

**Revisions
To
Tenant Manual,
Design & Construction Process**

Dated: 03/31/06

1. Revisions to **Introduction/Background, Initiation of Tenant Projects (Start) and Contractual Process for Tenant Projects**, modifications to responsibilities, Tab 1, Page 1, (Tenant and POS PM Manual)
2. Revisions to **Responsibilities Matrix, Design Development**, added a new line on 100% Design drawing requirement and clarification on Certificate of Occupancy, Tab 2, Page 3 (Tenant Manual) and Tab 2, Page 2, (POS PM Manual).
3. Revisions to **Paragraph B, Pre-Design Meeting Checklist, Application For Connection To Radio Frequency System**, add (including Wireless Systems), Tab 4, Page 3 (Tenant and POS PM Manuals).
4. Revisions to **Paragraph C, Detailed Activities, T1.15 and P1.25, POS Drafting Standards & CAD/AFUS Orientation**, add new paragraph, **Project Numbers**, Tab 4, Page 9 (Tenant Manual).
5. Revisions to **Paragraph C, Detailed Activities, T1.26 & P1.26, Submittal for Airport Security Plan Changes**, add new paragraph, Tab 4, Page 11 (Tenant Manual) and Tab 4, Page 12 (POS PM Manual).
6. Revisions to **Paragraph B, Detailed Activities, T2.8 and P2.8, Door Hardware, Numbering & Keying (Construction)**, clarifications to requirements, Tab 5, Page 5 (Tenant and POS PM Manuals).
7. Revisions to **Paragraph C, Detailed Activities, T 3.3 and P 3.3, Utility Shutdowns**, clarifications to requirements, Tab 6, Page4 (Tenant and POS PM Manuals).
8. Revisions to **Paragraph B, Detailed Activities, T 4.7 and P 4.7, Certificate of Occupancy**, clarifications to requirements, Tab 7, Page 4 (Tenant and POS PM Manuals).
9. Revisions to **Paragraph B, Detailed Activities, T 4.8 and P 4.8, Door Hardware, Numbering & Keying (Final)**, clarifications of requirements, Tab 7, Page 4 (Tenant and POS PM Manuals).
10. Revisions to **Appendix B, Contacts**, Tab 8, Page 3 & 4, (Tenant and POS PM Manuals).

Note: Revisions are indicated in “bold” print. The existing text that is being altered or revised has a line through it. In the next 6 month version, the revisions will appear in “normal” print, and the text with lines through it will be eliminated.

Sincerely,

Your Tenant Road Map Team

Tenant Responsibilities

3/31/06
Version 8.0

NOW AVAILABLE!

Web Site for Tenant-Construction/Project Managers

- Learn how to get started working with the Port on new tenant projects
- View and download reference documents and review forms, used during plan review, including:
 - Application for connections to utilities
 - Permit process
 - Design Guidelines
 - Design Standards
- View a schedule of project review meetings
- Submit a project application and checklist online
- Consult a checklist of Port and tenant required activities during project design review
- Contact Port project managers through an online directory
- Track status of individual project plans and permit requests online

Web Site Address

To access the new Web site go to www.portseattle.org and click on "Airport Tenant Projects".

Contact Us

For more information, invitations to demonstrations, or to receive updates about web site enhancements, send e-mail to Colleen Tuttle, Tenant Project Coordinator, at tuttle.c@portseattle.org, or call 206-248-7473.

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Introduction/Background

Initiation of Tenant Projects (Start)

New or existing tenants of Seattle-Tacoma International Airport (STIA) who wish to modify or expand their existing facilities, must first contact their sponsoring Properties Representative 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. See Conceptual approval, Tab 2, Page 2 for process and Tab 8, Appendix B Contacts for list of Business Contacts.

The sponsoring Properties Representative 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 Retail Concession Manager of their intent and either negotiate or amend their lease agreement. The Leasehold Number needed to proceed with the Permit application can be obtained at this time. Once the tenant has obtained conceptual approval, the lease agreement issues have been resolved, and the tenant has obtained their Leasehold Number, the tenant may proceed with the following contractual process to complete the design construction of their project.

Properties will email (POS) Tenant Manager of this and request that a POS/PM be assigned to the project.

Contractual Process for Tenant Projects

The contractual relationships and constraints in the Tenant Design and Construction process are outlined as follows:

- a. The Tenant hires their own consultant for design of the facility.
- b. The Tenant is required to design and construct the Project in conformance with all applicable Port Standards and Regulations.
- ~~c. The Tenant is required to notify the Port of the Project and its scope at the Pre-Design (Conceptual) phase. The Port will assign a Project Manager (POS PM) to the Project for monitoring and assurance of compliance with Port protocols.~~
- c. Tenant needs to hire their own design consultant(s). 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.
- d. ~~The contractual relationship with the Tenant and Authority of the POS PM is as the representative of the Port as Landlord. The POS PM will actively control the process and assist the Tenant in expediting the Project. However, there will be no contractual relationship between the Tenant’s consultant and the POS PM.~~
- e. Prior to construction, the Tenant submits the Construction Documents to the POS PM for Port of Seattle review and approval. The POS PM does the final review for conformance to Port Standards and Regulations, and COPS. Issuance of a Port of Seattle building permit is contingent on the POS PM’s approval.

Use of this manual

The *Airport Tenant Design and Construction Process Manual* is for the use of Tenants and their design teams, as a simple guide to the design and construction of projects at SeaTac International Airport (STIA). It is intended to accomplish the following:

- a. Inform the Tenant of Port Project Management controls and guidelines.
- b. Define Tenant/ Design Team responsibilities.
- c. Identify the method for establishing “stakeholders” in the Project
- d. Identify critical milestones/ coordination points to facilitate the success of the project.
- e. Provide a design and construction “Roadmap” and action plan checklist to show graphically the necessary steps in this process.

Revisions to this Manual

A list of Manual-holders will be kept by the Port. The Manual will be updated on an as-needed basis and re-issued whole or in part to every Manual-holder. The version remains current until otherwise notified.

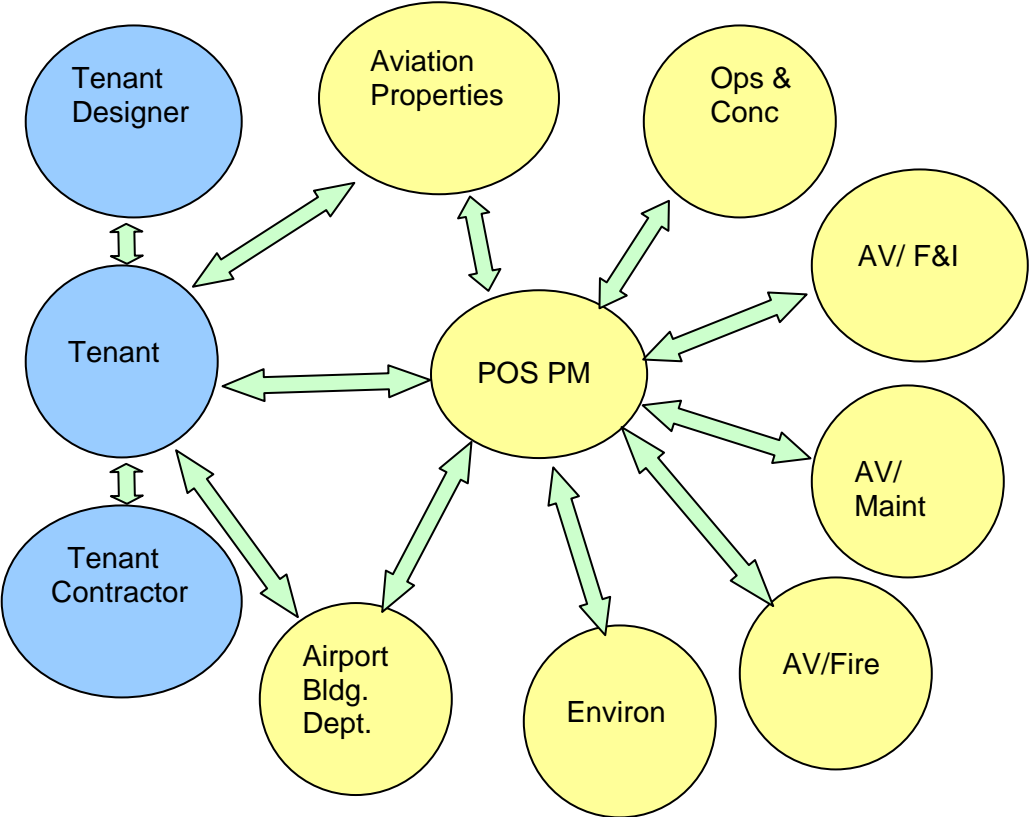
Once you have received a copy of this manual, please take a few moments to complete the information on the enclosed self-addressed card and mail it back to the Port of Seattle. This information will be used to forward updates of the manual.

Organization/Contractual Relationships

The primary contractual relationship of the parties, as outlined in the Introduction to this Manual, is between the Tenant and its consultant Designer. The Port's Project Manger (PM) represents the relevant Port of Seattle department in the role of Owner's representative. Responsibilities are as follows:

- ◇ The Tenant addresses business issues with the Aviation Properties such as provision of utilities, lease amendments, and the like. The POS PM shall represent the Aviation Property in the execution of the agreements.
- ◇ 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.
- ◇ 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.

The following diagram illustrates the lines of communications:



STIA Tenant Design and Construction Process Responsibilities Matrix

Conceptual Approval		Tenant	POS	Remarks
Tenant Contact Properties Facility Rep. to discuss proposed project		Tenant		
Creation of conceptual drawings		Tenant		
Distribution of information and coordination with stakeholders (e-mail, schedule meeting, or site visit)			Properties	Stakeholders: Operations Manager, Senior Property Manager, Ops Facilities, Others as proposal applies
Identify facility and financial resources required and policy implications (including Port responsibilities if any)			Properties	
Document and communicate stakeholder decision to tenant			Properties	
Communicate conceptual approval and handoff to Project Management			Properties	
Pre-Design		Tenant	POS	Remarks
Apply to ABD for COPS		Tenant		
LOB Sponsorship and Lease Arrangements		Tenant		Work with LOB/Properties
Permit Assessment and Requirements			ABD	ABD Assesses
Attend Pre-Design Meeting and Complete Checklist		Tenant		PM to schedule meeting
Existing Site Conditions Surveys		Tenant		
7 and 30-day Electrical Metering			PM	PM forwards info to TDT
Available Air and Water Surveys			PM	PM forwards info to TDT
Site Utility Plans			PM	PM forwards info to TDT
HazMat Design Surveys			PM	PM forwards info to TDT
POS Standards, Specifications, Connection to Utilities Forms			PM	PM forwards info to TDT
Life and Safety Issues Contractor(s) Site Specific Safety Plan		Tenant		TDT to consider for cost and schedule impacts
Security Access and Escorts		Tenant		
Fees and Fines		Tenant		TDT to comply
Project Labor Agreement		Tenant		TDT to consider
AFUS/CAD Drafting Standards and Orientation		Tenant		TDT to comply
FAA Coordination			PM	TDT to provide documentation
Airfield Operations Coordination			PM	TDT provides schedule
Commissioning		Tenant		PM to determined if needed
Construction Barricade Signage			PM	TDT provides art-work
Base Building Drawings			PM	TDT to field verify
Design Development		Tenant	POS	Remarks
Systems Reviewer Process (PEST, MUST, START, WISE & ARC)		Tenant		PM schedules reviews
Technical Reviewer Process		Tenant		PM schedules reviews
Environmental Program Review			PM	
COPS Approval			PM	Approved by Tenant Coordinator
ABD & Electrical Permitting		Tenant		
Food Facilities Permitting		Tenant		Issued by King County Health
Door Hardware and Keying		Tenant		TDT to comply
Tenant Contractor Business License		Tenant		Issued by SeaTac
Provide electronic copy of 100% design drawing for architectural floor plan(s)		Tenant		Tenant to issue to POS/PM who will forward to Properties
Construction		Tenant	POS	Remarks
Pre-Construction Meeting			PM	TDT to review checklist
Utility Shutdowns		Tenant		TDT applies, PM routes
Construction Safety Plan		Tenant		TDT to comply
POS Overview of Construction			PM	POS to Inspect
Change Order Submittals and Resolution		Tenant		Approved CO's forwarded to PM for impact.

STIA Tenant Design and Construction Process Responsibilities Matrix

Project Closeout	Tenant	POS	Remarks
Deficiency List		PM	TDT to Participate
Lien Releases	Tenant		TDT to comply
Inspection Card Sign-off	Tenant		TDT to comply
Operations and Maintenance Manuals	Tenant		TDT to Comply
Commissioning and Training	Tenant		TDT coordinates w/ Maintenance.
Temporary Certificate of Occupancy		PM	Good for 30 days only
As-Built Submittals (if required)	Tenant		AFUS Manager to verify
Door Hardware and Final Keying		PM	
Final Certificate of Occupancy		PM	Based on approval as-built docs.

Tenant Action Plan At A Glance

Pre Design

REF	Action	√	Complete Date	Cost
T1.1	Obtain Concept Approval Signature from Port and finalize lease negotiations			hrs
T1.2	Apply for COPS at ABD			hrs
T1.4	Meet with assigned POS PM to discuss project requirements and specific issues.			hrs
T1.4	Hire consultant, include AFUS orientation and As Built drawings in consultant's contract.			hrs
T1.5	Arrange all existing conditions site surveys			hrs
T1.5	Obtain ID/Access Security Badges for all personnel working at STIA			hrs
T1.6	Contact POS PM for copies of existing electrical load readings, or request new ones			hrs
T1.7	Contact the POS PM for Air Survey of available flow of water and HVAC			hrs
T1.8	Verify all site As Built information			hrs
T1.11	Incorporate a project safety plan into the construction documents			hrs
T1.15	Provide AFUS Coordinator with the approximate number of sheets and titles			hrs
T1.16	Make application to FAA's Form 7460			hrs
T1.18	Notify consultant of Commissioning plan inclusion on drawings if required by POS PM			hrs
T1.19	Notify consultant of requirement to provide Art work and Copy for barricades signage			hrs

Design Development

T2.1	Prepare Documentation for Systems Review Process (PEST, MUST, START and ARC)			hrs
T2.1	Forward requested number of copies of drawings for review, with Letters of Transmittal included to POS PM			hrs
T2.1	Arrange to attend reviews by (PEST), (MUST), (START), (ARC), and (WISE)			hrs
T2.3	Receive and respond to Reviewers in the Design Comment Resolution Form			hrs
T2.4	Provide presentation to Environmental Program Team			hrs
T2.5	Receive approval for Connection to Utilities and COPS			hrs
T2.5	Provide two weeks advance notice to POS PM as to when design will be completed			hrs
T2.6	Incorporate all Comments by Reviewers in Construction Documents			hrs
T2.6	Apply for all Applicable Permits. Forward drawings and permit applications to POS PM			hrs
T2.8	Notify A/E of need to comply with POS Standards for Door Numbering and Keying			hrs

Construction

T3.1	Prepare and submit Contractors Construction Safety Plan			hrs
T3.1	Designate a site representative for Safety Plan			hrs
T3.2	Review Pre-Construction Meeting Checklist, and prepare all required information			hrs
T3.2	Arrange to have A/E, Contractor and Subcontractors at Pre-Construction Meeting			hrs
T3.3	Complete Utility Shutdown Request Forms and forward to POS PM			hrs
T3.5	Forward all approved Change Orders to POS PM			hrs

Project Close Out

T4.1	Participate in walk through to identify deviations from Construction Documents			hrs
T4.2	Forward to POS PM, within 30 days, notarized copies of Lien Releases from Contractor			hrs
T4.3	Submit to POS PM copy of inspection card sign off			hrs
T4.4	Forward 3 copies of Operations and Maintenance Manuals to POS PM			hrs
T4.5	Perform Commissioning of facilities project walk thru with POS stakeholders, arrange training of maintenance personnel (if applicable).			hrs
T4.6	Obtain Certificate of Occupancy from ABD			hrs
T4.6	Remove all project materials / tools and clean up job site			hrs
T4.7	Submit As Built verified drawings that comply with AFUS Standards to POS PM			
T4.8	Provide numbering sequence and number of key copies required to POS			

Project Completed _____ Date _____ Total _____ hrs.

Section T-1. Pre-Design Phase Activities

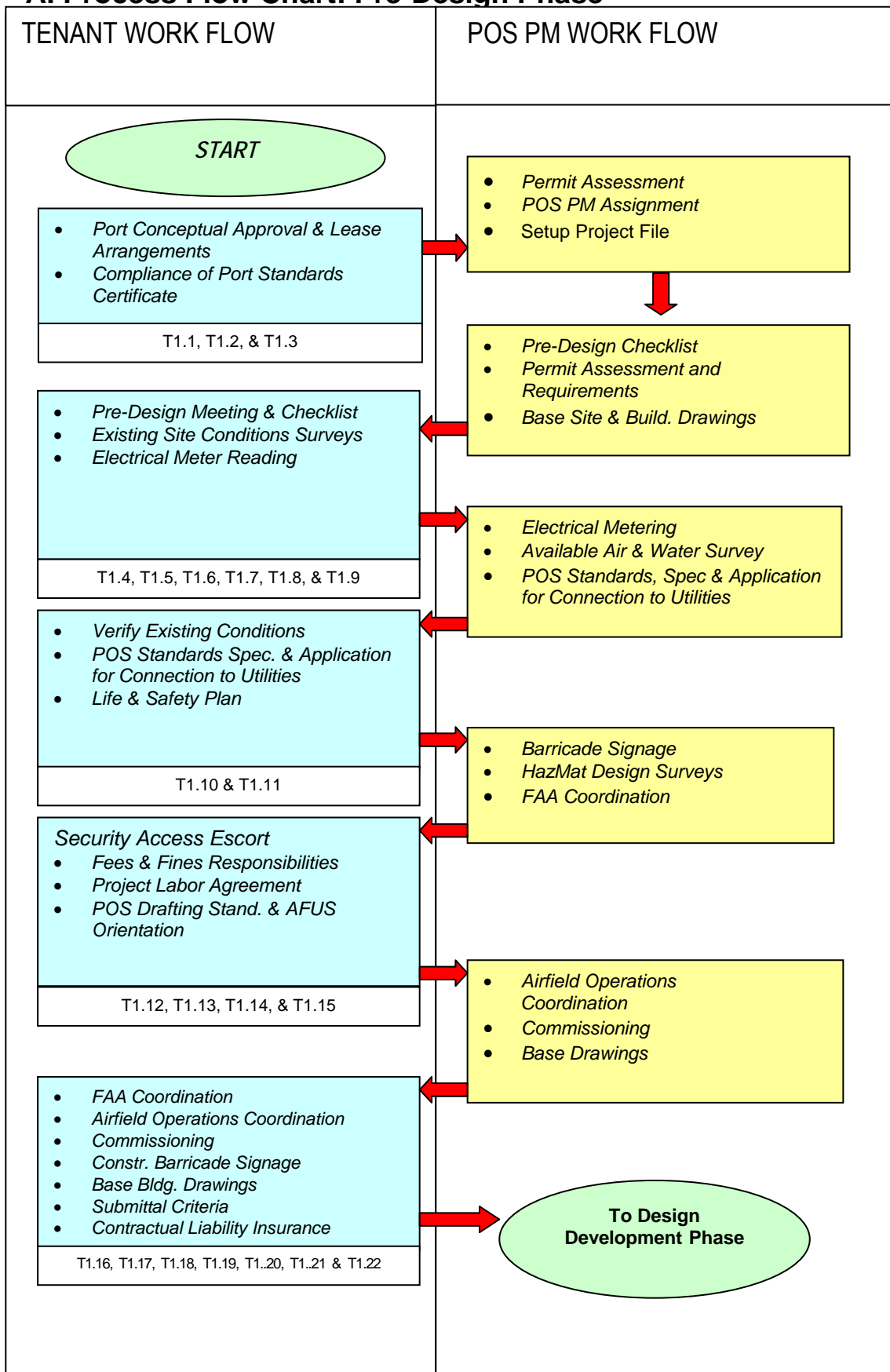
A. Process Flow Chart: Pre-Design Phase

B. Pre-Design Meeting Checklist

C. Detailed Activities

- T1.1 Compliance of Port Standards (COPS) Certificate
- T1.2 Line of Business Sponsorship and Lease Arrangements
- T1.3 Permit Assessment and Requirements
- T1.4 Pre-Design Meeting and Checklist
- T1.5 Existing Site Conditions Surveys
- T1.6 7 Day and 30 Day Electrical Metering
- T1.7 Pre-Design Available Air and Water Survey
- T1.8 Site Utility Plans
- T1.9 HazMat Design Surveys
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- T1.21 Submittal Criteria
- T1.22 Contractual Liability Insurance
- T1.23 Reservation of Electrical Breakers
- T1.24 Utility Meters
- T1.25 Temporary Ceiling Removal
- T1.26 Submittal for Airport Security Plan Changes

A. Process Flow Chart: Pre-Design Phase



Pre-Design Meeting Checklist

A) Request From Port Project Manager the Required Standards, Applications and Forms After Initial Pre-Design Meeting

Document	Hard Copy	Electronic	N/A
POS AFUS/CAD Drawing Standards			
Mechanical Systems Standards			
Water and Sanitary Waste System Standards			
Electrical Systems Standards			
Industrial Waste System Standards			
Storm Drainage System Standards			
Communication System Standard			
Architectural Design Standards.			
Signage and Graphics Standards			
Radio Frequency Standards & Guidelines			
FAA Regulations – Notice of proposed Construction or alterations- Form 7460			
Case Work Standards			
Airport Building Department Permit Package (COPS & PDRC)			
Environmental Questionnaire			
Application for Connection to Electrical System			
Application for Connection to Water System			
Application for Connection to Sanitary Waste System			
Application for Connection to Communications System			
Application for Connection to Chilled Water, Steam and Condensate or Air Handling Units			
Application for Connection to Industrial Waste System			
Application for Connection to Storm Drainage System			
Application for Connection to Radio Frequency System (including Wireless System(s))			
Application for Underground RFI Form			
Utilities Shut Down Request Form			

Pre Design Checklist

B) Discuss with Port Project Manager

Issues Addressed	Information Forwarded	Information Requested	N/A
Discuss whether A/E needs to be hired by tenant			
Tenant A/E to attend AFUS Orientation meeting			
Tenant contact list with 24/7 On-call contacts			
As built drawings discussed			
30 Day meter readings contractor contact			
Air Availability report contractor contact			
Tenant A/E to include barricade extent in demolition drawings			
Tenant A/E/ to identify logistics requirements -lay down area, AOA traffic, deliveries, security, noise, temp power-on drawings for Contractors to bid.			
Tenant A/E will complete and ensure accuracy of POS provided QA/QC drawings checklist			
Tenant A/E is responsible for all site verifications			
Badges, Access for A/E, Contractors, Vendors Badge office # Badge request forms			
PLA Discussed			
Temporary power requirements			
Construction Barricades, Signs			
Commissioning Plan			
Identify Submittal Log Items			
Contractor's Site Specific Safety Plan & Project Inspector			
Contractors Certificate of Insurance			
Core Drilling & Filling Vacated Holes in Terrazzo Flooring			

C. Detailed Activities

T1.1 Line of Business Sponsorship and Lease Arrangements

The tenant is responsible to obtain project concept approval from the Aviation Properties department including the necessary lease arrangements with the Senior Property Manager and/or General Manager of Business Development

The POS PM will require an Approval Letter from the Aviation Properties in order to proceed with the application.

See Tab 8, Appendix B, Page 3 for list of Business Contacts.

If you don't know your Senior Property Manger, call:

Contact	Director of Properties PHONE: (206) 248-7113
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T1.2 Compliance of Port Standards (COPS) Certificate

All Tenant projects must comply with Port of Seattle Standards. These standards apply to drawings, utility systems, architectural design, hazardous materials and seismic issues.

The review of these standard's compliance is provided by POS, AV/Facilities and Infrastructure (AV/F&I). Av/F&I is responsible for the Maintenance and Operation of all the facilities, including all utility systems.

The Tenant or the Tenant design Team must apply for this application at the Pre-Design stage of the process, and it is their responsibility to complete the application and submit to the Airport Building department, see reference below:

Contact	Airport Building Dept. (ABD) Permit Coordinator 17900 International Blvd. Seattle, WA 98188 PHONE: (206) 835-5806
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T1.3 Permit Assessment and Requirements

The ABD assesses and determines if a Building and/or Electrical Permits 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 for the Tenant Project Coordinator to review e the Certificate for compliance. This will allow the Tenant to proceed with Proposed Project.

Each phase of design requires that the Tenant Design Team and key stakeholders work together to communicate the Airport-specific details of design development. They range from coordinating existing electrical conditions surveys to PEST, MUST, START, WISE, and ARC presentations.

At the beginning of a project, the Port PM and 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.

All tenant projects shall be presented on AFUS/CAD compliant drawings. It is the Tenant Design Team's responsibility to fulfill these requirements, the POS PM is responsible in assisting the Tenant Design Team through the Port's Processes.

Please refer to the attached Flow Charts at the beginning of the chapters for overview of each stage.

T1.4 Pre-Design Meeting and Checklist

If a Building Permit is required and depending on the complexity of the Project, the POS PM may elect to organize a Pre-Design meeting at the beginning of a project. The Pre-Design meeting provides an opportunity for the POS PM, the TDT and other Stakeholders to review specific project requirements and verify responsibilities.

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

- AFUS Orientation
- As-Built Drawings
- Adherence to Port of Seattle Standards and Requirements

T1.5 Existing Site Conditions Surveys

- TDT is responsible for arranging all Existing Conditions site surveys. Note: TDT personnel will need ID/Access security badges.
- POS PM will arrange meetings between TDT and Maintenance System Managers to familiarize the TDT with the Port Design Teams on how the design is to be integrated into the building systems.
- In case the TDT surveys require access to specific locations to verify conditions, the POS PM will arrange escort.

T1.6 7-Day and 30-Day Electrical Metering

Because of the Airport's limited electrical capacity, the Port requires electrical meter readings of panels that are impacted by the proposed Tenant project. These can be Tenant panels or Port panels as well.

Meter readings are valid for a period of one year from the day of reading; which can be found by reading the green labels left in place at the time the reading was taken.

Meter readings provide a measure of the Current Amperage demand present on a panel in thirty-minute increments and help determine whether enough capacity is available to accommodate the needs of the project. Generally speaking, 7-day meter readings are adequate for additional loads of 20 Amps or less. Any higher loads will require a 30-day meter reading.

If green labels are found in the face of the panel and are less than one year old, a new reading is not required.

The TDT is to contact POS PM for copy of existing load readings of the selected load centers if available, if not, POS PM may request new readings from AV/M Electrical Shop Manager.

Once the readings are complete, the POS PM will forward the results to the TDT, who will use this information to develop the electrical design for the project.

Please note that copies of the reading's summary sheet are required for each Application for Connection to Electrical Systems. Port of Seattle is responsible for the costs of 7 or 30 day meter readings.

T1.7 Pre-Design Available Air and Water Survey

Because of the potential impact of the Tenant's project in the whole of the Airport HVAC system, the capacity to include the new project must be ascertained through a survey.

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

T1.8 Site Utility Plans

The Port of Seattle has site utility as-built drawings. These are available through the POS PM. New site utilities must be surveyed in place by the Port before being covered. The POS PM and TDT make exterior utility site plan arrangements through the POS Survey Manager. The as-built information must be field verified by the TDT.

The Port of Seattle continues collecting information on existing exterior underground utilities at Seattle-Tacoma International Airport (STIA). This database and mapping is used by POS to plan routing of new utilities to support the various POS and Tenant projects, and to minimize disruption of facilities that need to remain in place.

In order to maintain the utility database current *All Tenants* shall forward a copy of any existing and newly proposed underground utility information that the Tenant's or Tenant's A/E may have on file or proposing new designs and or modifications pertaining to the Tenant facility. The information shall be provided as an electronic file in AutoCAD format. Where existing information is not available in the electronic format, a hard copy of the utility drawing shall be furnished.

Retrieving information and integrating in with the STIA Underground Utility database will be mutually beneficial. Contractors working in the vicinity of underground utilities will provide with copies of the data and urged to use caution to avoid disruption of service. Both the Port and Tenants can save money by minimizing potential disruptions during construction if unknown underground pipes are hit.

T1.9 HazMat Design Surveys

The Airport has areas of hazardous contamination and requires a survey of every new project. The Port of Seattle is responsible for doing hazardous material abatement. Port Construction Services (PCS) will conduct a Hazardous Materials Survey of the affected Tenant space. The survey outcome is provided to the PM. If hazardous material removal is required, this may impact the Tenant's build out schedule.

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

T1.10 POS Standards, Specifications and Applications for Connection to Utilities

The POS PM provides POS standards and specifications to the TDT. To maintain consistent and quality designs, teams must prepare designs conforming to POS standards. These standards apply to drawings, Utility systems, Architectural design, Signage, Landscaping, Environmental and Seismic (structural criteria for facilities and Infrastructure as provided by Port Engineering Services).

The Port of Seattle requires all Tenant projects to be designed according to the guidelines set in the AV/F&I Design Standards for each particular discipline (Architectural, Electrical, Mechanical, Data/Comm, etc...) first and if any element of the Tenant's design is not contained in the Standards then the Master Specifications (POS Master Specs-Division 1 through 17) are to be consulted to complete the set of specifications for the particular project. The Design Standards and Master Specs are designed to provide seamless integration of the Tenant work into the base building systems and avoid the pitfalls of seemingly equal in performance products that have proven troublesome in the past. These guidelines provide design direction only, the Tenant's design team is responsible for providing the contractor installation instructions that meet these standards on each case. Please contact your POS PM for any further questions or clarifications.

<http://portseattlecontracting.ebidsystems.com/#MasterSpecs,Divisions 1 through 17; Design Standards>

T1.11 Project Life and Safety Issues

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

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

T1.12 Security Access Escort

The tenant is responsible to escort members of their prospective design and construction teams to the appropriate locations within the airport. Some of these areas may require security clearances, escort privileges and visitor badges. It is the tenant's responsibility to ensure that all security requirements are complied with.

Contact	ID/Access Badge Office PHONE: (206) 248-4818
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T1.13 Fees and Fines Responsibilities

The tenant is responsible for providing plan check and permit fees for their project to the Airport Building Department. The tenant is also responsible for paying any fines levied as a result of performing non-compliant/non-permitted work on Port properties. See Port of Seattle Rules and Regulations No. 4, Section 3, Pages 3-12, Paragraph 24 Construction and Alterations, and Section 8, Pages 8-11, Paragraph 6 Construction and Alterations Violations for fine structure.

T1.14 Project Labor Agreement

The Project Labor Agreement (PLA) is an agreement between the Port of Seattle and local Labor Unions in the Seattle/King County Construction and Building Trades Council regarding working conditions and pay structure on construction projects at the Airport. Then Tenant Design Team is responsible to work with the assigned Port PM to determine whether the PLA is applicable to the project and if so to incorporate the requirements into the contract documents. Even though the PLA is not required, a tenant may elect to participate to gain some of its benefits, such as the “no strike” clause, shift language, drug testing and labor harmony.

The Port of Seattle is committed to harmony in the workplace, and suggests three courses of action for tenants and their contractors to voluntarily undertake to further the goal of labor harmony.

- Participation in the PLA.
- Submit and sign a labor harmony letter (samples will be provided).
- Participation in drug testing of constructions and supervisory employees while undergoing safety training. The POS would be willing to subsidize the cost of drug testing for companies that do not currently have a program.

The purpose of the letter is to foster harmony between the various trades, both union and non-union, who are working at the Airport. Tenants and their contractor's cooperation on these issues will enhance the relationship among the workforce and move projects towards a smooth and timely completion.

<http://www.portseattle.org>, [In Business Together](#), [Master Specs](#), [Division 00840](#) , [Project Labor Agreement \(PLA\)](#).

Contact	PLA Manager PHONE: (206) 835-5712
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T1.15 POS Drafting Standards and CAD/AFUS Orientation

General: Projects are categorized as Levels I, II & III. Level I is typically not applicable to Tenant projects and Level III has no submittal requirements from the standpoint of CAD standards or As-built record.

The drawings for all tenant projects defined as Level II in bold type below must comply with the Port of Seattle CAD drafting standards and protocols. 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. Orientation on 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. The Port's PM will arrange for POS AFUS/ CAD standards orientation for Tenant A/E consultants upon request. AFUS is the Port's Automated Facilities & Utilities System.

Levels of Tenant projects:

Level I Definition:

Level I is reserved for POS initiated and funded projects, typically CIP projects, not Tenant projects.

Level II- Definition:

- The primary definition is a project that requires a permit by AV Facilities & Infrastructure. Typically, this will be a Tenant-initiated and funded project that impacts Airport wide systems, for example: Structural changes, plumbing, HVAC, electrical, communications, waste (sanitary, IWS), fire suppression, and Tenant project's permanent signage, both exterior and interior.

Level II Requirements include:

- Review submittal documents to the Port in AutoCAD, version 2000 or better for verification of compliance with Port's CAD standards for layering, file naming etc, all as detailed in the Port's CAD Standards Manual.
- Submittal of final Record documents in electronic format and either full size or ½ size hard copies to the project's assigned POS PM reflecting as-built conditions.
- Submittal of the Tenant contractor's construction red-line drawing set with sign-off by the Tenant A/E attesting to the completeness of the as-built record.
- Approval by the Port's CAD manager that the final Record Documents are compliant with the Port's requirements

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

Level III – Definition/ Examples:

- 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 III – Requirements:

- No CAD drawing standards required
- No as-built drawings required

Project Numbers

At project inception the Port’s CAD manager will advise the Tenant that the project has been entered into the Port’s tracking system and the Tenant will provide the Port’s Project Manager with the approximate number of drawing sheets and sheet titles. The Port’s Project Manager will obtain and furnish a “STIA” project number for the project to be entered in the title block of the drawings sheets in addition to the Tenant’s own Project number.

Note that the Tenant is responsible for the cost of preparation of As-Built record drawings to the Port’s standards. The Tenant is advised to ensure that the Tenant/Designer agreement should include the cost of preparation of As-Built record drawings.

Contact	The Port’s Project Manager for all needs involving the Port’s CAD services. The Port’s Project Manager will coordinate interaction with the Port’s CAD Manager and Engineering Services.
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Contact	AFUS Coordinator Exterior Construction PHONE: (206) 988-5669 AFUS Coordinator Interior Construction PHONE: (206) 728-3121
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T1.16 FAA Coordination

When the construction or the project itself exceeds the height limitation imposed by the FAA, the POS PM is responsible to coordinate with the Airfield Operations to determine if a 7460 will be required. The TDT is responsible to provide adequate documentation to support the decision as to whether a FAA Notice of Proposed Construction of Alterations Form 7460 will be required. The 7460 is used to gain FAA approval for exterior construction at the airport. The forms and process are available at:

<http://www.faa.gov/arp/ace/FAAFORMS.HTM>

The FAA 7460 can require two (2) months or more for processing.

Contact	Airfield Operations Manager (206) 433-5041
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T1.17 Airfield Operations Coordination

The POS PM shall notify Airfield Operations of pending Terminal project that will require access to the AOA; as to who the tenant and/or contractor is, what the project scope is, when the job is to begin, duration of the project, hours of operation and the location of the project.

The TDT is responsible then to coordinate the exact dates and times of all activities regarding access of Crews and Material/Equipment directly with the Airfield Operations Representative.

A minimum of 72hrs notice should be given to the Airfield Operations Manger for project commencement; subsequent access to the AOA shall be addressed at the same time.

No access by TDT will be granted without prior Badge Application and AOA Driving training certification.

Contact	Airfield Operations Manager PHONE: (206) 988-5541 ID/Access Badge Office PHONE: (206) 248-4818
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T1.18 Commissioning

It is important that the utilities, equipment and systems in a tenant project fit in seamlessly into the Airport's utilities and systems. In extensive remodels (equipment/system intensive) or brand new facilities, the Tenant shall conduct a Commissioning effort prior to Temporary Occupancy as defined in the POS Master Specifications, general requirements, Division I, Section 01810. The POS PM will determine whether a commissioning effort is necessary. POS PM will provide samples of commissioning plans for the TDT to model their plans after. If a Commissioning effort is required, the TDT is required to provide a Commissioning Plan and closeout report. The Plan and report must be sent to the POS PM.

T1.19 Construction Barricade Signage

For Tenant Projects that require construction barricades, the TDT is responsible to provide necessary art work and verbiage describing their proposed project to the POS PM who will in turn contact the Port's Public Affairs Department for assistance in providing construction signage.

Temporary barricades, where required, must be designed, specified, and built in accordance with the Port Master Specification. The POS PM will provide the TDT with the Master Specification Division 1, Section 01500. This can be found at:

[\\WTP6914\POS-DATA\Corporate\Enl_MasterSpec\DIV-01new\01500 Const Facilities & Temp Controls.doc](#)

T1.20 Base Building Drawings

The POS PM will provide the Base Building Drawings to the TDT at the Pre-Design meeting.

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 their project design.

T1.21 Submittal Criteria

Based on the complexity of the Tenant's project, the POS PM and the TDT will analyses potential equipment and systems that requires POS F&I technical reviews.

Submittals requiring technical review will be based on the following criteria:

- Systems equipment that will be serviced/maintained by Port of Seattle (POS); i.e. heating, ventilation and air conditioning equipment (HVAC)
- Systems equipment that will become the property of POS (within a 3 year period after installation).
- Equipment that will impact existing POS systems in and adjacent to the tenant project.
- 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.

T1.22 Contractual Liability Insurance

Contractors, tenants and lessees are required to carry at least \$1 million general commercial liability insurance (\$10 million for large construction projects and higher-risk projects) and automobile liability insurance of at least \$1 million (\$5 million for automobiles operated on the non-movement part of the aircraft operations area (AOA) and \$10 million for automobiles operated on the aircraft movement part of the AOA). They must also provide proof of workers compensation coverage for their employees. The Port requires all contractors, tenants and lessees to include the Port as an "additional insured" by endorsement to their policies as their interest appears for their work operations or other activities on Port property.

Tenant contractor(s) are required to provide a certificate of insurance, in accordance to the paragraph above and present it to the POS PM at the pre-construction meeting as a pre requisite to commencing construction.

T1.23 Reservation of Electrical Breakers

The Port of Seattle has a procedure to reserve space for placement of Tenant electrical breakers on POS electrical panels to secure service to the spaces. The Tenant's electrical designers shall contact the POS Electrical Shop at (206) 433-5311 to schedule a time with an electrician to survey the designated panel board and room number. The POS electrician will provide the numbered reservation stickers and breaker reservation forms to the Tenant designer at the time of the meeting.

Once the desired breaker(s) is identified, the Tenant electrical designer shall fill out the reservation form and return it to the POS electrician. The electrician will then fill out the reservation sticker and place it on the panel board's corresponding space. The Tenant's assigned POS PM can assist the TDT with any questions or clarifications.

T 1.24 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 in the second week after the Tenant contractor's Notice to Proceed (NTP). Once the Tenant contractor installs the meter(s), they shall request an inspection through the POS tenant inspector assigned to the project. Failure to obtain inspection and approval of any meter, new or existing, will result in immediate stoppage of work and a power shutdown.

For specification and purchasing information on meters approved by the Port of Seattle contact the Tenant project's assigned POS PM . Visit the Port's web site for reference documents, including Design Standards for Utility Meters
[\[www.portseattle.org/business/airport/tenant_projects/reference_docs/designstandards\]](http://www.portseattle.org/business/airport/tenant_projects/reference_docs/designstandards)

T 1.25 Temporary Ceiling Removal

Where ceiling tiles are required to be temporarily removed for tenant project construction purposes, the tenant contractor shall ensure the ceiling envelope is maintained. To maintain the ceiling envelope for limited durations, use white fire retardant polyethylene sheeting of at least 6 mil thickness 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; the date the ceiling tile was removed, name of the contractor, and the POS work order number. The contractor shall maintain a neat and clean appearance of the temporary ceiling. Unkempt, dirty or discolored sheeting shall be cleaned or reinstalled as directed by the POS Tenant Inspector or PM at no cost to the Port.

[http://portseattlecontracting.egidsystems.com/#MasterSpecs,Division 01500,Construction Facilities & Temp Controls](http://portseattlecontracting.egidsystems.com/#MasterSpecs,Division_01500,Construction_Facilities_&Temp_Controls)

T 1.26 Submittal for Airport Security Plan Changes (Security Walls, Fences & Gates)

As part of our ASP, the Port is required to notify and get approval from the TSA for any changes to the secured and/or Air Operations Area (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. Contact your assigned POS Project Manager for an Security Submittal Application.

Contact	Christian Samlaska, Airport Security Specialist Phone: (206) 835-7631
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Section T2 Design Development Phase Activities

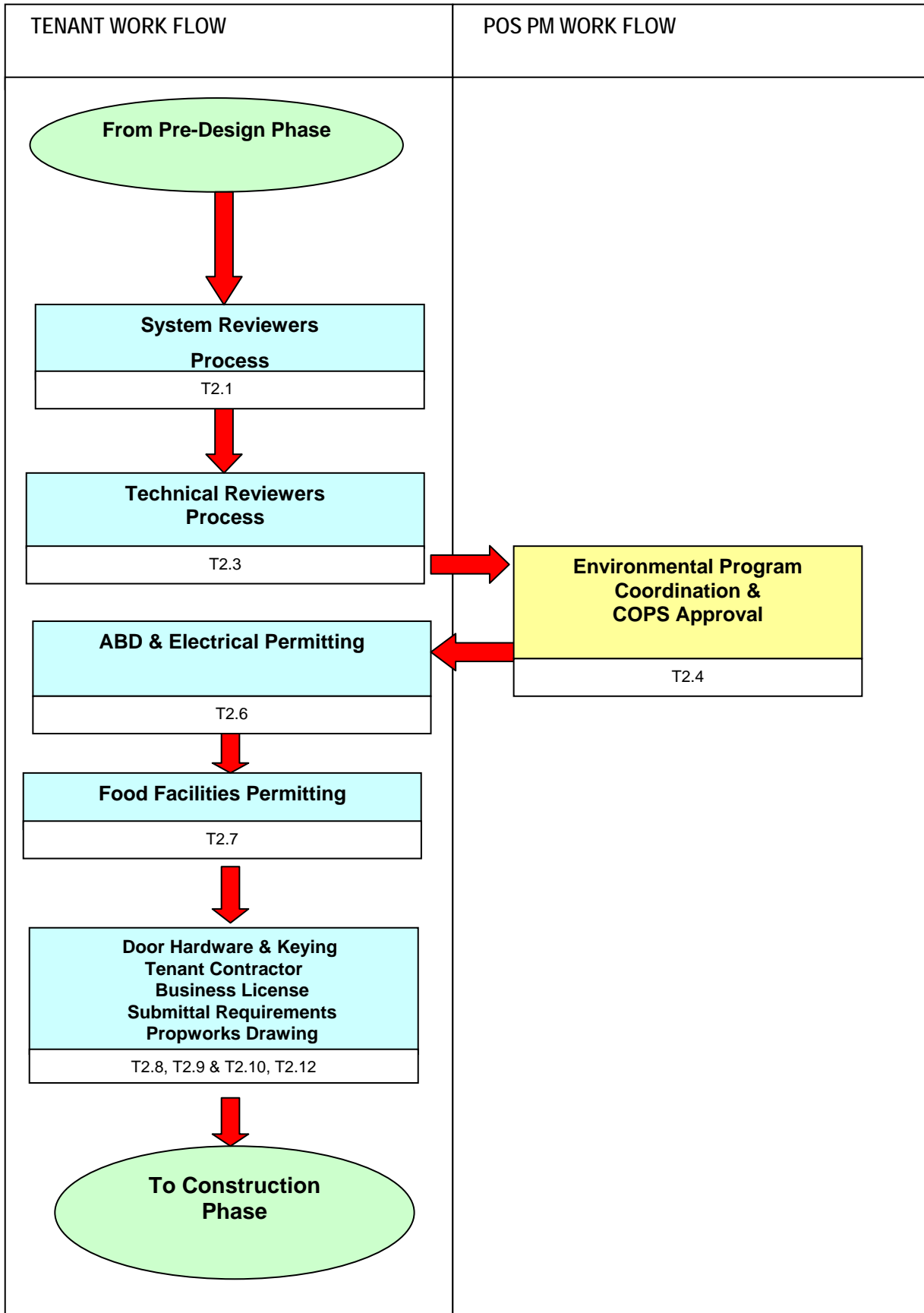
A. Process Flow Chart: Design

B. Detailed Activities

Compliance to Port Standards

- T2.1 System Reviewer Process (PEST, MUST, START, and WISE)
- T2.2 Architectural Review Process
- T2.3 Technical Reviewers Process
- T2.4 Environmental Program Review
- T2.5 COPS Approvals
- T2.6 Airport Building Department and Electrical Permitting
- T2.7 Food Facilities Permitting
- T2.8 Door Hardware and Keying (Construction)
- T2.9 Tenant Contractor Business License
- T2.10 Equipment Submittal Requirements
- T2.11 Review Documents Submittal Requirements
- T2.12 Propworks Drawing

A. Process Flow Chart: Design Development Phase



B. Detailed Activities

Compliance with Port Standards

In order for Tenant projects to meet and comply with Port standards, the project must receive approval from the following review bodies.

T2.1 System Reviewer Process (PEST, MUST START and WISE)

PEST, MUST START and WISE are technical utility systems teams that receive progress presentations during each design phase. These groups maintain and monitor growth and expansion of utilities to assure consistency with master planning and system quality. (Reference Pre-Design Checklist, tab 4, page 3, for the list of the application for connection forms of the various utilities at the airport). They also facilitate resolution of TDT questions, issues, and discussion of the Application for Connection to Utility Forms. These groups meet twice monthly. Schedule agendas and presentations through the POS PM.

Once the TDT has prepared their drawings for presentation, the TDT will notify the POS PM; who will in turn schedule the System Design Review Meetings with ARC, PEST, MUST START and WISE.

The first submittal is to include enough information to identify all systems affected by the project's scope to prevent TDT from developing an inappropriate Design without the input from the Technical Review Team. Subsequent submittals are to be thorough, the more complete the submittals are, the faster the review process goes.

The final number of reviews required is based on the complexity of the project and the quality of the TDT documents (drawings) presented. A minimum of two (2) Technical Reviews of each applicable discipline (i.e. Mechanical, Electrical, etc...) are required for all projects.

T2.2 Architectural Review Process

The Architectural Review Committee (ARC), reviews building design, landscaping, signage, exterior envelope of airport structures, art, people flow, and airport services for consistency with Airport Design Guidelines 1999 and Architectural Standards 2000, Signage Standards and Standards 2001 and Casework Standards 2002.

T2.3 Technical Reviewers Process

In addition to the System Team Reviews, representatives of various departments responsible for the Airport's Operations and Maintenance will review the project on the appropriateness of the design solutions.

The assigned POS PM shall work with the Document Control Specialist (DCS) to oversee the Technical Review of the Project's design elements.

- a. Upon approval of the Tenant project concept by the sponsoring Line of Business Manager (LOB) the TDT sends appropriate number of their 1st submittal Design documents produced after the initial System review meetings to the POS PM for distribution. The actual number of documents copies will be determined by the PM & DCS (a minimum of 15 half size copies). If a building permit is required, a Preliminary Design Review Conference (PDRC) form must be completed by the Tenant and if any of the questions are answered "yes" on the PDRC form, a conference with the City of SEATAC is required and arranged by the Airport Building Department through the POS PM.
- b. POS PM reviews the 1st submittal Design documents to ensure there is sufficient information for the AV/F&I reviewers. If the POS PM determines that there is insufficient information to communicate the Tenant's design intent, the POS PM will send back the documents to the TDT for them to revise.
- c. Technical Reviewers have a minimum of 16 calendar days and a maximum of 32 calendar days to complete their reviews and incorporate their comments in the Design Comment Resolution Form. DCS consolidates all reviewer's comments and forwards it to the POS PM. The POS PM reviews the Design Comment Resolution Form, and transmits it to the TDT with their evaluation comments.
- d. The POS PM can negotiate with the Technical Review Team(s) to minimize the review process time.
- e. The POS PM and the TDT will examine all submittal requests made by the AV/F&I Technical Reviewers on the Design Review Comment Resolution Form. The TDT will incorporate these requests into the Project's construction documents. The TDT will complete a Submittal Log, send it to the POS PM who in turn will send it to the DCS for determination of Technical Reviewers required.

T2.4 Environmental Program Review

Observing Environmental Regulations is a serious business at the Airport. Depending on project scope and location, the TDT will be required to provide one presentation minimum to the Environmental Program Team.

Program Staff will ensure that the project has received adequate review under the State Environmental Policy Act (SEPA) and the Endangered Species Act (ESA), and will also ensure that the project complies with all applicable environmental permits.

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:

- Fill out and complete an environmental questionnaire, as provided by POS PM
- Provide additional data or resources
- Arrange for additional environmental consultant 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

(Please Note that NPDES- stands for Nationwide Pollutant Discharge Elimination System)

Contact	Environmental Coordinator PHONE: (206) 433-7203
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T2.5 COPS Approvals

The review processes described above will be repeated until all Port Standards issues have been resolved and all appropriate Application for Utility Connection Forms approved, culminating when the Tenant Project Coordinator signs the COPS form.

Once the final documents are approved and signed, the POS PM may proceed with the Airport Building Permit process.

TDT needs to provide two weeks advance notice to POS PM as to when design will be completed to allow a timely scheduling of the permit reviewing process.

T2.6 Airport Building Department and Electrical Permitting

The Airport Building Department issues General/Mechanical Building Permits, Electrical Permits are issued by the Washington State Department of Labor & Industries (L&I). Once TDT has completed all forms and submitted directly to the ABD, the TDT shall send a minimum of seven copies of all permit drawings and a copy of the permit application to the POS PM.

The ABD will review projects before a COPS and PDRC forms have been completed, signed off, and issued, if the plans and 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 plan review, at Tenant's cost. Copies of the approved plans shall be forwarded to the ABD and POS PM prior to executing any work.

Contact	Airport Building Department Permit Technician PHONE: (206) 433-4644 Washington Labor and Industries Permits and Inspections PHONE: (206) 835-1111
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T2.7 Food Facilities Permitting

Food handling facilities require specific plan review and approval from the local Health Department.

The Tenant is responsible for all Health Department Fees.

Contact	King County Environmental Health Services, Licensing and Permits PHONE: (206) 296-4708
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T2.8 Door Hardware, Numbering and Keying (Construction)

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.

The POS PM will work with the Tenant in coordinating keying, either using key numbering series or new series of numbers and the quantity of keys required.

If the Tenant requires other than the Port core system, the POS Lock shop will install outside of 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 Department only.

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.

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

T2.9 Tenant Contractor Business License

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

T2.10 Equipment Submittal Requirements

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 (see T1.21) 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 or 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)
- 400hz electrical point loads
- Antenna relocations and transmittal upgrades

T2.11 Review Documents Submittal Requirements

This is a clarification of the quantity and size of the review documents that Tenant projects must provide the Port of Seattle for their AV/F&I and Airport Building Dept. reviews.

There are two(2) separate sets of requirements; one(1) for all Concession Tenants with projects within the Terminal/Satellite Buildings, and one(1) for all other Tenant projects within the Terminal/Satellite Buildings. For stand alone Tenant projects outside the Terminal/Satellite Buildings the review process maybe different. Please review your

project with the assigned POS PM for any further questions or clarifications on the Review Document Submittal Requirements.

- **For Concession Tenant Projects:**

Concept Submittals (Milestone one): Seven(7) copies, half size or 18"x24" indicating the projects concept. Color Board: One(1) copy, 8 1/2"x11". This can be increased to 11"x17" if necessary. Given the small size, more than one board can be used if necessary.

Preliminary Design Submittals (Milestone two): First Submittal (15%) and Second Submittal (90%): For each submittal Twenty(20) half size sets and specifications.

ARC/PEST/MUST/START/WISE Meetings: To both First (15%) or Second (90%) review meetings bring five(5) half size sets to each meeting. You may take them with you at the end of the meeting.

Airport Building Dept. 100% Permitting Review (Milestone Three): Follow ABD requirements, Two(2) full size sets, calculations and other items, and Seven(7) half size sets for the POS PM.

- **For Other Tenant Projects:**

Concept Submittals: Three(3) copies, half size set of drawing(s), and a Statement of Scope, in 8 1/2"x11" format. You can increase the drawing size if necessary to explain the project's concept.

Design Development Submittals: For the AV/F&I Technical Reviews at 15%, 30%, 60%, and 90% Submittals, each submittal requires Twenty (20) half size sets and specifications. Verify with your assigned POS PM which review submittal will be required for your project.

ARC/PEST/MUST/START/WISE Meetings: For each meeting required, bring Five(5) half size sets. You may take them with you at the end of the meeting.

Airport Building Dept. 100% Permitting Review: Follow ABD requirements, Two(20) full size sets, calculations, and other items, and Three(3) half size sets for the POS PM.

It is important for the TDT to meet with your assigned POS PM during the early part of the Design Development phase and determine at what stage of completion should documents be submitted for AV/F&I reviews. For example, it maybe beneficial to the Tenant, on larger more complex projects which are connecting into Port systems, that first reviews be presented at 15%, where Reviewers can provide helpful input to the TDT. Whereas on smaller, more straight forward projects, it maybe recommended to start the review process at the 90% document completion.

T2.12 Propworks Drawing

Aviation/Properties requires a copy of the tenant's floor plan(s) be electronically submitted to the POS PM in order to have the new or revised plan(s) incorporated into the Tenant/POS lease documents and propworks. The TDT shall send to the POS/PM an electronic copy of the 100% submittal floor plan(s) only prior to permitting review.

Section T3 Construction Phase Activities

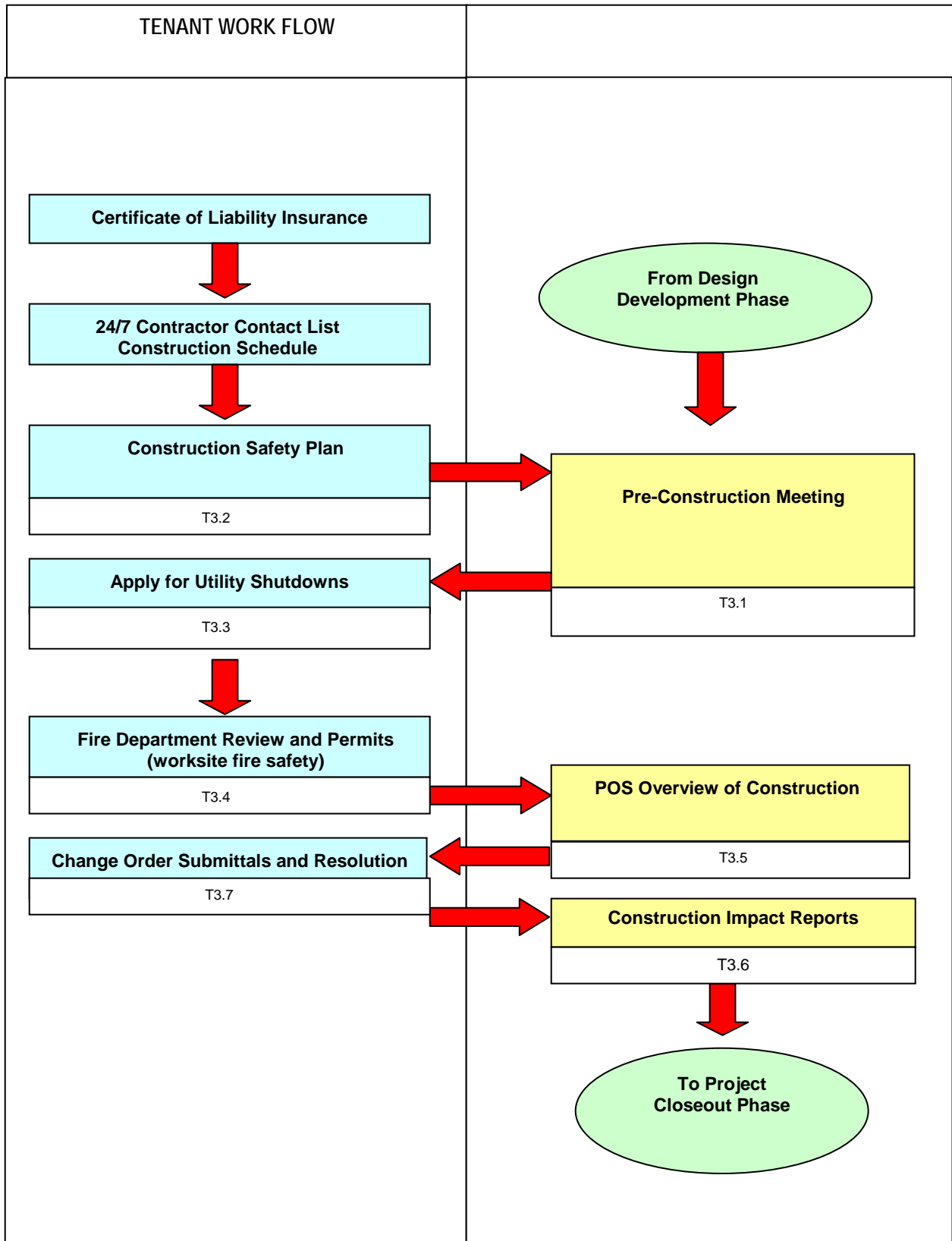
A. Process Flow Chart: Construction Phase

B. Pre-Construction Meeting Checklist

C. Detailed Activities

- T3.1 Construction Safety Plan
- T3.2 Pre-Construction Meeting
- T3.3 Utility Shutdowns
- T3.4 POS Overview of Construction
- T3.5 Change Orders Submittals & Resolution
- T3.6 Construction Submittals and Substitutions

A. Process Flow Chart: Construction Phase



B. Pre-Construction Meeting Checklist

Tenant Contractor and major Subcontractors MUST attend meeting and provide the following:

- 1) Contact list of all Contractors Involved with Cellular/24hr Contact information.
- 2) Contractor to provide a Gant (bar chart) construction schedule identifying start and finish dates and major milestones.
- 3) Certificate of Liability Insurance for project (see T1.22, Tab4, Page 10).
- 4) Site Specific Safety Plan

A) Forms to be Provided to Contractor & Subs

Documents	Hard Copy	Electronic	N/A
Regulations for Airport Construction and Standards (RAC)			
Utilities shut down request form			
Badge request forms			
Key request forms			
Welding Permit Application Form			
Submittal Log Form			

B) Contractor and Subs

Issues to be Addressed	Discussed	N/A
How and where to obtain Badges, Access for A/E, Contractors, Vendors, Visitors. Badge office # (206) 248-4818		
Discuss Security with Contractor and Subs for personnel and tools		
Contractor and Subs discuss barricade extent in demolition drawings		
Janitorial/trash removal impact is to be addressed specifically with a removal and cost plan		
Tenant A/E/ to identify logistics requirements (lay down area), AOA traffic, deliveries, security, noise, temp power-on drawings for Contractors to bid.		
Contractor and Subs discuss AOA, access escorts, elevators etc.		
Contractor and Subs discuss Noise issues and hours of operations		
Contractor and Subs discuss temporary power, water and other utility requirements.		
Safety Program- Work site Fire Dept. visit is to be requested by Contractor at the beginning of the work to ensure compliance with current codes.		
Potential Environmental impacts shall be addressed if any work is to be affecting areas exterior to existing buildings.		
Work may be stopped by PM or Safety team for violations due to unsafe working conditions.		
Core drilling and patching of existing terrazzo flooring requirements		
As built drawings discussed. Contractor is responsible for all site verifications and provide red lines to A/E for incorporation into as built drawings.		
The GC and principal Subs shall provide notarized Lien Releases on completion of project.		
Submittal Log for equipment installed by Contractor		

C. Detailed Activities

T3.1 Construction Safety Plan

The Tenant Contractor must submit a Site-Specific Safety Plan that will be submitted to the POS PM, who will in turn have the POS Safety Managers review. The Tenant Contractor will designate an on site representative with responsibility to stop work and remedy unsafe working conditions. The Site Specific Safety Plan must cover the protection of the workmen, adjacent Tenants, POS personnel and the traveling public. Refer to WAC and POS master specs, division 0 document 00860 for regulations and requirements.

T3.2 Pre-Construction Meeting

Once a Building Permit has been issued, the TDT and Tenant Contractor must review the Pre-construction checklist and bring all required information to the pre-construction meeting. The POS PM shall arrange a mandatory pre-construction meeting, which will include POS Stakeholders, POS Construction Safety Representative, Tenant Project Representative, Contractor and all major subcontractors, if the scope of the project requires it.

T3.3 Utility Shutdowns

A Utility Shut Down Form shall be filled out by the Tenant Contractor, then forwarded to the POS PM for Port approval. All utility shutdowns of HVAC, plumbing, electrical, fire systems, communication, gas, electronic systems, and other utilities required for construction will be performed only by POS and require a minimum of 72 hours notice from final POS approvals. AV/Fire Dept. requires their shutdown notice be hand delivered.

T3.4 POS Overview Of Construction

Contractor is responsible for scheduling all required code inspections with L&I, Fire Dept. and ABD inspectors and ensuring they are completed. POS PM is copied on all inspections and compliance with required code issues. The Port also reserves the right to inspect the work to see that it is being done in accordance with the approved drawings and specifications.

Tenant's project will be observed during the construction phase by the POS Tenant Inspector/or PM and other inspectors for noise, safety hazards and security compliance. Observed violations will be documented in writing and forwarded to the Tenant who shall take immediate remedial action. Failure to act in any of these issues within 24 hours may result in suspension of the Building Permit. Imminent danger of Life Safety, if not immediately corrected, will cause a shut down of the project construction operation. Cost of the shutdown will be the responsibility of the party causing the shutdown. ~~All shutdown issues must be corrected within 24 hrs.~~

T3.5 Change Orders, Submittals & Resolution

All change orders to the project contract shall be submitted and reviewed by POS PM if Tenant amends the contract by adding or deleting time or by changing scope of work. The intention is to assess potential impacts on Airport Operations and Systems as well as impact on other construction projects.

The POS PM shall be copied on all Contract Change Orders AFTER the Tenant has approved them.

T3.6 Construction Submittals and Substitutions

At the Pre-Construction meeting, the POS PM and TDT will provide the Tenant contractor a "Submittal Log" form for the contractor to complete. The first six(6) columns must be completed. The Tenant, POS PM and F&I Liaison will pre-determine the length of the most expeditious turn around time for POS reviews. 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 DCS, 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. Reviews will be completed by the specific Reviewer who reviewed the original design documents

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 AV/F&I DCS for review with copies to the POS PM. Reviewer's assignments will be made by AV/F&I to determine which disciplines are impacted.

POS final review of Submittals and Substitutions will be made during the project construction inspections (see T4.3) and the project commissioning effort (see T1.18 & T4.5).

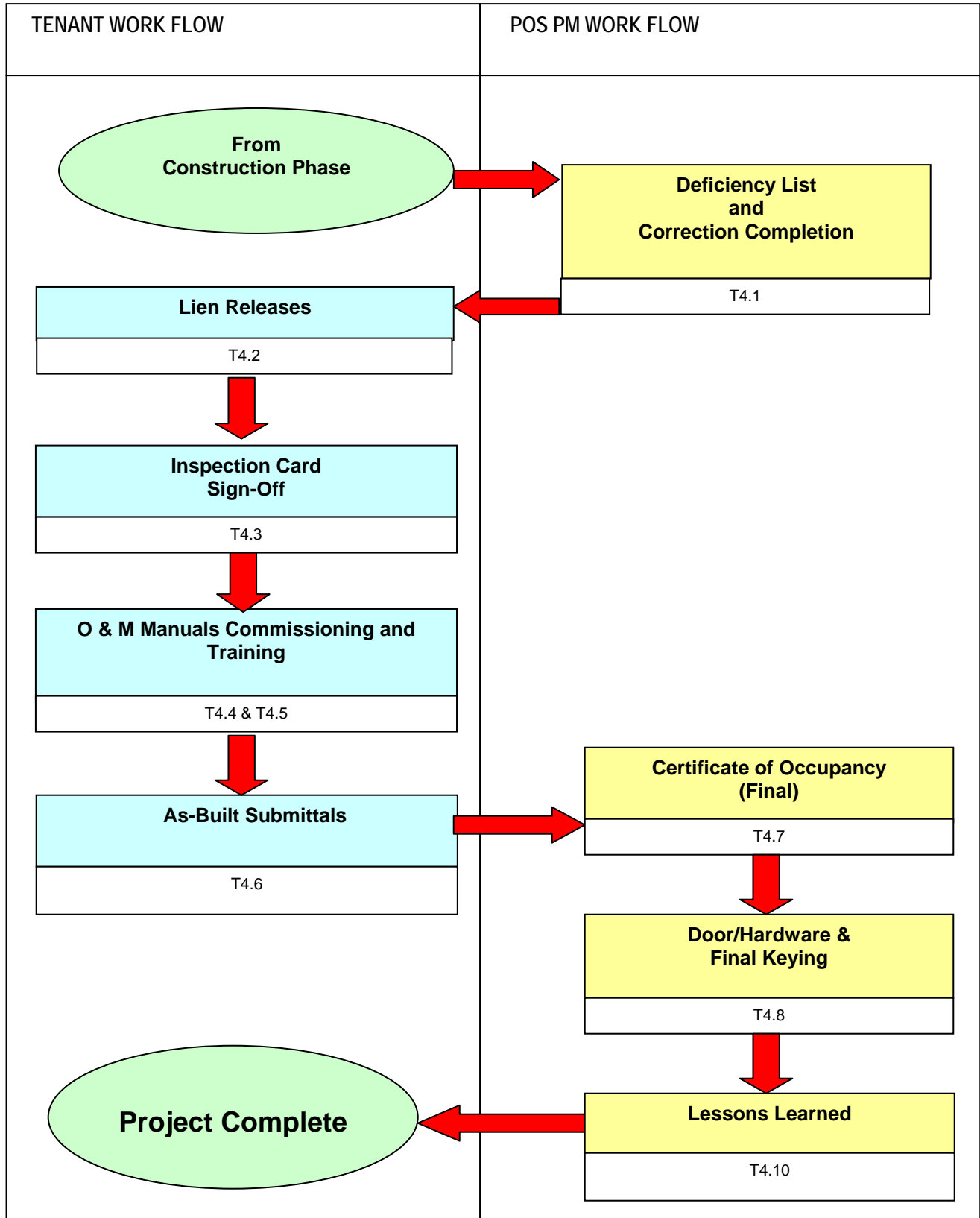
Section T4. Project Closeout Phase

A. Process Flow Chart: Project Close-Out Phase

B. Detailed Activities

- T4.1 Deficiency List
- T4.2 Lien Releases
- T4.3 Inspection Card Sign-off
- T4.4 Operations and Maintenance Manuals
- T4.5 Commissioning and Training
- T4.6 As-Builts, Submittals
- T4.7 Certificate of Occupancy
- T4.8 Door Hardware, Numbering and Keying (Final)

A. Process Flow Chart: Project Closeout Phase



B. Detailed Activities

T4.1 Deficiency List

Prior to Final Inspections for Building Code compliance, the POS PM shall conduct a walk through with Port and Tenant stakeholders to identify any deviations from the Construction Documents and compile a Deficiency List. The TDT will have two weeks to complete any items found in the list.

T4.2 Lien Releases

Tenant shall forward to POS PM within 30 days after Temporary Occupancy has been granted a Notarized copy of Lien Releases by the General Contractor for any contract exceeding \$ 5,000.

T4.3 Inspection Card Sign-Off

The Tenant's contractor is responsible for compiling sign-off signatures for the inspection card and sending a copy of the signed off inspection card to the POS PM.

T4.4 Operations and Maintenance Manuals

Aviation Facilities & Infrastructure requires O & M manuals on any Tenant project's equipment that will be serviced, maintained or become property of the POS.

General requirements for the O&M manuals includes contract information; name, address and telephone number of the equipment/systems manufacturer; as well as the installing contractor(s), with a 24/7 telephone number for emergency service for all equipment/systems install of the tenant project. The O&M manuals shall be in 8½ "x11" paper format in a 3 ring binder and electronic (CD) format, label with the project title, tenant and contractor.

O&M manuals to include all approved submittal data, cut sheets and appropriate shop drawings. Manuals shall contain all information needed to identify, maintain and replace/duplicate any finish materials, equipment or features installed in this project. Manuals to be presented/arranged in a logical manner, indexed and tagged in accordance with the project's respective specification sections.

TDT shall be responsible to deliver a pre-determined number of copies of each required O&M manual equipment the POS PM. The POS PM will distribute the O&M manual to AV/F&I DCS for filing and distribution to AV/Maintenance disciplines and crafts.

T4.5 Commissioning and Training

The Commissioning effort shall be coordinated with POS Maintenance personnel assigned to the project; a full schedule must be submitted by the TDT to the POS PM 30 days prior to execution indicating dates and necessary man hours to complete the effort.

As a result of the Commissioning effort, a Close Out Report is required to be provided by the Tenant and forwarded to the POS PM for verification and approval. The TDT will provide operational and service training for any equipment that may impact POS Systems

T4.6 As-Builts Submittals

As-Built drawings must comply with AFUS/CAD standards and be provided in a CD format with 1 full size hard copy after the project completion and in accordance with the STIA, Schedule of Rules and Regulations No. 4, page 3-12, para. 24 Construction and Alteration. If POS PM requires additional copies for her/his own files they may be requested from the TDT. Note: Failure to comply with these requirements will delay the issuance of final certificate of occupancy.

T4.7 Certificate of Occupancy

Changes in Issuance of Certificate of Occupancy:

Effective immediately, the Airport Building Department will not issue Certificates of Occupancy for Tenant Projects until it is verified, through John Ryland, Aviation Project Management (206-988-5575) that the Port is in receipt of the required as-builts. Once all required final inspections including fire life/safety system 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 acceptable as-builts. The Final Certificate of Occupancy will not be issued until John Ryland has indicated acceptance of the as-builts.

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

The ABD will rely on other regulatory agents including AV/Fire Dept. for compliance with the provisions of the International Fire Code (IFC), Labor and Industries for compliance with the National Electrical Codes (NEC) and other special service groups like City of SeaTac.

T4.8 Door Hardware, Numbering and Keying (Final)

Upon completion of the Tenant project and receipt of Final Certificate of Occupancy, the POS PM will arrange with the Port of Seattle Lock Shop to replace the Contractor's construction cores and return them to the Contractor.

The Lock Shop will install "Best" Lock Co. brand cores and provide the appropriate number of keys as requested by the Tenant. The Tenant is responsible to provide a number of copies needed and their numbering sequence.

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

Appendices

Appendix A	List of Acronyms
Appendix B	Contacts

Appendix A

List of Acronyms

<u>ACRONYM</u>	<u>DEFINITION</u>
ABD:	Airport Building Department
A/E:	Architect Engineer
ALOB:	Aeronautical Line of Business
AFUS:	Automated Facilities Utilities System (an as-built drawing system)
ARC:	Architectural Review Committee
AV:	Aviation Division
AV/M:	Aviation Maintenance Department
AV/PA:	Aviation Public Affairs
AV/PMG:	Aviation Program Management Group
CAD:	Computer Assisted Design
CD:	Construction Documents
CM:	Construction Manager
COPS:	Compliance of Port Standards Certificate
CUTE:	Common Use Terminal Equipment
Cx	Commissioning
DCS:	Document Control Specialist
EC:	Environmental Coordinator
EP:	Environmental Program
ESD:	Engineering Services Division
F&I:	Facilities and Infrastructure
FAA:	Federal Aviation Administration
GC/CM:	General Contractor/Construction Manager
ILA:	Inter-Local Agreement with City of SeaTac
L & I:	Department of Labor and Industries, State of Washington
LLOB:	Landside Line of Business
LOB:	Lines of Business (Airfield, Air Terminal, Landside)
MUST:	Mechanical Utilities Systems Team
PCS:	Port Construction Services
PDRC:	Preliminary Design Review Conference (through Airport Building Department)
PEST:	Proactive Electrical Systems Team
PLA:	Project Labor Agreement
PM:	Project Manager
PMG:	Program Management Group
POS:	Port of Seattle or the Port
POS PM:	Port Project Manager
PSA:	Professional Services Agreement
PSC:	Program Staffing Coordinator
PUR:	Port Purchasing Policy/Procedure
QA/QC:	Quality Assurance/Quality Control
SAM:	Senior Aviation Management
SEPA/NEPA:	State/National Environmental Protection Act
SIDD:	Seismic Interface Design Document
START:	SeaTac Telecommunications Architecture Review Team
STIA:	Seattle-Tacoma International Airport
TDT:	Tenant's Design Team (Including Tenant, Tenant Designers, and Tenant Contractor(s))
WAC	Washington Administrative Code (Safety)
WISE:	Water, IWS, Storm & Sanitary Sewer Team

Appendix B Contacts

Department	Title	Phone Number
Airport Building Department	Assistant Manager	(206) 835-5848
	Permits Coordinator	(206) 835-5806
	Permit Processor	(206) 835-7543
Aviation/Engineering	AFUS-Exterior Construction Site Surveys	(206) 988-5669
	AFUS-Interior Construction As Built Drawings	(206) 728-3121
	Construction Impact Center Manager	(206) 988-5526
Airport Operations	Director	(206) 248-4833
	AV Terminal Operations Manager	(206) 835-7554
	ABM Coordinator	(206) 433-7217
	Airport Duty Managers	(206) 433-4635
Business Development	Manager	(206) 835-5777
	Retail/Concessions: Manager	(206) 835-7672
	Direct Service: (Small Vendors)	(206) 431-4040
	(Concessions) (Communications)	(206) 433-4606 (206) 431-4040
Aviation/Properties/Leases	Manager	(206) 248-7113
	Prop Works/CAD	(206) 835-7563
Aviation/Maintenance	Electrical Systems Manager	(206) 431-4905
	Key Shop Manager	(206) 431-4084
	Receptionist	(206) 433-5408
	Field Crew Foreman	(206) 431-4490
	Small Works Contract Manager	(206) 431-4045
	Maintenance Services Response Line	(206) 433-5406
	Carpenter Shop Foreman	(206) 433-5297 or (206) 431-5909
	Radio Frequency Systems Manager	(206) 439-6648
	Conveyor Shop Manager	(206) 433-7235
	Systems & Electronics Manager	(206) 431-4065
	Mechanical Systems Manager	(206) 431-4906
Aviation Environmental	Coordinator (Tenant Project)	(206) 433-7203
Aviation/Facilities & Infrastructure (AV/F&I)	Administrative Assistance	(206) 433-5298 or (206) 431-4953
	Architectural Review	(206) 431-4904
	Communications Systems (START)	(206) 248-6859 or (206) 439-6650
	F&I General Manager	(206) 431-4491
	IWS/SDS Systems	(206) 444-4388
	Mechanical Systems	(206) 248-4815
	Signage	(206) 431-4005
	Water/Waste Systems	(206) 431-4057
	Electrical Systems	(206) 248-7452
Utilities Manager	(206) 433-4600	

Contacts (Continued from previous page)

Department	Title	Phone Number
Aviation Fire	Supervisor	(206) 433-4649
	Receptionist	(206) 433-5327
	Plan Review	(206) 431-4000
	Fire Alarms System	(206) 431-4454
	Inspections	(206) 433-5046
	Sprinkler Systems	(206) 433-4650
	Welding Permits	(206) 431-4653
Aviation/Airfield Operations & Technical Services	ID Access Control Office & Ramp Permits	(206) 248-4818
	Airfield Operations	(206) 431-5041
	Security Manager	(206) 431-4449
	FAA 7460 Forms	(206) 439-6626
	Operations Supervisor	(206) 988-5541
Aviation/Public Affairs	Barrier Sign Coordinator	(206) 431-4067
Aviation/Project Management	Airport Field Safety Manager	(206) 988-5514
	Project Labor Agreement Manager	(206) 835-5712
	Tenant Project Coordinator	(206) 248-7145
King County Environmental Health Services	Licensing and Permits	(206) 296-4708 (Kent office)
Washington State Department of Labor and Industries	Permits & Inspections	(206) 835-1111
POS Safety	Health & Safety	(206) 439-7712
	Construction Safety	(206) 431-4493