

Seattle-Tacoma International Airport Rules for Airport Construction



June 1, 2021

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ACRONYMS AND ABBREVIATIONS

See Appendix A for definitions

ABD	Airport Building Department
ACFM	Air Cargo Facilities Manager
ACM	asbestos-containing material
ADR	Airport Dining and Retail
A/E	Architect/Engineer
AED	automated external defibrillator
Airport	Seattle-Tacoma International Airport
AMA	Airport Movement Area
ANSI	American National Standards Institute
AOA	Airport Operations Area
ARC	Architectural Review Committee
AV	Aviation
AV/ENV	Aviation Environmental
AV/F&I	Aviation Facilities and Infrastructure
AV/Maintenance	Aviation Maintenance
AV/OPS	Aviation Operations
AWWA	American Water Works Association
C of O	Certificate of Occupancy
CAD	computer-aided design
CIP	Capital Improvement Project
CM	Construction Manager
COPS	Application for Certification of Port Standards
CSR	Construction Support Representative
DCS	Document Control Specialist
DDC	Direct Digital Control
ENV	Environmental
°F	degrees Fahrenheit
F&I	Facilities and Infrastructure
FAA	Federal Aviation Administration
FOD	foreign object debris
gpm	gallons per minute
HVAC	heating, ventilation, and air conditioning
IBC	International Building Code
ICC	International Code Council
ID	identification
IFC	International Fire Code
ILA	Interlocal Agreement
IWTP	industrial wastewater treatment plant

L&I	Washington State Department of Labor and Industries
mph	miles per hour
MUST	Mechanical Utilities System Team
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
OPs	Operations
NTP	Notice to Proceed
PCS	Port Construction Services
PEST	Proactive Electrical Systems Team
PM	Project Manager
Port	Port of Seattle
Port FD	Port of Seattle Fire Department
psi	pounds per square inch
psig	pounds per square inch gauge
RAC	Rules for Airport Construction
RCW	Revised Code of Washington
RE	Resident Engineer
RMM	Regulated Material Management
RPBA	reduced pressure backflow assembly
SDR	shutdown request
SEA	Seattle-Tacoma International Airport
SEPA	State Environmental Policy Act
SIDA	Security Identification Display Area
START	SeaTac Telecommunications Architecture Review Team
STIA	Seattle-Tacoma International Airport
TSA	Transportation Security Administration
UL	Underwriters Laboratories
UPC	Uniform Plumbing Code
WAC	Washington Administrative Code

1. GENERAL INFORMATION

A. Introduction

The Rules for Airport Construction (RAC) apply to all construction projects at Seattle-Tacoma International Airport (Airport) and properties associated with the Airport, whether implemented by the Port of Seattle (Port) or one of its tenants. The Port owns and operates the Airport (see Section 1.C., Tenant Improvement Projects, for additional information for tenant improvement projects).

B. Purpose and Scope

The Port is committed to developing and maintaining safe, pleasant, and efficient facilities that meet all environmental requirements for the public and for people working in and adjacent to the Airport. This document provides guidance and direction in executing construction. Where this document is general rather than specific, Contractors will refer to specific project documents and adhere to standard practices, materials, and quality. If a Contractor believes there is a conflict or potential conflict between the RAC and its contract or any other project document, the Contractor must notify the Port of such conflict or potential conflict before the Contractor takes any action in reliance on such conflict or potential conflict. Contractor's failure to do so shall constitute a waiver by the Contractor of any legal right to rely on such conflict or potential conflict.

These guidelines apply, within the legal boundaries of Airport and Port properties associated with the Airport, to the following:

- Construction, alteration, repair, relocation, or demolition of any facility, its structure, exterior, or interior finishes
- Filling or grading of land
- Landscaping
- Construction of pavement
- Installation of water, storm drainage, sewer, and industrial waste lines
- Power and control systems and other underground facilities
- Installation of heating, ventilating, and air conditioning systems
- Conveying and mechanical systems
- Fire protection systems and facilities
- Electrical power facilities and systems
- Environmental protection systems
- Communication systems, including wireless
- Cleanup of soils and groundwater conducted under federal or state environmental regulations and aboveground and underground fuel storage and distribution facilities

Contractors working at the Airport interact with various Port departments, including project management, building, fire, construction management, construction safety, operations,

maintenance, environmental, and security. The RAC is organized by these disciplines to inform contractors how these departments facilitate and assist in completing construction projects at the Airport.

The Port is implementing electronic systems for design, permitting, and construction processes. Tenants, tenant designers, tenant vendors, and tenant contractors will use the platform(s) that the Port implements.

C. Tenant Improvement Projects

In addition to the RAC, tenant improvement projects are required to comply with the requirements of Tenant's lease, *Tenant Improvement Design and Construction Process Manual*, *Tenant Improvement Construction General Requirements*, and the *Construction Safety Manual*, along with Port standards, guidelines, rules, and regulations. The *Tenant Improvement Construction General Requirements* provide Port specifications that have been tailored for tenant improvement projects and are to be included in the tenant's construction documents. The RAC adds construction, design, and construction-related and design-related requirements for construction projects that are otherwise authorized or allowed by leases or other written agreements between the Port and tenant. The RAC does not alter or delete any portion or portions of existing or future leases. If there is a conflict between a lease and this document, then the terms of the lease shall govern; provided however, that if a tenant believes there is a conflict or potential conflict between the RAC and tenant's lease, tenant must notify the Port of such conflict or potential conflict before the tenant takes any action in reliance on such conflict or potential conflict. Tenant's failure to do so shall constitute a waiver by the tenant of any legal right to rely on such conflict or potential conflict.

D. Amendment of These Rules

The requirements set forth herein shall apply to all construction at the Airport and pertain to all contractors executing the work. To retain flexibility and permit the adoption of new techniques, criteria, procedures, any requirements herein may be revised from time to time by the Port without prior notice to enhance the overall facility safety and utility. Contractors are required to conform to all such amendments.

E. Administration and Enforcement of Guidelines

These guidelines are to be administered and enforced by the Port personnel as described within this manual. However, the requirements contained in these guidelines apply regardless of whether they are administered or enforced by Port personnel, and the failure of Port personnel to enforce any such requirements shall not be construed as a waiver or modification of any requirement. Any waiver or modification of any requirement contained in the guidelines must be in a writing signed by the Port and expressly state that a requirement contained herein is being waived or modified. Following are key Port personnel interfaces with construction:

- Resident Engineer (RE)
- Construction Inspector/Inspector
- Construction Safety Managers
- Project Manager (PM)

- Port Construction Services (PCS)
- Construction Managers (CMs)
- Aviation Operations (AV/OPS)
- Construction Support Representatives (CSRs)
- Airport Building Department (ABD) reviewers and inspectors
- Aviation Maintenance (AV/Maintenance)
- Aviation Facilities and Infrastructure (AV/F&I)
- Port of Seattle Fire Department (Port FD)
- Aviation Security (AVSEC)
- Aviation Environmental (AV/ENV)
- Erosion Control and Stormwater Technician (CM)

F. Appeal of Code Interpretations

Appeals regarding code interpretations or the suitability of alternate materials shall be directed to the ABD.

G. Codes and Authorities

All construction must meet the requirements of the most current edition of the following codes, Port standards, regulations, and resolutions in place at the start of construction:

- Washington State Building Code per Revised Code of Washington (RCW) 19.27
- Federal Aviation Administration (FAA) Requirements
- Washington Industrial Safety and Health Act
- Washington Administrative Codes (WAC)
- Occupational Safety and Health Administration of the United States
- U.S. Environmental Protection Agency
- Washington State Department of Ecology
- US. Department of Fish and Wildlife
- U.S. Geological Survey
- U.S. Army Corps of Engineers
- National Fire Protection Association
- Interlocal Agreement between the Port of Seattle and the City of SeaTac for projects located on Port-owned property within or facing the City of SeaTac

H. Safety

No construction may be performed that is or may become dangerous to public health and safety. Contractors approached by Port project manager, resident engineer, inspector, or construction safety managers about safety must take immediate action to address the identified concern(s). In case of emergency or immediate life safety issues, direction may be provided by other Port staff.

I. Damage to Airport

The contractor is financially responsible for and must repair, to the satisfaction of the Port, all damage to existing Airport or third-party property, including (but not limited to) facility interior and exterior finishes, structure, pavement, roads, bridges, drainage pipelines, lighting system, grounds / natural resources, equipment and systems, or other Airport improvements impacted by its work, including such Port or third-party property that may also be contemporaneously under construction. When essential utilities or systems are damaged, repairs must be made immediately. The contractor is responsible and liable for all injury to persons and damage to property resulting from their operation.

If damage to such Airport or third-party property occurs, then the contractor must notify and coordinate with the Port Inspector, RE, PCS CM, or PM before undertaking repairs. All associated costs incurred by the Port (including, but not limited to, soft costs) shall be reimbursed by the contractor.

If the Port determines, in its sole discretion, that any or all repairs should not be undertaken or performed by contractor, contractor shall be responsible for all costs incurred by the Port to perform the repair work with its own forces or to contract for such work, or any combination of the two, including Port soft costs associated with such work.

J. Access and Inspections

The Port reserves the right to enter a construction project work zone or storage area(s) at any time to provide fire protection; ensure emergency and routine security; perform maintenance; perform safety, health, environmental, and construction inspections; and ensure conformance with Port rules, standards, and code requirements.

K. Equal Employment Opportunity Requirements

For projects funded in whole or part by the Port or federal government, additional Equal Employment Opportunity requirements may apply. In those situations, the Port should be contacted for additional guidance.

L. Acceptable Work Site

The Contractor shall ensure an Acceptable Work Site. Any behavior that demonstrates hostility related to race, gender or sexuality, inappropriate conduct or comments intended to harm another individual, and/or hostile or discriminatory actions against another individual are strictly prohibited.

M. Prevailing Wages

Where required by law, contract, Tenant Reimbursement Agreement, or otherwise as directed by the Port, the contractor shall comply with Washington prevailing wage requirements (including but not limited to timely filing and submitting Intents and Affidavits) and pay prevailing wages.

N. Indemnification

- 1) The requirements of this Section N shall apply if there is no express indemnification provision contained in the lease, contract, or other written agreement with the Port that authorizes construction by a Contractor that is subject to the RAC; otherwise the express indemnification provision contained in the lease, contract, or other written agreement with the Port that authorizes construction by a Contractor shall apply.
- 2) Contractor shall defend, indemnify and hold harmless the Port and its agents from all liability, claims, damages, losses and expenses, whether direct, indirect or consequential (including, but not limited to, attorneys' and consultants' fees and other expenses of litigation or arbitration) arising out of or relating to the construction of any project undertaken by Contractor at the Airport, which is caused, or alleged to be caused, in whole or in part, by Contractor (which for the purposes of Subparagraphs (2)), (3)), and (4)) of this Section only shall include the Contractor, and all of their Subcontractors, Sub-subcontractors, Suppliers, agents, any other person directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable); provided, however, that where such liability, claim, damage, loss or expense arises from the concurrent negligence of (1) the Port or its agents, and (2) the Contractor, it is expressly agreed that the Contractor's obligations of defense and indemnity under this Section shall be effective only to the extent of the Contractor's negligence. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any person or entity described in this Section. This Section shall not be construed to require the Contractor to defend, indemnify, or hold harmless the Port from such claims, damages, losses, or expenses caused by or resulting from the sole negligence of the Port or its agents.
- 3) In any and all claims against the Port or its agents by any employee of the Contractor, the indemnification obligation of Subparagraph (b) above shall not be limited in any way by any limitation on the amount or type of damages, compensation benefits payable by or for the Contractor under applicable workers' or workmen's compensation, benefit, or disability laws (including, but not limited to the Industrial Insurance laws, Title 51 of the Revised Code of Washington). **The Contractor expressly waives (as to the Port only) any immunity the Contractor might have had under such laws, and, by requesting permission from the Port to construct and by actually constructing a project at the Airport, acknowledges that the foregoing waiver has been mutually negotiated by the parties.**
- 4) The Contractor shall pay all attorney's fees and expenses incurred by the Port in establishing and enforcing the Port's rights under this Section, whether or not suit was instituted.

2. DESIGN APPROVALS

A. Applications for Certification of Compliance of Port Standards

Prior to submitting to the authorities having jurisdiction for permits, the design and all required support documentation (i.e. applications for connection, calculations, etc.) must be reviewed for compliance with all Port rules, regulations, standards, and guidelines. A signed Application for Certification of Compliance of Port Standards form must be included with the permit submittal. A copy of the Certification of Compliance of Port Standards form may be obtained from the Port PM.

B. Roadway Systems

Port Engineering approval of changes to Airport roadway systems is required.

C. Federal Aviation Administration

Depending upon the scope and location at the Airport one or more separate FAA reviews of the project may be required. These reviews may include the following:

- FAA Form 7460 review—This is required if the project will use a crane anywhere at the Airport, if it will alter the footprint of an existing terminal or building, or if a 'temporary' structure is being installed for longer than six months. Please note that 7460 reviews take a minimum of 90 calendar days for approval.
- Contractor's Safety Phasing Plan Review—If required, a Contractor's Safety Phasing Plan can take 6 to 8 weeks for FAA review and approval.
- National and State Environmental Policy Act (NEPA/SEPA) Environmental Review—If required, the NEPA/SEPA review and approval process can take 4 to 6 months.
- The Port will coordinate reviews with the FAA.

3. AIRPORT BUILDING DEPARTMENT

The City of SeaTac/Port of Seattle Interlocal Agreement (ILA)

[https://www.portseattle.org/sites/default/files/2020-12/2018 Interlocal Agreement Signed w SeaTac.pdf](https://www.portseattle.org/sites/default/files/2020-12/2018%20Interlocal%20Agreement%20Signed%20w%20SeaTac.pdf)

must be reviewed to determine the agency or agencies having authority over permitting and the applicable ILA development standards for the specific project location. The Port PM can assist with this review.

A. Codes and Authority

As of February 1, 2021, the ABD is responsible for administering and enforcing the following State of Washington codes:

- The Washington Building Code, based on International Building Code (IBC) (International Code Council [ICC], 2018) with statewide amendments and as further modified for fee schedule and grading requirement by the Port of Seattle Commission (these latter provisions are available by request)
- The Washington mechanical codes that comprise the following:
 - For everything except fuel gas and propane installations, International Mechanical Code (ICC, 2018) with statewide amendments
 - For all fuel gas provisions except for propane installations, International Fuel Gas Code (ICC, 2018) with statewide amendments (adopted as part of the International Mechanical Code)
 - For propane installations, National Fire Protection Association (NFPA) Standard No. 58, National Liquefied Petroleum Gas Code, supplemented by propane installation-related Sections 5.5.2, 5.6.7.4, 5.6.9(4), and 8.1.4 (NFPA, 2017) and NFPA Standard No. 54, National Fuel Gas Code (by legislative action) (NFPA, 2018)
- Washington Plumbing Code, comprising the Uniform Plumbing Code (UPC; International Association of Plumbing and Mechanical Officials, 2018) and UPC standards therein and statewide amendments
- Washington State Energy Code (Washington State Building Code Council, 2018)
- ICC/ANSI A117.1-09 Accessible and Usable Buildings and Facilities, with statewide amendments (adopted as part of the IBC)
- International Residential Code with statewide amendments, 2018
- International Existing Building Code with statewide amendments (adopted through the IBC), 2018
- International Fire Code with statewide amendments, 2018
- National Electrical Code (NFPA 70) – See the Department of Labor and Industries for information on the adoption and amendment of the National Electrical Code, 2020

3. AIRPORT BUILDING DEPARTMENT

The ABD has also adopted the following codes for administration of existing construction or to facilitate innovative and/or alternate methods of design or construction:

- International Existing Building Code (ICC, 2018), with statewide amendments
- ICC Performance Code (ICC, 2018), with statewide amendments

Every project for alteration, addition, relocation, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures will satisfy the following minimum design criteria:

- Ground/roof snow load: 25 pounds per square foot
- Wind speed:
 - 110 miles per hour (mph) Ultimate, Exposure C, Risk Category II
 - 110 mph Ultimate, Exposure C, Risk Category II
 - 115 mph Ultimate, Exposure C, Risk Category III
- Topographic effects: no
- Seismic design category: D2
- Subject to damage from the following:
 - Weathering: moderate
 - Frost line depth: 12 inches
 - Termite: slight to moderate
 - Decay: slight to moderate
- Outside design temperatures: 24 degrees Fahrenheit (°F) heat; 83°F cool
- Ice shield underlayment required: no
- Flood hazards: Federal Emergency Management Agency #530320
- Air freezing index: 50
- Mean annual temperature: 51.4 °F

Although the International Fire Code (IFC), published by the ICC, and associated State of Washington amendments are enforced by the Port FD, certain chapters and sections in it were developed in conjunction with the other International codes above. These provisions need to be considered and coordinated with each other. The ABD and Port FD will meet by appointment together, with designers and others who wish to and have specific questions to ensure this coordination during the plan review process by appointment.

B. ABD Procedures During Construction

1) Inspections

The ABD's inspection responsibilities extend to all Airport construction, including Airport-related businesses (as defined in the Interlocal Agreement with the City of SeaTac) on Port-owned property beyond the confines of the Airport. Contractor is required to contact the

ABD to request inspections and is responsible for ensuring the work is complete and ready for inspection on the date inspection is requested. Inspectors can be contacted directly by phone or e-mail. However, an inspection is not guaranteed unless confirmed at least 24 hours in advance. The inspectors will consider requests for "emergency" or similar inspections if schedules allow. Inspections outside normal working hours require overtime payment and must be paid in advance of the inspection. ABD inspections are in addition to any Construction Inspections.

ABD plan reviewers and inspectors oversee special inspectors and, at minimum, perform all inspections described in IBC Section 110; International Mechanical Code Section 107; International Fuel Gas Code Section 107; and UPC Sections 103.5 and 103.6. They also administer the deferred submittal process, changes, and modifications to the plans after permit issuance and bookkeeping on special inspection and structural observation paperwork. Special inspectors who provide special inspection reports, and others who provide similar construction reports, are required to summarize outstanding deficiencies and their corrections.

2) Additional Requirements

- a) **DEFERRED SUBMITTALS** are defined as "those portions of the design that are not submitted at the time of application and that are to be submitted to building officials within a specified period" (IBC Section 107.3.4.1).
- b) **SUBSTANTIAL CHANGE ORDERS, MODIFICATIONS, or SUBSTITUTIONS** generally mean any material, method, or work that is specified in Port specifications or the approved plans that, if changed or replaced, can have a major effect on the suitability, strength, durability, effectiveness, safety, fire resistance, and/or sanitation of that portion of the project (based on IBC Section 107.4 Amended Construction Documents). Note: Substantial revisions and/or changes to the scope may result in added plan review fees.

Deferred submittals and substantial change orders, modifications, or substitutions can include, but are not limited to the following:

- Wall and window-wall cladding
 - Special door and window hardware
 - Through-penetration fire-stop listing and details
 - Moved sprinkler lines or heads or fire alarm systems
 - Safety systems that are not compatible with Port standards
 - Sprinkler plans for hydraulic, brace, and connection designs
 - Seismic bracing of other types of mechanical or plumbing systems
 - Major revision to original plans
 - Alternate designs that change contract documents
 - Plans for stairs
- c) These rules and requirements for changes are strictly enforced and administered by the ABD.
 - d) Projects that start construction without a building permit are subject to fines.

3) Certificate of Occupancy

After all construction is completed and all life safety, sanitation, structural, mechanical, plumbing, energy conservation, accessibility items are installed and usable, and all agencies and Port departments, such as Port FD; Port AV/ENV; AV/F&I; ABD; Washington's Labor and Industries Electrical Inspection Division, Elevator Section; and other associated agencies, have given their approval that their codes and standards have been met, the building official will consider granting a Certificate of Occupancy (C of O) under the authority of and provision in IBC, Section 111.2.

Temporary C of Os are discouraged. However, should a Temporary C of O be requested and provided, the building official will administer it under the provisions in IBC Section 111.3. C of Os are not to be confused with other contract terms such as "substantial completion" and "beneficial occupancy." It is the contractor's responsibility to clear the Temporary C of O exceptions, and request inspections.

4. FIRE DEPARTMENT

The City of SeaTac/Port of Seattle Interlocal Agreement (ILA)

[https://www.portseattle.org/sites/default/files/2020-](https://www.portseattle.org/sites/default/files/2020-12/2018_Interlocal_Agreement_Signed_w_SeaTac.pdf)

12/2018_Interlocal_Agreement_Signed_w_SeaTac.pdf must be reviewed to determine the agency or agencies having authority over permitting and the applicable ILA development standards for the specific project location. The Port PM can assist with this review.

A. Introduction

The Port FD is responsible for administering and ensuring fire and life safety compliance on all Airport properties and facilities including the proper use of newly installed equipment and maintaining life safety control during necessary system shutdown activities related to construction. To meet this responsibility, the Port FD requires the assistance of the contractor to ensure construction projects do not impact the existing life safety systems in place at the Airport. For this RAC, all references to "Fire Department," are in reference to the Port FD.

The Port FD performs regular building, construction and fueling inspections to help assure the safety at the Airport. These inspections include regular testing of alarms, sprinklers, and other life safety systems. The Port FD Fire Prevention division issues permits for system shut-downs, hot work activities, and operational permit. The Port FD also reviews construction plans, deferred submittals, and shop drawings for code compliance.

The Port FD is currently enforcing the NFPA 415, Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways (NFPA, 2016), as well as the IFC (2018) with Washington State amendments and as amended by the following sections:

AMENDMENTS TO INTERNATIONAL FIRE CODE – CHAPTER 80, REFERENCE STANDARDS

The following reference standards supersede the ones listed in IFC Chapter 80:

- NFPA 12 Carbon Dioxide Extinguishing Systems, 2015 Edition
- NFPA 12A - Halon 1301 Fire Extinguishing Systems, 2015 Edition
- NFPA 13 – Installation of Sprinkler System, 2019 Edition
- NFPA 14 - Installation of Standpipe and Hose Systems, 2016 Edition
- NFPA 20 - Installation of Stationary Pumps for Fire Protection, 2016 Edition
- NFPA 24 - Installation of Private Fire Service Mains and Their Appurtenances, 2016 Edition
- NFPA 72 - National Fire Alarm and Signaling Code, 2016 Edition
- NFPA 105 - Smoke Door Assemblies and Other Opening Protectives, 2016 Edition
- NFPA 110 - Emergency and Standby Power Systems, 2016 Edition
- NFPA 111 - Stored Electrical Energy Emergency and Standby Power Systems, 2016 Edition
- NFPA 400 - Hazardous Materials Code, 2016 Edition
- NFPA 407 - Aircraft Fuel Servicing, 2017 Edition

- NFPA 409 - Aircraft Hangars, 2016 Edition
- NFPA 410 - Aircraft Maintenance, 2015 Edition
- NFPA 720 - Installation of Carbon Monoxide (CO) Detection and Warning Equipment, 2015 Edition
- NFPA 750 - Water Mist Fire Protection Systems, 2015 Edition
- NFPA 2001 - Clean Agent Fire Extinguishing Systems, 2015 Edition

B. Fire System Shutdowns

All utility shutdowns related to Port FD system connections and testing are coordinated with Port Aviation Operations (AV/OPS) and AV/Maintenance using the utility shutdown request form; any requests must be submitted and approved 72 hours prior to work (weekends and holidays not included). This includes fire main, sprinkler system, and fire alarm system shutdowns. After Port AV/OPS and AV/Maintenance have signed the shutdown request form, the Port FD receives it for final review, approval, and signature before the request is submitted to AV/OPS for distribution.

Port AV/Maintenance boiler room staff or field crews are responsible for the following fire system shutdown support on the airfield and inside Airport facilities:

- Tracing water and sprinkler lines
- Scheduling shutdowns
- Turning valves
- Draining and resetting systems

If a utility shutdown results in fire system impairment, then a fire watch may be required and provided by the contractor. This condition is assessed by the Port FD with each request.

C. Inspections

Fire inspections are conducted between the hours 8:00 a.m. to 3:00 p.m., Monday through Thursday, based on availability; they should be scheduled a minimum of 48 hours in advance. Fire inspections include, but are not limited to, above ceiling, fire stopping, fire proofing, sprinkler, and sprinkler hanger and bracing, thrust blocks, fire system pressure testing, fire main and hydrant flow and flush tests, kitchen suppression systems and fire alarm acceptance.

For inspection personnel and contact information, please contact the Port FD front desk at (206) 787-5327 for the most up to date information. Final inspections for occupancy are required to be submitted 72 hours in advance. The contractor requesting the final fire inspection contacts the Port Inspector to coordinate with the Port FD for the requested inspection.

D. Fire Department Access

1) Street Address Signage

- All construction sites, whether the structure is built or not, must provide an emergency telephone contact and street address per IFC 3309.

- For all buildings located on Port property, an address sign at least 8 inches in height in contrasting colors that is visible from the public way and the ramp side is required to be installed. Final location is coordinated with Port FD.

2) Access Roads

- Access roads for Port FD use are required per the IFC. Roads are required to be 20 feet wide and provide access to all portions of the construction site. They are required to be kept clear at all times.

3) Site Access

- Where site access by key(s) is required, the Port FD requires all required key(s) be placed in a Port FD keyed SupraBox in an obvious location next to the entrance or in its vicinity. Key(s) are labeled, and the contractor provides signage indicating the location of the SupraBox.
- For construction projects, the construction core for all locks is an AP-4. The contractor is responsible for coordinating with the Port Inspector for any construction cores and obtaining any AP-4 keyed padlocks from the Port Lock Shop. The holes in the barricade or partitions doors for the padlock and chain are large enough for Port FD personnel to reach through and unlock from either side of the barricade. This prevents being locked in or locked out of an area. For Port projects refer to the project specifications, and for tenant projects, see the Port's *Tenant Improvement Construction General Requirements, Section 01_50_00 Temporary Facilities and Control*, for detailed requirements.

4) Barriers and Enclosures

- Barricades and enclosures required to separate construction areas from the public must conform with NFPA 241 and Port construction standards. The location and extent of all barricades are required to be coordinated and approved by the Port FD prior to erection. If constructed of fire-treated or metal studs and fire-treated plywood or gypsum wallboard, the fire-treated stamp must be visible on the inside of the barricade.

E. Fire Mains

1) Installation

- All installations shall be approved by both the Port AV/F&I and by Port FD prior to construction.
- Port FD inspects all installations prior to backfill or cover.
- Water mains shall be installed, flushed, sanitized, and tested per the IFC and NFPA 24, WA DOH and AWWA Standards (AWWA C651-14 Disinfecting Water Mains covers disinfection and flushing), STIA Water System Requirements, Private Fire Service Mains and Their Appurtenances.
- All water mains shall be installed with field lock gaskets.

- Port FD shall witness all tests. Contractor will present all necessary test forms at the time of the test. All tests and inspections require 48 hours advance notice to both the Port Water Department and Port FD.
- Mega-lug type connections are not approved for installations without thrust blocking or rodding.
- All new fire sprinkler riser rooms shall be provided with redundant feed. The primary feed shall be underground and installed in accordance with NFPA 24.
- All new fire sprinkler riser rooms and/or rooms containing the installation of new sectional valve shall be provided with a floor drain and the floor sloped to the drain. The floor drain shall be sized to accommodate the full capacity of the largest riser main located within the room.

2) Inspection and Testing

- Thrust block forming must be inspected by the Port FD prior to concrete placement. The Port FD also approves concrete mix design and inspects the thrust block following concrete placement prior to backfill. Thrust blocks are required per NFPA 24 at any change in direction of fire main piping.
- The Port FD and Port AV/Maintenance must be notified a minimum of 24 hours before the fire main acceptance testing.
- Port fire mains testing pressures and times are as follows:
 - Mains are tested at not less than 250 pounds per square inch (psi) for 2 hours.
 - The Port FD inspects the fire main, gauges, and testing process prior to the 2-hour duration. The test must be conducted using NFPA 24 criteria.
 - Calibrated pressure gauge and valve locations shall be as follows: The fire main or hydrant to be tested must have a gauge on the hydrant or main itself. The pump used to pressurize the hydrant or main is disconnected during the test. If this is not done correctly, then the test will not be accepted.

3) Construction Water

- Port FD water supply is required on all construction sites per the IFC. A clear path to the fire hydrant and other Port FD connections, etc., shall be provided.
- The following outlines the use of fire hydrants during construction:
 - The use of fire hydrants for construction purposes requires approval from Port AV/Maintenance, AV F&I, and Port FD. A certified backflow prevention device (reduced pressure backflow assembly [RPBA]) must be used and tested by a certified tester (provides test report that is reviewed by Port AV/Maintenance and AV/F&I) preferred or Port AV/Maintenance prior to use.

- The hydrant used must be fully opened or fully closed at all times to prevent undermining. Contractors are restricted from operating hydrant keys or valves.
- A maximum of one, 2½-inch connection is allowed per hydrant for construction purposes.

F. Fire Hydrants

1) Design

The hydrants shall be a standard pattern of a single manufacturer approved by the Port FD. The name or mark of the manufacturer, size of the valve opening, and the year made shall be plainly cast in raised letters and placed on the hydrant barrel as to be visible after the hydrant is installed.

All hydrants shall be designed for a minimum working pressure of 250 pounds per square inch gauge (psig) and 500 psig test pressure. The manufacturer conforms to American Water Works Association (AWWA) C502 and the following requirements stated in this section for workmanship, design, and material:

- The hydrant body shall be cast iron, fully mounted, with approved noncorrodible metals. All wear surfaces shall be bronze or other noncorrodible material. There shall be no moving bearing or contact of iron or steel with iron or steel. All contact surfaces shall be finished or machined, and all wearing surfaces shall be easily renewable.
- Hydrant design is such that all working parts can be removed through the top of the hydrant.
- The hydrant stem shall have the AWWA specified number of turns to open the gate and area equal to the area of the valve opening.
- All upright hydrants shall be provided with collision protection, breakaway devices, and sidewalk flanges. In addition to the protection, hydrants shall be designed to provide a minimum 5 feet of clear access directly behind the hydrant.
- All hydrants shall have two means of restraint, with the primary means being thrust blocking. Mega-lug type connections are not approved for installation without thrust blocking or rodding.
- Fire hydrants shall be located no further than 300 feet apart, measured along the centerline of the road.
- Fire hydrants shall be located within 50 feet of a Fire Department Connection (FDC).
- Underground piping from the foot valve to hydrant shall be 6 inches. Piping and the foot valve shall be sized as follows:
 - Less than 50 feet: 6 inches
 - Greater than 50 feet: 8 inches minimum with a reducer to 6 inches past the foot valve
- All hydrants shall be painted red with reflectorized silver top. Paint is based upon Sherwin Williams Fast Dry Acrylic Enamel (F78R27), equivalent by Benjamin Moore,

Pittsburgh, Carboline, Tnemec, Kelly-Moore, Parker Paint, or approved equal. This paint is a water-based product used for the red base. The top is based upon Rust-Oleum High Performance Acrylic Enamel (5215) equivalent by Benjamin Moore, Pittsburgh, Carboline, Tnemec, Kelly-Moore, Parker Paint, or approved equal. This is also a water-based product. Reflectorized glass beads are Potter Industries Highway Safety Spheres, Brite Blend by Flex-O-Lite, Swarco Beads from Swarco Industries, or approved equal. The beads are to be applied to the silver top only.

- The dimensions of the bell or hub end connection shall conform to the dimensions of AWWA Standard C100. The dimensions of the mechanical joint (if used) shall conform to AWWA C110.

2) Hydrant Requirements

The Port FD in cooperation with Port AV/Maintenance requires the following standards in hydrant installation to maintain uniformity on equipment and spare parts required to maintain hydrants:

a) Upright hydrant

M&H Style 929 Reliant, Mueller Super Centurion, Kennedy Guardian, or approved equal fire hydrant.

- Hydrant foot valve to be installed no less than 4 feet and no more than 10 feet from the base of the hydrant.
- Drain holes shall be connected by piping and shall terminate above ground.
- Upright hydrant location to be marked with reflective hydrant signs to match present standards.

b) Flush hydrant

M&H Fire Hydrant or approved equal, Flush Model, and AWWA compression type

- Hydrant foot valve to be installed no less than 4 feet and no more than 10 feet from the base of the hydrant.
- Drain holes shall be connected by piping and shall terminate above ground.
- Flush hydrant location to be marked with reflective hydrant signs to match present standards.
- Flush hydrant box to be provided with adequate drainage to keep water from accumulating inside the box.
- Flush hydrant location to be marked with reflective hydrant signs to match present standards.

3) Connections

a) Hydrant Steamer Adapter

- A quick connect fitting provided with blind cap and cable on all fire hydrants.

- iQuick connect fitting shall be 5-inch Storz to Rigid Rocker Lug Style
 - 4-inch Pacific Coast Pumper thread: six threads per inch
 - Outside diameter: 4.828 inches
 - Thread root diameter: 4.580 inches
 - Thread length of male nipple: P.C.P. Standard
 - No substitution permitted
- Material to be hardcoat anodized MIL-A-8625-F, type 3, dark grey of 6061-T6.
- Aluminum and cap secured to nozzle with two stainless steel screws set 180 degrees apart. The cap shall be tethered with a 0.125-inch vinyl coated aircraft cable.
- All parts, cables, and levers are AISI 304/316 stainless steel. Storz gasket shall be BUNA-N.

b) Port Fire Department Connection (FDC)

All FDCs shall be either of the following:

- Storz 5-inch with a 45-degree elbow, blind cap and cable
- Siamese connection—Two-sided hose nozzle connections with 2.5-inch NST, and 7.5 threads per inch at a 60-degree V thread; thread length of 1 inch; root diameter of thread to be 2.8715 inches; and outside diameter of finished nozzle to be 3.0625 inches.

G. Fire Sprinklers

All buildings on Port property are required to be fully sprinkled, regardless of type of construction, setback distance, or individual fire area size. An exception to this requirement may be granted, but a formal request must be submitted and accompanied by a stamped fire engineering analysis to the Port FD for review. The final determination on the acceptability of the request will be solely the responsibility of the Port FD.

The Port FD will begin enforcing the 2019 Edition of NFPA 13 for all projects submitted on or after January 1, 2020.

1) System Requirements

- The Airport requires a minimum of 175 psi working pressure for all piping, fitting, and materials.
- All sprinklers systems on Port property shall be designed for a minimum of Ordinary Hazard 1 per NFPA 13.
- All new piping shall be Schedule 40 minimum. All existing Schedule 10 thin-walled or XL piping shall be removed and replaced with Schedule 40.
- All sprinklers shall be quick-response, glass-bulb sprinklers.
- All hangers shall be clevis type to resist upward movement.

4. PORT FIRE DEPARTMENT

- Fittings above grade shall be actual elbows, tees, reducers, and other required fittings. Coupling reducers, coupling tees, or mechanical tees are not allowed. Plain end fittings or drain elbows are not allowed.
- Weld-o-lets, thread-o-lets, or actual tees with mechanical couplings are the only connections allowed at pipe connections where more than two connections are required (tees and/or crosses). Coupling tees and mechanical tees are not allowed.
- The use of flex heads and/or adjustable drop nipples are not allowed with no exceptions.
- Guards are provided where clear height under sprinkler head is less than 7 feet.
- In multilevel buildings, a floor control valve and drain assembly shall be provided for every floor, including intermediate floors and penthouses. The floor control assembly shall be detailed and shown on the submittal shop drawings.
- Every new sprinkler system shall include a double-check backflow preventer. Existing buildings being extensively remodeled or renovated, with existing sprinkler system not already having a PIV or double-check backflow preventer shall have these items added to the system. Double-check backflow preventers shall be installed above grade in the position approved for use (horizontal or vertical).
- All rooms that contain a fire sprinkler riser or a deluge valve shall have a floor drain installed and the floor shall slope to drain. The floor drain shall be sized to accommodate the full capacity of the largest riser main located within the room.
- A 500-gallons per minute (gpm) hose allowance shall be added to the base of each riser demands
- Obtain latest water supply engineering test data prior to design. The proposed sprinkler system demand must be 10-percent or 10-psi (whichever is greater) below the water supply curve. Contact the Port FD for the most current water supply information.
- All parts of the airport terminal shall be provided with a Class 1 standpipe system in accordance with NFPA 14.
- All new airport terminal buildings, for which a new fire pump is required, shall be provided with an automatic type standpipe system in accordance with NFPA 14. Fore terminal buildings not requiring a fire pump, the standpipe system shall be a manual type in accordance with NFPA 14.
- For the purpose of branch line restraints, wire shall NOT be used as a method to satisfy this requirement. A branch line shall be defined as a sprinkler line serving more than 1 sprinkler head. If a branch line is serving 2 heads in the same vertical plane (upright and pendant), then branch line restraint shall only be required if the branch line is greater than 10 feet when measured horizontally.

2) Design Criteria for New Systems

a) New Buildings

The design for new buildings shall be a minimum of Ordinary Hazard 1 and will be based on hydraulically calculated system as follows:

General Areas in the Main Terminal, Concourses, Satellites Telecommunication Rooms, and all offices (both sterile and non-sterile):

- 0.15 gpm per square foot over most remote 2,200 square feet
- Head spacing: 130 square feet per head maximum
- ½-inch orifice sprinkler heads rated at 155 degrees Fahrenheit

Sterile Ramp Level Areas Containing Storage and/or Baggage Handling Equipment:

- 0.25 gpm per square foot over most remote 2,500 square feet
- Head spacing: 100 square feet per head maximum
- ½-inch orifice upright sprinkler heads rated at 200 degrees Fahrenheit

Non-Sterile Baggage Claim

- 0.15 gpm per square foot over most remote 2,000 square feet
- Head spacing: 130 square feet per head maximum
- ½-inch orifice sprinkler heads rated at 155 degrees Fahrenheit

Mechanical Rooms that Contain a Boiler and/or Chiller

- 0.25 gpm per square foot over most remote 3,000 square feet
- Head spacing: 100 square feet per head maximum
- ½-inch orifice upright sprinkler heads rated at 286 degrees Fahrenheit

Mechanical Rooms

- 0.20 gpm per square foot over most remote 2,000 square feet
- Head spacing: 100 square feet per head maximum
- ½-inch orifice upright sprinkler heads rated at 200 degrees Fahrenheit

Electrical Room – Power Centers

- Rooms are 2 hour rated construction and provided with complete smoke detection.
- Systems are provided with a normally closed, electronically supervised, manual section valve, flow switch, and air maintenance device.
- 0.15 gpm per square foot over most remote 2,000 square feet.
- Head spacing 130 square feet per head maximum.
- ½ inch orifice sprinkler heads rated at 286 degrees Fahrenheit

Electrical Room – Low Voltage Electrical Rooms

- Sprinklers are not required if room is 2 hour rated construction and provided with complete smoke detection.

Telecommunications Rooms – Main Distribution Rooms (MDFs)

- Rooms shall be 2 hour rated construction.
- Shall be provided with an FM-200 Clean Agent System in accordance with NFPA 2001.

Equipment Storage Rooms:

- 0.20 gpm per square foot over most remote 2,500 square feet.
- Head Spacing: 100 square feet per head maximum.
- 1/2-inch orifice upright sprinkler heads rated at 286 degrees Fahrenheit.

Buildings permitted by City of SeaTac

- Shall be designed for minimum of Ordinary Hazard 1 per NFPA 13

b) Design for Existing Systems

The design for existing buildings is based on hydraulically calculated system as follows:

- Existing building or areas currently not sprinklered: Provide sprinkler system in accordance with new buildings design parameters.
- Existing building remodel, currently sprinklered: Provide sprinkler system to match the basis for the existing system wherever possible. Pipe schedule method for Ordinary Hazard is acceptable.

3) Installation and Testing

All new systems and/or piping are required to be hydrostatically tested to 1.5 times the working pressure or 225 psi, whichever is greater. The test duration is 2 hours.

All fire mains and branch lines, 2.5-inch in diameter or larger shall be labeled on both sides of all wall or floor penetrations and every 25 feet with a vinyl label. Labels shall have white letters at least 1 inch in height on a red background. Labels shall indicate direction of water flow, the riser name, and include the words "Fire Sprinkler." For rooms and/or areas supplied with or by piping smaller than 2.5-inch in diameter, the riser name, flow direction, and "Fire Sprinkler" shall be written on the piping using a white paint pen.

For all new fire sprinkler system, risers, or sectional valve(s), a graphical floor plan indicating the system name, coverage area, and location of the valve(s) shall be provided. Once approved by the Port FD, the floor plan shall be laminated and hung within the riser room, at the riser, or at the valve(s). Coordinate the final location with the Port FD.

H. Fire Alarms

All fire and/or smoke detection and alarm system components installed on Port property shall be compatible and connected to the existing Port-owned proprietary fire alarm system (Simplex/Grinnell). The Port's current system is a Simplex 4100ES.

The Port FD approves all fire alarm system components and modifications prior to installation. All fire alarm system installations and modifications are subject to the Port FD plan review process.

The contractor is responsible for providing all devices, wire, cable, and conduit that are to be installed by a qualified contractor from the device to a Port-owned fire alarm cabinet as designated by the Port FD. If no Port-owned fire alarm cabinets are available within a reasonable distance or do not yet exist, then the contractor is required to supply a new cabinet. The cabinet is provided and installed with line voltage and a termination to the Port's proprietary system for monitoring.

The contractor is responsible for all terminations of fire alarm field devices. All fire alarm panel terminations and system programming are provided by the Port FD.

If required, the fire alarm systems will be intertied into the heating, ventilation, and air conditioning (HVAC) building automation system (Siemens Direct Digital Control [DDC]) as shown on the design documents or as designated by Port FD at the project's expense and may incorporate programming requirements for emergency responses of the HVAC systems ("Smoke Control") depending on project scope and location.

For the purposes of smoke control, the design of smoke detection shall be of the air sampling type, i.e. Very Early Smoke Detection Apparatus (VESDA). Use of beam detection in lieu of air sampling must be requested and approved in writing by the Port FD. Approval of the request is at the sole discretion of the Port FD.

I. Interior Materials and Furniture

Per NFPA 415 and 4.1.2, all materials used within the Airport terminal are required to carry a classification of either a Class A or Class B fire rating. This requirement is applied in conjunction with IBC Chapter 8. This requirement applies to all casework, cabinetry, and woodwork.

Any lumber and/or wood used on Airport property for construction, temporary structures, or any other reason shall be of fire-treated material. Any wood not treated with fire-retardant material shall be painted with intumescent paint on both sides. Any plastic sheeting used shall be fire-retardant material.

All plastic sheeting used throughout the airport for construction, storage, maintenance, or repairs shall be flame retardant. Documentation is required for Port FD review and approval before bringing on site.

All other plastics within the airport terminal shall carry a fire rated classification of either Class A or Class B when tested per ASTM E84. As an alternative to the requirements of ASTM E84, a minimum rating of V-0 or V-1 when tested per UL 94 is acceptable. Both of these requirements shall be applied in conjunction with Chapter 8 and 26 of the IBC.

Using expansion foam, which does not have an Underwriters Laboratories (UL) fire-rated listing, is not allowed for any reason or application.

All furniture in the Airport terminal located in public spaces and in all A and B occupancies, with an occupancy load greater than 50 people, shall be CAL 133 (TB 133) compliant. All other furniture on Port property must be CAL 117 (TB 117) compliant. Custom furniture shall be treated to provide a minimum Class B fire rating. Based on individual applications and/or situations and approval from the Port FD, limited quantities of manufactured or purchased furniture constructed with a minimum of Class C materials may be allowed. Plastic or injection molded furniture without a minimum of a Class B rating is not allowed for any reason.

If the application of a fire retardant is required and/or used to meet any of the requirements of this section, all materials and the proposed product(s) shall be submitted to the Port FD for review and approval. After approval, all application(s) of fire retardants are required to be witnessed, certified, and documentation provided to the Port FD by an approved 3rd party special inspector before issuance of a certificate or a temporary certificate of occupancy.

J. Smoke Control

All public spaces of new terminal building shall be provided with an IBC/IFC 909 compliant smoke control system regardless of size, number of floors or setback distance. The smoke control system is required to provide sufficient time to allow for a Port FD response and evaluation before activating fire alarm notification devices. The primary method for smoke control shall be Smoke Containment System. If a Smoke Management System is approved, the design shall be required to:

- Provide a mechanical smoke exhaust capacity
- All required make-up air shall be provided via supply fans directly from outside air. Transfer grills and other passive means to provide makeup air from other spaces or the exterior shall not be allowed.

All non-public spaces of new terminal building shall be provided with a non-IBC/IFC 909 compliant smoke control system. All areas that support baggage processing shall be provided with a purge mode. The primary means for activating and/or zoning Smoke Control shall be sprinkler water flow alarms. If Smoke Detection is approved in lieu of sprinkler zoning the primary method shall be VESDA.

The smoke control system shall be designed per NFPA 92 with the minimum design fire sizes and/or criteria:

- Circulation and/or holdrooms – 2,500 BTU/second
- Tenant spaces – 3,500 BTU/second
- Medium growth fire

K. Temporary Structures

1) Definitions

- Temporary structures are trailers, modular buildings, shacks, and sheds that do not exceed 2,000 square feet, either in individual floor area or in an aggregate grouping.

- Protected terminal buildings are those passenger transportation terminals/concourses that include interior sprinkler protection and exterior deluge sprinkler protections.
- Construction barricades and partitions are temporary structures used to cordon off construction areas as described in the Port's *Tenant Improvement Construction General Requirements* Section 01 50 00, Temporary Facilities.

2) Life-Safety Requirements:

The inherent risks caused by having nonfire-rated or nonfire-protected structures or construction barricades on an airfield or in terminal buildings relates to their location, hazards, and exposures where these structures are placed. Factors that prompt the need for life safety systems include the following:

- The large proximity of aircraft and aircraft fueling operations to such buildings
- Large numbers of ground service operations and equipment around them and the potential exposure of fire and smoke to terminal buildings and large numbers of people
- Large numbers of people in close proximity to a construction area within any terminal building

3) Life-Safety Provisions

All temporary structures shall be a minimum of 50 feet from any aircraft fuel vent, fuel truck, or fuel hydrant cart in accordance with NFPA Standard No. 407. Minimum clearance of temporary structures from the terminals shall be as follows:

- Unprotected terminal building to protected temporary structure: 20 feet
- Protected terminal building to unprotected temporary structure: 20 feet
- Protected terminal building to protected temporary structure: 5 feet

Unprotected temporary structures, other than construction barricades or partitions, shall not be placed within a terminal building.

No temporary structure shall remain at its approved location more than one consecutive 180-day period without written authorization for extensions from the ABD and Port FD. Time limits or extensions may be revoked for due cause.

Temporary structures shall not become permanent structures without complying with Port standards and minimum building code/fix code provisions for type of construction and other life-safety, structural, and sanitation issues relative to their occupancy group.

4) Installation and Use

Temporary structures on construction sites shall comply with applicable Port FD code regulations. They are inspected prior to occupancy and equipped with the proper type and number of fire extinguishers.

L. Construction Storage

1) Construction materials storage is allowed only under the following circumstances:

- Within a secure, protected and Port FD, Port AV/OPS, AV/ENV, and AV/Maintenance approved location for storage use.
- The contractor shall supply and maintain suitable means of fire protection whenever combustible materials are used or stored at the work site. Fire protection will, at a minimum, consist of portable extinguishers or approved wet fire lines, valves, hoses, and nozzles in such number and location as approved by the Port FD. Fire protection shall be maintained as long as there are combustible materials at the work site. Storage of combustible materials shall comply with the IFC Fire Safety during Construction and these guidelines.
- The amount of stored material does not exceed the amount needed for use of the specified project for that day.
- Stored materials are not within the exit corridor or path, blocking access to a fire lane or means of egress system, or under stairs.
- Storage of flammable or combustible liquids methods and locations must be approved by the Port FD.

2) Refuse

Trash, refuse, or garbage within terminal projects shall be removed after each shift and never left overnight. Refuse shall be removed in a timely manner from all outdoor construction sites.

Trash, refuse, or garbage must be secured in pest-resistant receptacles (labeled with contractor name and contact information) with closed lids at all times in all locations to prevent foreign object debris (FOD) or wildlife/pest attractants. Contractors may be responsible for hiring pest control services if pests are found in construction sites with open garbage containers or other attractants on site.

3) Flammable and Combustible Gas and Liquid Containers

All flammable and combustible liquids to be used on a construction project must be kept in an approved location, whether it is in an approved flammable/combustible liquids storage cabinet or in a remote area. The amount of product stored must not exceed the amount specified by the Port FD. All compressed gas cylinders must be chained in the upright position and stored in an approved location as well.

M. Hot Work Permits and Guidelines

1) Hot Work

All open flame, heat, spark-producing operations, including but not limited to, cutting, welding, brazing, soldering, and grinding, on Airport property requires a Hot Work Permit from the Port of Seattle Fire Department indicating the required safety

precautions have been met. This permit shall be located at the job site and a copy will be held at the fire station until the date on the permit has expired.

Any hot work involving fuel lines shall require a safety plan, submitted and approved by the Fire Department and may require a Fire Guard Standby. The contractor performing the work shall compensate the Port Fire Department using the Washington State Schedule of Standard Charges.

2) Types of Hot Work Permits

a) Standard Hot Work permit

Issued for work not under the supervision of a construction project.

Contractors shall not call for a hot work permit until all safety precautions are met, in place and ready to perform hot work. Call Port Fire Dispatch one hour in advance at (206)787-4653.

Hot Work Permits issued for more than a 24-hour duration by the Port of Seattle Fire Department shall require a Port Fire Department Daily Pre-Hot Work Checklist.

b) Project/Area Hot Work Permit

A Project/Area Hot Work Permit is used for construction projects, after the Pre-Construction Meeting the Fire Department will meet General Contractors superintendent(s) to review site and review requirements. Once Project/Area Hot Work Permit is issued and all hot work activity is permitted and checked by the project's superintendent, safety rep or designated person, utilizing the "Daily Hot Work Checklist"

The Contractor is responsible for making the work area as fire safe as possible adhering to the required precautions and conditions for Hot Works described in permit in Appendix B.

3) Conditions for Hot Work

Hot Work Permits issued for more than 24-hour duration by the Port of Seattle Fire Department shall require a Daily Pre-Hot Work Checklist completed by a designated competent person and kept on individual performing hot works, turned into Project Superintendent at end of day and filed.

The Area/Project Permit is valid only to the listed Superintendent for the identified area/project, if work area changes locations or changes Superintendents you will need to contact assigned Fire Inspector for new permit. Fire Inspector and Project Superintendent will jointly review each location.

Individuals conducting hot works shall not perform Pre-Hot Work inspection form. For each person performing hot work, the area shall be inspected by the Project Superintendent or identified competent person, supervisor of company performing hot work or safety rep/fire watch activity using pre-hot work checklist.

The Project Superintendent, safety or designated person should perform random audits of hot work activity.

The Project/Area Superintendent shall be responsible to collect daily Pre-Hot Work Checklists and monitor hot work activity and fire watch requirements.

Hot Works are not allowed in the following situations:

- a. In sprinklered buildings while such protection is impaired or out of service, unless a designated fire watch is posted for each hot work operator. Coordinate with the Port Fire Department.
- b. In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air).
- c. Over operating conveyors.

The Fire Department, Port Safety, and Port Construction Inspectors will perform random site visits; if conditions of permit are not adhered to, hot work permit for area or entire job may be revoked until corrective action are made.

4) Other Considerations:

- If detectors (UVIR, Smoke) are covered to prevent alarms, covers must be removed at end of workday.
- If hot works is near ventilation systems coordinate with your Port Construction Inspector.
- Coordinate with Fire Inspector for any hot works on the roof.
- Coordinate with Fire Inspector for any hot works on the ramp.
- Hot works in confined space must be coordinated with Port Construction, Safety and Fire Inspectors

Questions or concerns contact your assigned Fire Inspector.

N. Fuel Storage and Distribution Systems

Removal and/or installation of all aboveground and underground tanks and piping, fuel hydrant systems, fuel farms and related systems must be coordinated in advance with the Port FD and Port AV/ENV. All work, including any clean up, must be performed in accordance with applicable Port Specifications, Standards, WAC 173-360 and any additional federal, state, and local laws and regulations.

All tanks and system components taken out of service permanently shall be removed from the ground. Exceptions may be approved due to extraordinary physical or operational restrictions. Tanks not removed will be filled with an inert solid material. All piping shall be removed from the ground. Exceptions may be approved due to extraordinary physical or operational restrictions. Piping not removed will be cleaned and inerted.

O. Operational Permits

In additions to the operational permits required by Sections 105.6.1 through 105.6.48 of the 2015 IFC, the following activities require an operational permit from the Port FD:

- Fuel storage tanks
- Powder actuated fasteners
- Use of aircraft hangers or warehouses for an event with more than 50 people
- Food trucks

P. Emergency Lighting

The following amends IBC 1008.3.3. Within the Airport, emergency lighting shall be provided in all public restrooms and nonpublic restrooms, regardless of size. Nonpublic, single-occupancy restrooms are exempt from this requirement.

The following amends IBC 1013.5. All internally illuminated exit signs shall be electrically powered, listed and labeled in accordance with UL 924, and installed in accordance with the manufacturer's instructions and Chapter 27. Exit signs shall be illuminated at all times.

Exception: Self luminous and photo luminescent exit signs are allowed for temporary conditions when approved by the Port FD. Self-luminous and photo luminescent exit signs, when approved, shall be listed and labeled in accordance with UL 924 and installed in accordance with the manufacturer's instructions and Chapter 27.

Q. Elevators

The following amends IBC 3002.4. On all Airport Port property, where elevators are provided, the car shall be sized to accommodate an ambulance stretcher.

All elevators within the terminal shall be provided with a connection to an approved Fire Command Center to facilitate the monitoring, recall, and emergency/standby power selector per IBC 911.1.6.

Located next to the Washington State L&I Knox Box on the primary recall floor, a Supra Box cored to the Port FD barrel key shall be provided. Inside the Supra Box, a key to access the L&I Knox Box shall be provided.

R. Fire Command Centers

All new terminal building shall be provided with Fire Command Center that complies with IBC 911.1.1 through IBC 911.1.6.

S. Fire Extinguishers, Automated External Defibrillator Locations and Spacing

1) Automated External Defibrillator

Within the Airport terminal, automated external defibrillators (AEDs) shall be located in all public circulation spaces and hold rooms with a maximum travel distance of 150 feet. A minimum of one AED shall be located in each airline lounge, club, or tenant breakroom designed to serve more than 50 occupants. All buildings on Port property shall have a minimum of one AED located in an obvious location, such as an elevator lobby and/or entrance.

All AEDs in public accessible areas shall be provided with and located within an approved cabinet.

2) Fire Extinguishers

Fire Extinguishers shall be located in all general circulation areas and tenant spaces with a maximum travel distance of 75 feet per IFC 906.

Fire Extinguishers shall be provided in all new mechanical room, electrical, communication and elevator machine rooms.

All tenants shall provide at least 1 fire extinguisher for their space and shall not utilize general circulation extinguishers to meet this requirement. The fire extinguisher shall be at least a 10lb, ABC-type extinguisher rated at a minimum of 4A-60B:C.

Fire Extinguishers for temporary kiosks or kiosks less than 300 square feet shall be a minimum 5lb, ABC-type rated at a minimum 2A-10B:C. Kiosks greater than 300 square feet shall be treated as a tenant space.

Fire Extinguishers for electrical and elevator machine rooms shall be the type and size required by the National Electric Code (NEC) and ASME A17.1.

All Fire Extinguishers in public accessible areas shall be provided with and located within an approved cabinet.

T. Exterior Concrete Stairs

All new exterior concrete stairs shall be provided with anti-slip safety treads or troweled grooves and nosings.

U. Type 1 Kitchen Hoods

All Type 1 kitchen hoods are required to be provided with an approved suppression system that meets the requirements of the IBC and IFC.

Ventless hoods are not allowed within the terminal.

The suppression system for all Type 1 hoods shall be either dry chem, wet chem, or a clean agent; water deluge hoods are not allowed.

Type 1 hoods should not rely of the Port's fire water system for functionality. Should a self-cleaning hood be requested by a tenant, it is required to be connected to the domestic water system, not the fire sprinkler system.

Type 1 Kitchen hoods are required to use Siemens DDC for control of operation exhaust fan. No standalone control panels, except for local emergency activation of fire suppression system.

For more information on Type 1 hoods reference the Port F&I Mechanical Standards (23 35 00).

V. Exterior Metal Wall Panels

All metal panel panels and system components shall be provided with the following fire-test-response characteristics, as determined by testing identical panels and system components per test method indicated below by UL or another testing and inspecting agency acceptable to the Port FD:

- Fire-resistance characteristics: Provide materials and construction tested for fire resistance per ASTM E 119.
- Intermediate-scale multistory fire test: Tested mockup, representative of completed multistory wall assembly of which wall panel is a part, complies with NFPA 285 for test method and required fire-test-response characteristics of exterior non-load-bearing wall panel assemblies.
- Radiant heat exposure: No ignition when tested according to NFPA 268.

- Potential heat: Acceptable level when tested according to NFPA 259.
- Surface-burning characteristics: Provide wall panels with a flame-spread index of 25 or less and a smoke-developed index of 450 or less, per ASTM E 84.

W. Fire Proofing

Apply a minimum of 12" of fireproofing to any member that is attached to a protected primary structural member and/or a protected secondary structural member. The 12" of fireproofing shall be measured from the attachment point on the protected structural member along the length of the non-protected member. The minimum 12" of fireproofing shall be used in conjunction with the manufacture's UL listing and the more stringent requirement shall prevail.

Where Spray Fire Resistive Materials (SFRM) and Intumescent Fire Resistive Materials (IFRM) overlap, provide a minimum 6" overlap in accordance with the manufacture's installation instructions.

X. Emergency Responder (800 MHz) Radio Coverage

In lieu of the prescriptive requirements of NFPA 72 and NFPA 1221, POSFD will allow the following performance alternative for pathway survivability for the installation of emergency responder radio coverage systems:

- All backbone pathways (riser cables, donor antenna cables, BDA cables) between signal boosters, donor antennae and secondary power supplies and between head end and remote units for fiber-based systems shall be protected by a 2-hour fire rated enclosure.
- All signal booster components and battery backup equipment, located in rooms with fire sprinklers, shall be installed in NEMA-4 type waterproof cabinets.
- The connection between the riser and feeder coaxial cables shall be made within the 2-hour rated enclosure, and passage of the feeder cable in and out of the 2-hour rated enclosure shall be fire stopped to a 2-hour rating.
- Feeder cables that are installed above ceilings in buildings that are protected with an automatic fire sprinkler system in accordance with NFPA 13 shall not require additional physical protection. Feeder cables in these installations shall be plenum rated.
- Feeder cables that are installed in areas without ceilings shall require additional physical protection such as EMT or equivalent.
- Both fiber and coaxial based systems shall be designed such that each floor or remote area shall be covered by a minimum of 2 independent feeders, whereas the failure of a single feeder does not cause signal lost for more than 50% of the required coverage for that floor or remote area. A remote area shall be defined as an area served by a feeder providing connectivity to 2 or more antennae.

5. REGULATED MATERIALS MANAGEMENT

A. Asbestos and Other Regulated Materials

The Port of Seattle is committed to preventing exposure of staff, tenants, and the public to asbestos-containing materials (ACM) and other regulated materials including but not limited to lead, PCB caulk/sealant, PCB oils and silica. The Port's Regulated Materials Management (RMM) Program provides comprehensive training, testing, project design, abatement, cleaning, and surveillance to ensure worker safety, maintain ACM at Port facilities in good condition, and support construction projects.

Many terminal building structural members and adjacent building surfaces above suspended ceilings and inside walls are protected by spray-on fireproofing containing asbestos. Subfloors and other components may also have asbestos containing overspray. Before drilling into a floor or wall or removing ceiling systems, the contractor shall request a survey from the Port. Contractors are prohibited from any removal of metal ceiling systems unless approved in advance by Port AV/Maintenance.

Upon discovery of asbestos behind an enclosed space where the color is not blue or wherein there is no asbestos-free signage, the contractor does not proceed with work and calls for a Port inspection before proceeding.

Upon encountering or exposing asbestos-containing material (ACM) not identified in the scope of work, the contractor immediately notifies the Port Inspector and does not further disturb the ACM until and unless given direction by the Port.

Unless specifically identified in contract documents as work by the contractor, asbestos abatement work is typically completed by the PCS RMM Program utilizing a small works abatement contract. Asbestos abatement projects require notification of the Puget Sound Air Pollution Control Agency and Washington State L&I. A waiting period of up to 10 working days after notification may be imposed (depending on the material) before a project can be started. Availability of contract capacity and abatement contractor resources may also dictate the abatement schedule. Early contact with the Port regarding asbestos abatement for a project is recommended so that the required forms can be filed as early as possible, and abatement contractor availability can be confirmed.

All workers involved in construction activities located in areas known to have ACM must attend a 2-hour asbestos awareness training class provided by the Port. Attendance at this class is required before work begins. Contact the Port PM, PCS CM, RE or Inspector for location and schedule of these classes.

6. ENVIRONMENTAL

The City of SeaTac/Port of Seattle Interlocal Agreement (ILA)

[https://www.portseattle.org/sites/default/files/2020-](https://www.portseattle.org/sites/default/files/2020-12/2018%20Interlocal%20Agreement%20Signed%20w%20SeaTac.pdf)

[12/2018 Interlocal Agreement Signed w SeaTac.pdf](https://www.portseattle.org/sites/default/files/2020-12/2018%20Interlocal%20Agreement%20Signed%20w%20SeaTac.pdf)

must be reviewed to determine the agency or agencies having authority over permitting and the applicable ILA development standards for the specific project location. The Port PM can assist with this review.

A. Introduction

Port AV/ENV provides environmental compliance support for all environmental disciplines including, but not limited to, SEPA/NEPA; water quality and stormwater management; waste management and contaminated soil; construction waste management; air quality; and wetlands and natural resources. Port AV/ENV has environmental strategic objectives that support the Port's Century Agenda and Aviation Division Strategic Planning Goals. To meet these goals, Port AV/ENV provides support for incorporating sustainable facility design and encourages all contractors to implement environmentally preferable construction practices and recycle construction and demolition debris.

Where references are made to specification sections, Port projects should refer to the project specifications, and tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

B. National and State Environmental Policy Acts Requirements.

Construction on Port property may not commence until appropriate SEPA and/or NEPA analysis has been completed. Construction on Port property may not commence until AV/ENV has reviewed and approved that project design meets all permits and is in alignment with applicable environmental strategic goals and objectives.

C. General Permit Compliance

Where environmental permits have been obtained for projects, contract plans and specifications provide a critical component of environmental permit compliance, and compliance with those plans and specifications is required. Those environmental contract specifications commonly include, but are not limited, to the following:

- 01 35 43, Environmental Regulatory Requirements
- 01 57 13, Temporary Erosion and Sediment Control Planning and Execution
- 01 57 23, Pollution Prevention Planning and Execution
- 01 74 19(a) and (b), Construction Waste Management
- 02 41 13 Site Demolition
- 02 80 00 Facility Remediation
- 02 83 19, Lead Controls in Construction and Demolition
- 02 84 33, Removal of PCBs and PCB Containing Material
- 02 84 33.13 PCB Caulk Removal
- 02 82 13, Asbestos Abatement

- 02 61 13, Handling Contaminated Soil
- 01 59 00, Construction Water Management System
- 02 84 16, Light Ballast and Lamp Removal and Management
- Attachment A, NPDES Contractor Permit Statement 00 80 00A
- 31 00 00 Earthwork
- 32 90 00 Planting
- 32 92 19 Seeding
- 32 92 19.16 Hydroseeding for Erosion Control and Landscaping

D. Water Quality and Stormwater Management

All construction activities shall comply with applicable environmental permits. The Airport operates under the requirements of a National Pollutant Discharge Elimination System (NPDES) Permit issued by the Washington State Department of Ecology. The NPDES Permit imposes controls that assure that Airport industrial wastewater, industrial stormwater, and construction stormwater discharges meet applicable water quality standards. NPDES controls are implemented by the Airport through the Airport Stormwater Pollution Prevention Plan (SWPPP). Under the terms of the Permit, the Airport is responsible for all industrial and stormwater discharges originating on Airport Property. All construction projects within the permit boundary are subject to the provisions of the permit and will comply with that permit. Any Port or tenant projects outside of the permit boundary must file for a general construction permit, if applicable.

Contract change orders that could affect environmental permit compliance are reviewed and approved by AV/ENV or other designated staff. All applicable environmental permits, temporary erosion and sediment control plans, pollution prevention plans and stormwater pollution prevention plans for projects to be constructed are maintained and available at the project site or specific location defined by permit.

Construction and demolition activities by Port or tenants shall not interfere with operation of or access to Port stormwater monitoring stations and equipment around the Airport. The party managing construction is responsible for understanding the locations of these stations and equipment that may be impacted by the project.

Specifications Section 01 57 13, Temporary Erosion and Sediment Control Planning and Execution, has been developed to control erosion and sediment transport and air quality related to fugitive dust generated during outdoor construction. If applicable, compliance with all specification conditions is required to assure compliance with the Port's NPDES permit, unless otherwise approved by Port AV/ENV staff before construction begins.

All temporary erosion and sediment control and pollution prevention measures required for construction work shall be in place before work begins, and those measures shall be inspected daily and maintained as required by contract or as directed by the Port PM. Daily Temporary Erosion and Sediment Control inspection reports shall be kept on site and available for review upon request

All construction stormwater must meet permit requirements prior to discharge. The contractor is required to monitor all construction stormwater discharges. Specific project

requirements are defined in specifications Section 01 57 13 and/or Section 01 59 00. No construction runoff is allowed to drain or be pumped to the industrial waste system without prior approval. Contact Port AV/ENV for Industrial Waste Treatment Plant Discharge Request Form and specific information on how to obtain approval and ITWP policy.

Process water or chlorinated/potable water is not permitted to be discharged to the storm drain system. Process water includes, but is not limited to; wheel wash water, concrete saw cut slurry, road wash water, and sweeper wastewater. Chlorinated and/or potable water must be dechlorinated before discharge.

Where construction stormwater monitoring of a Port or tenant construction site is required, access is coordinated with and granted to Port AV/ENV staff who will conduct that monitoring.

E. Contaminated Soil and Groundwater Management

All contaminated site remediation must be performed according to federal, state, and local laws and regulations; contract specifications 02 61 13 Handling Contaminated Soil and others; and/or as directed by the Port AV/ENV.

Before work begins, the contractor provides to AV/ENV a work plan and schedule of work for approval for construction projects where contaminated soil or groundwater is expected to be encountered. Port AV/ENV may need to inspect these projects to assure regulatory or permit compliance, which will be determined no later than the preconstruction meeting. Port AV/ENV is notified immediately if potentially contaminated soil or groundwater is encountered during construction work.

All construction on groundwater and vapor monitoring wells, including installation, decommissioning, and refurbishing shall be conducted in accordance with WAC 173-160. Plans for these types of construction activities must be approved in advance by Port AV/ENV. Contractors provide copies of Washington Department of Ecology documentation as required by Port AV/ENV.

Using the contaminated soil stockpile facility, operated by the Port, may only occur after approval by Port AV/ENV.

F. Hazardous Materials and Waste

Specifications Section 01 57 23, Pollution Prevention Planning and Execution, has been developed to ensure hazardous materials and waste are handled and managed appropriately. Compliance with all conditions of the specification during construction work is required to ensure compliance with the Port's NPDES permit, unless otherwise approved by Port AV/ENV before construction begins.

Any spill of pollutants that occurs during construction must be reported to Port Inspector and AV/ENV immediately and as required by the applicable Pollution Prevention Plan. Contractors are responsible for immediately reporting to the Port any spill deemed reportable under local, state, or federal statute., in addition to reporting to Port AV/ENV. Spill kits used to contain and clean up any spills of hazardous materials and/or waste must be on site during construction.

Prior coordination with Port AV/ENV is made by the Port PM, PCS CM, or RE related to hazardous waste removal. Port AV/ENV must be present any time hazardous wastes are

removed from Port property. Port AV/ENV signs all hazardous waste manifests before waste is removed from Airport property.

During project construction, any unanticipated hazardous materials, waste, or contaminated soils encountered during demolition or construction that are not generated by the contractor's activities shall be immediately brought to the attention of the Port PM, PCS, CM, or RE. The materials shall not be disturbed until proper designation has been determined by Port AV/ENV.

For Port-constructed projects, documentation for universal waste disposal will be submitted to Port AV/ENV no later than 30 days after project completion, but before contract closeout. Abatement of regulated materials must comply with Port abatement requirements identified in contract documents.

G. Waste Disposal

Wastewater shall be disposed of according to all applicable federal, state, and local laws or regulations, including but not limited to those of the affected sewer district. All liquid waste discharges must be approved by Port AV/ENV. Washwater of any type, including road washing, is considered process water and not permitted to be discharged to any storm drain system or Industrial Waste System.

Before connecting to the existing industrial waste system, existing storm drain system, or sanitary sewer system, the contractor verifies that the connection to the existing Port system is appropriate, that sufficient capacity and detention is available for the proposed additional loads, and approval has been acquired from the Port; . This is documented in the Stormwater Site Plan submittal that is reviewed by the Port.

All hazardous materials and hazardous wastes stored or generated from operations at the Airport are owned by the generator of that waste or material, as the term "generator" is defined in Title 40 of the Code of Federal Regulations or Title 173 of the Washington Administrative Code. This does not include waste generated directly from contractor activities (for example, contractor vehicle maintenance, contractor chemical spills). The contractor must coordinate with Port AV/ENV for disposal requirements.

H. Air Quality

Contractors are required to abide by all federal, state, and local air quality/greenhouse gas emission regulations.

Before starting construction and operation of any facilities with point-source emissions (such as exhaust vents, chimneys, and stacks), the contractor must obtain, and retain for inspection if requested by the Port, all necessary regulatory permits including a Notice of Construction Order of Approval from the Puget Sound Clean Air Agency.

Additionally, all contractors regardless of project scope must abide by the following air quality practices:

- All diesel equipment with an engine of 25hp or greater must be a Tier 4 or higher rated engine. Equipment that does not comply with this standard shall be identified to the Port prior to construction.

- For non-diesel or low-hp diesel equipment, contractors must use low-emission construction equipment and best available control technology.
- Equipment must not idle for more than five (5) consecutive minute unless idling is necessary to serve the purpose of the machine. Stationary emission sources (e.g. portable diesel generators, compressors, etc.) must be turned off when not in use
- Contractors must have in place appropriate air quality control measures to ensure that construction and public areas are not adversely affected by uncomfortable temperatures, fugitive dust, and other unacceptable air emissions.
- Burning of any refuse is prohibited

I. Construction Waste Management

To support the Port's strategic goals, contractors are required to develop and implement a Construction Waste Management Plan and final report as defined in specifications Section 01 74 19 (a and b). The specification provides template forms for both the plan and report. To the maximum extent practicable, contractors working at the Port are encouraged to divert construction waste from the landfill by using salvage, reuse, source-separated, or comingled recycling activities. Quantities are typically reported by weight (tons) unless otherwise approved by the Port. Copies of manifests, weight tickets, recycling and/or disposal receipts or invoices that validate the calculations, or a signed certification of completeness and accuracy of the final quantities reported, are required to be submitted.

J. Critical or Sensitive Area Protection

Port properties adjacent to the Airport contain an abundance of critical or sensitive areas, such as streams and wetlands. Disturbance or impact to these areas and their designated buffers is not allowed. Disturbance of critical and sensitive areas and their buffers may only occur in accordance with local, state, and federal regulations or project-specific permits. Port AV/ENV should be contacted to determine whether the project affects or is near these areas.

K. Inspections

Port AV/ENV and/or Engineering inspects construction sites as needed to assure compliance with applicable environmental regulations and contract specifications.

7. AIRPORT OPERATIONS

A. Introduction

Port AV/OPS is committed to maintaining the operational continuity of the Airport while upholding the highest levels of safety, security, and customer service. Port AV/OPS comprises several different groups, including construction coordination. For more detailed information on Port AV/OPS requirements refer to specifications Section 01 35 13.13, Operational Safety on Airports during Construction.

Where references are made to specification sections, Port projects should refer to Project specifications, and tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

B. Coordination of Construction with Airport Operations

Airport operations will continue throughout periods of construction work. Where Airport operations conflict with those of the contractor, the operations of the Airport take precedence. No construction activity will be unreasonably noxious, offensive, or create an unreasonable annoyance or nuisance to others on or adjacent to Airport property.

Port AV/OPS schedules and communicates construction activities with Airport stakeholders. The Port PM, PCS CM, RE, or Inspector identifies the AV/OPS contact for the project. With support from the Port Inspector, the contractor is solely responsible for scheduling and coordinating its activities with those of the Airport to minimize disruption of Airport operations. Support from Port AV/Maintenance requires a request submission before 8:00 a.m. Thursdays for the following work week to provide escorting to restricted locations.

C. Federal Aviation Administration Notice of Proposed Construction or Alteration Requirements

FAA approval is required for certain types of construction at the Airport. All requirements for FAA compliance shall be incorporated into contract documents.

D. Noise

Except for the operation of motor vehicles, aircraft, or other transportation equipment, the maximum permissible sound levels at any point shall not exceed those levels established by any state, federal, or local government agency with jurisdiction to regulate noise.

Noise level restrictions are identified in specifications Section 0 15 00, Temporary Facilities and Controls. For work conducted within Airport buildings, noise levels from work activities will not exceed 80 A-weighted decibels.

E. Hazardous Wildlife Mitigation and Pest Prevention

Pest prevention requirements:

- All structural gaps or holes greater than 0.25-inch long or wide are sealed or closed to prevent pest or animal access to buildings and between spaces.
- Door sweeps on exterior doors are installed for door gaps greater than 0.25 inch to prevent pest access.

- Unless otherwise agreed with the wildlife biologist, bird deterrents are installed on horizontal exterior structures greater than 12 inches in length and 2 inches in diameter. Deterrents may also be required on interior structures.

F. Heat and Glare

Any operations producing intense glare or heat are performed within an enclosed or screened area so that the glare or heat emitted is not perceptible at the lease boundary line of the construction site. Additionally, any glare from activities conducted on the AOA needs to be shielded to assure no interference with the exterior wall deluge system, vision of vehicle operators, flight crews, or air traffic controllers. In addition to screening, bagging infrared detectors is permissible as coordinated with Port FD in advance.

G. Equipment Lighting

Cranes and other construction equipment with an overall height in excess of 15 feet must be lowered when not in use and/or during hours of darkness. Equipment stored or operated on the AOA in excess of 15 feet in height must be equipped with obstruction lighting in accordance with FAA regulations or as required by the Port.

H. Vehicles in the Air Operations Area

1) Markings

Contractor's vehicles operating within the AOA must display signs of commercial design on both sides of the vehicle identifying the vehicle as the contractor's. The contractor's firm or name must appear in letters a minimum of 2 inches high. The company name on the vehicle must match the company name on the driver's identification badge. See specifications Section 01 35 13.13, Operational Safety on Airports During Construction, for additional details.

2) Operations

Drivers of vehicles operating within the AOA must strictly comply with the Port's Motor Vehicle Operations section of the *Airport Schedule of Rules, Regulations, and Charges* as identified in specifications Section 01 35 13.13, Operational Safety on Airports During Construction.

During periods of low visibility, the Airport transitions into a restricted access protocol, which only permits essential vehicle traffic on the AOA and precludes contractors or their vendors making deliveries.

3) Parking

No parking is guaranteed on the airfield or ramp unless a project has a demarcated and enclosed construction site. On a first come first served basis several parking stalls are located around the facility marked tenant/contractor that have a maximum 2-hour time limit. Airfield project contractors are required to park within their construction site, and not utilize any other airfield or ramp parking. Violators are penalized and run the risk of losing Security Identification Display Area (SIDA) badge privileges.

I. Demolition and Construction

1) Housekeeping

The contractor is responsible for mitigating any noise, dust, odors, FOD, smoke, obstructions, and other annoyances. To the extent possible, work in public areas should be performed during off-peak periods; in high-volume areas, this may be required. The contractor may not unreasonably encumber the premises with unused materials, equipment, or scaffolds. The terminal buildings must be kept in operation at all times. Airfield construction contractors are responsible for controlling FOD continually for the project's duration; this includes mechanical sweeping operations on all construction travel routes on the AOA.

The contractor is responsible for cleaning the work area to the satisfaction of the Port Inspector and AV/OPS. The contractor is also responsible for removing all construction debris and unused products/materials upon project completion. However, debris that constitutes a hazard to Airport operations or creates an unacceptable visual condition must be removed immediately.

2) Flagging

When vehicle flagging is required on public highways controlled by the Port or on Airport property, including the bag well and ramp, flaggers are required to submit current certification from the State of Washington (see specifications Section 01 55 26, Traffic Control). Haul routes, if not on the construction documents, are coordinated with the Port at the preconstruction meeting.

3) Temporary Construction Barricades

Temporary construction barricades are required for all projects (see specifications Section 01 50 00, Temporary Facilities and Controls, for detailed requirements). Continual maintenance of construction barricades and partitions in all public areas is required. On the exterior of the project construction barricade or partition, the contractor is responsible for posting 24-hour project contacts in case of an emergency need.

4) Protection

Any work in the plenum space above the corridors in the main terminal; Concourses A, B, C, and D; or the north and south satellites requires the area below the work to be barricaded. The barricades are placed so that ceiling tiles or other materials that may become dislodged and fall from shaking or heavy walking, or falling objects from above, do not injure any people below.

5) Temporary Ceiling Removal

Before ceiling are removed, Port RMM status must be verified by the Port PM or Inspector. Some areas of the terminal contain asbestos fireproofing above the metal and acoustical tile ceilings. Metal ceiling tiles may not be removed by a contractor unless approved in advance, Port PM or Inspector to confirm and coordinate when metal ceilings require removal by Port AV/Maintenance or PCS. Any open ceilings shall be covered with white fire-retardant plastic sheeting, at least 6 millimeters thick,

between shifts (see specifications Section 01 50 00, Temporary Facilities and Controls for detailed requirements).

6) Equipment in the Terminal

Storage of personnel- or scissor-lifts inside the terminal in locations outside barricaded work areas is permitted only with approval from AV/OPS and AV/Maintenance. During nonworking periods, all equipment of this type should have a placard attached that includes the owner or renter name, project name, project number and a 24-hour point of contact should the lift need to be relocated during off-shift hours or weekends. Power to charge equipment may not always be available in storage locations provided to contractors. Coordinate charging with Port Inspector to avoid overloading circuits.

Equipment, including ladders and job boxes, used on site shall have a sign identifying the name of the contractor, 24-hour contact information, and the project.

7) Direct Digital Control System

The HVAC building automation control system (Siemens DDC) has experienced significant impacts due to damage during demolition. The contractor contracts with Siemens Building Technologies Division before any demolition by any trade of ceilings and walls. Siemens will note work area on DDC graphics, secure Field Level Network (FLN) wires to mechanical equipment, and remove temperature sensors. Contractor does not cut any DDC wiring.

8) Utility Shutdown Impacts

The contractor should be prepared to provide temporary services to tenants or the Airport should they affect such basic services as HVAC, water, electric, or plumbing. This may be during a simple utility shutdown or a long-term period when modifying HVAC for instance.

J. Laydown Areas and Office Operations

No office areas are set up anywhere in the Airport facilities without prior Port approval. Contractors and their subcontractors store materials and equipment within areas identified in the project plans or as identified by the Port at the start of the project. Mechanical and electrical rooms are not acceptable locations for storage or contractor field offices.

1) Stored Materials

- Any and all materials and equipment used for construction generally needs to be stored within the project boundaries. Additional laydown and storage space may be available through the Port PM or Resident Engineer per specifications Section 01 50 00 (c), Project Logistics Appendix. Airport activities outside the project area shall not be affected and must be kept operational.
- All construction materials allowed to be stored in areas accessible to the general public must be protected by full height (approximately 8 feet) barricades acceptable to the Port (see specifications Section 01 50 00, Temporary Facilities and Controls). If stored in areas other than a tenant's leased area, the tenant must coordinate such storage with the Port.

- Stored materials, inside and outside the project boundary, must be labeled with contractor name, 24-hour point of contact information, project name and project number
- See Section 4, Fire Department, Paragraph K, Construction Storage, for further details on storage requirements.

Tenant Improvement Design and Construction Process Manual, Section 3.C.7, contains information on availability of tenant contractor employee parking and tenant contractor logistics space for tenant projects. Generally, space is not available within the terminal building. Limited space may be available for rent.

K. Site Access, Deliveries, and Removal of Demolished Materials

See Paragraph L for work hours and time restrictions around use and occupancy of the Airport terminal building.

1) Deliveries and Removals

Deliveries or removals via the arrivals or departures curbs are only considered when coordinated in advance. Required information includes company operating vehicle; vehicle type/size/color; vehicle license plate; driver name and cell number; and expected arrival and departure time. Driver is required to stay with the vehicle entire time.

Personnel access and material deliveries to the worksite are to be by designated routes only. Pallet jacks or hand carts being used inside the terminal to move materials must have nonmarking wheels or casters. Pneumatic wheels are required when transporting material across the central terminal granite floor. Specific route and weight across the central terminal granite floor must be approved. In certain circumstances, laying down plywood or Masonite on the path of travel may be required to avoid damaging the terrazzo and granite flooring inside the terminal. All routes must be delineated and left clean.

In general, tenants and their contractors are not permitted to enter restricted Airport areas, except where no other access route to the premises is available. However, should an item be of such size or configuration that prevents it from being physically transported along the designated route, permission to enter the restricted area, under supervision and after stipulated protective measures have been taken, may be granted by an authorized Port representative.

Limited use of loading dock facilities and freight elevators is granted to the contractors by reservation. Outside regular working hours, such facilities may be made available by reservation and at the tenant's cost. Materials and tools moved through the load dock will be inspected. Inspection staff are available for limited hours. After hours deliveries may incur additional costs.

The contractor shall not use baggage carts provided by the Airport's baggage cart vendor to transport or store equipment or construction materials.

Oversized materials that do not fit in any of the available elevators may be eligible to be transferred from the nonsterile area into the sterile area depending on sufficient advance notice and subsequent Transportation Security Administration (TSA) and

Airport Security permission. Minimum review and approval process is typically 2 weeks. This movement is known as a "reverse push" and is typically routed via one of the concourse passenger exit lanes. This option is not available at Concourse B and may become unavailable at all concourses as specialized doors are installed in the exit lanes.

2) Elevators and Hoistways

The contractor may use designated freight elevators and shall not use passenger elevators for transporting materials to and from the worksite. The contractor may schedule material hoisting time slots with the Port Inspector in advance. The tenant coordinates its move-in schedule of furnishings, accessories, and fixtures with the Port Inspector. Any damage to elevator cabs is repaired by the Port and charged to the tenant at costs plus overhead. Loads will be centered and not exceed the nameplate capacity.

Public passenger-only elevators are not available for contractor use. Public elevators are not intended to move construction materials unless permission is provided by the CSR. Costs, plus overhead, for the temporary threshold bridge installation and removal are charged to the tenant. Airport service and passenger elevators have a 500-pound threshold crossing limit for wheels. All interior finishes are protected, and the cab immediately cleaned of any dust or debris.

3) Use of Lobbies and Concourses

No concrete, plaster, terrazzo, debris, or other bulk materials may be brought through lobbies or concourses used by passengers unless written permission is obtained from Port AV/OPS. All existing work must be protected against damage during the contractor's work.

4) Construction Dumpsters

A dumpster may be placed on Airport drives but only during very limited hours and for limited durations.

Placing a dumpster on the ramp level for use in support of an interior terminal project is unlikely and only approved under special circumstances other than inside tenants leased space when the dumpster is on behalf of that tenant's ongoing project. The contractor should be prepared to store demolition materials during the shift in which demolition occurs and remove them at the end of the shift.

Construction waste management must be included in Construction Waste Management Plan as specified in specifications Section 01 74 19, Construction Waste Management.

Food waste and other organic matter that may become a wildlife or pest attractant shall not be placed in construction dumpsters. Lids must be secured when dumper is not in use to limit access of animals to contents.

L. Work Hours, Holidays, Black-out Periods, and Other Time Restrictions

1) Standard Construction Work Hours

Unless otherwise arranged with the Port, construction hours are as follows:

- a) Standard day shift work hours: 0700 – 1530 (7:00 a.m. until 3:30 p.m.), Monday through Friday. The contractor limits activities so there is no disruption to Airport operations.
- b) Standard night shift work hours: 2030 – 0500 (8:30 p.m. until 5:00 a.m.), Sunday through Friday. All work considered disruptive to Airport operations is performed during the night shift. Disruptive work includes but is not limited to:
 - Work within tenant offices
 - Conduit routes over and around the baggage systems
 - Equipment and furniture moves and deliveries
 - Work that creates noise, dust, or odors

Work outside standard work shift hours, as defined in this section, can be requested and may be granted by the Port Inspector, RE, or PM. No work outside standard work hours, as defined in this section, is allowed without written approval from the Port.

2) Port Staff Holidays

- January – New Year's Day
- January – Martin Luther King Jr. Day
- February – Presidents Day
- May – Memorial Day
- June – Juneteenth
- July – Independence Day
- September – Labor Day
- November – Thanksgiving Day and day after
- December – Christmas Day and either day before or day after

3) Construction Blackout Periods

During seasonally high travel volumes, terminal operations may result in contractors and suppliers being subjected to restrictions by the Port regarding hours of work, scheduling, and coordination of work.

4) Other Specific Time Restrictions

- Floor core drilling should occur between the hours of 2400-0400 (12:00 a.m. to 4:00 a.m.) unless approved otherwise by AV/OPS.
- The central load dock is permitted for use to access freight elevator 3F but only between the hours of 1400 – 0400 (2:00 p.m. and 4:00 a.m.)

7. AIRPORT OPERATIONS

- Material handling on Airport Arrival or Departure Drives is restricted, by AV/OPS approval, to between the hours of 2300-0400 (11:00 p.m. and 4:00 a.m.) on the Departure Drive (upper drive) and 2400-0800 (12:00 a.m. and 8:00 am) on Arrivals Drive (lower drive).
- Drivers of vehicles handling materials on the drives are required to remain with their vehicle for the entire period parked on the drive.
- Moving a significant amount of materials, tools, or equipment (more than two people carrying materials or pushing one hand cart) is allowed through public areas only during the hours of 2230 – 0300 (11:30 p.m. and 3:00 a.m.) unless prior permission has been provided by AV/OPS.

8. TRAFFIC AND LANDSIDE OPERATIONS

A. Introduction

Port AV/OPS/Landside is responsible for maintaining safe and effective vehicular and pedestrian access to the Airport. To meet this responsibility, Landside requires the assistance of the contractor to ensure construction projects do not impact Landside operations and facilities.

Where references are made to specification sections, Port projects should refer to the project specifications, and tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

Contractors are required to abide by specifications Section 01 55 26, Traffic Control.

B. General

Landside is responsible for maintaining operations in a variety of Landside facilities, including the following:

- Northern Airport Expressway, between State Route 518 and the main terminal roadway system (including the ramps at South 170th Street and Air Cargo Road)
- Air Cargo Road, between South 154th Street and the City of SeaTac right-of-way located just north of South 188th Street (including the Service Tunnel)
- South 160th Street, between Air Cargo Road and the City of SeaTac right-of-way located at Host Road
- South 161st Street, between Air Cargo Road and the AOA gate
- South 170th Street, between Air Cargo Road and the City of SeaTac right-of-way located at the Northern Airport Expressway ramps
- Main terminal roadway system, including the Departures/Upper Drive, Arrivals/Lower Drive, and all associated recirculation ramps (including the South 182nd Street access at International Boulevard/State Route 99)
- Main terminal parking garage, including the third-floor ground transportation center entrance and exit, fourth floor entrance, north and south parking entrances, and the North Toll Plaza
- North and south employee parking lots
- South 160th Street ground transportation and taxi holding lots
- Doug Fox public parking facility
- Bus maintenance facility and transportation operations center
- Cell phone lot waiting area

C. Project Definition

Before starting construction, the contractor and Port PM, PCS CM, RE, or Inspector evaluate the project's anticipated scope and schedule to identify if, where, when, and how severely

8. TRAFFIC/LANDSIDE OPERATIONS

the project will affect vehicular and pedestrian traffic operation and safety. Typical questions to be considered include the following:

- Which Landside facilities will be affected by the project?
- Will the project require closing any of these facilities on temporarily or permanently? Will the closures involve a partial or full closure? Will the closure affect the curb, shoulder, or sidewalk areas? Will the closure affect employee or public parking facilities?
- How long will these impacts last? During what hours of the day will they occur? During what months of the year will they occur?
- Will existing Landside operations be affected? Will employee or rental car bus systems be affected? Will ground transportation services be affected (including public transit, scheduled services, unscheduled services, taxis, and limousines)?
- How much and what type of construction-orientated traffic will be generated? What routes and access points will be used?
- Will any project material (for example, pipes, beams) or construction equipment (for example, cranes) deliveries affect any of the Landside facilities?

Any project that requires the partial or complete closure of any Airport roadway (including travel lanes and shoulders) requires a traffic control plan. The contractor coordinates with the Port Inspector and AV/OPS CSR to determine the level of coordination necessary, scope of traffic control plans to be prepared as part of the project, and scope of the traffic operations analysis if necessary. The contractor also considers the following:

- Identify potential constraints likely to be applied to the project as a result of Landside operations (for example, closure of part of the Arrivals/Lower Drive will not be allowed between 1000 - 2400 (10:00 a.m. and 12:00 a.m.)).
- Provide further direction on the scope of the traffic control plans to be included in the design documents.
- Provide detailed direction on the scope of laydown areas adjacent to or within Landside facilities.
- Identify any other potential impacts on Landside facilities due to the project (for example, extension of the water line will require temporary shutdown of employee bus driver break room).
- Review the results of the traffic operations analysis, if necessary.
- Identify special considerations to be included in the project specifications.

If a traffic control plan is deemed necessary for a project, as described by the project contract documents, submittal and approval are required before construction begins.

9. SECURITY

A. Introduction

Where references are made to specification sections, Port projects should refer to the project specifications, and tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

All contractors working at the Airport are subject to current Department of Homeland Security / Transportation Security Administration (DHS / TSA) regulations as detailed in specifications Section 01 14 13, Airport Personnel Identification Access Control. These requirements identify how to get badges for access into and through Airport facilities and maintain compliant and secure project construction practices.

The Port Credential Center is responsible for issuing identification badges and keys for restricted and public areas and assigning access into restricted areas. Airport Security is responsible for ensuring contractors conduct operations so that all security requirements and practices identified in the Airport Security Plan are maintained.

B. Identification and Facility Access

1) Badges

- In all areas of the Airport, the contractor's personnel must obtain and wear above the waist on their outer garments photo identification (ID) badges issued by the Port Credential Center. More information on the ID badge program can be found at this link: <https://www.portseattle.org/employee-services/credentials-trainings>
- Access for specific doors must be requested and approved after the badge is obtained. Some locations may not be accessed without an escort
- All badge holders must submit to employee screening
- At the end of the contract, the contractor is charged for each badge not returned. The cost for unreturned badges is found at the above link

2) Keys

- The contractor submits a key request at the Port Credential Center requesting keys. The key request will be submitted a minimum of 2 weeks before construction begins. Temporary construction barricades typically use an AP-4 key.
- A deposit for each security key is required before the requested key is issued. All costs for obtaining security keys are identified at the above link and are at the contractor's expense.
- After all keys are returned to the Port Credential Center, the deposit is returned. The deposit is forfeited if the key is lost or not returned.

3) Cores

- Temporary construction cores are requested through the Port Inspector or Project Manager. The Port makes a capital support request to the Port Lock Shop. Support requests are due Thursday before 08:00 for the following week.

- At the completion of the project a project support request is required to remove the temporary cores and install the final cores.

C. Terminal Work

When coordinating construction barricades, any special situation that may affect the security of the Airport is identified and discussed with Airport Security. See specifications Section, 01 50 00 Temporary Facilities and Controls, for more details on construction barricades.

D. Perimeter Fencing

Before removing or making holes in the Airport perimeter fencing, the tenant/contractor obtains permission and approval from Airport Security and takes adequate precautions to prevent entry by unauthorized personnel or animals. Any modifications to the perimeter fence are communicated to AV/OPS/Wildlife to allow for appropriate actions to prevent hazardous wildlife from entering the airfield.

Any modification and/or relocation of the AOA perimeter fence line (whether temporary or permanent) must be submitted by Airport Security to the TSA for approval and inclusion into the Airport Security Plan. A minimum of 45 calendar days is required for the approval process. Gates must be either staffed or locked at all times. The AOA perimeter fence line must be clear and free of all debris, storage of materials and equipment, vehicles, or aboveground facilities for a distance of at least 5 feet on both sides of the fence.

E. Restricted Areas

When work is to be performed within designated Airport restricted areas, contractors may access only those areas of work or storage designated by the Port Inspector, RE, PM, Airport Security, and authorized by the Port Credential Center. Restricted access points must be either staffed by a Port construction support specialist or locked at all times. All prohibited items must be locked up and secured when left unattended.

All field access via the perimeter fence is to be reviewed in advance by the Aviation Security. Any modifications to access gates or the perimeter fence is strictly prohibited without written approval for Aviation Security. Vehicle gate access will be reviewed utilizing staffed gates whenever possible.

After construction is completed, all exterior doors and gates leading to a restricted area must have the appropriate security signs and must be incorporated into the Airport's security system. (Signs are typically supplied by the Port. Airport Security should be contacted for details on appropriate signs. Security devices are provided and installed by the tenant. Coordinate terminations and programming with the Port during design to clearly indicate roles and responsibilities.)

All construction documents for new construction and/or modification of facilities or fencing leading to the AOA and/or restricted areas shall include raceways, wiring, devices and hardware, and all equipment and device installation required for incorporation into the Airport Security access control system.

10.CONSTRUCTION MANAGEMENT

A. Introduction

Construction management ensures projects are executed using industry best standards for construction processes and procedures within the project's contract terms. Port Engineers and Inspectors provide a key role in supporting the contractor in coordinating and facilitating work at the Airport while complying with the Port's rules, standards, and guidelines.

Where references are made to specification sections, Port projects should refer to the project specifications, and tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

For tenant projects, please refer to the *Tenant Improvement Design and Construction Process Manual* for information about construction processes such as construction submittals, deferred submittals, substitutions, requests for information, construction barricades, punch lists, and other tenant-specific items.

B. Notice to Proceed and Pre-Construction Meetings

No construction work begins at the Airport without receiving notice to proceed and participating in a preconstruction meeting. For tenant projects, see *Tenant Improvement Design and Construction Process Manual*, Section 5, Pre-Construction, for detailed requirements.

C. Schedule Management and Coordination

Before work begins, the contractor submits a detailed progress schedule for approval. For tenant projects, see the *Tenant Improvement Design and Construction Process Manual*, Section 5, Pre-Construction, for detailed requirements.

Weekly look-ahead schedules are used to identify and communicate project activities to a wide variety of Port stakeholders. This supports the contractor in understanding what necessary steps are required to begin and execute work.

Weekly coordination meetings with Port personnel and contractors are required, unless otherwise agreed with the Port RE, Inspector, PCS CM or PM.

D. Construction Coordination

The Airport is an operating facility that must remain in full operation throughout the term of this contract. Where facility operations conflict with those of the contractor, the facility operations take precedence over those of the contractor. The contractor is solely responsible for scheduling and coordinating its activities with those of the facility to assure minimum disruption of facility operations. See specifications Section 01 31 13 - Project Coordination.

1) Construction Advisory Form

Communication with Port AV/OPS is critical to Airport safety and project progress. A minimum of 2 weeks' advisory notice must be given to the Port Inspector and AV/OPS construction coordinator before any project begins and before any work that will

impact Airport operations. The contractor is responsible for coordinating exact dates and times of all activities regarding access for crew, material, and equipment delivery.

2) Coordination Meetings

The Port conducts regular construction meetings to coordinate the work of the contractors, answer questions, and resolve issues. The Port then publishes minutes from these meetings.

3) Coordination with other Port Work

During construction, work by others may be occurring within or adjacent to the boundaries of this project. If so, the contractor will cooperate with the Port and other contractors to prevent impact to any other construction projects.

E. Pre-installation Meetings

Based on project scope, contractors schedule pre-installation meetings to coordinate work. The purpose of these meetings is to review scope of work, identify participants, and plan activities that involve the Port or other contractors and could impact Port operations. The contractor works with the Port RE, PM, PCS CM, or Inspector to determine what work requires pre-installation meetings.

Pre-installation meetings are scheduled by the contractor and held at least five working days before any work is started by the contractor or any subcontractor. The Port RE or Inspector may waive this requirement if deemed unnecessary or request additional meetings as required.

F. Contractor Quality Control Program

The contractor provides a quality construction product. To establish the level of quality, the contractor meets the Port design and quality standards of the existing base building as identified in project documents. This level of quality includes, without limitation, the material grades, thickness, and strengths; any national or international standards that must be met; any samples that must be submitted; any testing required to assure quality; installer experience required; all fabrication and installation tolerances; and other related quality items.

The Port has the right to inspect all work at any time to assure that the contractor provides the minimum quality level required.

G. Utility Shutdown Coordination: Heating, Ventilation, Air Conditioning, Plumbing, and Electrical Utility Systems

All construction activities interfacing with existing systems must be fully coordinated with Port AV/Maintenance to preserve system integrity. Extensive coordination is required to facilitate system and utility shutdowns for construction activities. All shutdowns require complete and extensive planning to ensure the operations of the Airport continue with minimal impacts. The contractor coordinates the work with the Port Inspector and AV/Maintenance. A request for shutdown of a utility at the Airport is accepted only from the contractor or authorized tenant's representative.

To manage the risk associated with shutdowns and minimize the time a system is down, an Airport Systems and Utility Shutdown Request (SDR) must be submitted and approved well in advance of the work. The contractor coordinates the work with the Inspector and AV/Maintenance. The SDR must be completed (all necessary sign-offs received and SDR distributed) a minimum of 10 working days plus 72 hours before the shutdown date. Weekend days do not count as part of the 10 days or 72 hours.

- 10 days plus 96 hours' notice is required for domestic water system shutdowns.
- SDRs that have an impact to Airport operations or tenants may require the submission of a Construction Advisory Form along with the SDR, as required by AV/OPS. This form must be completed 2 weeks before work begins.

The contractor does not turn on or off any utility on the Airport premises. Port AV/Maintenance performs all shutdowns and restarts existing systems. In some cases, if coordinated and agreed to in writing, the contractor may perform a shutdown.

All building interior preparation will be completed before scheduled shutdown time (for example, restrooms closed, signs put in place advising public of no restroom facilities). Port AV/Maintenance does not turn off or on any utilities without the contractor present. The contractor advises the Inspector when the work is finished so that Port AV/Maintenance personnel can be called to place the utility back in service. If the utility service is shut down within the contractor's requested time frame and the contractor does not perform the work as scheduled, the contractor or tenant is responsible for all Port costs associated with the utility shutdown.

Fire system shutdowns are coordinated through the Port Inspector and carried out according to the guidelines outlined in the RAC. See Section 4 Fire Department. **The contractor also submits a plan for the Port Inspector's approval detailing the contractor's actions regarding accidental damage to a fire detection or fire suppression system.**

See specifications Section 01 31 13, Project Coordination, for more details.

H. Construction Inspections

Port stakeholders and consultants may observe or test the contractor's work to determine compliance with approved project documents. The Port monitors construction processes and methods to ensure compliance with Port and industry standards and evaluates whether material, equipment, furnishings, fixtures, systems, and finishes installed satisfy the requirements of the "approved" or "approved as noted" construction documents, shop drawings, product data and sample submittals, and the contractor's warranties.

The contractor permits and provides inspectors access to all work areas and to off-site facilities used to store or manufacture materials, furnishings, fixtures, and equipment to be incorporated into the work. The contractor responds to any other reasonable request that furthers the inspector's ability to observe or complete any tests. Such inspections and tests do not relieve the contractor of any obligations under its owner-contractor agreement.

1) Inspections

During construction, various Port stakeholders have a role in inspecting projects as identified in the Table 1.

Table 1. Stakeholder Inspection Roles

Stakeholder	Inspection Role	
	Oversees project for compliance to:	
Port Inspector	<ul style="list-style-type: none"> Plans Specifications Port standards including maintainability standards 	
Port Construction Safety	<ul style="list-style-type: none"> Construction safety 	
ABD	<ul style="list-style-type: none"> Applicable codes Deferred submittals Building Plumbing Mechanical 	<ul style="list-style-type: none"> Demolition Commissioning Temporary C of O Final C of O
Port FD	<ul style="list-style-type: none"> Deferred submittals Temp barricades Fire sprinkler systems Alarm and strobes 	<ul style="list-style-type: none"> Hot work permits Temporary C of O Final C of O
AV/Maintenance and AV/F&I	<ul style="list-style-type: none"> Equipment accessibility Discipline conflicts Potable water connection and testing Temporary power connection Waterproofing applications 	<ul style="list-style-type: none"> Inspections before covering ceilings and walls. Building envelope (for example, roofing, exterior window wall systems, roof top equipment, ceiling systems)
State of Washington L&I	<ul style="list-style-type: none"> Electrical Vertical conveyance 	<ul style="list-style-type: none"> Temporary C of O Final C of O
Other Inspections	<ul style="list-style-type: none"> Health Department Liquor Board 	<ul style="list-style-type: none"> Airport Dining and Retail Manager

The ABD requires evidence of these inspections to issue a C of O. In addition to the above inspections, intermittent inspections by Port AV/Maintenance or AV/F&I may occur to verify that architectural, structural, mechanical, electrical, plumbing, HVAC, and communication systems are installed per Port standards.

Port AV/ENV will conduct periodic inspections to verify compliance with applicable stormwater, other water resources permits, waste management, and any other environmental regulations associated with the project.

Port AV/OPS/Wildlife will conduct periodic inspections to verify compliance with Port rules and regulations.

2) Inspections Coordination

a) Construction Inspections

In general, the contractor is responsible for scheduling required ABD, Port FD, Engineering, and AV/ENV inspections and for ensuring that inspections are

completed. The Port may conduct any inspections it deems necessary and will bring any irregularities to the tenant or contractor's attention. The Port has no liability for failing to make any such inspections, or for failing to bring such irregularities to the tenant or contractor's attention.

The tenant or contractor notifies the Port Inspector 48 hours before covering up work so that the work may be reviewed by appropriate Port AV/F&I, AV/Maintenance, and other Port stakeholder representatives. Any work covered up without first providing 48-hour advance notice may be removed.

The contractor provides for the Port and any party designated by the Port all access including ladders, access doors, lifts including operator, and ventilation needed to review the quality of the work.

b) Special Inspections

Required IBC special inspections are accomplished by inspection firms or certified inspectors approved by the ABD. The Port Inspector and ABD Inspector will take part in, and must be notified before, those special inspections required by IBC. Copies of all inspection reports and tests are forwarded to the Port Inspector and ABD.

The ABD's final acceptance of occupancy is when the ABD has received all inspection reports, certifications, and record documents. The ABD's inspection file must be complete and satisfactory before a C of O is issued.

c) Defective Work

Port Inspectors are authorized to reject any work, fixtures, systems, materials, equipment, furnishings, or any work component that does not conform to the approved construction contract documents.

Port Inspectors conduct reviews against approved construction contract documents, shop drawings, and samples to determine whether the work is acceptable. If the appearance and/or performance of any work element fail to conform to the plans, specifications, codes, and standards, a nonconformance report will be submitted by the Port in writing to the tenant and the contractor.

Removal or modification, as directed by the Port Inspector, ABD, or Washington State L&I inspector, of any work that does not conform with the approved construction documents, codes, Port standards, or RAC, is at the contractor's expense. Failure to take immediate action to remedy the situation may result in suspension of the building permit.

I. Electrical Room Access for Work or Work Requiring Electrical Shutdowns and/or Project Electrical Safety Meeting

Requests for Port AV/Maintenance Electrical Department escorts and room access must be submitted by 8 a.m. Thursday for the following week and are required for access to power centers, chiller distribution room, emergency, and STS power rooms. Work in these rooms requires a Capital Improvement and Expense Project Support Request completed by the Port.

Projects that require electrical room access must hold a pre-installation or project electrical safety meeting with the electrical shop before proceeding.

When a contractor requires access to the other electrical rooms, they are to call the electrical shop at (206) 787-5311; if there is no answer, the contractor should leave a message with a return phone number. The Port AV/Maintenance Electrical Department will determine whether a Port electrician will be present during access to the electrical room(s) provided an advance notice support request has been submitted.

J. Temporary Utility Connections

Specifications Section 01 50 00, Temporary Facilities and Controls, provides more details about temporary utility connections.

Temporary connections are used during construction and then completely disconnected and removed:

- Electrical—An application for connection for temporary electrical power shall be submitted for approval to Port AV/F&I.
- Water—An application for connection for temporary water services shall be submitted for approval to Port AV/F&I. Each temporary water connection requires a certified backflow prevention device (RPBA) that was tested by a certified tester (report reviewed by Port AV/Maintenance and AV/F&I) preferred or by Port AV/Maintenance prior to use. This includes all hoses and any other type of temporary connections.

K. Project Close-Out

Where references are made to specification sections, Port projects should refer to the Project specifications, and Tenant projects should refer to the Port's *Tenant Improvement Construction General Requirements*.

For Tenant projects, see the *Tenant Improvement Design and Construction Manual* Section 7, Completion and Close-out, for detailed close-out requirements:

No project is a successful project without completing all the work associated with the construction contract, including but not limited to the following:

- Complete stabilization of any disturbed areas
- Request, conduct, and complete punch list inspections and corrections
- Complete commissioning
- Construction Waste Management Final Report per specifications Section 01 74 19 (b)
- Prepare and submit operations and maintenance manuals
 - Fully text searchable PDF format and table of contents
 - warranties, and dates for warranties.
 - Contractor must designate a contact for responding to warranty claims post project completion.

- Microsoft Excel Computerized Maintenance Management System (CMMS) spreadsheet for Port-maintained equipment
- Submit as-built redlines
- Complete training
- Complete Certificate of Occupancy
- Prepare as-built CAD drawings with fully text searchable PDF formats. As-builts will include panel schedules in Port standard electronic Excel format for all new panels and for all panels where circuits have been modified. Mechanical AutoCad file with architectural background and XREF files to be sent to Siemens Building Technologies Division for DDC graphics
- Return badges and keys
- See specifications Sections 01 74 00 Cleaning, 01 78 23.13 Aviation Operations and Maintenance Data, 01 78 29 As-built Redline Documents, 01 91 00 Commissioning, 01 79 00 Training Condensed, 01 77 00 Project Close-out for more detailed information

APPENDIX A — DEFINITIONS

Whenever in this document, the following words and defined terms are used, the meaning will be as follows, which meaning will be applicable to both the singular and plural forms thereof:

Word	Definition
Airport	The entirety of Seattle-Tacoma International Airport (Airport) and properties owned by the Port of Seattle in and around the Airport as shown on the Airport Layout Plan
Airport Building Department (ABD)	The authority having jurisdiction over building permits and acceptance.
Airport Building Inspector	The ABD representative responsible for the building permit processing for Airport projects and for the code inspection of construction projects at the Airport
Aviation Division	The division of the Port of Seattle that has authority and control of the Airport
International Building Code (IBC)	Building code used by the Airport
City	City of SeaTac or City of Des Moines as applicable.
concessionaire	Any person, firm, corporation, governmental agency, or other entity which has entered into a contractual relationship with the Port of Seattle for lease, or rental, or occupancy of a space inside a facility on Port property.
contract document(s)	Document(s) that governs the construction relationship between the Port of Seattle and contractor or tenant and contractor working on Port property.
contractor	Individual, partnership, firm, corporation, joint venture, or other business entity with whom the Port of Seattle, or its tenant, has entered into a contract and who is referred to in contract documents as the contractor; contractor means and includes the contractor and all of its representatives, subcontractors, and suppliers.
County	King County
day	A calendar day unless otherwise specifically designated
drawing(s)	Graphic presentation of the work, or parts thereof, that indicates the size, form, location, and arrangement of the various work elements
Engineer	Chief executive officer of the Port of Seattle's Engineering Services Department (the Director, Engineering Services) and such agents, including the Construction Manager and Resident Engineer, as are authorized to act in his/her behalf.
Engineering Department	The Port of Seattle Engineering Department comprising Design, Construction Management, and Construction Safety

Final Inspection	The final inspection is the inspection that occurs to verify the contractor's punch list items and items added by the Port Inspector from punch list inspection are complete.
Fire Chief	The head or head's authorized representative of the Port FD.
Fire Department (FD)	The Port FD located at the Airport
Improvements	All buildings, structures, and facilities, including paving, fencing, signs, and landscaping, that are constructed, installed, or placed on, under, or above any Airport building site by or on behalf of an Airport tenant or the Port
Notice to Proceed	Notice to Proceed is formal notification issued by the Port of Seattle, indicating the contractor can begin physical work at the project site.
Port (Owner)	The Port of Seattle, its commission, employees, and other authorized representatives with delegated Port authority regarding the work.
Port Construction General Requirement	General requirements for working at the Port typically presented as Division 1 Specifications on Capital Projects and attached to design and construction documents for tenant Improvement projects.
Port Inspector (Inspector)	The Engineer's authorized representative assigned to monitor all construction work on Port property, including ensuring contractors comply with Port rules and regulation; support coordination efforts related to performing work at the Port and performing inspections of the contractor's work including compliance with plans and specifications as well as installation.
Project Manager (PM)	The Port of Seattle's authorized representative assigned to lead and coordinate all aspects of project development and implementation
punch list inspection	Punch list inspection is the activity that occurs prior to final inspection. The contractor prepares a punch list before requesting a punch list inspection by the Port Construction Inspector. Punch list items are limited to administrative requirements of the contract (for example, final project record documents), training, landscaping, and minor deficiencies in the work requiring correction; a punch list inspection is not be requested or granted if the work is incomplete
SEPA	State Environmental Policy Act (RCW 43.21C) and implementing regulations (WAC 197-11)
site or building site	Airport land or building area identified in Port contract documents (that is, plans, specifications, or lease agreements) upon which improvements are to be constructed

specifications	Portion of the contract documents consisting of the written requirements for contract administration, materials, equipment, systems, standards, and workmanship for the work and performance of related services
Port Standards	Level of products and installation, quality, achievement identified by discipline that is considered acceptable or desirable by Port AV/F&I
State	State of Washington
subcontractor	Business entity that has a direct contract with the contractor to perform a portion of the work; subcontractor means and includes the subcontractor and its authorized representatives
sub-subcontractor	Business entity that has a direct or indirect contract with a subcontractor to perform a portion of the work.
supplier	Vendor, supplier, distributor, or material provider that supplies material or equipment used in the performance of the contract.
tenant	Any person, firm, corporation, governmental agency, or other entity that has entered into a contractual relationship with the Port for lease, or rental, or occupancy of a building, land, or other facilities on Port property
tenant improvement	Any improvement project performed by a person, firm, corporation, governmental agency, or other entity which has entered into a contractual relationship with the Port for lease, or rental, or occupancy of a building, land, or other facilities on Port property
wildlife/pest	The Wildlife Hazard Management and Conservation Program organized under Airport Operations to implement FAA 14 CFR 139.337 under the Airport Wildlife Hazard Management Plan; Unified Pest Management Program is one component of the wildlife management program at the Airport
work	Work means the completed construction as a result of the furnishing of all labor, materials, equipment, and all incidentals necessary for successful construction completion; work is sometimes generally referred to as the "project"

APPENDIX B — DAILY PRE-HOT WORK CHECK LIST



Port of Seattle Fire Department

Daily Pre-Hot Work Checklist

Date: _____ Time: _____ Location/Space Hot Work: _____

Company Name: _____ Name Performing Checklist: _____

Check all that Applies: Hot work operator shall not fill out Pre-Hot Work Checklist.

Required Precautions

Y N/A

Extinguishers are operable and fully charged. 2-A: 20-B:C min. size

Hot Work equipment in good working condition

Requirements 35' from Hot Work

Y N/A *To determine fire watch requirements

*Floors swept clean, remove or shield combustibles using approved welding fire blankets or curtains.

*Isolate or remove potential sources of flammable gas, ignitable liquid, or combustible dust/lint.

Shut down ventilation and conveying systems (Contact Port Inspector).

*Remove combustibles and consider second fire watch on opposite side of floor, wall, ceiling, or roof when openings exist, or thermally conductive materials pass through.

Hot Work on/in Closed Equipment, Ductwork and Piping

Y N/A

Contact Fire Prevention prior to all hot work performed on/in closed equipment, ductwork, and piping.

Hot Work on Ramp

Y N/A

No hot work within 50 feet aircraft, all hot work must cease when aircraft is fueling within 100 feet.

All Hot works visible from or on ramp needs appropriate shielding (fire blankets or fire umbrellas) to prevent UVIR activation. If not possible, contact Fire Prevention Division to identify UVIR'S to cover
(206) 787-5327

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Daily Pre-Hot Work Checklist - Continued

Elevated Hot Work Areas

Y N/A

- All elevated hot works producing sparks/slag shall require a **designated** fire watch and shall be maintained during all breaks.
- Elevated hot works requires inspection of space below.
- If sparks/slag fall, space below shall be cordoned off to protect other workers.

Fire Watch/Fire Monitoring the Hot Work Area

Y N/A

- Perform a continuous fire watch during hot works and breaks.
- *30-minute post hot work fire watch if 35' requirements met.
- *60-minute post hot work **designated** fire watch if 35' requirements not met.
- Fire watch complete @ ____: ____

Fire Watch Requirements and other Considerations

A designated fire watch is required when the 35' requirement is not met or required by the Fire Department, this shall be an individual whose sole responsibility is to be on guard of potential fires and/or hazards, stopping operations if any hazardous condition is found and is prepared to operate a fire extinguisher in case of a fire and to immediately call 911.

- A. If detectors (UVIR, Smoke) are covered to prevent alarms, covers must be removed at end of workday.
- B. If hot works is near ventilation systems coordinate with your Port Construction Inspector.
- C. Coordinate with Fire Inspector for any hot works on the roof.
- D. Coordinate with Fire Inspector for any hot works on the ramp.

Hot works in confined space must be coordinated with Port Construction, Safety and Fire Inspectors