once you have selected a date, a grid will appear to the right with the available timeslots. Available timeslots are indicated by a white box. Boxes that are dark grey or light grey indicate timeslots that are **not** available. The time you select will be the “start time” of your appointment.



3. After you select a time slot, you will get a screen confirming the details of the appointment as well as a box to type in the Applicant's Name. It is **crucial** that you type in the full name of the applicant and his or her email address.

   In the second email box, you can enter as many email addresses as you wish for people you want to receive a copy of the confirmation. Separate each email address with a comma and a single space.

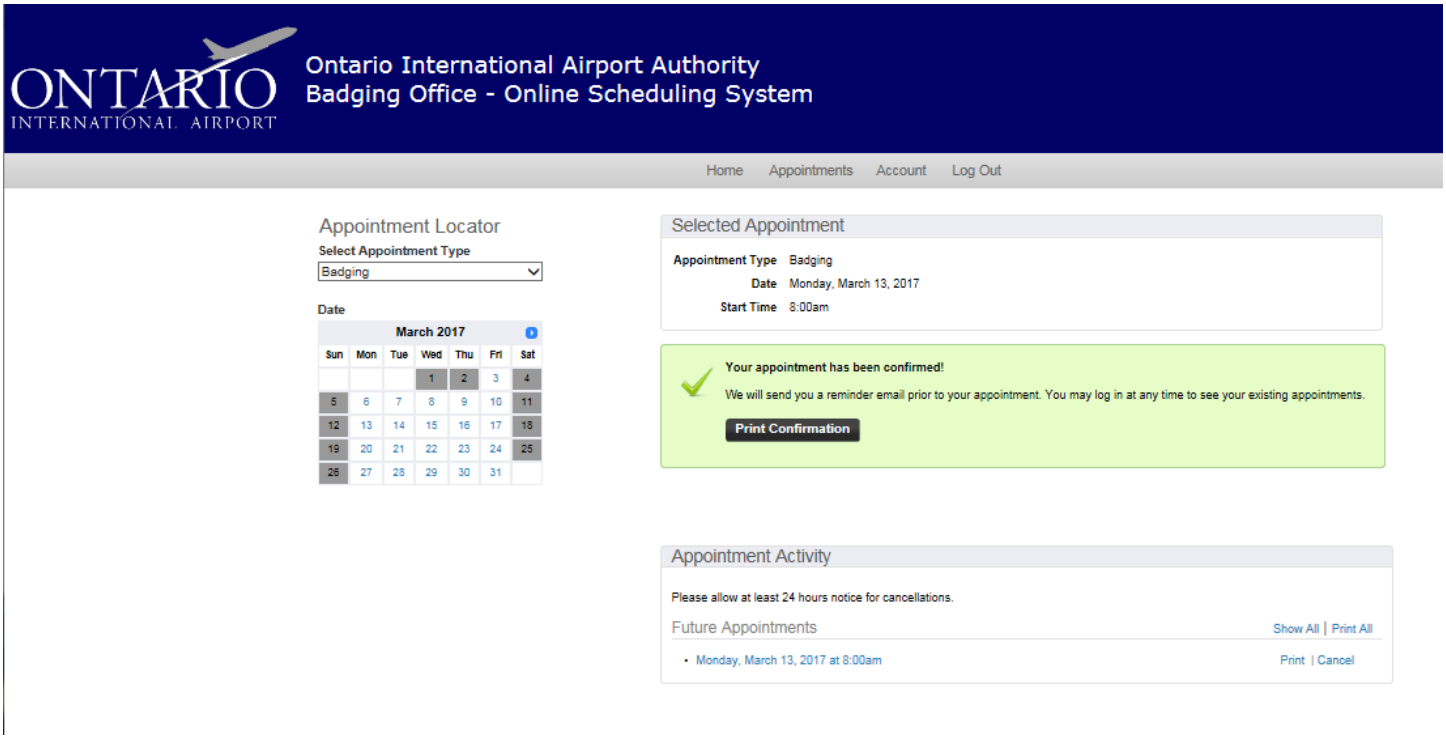
   When you are done, click on the "Finalize Appointment" button to submit your appointment.



Click this button when you are ready to submit this appointment to the system.

4. Upon clicking the “Finalize Appointment” button you will get this confirmation screen. If you would like to print a confirmation for your records, you can click on the “click here to print a printer-friendly appointment confirmation” link.

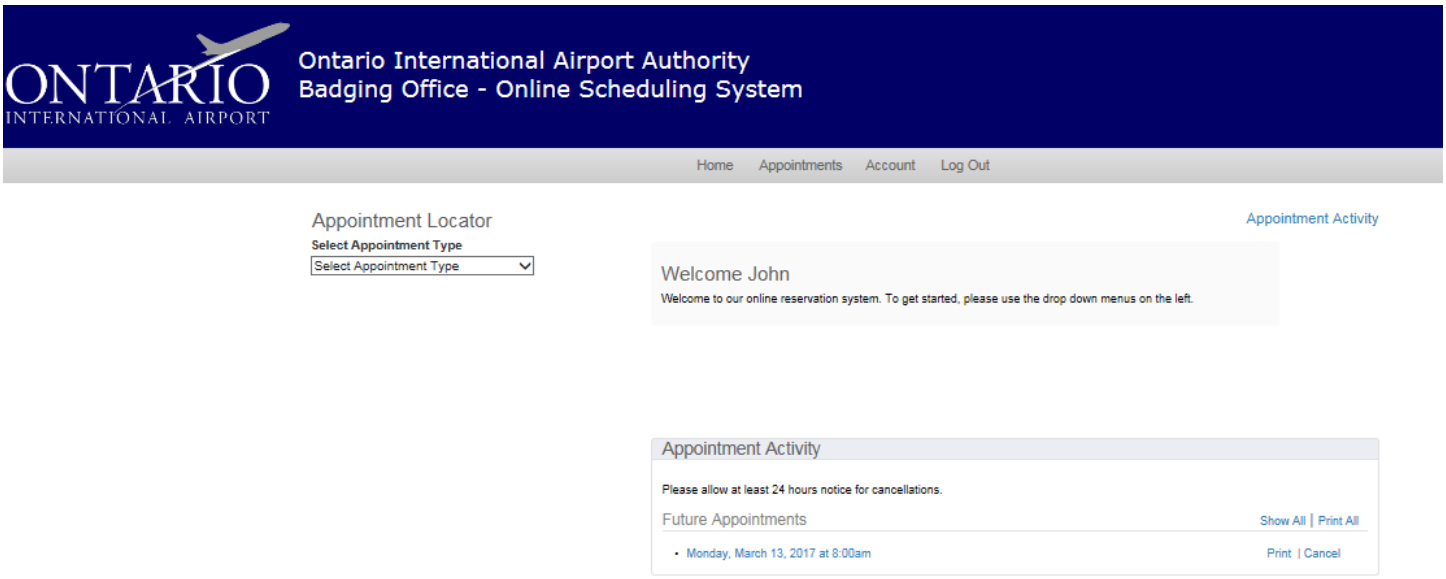
   When you are done, you can exit by selecting “Log Out” Or if you want to make another appointment you can select the “Appointments” link.



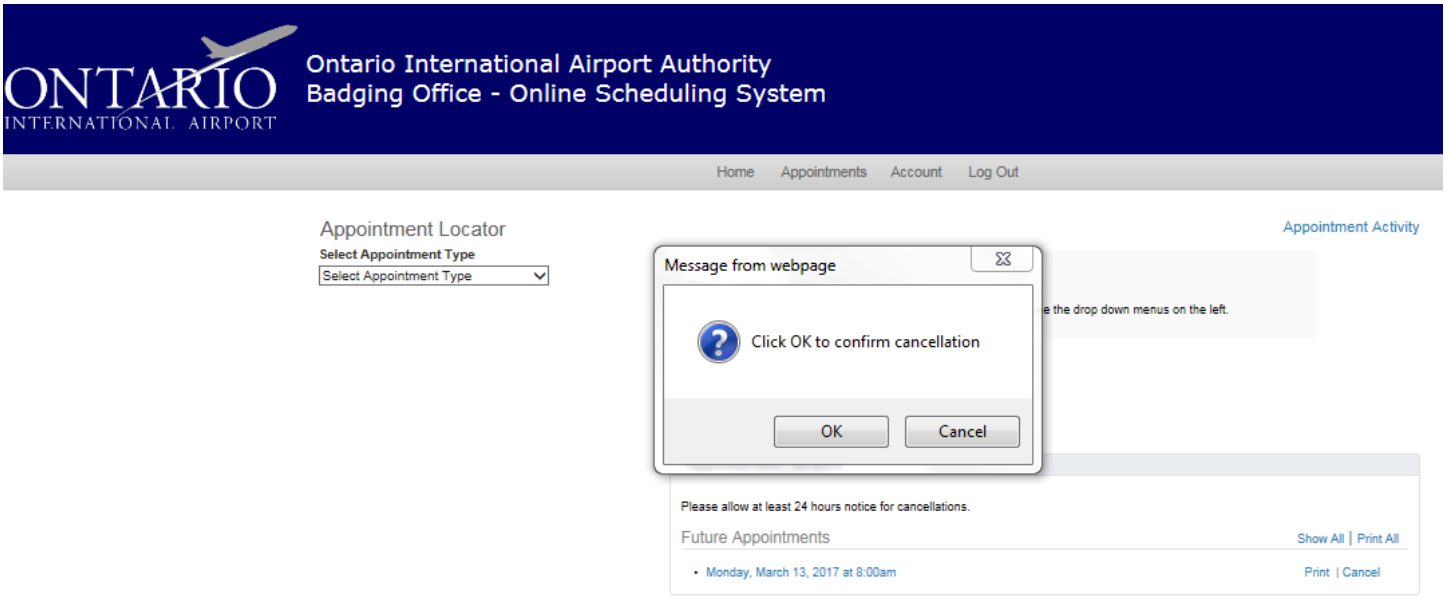
CANCEL AN APPOINTMENT

If you are unable to make an appointment, we ask that you make the timeslot available for others to use by canceling as far in advance as possible. If there are details to your appointment that need to be changed, please call the Badging Office at (909) 544-5170.

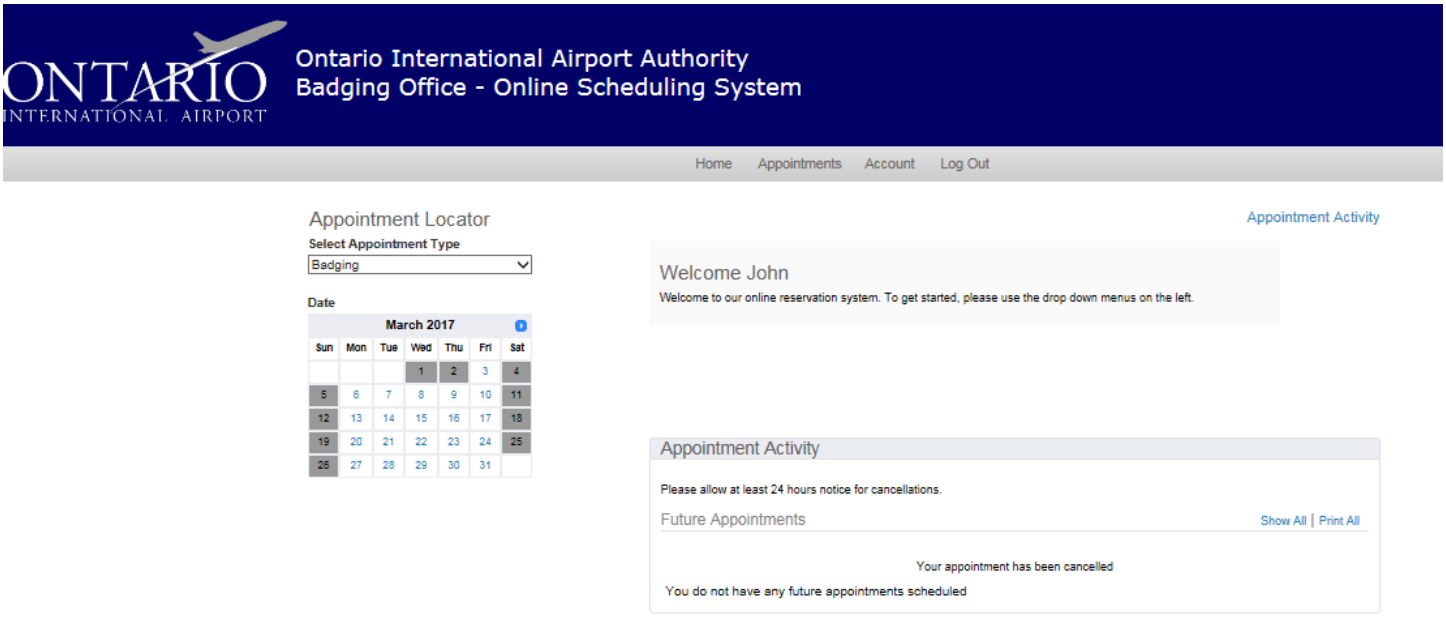
1. You can directly click on the “cancel appointment” link next to the appointment you want to cancel. If you have multiple appointments and are unsure which one you want to cancel, select the “show all” link to see the details of each appointment. Then click the corresponding “cancel appointment” link.



2. Once you've clicked the "cancel appointment" link, a dialogue box will appear asking you to confirm your cancellation request. *Please note that your dialogue box may differ slightly from the one shown below.* Click OK to confirm.



3. Once you've clicked on the "OK" button you will see a screen, similar to the one below, confirming that the appointment has been cancelled. No further action is required on your part. You can now log out of the system, make another appointment by selecting the "Appointments" link, or cancel other appointments.



Ontario International Airport Authority
Security Credentialing Program Enrollment

Ontario International Airport Authority (OIAA) **requires** all organizations conducting business at Ontario International Airport (ONT) to apply for and maintain the appropriate **permit, agreement or lease**. Upon execution of the permit, agreement, or lease, the ONT Security Credentialing Office will be notified of the authorization to start the credentialing process.

This process may take up to 30 days to complete and is in addition to the time required to complete the enrollment process.

Note: During this process, please remain in contact with the enrollment coordinator at the Security Credentialing Office at (909) 544-5170.

All letters must be on company letterhead with an original "wet signature" from the Highest Ranking Local Authority, and mailed to:

Ontario International Airport Authority
Attn: ONT Security Credentialing Enrollment Coordinator
1923 East Avion Street
Ontario, CA 91761

ONTSecurityBadgeOffice@flyontario.com

Fax your draft letters (intent, authorization & verification) prior to submitting the final letter to:

FAX
(909) 937-2513

The initial determination of the type of Permit required is based upon the information submitted in the Letter of Intent and Letter of Verification as described above.

All organizations, including those previously exempt from obtaining a permit, agreement or lease, or those who have one in place, are still required to submit letters of intent, verification letters and letter of authorization. (refer to the sample letters).

The Letter of Authorization will designate the company representative(s) that will be appointed as the Authorized Signer(s) and the Certified Security Trainer(s). All Letters of Authorization will start with only 1 representative and the need for additional signers/trainers will be assessed, at a later time.

Letter Requirements

#1 <u>Letter of Intent</u> – *(Must be submitted on letterhead from enrolling company)*

1. Verify a contract, at-will agreement, or maintenance agreement exist between your company and the awarding company/agency
2. List the contract number along with the start and end dates ***(if applicable)***
3. Describe in detail the nature of work being performed
4. Describe the work location(s) ***(terminals, rooms, buildings, airfield, etc.)***
5. Indicate if tools and/or equipment will be used
6. Justify why the company requires the desired/requested access
7. If applicable, indicate if the company needs to drive on the airfield
8. Provide job titles and an estimate of the number of badges requested.

#2 <u>Letter of Verification(s)</u> – (*Must be submitted on letterhead from company/agency awarding a contract*)

1. This letter should include points 1-7 of the Letter of Intent
2. Verify that a contract, at-will agreement, or maintenance agreement exist between the awarding company/agency and the tenant company
3. List the contract number and expiration date between the awarding company/agency and the tenant company ***(if applicable)***

Note: The company/agency awarding the contract must be approved for services with Ontario International Airport Authority. Subcontractors will not be approved for services prior to approval of the prime contractor.

#3 <u>Letter of Authorization</u> – (*Must be submitted on letterhead from tenant company, if required*)

1. List the name of the company enrolling (Main Company/Contractor/Sub-Contractor)
2. List the company's authorized representative to be Authorized Signer and Security Trainer (all companies will start off with only 1 signer/trainer)

All companies will list the name of their chosen representative in both fields as Authorized Signer and Security Trainer. This person will be the Security Credentialing Office's main point of contact regarding Security Training and the Credentialing Process. Requests for additional signers will be reviewed by the Security Credentialing Office and decisions will be made based off of each company's individual need.

Please use the attached sample formats for the Letter of Intent, Letter of Verification and Letter of Authorization.

Company Insurance

All organizations operating at ONT must have approved insurance on file with OIAA. Each organization is required to procure at its own expense, and keep in effect at all times during the term of the Permit, the types and amounts of insurance specified. Typically, companies whose work is performed within buildings and terminals are required to have a minimum of $2,000,000 per occurrence, $4,000,000 aggregate on their liability insurance. Companies who require tools and/or equipment and airfield access must have a minimum of $10,000,000 of liability insurance. Air Carrier Operating Permits and Leases will have additional insurance coverage. The actual types and amounts of insurance required will be set on an individual basis by the OIAA based upon information regarding the company's scope of work and airport access required.

Proof of insurance coverage must be submitted to OIAA.
Certificates of Insurance are accepted.

U.S. Customs

Contact U.S. Customs at (310) 215-2407, if your company's employees have an operational need to be in the U. S. Customs area.

Authorized Airport Security Training

Federal mandate requires every individual requiring restricted area access first receive 49 CFR 1542 Airport Security Training once the CHRC has been completed. **All Trainers must clear fingerprints prior to attending class.** The designated person(s) will be certified by Badge Office staff to conduct the security training for your company employees. Your enrollment coordinator will schedule training and notify you of class date and time.

Criminal History Record Check and Security Threat Assessment

Authorized Signers and Certified Security Trainers must submit to a Criminal History Record Check (CHRC) and Security Threat Assessment (STA). Your company's Highest-Ranking Local Authority will need to designate a Signer (person authorized to sign Security Credentialing forms) and Trainer (person certified to administer/verify airport security training completion). These will be the same individual. On October 1, 2007, the Transportation Security Administration (TSA) implemented the requirement of clearing a Security Threat Assessment (STA) in addition to the regular fingerprint clearance (CHRC) before receiving an airport issued media/credential. The fingerprint clearance (CHRC) and Security Threat Assessment (STA) are two different background processes and applicants are required to clear BOTH. **There is a $70.00 fee for fingerprinting** (Money Order, Credit/Debit Card, or Company Checks are accepted, **NO CASH**).

Checks must be payable to:
Ontario International Airport Authority (OIAA)
1923 East Avion Street
Ontario, CA 91761

Authorized Signer Enrollment Class

Once all required documents have been reviewed and approved by the Security Credentialing Office, the designated Authorized Signer will meet with their enrollment coordinator. During the "Enrollment Class" forms, procedures, and responsibilities will be provided and discussed.

SAMPLE

Letter of Intent

[Date]

Letter must be on Company Letterhead.
Include: address, city, state, zip
Contact Phone #
Cell phone #
Fax #
Email and/or web address

Attn:
ONT Security Credentialing Office
1923 East Avion Street
Ontario, CA 91761

Subject: Letter of Intent
Enrollment in the ONT Security Credentialing Program

Dear Enrollment Coordinator**:**

"Your Company Name" has a (***Indicate only applicable****:* Non-Exclusive License Agreement, Air Carrier Operating permit, Single Use Operating Permit, Use and Lease Agreement, Fuel Permit, etc.…*)* with Ontario International Airport Authority.

The following contract number(s) has been assigned by the ONT contract administer (list the contract number(s) and the start and ending dates of the contract).

[Your Company Name] ***has been contracted by* [Sponsoring Co., i.e. name of company who awarded you the contract].** The contract number between **[Your Company Name]** and **[Sponsoring Company Name]** is **[00-0000-00000-00]**. The *****contract***** began (or is scheduled to begin) **[M/d/yyyy]**, and will terminate on **[M/d/yyyy]**.

We will provide **[generalized services, i.e. architectural design, plumbing, electrical services, etc.].** The duties to be performed are as follows:

- **[List SPECIFIC job duties]**

The services will be performed at:

- **[list ALL specific location(s) where the job will take place. (i.e. buildings, terminals, electrical/telecom rooms, perimeter doors, airfield area, etc.]**

Tools/equipment will or will not be used to fulfill contractual obligations, therefore, vehicle access to the airfield **[is/is not]** required. Vehicles **[are/are not]** street licensed.

Job titles for our employees include; **[list job titles (i.e. manager, foreman, technician, laborer, and driver)]**. We are requesting **[number of badges]** badges.

If you require any additional information, please contact **[name of employee(s) and job titles]** at **[phone #]**.

Respectfully,

Need Original Signature

Approximation of required badges is not a firm number and is considered flexible by this office

[Name of Highest Ranking Local Authority]
[Title]
[Phone Number]

* Indicate if contract, sub-contract, at-will agreement, maintenance agreement, or warranty

SAMPLE

Letter of Verification

[Date]

Letter must be on Company Letterhead.
Include: address, city, state, zip
Contact Phone #
Cell phone #
Fax #
Email and/or web address

Attn: **Enrollment Coordinator**
ONT Security Credentialing Office
1923 East Avion Street
Ontario, CA91761

Subject: **Letter of Verification**
Enrollment in the ONT Security Credentialing Program

Dear Enrollment Coordinator:

[Awarding Company/Agency] contracted **[Name of Company who was awarded contract]**. The contract number between **[Awarding CompanyAgency]** and **[Name of Company who was awarded contract]** is **[#00-0000-00000-00]**. The contract began (or is scheduled to begin) **[MM/DD/YYYY]** and will terminate on **[MM/DD/YYYY]**.

[Name of Company who was awarded contract] is to provide **[list general nature of work]** and perform the following duties:

- **[list SPECIFIC job duties, in detail]**
-
-

We are operating under the OIAA contract **[#AXA-0000]** with OIAA **[OIAA Section Name]** on the **[list project name]**.

I am requesting **[Name of company who was awarded contract]** be issued area access to**:**

- **[list ALL specific location(s) where the job will take place. (i.e. buildings, terminals, electrical/telecom rooms, perimeter doors, airfield area, etc.]**.
-
-

Tools/equipment **[will /will not]** not be used, therefore vehicle access to the airfield **[is / is not]** required.

For inquiries regarding this project, please contact **[contact person]** at **[phone #]**.

Respectfully,

[Highest Ranking Local Authority]
[Title]
[Phone #]

SAMPLE

Letter of Authorization

[Date]

Letter must be on Company Letterhead.
Include: address, city, state, zip
Contact Phone #
Cell phone #
Fax #
Email and/or web address

Attn: **Enrollment Coordinator**
ONT Security Credentialing Office
1923 East Avion Street
Ontario, CA 91761

Subject: **Letter of Authorization**
Enrollment in the ONT Security Credentialing Program

Dear Enrollment Coordinator:

On Behalf of **[Name of Company],** please accept this Letter of Authorization which identifies those company representatives who have been appointed as the Authorized Signer(s), and the Authorized Security Trainer(s) at Ontario International Airport.

The following employee(s) have been designated as the Authorized Signer(s). The Signer fully understands their security role and that they are responsible to "Guarantee" compliance with 49 Code of Federal Regulations (CFR), Part 1542:

(List the employee's complete name)

The following employee(s) have been designated as the Authorized Security Trainer(s) and as such will provide the security training and instructions as outlined in 49 Code of Federal Regulations (CFR), Part 1542:

(List the employee's complete name)

A **[Name of Company]** representative will immediately notify Ontario International Airport Authority, Security Credentialing Office, to request additions or notify of deletions/deactivations. **[Name of Company]** understands that if it fails to keep current information on file with the ONT Security Credentialing Office, there may be a delay in issuing ONT ID/Access Media.

Sincerely,
[Highest Ranking Local Authority]
[Title]
[Phone #]

January 2019

Design & Construction Handbook

4.00 Hours of Operation

ONTARIO INTERNATIONAL AIRPORT

4.00 Hours of Operation

A. Hours of Operation

Ontario International Airport (ONT) is a Category I airport, owned and operated by the Ontario International Airport Authority (OIAA). ONT consists of the International Arrivals Terminal (Terminal 1), Terminal 2, and Terminal 4. While there currently is no "Terminal 3", the terminal numbering scheme was originally designed to accommodate future growth.

1. **Terminal 1 - International Arrivals Terminal:**
   The International Arrivals Terminal operates 24 hours a day, 365 days a year. The following airlines are located within the International Arrivals Terminal:
   a. China Airlines (arrivals only)
   b. Volaris (arrivals only)

2. **Terminal 2:**
   Terminal 2 operates 24 hours a day, 365 days a year. The following airlines are located at Terminal 2:
   a. Alaska Airlines
   b. China Airlines (departures only)
   c. Delta Air Lines
   d. Frontier Airlines
   e. JetBlue
   f. United Airlines
   g. Volaris (departures only)

3. **Terminal 4:**
   Terminal 4 operates 24 hours a day, 365 days a year. The following airlines are located at Terminal 4:
   a. American Airlines
   b. Southwest Airlines

4. **Security Checkpoints:**
   The Transportation Security Administration (TSA) checkpoint hours are subject to change at the TSA's discretion, however the general hours of operation at all checkpoints are 3:45AM to 1:00AM.

5. For scheduling projects within the terminal areas, please refer to the Design & Construction Handbook section *8.00: Access to Post Screening & Sterile Areas*.

6. For scheduling projects within the Air Operations Area (AOA), please refer to the Design & Construction Handbook section *8.01: Air Operations Area (AOA) Access*.

B. Website Links

Not applicable.

C. Attachments

Not applicable.

January 2019

Design & Construction Handbook

5.00 Bonding Requirements

ONTARIO INTERNATIONAL AIRPORT

5.00 Bond Requirements

A. Introduction

Bonds insure the Ontario International Airport Authority (OIAA) against losses that may accrue if a Contractor fails to meet its contractual obligations.

1. **Performance Bond** – Provided to insure completion of the contracted work, and
2. **Payment Bond** – Provided to insure accurate payment of workers and suppliers.

Bonds are guarantees. The Bonding/Surety company insures that the Contractor has met the requirements such as good credit, sufficient financial capacity, and no litigation in order for the Contractor to perform a project.

B. Contact Information

For information regarding the bonding process, please contact the OIAA Owner's Representative assigned on the project.

C. Process Overview

The OIAA Owner's Representative will identify the need for bond requirements to be included as part of the project request process. The bonds required by the OIAA include:

1. **Performance (Faithful Performance or Contractors) Bond:** A performance bond is required if the project requires a state contractor's license. The bonding company/surety will guarantee that the Contractor will fully perform all of their obligations under the contract: 1) finish the project, and 2) be available and perform services for the entire duration of the contract.

   The Faithful Performance Bond shall be provided by the selected Contractor and remain in effect until the work is fully completed. If the Contractor does not fully perform, the OIAA can make a direct claim against the bonding company. Performance bonds must be for 100% of the actual contract value (not an estimate).

2. **Payment (Material and Labor) Bond:** A payment bond is required if the project requires a state contractor's license. The bonding company will guarantee that the Contractor will correctly pay its subcontractors, suppliers, and employees for services, materials, and equipment they provide for the project. Requiring payment bonds protects the OIAA from legal action by subcontractors who do not get paid by the prime contractor. Should the Contractor not pay the appropriate amount, the subcontractors, suppliers, and employees can make a direct claim against the bonding company. Payment bonds must be for one hundred percent (100%) of the actual contract value (not an estimate).

3. Should the contract amount change, the bond amount shall be amended to satisfy claims of subcontractors. It is the Contractor's responsibility to change the bond amount throughout the project, if required.

4. The surety backing the bond must have an A.M. Best rating of AX or better and must be listed in the latest version of the U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the contract. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a).

5. It is the Contractor's responsibility to record all performance and payment bonds with the County of San Bernardino and provide the originals of the filing and bonds to the OIAA Owner's Representative within fourteen (14) calendar days from the date of the Notice to Proceed (NTP).

6. Should any bond become insufficient, the Contractor shall renew the bond within ten (10) calendar days after receiving notice from OIAA.

7. Changes in the work or extensions of time made pursuant to the contract shall in no way release the Contractor or Surety from fulfilling their obligations. Notices of changes or extensions shall be waived by the surety.

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

5.00-A: Performance & Payment Bond Forms

ONTARIO
INTERNATIONAL AIRPORT

Payment Bond

Know all Men by these presents:

THAT WE _____
_____, as principal, and
_____, as surety(ies),
are held and firmly bound unto the OIAA, California, a municipal corporation, in the sum of _____ Dollars ($_____)
lawful money of the United States, for which, payment well and truly to be made, we bind ourselves, jointly and severally, firmly by these presents.

Signed, sealed and dated _____, 20_____.

The condition of the above obligation is such that, whereas said principal has been awarded and is about to enter into a written contract with the OIAA for _____
_____
_____
_____
which contract is hereto attached and incorporated by reference herein, and to which reference is made for all particulars, and is required by said Authority to give this bond in connection with the execution of said contract;

Now, therefore, if said principal as contractor in said contract, or principal's subcontractor(s), fails to pay for any materials, provisions, provender or other supplies or teams used in, upon of for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the principal and its subcontractors pursuant to Sec. 18806 of the Revenue and Taxation Code of the State of California with respect to such work and labor, said surety (ies) will pay the same in an amount not exceeding the sum set forth above, and also in case suit is brought upon this bond, a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of any and all persons, companies and corporations, or their assigns, entitled to file claims under and by virtue of the applicable provisions of Division III, Part 4, Title 15 (commencing with Section No. 3082) of the Civil Code of the State of California.

WITNESS our hands this _____ day of _____, 20_____.

_____

_____
PRESIDENT

_____
SECRETARY

_____
Surety,

_____
Surety,

Corporation, Partnership or Individual Principal must have signatures acknowledged in the appropriate blank on the reverse hereof.
If a Corporation – Corporate Seal must be impressed hereon

ONTARIO
INTERNATIONAL AIRPORT

Contractor's Performance Bond

Know all Men by these presents:

THAT _____
_____ as PRINCIPAL,
and _____, a corporation organized under the laws of the
State of _____ and duly authorized to transact business under the laws of the State
of California, as surety(ies), are held and firmly bound unto THE OIAA, A MUNICIPAL CORPORATION, as
obligee, in the just and full sum of

_____
_____ Dollars ($ _____),

for the payment whereof well and truly to be made said principal and surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally firmly by these presents.

THE CONDITION of the foregoing obligation such, that whereas, the above bounden principal is about to enter into a contract, attached hereto, and incorporated by reference herein, with said obligee to do and perform the following, to-wit:

_____
_____
_____

as will more fully appear from said contract, reference to which is hereby made, and which said contract and all documents incorporated therein by reference are expressly made a part hereof.

The said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition to the terms of the contract or the work, including any Task Order or Change Order.

NOW, THEREFORE, if the above bounden principal shall well and truly perform the work contracted to be done under said contract, and shall fully and faithfully carry out and perform all of the terms, covenants and conditions of said contract upon its part to be performed, then this obligation to be null and void, otherwise to remain in full force and effect.

No right of action shall accrue under this bond to or for the use of any person other than the obligee named herein.

Signed and sealed this ____ day of _____ A.D. 20____.

_____

_____
PRESIDENT

_____
SECRETARY

_____

By _____
ATTORNEY-IN-FACT

ONTARIO
INTERNATIONAL AIRPORT

CORPORATE ACKNOWLEDGMENT

STATE OF CALIFORNIA

ss.

COUNTY OF SAN BERNARDINO

On this ____ day of_____, 20____ before me, the undersigned, a Notary Public in and for said County, personally appeared_____ known to me to be the_____ President, and_____ known to me to be the_____ Secretary of_____ the Corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the Corporation therein named, and acknowledged to me that such corporation executed the same.

WITNESS MY HAND AND OFFICIAL SEAL.

_____

Notary Public in and for the County of_____, State of California

INDIVIDUAL
or
PARTNERSHIP ACKNOWLEDGMENT

STATE OF CALIFORNIA

ss.

COUNTY OF LOS ANGELES

On this ____ day of_____, 20____ before me,_____ a Notary Public in and for THE said County and State, personally appeared known to me to be *the person whose name is subscribed to *one of the partners of the partnership that executed the within instrument and acknowledged to me *that such partnership executed the same *that…he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

_____

Notary Public in and for the County of_____, State of California

*Strike out words not applicable.

STATE OF

_____ ss.

County of_____

On this_____ day of_____ in the year two thousand and_____ before, me_____, a Notary Public in and for the County of_____, State of residing therein, duly commissioned and sworn, personally appeared_____ _____ known to me to be the_____ of_____, the corporation that executed the within instrument, and also known to me to be the person _____ who executed it on behalf of said corporation therein named, and_____ he _____ acknowledged to me that such individual/partnership executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal at my office in the_____ County of_____, the day and year in this certificate first above written.

_____

Notary Public in and for the County of_____

State of_____

January 2019

Design & Construction Handbook

6.00 Insurance Requirements

ONTARIO INTERNATIONAL AIRPORT

6.00 Insurance Requirements

A. Introduction

Insurance protects the Ontario International Airport Authority (OIAA) against claims resulting from property damage, bodily injury, accidents or other risks that may arise on a project. The OIAA evaluates the insurance requirements for each project based on potential risks, including project size, location, and delivery method. Insurance requirements specified are on a project-by-project basis.

B. Contact Information

For information regarding insurance policies, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

1. The Contractor shall procure, at its expense, and keep in effect throughout the term of the contract, the minimum insurance requirements as set forth in the contract documents.

2. The Contractor shall provide proof of the specified insurance and related requirements to the OIAA either by production of the actual insurance policy(ies), by use of OIAA's own endorsement forms, or by other written evidence of insurance deemed acceptable by the OIAA Owner's Representative. Such documents shall contain applicable policy number(s), and shall bear an original or electronic signature of an authorized representative of said carrier, and they shall provide that such insurance shall not be subject to cancellation, reduction in coverage or non-renewal, except after the carrier(s) and Contractor provide actual, written notice (by Certified Mail) to the OIAA Attorney at least thirty (30) calendar days prior to the effective cancellation date.

3. Certificates of insurance shall be sent to the OIAA Owner's Representative within fourteen (14) calendar days after receiving the Notice to Proceed (NTP).

4. The Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. Endorsements shall be equal to or more than that of the prime contractor.

5. The Contractor shall renew or extend the insurance policies and send documentation to the OIAA Owner's Representative within ten (10) calendar days prior to the policy expiration date. If such coverage is cancelled or there is a reduction of coverage, the Contractor shall file evidence with the OIAA within fifteen (15) days of such cancellation or reduction that the required insurance has been reinstated or is being provided through another insurance company. No lapse in coverage is permitted.

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

6.00-A: Exhibit "C" Insurance Requirements

Exhibit "C"
INSURANCE REQUIREMENTS

Facility User shall, at a minimum, provide, pay for at its sole cost and expense, and maintain in force at all times during the term of this Agreement (unless otherwise provided), at minimum, the insurance coverages set forth below. Such policy or policies shall be issued by companies authorized to do business in the State of California. The limits established herein are minimums and Facility User may carry higher limits at its option. The Authority does not warrant that the limits set herein will fully protect Facility User in all events and for all occurrences.

1. Non-Airfield Coverage.

1.1. **Commercial General Liability.** Commercial General Liability insurance policy with minimum limits of Two Million Dollars ($2,000,000.00) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability and Four Million Dollars ($4,000,000.00) aggregate with a carrier having an A.M. Best rating of no less than A-VII. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:

a. Premises and/or Operations.

b. Independent Contractors or Owners and Contractors Protective Liability coverage, which includes liability coverage for operations performed for the named insured by independent and/or subcontractors hired and acts or omissions of the named insured in connection with their general supervision of such operations.

c. Products and/or Completed Operations for Construction Projects. Facility User shall maintain in force until at least two (2) years after completion of all work required under the Contract, coverage for Products and Completed operations, including Broad Form Property Damage. Facility User shall provide such certificates of insurance or endorsements evidencing this insurance coverage to Authority for two (2) years after completion of all work required under a Contract.

d. Explosion/Collapse Hazard.

e. Broad Form Property Damage.

f. Broad Form Contractual Coverage applicable to this specific contract, including any hold harmless and/or indemnification agreement.

g. Personal Injury Coverage with Employee and Contractual Exclusions removed with minimum limits of coverage equal to those required for Bodily Injury Liability and Property Damage Liability.

1.2. **Commercial Automobile Liability Insurance.** If applicable, shall be provided with minimum limits of One Million Dollars ($1,000,000.00) for non-airside circulation per occurrence, combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of

the Business Automobile Liability Policy, as filed by the Insurance Services Office and must include:

a. Owned vehicles.
b. Hired and Non-owned vehicles.
c. Employers' Non-ownership.
d. Any Auto.

2. Airfield Coverage.

2.1. **Aviation/Airport Liability coverage, Aviation/Airport or Commercial General Liability** with minimum limits of Ten Million Dollars ($10,000,000.00) per occurrence and Ten Million Dollars ($10,000,000.00) aggregate with a carrier having an A.M. Best rating of no less than A-X. Coverage must be afforded on a form no more restrictive than the latest edition of the liability policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:

a. Premises and/or Operations.

b. Independent Contractors or Owners and Contractors Protective Liability coverage, which includes liability coverage for operations performed for the named insured by independent and/or subcontractors hired and acts or omissions of the named insured in connection with their general supervision of such operations.

c. Products and/or Completed Operations for Construction Projects. Facility User shall maintain in force until at least two (2) years after completion of all work required under the Contract, coverage for Products and Completed operations, including Broad Form Property Damage. Facility User shall provide such certificates of insurance or endorsements evidencing this insurance coverage to Authority for two (2) years after completion of all work required under a Contract.

d. Explosion/Collapse Hazard & Underground (required when work involves digging, excavation, grading or use of explosive material).

e. Broad Form Property Damage.

f. Aircraft Liability (including passenger liability).

g. Broad Form Contractual Coverage applicable to this specific contract, including any hold harmless and/or indemnification agreement.

h. Personal Injury Coverage with Employee and Contractual Exclusions removed with minimum limits of coverage equal to those required for Bodily Injury Liability and Property Damage Liability.

2.2. **Commercial Automobile Liability Coverage.** If applicable, shall be provided with minimum limits of Ten Million Dollars ($10,000,000.00) for airside circulation per occurrence, combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability Policy, as filed by the Insurance Services Office and must include:

a. Owned vehicles.
b. Hired and Non-owned vehicles.
c. Employers' Non-ownership.
d. Any Auto.

3. **Workers' Compensation Insurance.** Workers' Compensation Insurance shall be provided to apply for all employees in compliance with the "Workers' Compensation Law" of the State of California and all Applicable Laws and Regulations. In addition, the policy(ies) must include: Employers' Liability with a limit of Five Hundred Thousand Dollars ($500,000.00) each accident and if any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen & Harbor Workers Act and Jones Act. A waiver of subrogation in favor of OIAA shall apply.

4. **All-Risk Property Insurance** shall be provided for physical damage to the property of Facility User and to the Assigned Areas and other improvements, with coverage for a minimum of one hundred percent (100%) of the replacement value of the property. For All Other Perils, the deductible may not exceed Ten Thousand Dollars ($10,000.00) per occurrence except Wind and Flood. For Wind and Flood, the deductible should not exceed five percent (5%) of property value. Any deviations from this will be reviewed and approved by the Authority. The Authority shall be a loss payee or an additional insured for this coverage and shall be provided with a thirty (30) days prior written notice of cancellation and/or expiration provision.

5. **All Coverages.**

5.1. Authority is to be expressly included as an "Additional Insured" in the name of "Ontario International Airport Authority" with respect to liability arising out of operations performed for Authority by or on behalf of Facility User or acts or omissions of Facility in connection with general supervision of such operation.

Separate endorsements must be provided and state the following:

Additional Insured Clause. "It is further agreed such insurance as is afforded by this policy shall also apply to the Authority, its officers, directors, agents, employees, affiliates, partners, volunteers, representatives, and the Commission; as additional insureds but only with respect to legal liability or claims caused by, arising out of, or resulting directly, or indirectly from the operations of the named insured."

Primary Insurance Clause. "It is further agreed that such insurance as is afforded by this policy for the benefit of the Authority, its officers, directors, agents, employees, affiliates, partners, volunteers, representatives, and Commission, shall be primary insurance as respects any claim, loss or liability arising directly or indirectly from the named insured's operations, and any other insurance shall be excess and non-contributory with the insurance provided hereunder."

January 2019

Design & Construction Handbook

7.00 Pre-Construction, Construction & Project Closeout

ONTARIO INTERNATIONAL AIRPORT

7.00 Small Business Requirements

A. Introduction

The Ontario International Airport Authority (OIAA) has established a Disadvantaged and Small Business Enterprise Program in accordance with regulations of the U.S. Department of Transportation (DOT), 49 CFR Part 26.

B. Contact Information

The OIAA has designated the following individual as the DBE Liaison Officer:
Atif Elkadi
Phone: (909) 544-5432
Email: aelkadi@@flyontario.com

C. Process Overview

1. OIAA Procurement will establish a mandatory Small Business Enterprise (SBE) participation level for non-AIP (Airport Improvement Program) funded projects valued over $150,000. For AIP funded projects, OIAA Procurement will establish a Disadvantaged Business Enterprise (DBE) goal within the prime contract.

2. All Contractors wishing to perform work at the Ontario International Airport must first complete the vendor registration on the OIAA webpage. Once registration is completed, the Contractor will have access to the Planet Bids portal to view upcoming job opportunities at the OIAA. Please refer to the below link for step-by-step instructions for the registration process.

3. Each Request for Proposal (RFP) on the Planet Bids portal will list the mandatory DBE/SBE participation level for the project. It is the Prime Contractor's responsibility to subcontract DBE/SBE firms to meet the goal stated by OIAA. The participation level will be determined by the percentage of the total amount of compensation under the project paid to DBE/SBE firms.

4. The OIAA uses the State of California DBE/SBE directory, maintained by the State. The directory lists the firm's name, address, phone number, date of the most recent certification, and the type of work the firm has been certified to perform as a DBE/SBE. In addition, the directory lists each type of work for which a firm is eligible to be certified by using the most specific NAICS code available to describe each type of work. The State of California revises the directory daily.

5. Failure to meet the mandatory established SBE/DBE participation levels may disqualify bidding/proposing firms from being considered for award of a contract.

6. The OIAA will include in each prime contract a provision stating that the Contractor is utilizing DBEs or SBEs to perform a certain percentage of the work to comply with OIAA stated and approved goals. The OIAA will require the Contractor that is awarded the contract to make available, upon request, a copy of all DBE/SBE subcontracts.

7. If a Prime Contractor is itself an DBE/SBE firm, their participation in the contract will count as 100% DBE/SBE.

8. Any reduction, increase, or other change to any DBE/SBE subcontract amount without prior written approval of the OIAA is considered an unauthorized subcontractor substitution. A subcontract dollar value increased or reduced as the result of a change order issued by the OIAA to add or delete from the original scope of work shall not be subject to a penalty for an unauthorized subcontractor substitution. Only the OIAA is authorized to grant approval of subcontractor substitutions.

9. The OIAA DBE Program Policy Statement can be found on the OIAA DBE program webpage.

Monthly Report Submittals

1. The Contractor shall submit to the OIAA, on a monthly basis, together with its invoice the Subcontractor Utilization Report listing the DBE/SBE subcontractors utilized during the reporting period. The Contractor shall cooperate with the OIAA in providing such information as requested by the OIAA to ensure compliance. The OIAA will not process or pay Contractor's subsequent invoices if the Subcontractor Utilization Reports are not timely submitted or if the Contractor fails to cooperate with the OIAA by promptly providing any and all information related to DBE/SBE participation as requested by the OIAA. Please refer to *Attachment 7.00-B, Subcontractor Utilization Report*.

2. It is the obligation of the Prime Contractor to demonstrate and document good faith efforts if the SBE/DBE goal stated in the contract is not met.

D. WEBSITE LINKS

1. Ontario International Airport DBE Program Webpage:
   https://www.flyontario.com/corporate/business-opportunities/dbe-program

2. Register on OIAA's Planet Bids website to review contracting opportunities:
   http://www.flyontario.com/corporate/business-opportunities/procurement

3. Link to 49 CFR Part 26:
   https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49cfr26_main_02.tpl

4. Link to State of California DBE Directory:
   http://www.dot.ca.gov/hq/bep/find_certified.htm

E. ATTACHMENTS

7.00-A: Overall DBE Three-Year Goal Methodology
7.00-B: Subcontractor Utilization Report

Section 26.45: Overall DBE Three-Year Goal Methodology

Name of Recipient: Ontario International Airport Authority (OIAA), owner of Ontario International Airport (ONT)

Goal Period: FY-2017-2018-2019 (October 1, 2016 through September 30, 2019)

There are 13 projects that are expected to occur in FY 2017 - 2019 that would be eligible for AIP funding. The individual projects are listed in the chart below. The total AIP value of the contracts is projected to be $96,644,020, and represents the portion that may be applicable to DBE goals.

Project Name	Estimated Project Cost	AIP eligible?	Eligible Percent?	PFC eligible?	PFC eligible percent?	Total Cost by Calendar Year			
						2017	2018	2019	Subtotal 2017-2019
Twy S & W Intersection Repair	$8,030,000	Yes	80%	Yes	<20%	$8,030,000			$8,030,000
Twy S from Twy F to Cucamonga Channel (Phase I)	$6,100,000	Yes	80%	Yes	<20%		$6,100,000		$6,100,000
Twy S from Twy F to Cucamonga Channel (Phase II)	$18,860,000	Yes	80%	Yes	<20%			$18,860,000	$18,860,000
Reconstruct Rwy 8R-26L Shoulders	$18,592,000	Yes	80%	Yes	<20%			$18,592,000	$18,592,000
Install Rwy 26R TDZ Lighting	$4,000,020	Yes	80%	Yes	<20%			$4,000,020	$4,000,020
Taxiway N1 Centerline Lighting	$2,412,000	Yes	80%	Yes	<20%			$2,412,000	$2,412,000
Airport Master Plan	$5,000,000	Yes	80%	Yes	<20%	$5,000,000			$5,000,000
Airport Pavement Management Plan	$1,500,000	Yes	80%	Yes	<20%		$1,500,000		$1,500,000
Airport Marking Lighting and Signage Plan	$200,000	Yes	80%	Yes	<20%			$200,000	$200,000
ARFF Vehicles and Equipment	$5,000,000	Yes	80%	Yes	<20%			$5,000,000	$5,000,000
Security Screening Improvements	$750,000	Yes	80%	Yes	<20%			$750,000	$750,000
Northwest Cargo Area Remediation, Demolition, Clean Up, Site Prep	$16,200,000	Yes	80%	Yes	<20%		$16,200,000		$16,200,000
ACAMS Security System Rehabilitation	$10,000,000	Yes	80%	Yes	<20%			$10,000,000	$10,000,000
TOTAL	**$96,644,020**					**$13,030,000**	**$23,800,000**	**$59,814,020**	**$96,644,020**

Market Area: The following map shows the market area in which it is expected that the substantial majority of the Airport's contractors and subcontractors that seek to do business with the Airport are located **and** the area in which it is expected that the Airport will spend the substantial majority of its contracting dollars. The market area surrounding the Airport includes San Bernardino County, Riverside County, Orange County, and Los Angeles County.

DBE Goal:

Step 1. 26.45(c) Actual relative availability of DBE's

CFR Part 26.45 recommends five methodologies for determining a base DBE goal based on relative availability of DBEs. The recommendations and examples are provided as a starting point but are not intended as an exhaustive list. As per CFR Part 26.45, "Other methods or combinations of methods to determine a base figure may be used, subject to approval by the concerned operating administration."

Since there was little historical data, no bidder's list, and no disparity study for ONT, the base figure for the relative availability of DBEs was calculated through an analysis of the State of California DBE directory and Census Bureau County Business Patterns in the market area counties, as well as a comparison of goals at airports in the region.

The total certified DBE firms in a particular county may include firms who possess an interstate certification, meaning they may be physically located in another state yet have expressed an interest in doing business in California, thus obtaining a California DBE certification. For example, a DBE firm located in New York City can register to do business in San Bernardino County. This often times, as seen in the table below, can exceed total firms by NAICS code because the Census Bureau only takes into consideration firms that have a physical address in a specific county.

Since there is a presumption that the market area is the area in which it is expected that the substantial majority of the Airport's contractors and subcontractors that seek to do business with the Airport **are located**, data from the State of California was further analyzed to assess DBE firms physically located in the market (San Bernardino, Riverside, Orange, and Los Angeles counties).

The 2014 U.S. Census County Business Patterns by NAICS classifications for San Bernardino County, Los Angeles County, Orange County and Riverside County were compared to the number of firms certified as DBEs by the California UCP and located in the market area counties to arrive at the base percentage.

NAICS Total Firms Compared to Total and County Registered DBE Firms

2012 NAICS code	Definition of 2012 NAICS code	*San Bernardino County DBE - Registered Firms*	San Bernardino County DBE - Located Firms	Total San Bernardino Firms	*Riverside County DBE - Registered Firms*	Riverside County DBE - Located Firms	Total Riverside Firms	*Orange County DBE - Registered Firms*	Orange County DBE - Located Firms	Total Orange Firms	*Los Angeles County DBE - Registered Firms*	Los Angeles County DBE - Located Firms	Total Los Angeles Firms	**TOTAL DBE FIRMS LOCATED IN MARKET AREA**	**TOTAL FIRMS**	**PERCENT (%) DBE**
237310	Highway, street, and bridge construction	*159*	9	54	*168*	16	46	*170*	26	67	*188*	27	84	**78**	**251**	**31%**
237990	Other heavy and civil engineering construction	*109*	4	23	*114*	4	22	*112*	20	37	*123*	16	42	**44**	**124**	**35%**
Total Heavy Construction		***268***	**13**	**77**	***282***	**20**	**68**	***282***	**46**	**104**	***311***	**43**	**126**	**122**	**375**	**33%**
238110	Poured concrete foundation and structure contractors	*65*	6	107	*68*	6	140	*72*	6	150	*75*	12	220	**30**	**617**	**5%**
238120	Structural steel and precast concrete contractors	*51*	9	30	*51*	6	24	*52*	3	28	*57*	5	88	**23**	**170**	**14%**
238210	Electrical contractors & other wiring contractors	*102*	12	360	*98*	9	467	*104*	10	795	*121*	10	1,726	**41**	**3348**	**1%**
238910	Site preparation contractors	*93*	9	145	*97*	13	196	*100*	18	186	*107*	9	348	**49**	**875**	**6%**
238990	All other specialty trade contractors	*128*	9	161	*135*	17	247	*134*	14	302	*150*	20	506	**60**	**1216**	**5%**
Total Other Construction Categories		***439***	**45**	**803**	***449***	**51**	**1074**	***462***	**51**	**1461**	***510***	**56**	**2888**	**203**	**6226**	**3%**
541310	Architectural services	*85*	1	42	*92*	1	56	*94*	6	378	*114*	46	943	**54**	**1419**	**4%**
541330	Engineering services	*325*	12	206	*336*	16	260	*332*	25	1,099	*362*	96	1,511	**149**	**3076**	**5%**
541370	Surveying and mapping (except geophysical) services	*64*	4	31	*63*	3	35	*61*	1	45	*67*	6	53	**14**	**164**	**9%**
541620	Environmental consulting services	*270*	3	39	*274*	11	46	*272*	16	169	*304*	76	231	**106**	**485**	**22%**
Total Design Categories		***744***	**20**	**318**	***765***	**31**	**397**	***759***	**48**	**1477**	***847***	**224**	**2738**	**323**	**5144**	**6%**

Weighting by Type of Project and the Type of Firm that Would Bid

The availability calculations in the above chart were then weighted by the anticipated expenditures for Heavy Construction categories, Other Construction categories, and Design categories for each project. **The result of these calculations yields a base goal of 13%.**

Project Name	Estimated Project Cost	Weighting	Contractor Type	DBE Availability	Weighted DBE Dollars for Subtotal 2017-2019
Twy S & W Intersection Repair	$8,030,000	50%	Heavy Construction	33%	$1,324,950
		30%	Other Construction	3%	$72,270
		20%	Design	6%	$96,360
Twy S from Twy F to Cucamonga Channel (Phase I)	$6,100,000	50%	Heavy Construction	33%	$1,006,500
		30%	Other Construction	3%	$54,900
		20%	Design	6%	$73,200
Twy S from Twy F to Cucamonga Channel (Phase II)	$18,860,000	50%	Heavy Construction	33%	$3,111,900
		30%	Other Construction	3%	$169,740
		20%	Design	6%	$226,320
Reconstruct Rwy 8R-26L Shoulders	$18,592,000	50%	Heavy Construction	33%	$3,067,680
		30%	Other Construction	3%	$167,328
		20%	Design	6%	$223,104
Install Rwy 26R TDZ Lighting	$4,000,020	20%	Heavy Construction	33%	$264,001
		60%	Other Construction	3%	$72,000
		20%	Design	6%	$48,000
Taxiway N1 Centerline Lighting	$2,412,000	20%	Heavy Construction	33%	$159,192
		60%	Other Construction	3%	$43,416
		20%	Design	6%	$28,944
Airport Master Plan	$5,000,000	0%	Heavy Construction	33%	$0
		0%	Other Construction	3%	$0
		100%	Design	6%	$300,000
Airport Pavement Management Plan	$1,500,000	0%	Heavy Construction	33%	$0
		0%	Other Construction	3%	$0
		100%	Design	6%	$90,000
Airport Marking Lighting and Signage Plan	$200,000	0%	Heavy Construction	33%	$0
		0%	Other Construction	3%	$0
		100%	Design	6%	$12,000
ARFF Vehicles and Equipment	$5,000,000	0%	Heavy Construction	33%	$0
		0%	Other Construction	3%	$0
		100%	Design	6%	$300,000
Security Screening Improvements	$750,000	0%	Heavy Construction	33%	$0
		80%	Other Construction	3%	$18,000
		20%	Design	6%	$9,000
Northwest Cargo Area Remediation, Demolition, Clean Up, Site Prep	$16,200,000	20%	Heavy Construction	33%	$1,069,200
		60%	Other Construction	3%	$291,600
		20%	Design	6%	$194,400
ACAMS Security System Rehabilitation	$10,000,000	0%	Heavy Construction	33%	$0
		80%	Other Construction	3%	$240,000
		20%	Design	6%	$120,000
TOTAL	**$96,644,020**				**$12,854,006**

Step 2. 26.45(d): **Adjustments to Step 1 base figure.**

On November 1, 2016, ownership of the Ontario International Airport transferred from Los Angeles World Airports (LAWA) to the Ontario International Airport Authority (OIAA). There was not sufficient historical DBE data to reference, no bidder's list, and no disparity study for ONT to make an adjustment to the Step 1 base figure; therefore, the OIAA is adopting its Step 1 base figure as its overall goal for this three-year goal period.

This is in line with the DBE goals of other airports in the region, as depicted in the graphic below. It is also in line with the project-specific goal setting of the City of Ontario. The City of Ontario, had two recent federal projects and the DBE goals were as follows:

Philadelphia at Cypress Traffic Signal (Right of Way Services) - 14% DBE goal

Various Bridge Repair (Design Services) - 10% DBE goal

“Race and Gender Neutral” (RN) and “Race and Gender Conscious” (RC) Participation. 26.51(b) (1-9)

The OIAA estimates that in meeting its overall goal of 13%, it will obtain 100% participation through RC measures (setting a DBE goal for each project).

The OIAA, as the new owner of ONT, does not have a history of DBE participation or over-achievement of goals to reference and expects to obtain its DBE participation through the use of DBE contract goals or a conscious effort to obtain DBE participation. Therefore, the OIAA is applying the entire goal of 13% to race-conscious participation.

The OIAA will adjust the estimated breakout of RN and RC DBE participation as needed to reflect actual DBE participation and track and report RN and RC participation separately.

PUBLIC PARTICIPATION

In accordance with Public Participation Regulatory Requirements of 49 CFR Part 26, minority, women, local businesses, chambers, and community organizations within the OIAA’s market area will be provided an opportunity to review this goal analysis. The OIAA will issue a Public Notice to community groups, publish the notice in minority-focused media and the OIAA’s website (www.flyontario.com).

SUBCONTRACTOR UTILIZATION REPORT
ACDBE / DBE

ONTARIO INTERNATIONAL AIRPORT

SUBCONTRACTOR DBE UTILIZATION SUMMARY

Name:	**Contract No.:**	**Project Manager/ Contact**
	Project No.:	**Telephone:**
Address:	**AIP Grant No:**	**Email Address:**
City/State/Zip:		
	DBE Goal Summary	
Project Manager/ Contact Person:	Award Date / Pledge:	Airport Location:
Telephone:	Start Date: / Goal:	Project:
Email Address:	Current Period End: / Contracted:	Contract Amount:
	End Date: / Utilized to Date:	Estimated COW at Complete
	Participation %	
	Goal Variance	

COST OF WORK SUMMARY

Profile Information				DBE Information				Work	
	Current Contract	Invoiced to Date	% Invoiced	DBE Contracted	Invoiced to Date	% Proposed	% Utilized	Scope of Work	Trade
COST OF WORK TOTALS	**$ -**	**$ -**	**#DIV/0!**	**$ -**	**$ -**	**0.00%**	**#DIV/0!**		

☐

I certify under the penalty of perjury that the information contained on this form is true and correct and that the subcontractors/subconcessionaires listed above are selected firms that were included in the approved Subcontractor Participation Plan. I agree to comply with any applicable SBE/MBE/WBE/DBE/ACDBE/OBE provisions for substitutions and I further understand and agree that any and all changes or substitutions of subcontractors/subconcessionaires must be authorized by OIAA Procurement Services prior to utilization.

CONTRACTOR

NAME: _____ TITLE: _____ PHONE: _____

SIGNATURE: _____ DATE: _____

NOTES / COMMENTS: DBE subcontract and PO amounts have not been validated. DBE cannot therefore be certified.
Contract amount used for calculation is ETC and not fully reconciled.

Reviewed By:_____ Date: _____

% SBE/MBE/WBE/DBE/ACDBE Invoiced To Date: _____

Reviewed By:_____ Date: _____

% SBE/MBE/WBE/DBE/ACDBE Achieved To Date: _____

SUBCONTRACTOR UTILIZATION REPORT
ACDBE / DBE

ONTARIO INTERNATIONAL AIRPORT

SUBCONTRACTOR UTILIZATION REPORT
ACDBE / DBE

CONTRACTOR INFORMATION	CONTRACTOR PROFILE	CONTRACT SUMMARY	PROJECT	
Name: **Address:** **City/State/Zip:**	**Contract No.:** **Project No.:** **AIP Grant No:**	**Authorized Contract Amount:** **Amended Contract Amount to Date:**	**Change Order No:** 001 002 003	
Project Manager/ Contact Person: Jose Martin **Telephone:** (562)929-1128 **Email Address:** jmartin@GriffithCompany.net	Category Group (check all that apply): ☐ SBE ☐ MBE ☐ WBE ☐ DBE ☐ ACDBE ☐ OBE ☐ NA	**Change Order Amount to Date:** **Total Contract Amount to Date:** **Total Amount Invoiced to Date:** **Payment Application No.** **Period Ending:**	**Task Order No:**	**Task Order No:**
Vendor/Federal ID: 95-0795590				
Certifying Agency: NA				

Award Date:	Start date:		End date:		Reporting Period:	Through
Division Name: OIAA Ontario International Airport	Pledge:	Goal:	Total % Utilized to Date:		Total $ Utilized to Date:	

OIAA Approved Subcontractor Information	Profile Information	Amended Contract Amount to Date:	DBE Invoiced	% Utilized To Date	Trade / Work Description	
Company Name: Address: City/State/Zip: Contact Name: Telephone Number: Email Address:	Ethnicity: Gender: Federal ID: **Category Group:** ☐ SBE ☐ MBE ☐ WBE ☐ DBE ☐ ACDBE ☐ OBE ☐ NA	Contract Amount: DBE Amount: Adjustments: Current Contract: **To date:** Invoice 01 Invoice 02 Invoice 03 Invoice 04 Invoice 05 Invoice 06	$ -		**Trade** **Task Order No.:**	**CO No:**
Certifying Agency:		To Date Cum: $ -			NAICS:	

7.01 Prevailing Wage Requirements

A. Introduction

To ensure that all Contractors performing work at the Ontario International Airport Authority (OIAA) are in compliance with all applicable federal, state, and local laws regarding the payment and reporting of wages, the use of apprentices, and other applicable labor standards, and to protect all construction workers who work on public works and federally funded projects.

Prevailing Wages are established biannually (published twice a year, on February 22 and August 22) by the State of California and contain the hourly wage rates for differing trades, which the employer (Contractor) is required to pay their employees.

Public Works Projects include the construction, alteration, demolition, installation, or repair work done under contract and paid for in whole or in part out of public funds. Please refer to the California Labor Code section 1720 for the full definition of a public works project.

B. Contact Information

For questions regarding prevailing wages, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

1. The Contractor shall perform all work in compliance with all applicable federal and state labor standards, including the prevailing wage provisions of the California Labor Code Section 1720.

2. Contractor shall obtain the general prevailing wage rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to perform the public work and shall include such rates in the contract with the OIAA.

3. It is mandatory that the Contractor to pay not less than the established prevailing rate of wages to all workers employed by the Contractor. The Contractor shall agree to comply with the penalty provisions of the California Labor Code section 1775.

4. Contractors and subcontractors are required, at their own expense, to furnish weekly certified payroll records in electronic format, directly to the Division of Labor Standards Enforcement, Department of Industrial Relations ("DIR"). Contractors shall submit a copy of the payroll records to the OIAA, accompanied by a signed "statement of compliance" indicating that the payrolls are correct and complete and that each laborer has been paid not less than the proper prevailing wage rate for the work performed.

5. Contractor shall post a notice on each jobsite that is subject to compliance monitoring and enforcement by the DIR, please refer to the Design & Construction Handbook section *7.03 California & Federal Employment Notices.*

6. The OIAA reserves the right to terminate a Contractor at any time should the Contractor be non-compliant with their certified payrolls.

D. WEBSITE LINKS

California General Prevailing Wage Determinations for 2018-2:
https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm

E. ATTACHMENTS

Not applicable.

7.02 Change Orders

A. Introduction

To review and approve/disapprove formal changes from the original scope and specifications impacting cost and/or schedule initiated by the Contractor or the Ontario International Airport Authority (OIAA) in a timely manner.

A **Change Directive (CD)** is a written directive, signed by the OIAA, which directs the Contractor to perform a change to the work or requests a Contractor Change Request. The OIAA may direct the Contractor to commence with a change in the work on an agreed upon price (pricing to be lump sum or time and material), per the executed agreement.

A **Change Order (CO)** is a written document issued to a Contractor any time after the execution of the contract documenting a change impacting costs, schedule, and/or scope. The contract pricing and project schedule may only be changed by an OIAA approved/executed change order. Change orders are generally signed by the OIAA and the Contractor.

B. Contact Information

For questions regarding change requests, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

The OIAA may order extra work or make changes by altering, adding to, or deducting from the work through a signed change directive, prior to the execution of a change order. Please note, this does not constitute a formal approved change order and is not considered an authorization to proceed with the change work. A change directive will direct the Contractor as follows:

1. Submit a Contractor change request to the OIAA Owner's Representative with an itemized cost and schedule proposal within ten (10) working days of receiving the change directive.

2. To proceed with change work on a time & materials basis per a written confirmation from the OIAA Owner's Representative, the following shall be completed:

    i. The Contractor shall notify the OIAA Owners Representative as soon as possible but no later than the beginning of each day when the time and material work is in progress.

    ii. The Contractor shall submit a signed daily time and material report to the OIAA Owner's Representative for signature and approval. This report shall include the following items:
        - Names of workers, classifications, and hours worked.
        - Description and list quantities of materials used and delivery tickets as applicable.

- Types of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- List of any other services and expenditures in such detail as OIAA may require.

iii. The Contractor shall fully document all costs associated with such work.

iv. Failure to submit the daily report by the close of the next working day may waive any rights for compensation associated with that day's work.

v. The final contract adjustment for the change shall be calculated in accordance with the contract documents.

3. To proceed with a change on a unit price basis, the Contractor may proceed with changed work on a unit price basis once a written confirmation and approval to proceed is received from the OIAA Owner's Representative. The adjustment in payment will be based upon the increase or decrease in quantity and the contract unit price.

4. To proceed with a change once the OIAA and the Contractor come to a mutual agreement for the price of the change. The Contractor must receive written confirmation and approval to proceed from the OIAA Owner's Representative.

5. When the OIAA and the Contractor reach an agreement on an adjustment to the contract amount and/or schedule, the agreement shall be incorporated in a formal change order for execution. The OIAA will issue a formal change order to the Contractor. The Contractor will be responsible for making adjustments to the bond amount, if required.

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

Not applicable.

7.03 California & Federal Employment Workplace Postings

A. Introduction

Within the state of California, all employers (Contractors) must meet workplace posting obligations. The Department of Industrial Relations ("DIR") requires Contractors to post information in relation to wages, hours, working conditions, and safety and health information in an area frequented by employees where it may be easily read during the workday.

B. Contact Information

For questions regarding California and Federal Employment Notices, please contact the OIAA Owner's Representative.

C. Process Overview

1. The Contractor shall post the applicable California and Federal Employment Notices at the job site in a location frequented by employees where they may be easily read. Workplace postings can be downloaded and printed from the DIR Workplace Postings webpage.

2. If the Contractor files the California and Federal Employment Notices in a binder at the job site, the Contractor must tell all employees working on the jobsite where the binder is located, have the binder available for employees, ensure employees have easy access to postings and don't have to walk a long distance or have to ask to see the material.

3. At a minimum, the Contractor is required to post the following workplace postings on all jobsites. Different projects may require additional postings (for example, if a forklift will be in use, additional postings will be required). The Contractor shall visit the DIR Workplace Postings Webpage to ensure all applicable workplace postings are provided on the jobsite.
    a. Industrial Welfare Commission (IWC) wage orders
    b. Minimum Wages
    c. Paid sick leave
    d. Payday notice
    e. Safety and health protection on the job
    f. Emergency phone numbers
    g. Notices to employees, injuries caused by work
    h. Notice of workers' compensation carrier and coverage
    i. Whistleblower protections
    j. No smoking signage
    k. Log and summary of occupational injuries and illnesses
    l. Prevailing wage rate determinations
    m. California law prohibits workplace discrimination and harassment
    n. Transgender rights in the workplace
    o. Family care and medical leave and pregnancy disability leave
    p. Notices to employees: unemployment insurance benefits
    q. Notice to employees: time off to vote
    r. Equal employment opportunity is the law

s. Notice: Employee Polygraph Protection Act
t. Family and Medical Leave Act

D. Website Links

The Department of Industrial Relations Workplace Postings webpage:
https://www.dir.ca.gov/wpnodb.html

E. Attachments

Not applicable.

7.04 Project Closeout

A. Introduction

Assess the project to ensure the project has met all sponsor, customer, and stakeholder requirements, to ensure compliance with the contract documents and to formally recognize that the project is complete with all parties.

B. Contact Information

For questions regarding the project closeout process, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

The following items, submittals and activities specified below shall be completed prior to the Contractor submitting a Notice of Substantial Completion:

1. All work of the contract shall be substantially completed in conformance with the contract documents and inspected and verified by the OIAA Owner's Representative.

2. Operating building systems and equipment must have been taken through start-up and sequence of operation procedures per the Commissioning Plan as required (if applicable).

3. Testing and balancing of any mechanical systems, electrical systems, and communication systems (if applicable).

4. Testing and certification of life safety systems and equipment to be completed (if applicable).

5. Contractor shall submit a two-week advanced notice of Request for Inspection for Substantial Completion to the OIAA Owner's Representative.

6. Contractor shall obtain at least a Temporary Certificate of Occupancy from the City of Ontario Building Department (if applicable). Contractor shall send a copy of the Temporary Certificate of Occupancy or Certificate of Occupancy to the OIAA Owner's Representative.

7. Contractor shall demobilize from the site and complete restoration, including cleaning.

8. Contractor shall ensure all training of airport operations and maintenance personnel are complete (if applicable). All training materials to be provided to the OIAA.

9. Any missing elements, such as training material, operation and maintenance (O&M) manuals, warranties, etc. would be noted on the Contractor's punch list.

Project Closeout Stages:

1. *Stage One – Construction Completion*

    a. Once the Contractor considers the work to be substantially complete, and has completed all quality control tests and inspections, the Contractor shall notify OIAA Owner's Representative that the work is completed in accordance with the contract documents and quality requirements and is ready for inspection utilizing a Notice of Substantial Completion.

    b. The Contractor shall include with its Notice of Substantial Completion a list of minor items to be completed or corrected that would not affect beneficial use of the space. This list shall be generated by the Contractor and shall ensure completion of the work necessary to accomplish substantial completion prior to scheduling the Substantial Completion Inspection. The OIAA Owner's Representative and/or Inspector shall verify and confirm that the work is installed per the project requirements and is ready for the Substantial Completion Inspection. The Contractor shall submit the listing of minor items to be completed or corrected in an electronic format approved by the OIAA.

    c. Prior to requesting inspection for certification of substantial completion, the Contractor shall clean the project site, remove any temporary barricades, broom clean project site and remove any waste, remove tools and equipment, clean any exposed exterior and/or interior hard-surfaced finishes, and clean floors and walls.

2. *Stage Two – Substantial Completion*

    a. Upon receipt of the Contractor's Notice of Substantial Completion, the OIAA will either proceed with the inspection or advise the Contractor of unfulfilled requirements.

    b. When the project is deemed ready for the Substantial Completion inspection, the OIAA will inspect the completed work and generate a punch list of incomplete items and/or items requiring correction.

    c. If the OIAA inspection yields only minor items requiring completion or correction, the OIAA Owner's Representative will prepare a notification that the Contractor has achieved substantial completion. For larger items needing correction, the OIAA will notify the Contractor of the punch list items which must be completed before the Notice of Substantial Completion will be issued.

    d. Once the Contractor has completed the punch list items, the Contractor shall request that the OIAA verify the completion of those items. This process shall be repeated until the OIAA determines that the work is complete and in accordance with the contract documents and will then issue the Contractor a Notice of Substantial Completion.

3. *Stage Three – Final Completion*

    a. Upon issuance of a Certificate of Substantial Completion, the Contractor shall complete any minor punch list items remaining and shall notify the OIAA Owner's Representative to schedule a final inspection of the work.

    b. The Contractor shall utilize *Attachment 7.04-A, Project Closeout Checklist* to ensure all required record documents associated with the project contract documents are

submitted to the OIAA. This may include (if applicable to the project) the following items:

i. As-Built drawings and specifications;
ii. O&M manuals;
iii. Final project photographs;
iv. Survey information;
v. Warranties, workmanship bonds, final certifications;
vi. Contractor shall submit releases required from any of the airport jurisdiction having authority over unrestricted use of the work including access to services, utilities, operating permits, occupancy permits, etc. as may apply.
vii. Certificate of Occupancy;
viii. Return spare parts and extra stock to the OIAA;
ix. Return any OIAA issued keys;
x. Submit keys associated with the project (installed doors, cabinets, panels, etc.) to the OIAA;
xi. SIDA badges and vehicle permits;

4. *Stage Four – Final Acceptance*

a. Upon notification from the Contractor that final completion has been accomplished, the OIAA shall complete a verification of each item contained on the OIAA's punch list.

b. Upon verification by the OIAA of satisfactory completion of all outstanding punch list items, the OIAA Owner's Representative will issue a Certificate of Final Acceptance.

c. The OIAA shall file the Notice of Final Completion and Acceptance of Public Works Projects with the County Recorder's Office.

5. *Stage Five – Release of Retention*

a. The Contractor shall submit a final application for payment according to the contract's payment procedures.

b. The Contractor shall provide final release on contract.

c. The Contractor shall submit the Application for Retention Release including consent of surety to release retention.

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

7.04-A: Project Closeout Checklist

Project Closeout Checklist

Project Title: _____

Project No.: _____

Prepared By: _____

No.	Description	Applicable? Y/N	Date Submitted	Submitted To
01	Testing and balancing of Building Systems and equipment			
02	Testing and certification of Life Safety equipment			
03	Submit Request for Inspection to the OIAA for Substantial Completion			
04	Demobilize and restoration of site (including cleaning and the removal of temporary barricades/facilities)			
05	Obtain Temporary Certificate of Occupancy (TCO) and/or Certificate of Occupancy (CoO)			
06	Train necessary staff personnel & submit training material to the OIAA			
07	Obtain Notice of Substantial Completion from the OIAA			
08	Complete all punch list items			
09	Submit as-built drawings and specifications to the OIAA			
10	Submit Maintenance & Operations Manuals to the OIAA			
11	Submit final project photographs to the OIAA			
12	Submit warranties, workmanship bonds, and final certifications to the OIAA			
13	Submit all survey information to the OIAA			
14	Submit releases from any airport jurisdiction including services/utilities/permits			
15	Return any OIAA issued keys to obtain access			
16	Submit keys associated with the project to the OIAA (to			

	installed doors/cabinets/panels, etc.)			
17	Deliver additional material and parts to the OIAA			
18	Collect and return airport badges			
19	Collect and return airfield permits			
20	Schedule final inspection			
21	Obtain Notice of Final Completion from the OIAA			
22	Submit final application for payment			
23	Submit unconditional lien release			
24	Ensure compliance requirements are met (SBE/DBE participation and payrolls submitted)			
25	Submit application for retention release including consent of Surety			

January 2019

Design & Construction Handbook

8.00: Access (AOA, Post Screening & Secured Areas)

ONTARIO INTERNATIONAL AIRPORT

8.00 Access to Post Screening & Secure Areas

A. Introduction

Contractors may require access through the Transportation Security Administration (TSA) checkpoints or through the Terminal 2 or Terminal 4 loading docks to perform work. All tools and equipment which enter the secure areas of the Airport must be inspected and all persons entering the secure area must have a valid Ontario International Airport (ONT) Security Photo Identification Badge (otherwise referred to as "SIDA badge") in their possession at all times or be under positive control of an escort.

Secure areas refer to portions of the Airport beyond the TSA security checkpoints and where access is controlled at all times. This includes but is not limited to: passenger gate areas, aircraft ramp areas and baggage sorting areas.

B. Contact Information

1. ONT Airport Police Department (Main Number): (909) 935-2001

2. ONT Airport Police Dispatch Center: (909) 986-6711

3. ONT-TEC (number to notify if work is to be performed within the Terminal Area):
   George Williams, Operations Manager
   Office: (909) 390-8900
   Mobile: (909) 241-5627
   Email: g.williams@avairprosservices.com

4. ONT-TEC - 24-Hour Dispatch/Emergency: (909) 544-5395

5. Terminal 2 Loading Dock: (909) 239-8497

6. Terminal 4 Loading Dock: (909) 239-9527

C. Process Overview

1. Contractors who have a need to get tools and equipment to a project site within the secure area must go through the TSA checkpoints. Should tools/equipment be too large to go through the TSA checkpoints, or should work be performed after the TSA checkpoints are closed, the Contractor shall go through the loading docks in either Terminal 2 or Terminal 4, please refer to *Attachment 8.00-B, Loading Dock Locations*. If there is a need to transport tools and equipment through the Air Operations Area (AOA), please refer to the Design & Construction Handbook section *8.01: AOA Access Procedures.*

2. All persons entering the secure area are required to either have a SIDA badge or have a designated escort with them all times work is being performed.

3. All Contractors performing work within the terminal areas shall notify the OIAA Owner's Representative and ONT-TEC, 24 hours in advance of any work to be performed.

4. Should an escort be required, the Contractor shall arrange for an escort with the OIAA Owner's Representative five (5) working days in advance. All escorts must have the "E" escort icon located on their SIDA badge.

5. If the Contractor requires access to the secure areas via the TSA, the Contractor shall coordinate with the OIAA Owner's Representative and the Security Badge Office (SBO) to receive a pass. The pass acts much like an airline ticket and informs the TSA that the Contractor is authorized to pass through the designated checkpoint.

6. If the Contractor requires access through the loading dock, the Contractor must prearrange with the OIAA Owner's Representative and the ONT Police Department 24 hours in advance. The loading docks are open between 4:30AM-4:30PM. If access is required outside of these hours, the ONT Police Department will meet the Contractor at the loading dock at a prearranged time.

7. Should the Contractor arrive at the loading dock without a Security Guard present, the Contractor shall call the appropriate loading dock phone numbers as indicated in section B.

8. A Security Guard at the loading dock will inspect all tools, equipment, and ensure all Contractors have a SIDA badge or are being escorted prior to entering the secure area.

9. Tools and equipment shall not remain in the secure area during non-work hours unless approved by the OIAA Owner's Representative. If approved, tools shall be contained within an approved construction barrier with lock, or designated laydown area. Please refer to the Design & Construction Handbook section *12.01: Temporary Barricade and Enclosure Standards.*

10. It is the Contractors responsibility to ensure that all tools/equipment that enter the secure area also leave the secure area. Should tools/equipment remain in unapproved or unauthorized areas, the Contractor is subject to revocation of SIDA badge privileges and a fine up to $12,000.00

11. If an escort is required, it is the responsibility of the escort to ensure all tools and equipment which enter the secure area also leave the area once the work is completed.

12. All accidents or damage to any property must be reported to ONT Airport Police Department immediately.

13. Contractors performing work in non-secure areas must display their SIDA badge at all times.

14. Curbside parking in front of the terminal areas must be prearranged with the ONT Police Department 24 hours in advance and shall only be for loading/unloading of equipment.

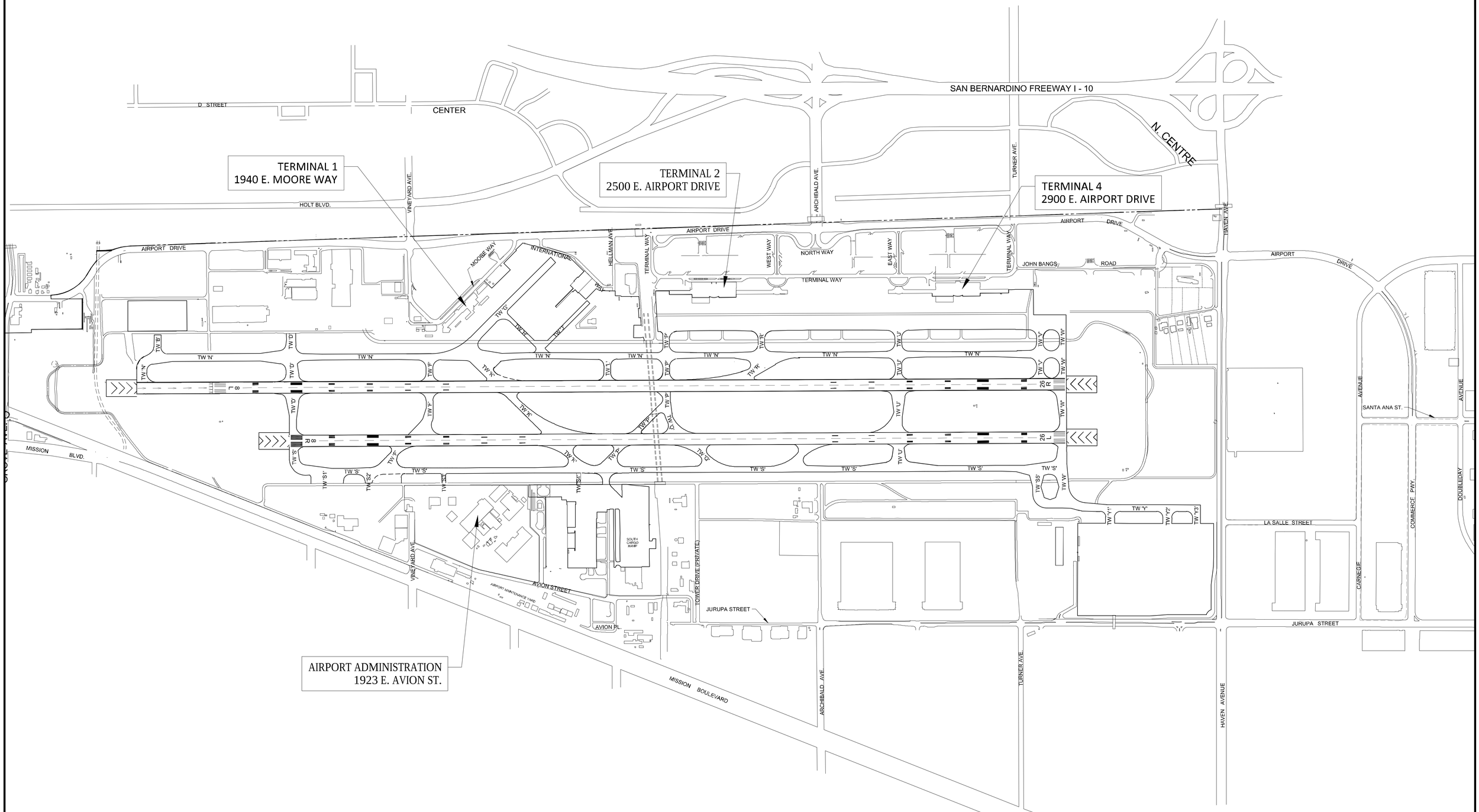
D. WEBSITE LINKS

Map of Terminal 2: https://www.flyontario.com/food-and-shopping/terminal-2

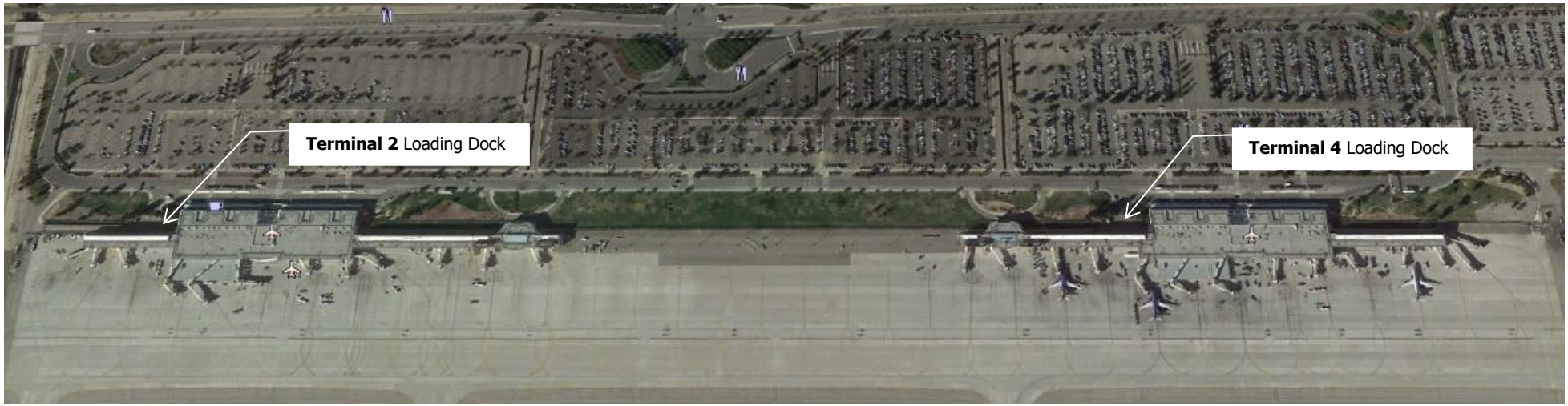
Map of Terminal 4: https://www.flyontario.com/food-and-shopping/terminal-4

E. ATTACHMENTS

8.00-A: Ontario International Airport Map
8.00-B: Loading Dock Locations


TERMINAL 1
1940 E. MOORE WAY
TERMINAL 2
2500 E. AIRPORT DRIVE
TERMINAL 4
2900 E. AIRPORT DRIVE
AIRPORT ADMINISTRATION
1923 E. AVION ST.
SAN BERNARDINO FREEWAY I - 10
D STREET
CENTER
N. CENTRE
HOLT BLVD.
VINEYARD AVE.
ARCHIBALD AVE.
TURNER AVE.
HAVEN AVE.
AIRPORT DRIVE
MOORE WAY
INTERNATIONAL WAY
HELLMAN AVE.
TERMINAL WAY
WEST WAY
NORTH WAY
EAST WAY
JOHN BANGS ROAD
SANTA ANA ST.
AVENUE
MISSION BLVD.
AVION STREET
AVION PL.
JURUPA STREET
LOWER DRIVE (PRIVATE)
SOUTH CARGO RAMP
AIRPORT MAINTENANCE YARD
LA SALLE STREET
CARNEGIE
COMMERCE PWY.
DOUBLEDAY
MISSION BOULEVARD
R 8
L 26
TW 'N'
TW 'S'
TW 'Y'

8.00-B Loading Dock Locations



8.01 AOA Access Procedures

A. Introduction

Contractors may require access through the Air Operations Area (AOA) to take large equipment or materials to a project site which are otherwise too large to take through the Loading Dock.

The AOA is located inside of the Airport Security Perimeter Fence and includes the aircraft movement areas, including but not limited to the following: runways, taxiways, in-field safety areas, taxilanes, roadways, fuel storage facilities, aircraft aprons, cargo ramps, aircraft parking positions, passenger terminals, buildings and aircraft hangars.

All persons entering the AOA are required to have a valid ONT Security Photo Identification Badge with the proper badge color granting access onto the AOA (otherwise referred to as "SIDA badge") in their possession at all times or be under positive control of an escort. Additionally, if driving on the AOA, all persons are required to have the proper insurance requirements and vehicle permits.

Escort: To accompany or monitor the activities of an individual who does not have unescorted access authority into or within a secured area or SIDA, and/or the AOA.

B. Contact Info

1. OIAA Airfield Operations Unit/TBI (for notification of work being performed on AOA):
   Dennis Anderson, Manager of Ontario-Airside
   Office: (909) 215-5612
   Email: Dennis.Anderson@tbiam.aero

2. OIAA Airfield Operations Unit/TBI – 24-Hour Dispatch/Emergency: (909) 214-7682

3. ONT Airport Police Department (Main Number): (909) 935-2001

4. ONT Airport Police Dispatch Center: (909) 986-6711

C. Process Overview

1. Contractors must obtain permission via a Letter of Approval from an Ontario International Airport Authority (OIAA) authorized representative to drive onto the AOA. A Letter of Approval is required prior to any construction, or associated vehicles, being within the AOA.

2. To drive a vehicle through the AOA, the Contractor must possess:
   a. Current/valid ONT SIDA badge with appropriate badge color to access the AOA;
   b. The "Restricted Area Driver" Permit icon on the SIDA badge;
   c. A valid driver's license issued by the California Department of Motor Vehicles or other state;

d. Motor Vehicle Operating Permit (MVOP) issued by the OIAA Airfield Operations Unit/TBI;
e. Proof of Insurance as stipulated in the contract documents.

3. Should the Contractor not have any one of the items listed above, an Escort will be required. Drivers who escort other operators onto the AOA must have the following:
   a. Valid ONT SIDA badge with appropriate badge color to access the AOA;
   b. The "Restricted Area Driver" permit icon located on the SIDA badge;
   c. The "E" Escort Icon located on the SIDA badge;
   d. A valid driver's license issued by the California Department of Motor Vehicles or other state.
   e. Motor Vehicle Operating Permit (MVOP) issued by the OIAA Airfield Operations Unit;
   f. Proof of Insurance.

4. To obtain the "Restricted Area Driver" permit icon, the operator must have eight (8) supervised hours of practical driver training (behind the wheel) on the ONT AOA including daylight and night training. Additionally, the operator must pass a written (multiple-choice) 25 question exam administered by the operator's company representative who has completed a Train-the-Trainer Class within the previous two years. The Train-the-Trainer class is given quarterly by ONT Airport Operations/TBI. Upon completion of the required training and examination, the Security Badge Office (SBO) will issue an "Restricted Area Driver" icon on the operator's SIDA badge.

5. To obtain an MVOP, vehicle operators must have passed the practical driver training and written examination. A vehicle inspection should be scheduled with TBI. Upon approval of the vehicle inspection, and after the operator has supplied the OIAA with proof of insurance, the SBO will issue the operator an MVOP. The MVOP is $100.00/per vehicle and must be renewed annually.

6. All vehicles entering the AOA require proper vehicle identification, including the following:
   a. All vehicles are required to have an approved logo or company name displayed on both sides of the vehicle;
   b. The name of the company or tenant shall be spelled out in letters no less than three (3) inches in height. Company logos or symbols shall be at least eighteen (18) inches in diameter when not accompanied by approved lettering;
   c. Magnetic or temporary identification panels and logos are not permitted without prior approval by TBI;
   d. Valid California license plate and registration;
   e. Current ONT MVOP or Monthly Airfield Access Permit.

7. Before operating any motor vehicle on the AOA, the driver must ensure the vehicle is in roadworthy condition. No vehicle shall be operated which is not in a sound mechanical and safe condition. OIAA reserves the right to inspect and declare unfit for use on Airport property any vehicle or piece of equipment that does not comply with all safety requirements.

8. Should an Escort be required through the AOA, the Contractor shall arrange for an Escort with the OIAA Owner's Representative five (5) days in advance.

9. The Contractor should arrange for a designated parking spot on the AOA with the Airfield Operations Unit 24 hours in advance.

10. All vehicles must enter the AOA through an established Secured Area Access Point (SAAP) locations. ONT SAAP locations are manned 24 hours a day and are located at the following addresses (reference map of SAAP locations in *Attachment 8.01-A*):

    a. North SAAP (Post 5) – 590 South Vineyard Avenue
    b. South SAAP (Post 6) – 2095 East Avion Street

11. Upon entering the SAAP post, a Security Guard will inspect the vehicle and tools/equipment entering the AOA. Please note, the Security Guard has the right to deny access into the AOA.

12. Once approved to enter the AOA, the Contractor will drive through the designated access point gate. The Contractor must stop and wait for the gate to close prior to proceeding to the project site.

13. Should an Escort be required, the Escort can either be in a separate vehicle or in the Contractor's vehicle. If in a separate vehicle, the Contractor shall follow within a safe distance of the Escort's vehicle. Once the Escort and the Contractor have arrived at the project site, the Escort can leave the Contractor to perform the work only if the Contractor has a designated SIDA badge. The Contractor however will need the Escort to return once ready to depart the AOA. Should the Contractor not have a SIDA badge, the Escort will need to stay with the Contractor at all times and remain within a physical distance to, and only escort the number of individuals whom the Escort can continuously control, monitor and maintain direct, verbal communications.

14. Vehicle escorts are limited to two (2) vehicles per escort or four (4) vehicles when providing both lead and trailing escort vehicles.

15. Persons providing escort to vehicle(s) on the AOA without a current ONT MVOP accept all legal liabilities for the operator/owner of the vehicle and driver.

16. All vehicles operated on the AOA must have appropriate liability insurance as required by the OIAA.

17. Everyone accessing the airport plays a vital role in keeping the airport safe and secure at all times. It is the Contractor's responsibility to ensure that all tools/equipment that enter the AOA also leave the AOA. Should tools and equipment remain in unapproved or unauthorized areas, the Contractor is subject to having their SIDA badge privileges revoked and a fine up to $12,000.00.

18. If an Escort is required, it is the responsibility of the Escort to ensure all tools and equipment which enter the AOA also leave the area.

19. Approval for tenants to escort vendors or suppliers is determined on a case-by-case basis by TBI.

20. Airport Police personnel are authorized to check all persons and vehicles in the AOA to determine identify, ensure compliance with the Rules & Regulations, and protect all persons and property in the area.

21. All accidents or damage to any property must be reported to ONT Airport Police Services.

22. The perimeter fence surrounding the AOA area has a safety zone of ten (10) feet. No equipment or tools shall be placed within 10-feet inside or outside of the perimeter fence.

23. Construction activity on the AOA requires daily approval from the OIAA Airfield Operations Unit/TBI. The Contractor shall notify TBI 24 hours in advance of any approved scheduled construction activity. Additionally, the Contractor must obtain clearance from the FAA Air Traffic Controller (ATC) prior to entering the runway/taxiway operating area. Continuous contact with the ATC shall be maintained throughout the project.

24. Construction contractors working on the AOA who need to operate vehicles on the runways, taxiways, aircraft aprons and/or cargo ramp areas shall furnish flag persons and traffic signaling as required. Additionally, amber flashing lights may be required on the vehicle.

D. WEBSITE LINKS

For additional information on AOA including construction vehicle flag requirements, speed limits, right of way requirements, use of AOA Roadways, Traffic Signage, Directions, Signals and Markings, please visit:
https://www.flyontario.com/sites/default/files/ont_rules_regs_august_2018_3.pdf

E. ATTACHMENTS

8.01-A: Secured Area Access Point (SAAP) Locations

8.01-A Secured Area Access Point (SAAP) Locations

8.02 Key Request

A. Introduction

The Ontario International Airport Authority (OIAA) has set procedures in place to issue keys to employees, Contractors, tenants, or concessionaires, henceforth referred to as "Contractor", with a need to access a certain room within the terminal buildings for a specific project need.

B. Contact Info

1. ONT-TEC:
   George Williams, Operations Manager
   Office: (909) 390-8900
   Mobile: (909) 241-5627
   Email: g.williams@avairprosservices.com

2. ONT Airport Police Department (Main Number): (909) 935-2001

C. Process Overview

1. After the Contractor receives the Notice to Proceed (NTP) and during the pre-construction meeting, the Contractor shall state if long-term access in a certain area is required and if there is a need to obtain a key to the area.

2. The OIAA Director of Program Management will approve the issuance of a key to the Contractor and will notify ONT-TEC, the OIAA building maintenance contractor.

3. The Contractor shall coordinate with ONT-TEC to receive the key. ONT-TEC will issue a key to the Contractor. The Contractor will need to sign a form provided by ONT-TEC confirming that they received the key and hold full responsibility for the key.

4. While performing work, the Contractor will not leave the room unattended or will not prop the door open at any time. Additionally, the Contractor is responsible for all activities while working in the designated room and shall remove any materials, tools, and leave the room in a clean condition upon leaving.

5. The Contractor shall ensure the room is locked upon leaving.

6. The Contractor shall not make copies of the key and may not access the site after project completion or without a need during the project duration.

7. The Contractor shall return the key to ONT-TEC upon the completion of the project. Please refer to the Design & Construction Handbook section *7.04, Project Closeout Process*.

8. The Contractor shall notify OIAA Police Department and ONT-TEC immediately if the key gets lost.

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

Not applicable.

January 2019

Design & Construction Handbook

9.00 Utility Connection & Shutdown Coordination

ONTARIO INTERNATIONAL AIRPORT

9.00 Utility Shutdown Request (USR)

A. Introduction

The Ontario International Airport Authority (OIAA) has set procedures in place to approve Utility Shutdown Requests (USR) for contractors, tenants, or concessionaires, henceforth referred to as "Contractor," with a need to conduct activities involving utilities on the Airport. Utilities that fall under this process include but are not limited to: power, water, sewer, fire alarm, sprinklers, elevators/escalators, HVAC, gas, and communications. The OIAA has a responsibility to ensure all utilities on Airport property are properly maintained and usable during hours of operations while allowing Contractors to progress on Airport improvements.

B. Contact Information

1. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

2. Field Service Manager
   Leslie Normandy
   Email: LNormandy@flyontario.com
   Office: (909) 544-5439

3. ONT-TEC (Landside/Building Maintenance):
   George Williams, Operations Manager
   Office: (909) 390-8900
   Mobile: (909) 241-5627
   Email: g.williams@avairprosservices.com

4. OIAA Airfield Operations Unit/TBI (Airside):
   Dennis Anderson, Manager of Ontario-Airside
   Office: (909) 215-5612
   Email: Dennis.Anderson@tbiam.aero

C. Process Overview

1. After the Contractor receives the Notice to Proceed (NTP), the OIAA Owner's Representative will provide the USR form with instructions. The Contractor shall complete the form in its entirety and return via email to the OIAA Owner's Representative and copy the assigned field service manager for approval. Contractor shall follow Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5370 for safety requirements during airside utility shutdowns.

2. A USR form must be completed for each utility the Contractor intends to shut down. Multiple utilities will not be approved for shut down under one USR form.

3. The Contractor has a responsibility to obtain OIAA approval for a USR a minimum of five working (5) days prior to commencing work.

4. Once the USR approval is given, the OIAA Owner's Representative will contact the Contractor with instructions on further coordination and scheduled shutdown time. If the shutdown is to occur via landside/terminal, ONT-TEC will coordinate the scheduled shutdown. Should the shutdown occur via airside, TBI will coordinate the scheduled shutdown.

5. The shutdown will not occur unless the Contractor is present at the shutdown location at the designated time.

D. EMERGENCY SHUTDOWN

1. ONT-TEC - 24-Hour Dispatch/Emergency: (909) 544-5395

2. OIAA Airfield Operations Unit/TBI – 24-Hour Dispatch/Emergency: (909) 214-7682

E. WEBSITE LINKS

Not applicable.

F. ATTACHMENTS

9.00-A: Example Utility Shutdown Request (USR) Form

ONTARIO INTERNATIONAL AIRPORT

APPLICATION

UTILITY SHUTDOWN REQUEST

In Case of Emergency call (909)937-1911

Contract No. _____ Contractor USR Tracking # _____ _ _____ OIAA USR Tracking # _____ _ _____

Construction Project: _____ OIAA Project Manager: _____

24 hr Contact info: ONT, SAFETY BASE (**ARFF**) 909-544-5490

1. Email one (1) form for each utility being requested for shutdown. You must fill out a separate forms for each shutdown request.
2. Shutdown information times shall be in half-hour increments.
3. Email completed form to the **KOwens@flyontario.com and Cc LNormandy@flyontario.com**
4. Requests must be received **5 DAYS** prior to the utility shutdown time - **NO EXCEPTIONS.**
5. Utilities will be shutdown and restored by Airport personnel ONLY.
6. The shutdown will not occur unless the Contractor is present at the shutdown location and work area.
7. Please complete the form in its entirety. INCOMPLETE FORMS WILL NOT BE PROCESSED.

INCOMPLETE FORMS WILL NOT BE PROCESSED AND TIMES MAY CHANGE DUE TO AIRPORT OPERATIONAL PRIORITIES

All emails received on SATURDAY, SUNDAY, or after 1:00pm (13:00) will be marked as "RECEIVED" on the following business day.

SHUTDOWN TIMES MAY CHANGE WITHOUT NOTICE DUE TO AIRPORT OPERATIONAL PRIORITES

(Select ONE utility per form)

☐ Water ☐ Sewer ☐ Electrical ☐ Sprinkler ☐ Gas ☐ Communications ☐ Fire Alarm ☐ HVAC ☐ Security / ACAMS ☐ Other _____

Specific Location: _____ Work Area Adjacent to: _____

Affected Building/Systems: _____

Purpose: _____

Airfield: _____ Terminal: _____ Floor/Level: _____ Landside: _____ (Roadways and Parking Structures)

CONTACT INFORMATION:

Contractor: _____ Contact Name: _____

Phone: _____ Fax: _____ Email: _____

SHUTDOWN INFORMATION: Date: _____ Time: _____ Day: _____

RESTORE INFORMATION: Date: _____ Time: _____

Comments: _____

Contractor Requestor's Name: _____

Phone: _____ Email: _____ Submitted: _____

DO NOT WRITE BELOW THIS LINE, FOR UTILITY SHUTDOWN CONTROL CENTER USE ONLY

Date Received: _____ Time: _____

APPROVED: ☐

NOT APPROVED: ☐

Comments: _____

_____ _____

OIAA Construction Inspector Date

9.01 Area Shutdown Request (ASR)

A. Introduction

The Ontario International Airport Authority (OIAA) has set procedures in place to approve Area Shutdown Requests (ASR) for contractors, tenants, or concessionaires, henceforth referred to as "Contractor," that require restricting access to parts of the airport. Areas that fall under this process include but are not limited to: landside roads, airport gates, terminal space, and the air operations area (AOA). The OIAA has a responsibility to ensure airport property is properly secured and usable during hours of operations while allowing Contractors to progress on airport improvements.

B. Contact Information

1. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

2. Field Service Manager
   Leslie Normandy
   Email: LNormandy@flyontario.com
   Office: (909) 544-5439

3. ONT-TEC (Landside/Building Maintenance):
   George Williams, Operations Manager
   Office: (909) 390-8900
   Mobile: (909) 241-5627
   Email: g.williams@avairprosservices.com

4. OIAA Airfield Operations Unit/TBI (Airside):
   Dennis Anderson, Manager of Ontario-Airside
   Office: (909) 215-5612
   Email: Dennis.Anderson@tbiam.aero

C. Process Overview

1. After the Contractor receives the Notice to Proceed (NTP), the OIAA Owner's Representative will provide the ASR form with instructions. The Contractor shall complete the form in its entirety and return via email to the OIAA Owner's Representative and copy the assigned Field Service Manager for approval.

2. The ASR form must be completed for each day/time the area intends to be shutdown. Multiple shutdowns will not be approved under one ASR form.

3. The Contractor is responsible for obtaining OIAA approval for an ASR a minimum of five (5) working days prior to commencing work. At the discretion of the OIAA Owner's Representative, the Contractor may be required to additionally prepare and submit an exhibit providing details of the area being requested for shutdown.

4. Once the ASR approval is given by the OIAA Owner's Representative, the OIAA Owner's Representative will contact the Contractor with instructions on further coordination and scheduled shutdown time. If the shutdown is to occur via landside/terminal, ONT-TEC will coordinate the scheduled shutdown. Should the shutdown occur via airside, TBI will coordinate the scheduled shutdown.

5. The shutdown will not occur unless the Contractor is present at the shutdown location at the designated time.

D. Emergency Shutdown

1. ONT-TEC - 24-Hour Dispatch/Emergency: (909) 544-5395

2. OIAA Airfield Operations Unit/TBI – 24-Hour Dispatch/Emergency: (909) 214-7682

E. Website Links

Not applicable.

F. Attachments

9.01-A: Example Area Shutdown Request (ASR) Form

APPLICATION

AREA SHUTDOWN REQUEST

In Case of Emergency call (909) 937-1911

Contract No. _____ Contractor ASR Tracking # _____ _ _____ OIAA ASR Tracking # _____ _ _____

Construction Project: _____ OIAA Project Manager: _____

24 hr Contact info: ONT, SAFETY BASE (**ARFF**) 909-544-5490

1. Email one (1) form for each area being requested for shutdown. You must fill out a separate forms for each shutdown request.
2. Shutdown information times shall be in half-hour increments.
3. Email completed form to the **KOwens@flyontario.com and Cc LNormandy@flyontario.com**
4. Requests must be received **5 DAYS** prior to the area shutdown time - **NO EXCEPTIONS.**
5. Area will be shutdown and restored by CONTRACTOR'S personnel ONLY.
6. The shutdown will not occur unless the Contractor is present at the shutdown location and work area.
7. Please complete the form in its entirety.

INCOMPLETE FORMS WILL NOT BE PROCESSED AND TIMES MAY CHANGE DUE TO AIRPORT OPERATIONAL PRIORITIES

All emails received on SATURDAY, SUNDAY, or after 1:00pm (13:00) will be marked as "RECEIVED" on the following business day.

SHUTDOWN TIMES MAY CHANGE WITHOUT NOTICE DUE TO AIRPORT OPERATIONAL PRIORITES

(Select all affected areas per task)

☐ Traffic Flow ☐ Elevator ☐ Parking lot ☐ AOA ☐ Crane Pick
☐ Sidewalk ☐ Escalator ☐ Customer Flow ☐ CUP ☐ Other _____

Specific Location: _____ Work Area Adjacent to: _____

Affected Building/Systems: _____

Purpose: _____

Airfield: _____ Terminal: _____ Floor/Level: _____ Landside: _____
(Roadways and Parking Lots)

CONTACT INFORMATION:

Contractor: _____ Contact Name: _____

Phone: _____ Fax: _____ Email: _____

SHUTDOWN INFORMATION: **RESTORE INFORMATION:**

Date: _____ Time: _____ Day: _____ Date: _____ Time: _____

Comments: _____

Contractor Requestor's Name: _____

Phone: _____ Email: _____ Submitted: _____

DO NOT WRITE BELOW THIS LINE, FOR UTILITY SHUTDOWN CONTROL CENTER USE ONLY

Date Received: _____ Time: _____

APPROVED: ☐
NOT APPROVED: ☐

Comments: _____

_____ _____
OIAA Construction Inspector Date

9.02 Submetering Policy

A. Introduction

The Ontario International Airport Authority (OIAA) contracts various tenants and concessionaires to conduct business to passengers and employees at the Airport. The OIAA has a responsibility to keep track of how tenants use Airport utilities to ensure current infrastructure meets the current demand.

B. Contact Information

Field Service Manager
Leslie Normandy
Email: LNormandy@flyontario.com
Office: (909) 544-5439

C. Process Overview

1. All tenants and concessionaires are required to install a submeter for each utility tie-in installed in the leased space and ensure each submeter remains in usable condition.

2. Tenants and concessionaires are responsible for paying utility charges as indicated by installed submeters on a monthly basis. JBT, the OIAA building maintenance Contractor, will read each submeter on a monthly basis and the OIAA will provide an invoice to all tenants and concessionaires according to the usage amount as indicated on the submeter.

3. Tenants and concessionaires must install the submeter in a manner that allows OIAA to easily access and read the submeter. Coordination with Southern California Edison may be required. Prior to installation, the tenant or concessionaire shall submit an exhibit to the OIAA showing the proposed location of the meter for approval. Installation shall not occur until written approval from the OIAA is received.

4. Installed submeters shall meet the model requirements as provided in Section D of this document. Tenants and concessionaires shall issue a submittal to the OIAA for review and approval of the submeter model prior to installation (please refer to section *2.05, Submittals)*.

D. Submeter Models

1. Energy: Honeywell E-Mon Submeters

2. Water: Honeywell Water Submeters – Must be equipped with pulse output to allow interfacing with internal data recorders.

3. Gas: Honeywell Gas Submeters – Must be equipped with pulse output to allow interacting with internal data recorders.

4. BTU: Honeywell BTU Submeters

E. Website Links

Not applicable.

F. Attachments

9.02-A: Submetering Policy

SUBMETERING POLICY

It is OIAA's policy to submeter energy usage so as to ensure that the consumption of energy and natural resources is reduced to a practical minimum. OIAA is committed to responsible energy management and will submeter all of its facilities and equipment, wherever it is cost-effective to do so. The policy of OIAA is to measure & track energy consumption in order to meet the following long-term goals, medium range objectives and specific targets.

1.1 Goals (Long-Term):

A. Reduce operating costs through energy efficiency.

B. Optimize energy performance.

C. Minimize environmental impact due to energy consumption.

1.2 Objectives (Medium-Range):

A. Set and publish energy performance & targets.

B. Monitor and evaluate performance levels.

C. Implement an energy monitoring and targeting system.

D. Review and assess energy supply costs and contracts.

E. Establish a budget for supporting energy efficiency improvements.

F. Develop comprehensive building data system

1.3 Targets (Specifics):

A. All New construction, additions, & alterations for Terminals & Buildings shall install measurement devices to monitor:

1. Building level energy usage for Gas, Domestic Water (DW), Chilled-Water (CHW), Heating Hot Water (HHW), & Electrical services;

2. Concessions level energy usage for Gas, Domestic Water (DW), Chilled-Water (CHW), Heating Hot Water (HHW), & Electric. *See also Airport Mechanical, Plumbing, & Electrical Design Standards.*

3. Disaggregated electrical energy according to the following:

   a. TABLE 1.0 MINIMUM REQUIREMENTS FOR DISSAGGREGATED ELECTRIC SUBMETERING.

B. Discuss & define project submetering goals, opportunities & constraints with OIAA at the conceptual phase of the project & include, at minimum, in Owner Project Requirements (OPR).

Submetering is an essential component for successful energy management. This policy is an expression of OIAA's commitment to energy consumption responsibility & accountability. Additionally, this document shall serve as a guide in determining energy management practices.

TABLE 1.0 MINIMUM REQUIREMENTS FOR DISAGGREGATED ELECTRIC SUBMETERING

LOAD TYPE	ELECTRICAL
Lighting including exit and egress lighting and exterior lighting	All lighting disaggregated by floor, type or area
HVAC systems and components including chillers, fans, heaters, furnaces, package units, cooling towers, and circulation pumps associated with HVAC	All HVAC in aggregate and each HVAC load rated at least 50kVA
Domestic and service water system pumps and related systems and components	All loads in aggregate
Plug load including appliances rated less than 25 kVA	All plug load separated by floor, type or area All groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf
Elevators, escalators, moving walks, and transit systems	All loads in aggregate
Other individual non-HVAC loads or appliances rated 25kVA or greater	All loads in aggregate
Industrial and commercial load centers 25 kVA or greater including theatrical lighting installations and commercial kitchens	All loads in aggregate
Renewable power source (net or total)	Each group
Loads associated with renewable power source	All loads in aggregate
Charging stations for electric vehicles	All loads in aggregate
Baggage Handling System (BHS)	All loads in aggregate
Concessions	Each feeder board
Emergency, Legally Required, & Optional-Standby Systems	Each system in aggregate
Aircraft Systems: PCAir, 400Hz PBB's, Chargers	Each system in aggregate

January 2019

Design & Construction Handbook

10.00 Survey and Reference Data

ONTARIO INTERNATIONAL AIRPORT

10.00 Topographical Survey & Reference Data

A. Introduction

The Ontario International Airport Authority (OIAA) manages survey control on Airport property and maintains set procedures on coordinating survey data. Contractors are responsible for adhering to OIAA procedures in addition to local, state, and Federal Aviation Administration (FAA) surveying requirements. For OIAA to properly manage project data and as-builts, Contractors are required to follow the survey procedures outlined in this section.

B. Contact Information

Keith Owens, PE
Director, Program Management
Email: kowens@flyontario.com
Office: (909) 544-5383

C. Definitions

PACS/SACS: Primary/Secondary Airport Control Station: Survey control marker designated by the National Geodetic Survey near an airport tied to the National Spatial Reference System.

NAD 83 epoch 2010.0: North American Datum of 1983 epoch 2010– FAA Standard for Horizontal Control Datum

NAVD88: North American Vertical Datum of 1988 – FAA Standard for Vertical Control Datum

D. Process Overview

1. After the Contractor receives the Notice to Proceed (NTP), the OIAA Owner's Representative will provide information on coordination with Airport Operations to gain access to Airport.

Permanent Survey Markers

1. ONT maintains a survey control network of PACS and SACS, provided in *Attachment 10.00-A: PACS & SACS Survey Information*. The Project Surveyor is responsible for using all PACS/SACS provided and tying the Project survey to these established markers.

2. The Surveyor shall be responsible for the preservation of survey monuments and bench Marks. Where monuments are to be removed or affected, the Surveyor shall notify the OIAA in writing seven (7) days before starting work.

3. At least two (2) working days before the start of construction, the Contractor shall submit acceptable pre-construction survey tie notes to the OIAA. These survey tie notes will be for all survey markers or bench marks that may be lost or disturbed due to construction. Lost or

disturbed monuments shall be replaced at the Contractor's expense by a California licensed land surveyor.

Survey Service

1. Unless otherwise specified, the Contractor will perform and be responsible for the accuracy of surveying necessary to adequately construct the project per the contract documents. All work under this section shall be accomplished by or under the direct supervision of a surveyor with a current California Land Surveyor License.

2. The Contractor shall provide all reference points and monuments necessary for construction and inspection of the work. The Contractor shall preserve construction survey for the duration of their usefulness. All construction monuments shall be documented in the survey field notes, which shall be made available to the OIAA upon request.

3. For building construction, the Contractor shall establish the building baseline, all building corners, and an elevation benchmark for construction. The Surveyor shall lay out the building construction and all work, set grades, lines, levels, and positions throughout, including the inverts or lines and grades, elevations, and measurements of constructed work for the purposes of determining any construction errors or deficiencies and for the record drawings. Before starting the work, the Contractor and the Surveyor shall locate general reference points, establish monuments, and take such action as is necessary to prevent their destruction, then lay out all the required lines, elevations, and measurements.

Examination of Existing Conditions

1. Identify existing control points.

2. Verify layout information indicated, in relation to existing benchmarks, before proceeding to lay out work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during any construction.

3. Do not change or relocate benchmarks or control points without prior written approval of the OIAA. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.

4. Promptly replace lost or destroyed project control points.

5. Establish and maintain a minimum of four (4) permanent benchmarks on the site, reference to data established by survey control point.

6. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

7. Before beginning work, investigate and verify existence, location and depth of any underground utilities.

E. WEBSITE LINKS

FAA Advisory Circular 150/5300-16B, General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey
https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1033828

F. ATTACHMENTS

10.00-A: PACS & SACS Survey Information

10.00-A PACS & SACS Survey Information

PACS or SACS	DESIGNATION	PID	LAT (NAD 83)	LONG (NAD 83)	ELEVATION
PACS	ONT 4100 N 2000W	AA7152	34°03′ 15.92″	117° 34′ 47.69″	918.2′
SACS	ONT H	DK6535	34° 03′ 26.39″	117° 37′ 28.84″	948.3′
SACS	ONT J	DK6536	34° 03′ 29.92″	117° 35′ 57.44″	932.4′

January 2019

Design & Construction Handbook

11.00 Road Closures and Traffic Control

ONTARIO INTERNATIONAL AIRPORT

11.00 Road Closures & Traffic Control

A. Introduction

The Ontario International Airport Authority (OIAA) manages the road network on Airport property and maintains set procedures for road closures. The City of Ontario is the governing authority for streets surrounding the Airport. Contractors are responsible for adhering to OIAA procedures in addition to local and state encroachment and traffic control requirements.

B. Contact Information

OIAA Field Service Manager
Leslie Normandy
Email: lnormandy@flyontario.com
Office: (909) 544-5439

City of Ontario Engineering Department
David Simpson
Office: (909) 395-2025

C. Definitions

Airport Property – Airport Property is defined as roads within the Airport Operations Area (AOA), parking lots operated by OIAA, and the terminal loop roads.

City Street – Streets surrounding the Airport outside the OIAA are owned and maintained by the City of Ontario.

D. Process Overview

Airport Property

1. Contractor shall notify OIAA a minimum of five (5) working days in advance prior to commencing work on Airport property. It is the Contractor's responsibility to submit an Area Shutdown Request (ASR) for any road closures. Please refer to the Design & Construction Handbook section *9.01, Area Shutdown Request*.

2. If necessary, Contractor is responsible for following AOA Access Procedures as outlined in section *8.01, AOA Access Procedures,* prior to commencing work.

3. Contractor shall coordinate with OIAA Operations to establish traffic control standards. At a minimum, Contractor shall meet California Manual on Uniform Traffic Control Devices (MUTCD) for temporary traffic control.

City Street

1. Prior to commencing work on a city street, the Contractor is responsible for submitting a Road Closure Notification to the City of Ontario Engineering Department a minimum of fifteen (15) working days in advance.

2. The Contractor shall obtain an Encroachment Permit and a Traffic Control Permit from the City of Ontario prior to any road closures. Contractor is responsible for providing complete attachments as required, including but not limited to: plans, specifications, calculations, drawings, proof of insurance, and proof of Business License. Contractor shall refer to the City of Ontario Engineering Department website regarding permit fees and application forms.

3. Contractor shall provide traffic handling plans with the Encroachment Permit Application. Requirements for traffic control can be found in the latest version of the California MUTCD, Part 6, Temporary Traffic Control.

4. If road closures impact State right-of-way, Contractor is responsible for obtaining an approved Caltrans Encroachment permit. Permit approval may take up to sixty (60) calendar days.

E. WEBSITE LINKS

City of Ontario link to Encroachment Permit Application and Road Closure Notification:
https://www.ontarioca.gov/engineering/forms-applications

City of Ontario Link to Traffic Control Permit Application
https://www.ontarioca.gov/sites/default/files/Ontario-Files/Government/City-Forms/Engineering/traffic_control_permit_form.pdf

F. ATTACHMENTS

11.00-A: Example Encroachment Permit Application
11.00-B: Example Traffic Control Permit Application
11.00-C: Example Road Closure Notification

ENCROACHMENT PERMIT APPLICATION

In accordance with City of Ontario
Municipal Code Chapter 7-3.04.

ENGINEERING DEPARTMENT

303 East B Street, Ontario, CA 91764
T: (909) 395-2025, F: (909) 395-2122

INSTRUCTIONS:

- Attach two (2) sets of plans, specifications, calculations, or drawings with this application, wherever applicable.
- The Applicant must attach hereto proof of insurance as required by the City of Ontario in the document entitled "Encroachment Permit Insurance Requirements."
- Contractor(s) must possess a current Business License on file with the City.
- Allow for a minimum of three (3) business days to process this application.
- Attach a copy of an approved Caltrans permit for any proposed work within the State right-of-way.
- Complete all items and put N/A for non-applicable items.
- For public improvement projects, attach three (3) copies of engineered plans approved by the City Engineer are required to be submitted with this permit application.
- Permit fee is based on estimated off-site construction cost + $85.00 (subject to change).
- Applicants shall attach traffic handling plans for review showing all work in the road right-of-way. This can be satisfied by providing copies of the appropriate Typical Applications (TA) taken from the latest version of the California MUTCD, Part 6, Temporary Traffic Control. Complex projects on multi-lane roadways with an ADT greater than 12,000 vehicles per day and affecting multiple lanes and major intersections will require separate Traffic Control Plans submitted in advance for plan checking prior to issuance of any traffic control permit.
- Application is not complete until all required attachments are included.
- If the Owner and the Applicant are not the same, the Applicant shall attach a Letter of Authorization signed by the Owner.

Application Date:	Permit #:	File Reference #:

Owner Information	Applicant Information
Name:	Name:
Address:	Address:
City, State, Zip:	City, State, Zip:
Phone Number:	Phone Number:

Contractor/Subcontractor Information		All Refunds Shall Be Returned To
Name:		Company and/or Contact Name:
License Class/Type:	Exp. Date:	
License #:		Initial Here: _____
Address:		Address:
City, State, Zip:		City, State, Zip:
Phone Number:		Phone Number:

24-Hour Emergency Contact #1	24-Hour Emergency Contact #2
Name:	Name:
Phone Number:	Phone Number:

Project Location

Project/Work Location (nearest address):

Name of Street:	Limits (Cross Streets):			Start Date:	End Date:	Start Time:	End Time:
		to					
		to					
		to					

Work to be Performed (Check all that apply)

☐ Backflow/R.P. Device	☐ Drive Approach	☐ Pkwy Drain/ Curb Core	☐ Sidewalk	☐ Traffic Signal
☐ Boring	☐ Dry Utility Trench	☐ Parkway Landscaping	☐ Street Light	☐ Water Main
☐ Communication	☐ Fence in Right-of-Way	☐ Pavement Replacement	☐ Signing/Striping	☐ Water Service
☐ Curb and Gutter	☐ Fiber Optic	☐ Sewer Lateral	☐ Storm Drain	☐ Wireless Facilities
☐ Drainage Connection	☐ Monitoring Manhole	☐ Sewer Main	☐ SW Quality Device	☐ Other;

Description of Work (Attach Additional Sheet(s) if Needed, Indicate Drawing Numbers Where Appropriate):

Work to be Performed (Continued)		
List Permit Attachments Here:		
Preliminary Estimated Construction Cost in City Right-of-Way (If Known):		Approved Cost Estimate:
Is the depth of the proposed excavation equal to or greater than five (5) feet?	☐ No	☐ Yes, Permit #:
If yes, attach a copy of "T1 - Annual Trench/Excavation Permit" from the State Department of Industrial Relations (DIR), Division of Occupational Safety and Health (DOSH).		

Please complete this box as appropriate:			
This Traffic Control information is being submitted by, or for, one of the following:			
☐ Owner/Builder working on their own private property frontage (Encroachment Permit required).			
☐ Owner/Developer working on Development Project on various on- and off-site improvements (Encroachment Permit required).			
☐ Prime Contractor working for an owner or developer on various on- and off-site improvements (shall apply under owner's Encroachment Permit, otherwise a separate Encroachment Permit is required).			
☐ Sub-Contractor to a Prime (shall apply under owner's Encroachment Permit, otherwise a separate Encroachment Permit is required).			
☐ Telephone Company or State Video Franchise Holder (Master Encroachment Agreement and Encroachment Permit required under Franchisee's name). Master Encroachment Agreement executed? ☐ Yes ☐ No. If yes, Date of execution: _____			
☐ Other Utility Company (Encroachment Permit required under their name).			
☐ Other Private Company (Master Encroachment Agreement and Encroachment Permit required under their name). Master Encroachment Agreement executed? ☐ Yes ☐ No. If yes, Date of execution: _____			
☐ Contractor working on City Project (Encroachment Permit required).			
☐ Other public agency working on agency project (Encroachment Permit required under their name).			
☐ Non-construction activity such as a special event, parade, law enforcement operation (Encroachment Permit may be required).			
Work Will Require Closure of the Following (Check All that Apply):			
☐ Bus Stop	☐ Sidewalk/Parkway	☐ Shoulder/Parking Lane	☐ Intersection
☐ Median	☐ Travel Lanes, including turn lanes (Partial Street Closure)		☐ Whole Roadway (Full Street Closure)
Describe Proposed Detour Route (If Applicable):			

The undersigned has received and read City Municipal Code Sec. 7-3.04 and Encroachment Permit Provisions. I understand the requirements imposed upon me and my agents. I understand that any violation of the requirements of this permit may result in the issuance of "Demand for Compliance" requiring me to comply with this permit and the directive of the City Engineer within 24 hours. I further understand that any violation of this permit may result in the issuance of a "Stop Work Order" requiring my project to be halted for an unspecified period of time and the suspension or revocation of any other permit issued to me.

_____ _____

Signature of Applicant Date

For Use by City Staff Only			
Date Application Received:	By:		Encroachment Permit #:
Traffic Control Permit Required?	☐ No	☐ Yes - If Issued, Traffic Control Permit Number:	
This Application becomes an attachment to any Encroachment and/or Traffic Control Permit that is issued by the Engineering Department.			

TRAFFIC CONTROL PERMIT

Engineering Department
303 East B Street, Ontario, California 91764
Phone: (909) 395-2025 FAX: (909) 395-2122

Applicant: _____ **Traffic Control Permit Number** _____

Reference File: _____

Permission is hereby granted to:

☐ Control traffic for the required work as per the California MUTCD, Part 6, and any additional conditions outlined below:

☐ Control traffic for the required work as per the provisions of the Traffic Control Plan, attached herewith and made a part hereof.

☐ Signalize intersection involved. (See Reverse Side for additional instructions)

☐ Location 1: _____

Limits (cross streets): _____ to _____

Date(s): _____ to _____ Hours of Lane closure: _____ to _____

☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

☐ Through Travel Lane(s) No. ☐1 ☐2 ☐3 ☐4 ☐ Left Turn Lane(s) No. ☐1 ☐2 ☐3

☐ Right Turn Lane(s) No. ☐1 ☐2 ☐ Shoulder/Parking Lane ☐ Sidewalk/Parkway

☐ Location 2: _____

Limits (cross streets): _____ to _____

Date(s): _____ to _____ Hours of Lane closure: _____ to _____

☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

☐ Through Travel Lane(s) No. ☐1 ☐2 ☐3 ☐4 ☐ Left Turn Lane(s) No. ☐1 ☐2 ☐3

☐ Right Turn Lane(s) No. ☐1 ☐2 ☐ Shoulder/Parking Lane ☐ Sidewalk/Parkway

☐ Location 3: _____

Limits (cross streets): _____ to _____

Date(s): _____ to _____ Hours of Lane closure: _____ to _____

☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

☐ Through Travel Lane(s) No. ☐1 ☐2 ☐3 ☐4 ☐ Left Turn Lane(s) No. ☐1 ☐2 ☐3

☐ Right Turn Lane(s) No. ☐1 ☐2 ☐ Shoulder/Parking Lane ☐ Sidewalk/Parkway

☐ Full closure of ☐ roadway, ☐ median, ☐ intersection: (See Detour/Special Conditions/Instructions)

Name of Roads: _____ and _____

Limits (cross streets): _____

Date(s): _____ to _____ Hours of closure: _____ to _____

Special Conditions/Instructions:

_____

_____

_____

_____

_____

TRAFFIC CONTROL PERMIT

ONTARIO

Engineering Department
303 East B Street, Ontario, California 91764
Phone: (909) 395-2025 FAX: (909) 395-2122

☐ Traffic approaching any closed roadway section is to be Detoured as follows:

☐ Construction Truck Traffic is to access the project site by the following route:

☐ Signalize intersection: Notify Traffic Section at (909) 260-2123 prior to doing any work on traffic signals

- ☐ Traffic signal detection must be supplemented by video detection when detection is inoperable do to construction activities for more then 10 days.
- ☐ Traffic signal detection must be restored with in 10 days damage do to construction.
- ☐ Prior to traffic signals being placed in Red Flash for construction the contractor must have stop signs for all directions on site.

☐ Construction Truck Traffic is to access the project site by the following route:

- ☐ Approaching the site construction traffic shall use _____ ☐ left / ☐ right to _____ ☐ left / ☐ right to _____
- ☐ Departing the site construction traffic shall use _____ ☐ left / ☐ right to _____ ☐ left / ☐ right to _____

Road Closure Notification

Engineering Department
303 E. "B" Street Ontario, CA 91764
Tel: 909-395-2025 Fax: 909-395-2122
Email: Engineeringcounter@ci.ontario.ca.us

Date: _____ Office Phone: _____
Contractor: _____ Cell: _____
Contact Person: _____ Fax: _____
E-Mail: _____

Applicant: _____ Office Phone: _____
Contact Person _____ Cell: _____
Fax: _____
E-Mail: _____

Public Works Inspector: _____ Permit no.: _____

PURSUANT TO ISSUANCE OF AN ENCROACHMENT PERMIT/TRAFFIC CONTROL PERMIT, THE CONTRACTOR SHALL NOTIFY THE CITY A MINIMUM OF 15 BUSINESS DAYS PRIOR TO THE CLOSURE OF ANY STREET, BY SUBMITTING THIS FORM TO THE ENGINEERING DEPARTMENT IN PERSON, VIA FAX OR EMAIL. UPON APPROVAL AND IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PERMIT, THE CONTRACTOR SHALL POST THE CLOSURE DATES AND TIME A MINIMUM OF 10 BUSINESS DAYS IN ADVANCE OF THE CLOSURE.

LOCATION

Street Name _____ Between _____ and _____
Direction [NB / SB / WB / EB] (circle more than one if required)

Street Name _____ Between _____ and _____
Direction [NB / SB / WB / EB] (circle more than one if required)

CLOSURE DATES AND TIME

Start Date _____ End Date _____

Day of Week	Start Time	End Time

DESCRIPTION OF WORK

For use by City Staff:

Approved By: _____ Date: _____

THIS FORM MUST BE APPROVED BEFORE PROCEEDING WITH THE CLOSURE. FAILURE TO COMPLY WITH THE NOTIFICATION REQUIREMENTS WILL RESULT IN AN IMMEDIATE ENCROACHMENT PERMIT SUSPENSION/TERMINATION OF WORK IN THE PUBLIC RIGHT OF WAY.

January 2019

Design & Construction Handbook

12.00 Worksite Security & Screening

ONTARIO INTERNATIONAL AIRPORT

12.00 Signage Standards

A. Introduction

Temporary signage during construction activity is necessary to safely and efficiently move passengers through the airport environment. The primary purpose of the temporary signage is to maintain the integrity of the wayfinding system. This process allows the signage system to maintain visual continuity, clear messaging, and a sense of permanence thus instilling confidence in the passengers as they find their way through the airport.

B. Contact Information

For information or questions regarding signage standards, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

Temporary Signage:

1. One week prior to the start of any project, a temporary barricade and signage site walk shall take place to determine the required signage needed during construction. Temporary signage may include caution signage and/or wayfinding signage. The Contractor shall schedule the site walk with the OIAA Owner's Representative.

2. The Contractor is responsible for supplying and installing the required construction/caution signage. The Contractor shall submit the signage to the OIAA for approval prior to placement in public areas. The OIAA will supply wayfinding signage unless otherwise determined within the contract documents.

3. For wayfinding signage supplied by the OIAA, appropriate sign holders such as A-frames and stanchion frames will be provided to the Contractor by the OIAA. Sign holders shall be placed in accordance with the approved sign plan and must be returned to the OIAA once the detour is no longer in affect.

4. The Contractor is responsible for maintaining all temporary signs and sign holders for the duration of the project.

5. It is the Contractor's responsibility to place a 12" x 12" project identification sign on every construction entrance in public areas. One sign is needed on a set of double doors. All other regulatory signs shall be placed on the inside of the work area. The sign shall contain the following information:

- CAUTION
- Construction Area
- Authorized Personnel Only
- Project Title
- Contractor Name
- Contractor Logo
- Contractor Phone Number

Example:

6. In addition to the project identification sign, it may be necessary to post signage on the public facing side of barricading or doors for public safety to advise the public of a potential safety hazard such as noise, welding, or other construction activity.

7. The Contractor may display company signage, logos, and/or signage announcing an upcoming concession or facility improvement in public areas as approved by the OIAA Owner's Representative. No signs shall be placed until written authorization is received from the OIAA Owner's Representative.

8. The OIAA Owner's Representative will notify the Contractor of any Airport approved graphics and messaging other than the wayfinding required for placement along the barricades and/or fencing during construction.

9. The following signs and sign material are not permitted and may not be displayed on a temporary basis:

    - Paper, poster or foam board signs
    - Hand-written signs
    - Paper banners

- Signs not approved by the OIAA Owner's Representative
- Vertical lettered signs
- Sign mounted using visible tape

10. The OIAA Owner's Representative will inspect the project site to ensure appropriate temporary signage is placed in the right locations and contains the correct information as indicated above. All corrections shall be made within 24 hours of receiving the notification from the OIAA Owner's Representative.

11. It is the Contractor's responsibility to dispose of the signs once Construction is completed, unless otherwise determined by the OIAA.

Permanent Signage:

1. Any tenant or concessionaire wishing to install permanent signage shall fill out the Project Request Form for review and approval by the OIAA. Please refer to section *2.00, Project Request.*

D. WEBSITE LINKS

Not applicable.

E. ATTACHMENTS

Not applicable.

12.01 Temporary Barricade & Enclosure Standards

A. Introduction

All Contractors must use temporary barricades and enclosures as necessary during construction activity to secure the area and protect employees and the public from physical hazards.

B. Contact Information

For information or questions regarding temporary barricades and enclosure standards, please contact the OIAA Owner's Representative assigned to the project.

C. Process Overview

Interior Barricades & Doors:

1. One week prior to the start of any project, a temporary barricade and signage site walk shall take place to determine the required barricade type and placement required during construction. All construction activities within public areas are required to be secured with an OIAA approved barrier and lock as described herein. The Contractor shall schedule the site walk with the OIAA Owner's Representative.

2. A straight, clean, and uniform appearance of all barricades shall be maintained at all times. Scuffed, dirty, punctured, or discolored barricades shall be cleaned, painted, or replaced as required. Each barrier shall be inspected daily with repairs made immediately. It is the Contractor's responsibility to maintain the aesthetic integrity of the barricade throughout the life of the project.

3. The OIAA preferred barricade vendor is Boston Barricade. All barricade renderings must be reviewed and approved by the OIAA Owner's Representative prior to installation. Please refer to section *2.05, Submittals*.

4. The Contractor shall construct the barricades with the least possible obstruction and inconvenience to the OIAA, its occupants, and the public.

5. Existing signage and lighting systems in operation as the work proceeds shall be maintained unless otherwise approved by the OIAA Owner's Representative.

6. Barricades shall neatly adjoin existing walls. Existing finishes shall be protected prior to installation of the partitions. Provide braces as necessary to support enclosures, flush with surface of panels.

7. Existing floor and carpet areas beneath panels and within barrier and enclosure areas shall be protected with Masonite-type board, polyethylene sheeting, cardboard, carpet or other suitable material.

8. All interior and exterior doors leading into construction areas and buildouts must be self-closing, self-locking, and open inward towards the construction area.

9. Exterior temporary door signage is required. Please refer to section *12.00, Signage Standards*.

10. Once the barricade is no longer needed, the Contractor shall remove the barrier and repair the area to the same condition as it was previous to the construction start.

Exterior Barricades & Doors:

1. Fencing shall be used at exterior construction locations as approved by the OIAA Owner's Representative. Contractor to submit renderings and barricade specifications to the OIAA for approval prior to installation, please refer to Section *2.05, Submittals*. All fencing installation shall be secured or anchored using approved means and methods at the discretion of the OIAA.

2. Two types of fencing may be feasible depending on the location and conditions. Standard 6 or 8-foot construction fencing with post buried in the ground are required. Where K-rails or concrete barriers are used, screen chain link fencing shall be secured atop the barrier in order to reach the appropriate height. A screened 4-foot chain link fence shall be secured along the top of the concrete barriers. The top of the fence shall be uniform and even along the entire length of the fence.

3. Construction entrances shall be constructed of framed and screened chain linked fences. The gate width shall be approved by the OIAA Owner's Representative. Gates shall be chained and locked at all times. Exterior door signage is required. Please refer to section *12.00, Signage Standards*.

4. The Airport perimeter fence surrounding the AOA area has a safety zone of ten (10) feet on either side of the fence. The Airport perimeter fence shall remain free of vehicles, stored materials, unattended equipment, or other property.

5. Construction Contractors working on the Airport requiring access to the AOA though gates not normally granted via the Secured Area Access Point (SAAP) locations, shall furnish guard personnel to control such gates and prevent access to the AOA by unauthorized persons and vehicles. The preferred OIAA security vendor is Securitas. All OIAA Owners Representative shall approve the use of guards on a project site. All guards will be required to go through the badging process. Please review to section *3.00, Badging.*

6. Plastic covers shall not be used in any portion of the AOA, except to cover pallets or containers and only where such covered pallets or containers are completely secured by netting. Plastic covers shall not be disposed of in any exterior waste containers within the boundaries of the Airport.

7. Barricades used on the airfield must have red flashers and comply with the FAA Specifications, including Advisory Circular 150/5370. Renderings shall be submitted for review and approval to the OIAA Owner's Representative prior to installation.

Other Barricades:

1. Caution tape is not an approved barrier for any construction. Caution tape shall only be used in an emergency. If used, caution tape must be replaced within 24-hours with an approved Airport barricade.

2. The Contractor shall secure any permanent ground opening into which a person could fall with a guardrail, load-bearing cover, or other physical barrier.

3. The Contractor shall ensure that any temporary floor openings, such as pits and manholes, are guarded by a secured and removable guardrail. If guardrails are not available, the Contractor shall have a qualified guard protect the opening.

D. WEBSITE LINKS

FAA AC 150/5370:
https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5370-10

E. ATTACHMENTS

Not applicable.

January 2019

Design & Construction Handbook

13.00 Project Status Reporting

ONTARIO INTERNATIONAL AIRPORT

13.00 Weekly Project Status Report

A. Introduction

Weekly Project Status Reports provide an update to the OIAA in terms of upcoming project milestones, utility/access shutdown request, outstanding submittals and RFIs, approved and/or pending change orders and City coordination. This helps to affirm that the project has conformity with the original plans and specifications and to recognize any changes in the plans and/or schedule.

B. Contact Information

Keith Owens, PE
Director of Program Management
Office: (909) 741-2785
Email: kowens@flyontario.com

C. Process Overview

1. The Construction Project Manager shall complete the Weekly Project Status Report to:
    a. Provide an update on weekly project accomplishments;
    b. Provide a three-week lookahead on upcoming project milestones and utility shutdowns;
    c. Provide an update on submitted or outstanding submittals and/or Requests for Information (RFIs);
    d. Provide an update on approved or pending change order status;
    e. Provide an update on City permit status or City coordination.

2. The Construction Project Manager shall submit the form by 5:00PM every Monday to the OIAA Director of Program Management.

D. Website Links

Not applicable.

E. Attachments

13.00-A: Weekly Project Status Report Example

ONTARIO INTERNATIONAL AIRPORT

OIAA Administration Office: 1923 E. Avion Ave., Ontario, CA 91768

WEEKLY PROJECT STATUS REPORT

PROJECT TITLE:
PROJECT NUMBER:
PRIME CONTRACTOR:
WORK LOCATION:
DATE:

Tenant: YES NO
Contractor: YES NO

% Completion: %

Weekly Project Summary:

Brief summary of key accomplishments and next week lookahead:

Original Contract Price:
Approved Change Orders:
Contract Total:
Pending Change Orders:

Brief description of pending change orders:

Upcoming Project Milestones (next three weeks):

#	Description	Expected Completion Date	Status	Actual Completion Date
			On Schedule	
			Off Schedule	
			Off Schedule	

Upcoming Utility Shutdown Requests (next three weeks):

#	Location	Date of Shutdown	Utility Type	USR Form Submitted? Y/N
			Electrical	No
			Sprinkler	
			Communications	

Outstanding Submittals:

Submittal No.	Description	Requested To	Return Date	Status
				delayed
				on progress
				on progress

Outstanding RFIs:

RFI No.	Description	Requested To	Return Date	Status
				on progress
				delayed

Update on City Permit Status/City Coordination:

Action Items:

Name Printed

Signature

Form to be submitted to Keith Owens at Kowens@flyontario.com by COB every Monday

January 2019

Design & Construction Handbook

14.00 Inspections

ONTARIO INTERNATIONAL AIRPORT

14.00 Project Inspections

A. Introduction

All ongoing construction projects for the Ontario International Airport Authority (otherwise referred to as "OIAA"), whether Federal Aviation Administration (FAA) funded Airport Improvement Program (AIP) projects, Non-AIP projects or Tenant Improvement Projects, must undergo project inspections to ensure the project has conformity with the original plans and specifications and to recognize any changes or deviations from the original plans.

The Federal Aviation Administration (FAA) **Airport Improvement Program (AIP)** provides federal grant monies for projects which develop and improve safety, capacity and/or noise compatibility for public-use airports that are included in the National Plan of Integrated Airport Systems (NPIAS).

B. Contact Information

1. For information or questions regarding a project's inspection process, please contact the OIAA Owners Representative assigned to the project.

2. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

C. Process Overview

AIP Funded Projects:

1. Per Advisory Circular 150/5370-12B, AIP projects must undergo mandatory project inspections. AIP projects must have a competent Technical Supervisor and Construction Inspector at the construction site throughout the project to ensure the work conforms to the plans, specifications, and schedules approved by the FAA for the project. The Construction Inspector will be provided by the OIAA.

2. For AIP projects, OIAA Project Inspectors shall utilize the form provided in *Attachment 14.00-A: FAA Form 5370-1, Construction Progress and Inspection Report*. This form shall be filled out in its entirety on a daily basis for any project receiving federal funds.

3. FAA Form 5370-1, Construction Progress and Inspection Report, shall be sent via email by the OIAA Construction Inspector to the FAA Project Manager on a daily basis or as otherwise determined during the project pre-construction meeting.

4. The Contractor must schedule inspections as required with the City of Ontario for code compliance, including but not limited to: structural, electrical, mechanical, and fire suppression systems.

5. The FAA Project Manager may schedule site visits to conduct their own inspections to ensure the terms and conditions of the grant agreement are met, to maintain a broad overview of the construction to be reasonably certain the work is accomplished in accordance with the plans and specifications, and to evaluate the adequacy of the sponsor's construction inspection and oversight. This does not relieve the OIAA or the Contractor of the responsibility to ensure there is adequate supervision and inspection throughout all stages of the project.

6. Federally funded projects require the Contractor and Subcontractors to submit a copy of all certified payrolls to the OIAA accompanied by a signed "statement of compliance" indicating that the payrolls are correct and complete and that each laborer has been paid not less than the proper prevailing wage rate for the work performed. Refer to the Design & Construction Handbook section *7.01, Prevailing Wage Requirements*.

7. The OIAA Construction Inspector must conduct a final inspection for all AIP construction projects. The FAA Project Manager has the option to either participate in the final inspection or accept the OIAA's certification. The FAA Project Manager shall be invited to participate in the final inspection.

8. OIAA Construction Inspectors may issue a stop work notification to the Contractor should they find any hazardous substances, unsafe work processes, or unsafe conditions occurring on the project site or if the Inspector believes the work is not in conformance with the plans and specifications. The Construction Inspector shall utilize the form in *Attachment 14.00-C, Stop Work Notification Form*, to document the reasons for the stop work notification and the affected areas. This form shall be provided to the Contractor and an electronic copy shall be filed in the project folder.

9. Upon project completion, the OIAA Construction Inspector must submit a final construction report summarizing the quantity and quality of completed construction as required by the grant agreement.

Non-AIP Funded Projects:

1. The OIAA will conduct their own inspections of non-AIP projects 1-3 times a week utilizing the OIAA Daily Inspection Report, provided in *Attachment 14.00-B, OIAA Daily Inspection Report*. These inspections will take place to maintain a broad overview of the construction to be reasonably certain the work is accomplished in accordance with the approved plans and specifications, and to evaluate the adequacy of the Contractor's construction inspection and oversight.

2. The Contractor must schedule inspections as required with the City of Ontario for code compliance, including but not limited to: structural, electrical, mechanical, and fire suppression systems.

3. Non-AIP projects require the Contractor and Subcontractors to submit a copy of all certified payrolls to the OIAA accompanied by a signed "statement of compliance" indicating that the payrolls are correct and complete and that each laborer has been paid not less than the proper prevailing wage rate for the work performed. Refer to the Design & Construction Handbook Section *7.01, Prevailing Wage Requirements*.

4. OIAA Inspectors may issue a stop work notification to the Contractor should they find any hazardous substances, unsafe work processes, or unsafe conditions occurring on the project site, or if the Inspector believes the work is not in conformance with the original plans and specifications. The Inspector shall utilize the form in *Attachment 14.00-C, Stop Work Notification Form*, to document the reasons for the stop work notification and the affected areas. This form shall be provided to the Contractor and an electronic copy shall be filed in the project folder.

5. The OIAA Inspector will conduct a final inspection for all non-AIP construction projects. The OIAA Owner's Representative shall be invited to participate in the final inspection.

Tenant Improvement Projects:

1. The OIAA will conduct their own inspections of the Tenant improvement project 1-3 times a week utilizing the OIAA Daily Inspection Report, provided in *Attachment 14.00-B, OIAA Daily Inspection Report*. These inspections will take place to maintain a broad overview of the construction to be reasonably certain the work is accomplished in accordance with the approved plans and specifications, and to evaluate the adequacy of the Tenant's construction inspection and oversight.

2. The Tenant must schedule inspections as required with the City of Ontario for code compliance, including but not limited to: structural, electrical, mechanical, fire suppression systems, as well as applicable health code inspections.

3. OIAA Inspectors may issue a stop work notification to the Contractor should they find any hazardous substances, unsafe work processes, or unsafe conditions, occurring on the project site, or if the Inspector believes the work is not in conformance with the original plans and specifications. The OIAA Inspector shall utilize the form in *Attachment 14.00-C, Stop Work Notification Form*, to document the reasons for the stop work notification and the affected areas. This form shall be provided to the Contractor and the Tenant, and an electronic copy shall be filed in the project folder.

4. The OIAA Inspector will conduct a final inspection for the tenant improvement project. The OIAA Owner's Representative shall be invited to participate in the final inspection.

D. EMERGENCY SHUTDOWN

1. ONT-TEC - 24-Hour Dispatch/Emergency: (909) 544-5395

2. OIAA Airfield Operations Unit/TBI – 24-Hour Dispatch/Emergency: (909) 214-7682

E. WEBSITE LINKS

Website link to FAA Form 5370-1, Construction Progress and Inspection Report
https://www.faa.gov/forms/index.cfm/go/document.information/documentID/186168

F. ATTACHMENTS

14.00-A: FAA Form 5370-1, Construction Progress and Inspection Report
14.00-B: OIAA Daily Inspection Report
14.00-C: Stop Work Notification Form

OMB CONTROL NUMBER: 2120-0569
EXPIRATION DATE: 8/31/2019

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

Airport Grant Program

Period Ending	
Project Number	

Airport Name
Ontario International Airport

Project Description	Contractor's Name

1. Contract Time	No. Days Charged to Date	Last Working Day Charged (Date)

2. Brief Weather Summary this Period, including Approximate Rainfall and Periods of Below Freezing Temperature *(On earthwork jobs, include soil conditions.)*

3. Rough Estimate of Percent Completion to Date of Construction Phases *(Include items such as clearing, grading, drainage, base, surface, lighting, etc.)*

4. Work Completed or In Progress this Period

5a. Summary of Laboratory and Field Testing this Period *(Note failing tests and any retests. Summarize out-of-tolerance.)*

5b. Material *(Identify material subject to pay reduction.)*

6. Description of Anticipated Work by Contractor for Next Period

7. Problem Areas/Other Comments *(Include revisions to plans and specifications approved or denied, delays, difficulties, etc. and actions taken.)*

SPONSOR'S INSPECTOR OR REPRESENTATIVE

Date	Typed or Printed Name and Title	Signature

ONTARIO INTERNATIONAL AIRPORT

INSPECTION DIVISION

INSPECTION OFFICE: 1923 Avion St. Ontario, CA 91768

FORM DIR

DAILY INSPECTION REPORT*

DATE: _____

PROJECT TITLE:

PROJECT W.O. #:

PRIME CONTRACTOR:

WORK LOCATION:

CONTRACT DAY:

WORK SHIFT						
FROM 7:00 AM TO 3:00 PM						
SUN	MON	TUES	WED	THUR	FRI	SAT

BID ITEM OR ACTIVITY #				
QUANTITY				

DESCRIPTION OF THE WORK:

NEEDS ATTENTION:

A. Was work found unacceptable and rejected?	yes	no	If (A) is YES, Attach a signed copy of the NON-COMPLIANCE.
B. Was this work "Time & Materials"?	yes	no	If (B) is YES, Attach a signed "T & M" sheet (FORM TM).
C. Was this Deputy Work?	yes	no	If (C) is YES, Attach a signed B-94 and note on "FORM SIR-1".
D. Were any tests performed or samples taken?	yes	no	If (D) is YES, list the tests/samples taken on "FORM SIR-1"
E. Was any "unsafe" work observed?	yes	no	If (E) is YES, List conditions, time and who reported to in box below.
F. Was there a WORK SHUT DOWN during work shift(s)?	yes	no	If (F) is YES, Fill in the information below.

WORK SHUT DOWN **LOCATION:**

CONDITIONS:

DOWN TIME		TOTAL TIME DOWN		*** CAUSE OF SHUT DOWN *				
STOP TIME	START TIME	DAYS	HOURS	WEATHER	CONTRACTOR	OWNER	B & S	OTHER (DESCRIBE):
P.M.	P.M.							

UNSAFE CONDITIONS:

DESCRIBE:

REPORTED TO: ***TIME:***

REPORTING INSPECTOR'S SIGNATURE

INSPECTOR'S NAME PRINTED

ONTARIO INTERNATIONAL AIRPORT

INSPECTION DIVISION

INSPECTION OFFICE: 1923 Avion St. Ontario, CA 91768

FORM DIR-2

DAILY INSPECTION REPORT

[TO COMPLETE THIS REPORT, PLEASE FILL IN FORMS SIR-1, SIR-2, SIR-3, AND TIME & MAT'LS, if applicable.]

PROJECT TITLE: 0 **DATE:** 00-Jan-00

PROJECT W.O. #: 0 **CONTRACT DAY:** 0

CONTRACTOR WORKING: 0

WORK LOCATION: 0

BID ITEM OR ACTIVITY #						
QUANTITY						

WORK SHIFT

FROM 7:00 AM TO 3:00 PM

0	0	0	0	0	0	0
SUN	MON	TUES	WED	THUR	FRI	SAT

DESCRIPTION OF THE WORK:

A. Was work found unacceptable and rejected?	yes	no	If (A) is YES, Attach a signed copy of the NON-COMPLIANCE.
B. Was this work "Time & Materials"?	yes	no	If (B) is YES, Attach a signed "T & M" sheet (FORM TM).
C. Was this Deputy Work?	yes	no	If (C) is YES, Attach a signed B-94 and note on "FORM SIR-1".
D. Were any tests performed or samples taken?	yes	no	If (D) is YES, list the tests/samples taken on "FORM SIR-1"
E. Was any "unsafe" work observed?	yes	no	If (E) is YES, List conditions, time & who reported to in box on "FORM DIR".
F. Was there a WORK SHUT DOWN during work shift(s)?	yes	no	If (F) is YES, Fill in the information on "FORM DIR".

REPORTING INSPECTOR'S SIGNATURE

INSPECTOR'S NAME PRINTED

CONTRACTOR WORKING:

WORK LOCATION: 0

BID ITEM OR ACTIVITY #						
QUANTITY						

WORK SHIFT

FROM 7:00 AM TO 3:00 PM

0	0	0	0	0	0	0
SUN	MON	TUES	WED	THUR	FRI	SAT

DESCRIPTION OF THE WORK:

A. Was work found unacceptable and rejected?	yes	no	If (A) is YES, Attach a signed copy of the NON-COMPLIANCE.
B. Was this work "Time & Materials"?	yes	no	If (B) is YES, Attach a signed "T & M" sheet (FORM TM).
C. Was this Deputy Work?	yes	no	If (C) is YES, Attach a signed B-94 and note on "FORM SIR-1".
D. Were any tests performed or samples taken?	yes	no	If (D) is YES, list the tests/samples taken on "FORM SIR-1"
E. Was any "unsafe" work observed?	yes	no	If (E) is YES, List conditions, time & who reported to in box on "FORM DIR".
F. Was there a WORK SHUT DOWN during work shift(s)?	yes	no	If (F) is YES, Fill in the information on "FORM DIR".

REPORTING INSPECTOR'S SIGNATURE

INSPECTOR'S NAME PRINTED

ONTARIO INTERNATIONAL AIRPORT

INSPECTION DIVISION

INSPECTION OFFICE: 1923 Avion St. Ontario, CA 91768

FORM SIR-1

GENERAL DAILY JOB INFORMATION

PROJECT TITLE: 0 DATE: 0-Jan-00

PROJECT W. O. #: 0 CONTRACT DAY: 0

JOB MEMO(S) ISSUED				NOTICE(S) OF NON-COMPLIANCE				C. O. WORK ?
NUMBER:				NUMBER:		SUBJECT:		[ ] X
NUMBER:		SUBJECT:		NUMBER:		SUBJECT:		YES NO
NUMBER:		SUBJECT:		NUMBER:		SUBJECT:		# NO.

JOB SITE VISITORS

COMPANY	NAME	TIME

DEPUTY WORK

DEPUTY'S NAME	REGISTRATION #	TYPE OF WORK

LAB TESTS / SAMPLES PERFORMED

SAMPLES/TESTS-TYPE	LAB USED	R / T NUMBERS

WEATHER DATA

	a.m./p.m.	O	a.m./p.m.	O
TEMPERATURE	HIGH 84	F	LOW	F

WIND	A.M.	P.M.
CALM (0 - 5 MPH)	X	
SLIGHT WIND (6 - 15 MPH)		
MODERATE WIND (16 - 35 MPH)		
HEAVY WIND (36 MPH & ABOVE)		
VISIBILITY	**A.M.**	**P.M.**
CLEAR	X	
PARTLY CLOUDY (SCATTERED)		
HAZY (SMOGGY OR HIGH CLOUDS)		
CLOUDY		
FOG	**A.M.**	**P.M.**
NO FOG	X	
LIGHT FOG (CEILING ABOVE 600 FT.)		
HEAVY FOG (CEILING BELOW 600 FT.)		
ON THE DECK (LESS THAN 500 FT.)		
RAIN	**A.M.**	**P.M.**
NO RAIN	X	
LIGHT RAIN (ON & OFF - MISTY)		
MODERATE RAIN (1/4 INCH OR LESS PER HOUR)		
HEAVY RAIN (1/2 INCH OR MORE PER HOUR)		

FOR WEATHER INFORMATION USE ONE OF THE FOLLOWING NUMBER:

ATIS NUMBERS: ONT: (909) - 605 - 0056

REPORTING INSPECTOR'S SIGNATURE

INSPECTOR'S NAME PRINTED

ONTARIO
INTERNATIONAL AIRPORT

STOP WORK NOTIFICATION No. _____

This notice is hereby given to stop work activities until further notification for the following work activity.

Project Title: _____
Project Number: _____
Prime Contractor: _____
Work Location: _____
Date: _____

Work Activity:
Comments:

Authorized to Issue Stop Work Notification:

☐Project Manager
☐Quality Manager
☐Design Quality Assurance Manager
☐Design Quality Control Manager (Design Manager)
☐Construction Quality Manager
☐Traffic Engineer
☐Environmental Compliance Manager
☐ Mn/DOT Staff
☐ Safety Manager

Date:_____ Time:___:____ Signature:_____
(Authorized staff only, please check role above)

Date:_____ Time: ___:____ Signature:_____
Project Manager

ONTARIO INTERNATIONAL AIRPORT

RESUME WORK ORDER

Comments

Date:_____ Time:___:____ Quality Manager:_____

Date:_____ Time:___:____ Construction Quality Manager:_____

Date:_____ Time:___:____ Mn/DOT Project Manager:_____

January 2019

Design & Construction Handbook

15.00 Fire & Life Safety Requirements

ONTARIO
INTERNATIONAL AIRPORT

15.00 Fire & Life Safety Requirements

A. Introduction

OIAA maintains a fire and life safety program at the Airport to ensure all employees and customers are properly protected at all times. Contractors have a responsibility to meet Code of Federal Regulations (CFR), California Fire Code, and the National Fire Protection Association (NFPA) Code and Standards as well as applicable local and OIAA rules and regulations.

B. Contact Information

1. For information or questions please contact the OIAA Owner's Representative assigned to the project.

2. City of Ontario Fire Department, Fire Administration
   Phone: (909) 395-2002

3. Field Service Manager
   Leslie Normandy
   Email: LNormandy@flyontario.com

4. ONT Police Dispatch Center/Non-emergency Police Response
   Phone: (909) 986-6711

5. ONT Airport Operations Unit/TBI – 24 Hour Dispatch/Emergency
   Phone: (909) 214-7682

6. ONT Airport Rescue Fire Fighting (ARFF) Section
   Phone: (909) 544-5490

C. City of Ontario Fire Department

1. Contractor is responsible for meeting City of Ontario laws, rules, and regulations and obtaining a fire permit (see *Attachment 16.00-A City of Ontario Plan Review & Permit Application*).

2. Contractor shall coordinate inspection by a City of Ontario, Fire Code Official to confirm compliance with local rules and regulations.

3. Contractor shall review City of Ontario Fire Department standard forms at https://www.ontarioca.gov/fire/fire-prevention/standards-forms and confirm necessary fire plan requirements and submittals.

D. OIAA Fire and Life Safety Requirements

Hazardous Materials

1. Class 1.1 explosives and any explosives not acceptable for transportation under applicable federal regulations are not permitted at the Airport, unless written authorization is granted by OIAA.

2. Contractor shall not transport Class 1.3 explosives in or upon the Airport unless Contractor has received prior authorization from the OIAA and are in compliance with:
    a. FAA ONT Air traffic Control, ONT ARFF, Airport Police, and ONT Airport Operations are notified in advance of the type and amount whenever these explosives are in transit throughout the Airport.
    b. Contractor shall not store explosives at ONT, unless prior authorization by OIAA permits the storage of such materials.
    c. Contractor shall not store keep, handle, use, dispense, or transport, in or upon the Airport, the following including but not limited to: any explosives, blasting agents, flammable liquids, combustible liquids, flammable solids, oxidizers, organic peroxides, corrosive materials, flammable gases, nonflammable gases and poisons, unless prior authorization is given by OIAA.

3. Poisons B, irritating materials (ORM A, B, C, D, and E), or cryogenic liquids shall not be stored, kept, handled, used, dispensed, or transported, in or upon the Airport, at such time, place, or in such a manner as to endanger unreasonable persons or property. For purposes of his hazardous class scheme, 49 CFR, Parts 171-177, as amended, shall be utilized.

4. Regulated hazardous materials at ONT include, but are not limited to, those regulated in:
    a. 49 CFR, Parts 100 through 199, as amended.
    b. The Director's List, as amended, issued by the Director of the California Department of Industrial Relations in Title 8, California Code of Regulations, Section 339.
    c. Sections 66680 and 66685 of Title 22 of the California Administrative code, as amended.
    d. Environmental Protection Agency (EPA) pollutants, 40 CFR, Section 401.15, as amended.
    e. The list of hazardous materials prepared by the San Bernardino County Director of Health pursuant to the SBSO Health Code. Hazardous materials regulated shall also include any material which has been determined to be hazardous based upon any appraisal or assessment by or on behalf of the party storing this material in compliance with EPA or California Department of Health Services requirements, or which should have been but was not determined to be hazardous due to the deliberate failure of the party storing the material.

5. Contractor shall adhere to all applicable regulations governing explosives which are acceptable for transportation. Any other material subject to federal or state regulations governing hazardous materials must be handled in strict compliance with those regulations and any additional regulations deemed necessary by OIAA. Any waiver of such regulations by the FAA or other competent authority shall not be a waiver to this rule.

6. Contractor shall give an advance notice of at least twenty-four (24) hours to OIAA through ONT Airport Emergency Dispatchers for any operations requiring permission pursuant to this rule.

7. Contractor may request permission from OIAA to move radioactive material only when such materials are packaged, marked, labeled, and limited as required by regulations applying to transportation of explosives and other dangerous articles which do not create undue hazard to life or property at ONT.

8. Contractors and tenants are responsible for preparing a Hazardous Materials Removal Plan when involved with handling of hazardous materials. The plan shall include the name of the company used for removal of hazardous materials and the names and 24-hour telephone numbers of contractor or tenant staff authorized to handle such removals. Contractors shall submit to OIAA and update annually.

9. In the event of a spill, Contractor must immediately notify ONT Airport Emergency Dispatcher. The spill shall be cleaned up at the Contractor's expense. Contractor shall coordinate with OIAA for spill inspection and post-cleanup inspection.

Fire Extinguishers and Equipment

1. Contractor shall not tamper with fire extinguisher equipment at the Airport at any time, nor used for any purpose other than firefighting or fire prevention. Contractor or tenant supplied equipment shall be inspected for conformity with NFPA Codes. Tags showing the date of the last inspection shall be left attached to each unit.

2. Fully charged and currently inspected fire extinguishers, as recommended by NFPA Codes for specific materials, are required at all locations handling flammable materials.

3. Contractor shall not tamper with Airport fire protection systems and equipment at any time. Contractor or tenant shall not turn on, off, or operate any Airport equipment except for testing, maintenance, or repair as approved by OIAA. Contractor or tenant shall notify ONT Airport Emergency Dispatcher anytime a fire protection system is not operating.

Open Flames and Welding

1. Prior to commencing open flame welding at passenger terminal gates, aircraft parking positions, or buildings, ONT ARFF and ONT Airport Operations must be notified at least twelve (12) hours in advance.

2. Contractor is required to have a fire guard present at all times during welding.

3. Open flame welding within fifty (50) feet of aircraft refueling operations or refueling facilities is prohibited.

4. A fire extinguisher is required to be on site during welding operations.

Reporting Fires

1. Contractors and their subcontractors are required to report any unattended or uncontrolled fire on Airport premises to ONT Emergency Dispatcher.

2. Contractor shall not make any regulation or order requiring any person to take unnecessary delays prior to reporting a fire to ONT ARFF or City of Ontario Fire Department.

Litter and Cleaning of Allotted Spaces

1. Contractor or tenant shall keep their allotted space or leasehold free from rubbish and debris. Flammable materials shall be stored only in approved containers in or about tenant areas and all floors shall be free of fuel, oil, and litter. Contractor shall keep space under stairways clear.

2. Contractor shall not use volatile or flammable solvents for cleaning floors. Approved metal receptacles with tight-fitting, self-closing covers shall be used for the storage of oily waste rags or similar material. Contents of receptacles shall be disposed of daily.

Cleaning Ramps and Other Surfaces

1. Contractor or subcontractors responsible for any spillage or dripping of fuel, oil, grease, or any other material which may be unsightly, unsafe to personnel and/or Airport property, or detrimental to pavement on the Airport shall be immediately removed by suitable procedures approved by OIAA. Contractor shall promptly notify OIAA of a reported spill and follow up after a thorough clean-up has been conducted in compliance with the rules and regulations. The operator of equipment causing the spillage shall be responsible for immediate removal of such fuel, oil, grease, or other material.

Control of Contaminants

1. In the event of a spill of discharge, Contractor shall not allow any fuel, oil, grease, flammable liquids, or contaminants of any kind; including detergents, polishing compounds, or metal etching agents to flow into or be placed in any sewer system, storm drain, or open water area, not equipped with a OIAA permitted separator, clarifier, or industrial waste system.

2. Contractor shall ensure all equipment used to scrub pavement surfaces must have the capability of picking up all cleaning water for disposal at a location equipped with a permitted clarifier authorized by OIAA.

Fueling Operations

1. Contractor shall adhere to Best Management Practices (BMPs) outlined in the OIAA Stormwater Pollution Prevention Program (SWPPP).

2. Fuel cut-off valves are located and marked for use during emergencies involving underground fuel flow systems at all re-fueling facilities.

Fuel Spills

1. Contractor, or fueling operator responsible, shall immediately notify ONT Airport Emergency Dispatcher and ONT Airport Operations in the event of a fuel spill of any type, in any amount.

2. In the event of fuel spillage, when there is no apparent presence of fire, fuel delivery units shall not be moved until the spillage is dispersed or removed. Spilled fuel must be cleaned up immediately and the area secured.

Aviation Fuel Delivery Permits

1. Petroleum product delivery companies or brokers delivering or buying fuel by hydrant or tanker truck to OIAA and tenant storage facilities shall be required to obtain a fuel delivery permit. All companies who provide into plane fueling are required to obtain a Non-Exclusive License Agreement issued by OIAA.

Fueling Agents

1. Tenants or Contractors performing Fueling Agent services must have their employees complete an approved training program that conforms to FAA, Part 139.321 regulatory standards.

2. Contractor shall have a minimum of one (1) fueling supervisor employed onsite by an ONT permitted Fueling Agent. Fueling Supervisor must have completed an FAA certified aviation fuel training course, in fire safety, prior to commencing fueling operations. Recurrent supervisory training, in aviation fuel fire safety, must be completed within every twenty-four (24) calendar months.
3. ONT Fueling Agents must provide annual written certification to OIAA through ONT ARFF Section that all required training within this Section has been accomplished.

Aircraft Parts Cleaning Materials

1. Contractor shall use non-flammable cleaning agents to clean aircraft parts and other equipment. In the case flammable combustibles must be used, only liquids having flash points in excess of 100 degrees Fahrenheit shall be used and special precautions shall be taken to eliminate ignition sources in compliance with good practice recommendations of the uniform fire code and the NFPA.

Paint, Varnish, and Lacquer Use

1. Contractor must adhere to California State Fire Code, Air Resources Board – Air Quality Management District regulations and standards when storing and handling paint, varnish, or lacquer. These standards also apply to the arrangement, construction, ventilation, and protection of spraying booths.

Sewage, Industrial Waste, Toxic and Hazardous Waste

1. Contractors and Tenants shall comply with the requirements of OIAA Hazardous Materials Management Policy regarding the discharge of sewage and industrial waste.

2. Contractor shall not generate, store, keep, handle, transport, treat, or dispose of hazardous waste, as defined by the Resource Conservation and Recovery Act, Title 40, CFR Part 261 or succeeding legislation, in or upon the Airport.

Methanol Storage

1. Contractor shall treat methanol in the same manner as automobile gasoline. A maximum of two containers of methanol may be stored at gate positions in areas not in or under buildings or stairways. The bulk storage of methanol will be on leaseholds only.

Hot Work and Confined Spaces

1. Contractor is required to follow OSHA and Cal/OSHA regulations for all hot work and work in confined spaces.

2. Contractor shall submit a Utility Shutdown Request (USR) (*see Section 9.00, Utility Shutdown Request)* prior to commencing any hot work.

E. ONT Fire Protection System Procedure

1. Once Tenant has obtained an approval permit from the City of Ontario Fire Department, Contractor shall submit a Utility Shutdown Request form (see *section 9.00, Utility Shutdown Request*) to OIAA to connect to the Airport fire protection system. Tenant is not allowed to have a separate fire protection system unconnected from the Airport fire protection system.

2. Tenant is required to install a fire protection system compatible with the Airport Spectronics fire protection system. An OIAA representative must be present during the installation of the fire protection system.

F. WEBSITE LINKS

City of Ontario Fire Prevention Standard Forms:
https://www.ontarioca.gov/fire/fire-prevention/standards-forms

G. ATTACHMENTS

15.00-A City of Ontario Fire Department Plan Review & Permit Application

CITY OF ONTARIO - FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION

415 East B Street, Ontario, CA 91764
Phone: (909) 395-2562 Fax: (909) 395-2180

Plan Review & Permit Application

Submit Plans to: Ontario City Hall, Fire Counter, 303 East B Street, Ontario, CA 91764

Project Address: _____

Intended Permit Use: _____ **Valuation:** _____

Scope of Work: _____

_____

Retention Fees
(# per One Set): 8½" x 11": _____ Large Sheets: _____ Expedite: _Y / N_

Contractor Name: _____

License #: _____ Class: _____ Expiration: _____

Phone #: _____ Fax #: _____

Email Address: _____

Address: _____

City: _____ Zip Code: _____

Business License #: _____

Worker's Comp Co: _____

Policy # _____ Expiration: _____

Designer/
Applicant/
Owner Name: _____

License # (if applicable): _____ Expiration: _____

Phone #: _____ Fax #: _____

Email Address: _____

Address: _____

City: _____ Zip Code: _____

Contact Person: _____ Phone #: _____

Email Address: _____

_____ Phone #: _____

January 2019

Design & Construction Handbook

16.00 Safety Program/CAL OSHA Requirements

ONTARIO INTERNATIONAL AIRPORT

16.00 Safety Program & Cal/OSHA Requirements

A. Introduction

OIAA considers safety to be the top priority when executing projects at the Airport. It is critical for Contractors to have a well-developed safety program in place for every project to protect their employees, OIAA staff, and ONT customers. Contractors are responsible for implementing proper safety procedures that comply with state and federal Occupation Safety and Health Administration (OSHA) laws.

B. Contact Information

For information or questions, please contact the OIAA Owner's Representative assigned to the project.

C. Safety Program Requirements

1. Contractor shall prepare and submit a safety program to OIAA Owner's Representative for approval a minimum of five (5) days prior to anticipated start date. Safety programs shall include but are not limited to: fall protection, personal protection equipment (PPE), egress, material handling, fire protection, tools, lock out/tag out, confined spaces, et al.

2. Contractor shall report any safety incident to OIAA within 24 hours of occurrence. Contractor is responsible for submitting a monthly report declaring any accidents, near misses, or incidents on the project site to OIAA Owner's Representative.

3. Contractors working on airside projects must comply with the latest version of FAA AC 150/5370, Standards Specifications for Construction of Airports.

4. Contractors and their subcontractors are required to abide by the OIAA Lock-Out/Tag-Out (LOTO) Program when performing servicing, maintenance, or any operations where an energy source may present hazards or injury to workers (see *Attachment 16.00-A OIAA Lock-Out/Tag-Out Program*).

    a. Contractors and their subcontractors shall apply their own locks and tags to equipment. Locks and tags that are similar but not identical to those used to OIAA may be used.

    b. If Contractor requires assistance with lock-out/tag-out procedure, contact OIAA Owner's Representative. An authorized designee of OIAA may lock out the equipment with the Contractor holding the key to the lock until the work is complete.

    c. Contractor shall submit completed Lock-Out/Tag-Out found at the end of *Attachment 16.00-A, OIAA Lock-Out/Tag-Out Program* to OIAA Owner's Representative and ONT-TEC for approval a minimum of seven (7) working days prior to anticipated start date.

5. OIAA recommends that the Contractor staff a minimum of one Safety Coordinator on site at all times when the project is active. Contractors, including their subcontractors, are recommended to staff safety professionals based on the number of personnel on site per the table below:

Required Minimum Safety Professionals per Total on Site Personnel	
Minimum Safety Professionals Present	Total Personnel Present
1 SC	1-25
1 SC + 1 SS	26-50
1 SM + 1 SC + 1 SS	51-75
1 SM + 2 SC + 1 SS	76-100
1 SM + 3 SC + 1 SS	101-125
Add 1 SC for each additional	1-100

SC = Safety Coordinator, SS = Safety Superintendent, SM = Safety Manager

D. CAL/OSHA TRAINING REQUIREMENTS

1. Contractors are responsible for complying with Construction Safety Orders and General Industry Safety Orders of Title 8, Division 1, Chapter 4 of the California Code of Regulations otherwise known as the Cal/OSHA Safety and Health Training Requirements. All workers are required to maintain compliance with OSHA 10-hour training certification throughout the duration of the project. Contractor employees with supervisory or safety related responsibilities are required to maintain OSHA 30-hour training certification throughout the duration of the project.

2. Contractors may refer to https://www.dir.ca.gov/dosh/dosh_publications/trainingreq.htm as a guide to Cal/OSHA requirements but should refer to Title 8 as the official reference for Cal/OSHA.

E. WEBSITE LINKS

Department of Industrial Relations, CAL/OSHA Safety & Health Training and Instruction Requirements:
https://www.dir.ca.gov/dosh/dosh_publications/trainingreq.htm

Ontario International Airport Injury and Illness Prevention Program and Lock-Out/Tag-Out Program:
https://www.flyontario.com/sites/default/files/injury_and_illness_prevention_plan.pdf

F. ATTACHMENTS

16.00-A OIAA Lock-Out/Tag-Out Program
16.00-B Equipment Validation for Lock-Out/Tag-Out Procedure

LOCK-OUT/TAG-OUT PROGRAM

1.0 FACILITY INFORMATION

Facility Name: Ontario International Airport Authority
Facility Address: 1923 E Avion St, Ontario, CA 91761

Primary Designee:
Ann Richey
Risk Management Director for
Ontario International Airport Authority
Office: (909) 544-5269
arichey@flyontario.com

Secondary Designee:
Leslie Normandy
Field Service Manager
Office: (909) 544-5439
LNormandy@flyontario.com

2.1 PROGRAM COMPLIANCE

All workers, including Contractors and Subcontractors, when performing service, maintenance, cleaning and repairs, will adhere to this program to minimize injuries from electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy sources when performing the above activities.

All workers will be instructed in the significance of electrical safety, energy control procedures, and lock-out / tag-out. Each new employee shall be instructed by their Supervisor in the purpose and use of these procedures.

2.2 Program Exceptions

- Work performed on cord or plug connected electrical equipment, if exposure to the hazards of unexpected energy release of the equipment is controlled by unplugging the equipment from the energy source, **and if the plug is under the exclusive control of the worker performing the repair or maintenance task.**

- Minor tool changes or adjustments that take place that are routine, repetitive and integral to the use of the equipment, **if alternative procedures demonstrate that effective protection for workers is in place.**

- Operations that must be performed on systems providing essential services such as gas, steam or water, and that

- Continuity of service is essential
- Shutdown of the system is impractical
- **Documented procedures demonstrate that effective protection for workers is in place.**

3.1 WORKING ON ENERGIZED SYSTEMS

Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

- Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.

- All work is conducted in accordance with the requirements of NFPA Standard 70E for Electrical Safety.

- Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment and appropriate equipment to perform the job has been provided.

- Suitable personal protective equipment has been provided and is used. Suitable insulated gloves shall be worn for voltages in excess of 300 volts, nominal.

- Suitable eye protection, including face shield and safety glasses or goggles, has been provided and is used.

- Suitable Arc Flash and Arc Blast protection is provided for high voltage work.

- Fire resistant clothing such as Nomex suits are worn.

- Where required, suitable barriers, barricades, tags, or signs are in place for personnel protection.

After the required work on an energized system or equipment has been completed, an authorized person shall be responsible for:

- Removing from the work area any personnel and protective equipment.
- Reinstalling all permanent barriers or covers.

3.0 LOCK-OUT/TAG-OUT PROTOCOL

Machinery or equipment capable of **movement** shall be stopped and the power source de-energized or disengaged, and locked out. If necessary, the moveable parts shall be mechanically blocked or secured to prevent inadvertent movement during cleaning, servicing or adjusting operations unless the machinery or equipment must be capable of movement during this period to perform the specific task. If so, the hazard of movement shall be minimized.

Equipment or power-driven machines equipped with lockable controls, or readily adaptable to lockable controls, shall be locked out or positively sealed in the "off" position during repair work and setting-up operations. In all cases, accident prevention signs and/or tags shall be placed on the controls of the equipment or machines during repair work.

A sufficient supply of accident prevention signs or tags and padlocks, seals or other similarly effective means that may be required by any reasonably foreseeable repair will be available.

4.1 GENERAL LOCK-OUT/TAG OUT PROCEDURE

Prior to engaging in a shutdown and locking out machinery or equipment, the scope and purpose of the Lock-Out/Tag-Out must be defined and the preliminary steps outlined below must be considered.

- Define the type and magnitude of the energy involved
- Define the associated hazards of the energy involved
- Define what control measures for the energy involved
- Define the procedures needed to perform the shutdown including isolating, blocking and securing machines and equipment
- Locate all energy sources that power the equipment to be serviced including hidden sources of energy; many machines and equipment may have more than one source of power
- Determine how and where to place, remove and transfer locks
- Determine who is responsible for the locks
- Testing the machine or equipment to confirm lock-out

Once the preliminary steps are completed and prior to engaging in service disruptions or equipment lock-out, all affected personnel must be notified of the disruption, anticipated duration and anticipated restoration of services. If workers require assistance with lock-out/tag-out procedure, contact OIAA Owner's Representative assigned to project. An authorized designee of OIAA may lock out equipment with the Contractor holding the key to the lock until the work is complete.

4.2 Isolating Equipment and Installing Lock-Out Devices and Tags

- If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).

- Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, other) is disconnected or isolated from the equipment.

- Stored energy, such as that in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down. Lockout energy isolating devices with an assigned individual lock and a tag with d name, department, how to reach you, the date and time of tagging and the

reason for the lockout.

- After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral position after the test.

NEVER USE ANOTHER WORKER'S LOCK AND NEVER LEND YOURS

4.3 Procedure Involving More Than One Person

If more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s). One designated individual of a work crew or a Supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. The designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

4.4 Shift or Personnel Changes

If a lockout procedure will extend into the following shift, the authorized employee who originally placed the lock will remove it and it will immediately be replaced with the lock of the authorized employee who is to continue the repair or maintenance on that equipment or machine for the following shift.

4.5 Restoring Equipment to Service

After the work is completed and the equipment is ready to be returned to normal operation, this procedure must be followed:

- Remove all non-essential items.
- See that all equipment components are operationally intact, including guards and safety devices. Repair or replace defective guards before removing lockouts.
- Remove each lockout device using the correct removal sequence.
- Make a visual check before restoring energy to ensure that everyone is physically clear of the equipment.

5.1 WORKER TRAINING

Authorized workers shall receive training covering the following topics:

- Recognition of hazardous energy sources.
- Types and magnitude of hazardous energy in the workplace.
- Methods, devices, and procedures used to lockout, verify lockout, and otherwise control hazardous energy on all pieces or types of equipment (including cord and plug connected equipment).
- Procedures for removing locks and returning a machine or piece of equipment to operation.
- Transfer of lockout responsibilities.

7.1 EXAMPLES OF LOCK-OUT/TAG-OUT DEVICES

This is an example of a wall switch lock-out

- Remove the screws from the switch plate
- Adjust the switch lock-out device over the switch plate and install it on the switch
- Position switch in desired position
- Close the switch lock-out device place your lock and tag through the device hasp

This is an example of a plug lock-out/110 volts

- Insert the plug into the box
- Close the cover of the box
- Insert lock and tag through the hasp of the device
- Shown Open below:

Shown closed below:

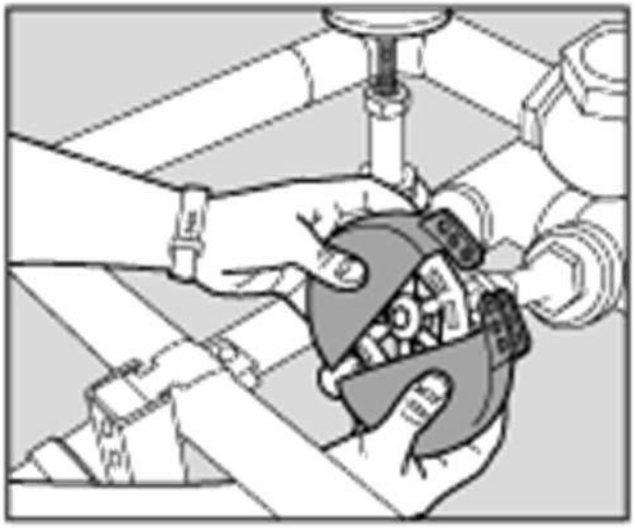
Device shown with lock and tag

These are examples of a circuit breaker box lock-out device. This device slides right onto a breaker switch and clamps down to prevent accidental or unauthorized circuit flipping.

Device Shown in Open Position

Device Shown in Closed Position

Below are images of various types of valve lock-out devices. These devices are available in various configurations for different types of equipment.



EQUIPMENT EVALUATION FOR LOCK-OUT/TAG-OUT PROCEDURE

Equipment type/Name:_____

Location of equipment
(building/room:_____

Reason for equipment lock-out:_____

_____

Anticipated Lock-out duration (specify dates/hours & service
restoration):_____

_____

Affected Services:_____

_____

Affected personnel/departments:_____

_____

2.1 LOCK-OUT/TAG-OUT PROCEDURE-IDENTIFY ENERGY SOURCES

- ☐ Electrical plug or outlet
- ☐ Back up energy (e.g. back up generator)
- ☐ Main control (circuit breaker or main power switch)
- ☐ Valve or other control
- ☐ Other (specify)_____

3.1 IDENTIFY RESIDUAL ENERGY

- ☐ Pressurized air
- ☐ Pressurized water
- ☐ Hydraulic
- ☐ Springs/coils
- ☐ Compressed gas
- ☐ Kinetic energy (fan or flywheel)
- ☐ Gravity-falling objects
- ☐ Other (specify)_____

4.1 IDENTIFY EQUIPMENT POWER CONTROLS

- ☐ Valve(s)
- ☐ Switch(s)
- ☐ Circuit breaker(s)
- ☐ Other (describe)_____

5.0 AFFECTED PERSONNEL/DEPARTMENT NOTIFICATION

Departments affected and locations_____:_____

_____

Person(s) notified_____Date/Time_____

Notification method(s)_____

Person(s) notified_____Date/Time_____

Notification method(s)_____

Person(s) notified_____Date/Time_____

Notification method(s)_____

6.0 ENERGY ISOLATION

List all necessary steps to isolate power and list locations of each power control to be locked-out:

_____

_____

_____

_____

_____

7.1 IDENTIFY LOCK-OUT DEVICES AND TAGS ARE REQUIRED

- ☐ Main control lock-out
- ☐ Valve lock-out
- ☐ Power plug/cord lock-out
- ☐ Control box lock-out

☐ Main switch lock-out
☐ Other (specify)_____

8.0 IDENTIFY BLOCK-OUT IS REQUIRED (IF NECESSARY)

_____

_____

9.0 ADDITIONAL EQUIPMENT TAG-OUT WITH NOT LOCK-OUT/BLOCK-OUT

_____

_____

10.0 DISSIPATE/RESTRAIN RESIDUAL ENERGY

☐ Grounding
☐ Repositioning
☐ Other

_____

11.0 TESTING EQUIPMENT AFTER LOCK-OUT IS IN PLACE

Identify & list operating control to verify that the equipment is locked out:

_____

_____

List & sequentially number each step for equipment lock-out verification:

_____

_____

_____

_____

Submitted by:

Name (Print):_____ Signature:_____

Submitted to:_____

Date/Time:_____

How submitted:

☐ Physical/paper copy
☐ E-mail
☐ Fax

January 2019

Design & Construction Handbook

17.00 Environmental Clearance

ONTARIO INTERNATIONAL AIRPORT

17.00 CEQA & NEPA Reviews

A. Introduction

Generally, projects which utilize federal funds, or require the approval of a federal agency, require compliance with both NEPA and CEQA.

The **California Environmental Quality Act (CEQA)** is a state law that requires government agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts. Any project requiring discretionary action by the State or a local municipality/public agency is subject for such review. The purpose of CEQA is to:

- Disclose to decision makers and the public the significant environmental effects of proposed activities;
- Identify ways to avoid or reduce environmental impacts;
- Require implementation of feasible alternatives or mitigation; and
- Provide for public input.

The **National Environmental Policy Act (NEPA)** requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. NEPA applies to a project that requires discretionary actions by a federal agency which intends to approve, build, or fund a project. All federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. These statements are commonly referred to as Environmental Impact Statements (EIS) and Environmental Assessments (EA). Additionally, NEPA requires cost/benefit analysis be prepared and incorporated into the EIS.

B. Contact Information

For information or questions regarding NEPA & CEQA, please contact the OIAA Owner's Representative assigned to the project.

OIAA Environmental Management
Chris Waller
Email: chris.waller@altaenviron.com
Telephone: (909) 544-5169

C. Process Overview

1. The California Environmental Quality Act requires that all projects on OIAA property must receive a final determination in regards to their environmental impact. This determination is required prior to OIAA issuing a Notice-to-Proceed.

2. All public agencies are subject to the requirements of CEQA. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project". A project is an activity which must receive discretionary approval.

3. Contractor to answer all questions provided in Attachment *17.00-A, OIAA CEQA Questionnaire*. The CEQA Questionnaire form will determine if a potential significant impact exists on the project and rather the project is exempt from CEQA. Contractor to submit for to the Owner's Representative and copy Chris Waller.

CEQA Exemptions:

1. CEQA has determined that certain projects which will not cause either a direct or indirect physical change in the environment are exempt from the CEQA process.

2. Exemptions apply depending upon the location, timing, and circumstances of the project and its surroundings. All projects are reviewed on a case-by-case basis and must be viewed as a whole and not a portion of the entire project. There are exceptions to most exemptions.

3. Categorical exemptions are descriptions of types of projects which the Secretary of the Resources Agency has determined do not usually have a significant effect on the environment. Categorical exemptions can be found in Article 19 of the CEQA Guidelines. Categorical exemptions are not absolute. There are exemptions to the exemptions depending on the nature or location of the project. Commonly used exemptions include the following:

    a. Class 1 is the "existing facilities" exemption.

    b. Class 2 consists of the replacement or reconstruction of existing structures and facilities.

    c. Class 3 consists of construction of small structures.

    d. Class 7 consists of actions taken by regulatory agencies as authorized by state law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource.

    e. Class 8 consists of actions taken by regulatory agencies to assure the maintenance, restoration, enhancement, or protections of the environment where the regulatory process involves procedures for protection of the environment.

4. Section 15300.2 of the State CEQA Guidelines provides guidance of certain situations where an exemption may not apply:

    a. Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to located – a project that is ordinarily insignificant in its impact on the environment may be in a particularly sensitive environment. Therefore, these classes are considered to apply, except where the project may impact on an environmental resource of hazardous of critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

    b. Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place over time is significant.

    c. Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

d. Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

e. Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

f. Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

Projects not Exempt from CEQA:

1. Projects that are not exempt from CEQA require environmental review. An initial study is prepared and the results of that study will determine whether a Negative Declaration, Mitigated Negative Declaration or Environmental Impact Report is prepared.

2. The process for preparing a (Mitigated) Negative Declaration can be found in Article 6 (Sections 15070 to 15075) of the State CEQA Guidelines. It includes a public review period of no less than 20 days.

3. The process for preparing an Environmental Impact Report (EIR) can be found in Article 7 (Sections 15080 to 15097) of the State CEQA Guidelines. The process includes sending a Notice of Preparation to the State Clearinghouse and each responsible and trustee agency notifying them that an EIR will be prepared.

4. Responses from agencies and the public at this stage will help determine the scope of the EIR and the significant environmental issues and reasonable alternatives and mitigation measures that will need to be explored in the Draft EIR. Once the Draft EIR has been completed, it is released for public review and comment for a period of no less than 45 days.

5. The purpose of the public review period for both the (Mitigated) Negative Declaration and the EIR is to ensure the sufficiency of the document in identifying and analyzing possible significant environmental impacts and how they may be avoided or mitigated. Comments are most constructive if they disclose additional possible impacts, alternatives, or mitigation measures. Responses to the comments are prepared and both the comments and responses are then compiled in the final document for consideration by the decision-maker. The review by other agencies and the public helps to ensure that the document is as complete as possible so that decision-maker can make an informed decision on the project.

6. After the public review process, OIAA staff will incorporate any comments, OIAA's response to comments, and the environmental study into a final document that is presented to the decision-maker to assist them in their decision making. A project cannot be considered for approval unless the decision-maker receives and reviews the document prior to making a decision.

D. WEBSITE LINKS

1. The State CEQA statutes and guidelines can be viewed at: http://ceres.ca.gov/ceqa/guidelines/

2. For additional information on the NEPA process, please visit: https://ceq.doe.gov/

3. FAA Order Number 5050.4B – National Environmental Policy Act Implementing Instructions for Airport Actions: https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/14836

E. ATTACHMENTS

17.00-A OIAA CEQA Questionnaire

ONTARIO INTERNATIONAL AIRPORT

CEQA Questionnaire

Project Description: (Include Location)	
Project Contact Name:	
Phone:	
Email:	
Est. Start Date:	
Est. Completion Date:	

Section A: Statutory and Categorical Exemptions

Please answer the following yes or no questions. If you answered yes to any question, STOP. This project is exempt, and you do not need to complete Section B.

	Yes	No	Is the project:
			Included in a previous CEQA or NEPA document has already been prepared that specifically evaluates this project?
A1			A feasibility or planning study for a future action that has not been finalized or
A2			A project to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster that has been declared a State of Emergency by the Governor of California?
A3			Repair, maintenance, operation, or minor alteration of existing structures, facilities, mechanical equipment or topographical features, **involving negligible or no expansion of existing use.** (Class 1 Exemption)
A4			A replacement or reconstruction of existing structures or facilities where the new structure will be located on the same site **and** there will be negligible or no expansion of capacity or usage? (Class 2 Exemption)
A5			Construction of one or a few small structures (1 to 2-story structures, garages, utility extensions of 1 mile or less, fences, etc.) or installation of equipment that does not require extensive construction?
A6			Minor alteration of land that has minimal impact on native vegetation (landscaping, minor trenching/backfilling, etc.)
A7			Construction or installation of small accessory structures (on-premise signs, garages, small parking lots, temporary structures, etc.)
A8			A remediation or clean-up project where the entire cost of the project is less than one million dollars?

ONTARIO INTERNATIONAL AIRPORT

CEQA Questionnaire

Section B: Potentially Significant Impacts?

Please answer the following yes or no questions. If you answered yes to any questions, the potential for a significant impact exists, and the project is not exempt from CEQA. Please contact Environmental Management at (909) 544-5169 or chris.waller@altaenviron.com

Aesthetics

	Yes	No	Will the project include, involve, or result in:
B1			Construction of one or more structures with height of 50 feet or more?
B2			Substantially degrade the existing visual character of the airport or its surroundings?

Agriculture and Forestry Resources

	Yes	No	Will the project include, involve, or result in:
B3			Removal, destruction, or alteration of significant amounts of vegetation?

Air Quality / Greenhouse Gas Emissions

	Yes	No	Will the project include, involve, or result in:
B4			Any demolition, excavation, and/or ground disturbance that encompass an area exceeding 5,000 square feet?
B5			A significant increase in vehicle, truck, or aircraft traffic to or within the airport?
B6			The use of 5 or more pieces of heavy-duty diesel-fueled construction equipment (backhoes, loaders, cranes, etc.) during construction?
B7			The stockpiling of bulk dry materials?
B8			Installation of stationary combustion engines (generators, turbines, etc.) greater than 50 hp?
B9			Purchase or use of portable combustion engines (generators, compressors, etc.) greater than 50 hp?
B10			Installation or use of portable or stationary external combustion units (boilers, water heaters, process heaters, etc.) with maximum heat input capacity of 325,000 btu/hr or greater?
B11			Consumption of 150 million square feet of natural gas per year? (Does not include current airport natural gas consumption)
B12			Emissions of toxic substances including metals, VOCs, or acids/bases?
B13			Storage of toxic substances in quantities greater than 55 gallons? Examples include gasoline, hydrochloric acid, etc.
B14			Installation and operation of a new pollution control device?
B15			Installation of a new storage or process tank?
B16			Installation of new fuel dispensing or storage equipment?
B17			Installation or operation of new surface coating or preparation equipment (spray booths, degreasers, abrasive blasting, etc.)?
B18			Installation of a refrigeration or air conditioning unit with 50 pounds or more of refrigerant?
B19			Excavation or disturbance of soils potentially contaminated with VOCs or metals?
B20			Purchase of new mobile equipment (sweeper, forklift, construction equipment, etc.)

ONTARIO INTERNATIONAL AIRPORT

CEQA Questionnaire

Biological Resources			
	Yes	**No**	**Will the project include, involve, or result in:**
B21			Alteration, removal, or destruction of vegetation on the airport?
B22			Disruption of the airport's burrowing owl population?
Cultural Resources			
	Yes	**No**	**Will the project include, involve, or result in:**
B23			Any structures or facilities that are over 50 years old?
B24			Demolition or renovation of the airport's old hangars and buildings?
Geology and Soils			
	Yes	**No**	**Will the project include, involve, or result in:**
B25			Potential injury, death, or property loss due to earthquake, liquefaction, or rupture of a known fault?
B26			Substantial soil erosion or loss of topsoil?
Hazards and Hazardous Materials			
	Yes	**No**	**Will the project include, involve, or result in:**
B27			Storage and use of a new hazardous material in quantities greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for gases? Hazardous materials include, but are not limited to, fuels, oils, solvents, coatings, acids, bases, and
B28			Storage of petroleum products, oils, or lubricants in quantities greater than 55
B29			A potential for release (liquid spill, gas leak, fugitive dust) of hazardous materials into the environment?
B30			Generation of hazardous waste on a temporary basis (construction-related debris,
B31			Generation of hazardous waste on a long-term or recurring basis (used oil, spent solvent, etc.)?
B32			Use of pesticides?
B33			Alteration of existing or installation of new emergency response equipment (fire suppression systems, shut-off systems, etc.)?
B34			Removal of existing, installation of new, or alteration of existing aboveground or underground storage tanks and piping systems.
B35			Demolition, renovation, removal, or disturbance of existing structures and interior building materials (insulation, tile, ceiling, roofing, etc.)?
B36			Paint removal?
B37			Installation, removal, or alteration of an electrical transformer?
B38			Work on or within a building constructed prior to 1980?
B39			Removal or replacement of light ballasts that may contain PCBs?
B40			Removal or replacement of thermostats that may contain mercury?

ONTARIO INTERNATIONAL AIRPORT

CEQA Questionnaire

Hydrology and Water Quality			
	Yes	**No**	**Will the project include, involve, or result in:**
B41			Alteration of a storm drain or portion of the storm drainage system of the airport?
B42			Construction or installation of a waste water treatment system?
B43			Paving or development of currently unpaved or undeveloped land?
B44			Initiation of new operations (vehicle maintenance, fueling, cargo handling, etc.) on currently dormant airport property?
B45			Outdoor operations/activities that utilize water or other liquids?
B46			Significantly change the slope or drainage pattern of a currently paved area?
B47			An increase of flow (volume) of water sent to the existing clarifiers at the airport?
B48			An increase of flow (volume) of water sent to the sanitary sewer?
B49			The generation of wastewater with >10% hydrocarbons, flammable substances, toxic substances, pH less than 6 or greater than 12, viscous materials, or pesticides?
B50			Installation of a new clarifier or grease trap?
B51			Installation of a new car wash?
B52			Construction or installation of waste water treatment systems or equipment?
B53			Alteration of the existing sanitary sewer system?
Land Use and Planning			
	Yes	**No**	**Will the project include, involve, or result in:**
B54			A conflict with an established land use plan?
Noise			
	Yes	**No**	**Will the project include, involve, or result in:**
B55			Involve increased aircraft traffic or a change in flight patterns?
B56			Installation of mechanical equipment near airport passengers or employees?
Population and Housing			
	Yes	**No**	**Will the project include, involve, or result in:**
B57			Disturbance of residential areas adjacent to the airport?
Public Services			
	Yes	**No**	**Will the project include, involve, or result in:**
B58			An increased need for emergency services (police, fire, medical)?
Transportation and Traffic			
	Yes	**No**	**Will the project include, involve, or result in:**
B59			A significant change in air traffic?
B60			Construction of new or demolition or alteration of existing roadways within or adjacent to the airport?
B61			An increase in truck traffic in excess of 200 round-trip truck trips per day?
B62			An increase in passenger vehicle traffic in excess of 500 round-trip passenger vehicle trips per day?
Utilities and Service Systems			
	Yes	**No**	**Will the project include, involve, or result in:**
B63			An increase in water usage of 10,000 gallons per day or more?
B64			A significant increase in solid waste generation?

17.01 Sustainability

A. Introduction

All projects with the Ontario International Airport Authority (OIAA) are subject to various sustainability requirements.

B. Contact Information

OIAA Environmental Group
Phone: (909) 544-5169
Email: stormwaterOIAA@altaenviron.com

C. Process Overview

Projects are subject to various sustainability requirements, including but not limited to the following:

1. 2016 California Green Buildings Standards Code (CalGreen).

2. The California State Water Resources Control Board and the San Bernardino County Storm Sewer System Permit (MS4) requires all priority projects (new development and significant redevelopment projects) to incorporate the following:

    a. Water Quality Management Plan (WQMP) in compliance with the regional MS4 Permit and Statewide General Construction Permit.

    b. Storm Water Pollution Prevention Plan (SWPPP) in compliance with the regional MS4 Permit and Statewide General Construction Permit.

    For further information on Stormwater permitting requirements, please refer to section *2.03, Stormwater Mitigation.*

    Priority projects include the following:

Category No.	Project Type
1	All significant re-development1 projects - defined as the addition or replacement of 5,000 or more square feet (sq. ft) of impervious surface on an already developed site subject to discretionary approval of the permitting jurisdiction. In addition: Re-development does not include: Routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where re-development results in an increase of less than 50% of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed in Section 4 applies only to the addition or replacement, and not to the entire developed site.

	Where re-development results in an increase of 50% or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria discussed in Section 4 applies to the entire development.
2	New development projects that create 10,000 sq. ft. or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions or townhomes, condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public and private land, which fall under the planning and building authority of the permitting jurisdiction.
3	New development or significant re-development1 of automotive repair shops (with SIC2 Codes 5013, 5014, 5541, 7532-7534, 7536-7539) where the project creates, adds and/or replaces 5,000 square feet or more of impervious surface.
4	New development or significant re-development1 of restaurants (with SIC2 Code 5812) where the land area of development is 5,000 sq. ft. or more.
5	All hillside developments of 5,000 sq. ft. or more which are located on areas with known erosive soil conditions or where the natural slope is 25% or more.
6	Developments of 2,500 sq. ft. of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas or waterbodies listed on the CWA Section 303(d) list of impaired waters (3).
7	Parking lots of 5,000 sq. ft. or more exposed to stormwater. A parking lot is defined as land area or facility for the temporary parking or storage of motor vehicles.
8	New development or significant re-development1 of Retail Gasoline Outlets that are either 5,000 sq. ft. or more, or have a projected average daily traffic of 100 or more vehicles per day.
Non-Priority / Non-Category Projects may be required by the local jurisdiction to implement applicable site design LID and LIP requirements.	

3. The City of Ontario requires all non-residential buildings, new residential structures 3 stories or less, and demolition/renovation/tenant improvement permit applicants with projects whose value equals $100,000 or more to prepare a Construction & Demolition Recycling Plan and a Construction & Demolition Recycling Plan Summary Report.

4. Projects that trigger a discretionary action and environmental review under the California Environmental Quality Act (CEQA) have mitigation measures that may be applicable are listed in the project's Mitigation Monitoring and Reporting Program (MMRP) or are mitigations or commitments within the Environmental Impact Report resulting in project specific mitigations.

5. The Occupational Safety & Health Administration (OSHA) hazard communication standard, also known as the "employee right-to-know" standard, is found at 29 CFR 1910.1200 of the general industry standards and incorporated into the construction standards at 29 CFR 1926.59. HCS was developed to protect employees from exposure to hazardous products and chemicals. This standard requires all employers to develop a written program addressing labeling and warning requirements, material safety data sheets (MSDSs) and employee training on hazardous materials. The standard also requires employers to develop and maintain a list of all hazardous substances in the workplace and inform the employees of the hazards related to nonroutine tasks. See *Attachment 17.01-A, OIAA Best Management Practices Chemical Inventory Form*.

D. WEBSITE LINKS

1. City of Ontario Environmental Services:
   https://www.ontarioca.gov/engineering/environmental-services

2. City of Ontario Preliminary Water Quality Management Plan (PWQMP)
   https://www.ontarioca.gov/sites/default/files/Ontario-Files/Engineering/environmental-services/preliminary_wqmp.docx

3. City of Ontario Construction & Demolition Recycling
   https://www.ontarioca.gov/omuc/integrated-waste/construction-demolition-recycling

E. ATTACHMENTS

17.01-A: OIAA Best Management Practices Chemical Inventory Form

ONTARIO INTERNATIONAL AIRPORT
STORED MATERIALS - BEST MANAGEMENT PRACTICES (BMP)
CHEMICAL INVENTORY

Project Name: ______________________________

Project Address: ______________________________

A. Used On-Site?		Chemical	Quantity/Units	**B.** Stored on Site?			**C.** Secondary Containment Present?			**D.** Contact with Discharges?		
Yes	No			Inside	Out Covered	Out Uncovered	Yes	No	N/A	Yes	No	N/A
☐	☐	Acids		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Anti-freeze		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	AV Gas		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Brake Fluids		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Concrete Materials		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Caustic Solution		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Degreasers		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Deodorizing Solution		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Diesel		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Engine Oil		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Fertilizer		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Foaming Agent (AFFF)		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Freon		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Fuel Additive		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Fungicide		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Gasoline		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Grease		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	H2O Treatment Chemicals		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Hydraulic Fluids		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Isopropyl Alcohol		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Jet A		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Motor Oil		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Nutrient		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Oily Rags		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Paint		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Pesticide		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Herbicide		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Propylene Glycol (Deicing)		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Soap		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Solvents		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Transmission Fluids		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Turbine Oil		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Absorbent		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Anti-freeze		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Fuel		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Hydraulics		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Oil		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Oil Filters		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Paint		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Waste Solvents		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	Other:		☐	☐	☐	☐	☐	☐	☐	☐	☐

January 2019

Design & Construction Handbook

18.00 As-Built, CADD, and BIM Standards

ONTARIO INTERNATIONAL AIRPORT

18.00 As-Built, CADD, & BIM Standards

A. Introduction

The Ontario International Airport Authority (OIAA) receives and distributes many documents relating to past and on-going projects. In order to properly process and manage a high volume of documentation, the OIAA has established set procedures to request and submit as-built drawings. The OIAA maintains a standard for Computer-Aided Design and Drafting (CADD) and Building Information Modeling (BIM) files to ensure consistency and quality across projects.

B. Contact Information

For questions or information needed in relation to as-builts, CADD, and/or BIM standards, please contact the designated OIAA Owner's Representative assigned to the project.

C. As-Built Request and Submission Procedure

Submitting As-Built Documents

1. Contractor is responsible for sending all as-built drawings via email to the OIAA via Owner's Representative by the date specified in contract documents. The Contractor shall provide both the DWG file as well as the PDF file. Should the file size of the as-built documents be too large, the Contractor shall email the OIAA a link to a collaborative tool such as Dropbox.

2. Contractor shall submit as-built drawings electronically to designated Owner's Representative. OIAA will not accept hard-copies of as-built drawings.

3. Contractor shall attach the transmittal form, found in *Attachment 2.05-A OIAA Transmittal Form*, when sending any documentation to the Owner's Representative.

Requesting As-Built Documents

1. To request as-built documents, Contractor shall send the attached As-Built Request Form, found in *Attachment 18.00-A As-Built Request Form*, to the Owner's Representative.

2. Unless otherwise stated, the OIAA shall provide a response to the request within seven (7) working days.

D. CADD Standards

1. Contractor shall follow the CADD standards as stated in the Contract documents. Unless otherwise specified, AutoCAD files shall follow industry standards on drawing organization, layer management, and sheet naming convention.

2. Unless stated otherwise in Contract documents, AutoCAD files shall be created in AutoCAD 2018.

3. Contractor shall use OIAA standard border and title block found in *Attachment 18.00-B OIAA AutoCAD Border and Title Block* on all drawings.

4. Contractor is responsible for sending all AutoCAD files in DWG and PDF format to the OIAA Owner's Representative by the date specified in Contract documents.

E. BIM STANDARDS

BIM Standards to be updated on a later date.

F. WEBSITE LINKS

Not applicable.

G. ATTACHMENTS

18.00-A OIAA As-Built Request Form
18.00-B OIAA AutoCAD Border and Title Block

ONTARIO INTERNATIONAL AIRPORT

AS-BUILT REQUEST FORM

Requestor _____ Date _____

_____ Project _____

_____

Attention _____

Subject _____

Request for the following:

Drawing Name/Number	Document Type	Airport Feature	Latitude	Longitude	Description


SAMPLE
ONT
ONTARIO
1923 E. AVION ST
ONTARIO, CA 91761
(909) 544-5353
M.O.C. = 0.09°W AUG 2018
TRUE NORTH
0
50
100
THESE DRAWINGS ARE ATTACHMENT 3(g) AS REFERENCED IN THE PROJECT SPECIFICATIONS.
REVISION NO
ENGINEER SEAL
CONSULTANT PROJECT NO.:
ONTARIO OIAA PROJECT NUMBER
2019_____
SHEET TITLE
COVER SHEET
ACCEPTED BY KEITH G OWENS, P.E., DIRECTOR OF PROGRAM MANAGEMENT
CHECKED: INITIALS
DESIGNED: INITIALS
DRAWN: INITIALS
PROJECT NAME:
00.00
00.00
DATE
MM/DD/YYYY
SHEET NUMBER
1 OF #
DWG NO.
G-001

January 2019

Design & Construction Handbook

19.00 Design Standards

ONTARIO INTERNATIONAL AIRPORT

19.00 Design Standards

A. Introduction

The design standards are a set of recommended design guidelines to be used by architects, engineers, consultants, and contractors in the design and construction of new facilities, tenant improvement projects, and/or remodeling projects for the Ontario International Airport Authority (OIAA). These standards are a compilation of general design and construction practices that are already in place as well as recent discoveries that should be implemented throughout the facilities to maximize the performance of existing systems, minimize maintenance costs, and improve the passenger experience.

B. Contact Information

1. For information or questions please contact the OIAA Owner's Representative assigned to the project.

2. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

C. Process Overview

1. All architects, engineers, designers, consultants, and contractors are expected to review the OIAA Design Standards and incorporate such standards into the applicable design stages of a project.

2. All architects, engineers, designers, consultants, and contractors and are encouraged to propose innovative and cost-effective variations that meet and/or exceed the standards.

3. Any deviation from the OIAA design standards shall be brought to the attention of the OIAA Owner's Representative. The Contractor must receive written approval from the OIAA prior to incorporation into the project.

4. Contractors are responsible to perform all work in compliance with OIAA and OSHA safety standards. Please refer to section *16.00, Safety Program & Cal/OSHA Requirements*.

D. Website Links

Not applicable.

E. ATTACHMENTS

19.00-A: Electrical Design Standards
19.00-B: Mechanical Design Standards
19.00-C: Mechanical Equipment Standards
19.00-D: Plumbing Design Standards
19.00-E: Plumbing Equipment Standards
19.00-F: Fire Protection Equipment Standards
19.00-G: Structural Design Standards

19.00-A Electrical Design Standards

1.1 GOALS

The goal of this section is to provide guidance for all electrical work at ONT. General design requirements of note include Notes to the Design Team, Codes and Regulatory Agencies, and Design Submittals.

1.2 GENERAL REQUIREMENTS

A. All electrical rooms shall be provided with Access Control & Alarm Monitoring Systems (ACAMS) in addition to manual key access. Contractor shall coordinate with ON-TEC.

1.3 POWER DISTRIBUTION SYSTEM

A. System Type

1. The main service at each building shall be 5,000amp, 277/480V – 3 phase, 4 wire. The switchboard shall be a double-ended arrangement with a normally open tie-breaker and metering compartments complying with Southern California Edison requirements. Each end is fed from a separate Southern California Edison transformer/circuit for redundancy and reliability. The main circuit breakers and the tie-breaker shall all be rated at 5000A. The system shall provide 100% redundancy and the total electrical load for the building shall be less than 5000A. If the connected load for a building exceeds 5000A, then provide a load-shedding scheme to allow one service to serve the entire electrical load through the closed tie- breaker. The load shedding scheme may be a manual type utilizing kirk-key interlocks on the breakers.

B. Main Electrical Room

1. The Main Electrical Room shall be adjacent (common wall) to the Southern California Edison Utility Vault. Do not route unprotected service conductors through the building. Provide 5000A busway for the service entrance from the Southern California Edison vault to the main switchgear. Route busways separate directions into Southern California Edison vault and maintain distance between the two busways for safety and reliability. Piping unrelated to the function of the main electrical room is not permitted. The use of protection methods against condensation, leaks or breaks in piping is not permitted to justify unrelated piping in main electrical rooms. The Main Electrical Room shall be dedicated solely to electrical equipment except that required HVAC and Fire Protection serving the specific room is allowed.

C. Utilization Voltage

1. The building distribution system shall be a radial type. Where possible the utilization equipment shall be served at 277/480V including lighting, mechanical equipment and any other equipment specified by ONT. Provide 120/208V transformers and distribution gear for other devices and equipment.

D. Short Circuit/Arc Flash

1. Provide an Overcurrent Protection Device Coordination Study and Arc Flash Study that includes all existing and new equipment. The Study can be provided by the Contractor. All electrical panels shall have a fault rating equal to at least 130% of the available fault current. All equipment must be fully rated. Series ratings are not allowed.

E. Segregation of Power

1. Power to tenants varies in each building. Some buildings have separate Southern California Edison meters for tenants and for ONT and some do not separate the service. Contractor shall verify the requirements with ONT. Concessions, however, shall be separated from other power. The Concessions branch provides power to all concessionaires. The Concessions branch will have dedicated distribution all the way from the Main Service Switchboard. Where the separation of branches does not exist, each major renovation will require establishment of branches for the renovated area. Minor renovations require that only distribution within the project area will require separation.

F. Equipment Rooms

1. All electrical distribution equipment shall be in dedicated electrical rooms. Rooms shall be dedicated solely to electrical equipment except that required HVAC and Fire Protection serving the specific room is allowed. Electrical rooms shall not be located beneath areas where water service is provided (e.g. open courtyards, toilets). Piping unrelated to the function of electrical rooms is not permitted. The use of protection methods against condensation, leaks or breaks in piping is not permitted to justify unrelated piping in electrical rooms. Each room, regardless of size, shall have exposed grounding bars installed along walls for ease of equipment grounding. Provide additional space in all rooms to allow the addition of one future section for all switchboards. Provide the additional space so the future section can be added to either side of the switchboards. Designate all conduit entry points and routing paths within the equipment rooms to verify that future loads can be served from the panels in the rooms. Switchgear, switchboards, panelboards and motor control centers shall have adequate vertical wireways to serve spares circuit breakers or spaces for future circuit breakers. Spaces shall be designed to allow maintenance equipment access, to facilitate equipment replacement without significant demolition & reconstruction. Provide accessible route or space for portable crane to replace or maintain electrical equipment. All free-standing electrical equipment require space to provide one additional section (both sides); outline on the plans as "future space: do not block".

G. Emergency & Standby Power

1. Only equipment related to fire/life-safety shall be connected to the emergency power distribution system. Review telecom/IT design guidelines for emergency & standby power requirements; any variances to be approved by OIAA. Other tenant related loads that are not fire/life-safety shall be supplied by a tenant provided standby power source. Any tenant provided systems shall utilize batteries as a source. Concessions spaces and Passenger Boarding Bridges may utilize battery units for all required emergency power sources including any life-safety/egress lighting. The emergency power system shall be fed from an on-site diesel driven emergency generator set through automatic transfer switch(es). Generators shall be equipped with an active diesel particulate filter compliant with current SCAQMD and CARB emissions standards for a major source facility. Generator emission control devices shall meet SCAQMD, CARB and EPA emission tier standards at the time of installation. Generators must

utilize sub-base fuel oil tanks. Underground or separate above ground tanks are not allowed.

H. Single line

1. Draw "top/down" with levels/room no.'s/grid lines, identify (split-bus/smart) panels required for title 24 compliance, separate normal/emergency power sheets, additionally include feeder/branch lengths & voltage drop & kaic/afc available at distribution equipment & transformers.

2. Additionally, include simplified single line diagrams for normal & emergency/standby power:

   a. Illustrating distribution board names & the associated BUILDING-SYSTEM/ELECTRICAL LOAD TYPE they support (e.g. "3S4BL1 - LIGHTING").
   b. Include a connected Load Summary categorized by BUILDING-SYSTEMS/ELECTRICAL LOAD TYPES (e.g. "LIGHTING – 40KW).

1.4 EQUIPMENT

A. General

1. Manufacturers: For standardization purposes on new construction all panelboards, switchboards, switchgear, and transformers shall be limited to General Electric, Square D and Eaton.

2. Seismic Criteria: All equipment, major components and anchorage must be certified to meet all seismic requirements of the Code.

3. Certification: Contractor to coordinate appropriate certifications and numbering with ONT-TEC.

4. OIAA requires a unique system of identification for all conduits, feeders, wiring, enclosures, devices, panels and equipment. Refer to Guide Specifications for complete details.

5. No electrical equipment shall be installed in Custodial Rooms, Restrooms, Nursing Rooms, and Pet Relief Rooms.

B. Main Switchgear

1. Main switchgear (gear fed directly from Southern California Edison transformers) shall be metal-enclosed switchgear utilizing insulated case draw-out type circuit breakers for long-term maintenance and reliability. Provide breakers with metering capability compatible with the electrical submetering system. Provide sufficient switchgear sections to allow enough conduit entry space to accommodate all feeders including feeders for future sections. Main Service switchgear shall be rated NOT less than 100 kaic.

C. Distribution Switchboards/Panelboards

1. Panels rated greater than 800A shall be switchboards. Panels 800A or less shall be distribution panelboards. All boards shall utilize full-length copper bussing with full- size neutrals. Circuit breakers may be group mounted molded case circuit breakers. Fused switch assemblies are not allowed. Circuit breakers in switchboards shall be electronic trip type breakers. Provide 20% spare fully bussed space in all boards. All boards shall

be fully rated for 130% of the available short circuit fault current. All devices must be fully rated. Series-rating of breakers is not allowed. Provide sufficient sections to allow enough conduit entry space to accommodate all feeders including feeders for future sections.

D. Raceways and Enclosures:

1. Definitions:

a. Outdoor Locations: Locations directly exposed to weather, including under building overhangs.
b. Wet Locations: Unprotected locations exposed to weather or subject to saturation with water or in direct contact with concrete, masonry or earth.
c. Damp Locations:
(1) Locations protected from weather, not subject to saturation with water. Covered locations with open sides that are subject to wind-driven rain shall be considered damp.
(2) Areas below the soffit/header line and within 10' of a wet location shall be considered damp locations.
d. Dry Locations:
(1) Locations not normally subject to dampness or wetness.
(2) Areas above the soffit/header line or greater than 10' from a wet location shall be considered dry locations.

2. Raceways:

a. Outdoor Locations: Use Galvanized Rigid Steel.
b. Wet and Damp Locations: Use Galvanized Rigid Steel.
c. Dry Locations: Zinc Plated EMT or Galvanized Rigid Steel is allowed in all locations.
d. Where Subject to Physical Damage: Use Galvanized Rigid Steel
e. Tug Routes, bag tug areas and other drive aisles:
(1) Above the tallest vehicle, tug, cart, trailer, etc., use Zinc Plated EMT, unless area is defined as Damp or Wet.
(2) Below the tallest vehicle, tug, cart, trailer, etc., use Galvanized Rigid Steel.
f. Type MC Cable, Romex, or aluminum conduits are not allowed.
g. Flexible Conduits: Use flexible steel conduits for termination to equipment.

3. Enclosures at ONT:

a. Due to highly the corrosive exterior environment at ONT, for all outdoor electrical enclosures, including switchboards / panelboards, use NEMA Type 4 or NEMA Type 3R stainless steel gasketed enclosures. Top entry conduits to switchgear, switchboards, distribution panelboards and outdoor enclosures shall not be allowed. See Specification Section 26 05 02 for additional information.

4. All conductors shall be routed in raceways (e.g. plenum rated cables not acceptable).

1.5 METERING

A. Utility (Southern California Edison) metering varies in each building. Confirm the metering arrangement with OIAA. Must be compatible to BAS.

B. Provide Submeters for:

1. Concessions as per lease agreement;

2. Electrical loads as per OIAA Sub-metering Policy;

3. Any major electrical loads not covered by lease agreement or OIAA Sub-metering Policy.

C. Provide methods, materials, & services required for meter(s) compatible integration with power monitoring control system, network lighting control system, building automation system & Terminal BMS.

1. Consolidate meters as much as possible in multi-meter enclosures within electrical rooms.

1.6 LIGHTING

A. General

1. Lighting fixtures and design shall provide the lighting levels, visual comfort, color rendering and aesthetics to complement the area where it is installed. Lighting of public areas is especially important to OIAA and all lighting design in public areas shall be approved by OIAA prior to submitting documents for plan check. All lighting shall be installed in areas accessible by ladder or lift for ease of maintenance.

B. Lamp Sources

1. All lighting design shall be as energy efficient as possible and shall comply with the latest Title 24 requirements. Dimmable LED's shall be required in lieu of fluorescent luminaires utilizing the appropriate color temperatures; provide consistent color temperature (tight binning), high CRI (85+), and rated life>50,000 hours. Where necessary provide pulse-start metal halide HID sources.

C. Lighting Controls

1. Provide a complete programmable system allowing for daylight harvesting, DMX-512 fixture control, and interfacing with Building Automation Control system in accordance with Title 24 guidelines. Provide distributed or centralized relay network control utilizing Cat 5 network cabling, routers, bridges, control devices and fixtures for a fully addressable control system. The lighting control system shall be programmable for individual fixtures or zones and shall annunciate at the BAS Workstation location. All lighting controls shall be from same manufacturer.

2. Lighting controls shall be located in ONT Electrical rooms or closets that are accessible to OIAA Personnel without causing interruption to tenants. Lighting controls shall not be located in ceilings, on office space walls or in tenant spaces not accessible to OIAA.

1.7 RENOVATION / REMODEL WORK

A. Generally, all equipment and devices within the limits of the renovation must be completely removed. All wiring must be removed back to the last active device even if it resides outside the limits of the remodel/demolition. For branch wiring this is to the last receptacle, switch or other device remaining in service. Additionally, all branch circuit breakers within boards rated 208/120V 225A & below shall be removed when abandoned & replaced with breaker filler plate. If the wiring is a feeder serving only the removed equipment, then the feeder must be removed all the way back to the serving electrical panel regardless of the serving panel location. All conduits within the limits of the remodel must be removed. Conduits can be cut off at the limits of the renovation and the conduit outside the limits of remodel can be abandoned in place and identified as "abandoned".

B. If new conduit runs are placed on existing conduit racks, then the existing racks within the remodel area must be modified to meet current Codes and Standards. If conduit runs that pass through the remodel area are to remain then those racks within the remodel area must be modified to meet current Codes and Standards. Reuse of an existing conduit requires that the entire conduit run be modified to meet current Codes and Standards including those portions outside the remodel area.

C. Power Shutdown: Refer to the OIAA Power Shutdown Requirements.

D. New buildings & renovations shall obtain worst case scenario Southern California Edison fault current for use in design calculations.

E. Electrical distribution shall be designed based on GEOGRAPHY & FUNCTION:

1. Concourse & ticketing buildings may each have a North, South, East, West dedicated electrical distribution equipment (e.g. North/South "core", East/West concourse).

2. Functions unique to the airport, large in magnitude of load, or common to many areas may have a dedicated electrical infrastructure (e.g. concessions, I.T., aircraft systems, BHS, etc.)

1.8 EMERGENCY & STANDBY POWER PERFORMANCE

A. Planning Narrative

1. Clarify impact to airport systems as a result of loss of normal power to project scope of work (SOW).

2. Provide written description of code-required-emergency & standby backup power requirements.

a. Clarify how strategies employed meet requirements.

3. Compare & contrast airport system(s) performance under normal power vs. short & long-term loss of normal power noting any system performance unavailable during loss of normal power. It is acceptable to provide a matrix of Airport Systems & backup source type(s) & associated run time(s).

B. Sequence of Operations

1. Provide sequence with all parameters & set points (e.g. trigger values/conditions, priorities, set points relating to automatic methods of operation, & load shedding).

C. Airport Systems

1. Systems include, but are not limited to, the following: Code required Fire, Life & Safety Systems; Public Safety & Security; Basic Functionality & Operations; Circulation & Conveyance; Passenger Processing; Baggage Handling & Processing; Information & Communication (See Division 27 & 28); Amenities; Airside/Aircraft Interface; Landside Interface; Support Spaces; Mechanical/exhaust systems; & Plumbing systems.

1.9 POWER QUALITY

A. Surge Suppression Devices (SPD) shall be applied to the following equipment & systems:

1. Distribution equipment directly fed by Southern California Edison (for all incoming utility feeds).

2. Distribution equipment for all IT, ticket counters & gates, BHS, Aircraft systems

(400Hz, PBB, & PC Air), CTX, elevators & escalators.

B. BHS feeder breakers shall be electronic trip breakers with separately adjustable Long time, Short time, Instantaneous and Ground fault tripping (LSIG) & coordinated to clear fault at point at closest point to failure.

C. Voltage Sag Immunity

1. The following equipment & systems shall comply with the recommended voltage-sag immunity levels to "FULL OPERATION" as described in Section 5.3 of the most recent version of *IEEE Std. P1668™ Recommended Practice for Voltage Sag and Short Interruption Ride-Through Testing for End-Use Electrical Equipment Rated Less than 1000 V.*

a. Elevators, escalators, moving walkways,
   (1) Additionally, coordinate with DIV 14 – CONVEYING EQUIPMENT
b. Baggage Handling Systems (BHS),
c. Information Technology (I.T.) equipment & systems
d. Any other equipment used in those operations which are critical for the normal and efficient processing of passengers and baggage into and out of ONT, and with regard to ensuring good passenger experience.

2. The manufacturer shall be responsible for & provide documentation of testing & verification of acceptability in accordance with the procedures as outlined in the most recent version of standard IEEE 1668.

a. Testing & verification of acceptability shall be completed prior to the first scheduled shipment of new products to OIAA.
   (1) Manufacturer must clearly document the test method and test equipment used for creating voltage sags per Annex C of IEEE 1668-2017.

EXCEPTION No. 1: Testing shall not be required if manufacturer has conducted the required testing before and can provide a test report to prove compliance; subject to OIAA approval. EXCEPTION No. 2: Other industry-recognized standards may be submitted in lieu of IEEE 1668- 2017. OIAA shall review & approve standard as a satisfactory alternative. It shall be sole financial, technical & legal responsibility of requesting party to produce all information required for OIAA review.
EXCEPTION No. 3: Project may instead demonstrate (with tests and or documentation similar that described above) the intent of IEEE 1668-2017 compliance by providing external equipment or alternative operation that will ensure that equipment ride-through during voltages sags and short interruptions. OIAA shall approve if this is a satisfactory alternative.

3. Small scale "battery-less" power conditioning technologies shall be required in complying with most recent version of IEEE 1668. Acceptable "battery-less" solutions include, but are not limited to, the following:

a. Dynamic Sag Correctors (e.g. Rockwell Mini DySC)
b. Constant Voltage Transformers (e.g. Sola Manufacturing)
c. Relay & contactor ride-through technologies
d. DC Buffer Modules to store energy on DC circuits

EXCEPTION No. 1: It is acceptable to provide battery-based UPS systems where already called for in OIAA DCH DIVISIONS 27, 28 & Emergency Egress Fire-Life-Safety (FLS) systems.

1.10 TITLE 24 ENERGY EFFICIENCY STANDARDS FOR NONRESIDENTIAL BUILDINGS

A. Title 24 SOLAR ZONES shall be physically identified & protected in the field (e.g. "SOLAR ZONE: DO NOT BLOCK").

B. All Power distribution shall be designed per Title 24 table 130.5-B "Services rated more than 1000 kVA".

1. Additionally, provide for disaggregation of loads that are unique to OIAA (e.g. Baggage Handling & Aircraft Systems).

2. Provide equipment to allow monitoring & control of aforementioned disaggregated loads. Monitoring/control methods & materials shall interface & be compatible with OIAA BAS/PMCS/FMCS systems.

C. Electrical drawings to include electrical load calculations.

1. See "TITLE 24 ELECTRICAL LOAD CALCULATIONS"

2. Estimates are acceptable at various stages of design when the load or quantity has not been indicated on drawings or specs (e.g. lighting). Document shall be updated to reflect installed load when quantity & load have been determined (e.g. such as from a submittal).

1.11 ELECTRICAL VEHICLE SUPPLY EQUIPMENT (EVSE)

A. System Type

1. All new facilities equipped with parking shall provide EVSE per California Green Building Code. Additionally, provisions for future expandability shall be provided such that 10% of parking may be equipped with EVSE.

2. EVSE shall be UL listed, rated for outdoor use. All EVSE to be hardwired; cord and plug is not acceptable.

3. EVSE shall be installed such that public long-term parking and majority of fleet is accommodated by LEVEL 1 charging. Level 2 charging shall be provided in public short-term parking. Design for EVSE to share more than one parking space should be considered.

B. EVSE Sources

1. New parking lots shall provide separate utility revenue meter dedicated to EVSE in order to qualify for Time of Use (TOU) metering and utility rate discounts.

2. New EVSE installations in existing parking lots shall be limited to 200A. Installations shall include a meter safety socket approved by utility for a statistical meter. Panels feeding EVSE shall be dedicated to EV only; No other loads shall be connected.

C. EVSE Labeling

1. All EVSE shall be provided with the following labeling:

a. Printed label with a unique identifying number. Number will identify parking lot and EVSE number.
b. Printed label identifying source panel and circuit number.

2. All panelboards and meter safety sockets feeding EVSE systems shall have the following labeling:

   a. Printed label indicating service address, panelboard name, service type (voltage, phase, wire), and service size (Amps).
   b. Printed label reading "Dedicated to EV charging only; other loads must not be connected".

3. EV Parking stalls shall be provided with signage/markings indicating stall is dedicated for EV charging.

END OF SECTION

19.00-B Mechanical Design Standards

1.1 GOALS

A. The goal of this section is to provide guidance in the design of Mechanical HVAC systems to OIAA standards. The ONT Mechanical Design Standards are a compilation of general design and construction practices that are already in place in our facilities, as well as recent discoveries that should be implemented throughout the facilities to maximize the performance of existing systems, minimize maintenance costs and improve the travelling public's experience. These standards are by no means an exhaustive description of all items practiced in our facilities; however, this document does present Is standards for most of the major mechanical systems. If any discrepancy is found between these standards and the OIAA Design & Construction Handbook, the more restrictive standards shall take precedence.

1.2 GENERAL

A. Design Requirements

1. All systems and equipment shall comply with applicable building and mechanical codes, OIAA criteria, and the scope of project work.
2. Provide design, engineering, permits, installation, start-up, testing, adjusting, balancing, and commissioning of complete HVAC, plumbing and fire protection systems. The Contractor shall review all the documents and comply with the requirements.
3. Address the presence of hazardous materials. There is a high probability that portions of the existing HVAC systems, piping, insulation and the like may contain lead based-paint, asbestos containing materials (ACMs) and/or other materials classified as toxic or hazardous by OIAA, State or Federal regulations. The Contractor, and the Contractor's designer, must include the impact and abatement of hazardous materials on this project.
4. Designs shall utilize systems and products that are/have:
    a. Long-life, industrial quality.
    b. Readily-available products and components with service support available.
    c. Maintainable arrangements with multiple units.
    d. Readily available spare parts and materials that incorporate multiple equipment elements in key systems that can be provided for reduced capacity operation when portions are down for maintenance or failure.
5. The Design Consultant/Contractor shall perform a quality control review of all documents for completeness, constructability and coordination with all building trades.
6. Large Equipment Installation Sequencing:
    a. In conjunction with other design disciplines, provide the necessary scheduling,

sequencing, movement and positioning of large equipment into the building during construction, including provisions for temporary removal/replacement of existing building components.

7. Equipment Protection and System Protection:

   a. Project specifications shall clearly indicate that all equipment and systems intended for a project shall be properly protected from damage, corrosion and weather during shipment, in-transit storage, job-site storage, field/shop prep, installation and checkout until the work is accepted by OIAA. Ends of piping, valves and fittings shall be protected from abuse and the entry of moisture. Electrical equipment controls and insulation shall be protected against moisture and water damage. OIAA may, at Contractor's risk and expense, disallow or reject the installation of previously approved equipment, if it is later determined to have deteriorated considerably during the Contractor's custody, such as during shipment, storage and/or installation.

8. Special and OIAA-Furnished Equipment:

   a. Special types of equipment, including OIAA-furnished and contractor-installed materials, shall be coordinated for correct rough-in and attachment requirements.

9. Special Support and Anchors:

   a. All equipment including piping supports, anchors, support guides, and pre-insulated versions thereof, which exerts force on the structure other than those forces produced by gravity, shall be designed to meet Code and detailed on the drawings and coordinated with structural engineer and appropriate fire protection drawings.

10. Maintenance Access and Clearance Requirements:

   a. Maintenance Access is defined as the unobstructed space required for maintenance personnel to get to the equipment with the necessary tools and perform routine maintenance and repair of equipment. Maintenance Access may be provided from the floor, equipment platform, catwalk, maintenance lift, ladder, etc., depending on the specific location. AC units, valves, fans, piping, pumps and other equipment shall be coordinated with building construction to provide a minimum 30"x30" access door for maintenance and repair, unless an approved exemption is obtained from ON-TEC and the OIAA Owners Representative. OIAA PDG and FTSD Management. Equipment, piping and ducts shall be coordinated with other engineering disciplines. Accessibility for maintenance and repair shall be demonstrated graphically in the drawings.
   b. AC units, valves, fans, piping, ducts, pumps and other equipment shall be reviewed for interferences that would prevent proper installation. Coordinate with ON-TEC and the building maintenance contractor JBT.
   c. AC units, valves, fans, piping, pumps and other equipment shall have a minimum of 30" clearance on all sides, including above and below. Deviation from the code-mandated minimum 30" clearance and factory recommendations, whichever is greater, is not acceptable, unless an approved Exemption Request Form is obtained from ON-TEC. Clearance shall be demonstrated graphically in the drawings.
   d. Where feasible, all equipment shall be arranged for maximum maintenance access, while reserving space for future equipment and future uses. Ensure that all components and equipment are easily accessible for maintenance and

replacement. Coordinate with ON-TEC.

11. Access Panels:

    a. The following applies where the code does not restrict access panel locks. All access panels in public restrooms, nursing rooms and pet relief rooms shall be provided with a lock. In public spaces, wall access panels located at a height of 8'-0" and below shall be provided with a lock. Locks shall be operated with a master key.

12. Isolation Valves:

    a. Install valves to isolate each piece of equipment for maintenance and replacement requirements.
    b. Temporary Isolation Valves: The Contractor shall remove all temporary isolation valves installed for ease of construction upon project completion.

13. Utilities:

    a. Buildings or other structures shall not be constructed over existing or new utility lines except where such utility lines serve the buildings or structures. Utilities interfering with new construction shall be relocated as required. Where relocation is impractical, obtain an approved Exemption from ON-TEC.
    b. All utility lines and equipment proposed to be abandoned shall be demolished and removed. The Engineer/Contractor shall submit demolition drawings identifying the piping and equipment to be demolished and removed.
    c. All known and unknown utilities identified during construction shall be shown on the final record drawings, including the record digital data files.

14. Penetrations:

    a. Piping/utility and duct penetrations through floors, walls and roofs shall be coordinated and identified on the architectural and structural construction drawings. Proper cross-referencing between drawings shall be done. Details for protection of all penetrations of fire resistive construction are required on plans submitted for construction approval permit. Slab x-ray prior to core drilling in the terminals may be required.

15. All piping, conduits and ductwork shall be concealed from public view and protected from the weather, unless an approved Exemption is obtained from ON-TEC.

B. Drawings Requirements

1. Plan Coordination:

    a. Work shall be coordinated with all disciplines to ensure that size and location of all required chases, soffits, access panel requirements, etc., are indicated on the plans. All pipes larger than 6" shall be drawn as double lines. Duct layout larger than 6" diameter shall be drawn as double lines.

2. Sectional Views and Elevations:

    a. Sectional views and elevations that clearly define the details and space constraints shall be developed from floor plans included within the construction drawings. All equipment rooms shall have a minimum of two composite floor to ceiling sections with the cutting plane through the major axis that defines equipment sizes, and piping, and their relationship to architectural, structural and electrical installations. Identify the clearances necessary to perform preventive maintenance and space requirements for equipment

servicing/disassembly by dimensioning, noting and/or cross-hatching.

3. Pump & Fan Rooms:

   a. All equipment in Pump, Fan and miscellaneous mechanical rooms shall be designed and located to facilitate the removal, transport and replacement of the

      largest equipment component housed within the room. Room locations shall be depicted in plain view with expanded details shown by partial plans at a scale no less than 1/4" = 1' – 0".

4. Access to new and existing equipment, valves and other appurtenances:

   a. Drawings to include the following note with a text height not less than 1/4": "Contractor shall coordinate with Coordinate with ON-TEC and JBT Management to determine the location and clearance requirements of existing and new equipment, valves and other appurtenances within the limits of Work that will require access, maintenance or repair. Unless otherwise agreed upon in writing, provide minimum 30"x30" access door and a minimum of 30" clearance on all sides, including above and below. Deviation from the code-mandated minimum 30" clearance and factory recommendations, whichever is greater, is not acceptable, unless an approved Exemption Request Form is obtained from ON-TEC Management. The Work shall not restrict the ability to access, maintain or repair the existing or new equipment, valves and other appurtenances. Shop drawing shall accurately reflect access information."

5. Drawing to include the following note: "Contractor is responsible for providing identification for HVAC equipment, valves and other appurtenances when concealed in the ceiling. See Guide Specification section "22 05 53 – Identification for Plumbing Piping and Equipment", "23 05 23 – Identification for HVAC Piping and Equipment and 21 05 00 – Common Work Results for Fire Suppression."

6. Isolation Valves:

   a. Provide an isolation valve layout plan for the domestic cold water, domestic hot water, chilled water and heating hot water piping systems in the construction drawings to show the location of the valves.

7. Abandoned Utilities:

   a. Existing abandoned utility lines and equipment found during construction shall be demolished and removed to the limits of Work. Coordinate with Coordinate with ON-TEC and JBT Management.

8. Maintenance Access Temporary Signage:

   a. Temporary signage during construction noting maintenance access requirements shall be installed for ceiling mounted equipment such as VAVs, FCUs, etc., requiring maintenance access. Equipment and clearance requirements shall be coordinated with ON-TEC and JBT management during the design phase. Temporary signage attached to the equipment in bold letters, minimum 2" in height, shall note clearance requirements around the equipment and shall remain in place until final acceptance.

1.3 HEATING, VENTILATION & AIR CONDITIONING SYSTEMS

A. Submittals

1. Design Phase: A complete package of design calculations and information on the plans

shall be provided for review by OIAA. The calculations packages shall be completed in a bound and indexed format and shall be distributed with the final plans and specifications. Calculations shall be provided with whatever markings or notations that are needed to make them clearly understandable.

a. The following data and calculations are the minimum requirements for submission:
   (1) All calculations and designs.
   (2) Catalog cut sheets showing capacities and selection points for all equipment.
   (3) Heat and mass balances for all systems.
   (4) Pressure drop calculations.

2. Instrumentation design:

   a. Include flow diagrams, P&I diagrams, wiring diagrams, and catalog information on all equipment. Coordinate design with all vendor control packages to achieve sequences of operation.

3. Provide system schematics for chilled water, heating hot water, condensing water, water treatment and associated mechanical systems.

4. Provide an HVAC zoning diagram to indicate the areas being served by its designated AC unit.

5. Submit type of chemical water treatment system and approach proposed for chilled water and heating hot water systems, with sufficient literature to validate approach and technology, along with references from projects and users where system has been employed for at least one year. Specific emphasis should be given to successful treatment programs in connecting new hydronic systems to existing buildings.

6. Project specifications shall clearly indicate that the Contractor shall submit, as a minimum, the following to demonstrate compliance with these requirements.

   a. Shop drawings showing all the duct layout, piping, AC equipment, pumps, valves, and other equipment including piping accessories to complete the work.
   b. Describe phasing of project implementation and strategy.
   c. Manufacturer's product catalog.
   d. HVAC system air balance report.
   e. Copy of manufacturer equipment warranty documents shall be submitted during project closeout.
   f. Supplement, as appropriate, with graphic material to convey the design intent.
   g. Describe approach to commissioning of systems. Identify roles and responsibilities of key players.
   h. Training Schedule. OIAA to attend the equipment operations training. OIAA maintenance personnel shall be properly trained in the operation and maintenance of all installed HVAC system for minimum of 8 hours per shift (4 hours classroom training and 4 hours hands-on) prior to final acceptance by OIAA.

B. Design

1. All rooftop mechanical equipment shall be fully screened.

2. All HVAC packaged rooftop units larger than 5 tons shall have motors with Variable Frequency Drives (VFD). Maximum distance allowed between VFDs and motors served shall be in accordance with CEC and manufacturers application guidelines.

3. Provide minimum 30" or manufacturer's recommended space, whichever is greater, for a service access envelope around each AC unit, Air Handling Unit (AHU), Pump,

   Boiler, Fan, Cooling Tower, Heat Exchanger, VAV box, Fan coil, Fans and accessories for service in all dimensions.

4. Provide note on the plan that the bottom of the VAV box shall be located a maximum of 12 inches above ceiling for inspection and maintenance access to damper, coils, control panel, valves and other accessories.

5. Provide minimum of 30 inches clear space in front of VAV box and fan coil unit instrument and control panels for inspection and maintenance access.

6. All HVAC equipment, except VAV boxes, shall be provided with vibration isolators and seismic restraints unless otherwise noted per manufacturer recommendation.

7. No AHU shall be located outside of the designated Mechanical Room.

8. No AHU shall be located on the roof, unless approved by OIAA.

9. Mechanical equipment (VAV boxes, FCUs, controls, etc.) requiring maintenance serving the men's and women's public restrooms shall be located outside of the footprint of the restrooms.

   a. Public restrooms with supply air from a VAV with DDC connection shall be provided with a flush-mounted room temperature sensor with a blank stainless-steel cover plate. Otherwise, provide a lockable thermostat.
   b. Sensor or thermostat shall be located on the men's side of the restroom.

10. Public spaces with supply air from a VAV with DDC connection shall be provided with a flush-mounted room temperature sensor with a blank stainless-steel cover plate.

    a. Thermostats shall be installed at a height of 48 inches above floor finish, as allowed per code.

C. Calculations

1. Calculations and compliance documentation shall comply with California Title 24, Part 6 Energy Code. Provide detailed engineering calculations for all systems to confirm final sizes and equipment and system efficiencies and submit for approval by OIAA. Include the performance criteria, identifying minimum levels of the materials and workmanship quality.

2. Cooling and heating load calculations shall be per the ASHRAE method. Load calculations will also conform to the California Energy Commission T-24 calculations, including safety factors. Cooling and heating load calculations shall be provided in formal submittal format for review at the completion of the Design Development (DD).

3. Define occupant density per ASHRAE Standard 62 and the new Occupant Load Requirements per ON-TEC and JBT Management Team.

D. Testing, Adjusting, and Balancing

1. Project specifications shall clearly indicate the following:

   a. All installed HVAC systems shall be air and water balanced by a certified third-party balancing company approved by OIAA.
   b. Testing Agency:
      (1) Total System Balance shall be performed by the independent, non-affiliated Contractor, certified by the Associated Air Balance Council (AABC) or the National Environmental Balancing Bureau (NEBB).

Contractor shall specialize in the balancing and testing of the ventilating and air conditioning systems. Contractor shall be capable of balancing, adjustment, and testing of the air moving distribution systems, water and steam systems.

(2) Minimum of 5 years of Air Balancing and testing experience and proof of having successfully completed at least 5 projects of similar size and scope is required.

(3) All work shall comply with applicable procedures and standards published by the AABC or NEBB.

c. Test and Balance Reports

(1) The Test and Balance agency shall prepare and submit minimum of three (3) copies of the Test and Balance Analysis to OIAA within five (5) working days of completion. This report shall contain, at a minimum:

i. AABC or NEBB Certification credentials for the responsible Air Balance Company and all certified technicians, involved in the project.
ii. Project Summary and comments.
iii. Table of contents and test forms for all systems.
iv. Calibration certificates for all test equipment.
v. Drawings:
(a) Full scale single line schematic drawings showing the actual duct runs and outlet/inlet locations.
(b) Drawings shall be in the latest AutoCAD format.
vi. Copy of AABC or NEBB performance guaranty.
vii. Copy of data for all supply fans.
viii. Copy of data for the coils.
ix. Copy of data for the pumps.
x. Chilled Water Piping Balance Report
xi. Heating Water Piping Balance Report.

d. Guarantee

(1) Air Balance Testing agency shall provide an extended 1 Year warranty after completion of test and balance work for recheck or resetting of any outlet, supply air fan, VAV box, return/exhaust fan or pump as listed in test report.

E. Building Commissioning

1. Project Specifications shall clearly indicate the following:

a. That an independent certified Building Commissioning agent shall provide commissioning services.
b. Minimum guidelines of commissioning shall be per the latest ASHRAE "Guideline 0 The Commissioning Process" and ASHRAE "Guideline 1.1: HVAC&R Technical Requirements for The Commissioning Process".
c. All installed HVAC systems shall be commissioned prior to final acceptance by OIAA.

F. HVAC Piping

1. Equipment air vents: Schedule 40 black steel or Type L hard drawn copper pipe.

2. Piping Identification Markings and Color Codes: Piping and Duct Identification Markings and Color Codes shall be in accordance with ANSI A13.1 standard. Markings shall include arrows indicating direction of flow. Markings shall be installed at a

minimum of every 20' on straight runs where there are no visibility obstructions.

In areas where visibility of pipe or duct is obstructed, or numerous other pipes and ducts exist, markings shall be installed as approved to enable pipes and ducts to be easily traced along its entire path. Pipes shall be marked and color-coded.

3. Installation methods shall be in accordance to the latest edition of the Los Angeles Plumbing Code.

    a. No piping connections shall be made through hot tapping method unless an approved Exemption is obtained from the City of Ontario Building Department. Provide connections with standard tee fittings and reducers where hot tapping method is not used.
        (1) Prior to performing the work, piping connections made through hot tapping method or pipe freezing process to chilled water and heating hot water lines shall be approved as part of a City of Ontario Building Department Utility Shutdown Request.
    b. Victaulic fittings shall not be used in the heating hot water systems.
    c. Provide a brass ball valve and a 6" brass nipple at each location where the piping transitions from copper to steel. Dielectric fittings, flanges and unions shall NOT be used on any piping, except dielectric flanges may be used inside the mechanical and pump rooms. Additionally, dielectric unions MAY be used in natural gas piping at the meter and at the equipment connections.

4. Thermometers and pressure gages shall be provided on chilled and hot water supply and return lines at every Air Handling Unit.

5. Isolation valves

    a. Valves shall be provided on the supply and return lines at the point of entry to all buildings for all Heating Hot Water and Chilled Water distribution systems.
    b. Valves shall be provided on the main chilled water and heating hot water lines at every riser on each floor level.
    c. Valves shall be provided on the main horizontal chilled water and heating hot water lines at every 100 feet of main horizontal pipe, or fraction thereof, or at locations that divides the building into thirds, and as mutually agreed upon by the Contractor, ON-TEC and their building maintenance contractor JBT. Provisions shall be made to drain the line with a hose connection, in between isolation valves.
    d. Valves shall be provided at the equipment's connection to the chilled water and heating hot water piping.
    e. Where feasible, valves shall be accessible, within 12" of ceiling, for ease of maintenance, otherwise, access for maintenance shall be provided via a ladder, lift or other ON-TEC approved method and demonstrated graphically on the drawings.

6. Drain valves shall be provided at the low point of the chilled water and heating hot water systems. Drain piping shall be terminated at Code approved receptacle.

7. Air vents shall be provided at the high points of the chilled and heating hot water systems. Access for maintenance shall be provided via a ladder, lift or other ON-TEC approved method and demonstrated graphically on the drawings.

8. Pressure independent flow balancing valves shall be provided on the chilled and heating hot water main lines.

9. Condensate from HVAC equipment shall be gravity drained and discharged to a code

approved receptacle. The Contractor shall obtain permission from ON-TEC.

Management for installation of a condensate pump in the event that a gravity drain is either impractical or impossible. When permitted by ON-TEC Management to use condensate pump, it shall be interlocked with the HVAC equipment control system such that it will operate when the HVAC equipment is in operation.

a. Secondary condensate drain pans shall not exceed more than 2 inches of the footprint of the unit it serves, as to not obstruct the access clearance of the unit.

G. Mechanical Fan Room / Mechanical Storage Room / Pump Room

1. Only mechanical equipment shall be allowed in the Mechanical Fan Room, Mechanical Storage Room and Pump Room.
2. Mechanical rooms, mechanical storage rooms and pump rooms shall not be converted for lease space or similar unless approved by OIAA.
3. All Mechanical equipment rooms shall be adequately ventilated and provided with hose bibbs and floor drains and/or floor sinks.
4. All Mechanical equipment rooms shall have access to a freight elevator going to the level where the Mechanical room is located. There shall be a service path of four (4) feet minimum in width from the Mechanical equipment room to the freight elevator.
5. All Mechanical rooms are to have a pair of double doors consisting of a minimum of two (2) 36" wide doors. Larger doors may be required due to type of equipment in the room and shall be evaluated on a case by case basis.
6. All Mechanical rooms shall be provided with Access Control & Alarm Monitoring Systems (ACAMS) in addition to manual key access. ACAMS design and installation shall be per OIAA guide specifications "Access Control and Alarm Monitoring Systems (ACAMS)"; additionally coordinate with ON-TEC.
7. Mechanical rooms shall have a clear path of travel without any obstruction, including condensate piping and any other piping/ conduit.

H. Electrical Room

1. Provide a chilled water fan coil unit.
   a. Provide chilled water FCU manufactured by Carrier, Data-Aire or Compu-Aire. It includes a wall mounted microprocessor, dirty filter alarm, humidifier,

      disconnect switch, oversized evaporator fan motor, condensate pump and tank, as well as phenolic coating on the condenser coil.
2. Split system may be used with approved Exemption from ON-TEC Management during the design phase.
   a. Provide split system AC unit. It includes a wall mounted microprocessor, dirty filter alarm, humidifier, disconnect switch, oversized evaporator fan motor, condensate pump and tank, as well as phenolic coating on the condenser coil.
   b. Condenser unit shall be installed outdoors on minimum 4" high mounting pad, vibration isolator, and 10 mils phenolic baked exterior coating corrosion protection.
3. Interface the Electrical Room Air Conditioning equipment with the BAS for the remote status and alarm monitoring.

I. Elevator Machine Room

1. Provide a chilled water fan coil unit.

    a. Provide chilled water FCU manufactured by Carrier, Data-Aire or Compu-Aire. It includes a wall mounted microprocessor, dirty filter alarm, humidifier, disconnect switch, oversized evaporator fan motor, condensate pump and tank, as well as phenolic coating on the condenser coil.

2. Split systems may be used with approved Exemption from ON-TEC Management during the design phase.

    a. Provide split system AC unit. It includes a wall mounted microprocessor, dirty filter alarm, humidifier, electric reheat, disconnect switch, oversized evaporator fan motor, condensate pump and tank, as well as phenolic coating on the condenser coil.
    b. Condenser unit shall be on the roof, with minimum 4" mounting pad, vibration isolator, and 10 mils phenolic baked exterior coating corrosion protection.

3. Interface Elevator Machine Room Air Conditioning equipment with the BAS for the remote status and alarms monitoring.

J. General Exhaust

1. The toilet rooms and janitor closets shall be under negative pressure and interconnected where possible to common exhaust fans.

2. Each restroom and janitor room shall be provided with adequate exhaust ventilation at minimum of 15 air changes per hour. Make up air shall be provided by the HVAC system. Transfer air from above ceiling space or adjacent room not acceptable.

3. For all locations, other than restrooms, provide with a minimum six air changes per hour ventilation rate.

4. Interface Exhaust Fans with the BAS for remote status and alarm monitoring.

K. Boilers

1. Interface heating boilers with the BAS for remote status and alarm monitoring.

L. Air Side Design

1. Duct systems shall be designed with maximum velocities as follows:

    a. Supply Ductwork: 1900 feet per minute for main ductwork. Pressure drop of maximum 0.3-inch water gage per hundred feet for main ducts and maximum 0.1-inch water gage per hundred feet for ducts downstream of VAV boxes.
    b. Exhaust/Return Ductwork: 1800 feet per minute for main ductwork. Pressure drop of 0.10-inch water gage per hundred feet.
    c. Ductwork shall be fabricated for appropriate pressure class.

2. All occupied spaces shall meet room noise criteria (NC) of NC-35, except for conference and meeting rooms that shall be less than NC-30.

3. Within ceiling spaces, flexible duct shall be used to connect the supply air diffuser/ register to the rigid duct. Flexible duct shall not exceed seven (7) feet in length.

4. Manual volume dampers shall be provided for every supply air outlet. The damper shall be located on the branch line serving the supply air outlet at the take-off from the main duct. Manual volume dampers shall be accessible. Provide access opening to manual volume dampers located in areas with gypsum board ceiling with the identification streamer/tag in addition to Young regulator for remote operated manual volume dampers.

5. Select and schedule new VAV terminal units per OIAA's approval.
    a. All VAV terminal units shall be seismically braced without regard to the weight limit in the Code. VAV boxes shall be supported without regard to adjacent ductwork and must be self-supporting. VAV terminal units shall be designed to resist seismic forces in all directions. Tension-only bracing is not allowed; Compression struts are required. See Airport Structural Design Standards for additional information.
    b. Unit support for VAV terminal units shall be designed by a California licensed Civil or Structural Engineer.
    c. Unit support for VAV terminal units shall be submitted to OIAA for approval.
6. When the lease space is renovated, or remodeled, entire air distribution system shall be replaced, including the VAV boxes, ductwork, registers, grilles and diffusers.
7. When the lease space is renovated, new VAV boxes shall be provided with the new DDC controllers capable of being integrated into the BAS.
8. Existing ductwork
    a. In the event that the existing air distribution system within the renovated space is deemed to be in working condition, it needs to be cleaned by a third-party certified duct cleaner, within the area of work.
    b. Existing air distribution system shall be balanced according to the new air flow requirements.

M. Air Handling Units

1. Select and schedule proper equipment customized for the project requirements.
2. Coordinate design and placement of new equipment with architect and structural engineer.
3. Unit shall be mounted on minimum 4" high concrete platform or equipment roof curb with 2" deflection spring vibration isolators and seismic restraints. Where units are installed more than 18" above the roof surface, provide permanent access for operation, maintenance and repair of the AHU without use of portable ladders. Dimensions and loading requirements for platforms, stairways, fixed ladders, etc. shall be in accordance with applicable codes.
4. Exterior panels shall be minimum 20-gauge steel, pre-coated with minimum 6 mils topcoat phenolic baked coating over 4 mils epoxy primer for a total of 10 mils. Coating shall withstand 5,000 hours of salt spray per ASTM B-117. Coating shall be applied at the factory.
5. Refrigerant shall be R410a.
6. Design Conditions
    a. Outdoor Design:
        (1) Summer dry bulb design temperature (Fahrenheit): 91° F @ 0.1%.
        (2) Summer wet bulb design temperature (Fahrenheit): 71° F@ 0.1%.
        (3) Summer design temperature: 101°F.
        (4) Winter design temperature (Fahrenheit): 40° F @ 0.2%.
    b. Indoor Design:
        (1) Indoor conditions for all spaces in the building shall be defined at 72-degree F for cooling and 70-degree F for heating. UPS, IT MPOE and telecommunication rooms shall be designed for 68-degree F.

7. Interface the AHU controls with the BAS for remote monitoring and control.

8. Units shall be listed by the California Energy Commission and comply with T-24 requirements.

9. HVAC Packaged Rooftop Units (RTU)

    a. Custom units larger than 5 tons.
        (1) Provide one of the following two air cleaning options.
            i. MERV 8 pre-filter, carbon, PCO and MERV 14 final filter as well as ultraviolet light for the coil section.
            ii. MERV 8 pre-filter, carbon filter, bipolar ionization unit and MERV 14 final filter as well as ultraviolet light for the coil section.
        (2) Provide with economizer controls, variable frequency drive for the fan(s).
        (3) Units larger than 15 tons shall be factory tested, witnessed and certified by OIAA Inspector prior to shipping to the job site.
    b. Non-custom units of 5 tons or less.
        (1) MERV 8 pre-filter and MERV 13 final filter.
    c. Thermostat shall be electric 365 days programmable type

10. Central Station Air Handling Units (AHU)

    a. Provide one of the following two air cleaning options.
        (1) MERV 8 pre-filter, carbon, PCO and MERV 14 final filter as well as ultraviolet light for the coil section.
        (2) MERV 8 pre-filter, carbon filter, bipolar ionization unit and MERV 14 final filter as well as ultraviolet light for the coil section.
    b. All custom AHUs larger than 15 tons shall be factory tested, witnessed and certified by OIAA Inspector prior to shipping to the job site.
    c. For existing Central Station AHUs that are to be refurbished, make revisions to the existing equipment to add the air cleaning options where possible. If not, advise OIAA.

N. Building Automation System (BAS)

1. The BAS shall monitor and control all building mechanical systems and equipment. Each mechanical system shall be complete with factory controls, and shall be specified with accessory integration modules, hardware, computer cards, and software required for full and complete integration to the BAS. The BAS shall monitor mechanical equipment for failure alarms, and all operating set point variables shall be capable of being reset.

2. BAS shall include equipment graphical representation and floor plans showing layout of equipment and control points.

3. Direct Digital Control: The digital algorithms and pre-defined arrangements included in the BAS software to provide direct closed-loop control for the designated equipment and controlled variables. Inclusive of Proportional, Derivative and integral control algorithms together with target values, limits, logical functions, arithmetic functions, constant values, timing considerations and the like. BAS shall have web-based monitoring and control capabilities.

4. The BAS shall consist of networked controllers capable of stand-alone controls and shall be integrated with the existing BAS and FMCS.

O. Terminal/Building HVAC System

1. Submit schematic piping flow diagrams and control valves for the Terminal pump

rooms and HVAC systems. Schedule all coil and pump sizes and estimated capacities. Include all control valves in piping diagram. Provide test and balance data indicating the existing flow distribution in the individual terminal areas List all control valves. Identify all chilled water pumps, including branch pumps at ends of existing loop to any coils or systems. Verify if there are any existing 3-way valves or other valve-bypasses, which are diverting flow to the return system.

2. Prepare a load calculation to determine design criteria and recommended capacities.
3. Submit summary report to OIAA as part of Basis of Design Submittal to whether the pump can be simply adjusted for flow, left alone, impeller or motor changed or whether a complete pump change-out is required.
4. Work shall be phased to keep building operations uninterrupted.
5. The system design shall provide flexibility in terms of operation and renovation.
6. The operation, reliability and redundancy of the existing HVAC systems shall be maintained throughout the construction. All work requiring a temporary shutdown of services shall be coordinated with OIAA to minimize disruptions.
7. Site investigation: The Contractor shall conduct a site investigation and thorough survey and prepare drawings as necessary to complete construction documents and phasing plans.
8. Field Painting: Provide field painting of all piping, and miscellaneous appurtenances. Provide labeling and identification of all equipment and piping. OIAA to select colors.
    a. Piping labeling shall include color coded arrows, with the line number, commodity inside and direction at regular intervals over the pipe jacketing.
9. All systems shall be properly cleaned and flushed and tested prior to energizing.
10. Accessibility: Install all components, valves, control devices, etc. where they are accessible for operation and maintenance without use of portable ladders, where practical. Otherwise, platforms, stairways, catwalks, fixed ladders, etc. shall be required to provide safe access for operation and maintenance.
11. Pipe Sizing: Piping shall be sized for maximum flows in the chilled water pipe not to exceed 12 feet per second (fps) in mains and 10 fps in branches to coils and pumps. Maximum pipe velocity of 12 fps for piping 8" and larger. All piping shall be sized to not exceed a pressure drop of 4-ft head per 100 feet of piping. The dedicated branch coil piping runs out to each coil shall be sized for the individual coil size and chiller flow capacity calculated at new design conditions.
12. Sub-meter: Provide individual sub-meter for the chilled water and heating hot water lines from, or within, each building, terminal, and tenant area with option for future remote data gathering connection.
    a. These tenant areas include:
        (1) Concessions: Provide submeter for each concession space.
        (2) Any space with major chilled water and heating hot water loads, not covered by lease agreement.
    b. See OIAA DCH Submetering Policy.

END OF SECTION

19.00-C Mechanical Equipment Standards

Equipment Type	Specified Manufacturers	Remarks
Air Handling Units	Temtrol Energy Labs Governair or approved equivalent	Central Station Air Handling Units; MERV 8 pre-filter, bipolar ionization, carbon or PCO, MERV 14 final filter, UV lights; Economizer
Packaged Rooftop Air Conditioning Units-Custom	Mammoth Energy Labs Governair or approved equivalent	Units larger than 5 tons
Packaged Rooftop Air Conditioning Units – Non-Custom	Carrier Trane York or approved equivalent	Units 5 tons and less
Chilled Water Fan Coil Units	Carrier Trane Johnson Controls or approved equivalent	Stainless steel drain pan w/leak detection; Belt drive fans; 2" pleated MERV 11 filters; Condensate pump
VAV Boxes	Anemostat Price Titus or approved equivalent	Digital controller; Hydronic heating coil – min. 2 row; Lined discharge attenuator section (minimum 36" long)
DX Self-Contained Air Conditioning Units For IT and MPOE Rooms	Liebert or approved equivalent	See IT Design Guidelines. Condensate pump; Stainless steel drain pan w/leak detection
Ductless Split-System Units	Mitsubishi Daikin Sanyo or approved equivalent	Units less than 5 tons
Fans	Twin City Fan Co. Greenheck Cook or approved equivalent	Belt drive w/motor cover and belt guard; Upblast configuration for roof mounted fans; Stainless steel construction for grease applications; Speed controller

Diffusers	Anemostat Price Titus or approved equivalent	
Chillers	Carrier Trane York or approved equivalent	
Heat Exchangers – Shell and Coil (Packaged)	Elge / Alstrom Heat Transfer LLC. Alfa Laval Taco or approved equivalent	
Heat Exchangers – Shell and Tube (Packaged)	Alfa Laval Taco Standard Exchange or approved equivalent	
Heat Exchangers – Brazed Plate (Field Assembled)	Alfa Laval Invensys APV, Inc. Xylem; Bell & Gossett or approved equivalent	
Boilers	Ajax Lochinvar Raypak or approved equivalent	Temporary system
Valves	Crane Milwaukee Nibco or approved equivalent	
Dampers	Air Balance Inc Ruskin Pottorff or approved equivalent	
Cooling Towers	Baltimore Aircoil Co. Delta Cooling Towers Evapco Inc or approved equivalent	Temporary system
Pumps	Bell & Gossett Armstrong Taco or approved equivalent	
Vibration Isolators	ISAT Mason Industries or approved equivalent	
Hangers and Supports	Tolco/B-line Systems/ Cooper Industries PHD Manufacturing, Inc. or approved equivalent	

BAS	JCI Siemens Alerton or approved equivalent	
FMCS	Wonderware or approved equivalent	
Photocatalytic Oxidation (PCO) System	Genesis Air/ IAQ Solutions, Inc. UVDI Trane Photocatalytic Air Cleaner or approved equivalent	
Bipolar Ionization	Plasma Air International Aerisa AtmosAir or approved equivalent	
Activated Carbon Filters	Flanders Barneby Sutcliffe, Div. of Calgon Corp. American Air Filter	
Extended Surface Rigid Air Filter w/ Synthetic Media	Flanders Camfil-Farr American Air Filter	
Disposable Panel Filter	Tridem Camfil-Farr American Air Filter	
Ultra Violet Germicidal Irradiation (UVGI) System	Steril-Aire UV Resources UVDI	

END OF SECTION

19.00-D Plumbing Design Standards

1.1 GOALS

A. The goal of this section is to provide guidance in the design of Plumbing and Fire Protection systems to OIAA standards. The OIAA Plumbing Design Standards are a compilation of general design and construction practices that are already in place in our facilities, as well as recent discoveries that should be implemented throughout the facilities to maximize the performance of existing systems, minimize maintenance costs and improve the passenger experience. These standards are by no means an exhaustive description of all plumbing systems practiced in our facilities; however, this document does present OIAA's minimum design standards for the major building plumbing systems. If any discrepancy is found between these standards and the OIAA Design & Construction Handbook, the more restrictive standards shall take precedence.

1.2 GENERAL

A. See OIAA Airport Mechanical Design Standards for general design and drawing requirements.

1.3 PLUMBING SYSTEMS

A. Submittals

1. Design Phase: A complete package of design calculations and plans shall be provided to OIAA for review during the design phase of the project. Calculations and plans shall be provided with any markings or notations that are needed to make them clearly understandable.

B. System Design Criteria

1. Energy conservation design practices should be in accordance with Green Building requirements while meeting the Title 24 standards and fully integrated into the building, allowing it to operate more efficiently and to use less energy, while meeting the needs of the user. Designers shall consider techniques and equipment to maximize efficiency and minimize energy consumption. These include: water temperature control, water pressure regulations, faucet flow restriction, economical use of thermal insulation, automation (sensors or otherwise) of flushing, faucet closing and water heating and circulation systems shutdown.

2. Provide information on the existing plumbing lines and existing plumbing system that are affected by new work.

3. Provide separate riser diagrams for the water, waste/vent and gas systems. The water riser shall show the entire system from the main water meter to the most remote plumbing fixture outlet. The waste/vent riser shall show the entire system from the street sewer main point of connection to the most remote plumbing fixture outlet. The gas riser shall show the entire system from the main gas meter to the

most remote gas outlet.

4. Terminal domestic hot water system:

Primary high temperature water is provided by the individual terminal central plant and is dedicated for HVAC use only.

Domestic hot water is supplied by electric heaters, located in the terminal central plant. Hot water for building HVAC only

C. Calculations

1. Existing Plumbing Systems

a. Provide a table of the fixture unit count with the total of existing fixtures and new fixtures. If the number of new fixtures is more than the number of removed fixtures, provide hydraulic calculations of the water system.

D. Piping

1. Piping should meet the following requirements:

a. Discharge line from Trash Compactor – ABS (to where it meets the Point of Connection to the existing waste line).
b. AC unit condensate drains – Copper Type M.
c. Equipment vents – Black Carbon Steel, ASTM A53, Type S (Seamless) or Type E (Electric-Resistance Welded), Grade B, Schedule 40 or Copper Type L.

NOTE: 50-50 solder shall not be used for any pipe jointing. No direct buried copper piping shall be permitted inside or outside terminals or other buildings. The use of ferrous metal pipe and fittings under slabs shall be reviewed by OIAA on a case by case basis.

2. Installation methods shall be in accordance with the latest edition of the California Plumbing Code.

a. No piping connections shall be made through hot tapping method, unless approved by the City of Ontario Building Department and OIAA. Provide connections with standard tee fittings and reducers where hot tapping method is not used.
b. Provide a brass ball valve and a 6" brass nipple at each location where the piping transitions from copper to steel. Dielectric fittings, flanges and unions shall NOT be used on any piping, except dielectric flanges may be used inside the mechanical and pump rooms. Additionally, dielectric unions MAY be used in natural gas piping at the meter and at the equipment connections.

3. Horizontal drainage pipe shall be provided with a clean out at its upper terminal, and at every 75 feet of developed length, or fraction thereof.

E. Equipment Rooms Including Pump Rooms and Fan Rooms:

1. Include floor drains, floor sinks (condensate drain, pressure relief drain, blow down, etc.), make-up water connections and hose bibbs in each room.

F. IT Rooms, MPOE, Telecom Room, UPS, Battery Rooms, Electrical Rooms and Elevator Machinery Rooms:

1. No water, storm drain, or waste lines shall pass over these areas, except for services related to these rooms, without the designer/contractor obtaining approved

Exemption from OIAA.

If any fluid piping passes over these rooms, the piping shall be provided with a drain pan under the pipe to catch any leaks. The drain pan shall extend throughout the run of piping over the room and drained to an approved receptor.

G. Restrooms, Janitor Closets and Pet Areas

1. All faucets, fittings, supply stops for fixtures and similar devices shall be one manufacturer unless otherwise required by OIAA. Each fixture shall contain standardized interchangeable operating units made up of separate renewable stem, seat, washer retainer and nut. All faucets and fittings must be capable of closing under the designed water pressure. All fixtures shall be installed with supply stops/valves accessible at the fixtures. Fixture shall be electronic with manual over-ride.

2. No seismic joints are allowed in restrooms or pipe chases.

3. Plumbing Design Requirements

   a. Public Restrooms (Men's, Women's & Family)
      (1) Each restroom, Men's and Women's only, shall be designed so that when half of the restroom is being cleaned or maintained, the other side of the restroom can remain in operation. Provide two separate hot and cold-water valves to accomplish this requirement for maintenance.
      (2) Provide a hose bibb connection for cleaning purposes.
      (3) Provide a floor drain with an electric trap primer.
      (4) Provide a water hammer arrester in the domestic cold-water line.
   b. Non-Public Restrooms
      (1) Provide a hose bibb connection for cleaning purposes.
      (2) Provide a floor drain with an electric trap primer.
      (3) Provide a water hammer arrester in the domestic cold-water line.
   c. Janitor Closets
      (1) Provide a floor drain with an electric trap primer.
      (2) Provide a separate valve for the mop sink in the janitor closet. The valve shall be located and accessible in the janitor closet.
   d. Pet Areas
      (1) Provide a floor drain with an electric trap primer.

4. Pipe Chase Requirements

   a. Design a separate cold water and hot water header for each set of back to back fixtures. Provide a minimum 30" wide access door in the pipe chase, minimum 48" clear dimension between inside face of walls of the pipe chase, with minimum 30" clear path of travel, and minimum height clearance of 7 feet.
      (1) Provide a shut off valve at each cold water and hot water header.
      (2) Provide a hose bibb.
      (3) Provide a floor drain with an electric trap primer.
      (4) Provide a water hammer arrester in the domestic cold-water line.
      (5) Provide a waterproof floor.
      (6) Cleanouts.
         i. Cleanouts shall face toward the pipe chase.
         ii. Each urinal shall have a cleanout
         iii. Each water closet waste line shall have a cleanout at each end and in the middle.

b. Where pipe chase is inaccessible or has inadequate access as defined above:
   (1) Provide a shut off valve at each cold and hot water header. Valves shall be in the Men's restroom or common area and shall be provided with an access panel.
   (2) Provide with water hammer arrester in the domestic cold-water line and shall be provided with an access panel.
   (3) Cleanouts
      i. Cleanouts shall face toward the restroom.
      ii. Each urinal and water closet shall have a cleanout.

5. Trap primers and mixing valves shall be located between 2-4 feet above finish floor in the room that it serves. Trap primers and mixing valves shall be provided with an access panel, unless located in a pipe chase. Provide an accessible shut-off valve for each trap primer.

6. Hose bibbs shall be provided with an accessible shut off valve.

H. Valves

1. Isolation valves shall be class 300 gate valves for piping 2" and larger and class 150 bronze ball valves for piping 1½" and under.

2. Valves 8 feet and higher above the floor shall have chain wheel operators.

3. Valves shall be provided on the supply at the point of entry to all buildings for all domestic cold water and hot water distribution systems

4. Floor control valves shall be readily accessible and provided on every floor at every riser.

5. Sectional control valves shall be readily accessible and provided on the main horizontal domestic cold water and hot water lines at every 100 feet of main horizontal pipe, or fraction thereof, or at locations that divides the building into thirds, and as mutually agreed upon by OIAA in writing during the design phase. Provisions shall be made to drain the line with a hose connection, or other method acceptable to OIAA, in between isolation valves.

6. Shut off valves shall be readily accessible and provided on every main branch pipe connection from the main horizontal pipe.

7. Valves shall be readily accessible, within 12" of ceiling, for ease of maintenance. Otherwise, access for maintenance shall be provided via a ladder, platform, lift or other OIAA approved method and demonstrated graphically on the drawings.

8. Valves serving base building utilities shall be readily accessible in an OIAA space, and as agreed upon by OIAA in writing during the design phase.

   a. Where the valve cannot be in OIAA space, provide a "KNOX box" or similar method for OIAA door access.

I. Pumps

1. Terminal/Building Pump Room

   a. Pumps shall be base mounted horizontal, split-case or end suction centrifugal type. Pumps located on ground or grade level will be mounted to concrete bases with vibration pads. Pumps located on structural floors shall have concrete filled inertia vibration bases. All pumps to have flex connections, isolation valves,

strainer, spring loaded check valves, pressure gage and flow measurement device. Pump manufacturer shall be Armstrong, Bell & Gossett or Taco.

2. In-Line Circulating Pumps

   a. Pumps shall be all stainless steel for domestic water service. Provide a line size ball valve on suction and discharge side of pump. Provide unions or bolted flange connection on each side of pump. Pressure gage and thermostat are required on in-line circulators.
   b. The designer shall study water usage periods and shall design pumps to operate just prior to usage periods and limit their operation as much as possible. A 7-day 12-hour timer shall be installed to control such pump operation, especially during peak demand periods as an energy reduction measure.

3. Submersible Pumps

   a. Generally, submersible pumps are avoided where possible except electric power maintenance holes where high voltage switches or tap boxes are installed. Diaphragm actuated pumps are preferred rather than float actuated pumps.

4. Sump Pumps

   a. Commercial type duplex sump pump is required. Explosion proof motor is required in a mechanical/electrical equipment room containing high voltage switchgear or motor control panels.
   b. Mechanical alternator, check valves, automatic float switch with rod, rod guide, copper float and high-water alarm bell shall be provided on duplex pump.
   c. Pumps shall be of the wet-pit type complete with gas tight sump cover, vent, curb ring, grease lubricated, including alemite fittings extended to pump base plate.
   d. Pumps shall be heavy duty, vertical centrifugal, open non-corrosive impeller type with vertical drip-proof type motor with anti-friction grease lubricated bearings.
   e. Pumps shall be provided with separate circuit and circuit breaker.
   f. Where pumps are installed to provide protection for mechanical/electrical equipment and/or critical equipment, in addition to high water alarm bell in the area, alarm contacts should be provided for a central monitoring system.

5. Sewer Ejector Pumps

   a. Sewer ejector pump design and selection design criteria are the same as those listed for "Sump Pumps" except sewer ejector pumps shall be of the standard three (3) inch, non-clog, slicer/grinder type specifically designed and installed for purpose intended.
   b. For ease of access and maintenance, sewer ejector pumps shall be located outside of the building footprint. If outside the building footprint is not feasible, sewage ejector pumps shall be in a dedicated room.
   c. Sewer ejector pump installation and location shall be approved by OIAA in writing during design phase.

J. Standard Water Heaters

1. Water Heaters shall adhere to the following:

   a. Water heaters shall be completely glass lined.
   b. Gas water heaters shall have automatic gas shut-off device and be equipped with an American Gas Association certified draft hood. Water heaters shall utilize electric ignition devices.
   c. Electric water heaters shall be U. L. listed.

d. Electric water heaters shall be provided with submersed type thermostat.
e. All standard water heaters shall have a three (3) year limited warranty.
f. Energy saver water heaters shall meet ASHRAE Standards for Energy Efficiencies, latest edition.
g. Water heater drains shall have valves and shall be plumbed to a floor drain with Copper Type L piping.
h. All water heaters shall be readily accessible.
i. Electric water heaters shall not be installed above the ceiling.

K. Roof and Overflow Drains

1. Roof and overflow drains shall be compatible with roof system. The designer shall use two (2) inches per hour as a minimum rainfall intensity guideline for sizing roof drains.

L. Backflow Preventers

1. Where the service line provides potable water for domestic service, a backflow preventer shall be installed on any domestic water line serving other closed or chemically treated systems that could foreseeably contaminate the potable water line.

2. Guidelines for selection of backflow prevention shall be in accordance with the City of Ontario Building Department. Copy can be obtained from the City of Ontario Building Department website.

M. Grease Traps or Interceptors

1. Waste water from disposers, sinks, dishwashers, floor drains and floor sinks in food facilities shall drain to a grease collection system or through a grease trap or grease interceptor serving one or more facilities. Installation shall comply with the latest edition of the California Plumbing Code.

2. Grease interceptors shall not be located in any Mechanical Rooms.

3. Waste pipes from grease producing fixtures shall be provided with heat trace system.

N. Kitchen Sinks: For food service tenants utilizing kitchen sinks and commercial kitchens, the following shall be included in the design

1. Sinks used for food service shall each have a food grinder.

2. Food grinder in commercial kitchen shall require approval from City of Ontario Integrated Waste Department. When the use of grinder is allowed, the following fineness of grind requirements shall be met at all times:

a. At least 40% shall pass a No. 8 sieve.
b. At least 65% shall pass a No. 3 sieve.
c. 100% shall pass a ½-inch screen.

O. Sub-meter:

1. Provide individual sub-meter for domestic water system capable of being connected to the OIAA BAS via output signal, for each building, terminal, and tenant area with option for future remote data gathering connection.

a. Tenant areas include:
(1) Concessions spaces: Provide sub-meter for each concession space with major domestic water load.
(2) Any spaces with major domestic water load, not covered by

lease agreement.

2. Provide individual sub-meter for gas systems, for each building, terminal, and tenant area with option for future remote data gathering connection.

   a. Tenant areas include:
      (1) Concessions spaces: Provide sub-meter for each concession space with major gas load.
      (2) Any spaces with major gas load, not covered by lease agreement.

3. See OIAA DCH Submetering Policy.

1.4 FIRE PROTECTION SYSTEMS

A. Submittal

1. Design Phase: A complete package of design calculations and plans shall be provided for review by OIAA. Calculations and plans shall be provided with whatever markings or notations that are needed to make them clearly understandable.

B. North Vault Runway Lighting and Baggage Handling System Electrical Room

1. North Vault Runway Lighting and Baggage Handling System Electrical Room shall be protected with a Clean Agent System and Pre- Action System. Provide double interlock Pre-Action Fire Suppression System. The sequence of operation shall have the Clean Agent System as primary with the Pre- Action System secondary.

C. Extended Coverage Sprinkler Heads

1. The mixing of standard coverage with extended coverage sprinkler heads in an area is not acceptable.

2. The permit for use of extended coverage sprinkler heads shall be attained from the Ontario Fire Department (OFD).

3. Clearly identify on the plans the location of the extended coverage sprinkler heads.

4. Provide label or tag at each extended coverage sprinkler head noting that this head is an "Extended Coverage" head. Label or tag type and attachment method shall be permanent, and permit is to be attained from OFD.

5. An updated load calculation plate affix to the main riser

END OF SECTION

19.00-E Plumbing Equipment Standards

Equipment type	Specified manufacturers
Gate, Ball, Butterfly, Check Valves	Nibco Crane Milwaukee Valves or approved equivalent
Ductile-Iron Gate Valves	Nibco Crane Powell Valves or approved equivalent
Water Sub-meters	Badger Meter Neptune Technology Group Sensus or approved equivalent
Flow Control Valves	Bell & Gossett/ Xylem Griswold Controls FLOCON/ Precision Instruments or approved equivalent
Water Pressure Reducing Valves	Zurn-Wilkins/ Zurn/ Rexnord Conbraco/ Apollo/ Aalberts Watts or approved equivalent
Backflow Preventers	Conbraco/ Apollo/ Aalberts Watts Zurn-Wilkins/ Zurn/ Rexnord or approved equivalent
Grease Interceptors	Pro-Cast Jensen Precast Proceptor/ Green Turtle/ Zurn/ Rexnord or approved equivalent
Oil Interceptors & Sediment Interceptors	Zurn/ Rexnord Pro-Cast Jensen Precast or approved equivalent

Sediment Interceptors	Jay R. Smith Mfg./ Morris Group Zurn/ Rexnord Approved Equal or approved equivalent
Sumps	Pro-Cast Jensen Precast Zoeller or approved equivalent
Submersible Sump Pumps	PACO/ Grundfos CBS Zoeller or approved equivalent
Commercial Grade Electric Water Heaters – Tank type	Lochinvar, LLC/ A.O. Smith Rheem Bradford White or approved equivalent
Commercial Grade Electric Water Heaters – Instantaneous/ Point of Use	Eemax Rinnai Stiebel-Eltron or approved equivalent
Commercial Gas Fired Water Heaters, Packaged Water Heating Systems & Domestic Storage Tanks	Lochinvar, LLC/ A.O. Smith Rheem A.O Smith or approved equivalent

END OF SECTION

19.00-F Fire Protection Equipment Standards

Equipment Type	Specified Manufacturers	Specification Section
Valves	Nibco Viking Clow	21 12 00 – Fire Suppression Standpipes
Sprinklers	Viking Grinnell Reliable Sprinkler	21 13 13 – Wet-Pipe Sprinkler Systems
Spray Heads	Viking Grinnell Reliable Sprinkler	21 13 26 – Deluge Fire-Suppression Sprinkler Systems. **Not in the DCH**
Fire Pumps	Peerless A-C Fire Pumps Patterson Pump Co.	21 30 00- Fire Pumps **Not in the DCH**
Pressure Booster (Jockey) Pump	A-C Fire Pumps Patterson Pump Co. MTH Pumps	21 30 00 – Fire Pumps **Not in the DCH**

END OF SECTION

19.00-G Structural Design Standards

1.1 GOALS

A. As airport facilities are replaced, added, or upgraded, OIAA intends to improve structural seismic safety and minimize the potential for interruption of airport operations that may be caused by a major regional earthquake. The goal of these standards is to establish a framework for implementing enhanced seismic design of airport facilities without unnecessary cost or schedule impacts, as well as to establish uniform design standards for new buildings.

1.2 BASIS OF STRUCTURAL / SEISMIC DESIGN

A. Major New Building Projects.

1. New terminal buildings and other major projects will typically be required to meet enhanced seismic performance objectives. Certain facilities may be strategically designed for higher seismic performance objectives than others. The performance objectives will be established during the Concept phase. The method of design will be determined at the beginning of design by the OIAA Director of Program Management and clearly indicated in the contract documents. The OIAA Director of Program Management will determine whether and to what extent enhanced seismic performance is desired, taking into consideration the structure's function, life expectancy, interdependence on other existing structures, and other factors.

2. Where required, enhanced seismic performance objectives may be achieved by one of two means:

   a. Performance Based Engineering (PBE).
   b. Code based prescriptive methodology, using an increased importance factor.

3. PBE methods are generally preferred from a cost/benefit standpoint. However, where PBE procedures are used, such procedures shall only be used to establish the *enhanced* performance objectives, and shall be completely separate from the Code-based review and approval process of the Governing Code Authority. Structural designs must also conform to current Code unless expressly agreed otherwise by the PMT. PBE designs shall be subjected to a Peer Review responsible to OIAA. PBE design for enhanced seismic performance should adhere to recognized national standards, and the performance objective shall be clearly indicated on the drawings.

4. Wherever possible, approval by the governing Code authority should not be contingent on acceptance of a Peer Reviewed PBE analysis and design. A parallel set of non-PBE calculations will typically be required to obtain building permits on the basis of the governing Code authority's minimum requirements.

B. Minor New Building Projects.

1. Enhanced seismic design may be required for minor new building projects, depending on the use of the facility. New ancillary structures (comprising an expansion of an

existing facility) should be designed to meet current Code and provide a level of seismic performance not less than that of the primary facility.

C. Major Renovation Projects.

1. Major renovations of existing buildings will require an initial structural review and assessment of the building's seismic force resisting systems. The seismic review shall establish the existing structure's seismic performance characteristics and feasibility for seismic upgrade. Seismic retrofit of existing buildings will typically require PBE. Feasibility for upgrade to both Life Safety and Immediate Occupancy standards should be established. Based on the results of the structural seismic assessment / feasibility study and the life expectancy of the structure, seismic performance objectives shall be established in the PDB or during the Concept phase with input from the stakeholders. Life Safety upgrades will be required as a minimum where required by Code.

a. Wherever possible, seismic strengthening should be undertaken on a voluntary basis, such that approval by the Governing Code Authority is not contingent on acceptance of a Peer Reviewed PBE analysis and design. A parallel set of non-PBE calculations will typically be required to obtain building permits on the basis of the Governing Code Authority's minimum requirements for voluntary seismic strengthening.

D. Non-Structural Systems.

1. In order to minimize the potential for interruption of airport operations, non-structural systems shall be designed for enhanced seismic performance wherever practical. Systems with pre-existing seismic certification shall be used when available. Distribution systems shall be designed per Code requirements for the applicable seismic performance objective. Where practical, composite utility drawings shall be required. The seismic design shall be submitted as a deferred submittal to the Governing Code Authority, OIAA and the Structural Engineer of Record (SEOR) for review.

2. Non-structural components shall include, but not be limited to, architectural components, BHS systems, MEP equipment, mechanical ducts, VAV boxes, piping, conduits, cables, ceilings, shelving, cabinets, access floor systems, partitions, glazing, signs, antennas, plumbing and fire protection pipes, electrical lighting, IT server racks, vending machines in public spaces, billboards, FIDs, BIDs, bookshelves, artwork, casework, etc., and similar furniture/equipment taller than 6'-0" or weighing more than 200 pounds with a height to width ratio ≥ 3:1.

1.3 AIRPORT-SPECIFIC STRUCTURAL ELEMENTS AND STANDARDS

A. Apron Slabs and Structures Surcharged by Aircraft Loading

1. Apron slabs, tunnels below runways/taxiways, and adjacent retaining walls shall be designed to support loads generated by the largest aircraft and ground service equipment (GSE) (See Section 1.4).

B. Vehicle Impact Barriers

1. Airside structures and pad-mounted equipment exposed to GSE or other vehicle traffic shall be protected by yellow painted bollards and k-rails designed for vehicle impact as outlined below. Structural steel columns shall be encased in reinforced concrete a minimum of 6' above the apron.

C. Light Poles

1. Light pole design adjacent to the Air Operations Area (AOA) may be affected by jet blast loading (See Section 1.4).

D. Passenger Boarding Bridges (PBB)

1. PBBs adjacent to the AOA may be affected by jet blast loading (see below). Seismic performance of PBB supports and foundations shall match the performance objective of the associated building.

E. Baggage Handling Systems (BHS)

1. Structures shall be designed to support localized reactions from baggage handling systems without requiring strengthening (See Section 1.4).

1.4 AIRPORT-SPECIFIC STRUCTURAL LOAD CRITERIA

A. Gravity Loads.

1. In addition to all Code specified loads, public areas of Terminal Buildings shall be designed to support a 10,000lb maintenance lift (JLG X770AJ or similar). Such loading may be considered non-concurrent with full Code specified live loads. Additionally, a path of travel shall be identified on the drawings to get the lift from the exterior to each level of the Terminal.

2. To allow flexibility for reconfiguration of Terminal Building public areas, all floor areas on levels accessible to the public shall be designed for a minimum 100psf live load. All mechanical rooms shall be designed for a minimum of 150psf live load.

3. Baggage Handling Systems (BHS). To allow for future reconfigurations of the BHS, a distributed superimposed dead load of 30psf may be used to account for reactions from BHS. Note this should apply to the levels above and below the BHS area. Specific reactions to structure must be checked by the SEOR prior to installation.

4. Apron slabs on grade and structural slabs supporting aircraft or GSE shall be designed for the heaviest aircraft and associated GSE. GSE may be considered as 140,000lb. Apron slabs shall be unreinforced unless approved by OIAA, or as noted below.

5. Tunnels and retaining walls under / adjacent to roadways or apron slabs shall be designed for traffic surcharge from vehicular traffic based on geotechnical engineer's recommendations, which shall consider the above aircraft and GSE loading at airside.

6. Grease Interceptors, or other buried tanks (GI), located within 20' of the exterior face of the buildings shall comply with the following:

   a. GI may be constructed of precast concrete, fiberglass, or other material approved by OIAA.
   b. Apron slab and GI shall be designed to support the GSE noted above and the maximum loading from the nose wheels of the largest aircraft anticipated for the area. Design shall include all vertical and horizontal earth pressures from GSE, nose wheels, pavement, overburden, etc.
   c. GI shall be oriented parallel with the building, based on the longest dimension of the GI, where possible.
   d. GI installation shall disturb as few of the apron slabs as possible. Drawings shall reflect the actual layout of existing and panel revisions.
   e. Apron slabs may be reinforced within 20' of the exterior face of the building. All reinforced slabs shall have metallic embeds cast into the four corners of the panel indicating that the panel is reinforced. Rebar shall be galvanized or epoxy coated.

7. Grease Interceptors, or other buried tanks, located more than 20' from the exterior face of the buildings shall comply with the following:

    a. GI shall be constructed of precast concrete.
    b. Apron slab and GI shall be designed to support the GSE noted above and the maximum loading from the nose wheels, or the main wheels of the largest aircraft anticipated for the area. Design shall include all vertical and horizontal earth pressures from GSE, nose or main wheels, pavement, overburden, etc.
    c. GI installation shall disturb as few of the apron slabs as possible. Drawings shall reflect the actual layout of existing and panel revisions.
    d. Apron slabs shall not be reinforced, except for dowels across the construction joints.

B. Wind Loads.

1. Due to the presence of the airfield, wind Exposure Category C is required at a minimum. Basic Wind Speed shall be per current Code.

2. Airside cladding elements exposed to jet blast shall be designed for 50psf applied to any 15sf area per FAA AC 150/5300-13A, Appendix 3, "The Effects and Treatment of Jet Blast."

    a. Exception: inset penthouse structures 40' or more above the apron level.

C. Seismic Loads.

1. Airport site-specific response spectrums may be available electronically for digital download, depending on the dates and criteria noted. It is the designer's responsibility to verify the adequacy of any data provided by OIAA for project-specific requirements.

2. Refer to Section 1.2 for development of Basis of Seismic Design.

D. Impact/ Other Loads.

1. GSE impact at bollards shall be based on the type and speed of GSE anticipated for that location. The following criteria have been created for two types of GSE, however, if warranted, other criteria may be submitted to OIAA Owners Representative for review and approval.

    a. Medium Bollard Design Criteria.
        (1) Vehicle/Weight = MA60 TUG (7,500# Min – 10,000# Max).
        (2) Vehicle Speed = 15 MPH.
        (3) Dynamic Penetration = 3 feet (Distance travelled after impact).
        (4) Impact Height = 18 inches.
    b. Large Bollard Design Criteria.
        (1) Vehicle/Weight = TBL-600 TUG (135,000#).
        (2) Vehicle Speed = 3 MPH Min – 5 MPH Max.
        (3) Dynamic Penetration = 3 feet (Distance travelled after impact).
        (4) Impact Height = 18 inches.

2. Partial height walls at Security Screening Check Point (SSCP) and any walls enclosing sterile areas shall be designed to resist Code applied loads as well as a 200# horizontal force at any location. Wall stiffeners shall be provided for partial height walls and shall be designed to resist a 5psf force with a deflection of $L_{eff}/720$. Such walls shall be designed with special emphasis on durability and ease of maintenance.

3. Maximum allowable horizontal handrail deflection is ½".

E. Blast Loads.

1. Blast load criteria, if required, shall be established by the SEOR in consultation with the PMT and applicable authorities.

1.5 DRAWING REQUIREMENTS

A. Structural contract documents shall clearly and concisely show the following items:

1. Design live loads and superimposed dead load maps.
2. Code-based lateral loading criteria.
3. Basis of Seismic Design, including any enhanced performance objectives in excess or in addition to stated Code requirements.
4. Foundation design parameters.
5. Strength and grade of all structural materials.
6. ICC #, and LARR for ALL proprietary products.
7. Assumed operating weights of all MEP equipment.

END OF SECTION

January 2019

Design & Construction Handbook

20.00 Airside Projects and Specifications

ONTARIO INTERNATIONAL AIRPORT

20.00 Airside Projects & Specifications

A. Introduction

Airside projects must follow the Ontario International Airport Authority (OIAA) procedures in regard to access, design, and construction. Airport Improvement Projects (AIP) funded by the Federal Aviation Administration (FAA) are also required to follow FAA Advisory Circulars (ACs) and specifications. Please refer to FAA AC 150/5370-10H – Standard Specification for Construction of Airports.

B. Contact Information

1. For information or questions please contact the OIAA Owner's Representative assigned to the project.

2. OIAA Director of Program Management
   Keith Owens, PE
   Email: kowens@flyontario.com
   Office: (909) 544-5383

C. Process Overview

1. Contractor shall coordinate with the OIAA Owner's Representative to establish project specific airside design and construction standards and specifications.

2. Contractor is responsible for submitting and acquiring approval on all applicable FAA Forms. Refer to section *2.04, FAA Form 7460-1* for instructions on FAA Form 7460-1 application procedures.

D. ONT Fleet Mix

The table below outlines the latest fleet mix observed at the Airport. Contractor is responsible for confirming project design parameters, including fleet mix, with the OIAA Owner's Representative prior to proceeding with work.

Passenger Carriers	
Alaska Airlines	B737-800, B737-900, EMB 175 Regional Jets
American Airlines	B737-700, B737-800, B737-900, A319, A320, A321, EMB 175/185 Regional Jets
China Airlines	B777-300ER, A350-900
Delta Airlines	A320 and Regional Jets
Frontier Airlines	A320-200
JetBlue Airlines	A320

Southwest Airlines	B737-700, B737-800
United Airlines	A320 and regional jets
Volaris	A320-200
Cargo Carriers	
ATI/Atlast/AXAir	B767-200F, B767-300F
FedEx	B757-200PF, B767-300F, MD10/11, ATR 72, Caravan Feeders
UPS	B757-200PF, B767-200F, B767-300F, MD11, B747-400F, B747-800F, A300-600F, Beech 99, Beech 1900, Metro Liner Feeders
Kalitta Air Horse Charters	B727-200F

E. WEBSITE LINKS

FAA AC 150/5370-10H – Standard Specifications for Construction of Airports
https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1035128

F. ATTACHMENTS

Not applicable.

January 2019

ONTARIO
INTERNATIONAL AIRPORT