Sea-Tac International Airport (STIA)
Tenant Improvement Design and Construction Process Manual

INTRODUCTION

STIA Tenant Improvement Design and Construction Process Manual are for use by the Tenant's Design Team (TDT) and should be used in conjunction with Regulations for Airport Construction (RAC 2014).

The Regulations for Airport Construction (RAC 2014) provides an orientation to the various Port departments associated with completing a construction project at STIA. It serves as guide for Contractors to better understand the focus of each department highlighting areas of concern and guidelines for successfully completing a project at the Airport. The Port Project Manager, Resident Engineer or Inspector shall review the Rules for Airport Construction (RAC) with the TDT and its Contractor to clarify any questions or concerns they may have on these requirements.

This manual will help guide the TDT through design and construction at SeaTac International Airport (STIA). It is comprised of five (5) phases for any tenant mid-term refurbishment, improvement project or new construction.
Phase 1: Pre-Design
Phase 2: Design
Phase 3: Preconstruction
Phase 4: Construction
Phase 5: Project Closeout

Web Site for Airport Dining and Retail and Tenant Design Teams

To get started working with the Port on new tenant projects, view and download Construction and Design reference documents and review forms used during plan review including:

- Application for connections to utilities
- Design Guidelines
- Design Standards
- Building Permit Information (For Application see your PM)

Go to: Tenant Construction and Design Reference Documents

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PHASE 1: PRE-DESIGN

A. Initiation of Tenant Projects

New or existing tenants of Seattle-Tacoma International Airport (STIA) who wish to modify or expand their existing facilities, must first contact their responsible Aviation Properties Manager or Airport Dining and Retail (ADR) Manager and present to them the basic "concept" of what they would like to modify, change, or add to their lease space. The tenant's "Concept" may range from a statement of scope intent to a completely illustrated design.

The sponsoring Aviation Properties Manager or ADR Manager will coordinate with Port stakeholders to review the project and, if the project meets with their approval, give a "qualified" concept approval that may be subject to specific limitations or include a request for more detailed information.

The Tenant will then work with the Aviation Properties Manager or the ADR Manager to either negotiate or amend their lease agreement. Once the tenant has obtained conceptual approval and all lease agreement issues have been resolved, a Port of Seattle (POS) Project Manager (PM) will be assigned to support and assist the Tenant through the design and construction process.

B. Contractual Process for Tenant Projects

The primary contractual relationship is between the Tenant and its consultant Designer. The Port's PM represents the relevant POS departments in the role of Owner's representative. The contractual relationships and constraints in the Tenant Design and Construction process are outlined as follows:

- The Tenant addresses business issues with Aviation Properties such as provision of utilities, lease amendments.
- The Tenant hires a consultant for design. Tenant's Design Consultant then contacts the assigned POS PM, who will clarify how best to implement the tenant's project after review of proposed scope of work.
- The Tenant is required to design and construct the Project in conformance with all applicable Port Standards and Regulations.
- Authority of the POS PM is as the representative of the Port as Landlord. The POS PM will actively assist the Tenant in expediting the Project. However, there will be no contractual relationship between the Tenant's consultant and the POS PM.
- The POS PM is the point of interaction between the Tenant and other Port entities, including other tenants. The POS PM is involved in every stage of the project. The POS PM coordinates design reviews by the various stakeholders and facilitates resolution of design or other issues.
- Prior to construction, the Tenant submits the Construction Documents to the POS PM for Port of Seattle review and acceptance as conforming to Port specifications. The POS PM

does the final review for Compliance of Port Standards and Regulations (COPS). Issuance of a POS building permit is contingent on the POS PM's approval.

• The Construction Contract is between the Tenant and their Contractor. The Tenant is responsible for satisfying all Permit issues. The Building Department issues a permit to the tenant with the Port of Seattle listed as the Landlord.

C. Initial Pre-Design Meeting

The Port of Seattle Project Manager (POS PM) will set up an initial Pre-Design meeting with the Tenant representatives to review the project scope. The Pre-Design meeting provides an opportunity for the POS PM, the Tenant Design Team (TDT) and other stakeholders to review specific project requirements and verify responsibilities. The POS PM will review the Pre-Design Checklist (see below) with the Tenant Representative and discuss POS expectations, codes and requirements.

Some of the topics will include POS Standards, Specifications, Guidelines, Applications for Connections and other forms. The POS PM will provide the TDT all applicable documents indicated in the Pre-Design checklist and discuss with the TDT potential challenges for the project.

NOTE: If, after the Pre-Design Meeting, it is determined that an Architectural / Engineering Consultant (A/E) is needed for the project, the tenant shall include in their contractual relationship with the A/E the following items:

- Automated Facilities Utilities System (AFUS) Orientation
- As-Built Drawings
- O&M requirements
- Port of Seattle Standards
- Pre-Design Checklist

D. Pre-Design Checklist

During the Pre-Design Meeting, the POS PM will provide a copy of the checklist to the Tenant Design Team (see appendix) and shall discuss all phases of the project and identify which activities do or do not apply.

E. Pre-Design Considerations

The Tenant Design Team (TDT) is strongly encouraged to look over activities in every phase of this manual prior to beginning the design. During the pre-design meeting, the POS PM will go over such issues as keys, badges, contractor liability insurance, coordination with the FAA, etc. During this meeting the POS PM may be able to identify which activities apply to the tenant's project and which activities can be omitted. However it is the responsibility of the TDT to ensure that every aspect of the process has been addressed adequately as outlined

within this document. Forethought and planning are imperative prior to the actual design to reduce costs, remain on schedule and avoid surprises.

F. Base Drawings

The POS PM will provide the Base Building Drawings to the TDT at the Pre-Design meeting if they are available. All drawings will be subject to field verification by the TDT including exterior, utility site plans, and interior floor plans. The TDT shall utilize these drawings as a basis for the development of the project.

Existing base drawings may be found in Automated Facilities Utilities (AFUS), Engineering, Maintenance shops, Craft shops, Facilities & Infrastructure, Port Survey Department or with your Tenant. Stamp existing POS drawings with "Tenant to verify all information contained herein".

In order to keep our utility database current, all tenants shall forward a copy to the POS PM of any existing and/or newly proposed underground utility information they have on file pertaining to the Tenant facility. The information shall be provided as an electronic file in AutoCAD format. Where existing information is not available in electronic format, a hard copy of the utility drawing shall be furnished.

See Section I for CAD requirements

G. Existing Site Condition Surveys

POS PM is responsible for arranging all existing site condition surveys. POS PM will arrange meetings between TDT and POS Maintenance System Managers to familiarize the TDT with the Port Design Teams and how the design will be integrated into the building systems.

POS PM will submit a Capital Improvement and Expense Project Support Request form to receive support from the boiler room, electrical shop and communications group.

NOTE: TDT personnel will need ID / Access security badges. Allow sufficient time, approximately 3-4 weeks, to complete this process. In case the TDT surveyor requires access to specific locations to verify conditions, the POS PM may be able to arrange for surveyors to be escorted.

H. Airport Security and Badge Process

The Airport Credential Center is responsible for issuing identification badges and keys for restricted and public areas, ramp insurance/permits and assigning access into restricted areas.

The process for new ID badge applications typically requires two appointments and may take 3-4 weeks to obtain approval and badging. Appointments are required for new badge

applications, U.S. Custom Security Seal applications and badge pickups. In addition to a valid driver's license or birth certificate, a valid U.S. Passport or other proof of citizenship will be required. It's best to make appointments at least one week in advance. U.S. Custom Security Seal applications can be submitted at the same time as your badge application. Requirements are found in the Port's Construction General Requirements, Section 01567- Airport Personnel Identification/Access Control.

I. Regulated Material Management (RMM) Surveys

The Airport has areas of hazardous contamination and requires a survey of every new project. The POS is responsible for conducting hazardous material abatement. When there is sufficient information available concerning the square footage, the POS PM will request Port Construction Services (PCS) to conduct a Hazardous Materials Survey of the affected tenant space. The survey report is provided to the POS PM. If hazardous material removal is required, this may impact the tenant's build out schedule.

NOTE: The Hazardous Material Survey is approximately a two-week process. Abatement design and removal schedule (if required) will be provided by PCS based on the complexity of the site condition.

J. Air and Water Survey

To evaluate how the tenant project will affect the Airport Heating, Ventilation and Air Conditioning (HVAC) system the total capacity, including the new project, must be determined through a survey. A set of base DDC readings should also be obtained through the Port Boiler Shop.

A survey of the existing airflow and tempered water flow/steam in the area to be impacted by the tenant will be provided by a Port assigned certified firm. It is the TDTs responsibility to utilize this data as the basis for their HVAC design.

K. Electrical Metering – 7 Day and 30 Day

The Port requires electrical meter readings of Tenant and Port panels impacted by the proposed Tenant project. These meter readings are also a permit requirement by Washington State L&I.

Meter readings provide a measure of the current amperage demand on a panel in thirty-minute increments and help determine whether enough ampacity is available to accommodate the project. Seven (7)-day meter readings are usually adequate for added loads of 20 amps or less. Any greater loads will require a 30-day meter reading.

The TDT is to contact the POS PM for a copy of existing load readings of the selected load centers if available. If not available, the POS PM shall request new readings from a third party electrician.

In some cases, meter readings can be found on green labels left in place from prior readings. These are valid for one year from the date measured. If green labels are found in the panel and are less than one year old, they may be used as part of design calculations

NOTE: Copies of the reading's summary sheet are required for each Application for Connection to Electrical Systems. Costs associated with 7 or 30 day meter readings are paid by the Port.

L. POS Drafting Standards and Automated Facilities & Utilities System Orientation

Drawings must comply with the POS CAD drafting standards. This is to enable the Tenant's project record documents to be entered into the Port's As-built record drawings retrieval system. The Tenant's A/E should start with backgrounds from the Port's Master Record Drawings for all exterior site planning, interior floor plates, and utilities work. These record drawings will be furnished by the Port where available.

Orientation for AFUS and Port's CAD Standards will be provided to the Tenant's A/E's by Port Staff to help ensure that the Tenant's documents are compliant with Port standards

Level 1: Reserved for POS funded projects, typically CIP projects, not tenant projects.

Level 2: A project that requires a permit by the Airport Building Department (ABD). Typically, this will be a Tenant-initiated and funded project that impacts Airport wide systems such as structural changes, plumbing, HVAC, electrical, communications, security, waste (sanitary, IWS), fire suppression, exterior and interior signage.

Level 2 Requirements include:

- Submittal of documents to the Port in AutoCAD, version 2008 (or later) for verification of compliance with POS CAD standards for layering and file naming.
- Submittal of Record documents in electronic format, and either full size or ½-size set hard copies, to the POS PM reflecting as-built conditions.
- Submittal of the contractor's construction red-line drawing set with sign-off by the Tenant's A/E attesting to the completeness of the as-built record.
- Approval by the POS CAD manager verifying the final Record Documents are compliant with the Port's requirements.
- Project Numbers: A "STIA" project number will need to be requested from the Port PM. The STIA number will be entered into the title block of the drawings sheets.
- The Tenant is responsible for the cost of preparation of the As-built record drawings to the Port's standards. The Tenant is advised to ensure the Tenant/Designer agreement should include the cost of preparation of As-built record drawings.

Failure to comply with these requirements will delay the issuance of the final Certificate of Occupancy by the Airport Building Department (ABD).

Level 3:

- Temporary facilities (up to 6 months).
- Non-system related architectural work (counters, casework and finishes, etc.).
- Project related signage (temporary construction).

- Glass replacement (exterior windows and interior relites).
- Carpet, terrazzo and other floor finishes.

Level 3 Requirements: No CAD or as-built drawings required.

PHASE 2: DESIGN

When the project moves from Pre-Design to Design, the POS PM will assist the TDT with Port design requirements and the submittal of plans and specifications to the Port for review.

A. POS Standards, Master Specifications and Applications for Connection

To maintain consistent and quality designs, TDTs must prepare designs conforming to the following POS standards:

- Architectural
- CAD
- Casework
- Communications
- Electric
- Industrial Waste & Storm Drainage
- Landscape
- Mechanical
- Radio Frequency
- Rental Car Facility Tenant & Design
- Signage (A/V)
- Water & Sanitary Sewer

Current versions of POS Standards, Construction General Requirements, Construction Safety Manual, Rules for Airport Construction, Applications for Connection and relevant other Guidelines can be found at: Tenant Construction and Design Reference Documents

POS Master Specifications for technical sections can be found at:
http://www.portseattle.org/Business/Contracting-Opportunities/Pages/contr_reference.aspx
(Please review the document location with the POS PM since links sometimes change)

At the beginning of a project, the Port PM and Aviation Facilities & Infrastructure (AV/F&I) will determine the type and approximate number of reviews based on the scope of the project and the quality of the documents presented by the TDT.

Each phase of design requires that the TDT and POS work together to communicate the STIA-specific details of design development. They range from coordinating existing electrical condition surveys and 30-day electrical metering to PEST, MUST, START reviews, to site utility plans. Any time a tenant project impacts Port systems, the TDT shall provide AFUS/CAD compliant drawings. It is the TDT responsibility to fulfill these coordination requirements. The PM will assist the TDT to successfully move through the Port's processes.

B. AV/F&I Technical Review Process

- The POS PM will send copies of the plans and specifications to the assigned Technical Reviewers and will direct the A/E to provide the appropriate number of copies with proper format.

- When the project concept is approved by the responsible Aviation Properties or ADR Manager, the TDT sends their 1st submittal (60%) design documents for review.

- The POS PM reviews the 1st submittal (60%) design documents to ensure there is sufficient information for the AV/F&I technical reviewers. If the POS PM determines that there is insufficient information to communicate the design intent, the POS PM will request the documents be revised and resubmitted.

- The technical reviewers typically have a minimum of seven (7) and a maximum of twenty one (21) calendar days to complete their reviews and incorporate their comments into the Design Review Comment Resolution Form. The Document Control Specialist (DCS) consolidates all reviewers' comments and forwards the form to the POS PM who transmits it to the TDT.

- The POS PM and the TDT will examine all comments and requests for submittals made by the AV/F&I Technical Reviewers on the Design Review Comment Resolution Form. The TDT will incorporate the requirements into the Project's construction documents. The TDT will complete a Submittal Log and send it to the POS PM who in turn sends it to the DCS for determination of Technical Reviewers.

- The TDT submits the second (90%) & potentially a third (100%) submittal of design documents to complete the AV/ F&I Design review.

- A 100% design submittal will be required for Building Permit submission.

C. <u>AV/F&I System Reviewer Process (ARC, PEST, MUST, START, WISE and FARM)</u>
The following are technical utility systems teams that receive progress presentations during each design phase.

ARC	Architectural Review Committee
PEST	Proactive Electrical Systems Team
MUST	Mechanical Utilities System Team
START	SeaTac Telecommunications Architecture Review Team
WISE	Water, IWS, Storm and Sanitary Sewer Team
FARM	Facility Asset Review Meeting

These groups facilitate resolution of TDT questions, issues and discuss the Application for Connection to Utility Forms (Reference Pre-Design Checklist).

At each drawing submission, the TDT will prepare their drawings for presentation and the POS PM will schedule the System Design Review Meetings: ARC, PEST, MUST, START and WISE as needed.

D. Environmental Program Review

Observing Environmental regulations is a serious business at the Airport. Depending on project scope and location, the POS PM will instruct the TDT to provide documents for the Aviation Environmental Programs staff (AV/ENV). Program staff will ensure that the project has received adequate review under the National and State Environmental Policy Act (NEPA/SEPA) and the Endangered Species Act (ESA), and will also ensure that the project complies with all applicable environmental permits and regulations. See the Port's Construction General Requirements, Section 01410-Environmental Regulatory Requirements.

The environmental permit that most Tenant projects need to comply with is the NPDES permit issued to STIA by the Washington State Department of Ecology. This permit controls water quality impacts from construction and operation of facilities at STIA and contains very specific measures required for compliance. The TDT may be required to:

- Provide additional data or resources
- Arrange for additional environmental consulting as needed
- Provide budget for Port Staff to prepare and publish SEPA documents
- Ensure that known permitting requirements are incorporated into the project schedule and budget

(NPDES is National Pollutant Discharge Elimination System)

E. Commissioning

The Airport Building Department (ABD) requires commissioning of all projects.

Unless determined by the Port that the TDT shall include a commissioning agent, the TDT designer shall confer with the PM and F&I to determine which Port commissioning activity checklists should be included in project technical specifications and the necessity of including a specialty contractor for balancing and controls (Siemens) support.

F. Project Life and Safety Issues, Review & Permits

Airport Life and Safety Code is administered by the POS Fire Department (POS FD) and Airport Building Department (ABD). The code provides criteria for construction, fixed fire protection, public notification, occupancy parameters, the design and application of fire protection, and life safety systems at the Airport. It incorporates alarms, suppression systems, smoke abatement, smoke control and public warning systems which will be designed, installed and maintained in accordance with applicable codes and directives.

The TDT must give careful consideration to the following issues since they may have cost and schedule impacts.

- Fire sprinkler system standards and procedures apply to the installation of complete indicators, gauges, alarms, drain pipe, test connections, sprinklers and all accessories.

- Life and Safety requirements can be obtained from the POS PM. Tenant Contractors will be required to have a project safety plan in place and an on-site designated representative responsible to stop work and/or remedy unsafe working conditions.
- Tenant Contractors will be required to coordinate all hot work (flame or spark producing activities) with the AV/Fire Department.

The POS Fire Department is concerned with worksite safety. The TDT shall apply for Welding or Cutting (open flame) hot work permits through the Aviation/Fire Department. The Fire Department also oversees terminal safety, including site access, fire extinguishers and determination of any dangerous situations.

G. Utility Meters

All Tenant new construction or remodeling projects requiring connection to POS power, water (hot and cold), natural gas and any other utility will need a properly installed and labeled POS Maintenance inspected meter. The meter(s) must be connected to the DDC or Power Monitoring system by the second week after Notice to Proceed (NTP). Once the Tenant contractor installs the meter(s), they shall request an inspection.

Request for inspection shall be coordinated through the POS Construction Inspector (CI). Failure to obtain inspection and approval of any meter, new or existing, will result in immediate stop work and power shutdown without prior notice.

For specification and purchasing information on meters approved by the POS, contact the POS PM or visit the Port of Seattle public web site for Design Standards for Utility Meters.

H. Reservation of Electrical Breakers

To reserve space for placement of electrical breakers in POS electrical panels and secure service for the project, the Tenant's electrical designer shall contact the POS PM and provide the panel(s), circuit(s) and physical location(s) and request a breaker reservation.

Once the desired breaker(s) is identified, a POS electrician will place a pink reservation sticker on the breaker and fill out the reservation form. The completed form will be provided to the Infrastructure Engineer who will record the information in a database. The POS PM can assist the TDT with any questions or clarifications.

I. Laydown Areas

If stored in areas other than a tenant's leased area, the tenant must coordinate laydown storage with the Port and identify the storage location on the tenant's construction drawings.

J. Submittal Criteria

Based on the complexity of the Tenant's project, the POS PM and the TDT will analyze potential equipment and systems that require POS F&I technical reviews. Submittals requiring technical review will be based on the following criteria:

- Systems equipment that will be serviced/maintained by POS; i.e. heating, ventilation and air conditioning equipment (HVAC)
- Systems equipment that will become the property of POS.
- Equipment that will impact existing POS systems in and adjacent to the tenant space.
- Equipment/material used for distribution of electrical power or wireless data transmission.
- Special point loads of high power use; i.e. baggage x-ray, plasma screens, e v chargers.

The TDT will incorporate submittal requirements into the project's construction documents during the Design Development Phase.

K. Drawing submittals for Airport Dining and Retail Tenant Projects:

Milestone One: Concept Submittals

- Seven (7) copies, half size (11"x 17") indicating the projects concept.
- Color Board: one 8.5"x11" or increased to 11"x17" if necessary.
- More than one board may be used if necessary.

Milestone Two: Preliminary Design Submittals

- First Submittal (60%): Twenty (20) half size (11"x17") sets and (20) (mechanical/electrical/communications) specs-standards
- Second Submittal (90%): Twenty (20) half size (11"x17") sets and (20) (mechanical/electrical/communications) specs-standards.
- ARC/PEST/MUST/START/WISE Meetings:
    - First review (60%) - bring five (5) half size sets.
    - Second review (90%) - bring five (5) half size sets.

Milestone Three: Final review (100%) and ABD Permit Review

- Follow ABD requirements including two (2) full size sets (24"x36") and calculations
- Provide ten (10) half size sets (11"x 17") to the POS PM. All the required mechanical and electrical specifications must accompany the design sets.
- Submit (2) CD's of the entire package in CAD to the AUTOCAD POS engineer for review.

L. O & M Data Packages:

The Port of Seattle requires O&M data for Port maintained equipment, fixtures and systems. The following information should be identified in the technical specifications. The type of data depends on the product, system or equipment.

1. Data Package 1: typically used for architectural items requiring simple but specific maintenance and replacement; for example, acoustical ceiling, floor tile or carpeting system.

2. Data Package 2: used for an item that has motors or adjustable electronics; for example, an item having a motor and some sequence of operation such as a refrigerated drinking fountain or adjustable photo sensor.

3. Data Package 3: used for an complex piece of equipment, having an extensive sequence of operation, a complex troubleshooting sequence and one requiring frequent operator attention; at least for start-up and shut-down.

	TABLE 1	Data Packages		
	Technical Data Content	**1**	**2**	**3**
Operating Instruction				
	Safety Precautions	X	X	X
	Operator prestart			X
	Startup, shutdown, and post-shutdown procedures			X
	Normal operations		X	X
	Emergency operations			X
	Operator service requirements			X
	Environmental conditions		X	X
	Parts identification		X	X
	Testing equipment and special tool information			X
Preventive Maintenance (PM)Plan &Schedule				
	Manufacturer's PM recommendation		X	X
	Calibration recommendations		X	X
	Cleaning recommendations	X	X	X
	Lubrication data		X	X
Corrective Maintenance (Repair)				
	Troubleshooting guides and diagnostic techniques			X
	Wiring diagrams and control diagrams			X
	Maintenance and repair procedures	X	X	X
	Removal and replacement instructions		X	X
	Spare parts and supply lists	X	X	X
	Corrective Maintenance Work Hours			X
Video O&M Documentation				
	O&M Videos		**X**	**X**

PHASE 3: PRE-CONSTRUCTION

A. Application for Certification of Port Standards (COPS)

All Tenant projects must comply with POS Design Standards. The review of standards compliance is provided by POS F&I Department who is responsible for the Maintenance and Operation of all Port facilities and utility systems.

The design and systems review processes described earlier in this chapter will be repeated until all issues have been resolved and all appropriate Applications for Utility Connection Forms have been approved. Once this process has vetted and resolved all issues, the TDT may then proceed with COPS and Preliminary Design Review Conference (PDRC) forms.

The COPS and PDRC must be completed prior to issuance of the Permit.

B. Airport Building Department (ABD) and Electrical Permit (L&I)

- The ABD issues General Building and Mechanical Permits.
- Electrical Permits are issued by the Washington State Department of Labor & Industries (L&I).
- TDT shall contact the ABD Permit Technician for a copy of the most recent ABD permit application.
- The ABD assesses and determines if a Building and/or Electrical Permit are required. If no Permit is required due to the simple nature of Tenant Project, the ABD will provide the Compliance of Port Standards (COPS) Certificate to the Tenant Project Coordinator to review the Certificate for compliance. This will allow the Tenant to proceed with Proposed Project.
- Copies of the approved plans shall be forwarded to the ABD and POS PM prior to executing any work. Requirements are as follows:
    - The TDT shall send a minimum of seven (7) (number to be confirmed by the PM) half size sets and two (2) full size (24"x36") sets of all permit drawings and a copy of the permit application to the POS PM. The POS PM shall forward two (2) full size (24"x36") drawing sets, two (2) sets of specification manuals, one (1) set of calculations and soils report (if applicable), the permit application (together with a copy of the completed PDRC and COPS forms), and a check for the Plan Review Fees, to the ABD.
- The ABD may, in some instances, review projects prior to completion of COPS and PDRC forms if the plans & specifications are "100%" complete. However, no permits can be issued until COPS and PDRC certificates have been completed.

- In projects where the total combined new connected load of all panels exceeds 100 Amps, the TDT shall request L&I to perform a plan review at the tenant's cost.

- Once the submittal package is accepted as complete, the ABD initial review process will be completed within 10 working days. When the review is completed, a list of comments will be provided denoting conditions that need to be addressed and resolved. Plans cannot be stamped or APPROVED, nor can the permit be issued, before all items are resolved and the plans and supporting documents are revised as needed, fees are paid when applicable, business licenses are obtained from the City of SeaTac, where necessary.

C. Food Facilities Permit

Food handling facilities require specific plan review and approval by King County Public Health Services, Food Protection Program. The PORT PM shall notify the TDT to apply for the permit and cover the cost of reviews.

Please visit King County Health Department's website for complete information on obtaining a food service permit:
www.kingcounty.gov/healthservices/health/ehs/foodsafety/FoodBusiness

D. Contractor Business License

Because SEA is within the limits of the City of SeaTac, all Contractors doing business with the POS, are required to have a Business Operating License with the City of SeaTac.

E. Submittal for Airport Security Plan Changes

As part of our Airport Security Plan (ASP), the Port is required to notify and get approval from the TSA for any changes to the secured and/or AOA perimeter, to include changes to perimeter walls inside the bagwell, concourse, roofs, or fences on the AOA, access into these areas via doors, gates, or holes in the wall, or changes affecting the TSA screening process or exit lanes. All changes must be submitted to TSA within 45 days of the effective date and they have 30 days to review and approve/disapprove these changes.

The Airport is subject to civil penalty by the TSA for failure to notify or get approval of these changes. The Airport Rules and Regulations includes construction and alteration violations for not following proper procedures.

F. Contractual Liability Insurance

Contractors and tenants are required to carry a minimum of:
$1 million general commercial liability insurance
$10 million for large construction projects and higher-risk projects
$1 million for automobile liability insurance
$5 million for automobiles operated in the non-movement AOA
$10 million for automobiles operated on the aircraft movement AOA

Contractors and tenants are to include the Port as an "additional insured" by endorsement on their policies while working on Port property.

POS PM will review contractual liability insurance with the tenant, who in turn will require their contractor(s) to carry liability insurance that meets POS requirements.
Contractors are required to provide a certificate of insurance, in accordance to the paragraph above and present it to the POS PM at or before the pre-construction meeting as a prerequisite to commencing construction. They must also provide proof of workers compensation coverage for their employees.

G. Notice to Proceed (NTP) Requirements

Prior to issuance of the official letter for Notice to Proceed from the POS PM, the Tenant Contractor and TDT are responsible for submitting various requirements found in the Port's Construction General Requirements, Section 01305-Preconstruction Submittals. The POS PM will go over the requirements with the TDT and contractor. These requirements might include, but are not limited to:

- Contractor Liability Insurance, showing the Port of Seattle as an additional insured
- Copy of the executed contractual agreement between the Tenant and the Contractor
- Payment and possession of the ABD Permit
- Contractor's construction schedule
- Copies of Purchase Orders for equipment and long lead items
- Contractor's 24 Hour Emergency Contact List
- Temporary Power Plan
- Quality Control Plan
- Contractor's Written Statement of Responsibility (if required by ABD)
- Environmental Submittals and Pollution Prevention Plan (if required by contract documents)
- Construction Safety Plan, Site Specific Safety Plan and Job Hazard Analysis approved by Safety Department

Receipt of all completed forms is a condition for the POS Project Manager to set up the Pre-Construction meeting.

H. Contractor's Safety Plan

The contractor must submit a site specific safety plan according to Port's Construction General Requirements, Division 01, Section 01860 Tenant Safety Management. The safety plan must include protection of the workers, adjacent tenants, and the traveling public.

Along with the site specific safety plan, contractors must provide an outline of their scope of work in a Site Specific Safety Plan Worksheet found in POS General Requirements, Division 01, Section 01860, Appendix A.

If the contractor does not have their own safety plan, a template "Sample Accident Prevention Program - Construction" can be obtained from Washington Department of Labor & Industries at: http://www.lni.wa.gov/Safety/Basics/Programs/Accident/default.htm

Acceptance of the Site Specific Safety plan (including a Job Hazard Analysis and other supporting documentation) is a condition that must be met prior to Notice to Proceed (NTP) and commencement of work. The Tenant Contractor will also be required to designate an onsite representative with responsibility to stop work and remedy unsafe working conditions. Tenants are required to make this procedure known to all bidding contractors.

I. Pre-Construction Meeting

All tenant projects require a pre-construction meeting. Once a building permit has been issued, the TDT and Tenant Contractor must review the pre-construction checklist and compile all required information on the checklist. This meeting will be scheduled by the POS PM or Inspector. All Tenant construction projects require Port inspection for compliance with the project plans, building permits, Fire and Life Safety and compliance with the Port Standards and Guidelines. Representatives from these departments are invited to the pre-construction meeting.

No work may commence without a pre-construction meeting. However, at the discretion of the PM, pre-installation conferences may be waived for minor projects when the responsible contractor has demonstrated a working knowledge and past compliance with the Rules for Airport Construction.

The preconstruction meeting sets the stage for a successful project and allows the entire project team to meet each other, define lines of authority, review key project administrative procedures, look at the proposed schedule and discuss the project.

The request for a pre-construction meeting must be made at least ten (10) working days before the date of the meeting. Appropriate Port staff will be invited depending upon the proposed agenda prepared and submitted by the Port PM. The following is a list of typical attendees and agenda items.

Attendees:

- Port Project Manager, Port Inspector, Port critical stakeholders.
- Tenant's representative
- Designer and professional consultants for mechanical, electrical, civil, and structural disciplines, as applicable.
- Contractor's Project Manager and Superintendent
- Major Subcontractors, as appropriate
- Major Suppliers, as appropriate

Agenda Items:

- Introductions
- Regulations, Permits
- Security & Badging Requirements
- Contractor On-Site Management
- Safety Management and Orientation
- Hazardous Material Management
- Haul Routes, Accessibility, Laydown, Contractor Parking
- Schedule
- Quality Control/Quality Assurance
- Temporary Facilities and Utility Shutdowns
- Deferred Submittals
- Correspondence & Communications
- Contractor Reports
- Project Meetings

J. Port Construction General Requirements Division 01

All construction work at the Airport is subject to the Port's Construction General Requirements, Division 01. However, due to the nature of Tenant Construction projects, not all sections of these requirements may apply. These requirements will be attached in their entirety to Tenant project documents and reviewed at the pre-construction meeting. Division 01 specifications are available at: Tenant Construction and Design Reference Documents.

(Please review the document location with the POS PM since links sometimes change)

PHASE 4: CONSTRUCTION

Once the project moves from Preconstruction to Construction, there is shift of duties and responsibilities from the POS Project Management Group (PMG) to the POS Construction Management (CM) Group. The assigned Resident Engineer (RE) and Construction Inspector (CI) become actively involved in the day to day activities of the project.

A. Contractor Scheduling/Phasing Plan Requirements

Prior to the start of work, the contractor shall submit, for the Port PM's acceptance, a detailed progress schedule for proposed methods and sequence of work, including estimated dates for starting and finishing each operation. This "staged construction," should be used as a plan to facilitate the work and to permit maximum protection to the public. The contractor will be required to follow the progress schedule unless otherwise approved by the Port PM. All changes will be communicated to the Port PM and CI.

The progress schedule shall consist of a bar chart indicating time factors for all significant design, manufacturing and installation activities, to include:

- A bar diagram
- Work activities, including Construction Advisories and Shut Down Requests

- Estimated time of each activity
- Sequence of work in sufficient detail to accurately evaluate progress at any time during performance of the contract
- Start and completion dates for each item of work.

The contractor shall submit schedule updates for the duration of the work. Frequency of the updates shall be determined with the Port at the Pre-construction Meeting.

B. Construction Submittals, Deferred Submittals and Substitutions

Submittal items discussed in the Pre Design Phase and incorporated into the Tenant's project's construction documents are based on the complexity of the tenant project; specific systems/equipment may include, but not be limited to the following:

- Fire suppression systems
- Fire alarm controls and electronics
- HVAC equipment
- Pre & post construction balance reports (air & hydraulics)
- Cable or utility routing (through non-tenant space)
- Baggage handling systems (inbound and outbound)
- Shop drawings indicating equipment layouts, plumbing and duct work
- Kitchen equipment submittals and layout drawings
- Controls equipment and layout drawings
- J-line lighting upgrades (Airlines)
- 400 Hz electrical point loads
- Antenna relocations and transmittal upgrades

At the Pre-Construction meeting, the POS PM and TDT will provide the contractor a Submittal Log template. The first eight (8) columns must be completed by the contractor. The Tenant, POS PM and F&I will pre-determine the most expeditious turnaround time for POS reviews. A typical turnaround time for POS submittal reviews is 1-2 weeks. The Tenant PM will review and approve the contractor's submittal data prior to forwarding the data to AV/F&I DCS.

The Tenant PM will submit directly to the AV/F&I, with a copy to the POS PM, the completed submittal log along with sufficient submittal data/information to allow the POS Technical reviewer(s) to determine that the proposed equipment, material or process meet the project specifications and Port's approval.

Substitutions will use the same process as construction submittal, but will not be represented on the submittal log. Copies of the substitution requests will be submitted directly to POS PM for review with copies to the AV/F&I.

C. Substitution of Materials and Equipment

The tenant or its contractor may ask for substitution of specified material, equipment or furnishings with equal or equivalent items based on the following:

- The specified material/item is not available.
- The item will have an unreasonable delivery time due to no fault of the contractor.
- The approved contract documents allow the use of equal or equivalent products.
- The substitutions comply with Port Standards.

All proposed modifications to the accepted documents for the work must be submitted to the PM and CI for review. No change order or other contract modification, which materially changes the scope of the improvements, shall be executed without prior approval of the CI.

The contractor will provide ABD (and/or L&I) Inspector with an updated copy of the drawings and specifications reflecting all such alterations or deletions.

D. Shop Drawings, Construction Drawings, Product Data, and Samples

At the work site, the contractor shall maintain copies of all approved construction drawings, specifications, addenda, Requests for Information (RFIs), change orders and change directives, approved shop drawings, product data and samples including the POS-approved materials sample board, if established for the project.

The Tenant shall ensure that its contractor prepares, reviews, certifies, and submits to the POS PM with reasonable promptness and in such sequence so as to cause no delay in the work, any requested shop drawings, construction drawings, product data and samples, equipment and material submittals.

Work may not commence until submittals of shop drawings, construction drawings, product data, or material submittals have been reviewed and accepted by the POS and approved by the TDT. The contractor will maintain responsibility to build per the approved construction contract documents unless approvals are received from the TDT and the Port.

E. Work Hours, Holidays, Black-Out Periods

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

Standard Day Shift Work Hours: 0700 – 1530 (7:00am until 3:30pm), Mon - Fri.
The Contractor shall limit activities so there is no disruption to Airport Operations.

Standard Night Shift Work Hours: 2030 – 0500 (8:30pm – 5:00am), Sun - Fri.
All of the work that is considered disruptive to airport operations shall be 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 of the standard work shift hours, as defined in this section, can be requested and may be granted by the Inspector, Resident Engineer or Project Manager. No work outside of the standard work hours, as defined in this section, shall be allowed without written approval from the Port.

Port Staff Holidays

- Jan – New Year's Day
- Jan – Martin Luther King Day
- Feb – Presidents Day
- May – Memorial Day
- July – Independence Day
- Sept – Labor Day
- Nov –Thanksgiving Day and day after
- Dec – Christmas Day and day after

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

F. Site Access and Deliveries

The Port reserves the right to enter a leased work or storage areas at any time for the purpose of providing fire protection, ensuring emergency and routine security, performing safety, health and construction inspections and ensuring conformance with Port standards and regulations as well as any other regulatory requirements.

- Haul Routes/Traffic Control
  The tenant/contractor shall comply with the requirements of the Port's General Requirements, Division 01, Section 01552-Traffic Control. Haul routes will be coordinated with the CI at the pre-construction meeting.

- Access to Premises
  In order to minimize impact to the public, access to the worksite for construction personnel and project materials, the tenant or contractor will coordinate location of the construction entry door with POS CI.

- Deliveries/Laydown Areas
  Personnel access and material deliveries to the worksite are to be by designated routes only.

  In general, tenants and their contractors will not be permitted to enter restricted airport areas, except where there is no other access route to the premises. However, should a particular item of material be of such size or configuration that it is physically impossible

to transport it by 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 representative of the POS.

Limited use of loading dock facilities and freight elevators will be granted to the contractors by reservation. Outside regular working hours, such facilities may be made available by reservation and at the tenant's cost.

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

- Elevators and Hoistways
  The contractor may use designated freight elevators and shall not use passenger elevators for transporting materials to and from the worksite. Any damage to elevator cabs shall be repaired by the contractor in a timely manner at no charge to the POS. The contractor may schedule material hoisting time slots with the CI in advance. The tenant shall coordinate its move-in schedule of furnishings, accessories and fixtures with the CI.

  Public passenger-only elevators are not available for contractor use.

- 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 Airport Operations. All existing work must be protected against damage during the contractor's work. 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 Temporary Construction Barricades). If stored in areas other than a tenant's leased area, the tenant must coordinate such storage with the Port.

  Any work in the plenum space above the corridors in the Main Terminal, Concourses A, B, C, D or the North and South Satellites will require the area below the work to be barricaded. The barricades shall be placed such that ceiling tiles or other materials that may become dislodged and fall from shaking or heavy walking, or falling objects from above, will not injure any people below.

- Stored materials
  Any and all materials and equipment used for construction will generally need to be stored within the boundaries of the project. Additional lay down and storage space may be available through the POS PM per the Port's Construction General Requirements, Section 01500 (c)-Project Logistics Appendix. Airport activities outside of the project area shall not be affected and must be kept operational.

G. 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 operations of the facility take precedence over those of the contractor. It shall be the sole responsibility of the contractor to schedule and coordinate its activities with those of the facility to assure minimum disruption of facility operations. See the Port's Construction General Requirements, Section 01311- Project Coordination.

- Construction Advisory Form (CAF)
  Communication with Aviation Operations is critical to airport safety and project progress. A minimum of two (2) weeks' advisory notice must be given to the Port CI and AV Operations Construction Coordinator prior to project commencement and 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.

- Coordination Meetings
  The Port Inspector will conduct regular construction meetings to coordinate the work of the contractors, answer questions and resolve issues. The Port CI will publish meeting minutes.

- Coordination with other Port Work
  During construction, work by others may be occurring within, or adjacent to the boundaries of this project. The contractor shall cooperate with the Port and other contractors to prevent impact to any other construction projects.

- Coordination of Electrical Work
  Projects with electrical room access requirements must have a pre-installation meeting that includes the electrical shop. If support is needed by the electric shop, a "Capital Improvement & Expense Project Support Request" (CIP) form is required and is submitted by the Port PM or Port Inspector.

  NOTE: Minimum 5 day notice is required for access to power centers, chiller distribution rooms, emergency and STS power rooms. Shut Down Requests submitted by the Thursday 8am cutoff will have the best opportunity to be scheduled & supported on desired dates and times. The Electrical Department schedules their staff on Thursday for the following week.
  - When a contractor requires access to any other electric room, they are to call the electrical shop at (206) 787-5311.
  - If no answer, they are to leave a message with a return phone number.
  - The Electrical Department will determine if a Port electrician will be present during access to the electric room(s).

H. Utility Shutdowns

The contractor shall not turn on or off any utility on the airport premises. AV/Maintenance personnel perform all shutdowns and restarts of existing systems.

All construction activities interfacing with existing systems must be fully coordinated with 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 shall coordinate the work with the Port Inspector and AV/Maintenance. A request for shutdown of a utility at the airport will be accepted only from the contractor or authorized tenant's representative.

In order to manage the risk associated with shutdowns and to minimize the time a system is down, an Airport Systems and Utility Shutdown Request (SDR) shall be coordinated through the CI and must be submitted a minimum of 72 hours from when the SDR approvals are completed and the shutdown date. Weekend days do not count as part of the 72 hours.

- SDRs that have a substantial impact to Operations or tenants may require the submission of a Construction Advisory Form (CAF). This form must be completed two (2) weeks prior to commencement of work.

- Fire system shutdowns shall be coordinated through the CI and be carried out in accordance with the guidelines outlined in the 2014 RAC. The contractor shall also submit a plan for the CI's approval detailing the contractor's actions regarding accidental damage to a fire detection or fire suppression system.

I. <u>Door Hardware and Keying</u>

The TDT shall comply with the requirements found within the POS Architectural Standards for door and key hardware. The Tenant's contractor is required to provide "BEST" brand lock Co. construction cores. Upon completion of the Tenant project, the POS Lock Shop will exchange the construction cores with final lock cores and keys.

All new doors installed at the airport must be free of asbestos and labeled as such. The material used in door construction must be verified through manufacturer's documentation, material safety data sheets (MSDS) or sampling. All new tenant doors must be labeled so that the door can be tracked in the AV/Maintenance O&M Asbestos Database.

The POS PM will work with the Tenant in coordinating keying, either using key numbering series or new series of numbers. The Tenant must complete a key request for the quantity of keys desired and submit it directly to the POS Lock Shop, as the POS PM cannot be responsible for the actual issuance of keys.

If the Tenant requires other than the Port core system, the POS Lock Shop will provide and install outside the Tenant space a "Knox" brand lock box to house the Tenant's entry key. The

lock box is provided for Life Safety access by the POS/Fire Dept. only. Cost of the lock box and installation is paid by the Tenant.

Room numbers will be assigned by the POS. This will be coordinated by the POS PM, Lock Shop and the Propworks Coordinator.

J. Construction Safety

- Operational Safety on Airport Operations Area (AOA):
  All Contractors and subcontractors associated with the project shall comply with the POS General Requirements, Division 01, Sections 01140-Operational Safety on Airports.

- The contractor shall comply with the requirements of the POS General Requirements, Division 01, Section 01860-Tenant Safety Management. POS Engineering Safety Inspectors conduct regular inspections.

- Airport Life and Safety Code:
  Airport Life and Safety Code is administered by the AV/Fire Department and the Airport Building Department, as identified in the 2014 RAC.
  The Airport Life and Safety Code provide criteria for:
  - Construction
  - Fixed fire protection
  - Public notification
  - Occupancy parameters
  - Design and application of fire protection and life safety systems
    - Alarms, suppression systems, smoke abatement, smoke control and public warning systems
    - Fire sprinkler system standards and procedures apply to the installation of complete indicators, gauges, alarms, drain pipe, test connections, sprinklers and all accessories.

  The POS Fire Department oversees terminal safety, including site access, fire extinguishers, and determination of dangerous situations.

  Contractors are required to coordinate all hot work (flame or spark producing activities) with the AV/Fire Department.

K. Contractor Quality Control Program

The contractor shall provide a quality construction product that meets the Port design and quality standards. This level of quality shall include, without limitation, the grades of material, thickness, strengths, national or international standards, samples that must be submitted, testing required to assure quality, experience of installers, fabrication and installation tolerances, and other related quality requirements.

The Port shall have the right to inspect all work, at any time to assure the contractor provides the quality required in project specifications and POS standards.

L. Inspections

The Port monitors construction processes and methods to ensure compliance with Port and industry standards and that 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 shall permit inspectors access and provide means of access to the work on site as well as off-site facilities used to store or manufacture materials, furnishings, fixtures and equipment and shall respond to any other reasonable request to further the inspectors' ability to observe or complete any tests. Such inspections and tests shall not relieve the contractor of any of its obligations under its owner-contractor agreement.

- Construction Inspections

In general, the contractor shall be responsible for scheduling required Airport Building Department (ABD), Fire Department, Engineering, and Environmental inspections and for ensuring that inspections are completed. The Port may conduct any inspections it deems necessary and shall bring any irregularities to the tenant or contractor's attention. The Port shall have 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 shall notify the Port CI forty-eight (48) hours prior to covering up work so that the work may be reviewed by appropriate Port F&I representatives. Any work covered up without first providing such twenty-four (24) hour advance notice may be required to be removed.

The contractor shall provide for the Port and any party designated by the Port all access including, but without limitation, ladders, access doors, lifts, and ventilation needed to review the quality of the work.

- Special Inspections

Required IBC special inspections shall be accomplished by inspection firms or certified inspectors approved by the Port Building Dept. The Port CI and Airport Building Inspector will take part in and must be notified prior to those special inspections required by IBC. Copies of all inspection reports and tests shall be forwarded to the Port CI and ABD.

The ABD's final acceptance of occupancy will be when the ABD has received all inspection reports, certifications, and record documents. The ABD's inspection file must be complete and satisfactory prior to the issuance of a Certificate of Occupancy.

- Defects – Uncovering Work

Port Construction Inspectors are authorized to reject any work, fixtures, systems, materials, equipment, furnishings, or any component of the work in non-conformance to the approved construction contract documents.

Inspectors review against approved construction contract documents, shop drawings and samples to determine whether the work is acceptable. If the appearance and/or performance of any element of the work fail to conform to the plans, specs, code and standards, an NCR will be communicated by the Port in writing to the tenant and the contractor.

Removal or modification, as directed by the CI, the ABD or L&I inspector of any work that is not in conformance with the approved construction documents, codes, Port Standards or the Regulations for Airport Construction, shall be at the contractor's expense. Failure to take immediate action to remedy the situation may result in suspension of the building permit.

M. Temporary Construction Barricades

Except for Airport Dining and Retail projects or unless otherwise stated in the project specifications, for projects that require construction barricades, the TDT is responsible to provide the necessary specifications in their project construction documents so that the Contractor can construct barricades that meet the requirement of the Port's Construction General Requirements, Sections 01500a-Temporary Barricade Elevation, 01500b-Temporary Barricade Details and the RAC.

The Port provides barricade signage which is limited to "What's Happening" and safety signage. The PM will coordinate the production and installation of signs with the Port sign shop. Any deviation of the Port standard must be submitted and approved by Aviation Operations.

N. Temporary Ceiling Removal

Prior to ceiling tile removal, verify with the Port PM whether the area requires assistance for removal from PCS. Areas of the terminal contain asbestos fireproofing above dropped ACT ceilings. Where ceiling tiles within a tenant lease line are required to be temporarily removed for tenant project construction purposes, the contractor shall ensure the ceiling envelope is maintained. To maintain the ceiling envelope for limited durations, white fire resistant polyethylene sheeting, at least 6 mil thick, shall be used. The installation of the polyethylene sheeting shall be done in a neat manner.
The contractor shall insure that sheeting is legibly labeled in indelible black ink with the following information;

- Date the ceiling tile was removed
- Name of the contractor
- POS work project number

Unkempt, dirty or discolored sheeting shall be cleaned or reinstalled as directed by the POS Inspector or PM at no cost to the Port.

PHASE 5: PROJECT CLOSEOUT

In order to have a timely closeout, the Contractor the following items must be completed before demobilizing from the work site.

A. Punchlist/Final Inspections

When construction completion has been determined and prior to the final inspection for Building Code compliance, the Port CI and/or PM shall conduct a walk through with POS stakeholders and Tenant stakeholders to identify any deviations from the project's construction documents and compile a Deficiency List. The Deficiency List will be issued through the Port's DCS to the POS PM who will transmit it to the TDT and Contractor.

NOTE: A punchlist inspection shall not be requested or granted if the work is incomplete. The Contractor shall notify the CI with a request to schedule the inspection no less than five (5) working days prior to the completion of work.

Once the punch list of deficient items is generated, the contractor will have 60 days to resolve all items on the list, in accordance with the tenant lease requirements. During these 60 days, while the contractor and owner are working on the punchlist, the tenant may be able to conduct business under a "Temporary" Certificate of Occupancy (TCO). When punchlist items are complete, the Contractor will notify the Port Inspector who will conduct a Final Inspection to confirm completion of remaining punch items. After all the punch items are resolved, the contractor will be granted Certificate of Occupancy (CO) by the Airport Building Department.

B. Final Building Permit Inspections

The Contractor is responsible for obtaining all temporary and permanent Certificates of Occupancy and inspections required by the Airport Building Department, Fire Department, Labor & Industries, and for sending a copy of the signed off inspection card to the Port CI or PM.

C. As-Built Documents z

The contractor shall record all changes to the contract drawings by making adequate and proper entries on a continuous basis as red lines when any changes occur. Accuracy of records shall be such that future searches for information regarding the as-built condition of the work may be reliable. Upon completion of the work, the contractor or tenant shall transfer the recorded data from the "red lines" to the as-built drawings.

As-Built drawings must comply with AFUS/CAD standards and be provided in a CD format. In addition, the Contractor shall provide one (1) full size hard copy of red lined drawings after project completion. If POS PM requires additional copies for her/his own files they may be requested from the TDT. Requirements are found in the Port's Construction General Requirements, Section 01730 As-Built Record Documents.

D. O&M Manuals and Warranties

Aviation Facilities & Infrastructure requires O & M manuals on any equipment that will be serviced, maintained or become property of the POS. Operation and maintenance (O&M) data and warranties shall be submitted to the POS PM. The Contractor shall comply with the Construction General Requirements, Division 01, Section 01780-Operation and Maintenance Data.

E. Compliance tests

The intent of Compliance tests is to functionally test equipment to verify operation in accordance with design. This process verifies the equipment is ready to energize and operate. Examples include backflow preventer test, type 1 hood test, and water sanitization test. It is critical that the utilities, equipment and systems in a tenant project fit seamlessly into the Airport's utilities and systems.

F. Commissioning

The Contractor shall comply with the Construction General Requirements, Division 01, Section 01811-Commissioning Activities. It is important for utilities, equipment, and systems in a project to fit seamlessly into the Airport's utilities and systems. The contractor shall conduct a commissioning effort utilizing checklists provided in the project specifications prior to receiving a Certificate of Occupancy. The intent of these checklists is to functionally test equipment and verify operation in accordance with the contract documents. The contractor shall notify the Port PM and CI at least 30 days prior to commencement of any commissioning activity for scheduled with Port AV/Maintenance and Facility personnel.

G. Training

As a result of the Commissioning effort, a Close-out Report will be provided by the Tenant and forwarded to the Port PM for distribution to AV/F&IDCS. The TDT will provide operational and service training for any equipment that may impact Port Systems. The Contractor shall comply with the Construction General Requirements, Division 01, Section 01820-Training Condensed.

H. Final Cleaning

The contractor shall comply with the Port Construction General Requirements, Division 01, Section 01740-Final Cleaning. The Contractor shall include all project work areas including laydown spaces and logistics yard if applicable.

I. Demobilization

The contractor shall demobilize and restore the project site, logistics storage and project work areas.

J. Badges and Keys

Contractor and subcontractors shall return all badges and keys to the Credential Office after demobilization from secure areas. Fines are assessed by the Credential Office for outstanding badges and keys.

K. Lien Releases

Airport Dining and Retail Tenants have a requirement in their lease to submit contractor lien releases. Tenant shall forward lien releases to POS PM within 30 days after Temporary Certificate Occupancy has been granted, including notarized copies of lien releases for any contract exceeding $ 2,500.

L. Certificate of Occupancy

The ABD will not issue final Certificates of Occupancy for Tenant Projects until it has verified that the Port is in receipt of the required as-builts. Once all required final inspections, including fire life/safety systems, are complete and operational, ABD can issue a Final Certificate of Occupancy. This will allow the Tenant's designer/contractor sufficient time to provide the Port with complete as-builts.

The ABD inspector has the sole responsibility for issuance of the Certificate of Occupancy (CO) and will not issue the CO until there are no code violations and all required inspections are complete.

GLOSSARY OF ACRONYMS

ABD	Airport Building Department
ADR	Airport Dining and Retail
A/E	Architect/Engineer
AFUS	Automated Facilities Utilities System
AMA	Airport Movement Area
AOA	Airport Operations Area
ARC	Architectural Review Committee
AV	Aviation
CAD	Computer Aided Design (also CADD)
CIP	Capital Improvement Project
COPS	Application for Certification of Port Standards
DCS	Document Control Specialist
DDC	Direct Digital Control
F & I	Facilities and Infrastructure
FAA	Federal Aviation Administration
HVAC	Heating Ventilations and Air Conditioning
CI	Construction Inspector
LOB	Line of Business
MUST	Mechanical Utilities System Team
NTP	Notice to Proceed
PCS	Port Construction Services
PDRC	Preliminary Design Review Conference
PEST	Proactive Electrical Systems Team
PM	Project Manager
POS	Port of Seattle
RAC	Regulations for Airport Construction
RE	Resident Engineer
RMM	Regulated Material Management
START	SeaTac Telecommunications Architecture Review Team
STIA	Seattle Tacoma International Airport
TDT	Tenant Design Team

APPENDIX A – TENANT IMPROVEMENT PROJECT PRE-DESIGN CHECKLIST

TENANT IMPROVEMENT PROJECT PRE-DESIGN WORKSHEET

PROJECT TITLE:

POS PM
CONTACT:_____ PHONE:_____

TENANT:

TENANT PM
CONTACT:_____ PHONE:_____

STIA No.:
WORK PROJECT No:

CONST.
INSPECTOR:_____ PHONE:_____

No.	IIEM	DESCRIPTIION	CONTACT	REQUIRED (Y/N)	DATE/ REMARKS
	STANDARDS & REGULATIONS				
1.	RULES FOR AIRPORT CONSTRUCTION (RAC)	Provides necessary information to successfully execute and complete construction at Seattle-Tacoma International Airport as well as the various Port stakeholders interfacing with contractors during a project. It can be found at the following: link	PORT PM		
2.	TENANT IMPROVEMENT CONSTRUCTION GENERAL REQUIREMENTS	Compendium of procedures, rules, regulations and standards to be followed for all Port and tenant construction projects Seattle-Tacoma International Airport. It can be found at the following: link	PORT PM		
3.	P.O.S. AFUS/ AUTOCAD STANDARDS- (A/E TO ATIEND AUTOCAD/AFUS ORIENTATION IF NECESSARY)	The 2008 AutoCAD design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT AutoCAD Engineer:		
4.	P.O.S. ARCHITECTURAL DESIGN STANDARDS	The 2001 architectural design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT PM		
5.	P.O.S. ELECTRICAL DESIGN STANDARDS	The 2012 electrical systems design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT PM		
6.	P.O.S. MECHANICAL DESIGN STANDARDS	The 2014 mechanical systems design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT PM		
7.	P.O.S. WATER AND SANITARY DESIGN STANDARDS	The 2003 water and sanitary sewer systems design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT PM		
8.	P.O.S. COMMUNICATION DESIGN STANDARDS	The 2011 communication systems design standards are available in Microsoft Word or AutoCAD files compressed in ZIP format, and range in size from 1-33Mb. It can be found at the following: link	PORT PM		
	LONG LEAD IIEMS				
9.	F.A.A. REGULATION- NOTICE OF PROPOSED CONSTRUCTION ALTERATION	The FAA requirements can be found within the Construction Safety Manual and can be downloaded at the following link: The FAA regulation document provided by the Port P.M. will have to be completed and submitted back to the Port P.M. with at least 60 days before the start of the project.	PORT PM		

10.	I.D. OFFICE –BADGES, ACCESS TO SECURE AREAS FOR A/E, CONTRACTORS	For all appointments related to badges, training and security, please visit the P.O.S. employee service website at: link	PORT PM		
11.	F.A.A. Project Needs Assessment	Projects that Access or Impact the Airport Operations Area (AOA) need to go through a project needs assessment provided by POS PM at FAA Safety Management (Port accessible only)	PORT PM		
12.	F.A.A. Form 7460	Projects where crane or other equipment penetrate airspace	PORT PM & Operations		
	PHASE I: PRE-DESIGN				
13.	SITE VERIFICATIONS-POINT OF CONNECTIONS	A/E is responsible for all site verifications. Port P.M. will arrange for all site visits. A minimum 5 working days in advance notice is required. The A/E team will need to bring with them all necessary tools and equipment to perform the site visits. The Port P.M. provides only escorting.	PORT PM		
14.	30 DAYS METER READINGS	Port P.M. will provide the 30 days loads meter readings to the A/E team	PORT PM		
15.	THE AIR AVAILABILITY REPORT	Tenant's mechanical engineer will provide pre-balance report prior to demolition.	PORT PM/ F & I		
16.	P.O.S. WILL PROVIDE A DEMARCATION PANEL	Port P.M. will provide the communication information. Typically, the Port will bring the communication from the IT communications room to the tenant space. The Port will provide the Demarc panel and the tenant will have it installed. [In some cases, an airline tenant will install proprietary communications infrastructure to the POS backbone]	PORT PM		
17.	THE GOOD FAITH ESTIMATE / RMM REPORT	Port P.M. will provide the good faith estimate (asbestos) report at the request of the A/E team.	PORT PM		
	PHASE II: DESIGN	**Applications can be found HERE**			
18.	P.O.S. DESIGN REVIEW PROCESS	There typically will be 3 two-week design submittal/review phases at: 60%, 90% & 100%. Each phase of design requires that the A/E and Port P.M. work together to communicate the SEA-specific details of design development. They range from coordinating existing electrical conditions surveys to 30-day electrical metering to PEST, MUST, START, to site utility plans. Any time a tenant project or work impacts existing Port systems the A/E shall provide AFUS/CAD compliant drawings. It is the A/E responsibility to fulfill these requirements. The Port P.M. is responsible for assisting the A/E to successfully move through the Port's design process.	PORT PM		
19.	P.O.S. ENVIRONMENTAL REVIEW	The Port environmental group will perform an environmental survey as part of the design review process. The survey will cover questions about air quality, hazardous materials, water quality, state and federal review process, contaminated management and geotechnical information. The environmental group will provide the Port PM with an environmental document custom made for each particular project.	PORT PM		
20.	APPLICATION FOR CONNECTION TO CHILLED WATER, STEAM, CONDENSATE OR AIR HANDLING UNITS	The Application for Connection forms allow the Port of Seattle to assess the impacts of additional services/loads on airport systems, identify the point of connection, reserve the point of connection for approved service/loads, establish and maintain configuration control of the system, and plan for long-term system development to meet the needs of SEA. The application can be downloaded at the link above. An approved application for connection is required before any connection or installation to a utility system is made. See the POS General Requirements, Division 01, Sections 01500(e)-Airport Facilities Water Activation Request and Section 01500(f)- Airport Facilities Application for Connection to Water System.	PORT PM		
21.	APPLICATION FOR CONNECTION TO ELECTRICAL SYSTEM	The application can be downloaded at the link above. An approved application for connection is required before any connection or installation to a utility system is made.	PORT PM		
22.	APPLICATION FOR CONNECTION TO COMMUNICATION SYSTEM	The application can be downloaded at the link above. An approved application for connection is required before any connection or installation to a utility system is made.	PORT PM		
23.	APPLICATION FOR CONNECTION TO WATER SYSTEM	The application can be downloaded at the link above. An approved application for connection is required before any connection or installation to a utility system is	PORT PM		

		made.			
24.	APPLICATION FOR CONNECTION TO SANITARY SYSTEM	The application can be downloaded at the link above. An approved application for connection is required before any connection or installation to a utility system is made.	PORT PM		
25.	PRODUCT DATA REQUIREMENTS	A/E to provide the specifications which include the pertinent product data and installation requirements from the Master Guide Specifications. (Mechanical, Electrical, Communication, etc.). It can be found at the following link: link	PORT PM		
26.	AIRPORT BUILDING DEPARTMENT PERMIT PACKAGE	All plans submitted must be complete (100% of the total design phase before the Airport Building Department will accept the plans for review). The airport building department requirements can be downloaded at the following link: link	PORT PM		
27.	TEMPORARY POWER REQUIREMENTS	If required this must be coordinated during the design process and prior to the start of the project. An application for electrical connection will be required in order to meet the port's approval.	PORT PM		
	PHASE III: CONSTRUCTION				
28.	BARRICADES AND COMING SOON SIGN	The barricades requirements can be found within the Tenant Design and Construction Process Manual and the Construction General Requirements and can be downloaded at the following: link. The "What's Happening" sign will be provided by the P.O.S. sign shop.	PORT PM		
29.	CONTRACTOR'S SITE SPECIFIC SAFETY PLANS	The General Contractor must submit the company's safety plan. The safety plan must be approved the Port of Seattle safety group prior to starting the construction project. The GC and all its subcontractors must attend the POS safety orientation, The P.O.S. Safety Manual and Safety Management documents can be downloaded at the following link: link	PORT PM		
30.	CONTRACTOR'S CERTIFICATE OF INSURANCE	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port P.M.	PORT PM		
31.	SUBMITTAL LOG / LONG LEAD ITEMS	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port P.M.	PORT PM		
32.	PRE-CONSTRUCTION MEETING	The Pre-con meeting will be organized by the Port Construction Inspector (C.I.) The Port C.I. will be the liaison between the project and the Port.	PORT CI		
33.	PROJECT SCHEDULE AND LIST WITH 24/7 ON CALL CONTACTS (G.C.)	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port P.M and construction inspector.	PORT CI		
34.	CONSTRUCTION ADVISORY FORM AND UTILITIES SHUTDOWN FORM	Must be submitted by the General Contractor to the Port construction inspector (C.I) in advance to starting then project.	PORT CI		
	PHASE IV : PROJECT CLOSE-OUT				
35.	FINAL P.O.S. F&I INSPECTIONS	These inspections will be scheduled by the Port C.I. at the request of the general contractor.	PORT CI		
36.	FINAL L&I ELECTRICAL & HEALTH INSPECTIONS	These inspections will be scheduled by the electrical contractor and the owner must be completed prior to the final building permit inspection. [Health Inspections typically for Airport Dining & Retail (ADR) projects only]	PORT CI		
37.	DEFICIENCY OR FINAL PUNCH LIST WALK	This inspection will be performed by the Port P.M., G.C. representative, architect, owner and Port C.I.	PORT CI		
38.	FINAL BUILDING PERMIT OR TEMPORARY CERTIFICATION OF OCCUPANCY (T.C.O.)	This inspection will be performed by the airport building and fire department inspectors and will be scheduled by the general contractor.	PORT PM		
39.	AS BUILDS & CLOSING DOCUMENTS	The final as-builts, Auto CAD Port approved. [Certification of Cost and Lien Releases are required for ADR tenant projects only]	PORT PM		
40	FINAL CERTIFICATION OF OCCUPANCY (C.O.)	Final Certification of Occupancy will be issued by the Airport Building Department once all items in the deficiency list have been completed in accordance with the Port of Seattle codes and specifications.	PORT PM		

THE ABOVE ITEMS HAVE BEEN ADDRESSED AS INDICATED WITH THE TENANT'S ARCHITECT/ENGINEERING TEAM. BY SIGNING BELOW THE OWNER/OWNER'S REPRESENTATIVE(S) UNDERSTAND AND ACCEPT RESPONSIBILITY TO IMPLEMENT AND COMPLY WITH ALL REQUIRED PORT OF SEATTLE DESIGN STANDARDS, SPECIFICATIONS AND CONSTRUCTION REQUIREMENTS.

PORT OF SEATTLE PROJECT MANAGER: _____ **DATE:** _____
OWNER/OWNER'S REPRESENTATIVE: _____ **DATE:** _____
OWNER/OWNER'S REPRESENTATIVE: _____ **DATE:** _____