

# Tenant Road Map

## Revisions to Tenant Road Map

### Manual: Design & Construction Process

Note: Previously, revisions have been indicated in **“bold” print**, with existing text that was altered or revised having ~~“strikethrough text”~~. This revision indicating system will be utilized again in future revisions. However, for the revision dated 10/31/07, large scale format and organizational changes were made to the document. The revision marking system is not feasible for this revised edition. In the next 6 month version, revisions will appear in **“bold” print**, and text which is omitted will once again appear with ~~“strikethrough text”~~.

A summary of revisions for this version follows:

- Previously there has been a separate but parallel Tenant Road Map Manual for Tenants and another for Port Project Managers. In this revision the manuals have been combined into a single manual containing the same information. This change necessitated a reorganization of sections, flow and format.
- Information that pertains *only* to Port Project Managers is now indicated via *italicized text in a grey font* and is located at the end of the appropriate section. This allows tenants to skim over information that is not pertinent to their needs.
- “Tab” organizational system is omitted, reverting to a traditional Chapter system with Section headings and consecutive page numbers. As this manual is distributed exclusively in electronic format, consideration was given to onscreen viewing and ease of navigation during these changes.
- Existing headings have been rearranged to more closely match the project flow. Numbering system has been revised accordingly.
- Where some topics might previously have been discussed during multiple phases, attempts have been made to consolidate to one heading. These topics may need to be addressed by a Tenant Design Team several times, but are only addressed in this document once wherever possible.
- In Chapter 1 (Pre-Design) a “Pre-Design Considerations” section has been added. This paragraph encourages Tenant Design Teams to look over activities in every phase of the project prior to beginning design.
- In Chapter 1 (Pre-Design) a section on Airport Security and Badging has been added.
- In Chapter 2 (Design) a section on Design considerations for the bidding process has been added. This paragraph encourages Tenant Design teams to look over activities in every phase, but specifically those in the Construction Phase during their design.
- Various references to sections within the document have been updated to reflect the new structure.
- Flowcharts have been updated to match the new organizational structure of the document.
- Multiple hyperlinks, outside references and internal references were updated.
- Pre-Design Meeting Checklist has been revised and updated.
- Action Plan at a Glance has been revised and updated to match new structure.
- Phone contact information throughout the manual has been updated.
- The list of acronyms has been updated.

Sincerely,

Your Tenant Road Map Team

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## Use of this manual

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

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

The manual is divided into four chapters, which loosely follow the four phases of a given project. The chapters are:

- Chapter 1 – Pre-Design Phase
- Chapter 2 – Design Phase
- Chapter 3 – Construction Phase
- Chapter 4 – Project Closeout

The organization of this document should not be misconstrued to mandate the order in which tenant activities should be conducted.

## [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 (COPS) and PDRC 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

To access the web site, utilize the following hyperlink:

<https://www.portseattle.org/business/airport/tenantprojects/apps/pppt/public/>

## Contact Us

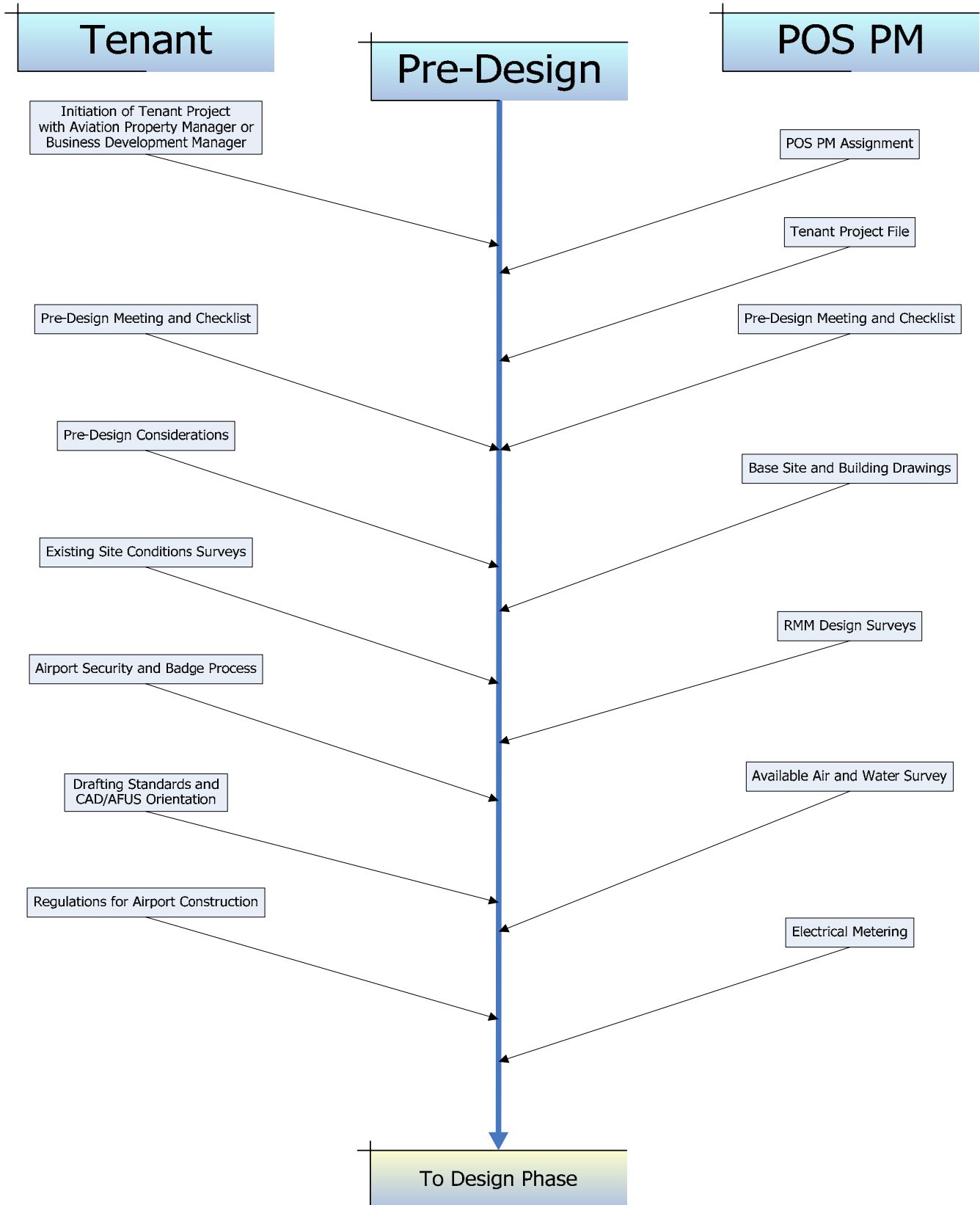
For more information, invitations to demonstrations, or to receive updates about web site enhancements, send an e-mail to Colleen Tuttle, Tenant Project Coordinator, at [tuttle.c@portseattle.org](mailto:tuttle.c@portseattle.org), or call 206-248-7473.

In order to accurately distribute revisions to this manual, please email the Tenant Project Coordinator with changes to your desired subscription level. (i.e. new employees, removal of subscription, etc.)

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## Chapter 1 - Pre-Design Phase Activities

### Process Flow Chart: Pre-Design Phase



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## Pre-Design Checklist for Tenant Projects

During the Pre-Design Meeting, the POS PM and the Tenant shall discuss all phases of the project to identify which activities do and do not apply to this project. The following list can be a handy reference for addressing the various requirements and activities. It is suggested that the list be printed and marked up at the initial meeting.

Issues Addressed	Information Discussed	Documents Distributed	N/A
<b>Standards and Regulations</b>			
Regulations for Airport Construction			
POS AFUS/CAD Drawing Standards			
Tenant A/E to attend AFUS Orientation meeting			
Signage and Graphics Standards			
Architectural Design Standards			
Case Work Standards			
Electrical Systems Standards			
Mechanical Systems Standards			
Communication System Standard			
Radio Frequency Standards & Guidelines			
Industrial Waste System Standards			
Storm Drainage System Standards			
Water and Sanitary Waste System Standards			
Review project scope with Fire Department for potential impacts			
<b>Long Lead Items</b>			
FAA Regulations – Notice of proposed Construction or alterations- Form 7460			
Airport Security Plan			
Badges, Access to secure areas for A/E, Contractors, Vendors			
<b>PreDesign</b>			
Tenant A/E is responsible for all site verifications			
30 Day meter readings contractor contact			
Air Availability report contractor contact			
Water Availability report contractor contact			
Good Faith Survey			
<b>Design</b>			
Application for Connection to Electrical System			
Application for Connection to Chilled Water, Steam and Condensate or Air Handling Units			
Application for Connection to Communications System			
Application for Connection to Radio Frequency System (including			

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Wireless System(s))			
Application for Connection to Industrial Waste System			
Application for Connection to Storm Drainage System			
Application for Connection to Water System			
Application for Connection to Sanitary Waste System			
Application for Underground RFI Form			
Core drilling and filling vacated holes in terrazzo flooring			
Environmental Questionnaire			
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.			
Airport Building Department Permit Package (COPS & PDRC)			
<b>Construction</b>			
PLA Discussed			
Pre-Construction Meeting			
Contractor's site specific safety plan and project inspector			
Contractors Certificate of Insurance			
Identify Submittal log items			
Tenant contact list with 24/7 On-call contacts			
Temporary power requirements			
Utilities Shut Down Request Form			
Construction Barricades, Signs			
POS Tariff for Lost Badges			
<b>Project Close-Out</b>			
Commissioning			
Inspection Card Sign-Off			
Deficiency List			
Completion Requirements			
Lien Releases			
O&M Manuals			
As-Built Submittals			
Certificate of Occupancy			

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## Pre-Design Checklist for Concession Projects

During the Pre-Design Meeting, the POS PM and the Tenant shall discuss all phases of the project to identify which activities do and do not apply to this project. The following list can be a handy reference for addressing the various requirements and activities. It is suggested that the list be printed and marked up at the initial meeting.

Issues Addressed	Information Discussed	Documents Distributed	N/A
<b>Standards and Regulations</b>			
Regulations for Airport Construction			
POS AFUS/CAD Drawing Standards			
Tenant A/E to attend AFUS Orientation meeting			
Signage and Graphics Standards			
Architectural Design Standards			
Case Work Standards			
Electrical Systems Standards			
Mechanical Systems Standards			
Communication System Standard			
Radio Frequency Standards & Guidelines			
Industrial Waste System Standards			
Storm Drainage System Standards			
Water and Sanitary Waste System Standards			
Review project scope with Fire Department for potential impacts			
<b>Long Lead Items</b>			
FAA Regulations – Notice of proposed Construction or alterations- Form 7460			
Airport Security Plan			
Badges, Access to secure areas for A/E, Contractors, Vendors			
<b>Milestone 1: Concept (see Exhibit C)</b>			
- Financial information			
- Merchandise mix / Market segment			
- Renderings/drawings			
<b>Milestone 2: (See Exhibit C)</b>			
Tenant A/E is responsible for all site verifications			
30 Day meter readings contractor contact			
Air Availability report contractor contact			
Water Availability report contractor contact			
Good Faith Survey			
Application for Connection to Electrical System			

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Application for Connection to Chilled Water, Steam and Condensate or Air Handling Units			
Application for Connection to Communications System			
Application for Connection to Radio Frequency System (including Wireless System(s))			
Application for Connection to Industrial Waste System			
Application for Connection to Storm Drainage System			
Application for Connection to Water System			
Application for Connection to Sanitary Waste System			
Application for Underground RFI Form			
Core drilling and filling vacated holes in terrazzo flooring			
Environmental Questionnaire			
<b>Milestone 3: (See Exhibit C)</b>			
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.			
Airport Building Department Permit Package (COPS & PDRC)			
<b>Milestone 4: Construction (See Exhibit C)</b>			
PLA Discussed			
PreConstruction Meeting			
Contractor's site specific safety plan and project inspector			
Contractors Certificate of Insurance			
Identify Submittal log items			
Tenant contact list with 24/7 On-call contacts			
Temporary power requirements			
Utilities Shut Down Request Form			
Construction Barricades, Signs			
POS Tariff for Lost Badges			
<b>Project Close-Out</b>			
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## Detailed Pre-Design Phase Activities

### Section 1.01 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 sponsoring Aviation Properties Manager or Retail Concession 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. See Conceptual approval in the Chapter on Pre-Design for process and the Contacts Appendix for list of Business Contacts.

The sponsoring Aviation Properties Manager or Retail Concession 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 Retail Concession Manager to 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.

Contact

Director of Aviation Properties (206) 248-7113  
(General Manager) Business Development (Retail/Concession Only) (206) 835-5777

### Section 1.02 POS PM Assignment

Once conceptual approval has been granted, the Aviation Properties Manager or Retail Concession Manager will email a request that a Port of Seattle (POS) Project Manager (PM) be assigned to the project.

*The POS PM should be familiar with the Tenant's lease arrangements as amended or negotiated above, and should be knowledgeable of financial arrangements of tenant construction projects. They should contact the Properties or Concessions Manager to request a copy of the executed lease for their file.*

*The POS PM will work with the Port's tenant coordinator and cost engineer to set up a project identification number (PID) and Chart Field information in accordance with the annual approved Expense Budget and Port MIS system. This team will also set up a budget and activity codes within the MIS system as applicable.*

### Section 1.03 Tenant Project File

*Once a POS PM has been assigned, they will set up a Tenant Project File. The Tenant Project File is an essential tool in communicating project details to the entire Project Team. It is at hand when a POS PM is not available. The most important information in the Tenant Project File is an accurate, updated project description. The POS PM sets up the File in both electronic and manual (hardcopy) format and arranges the File with minimum of five standard tabs. Additional tabs may be used if File information does not fit into the standard tab format.*

*Standard Tabs:*

- *Project Information Log*
- *Pre-Design/Design*
- *Construction*
- *Close-Out*
- *Other*

*A Tenant contact list of all parties involved in a Tenant Project noting Phone numbers, Email addresses, cell phone numbers and fax numbers will be provided by the Tenant Design Team (TDT) which was identified in the Pre-Design Checklist. This Contact List should be displayed in the Project File.*

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## Section 1.04 Contractual Process for Tenant Projects

The primary contractual relationship of the parties, is between the Tenant and its consultant Designer. The Port's PM represents the relevant POS department 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 the Aviation Properties such as provision of utilities, lease amendments, and the like.
- The Tenant hires their own consultant for design of the facility. 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.

A [diagram](#) illustrating the lines of communication can be found in [Chapter 5: Appendices](#).

## Section 1.05 Pre-Design Meeting and Checklist

The POS PM will set up an initial meeting with the Tenant representatives to review the project scope. The Pre-Design meeting provides an opportunity for the POS PM, the TDT and other Stakeholders to review specific project requirements and verify responsibilities. The POS PM will review the Pre-Design Checklist with the Tenant Representative to discuss the POS Project expectations. The List includes POS Standards, Guidelines, Applications and other various forms. The POS PM will provide the TDT the applicable documents indicated in the Pre-Design checklist and discuss with the TDT a list of potential issues for the project.

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](#)
- [Adherence to Port of Seattle Standards and Requirements](#)

[Pre-Design Checklist](#) can be found in [Chapter 5: Appendices](#).

## Section 1.06 Pre-Design Considerations

Tenant Design Teams are strongly encouraged to look over activities in every phase of this manual prior to beginning design. During the pre-design meeting, the POS PM will go over such issues as [keying](#), [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

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prevent surprises. For example, although the [Commissioning](#) information is located in [Chapter 4](#) of this manual, it must be determined if the project will have commissioning activities prior to the [design phase](#).

## Section 1.07 Base Site and Building Drawings

The POS PM will provide the Base Building Drawings to the TDT at the [Pre-Design meeting](#) if they are available.

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. Please see [Section 1.08: Existing Site Conditions Surveys](#).

Existing base drawings may be found in AFUS, Engineering, Maintenance, and Craft shops, Facilities & Infrastructure, Port Survey Department or with your Tenant. Existing POS drawings need to be stamped "Tenant to verify all info contained herein" It is important for tenant Computer Assisted Design (CAD) work to start from the Port's exterior and utility site plans and the interior floor plans.

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.

Contact

Exterior/Utility As-Builts (206) 988-5669  
Interior As-Builts (206) 728-3121

## Section 1.08 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 may be able to arrange escort in some instances.

## Section 1.09 Airport Security and Badge Process

The Airport ID Access Office 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 three appointments. Appointments are required for new badge applications, U.S. Custom Security Seal applications and badge pickups. A valid U.S. Passport or other proof of citizenship will be required. It's best to make appointments at least five days in advance. U.S. Custom Security Seal applications can be dropped off in advance of your appointment (plan on dropping off the application at least two days before your appointment).

The fastest way to arrange an appointment is via e-mail: [idbadgescheduling@portseattle.org](mailto:idbadgescheduling@portseattle.org). Appointments can also be requested via voice mail at (206) 248-6859. You can check the status of your pre-badging background check by phone and/or e-mail. The phone number is (206) 248-4818. E-mail is [securitynews@portseattle.org](mailto:securitynews@portseattle.org)

If your initial screening is complete, you can then make an appointment to complete the badging process.

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To report a lost or stolen badge, please call (206) 248-4818 or e-mail the ID Access office at securitynews@portseattle.org. Please note: There are significant penalty fees for replacement of a lost or stolen badges.

More information on the badging office, including office hours can be found at:

<http://www.portseattle.org/about/employeeservices/idbadges.shtml>

Information regarding the Airport Training Center, its hours and class schedules can be found at:

<http://www.portseattle.org/about/employeeservices/idaccessclassregistration.shtml>

All identification badges issued by the Port of Seattle are the property of the Port of Seattle and must be immediately returned under the following conditions. A \$250.00 fee will be assessed for a badge not returned under these conditions:

- Upon expiration
- Upon separation of employment
- When job function no longer requires a Port of Seattle issued identification badge or upon demand of the Port of Seattle.

Lost, stolen or otherwise unaccounted for badges must be immediately reported to:

- ID/Access Control Office: (206)248-4818 during business hours;
- Aiport Duty Manager: (206)439-4664 after business hours.

Lost, stolen or otherwise unaccounted for badges will result in assessment of the following replacement fees.

- First offense within 24-month period: \$250.00 plus applicable reissue fees. Fee may be waived with documentation that badge was lost in line of duty; a police report stating badge was stolen; or substantial evidence badge was destroyed. Grace period: 7 calendar days.
- Second offense within 24-month period: \$500.00 plus applicable reissue fees. . Fee may be waived with documentation that badge was lost in line of duty; a police report stating badge was stolen; or substantial evidence badge was destroyed. Grace period: 7 calendar days.

## Contact

ID Office Manager	(206) 835-7631
Badge Office Appointments	(206) 248-6859
Background Checks	(206) 248-4818

## Section 1.10 RMM Design 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. The POS PM is to request Port Construction Services (PCS) to conduct a Hazardous Materials Survey of the affected Tenant space once there is sufficient information available concerning the square footage impacts of the tenant project. The survey outcome is provided to the POS 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 removal schedule (if required) will be provided by PCS based on the complexity of the site condition.

## Contact

Hazardous Materials Survey Work (206) 835-5739

## Section 1.11 Available Air and Water Survey

Because of the potential impact of the Tenant's project in the whole of the Airport Heating, Ventilation and Air Conditioning (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. A Port assigned certified firm will provide a survey of the existing

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airflow and water flow/steam in the area to be impacted by tenant's project. It is the Tenant Design Team's responsibility to utilize this data as the basis for their HVAC design.

*POS PM is responsible for obtaining the existing airflow survey. Presently, there are two POS certified firms, Harden & Sons Inc. and Neudorfer Engineering. See POS PM for contracting services with either of these firms.*

Contact

Harden & Sons Inc. (253) 804-9081  
Neudorfer Engineering (206) 621-1810

## Section 1.12 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. This is also a requirement of Washington State L&I as a permit requirement.

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.

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. This should not act as a deterrent to taking spot readings. Past recordings do not exculpate the designer from factoring in additional load that may have been added from the time of the reading and the proposed design.

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

Meter readings can be found at site survey time by reading green labels left in place at the time of prior Readings; and are valid for a period of one year from the day of the measure.

If green labels are found in the face of the panel and are less than one year old, those meter readings on file may be used as part of design calculations.

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 Aviation (AV) Maintenance Electrical Shop Manager, or a third party electrician.

Contact

AV/M Electrical Shop Manager (206) 433-7231

*If prior Readings are NOT available, the following is the sequence to obtain a new reading:*

*If AV/Maintenance Electrical Manager does not have resources available, the POS PM may use an outside electrical contractor to take readings:*

*POS PM needs a minimum of 1-week lead-time to arrange for the meter reading. Metering requires 30 days after connection to panel.*

*The POS PM will contact Carolyn Rankin who manages the contract for the third party electrician. An authorization form describing the project, details of the specific panel to be read, charge codes and contact information will be submitted to her for work requested by this contract.*

*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.*

*When an outside Electrical Contractor is used to obtain new readings, the POS PM is responsible for ensuring that AV/F&I (Mary Todd or Wendell Umetsu) receives copy of readings for database.*

Contact

Carolyn Rankin rankin.c@portseattle.org (206) 433-5322

# Tenant Road Map

## Section 1.13 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 below must comply with the POS 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 where available. 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 the Airport Building Department. 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 1/2 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 (ABD).

- 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 PM with the approximate number of drawing sheets

# Tenant Road Map

and sheet titles. The Port's PM 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 PM for all needs involving the Port's CAD services. The Port's PM will coordinate interaction with the Port's CAD Manager and Engineering Services.

Contact

AFUS Coordinator Exterior Construction (206) 431-4069

## Section 1.14 Regulations for Airport Construction (RAC)

The Regulations for Airport Construction (RAC) provides uniform regulations to serve as guide and reference for Port Staff, engineers, and design professionals doing design and construction work for the POS and its tenants at STIA. It does not add to, alter, or delete any portions of existing or future leases. If there is a conflict between a lease and the manual, the terms of the lease shall govern.

The RAC focuses primarily on the construction of a project, with guidelines and standards addressing design requirements. The RAC will be referenced to through out this Tenant Manual and as it applies to the various phases of a project. Contents of the RAC include key information on Airport Operations (AV/OPS), ABD, Construction, Equal Employment Opportunity Compliance, Design, Environmental, Fire Dept., Fuel Storage and Distribution requirements, Locks and Keying, Site Development, Construction Safety Services, Security, and Traffic/Landside Operations. It is important that Tenant facility staff, Tenant management, Tenant design consultants, and Tenant Contractor become familiar with and apply the contents of this Manual to their Airport projects.

The POS PM shall review the Regulations for Airport Construction (RAC) with the TDT and clarify any questions or concerns they may have on these requirements.

The TDT shall comply with the Port's Design Standards and Guidelines found in Section Six of the 2004 Edition of the Regulations for Airport Construction (RAC). "These regulations apply, within the legal boundaries of the airport, to the construction, alteration, repair, relocation or demolition of any structure or facility; filling or grading of land; landscaping; construction of pavement; installation of water, storm drainage, sewer and industrial waste lines; power and control systems and other underground facilities; installation of heating, ventilating, air conditioning systems; conveying and mechanical systems; fire protection systems and facilities; electrical power facilities and systems; environmental protection systems; communication systems; cleanup of soils and groundwater conducted under Federal or State environmental regulations and aboveground and underground fuel storage and distribution facilities."

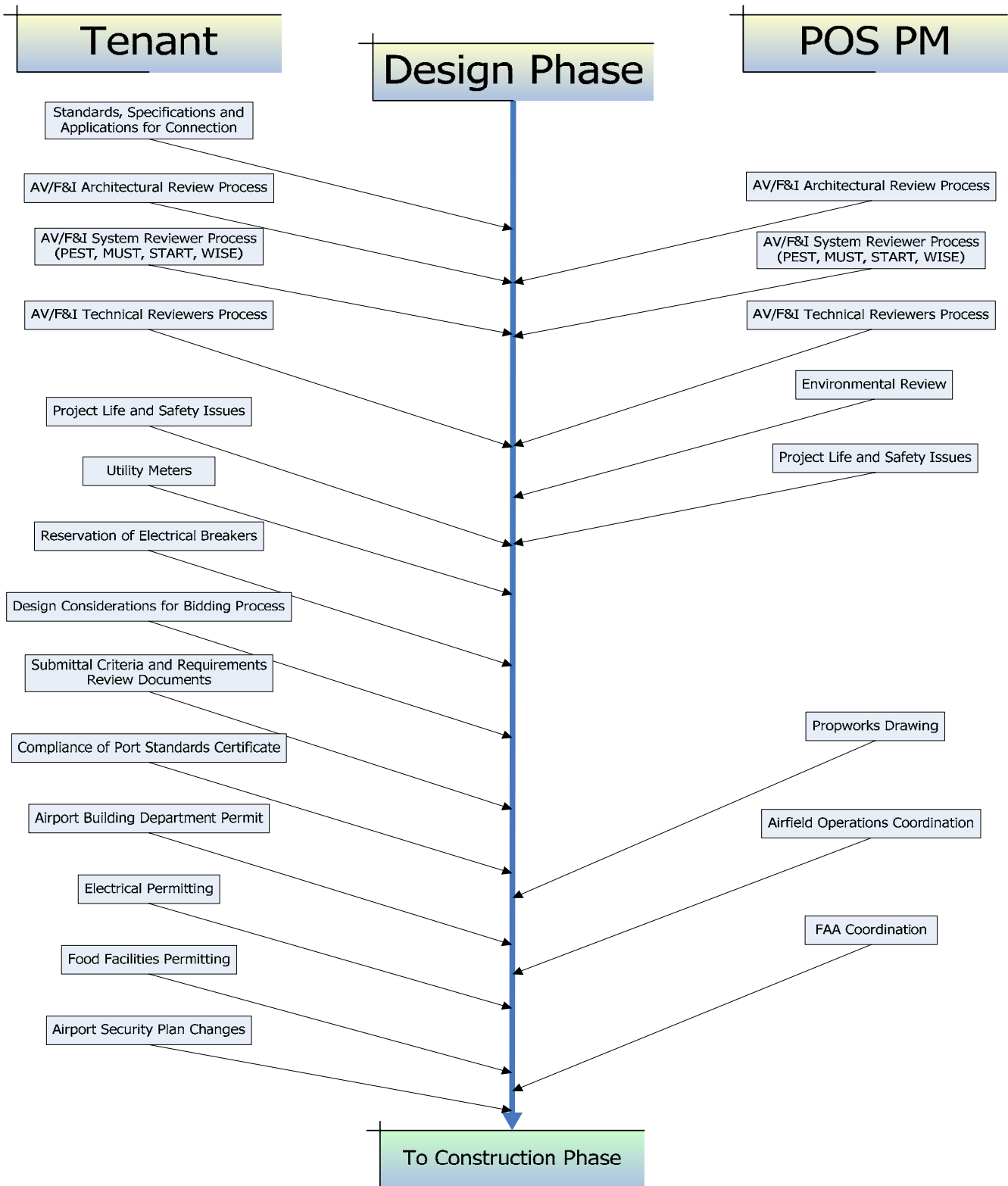
The RAC can be found at:

<http://www.portseattle.org/business/airport/> In the section marked "Downloadable Reports"

# Tenant Road Map

## Chapter 2 - Design Development Phase Activities

### Process Flow Chart: Design Development Phase



# Tenant Road Map

## Detailed Design Phase Activities

### Section 2.01 POS Standards, Specifications and Applications for Connection

To maintain consistent and quality designs, Tenant Design 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).

Reference the pre-design checklist in [Chapter 5: Appendices](#), for the list of the application for connection forms of the various utilities at the airport.

Current versions of Design Standards, Applications for Connection and relevant Guidelines can be found at:

<https://www.portseattle.org/business/airport/tenantprojects/pppt/referencedocs.shtml>

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 Tenant Design Team (TDT) and key stakeholders work together to communicate the STIA-specific details of design development. These activities are the same in ALL phases. They range from coordinating existing electrical conditions surveys to [30-day electrical metering](#) to [PEST, MUST, START, ARC presentations](#) to [site utility plans](#). Any time a tenant project or work impacts existing Port systems; the TDT shall provide [AFUS/CAD compliant drawings](#). It is the Tenant Design Team's responsibility to fulfill these coordination requirements. The PM is responsible for assisting the Tenant Design Team to successfully move through the Port's Processes.

For overview of each phase, please refer to the attached Flow Charts in [Chapter 5: Appendices](#).

The POS requires all Tenant projects to be designed according to the guidelines set in the AV/F&I Design Standards for each particular discipline first (Architectural, Electrical, Mechanical, Data and Communications, etc.). 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

### Section 2.02 AV/F&I 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, Architectural Standards, Signage Standards and Casework Standards. When applicable, the POS PM will schedule a review meeting with the ARC team. This review process mainly applies to Concessions tenants, but the TDT for any tenant project should check with their POS PM for applicability.

Current versions as well as other important reference documents can be found at:

<https://www.portseattle.org/business/airport/tenantprojects/pppt/referencedocs.shtml>

Contact

AV/F&I Staff Coordinator (206) 433-5298

### Section 2.03 AV/F&I Technical Reviewers Process

Representatives of various departments responsible for the Airport's Operations and Maintenance will review the project on the appropriateness of the design solutions.

# Tenant Road Map

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

PM is responsible to send to the assigned Technical Reviewers copies of the plans and specifications. The POS PM will direct the A/E to provide the appropriate number and formats, together with the letters of Transmittal to be forwarded to the POS PM.

- Upon approval of the Tenant project concept by the sponsoring Properties or Concession 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. If necessary, a conference with the City of SEATAC is required and arranged by the ABD through the POS PM. These are requirements of the InterLocal Agreement (ILA) with the City of SeaTac.

[https://www.portseattle.org/business/airport/tenantprojects/apps/pppt/public/ProjectReviewChecklistForm\\_WithCOPSIId.jsp](https://www.portseattle.org/business/airport/tenantprojects/apps/pppt/public/ProjectReviewChecklistForm_WithCOPSIId.jsp)

- 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.
- 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.
- 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 send it to the DCS for determination of Technical Reviewers required.

*To start the review process, the POS PM sends information regarding the Tenant Project to the F&I DCS by filling the New Project Notification Form, that can be found on V/Drive (this link will only work for POS staff):*

<||NTav23|AVIATION|Av-ISG|Document Control|Templates for notices|NEW PROJECT ASSIGNMENT FORM.doc>

*The clearer the scope of work is defined in the provided form, the more relevant the list of reviewers will be.*

- *The DCS will identify the Technical Reviewers that will be assigned to the project. The assigned Technical Reviewers name list will be forwarded to the POS PM by DCS. The process will take 48 hours. The POS PM has the ability to confirm the inclusion of specific assigned reviewers if in her/his opinion the reviewer does not seem relevant. The POS PM can also negotiate with the Technical Review Team(s) to minimize the review process time in small projects. Shortening of review time affecting Maintenance personnel must be negotiated with General Manager, AV/Maintenance.*

Contact

General Manager, AV/Maintenance (206) 433-5384

## Section 2.04 AV/F&I System Reviewer Process (PEST, MUST, START and WISE)

PEST (Proactive Electrical Systems Team), MUST (Mechanical Utilities System Team), START (SeaTac Telecommunications Architecture Review Team) and WISE (Water, IWS, Storm and Sanitary Sewer Team) 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. They also facilitate resolution of TDT questions, issues, and discussion of the Application for Connection to Utility Forms. (Reference Pre-Design Checklist, for the list of the application for connection forms of the various utilities at the airport.) These groups meet twice monthly. Tenant Design Team shall schedule agendas and presentations through the POS PM who will coordinate with the AV/F&I Staff Coordinator.

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.

# Tenant Road Map

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.

Contact

AV/F&I Staff Coordinator (206) 433-5298

## Section 2.05 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.

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

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

*POS PM will receive an online environmental questionnaire early during the design phase of the project. Coordination with the Environmental Department can be arranged via this process. POS PM will also notify AV/ENV Environmental Coordinator when building department requires sign-off.*

Contact

Environmental Coordinator (206) 988-5527

## Section 2.06 Project Life and Safety Issues, Review & Permits

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

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 overall terminal safety, including site access, fire extinguishes, and determination if any dangerous situations exist.

Contact

AV/Fire Dept. Supervisor (206) 433-4649

# Tenant Road Map

AV/ Fire Dept. Receptionist	(206) 433-5327
AV/ Fire Dept. Sprinklers	(206) 433-4650
AV/ Fire Dept. Alarms	(206) 431-4454
AV/ Fire Dept. Plan Reviews & Inspections	(206) 431-4000
AV/Fire Dept. Welding Permits	(206) 431-4653
Airport Building Department	(206) 835-5848

## Section 2.07 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.

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

For specification and purchasing information on meters approved by the POS contact the Tenant project's assigned POS PM. Visit the Port's web site for reference documents, including Design Standards for Utility Meters.

<https://www.portseattle.org/business/airport/tenantprojects/pppt/referencedocs.shtml>

## Section 2.08 Reservation of Electrical Breakers

P POS has a procedure to reserve space for placement of electrical breakers in POS electrical panels to secure service to the Tenant spaces. The Tenant's electrical designers shall contact the POS Electric Shop at (206) 433-5311 to schedule a time with an electrician to survey the designated panel board and room number. If engineering assistance is needed prior to or during the survey, contact the Infrastructure System Engineer at (206) 248-4811.

Once the desired breaker(s) is identified, the POS electrician will place a numbered 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 Tenant's assigned POS PM can assist the TDT with any questions or clarifications.

Contact

POS Electric Shop (206) 433-5311

## Section 2.09 Design Considerations for the Bidding Process

It is imperative that the TDT consider activities within [Chapter 3: Construction Phase](#) as they develop their design. Consideration to construction phase issues should be given such that their contractor bidding process can be run smoothly. The Tenant shall consider the [Project Labor Agreement](#), contractor [submittal requirements](#) for Notice to Proceed, the design of [temporary construction barricades](#), [door hardware and keying](#) issues, etc. The POS PM will guide the TDT, 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.

## Section 2.10 Submittal Criteria

Based on the complexity of the Tenant's project, the POS PM and the TDT will analyze 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 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.

# Tenant Road Map

- 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.

## Section 2.11 Review Documents Submittal Requirements

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.

This is a clarification of the quantity and size of the review documents that Tenant projects must provide the POS for their AV/F&I and ABD 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-five (25) 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.

- ABD 100% Permitting Review (Milestone Three):

Follow ABD requirements, Two(2) full size sets, calculations and other items, and Ten (10) half size sets for the POS PM. Additionally, a compact disc (CD) copy of the entire package must be submitted in Native CAD with x references.

### **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-five (25) 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.

# Tenant Road Map

- ABD 100% Permitting Review:

Follow ABD requirements, Two(2) full size sets, calculations, and other items, and Seven (7) half size sets for the POS PM. Additionally, a CD copy of the entire package must be submitted in Native CAD with x references.

## Section 2.12 Compliance of Port Standards (COPS) Certificate

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

The review of standards 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 review processes described earlier in this chapter will be repeated until all Port Standards issues have been resolved and all appropriate Application for Utility Connection Forms have been approved. This includes all Design Comment Resolution Forms having been responded to by the design teams and signed off on by the reviewers. The POS PM will return the final POS Design Comment Review Forms (DCRF) to the TDT and will then inform the TDT to proceed with the ABD Permit process. This process begins with the TDT entering the project into the online Project Application for Compliance of Port Standards known as "COPS".

<https://www.portseattle.org/business/airport/tenantprojects/apps/pppt/public/ProjectApplicationForm.jsp>

After completing the COPS, there is a link at the bottom of the page which will take you to the Project Review Checklist form. This must also be completed prior to issuance of the Permit.

Contact

Airport Building Department (ABD) Permit Coordinator (206) 835-5806  
17900 International Boulevard  
Seattle, WA 98188

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## Section 2.13 Airport Building Department and Electrical Permitting

The ABD issues General/Mechanical Building 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. After the 100% responses have been received from the DCRF the TDT shall complete the online COPS and PDRC forms. The TDT shall send a minimum of seven half size copies and two full size copies of all permit drawings and a copy of the permit application to the POS PM. The final number of copies needed shall be confirmed by the POS PM. The POS PM shall forward three (3) sets and the Permit application (together with a copy of the completed PDRC and COPS forms), as well as a check for the Plan Review Fees, to the ABD. See Section 2.14 for information regarding fees.

The ABD will in some instances be able to review projects prior to completion of COPS and PDRC forms if the plans & specifications are "100%" completed. 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 (206) 433-4644  
Washington L & I Permits and Inspections (206) 835-1111

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## Section 2.14 Permit Assessment, Fees 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 the Certificate for compliance. This will allow the Tenant to proceed with Proposed Project.

# Tenant Road Map

The tenant is responsible for providing plan check and permit fees for their project to the ABD. 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. Contact ABD for cost of plan check and permit fees.

<https://www.portseattle.org/business/airport/tenantprojects/pppt/referencedocs.shtml>

## Section 2.15 Food Facilities Permitting

Food handling facilities require specific plan review and approval from the local Health Department. The POS PM shall notify the TDT to apply for the permit and cover the costs of reviews.

Contact

King County Environmental Health Services, Licensing and Permits (206) 296-4708

## Section 2.16 Propworks Drawing

Aviation/Properties require 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 2.17 Airfield Operations Coordination

The POS PM shall coordinate with AV/Ops on pending projects that will require access to the Aircraft Operations Area (AOA) and sterile security areas; 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 AV/OPS Representative.

A minimum of 72 hours notice should be given to the AV/OPS Representative 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

AV/Ops Representative (206) 439-5187

ID/Access Badge Office (206) 248-4818

## Section 2.18 FAA Coordination

When the construction or the project itself exceeds the height limitation imposed by the Federal Aviation Administration (FAA), *the POS PM is responsible to coordinate with AV/OPS 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 Development Manager (206) 439-6626

## Section 2.19 Submittal for Airport Security Plan Changes (Security Walls, Fences & Gates)

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

# Tenant Road Map

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, and the Airport Rules and Regulations do allow for construction and alteration violations for not following proper procedures. Minor changes of a few feet are not normally submitted to TSA, but notification should be made to Airport Security to verify.

Contact your assigned POS PM for a Security Submittal Application. All applications for change must be submitted by hardcopy to Christian Samlaska, Airport Security by your POS PM. Please allow adequate time for TSA approval (30 days).

Contact

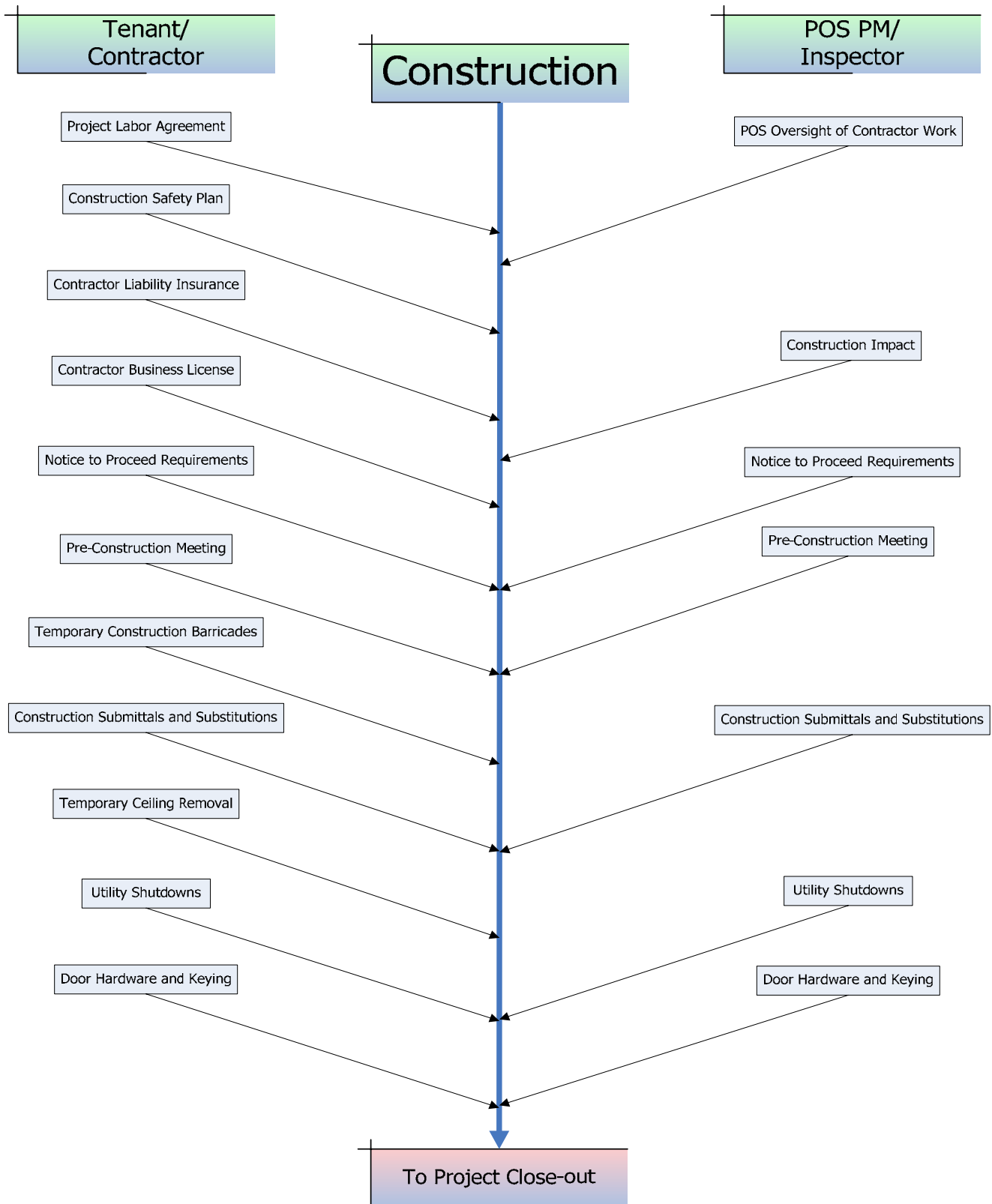
Plans and Investigations Specialist (206) 439-6634

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# Tenant Road Map

## Chapter 3 - Construction Phase Activities

### Process Flow Chart: Construction Phase



# Tenant Road Map

## Pre-Construction Meeting Checklist

### NTP Requirements to be provided to POS Personnel by Contractor & Subs

Documents	Hard Copy	Electronic	N/A
Contact list of all Contractors Involved with Cellular/24hr Contact information.			
Gant (bar chart) construction schedule identifying start and finish dates and major milestones.			
<a href="#">Certificate of Liability Insurance</a> for Project			
<a href="#">Site Specific Safety Plan</a> and Job Hazard Analysis Form			
Copy of the contractual agreement between the Tenant and the Contractor			
Copies of Purchase Orders for equipment and long lead items			

### Forms to be Provided to Contractor & Subs by POS Personnel

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			

### Issues to be Discussed between Contractors, Subs and POS Personnel

Documents	Hard Copy	Electronic	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.			
Discuss AOA access, escorts, elevators etc.			
Discuss Noise issues and hours of operations			
Discuss temporary power, water and other utility requirements.			
Hot Work 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.			
Construction Site-specific safety plan submitted, reviewed and accepted.			
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 in to as built drawings.			
The GC and principal Subs shall provide notarized Lien Releases on completion of project.			
Submittal Logs for equipment installed by Contractor			

# Tenant Road Map

## Detailed Construction Phase Activities

### Section 3.01 Project Labor Agreement

The Project Labor Agreement (PLA) is an agreement between the POS 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. If the Tenant elects to participate in the PLA Program, the POS PM should alert the Tenant to the additional time requirement in their Union-related Project Cost and Schedule.

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 construction 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://portseattlecontracting.ebidsystems.com/>

Master specs, Division 00840, Project Labor Agreement (PLA)

Contact

PLA Manager (206) 835-5712

### Section 3.02 Construction Safety Plan

The Tenant Contractor must submit a Site-Specific Safety Plan in response to mandates by the Tenant Design and Construction Process Manual and Regulations for Airport Construction. The Site Specific Safety Plan must cover the protection of the workmen, adjacent Tenants, POS personnel and the traveling public.

If the Contractor does not have a Safety Plan in place, 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>

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 Appendix A of the division 0 document 00860. The POS provides a general safety management overview in Document 00860 (Tenant version) found on Division 0 at

<https://www.portseattle.org/business/airport/tenantprojects/pppt/referencedocs.shtml>

Receipt of the completed forms is a condition for the POS Project Manager to set up the Pre-Construction meeting for the project. 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 on site representative with responsibility to stop work and remedy unsafe working conditions. Tenants are required to make this procedure known to all bidding contractors.

### Section 3.03 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 AOA and \$10 million for

# Tenant Road Map

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.

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.

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 or before the [pre-construction meeting](#) as a prerequisite to commencing construction.

## Section 3.04 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.

## Section 3.05 Notice to Proceed 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. The POS PM will go over the requirements with the TDT and contractor. These requirements might include, but are not limited to:

- Construction Safety Plan, Site Specific Safety Plan and Job Hazard Analysis approved by Safety Department
- Contractor Liability Insurance, showing the Port of Seattle as an additional insured
- Copy of the executed contractual agreement between the Tenant and the Contractor
- Contractor's construction schedule submittal
- Payment for and pickup of the ABD Permit
- Copies of Purchase Orders for equipment and long lead items
- Contractor's 24 Hour Emergency Contact List

Please also refer to the Pre-Construction Meeting Checklist found in Chapter 5: Appendices, for other potential requirements prior to NTP.

## Section 3.06 Pre-Construction Meeting

Once a Building Permit has been issued, the TDT and Tenant Contractor must review the Pre-construction checklist (found in Chapter 5: Appendices) and compile all required information on the checklist. If a Pre-Construction meeting is determined by the POS PM, the Tenant Contractor and major Subcontractors must attend the meeting. This meeting will be scheduled by the POS PM and/or the POS Tenant Inspector. All Tenant construction projects require Port inspection for compliance with Building Permits, Fire and Life Safety and compliance with the Port Standards and Guidelines. It is the responsibility of the POS PM to introduce the Inspector, who will then conduct the meeting. The meeting will include POS stakeholders, Construction Safety and Building and Fire Department representatives, as well as the Tenant representative.

The role of the POS Tenant Inspector is to make periodical inspections of the contractor's performance of the work and to assist the contractor coordinate their efforts to minimally disrupt terminal operations. The POS Tenant Inspector will communicate with the POS PN throughout the construction period and final closeout of the project.

## Section 3.07 POS Oversight of Contractor Work

Contractor is responsible for scheduling all required code inspections with Tenant Inspector, AV/F&I, L&I 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 Road Map

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.

*The POS PM or an assigned inspector will inspect and document the progress of the work at least once a week to ensure the project is constructed as designed and in accordance with the construction documents.*

## Section 3.08 Temporary Construction Barricades

For Tenant Projects that require construction barricades, the TDT is responsible to provide the necessary specifications in their project construction documents so that the Tenant Contractor can construct barricades that meet the requirement of the RAC and the Port Master Specification for temporary barricades.

The TDT is responsible for providing necessary art work and verbiage, describing their proposed project to the POS PM, who will in turn contact the Port's Public Affairs Department (AV/PA) for assistance providing construction signage.

Master Specification Division 1, Section 01500 Construction Facilities & Temporary Controls can be found at:

<http://portseattlecontracting.ebidsystems.com/#masterspec>

Contact

Public Affairs (206) 431-4067

## Section 3.09 Construction 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 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

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

# Tenant Road Map

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 DCS. 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 and the project commissioning effort.

## Section 3.10 Temporary Ceiling Removal

Where ceiling tiles within a tenant lease line 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.ebidsystems.com/>

#MasterSpecs, Division 01500, Constructin Facilities & Temp Controls

## Section 3.11 Utility Shutdowns

A Utility Shut Down Form shall be filled out by the Tenant Contractor, then forwarded to the POS Tenant Inspector 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 personnel and require a minimum of 72 hours notice from final POS approvals.

Aviation Fire Department requires their shut down notice to be hand delivered.

Contact

Aviation Maintenance Electrical Manager (206) 988-5684

*Prior to routing a Utility Shut Down Request, the POS PM or Tenant Inspector shall complete an electronic AV/M Work Request Form to the appropriate Utilities/ Maintenance Department Managers.*

[http://intranet.portseattle.org/aviation/pats/maint/proj\\_support\\_req\\_form.cfm](http://intranet.portseattle.org/aviation/pats/maint/proj_support_req_form.cfm)

Contact

Electrical (206) 431-4905

Fire Alarm Systems (206) 431-4454

Plumbing (206) 431-4906

Baggage Handling Systems (206) 433-7235

HVAC (206) 433-5476

Radio Frequencies (206) 439-6648

Sprinklers (206) 433-4650

## Section 3.12 Door Hardware and Keying

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 can not be responsible for the actual issuance of keys.

# Tenant Road Map

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 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.

*The POS PM shall contact the Real Estate/ Properties Propworks Coordinator or AV/M Lock Shop to assign Airport Room numbering System for the Rooms and Doors involved in the new project. The POS PM shall forward the assigned rooms and door numbers for the TDT to incorporate into the Construction Documents.*

*The POS PM shall work with the AV/Maintenance Key Shop to arrange for installation of the assigned room and door numbers.*

*To initiate the process, the POS PM completes an electronic AV/M Work Request Form*  
<http://intranet.portseattle.org/aviation/pats/maint/work-form.asp>

*spelling out the exact requirements and "chartfield" information plus a hard copy of the floor plan and work request to the Key Shop by interoffice mail.*

Contact

AV/Maintenance Lock Shop (206) 431-4084

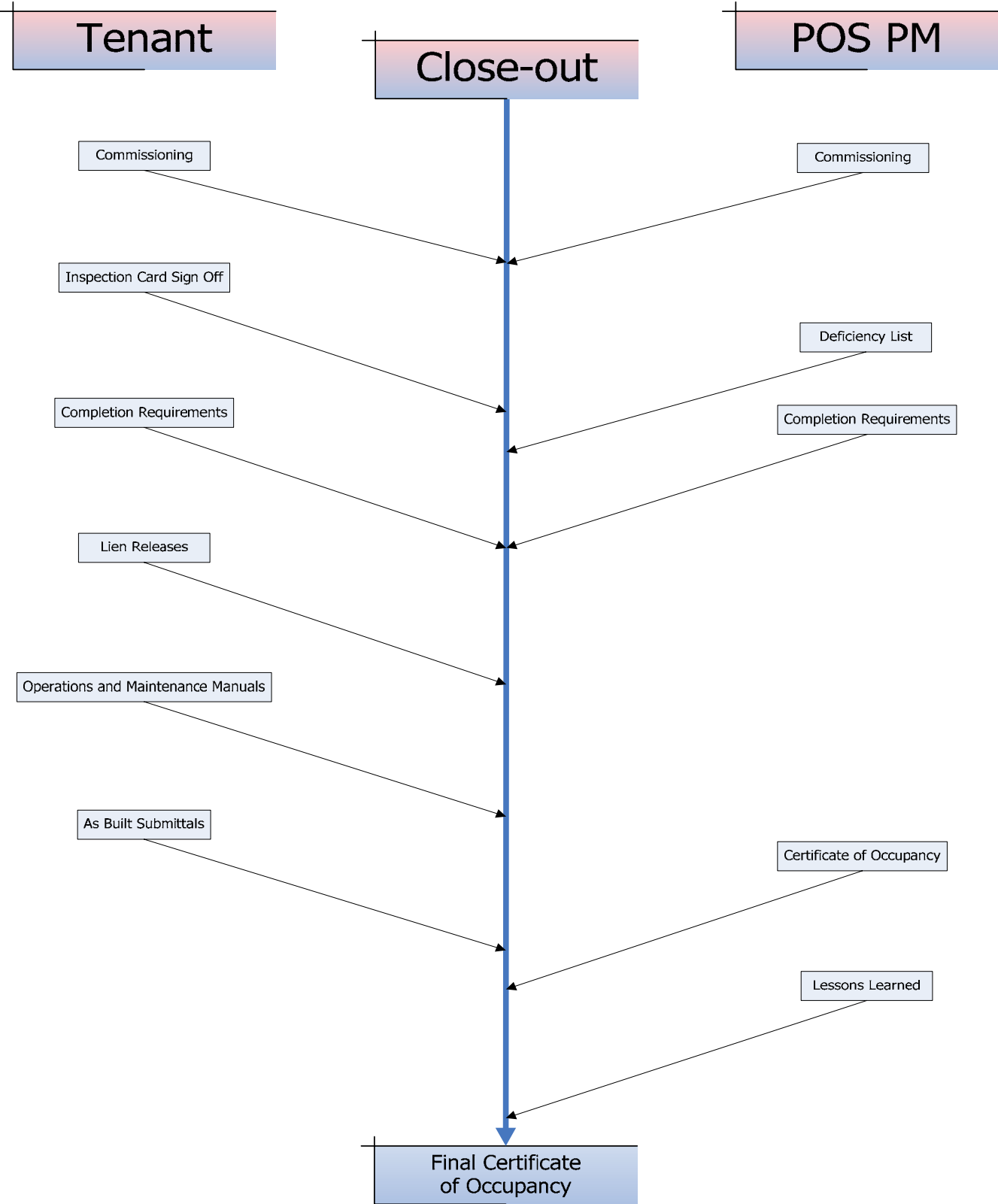
## Section 3.13 Construction Impact

*The POS Tenant Inspector will be responsible to provide weekly Impact Reports to the assigned POS PM. Impacts may include utility shutdowns; impact on Airport Operations; safety and security compliance; janitorial; other construction projects and other Tenant Operations.*

# Tenant Road Map

## Chapter 4 - Project Closeout Activities

### Process Flow Chart: Project Close-Out



# Tenant Road Map

## Detailed Project Closeout Activities

### Section 4.01 Commissioning

The intent of Commissioning is to functionally test equipment to verify operation in accordance with design. This process includes testing to verify the equipment is ready to energize and operate. Examples include lineup of valves to prevent spilling facility fluids or release of steam and tests performed to verify electrical equipment is properly connected prior to operation.

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 shall be sent to the POS PM who will conduct a reviewed and approval process by POS technical representatives (AV/F&I).

The Commissioning effort shall be coordinated with POS Maintenance personnel assigned to the project; a full schedule must be submitted by the TDT 30 days prior to execution to the POS PM indicating dates and necessary man hours to complete the effort. The POS PM shall forward the plan to AV/F&I DCS who will assign Maintenance personnel to assist in the Commissioning effort.

As a result of the Commissioning effort, a Close Out Report is to be provided by the Tenant and forwarded to the AV/F&I DCS for distribution. The TDT will provide operational and service training for any equipment that may impact POS Systems.

### Section 4.02 Inspection Card sign-off

The Tenant's contractor is responsible for compiling sign-off signatures for the inspection card from the ABD, Fire department and L&I, and then for sending a copy of the signed off inspection card to the POS PM.

Please refer to the [Contacts](#) list in [Chapter 5: Appendices](#).

### Section 4.03 Deficiency List

When it has been determined that a Tenant project has been substantially completed and prior to the Final inspection for Building Code compliance, the POS Tenant Inspector and/or POS 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.

They will have two (2) weeks to complete any items found in the list, in accordance with their lease requirements and the POS Regulations for Airport Construction (RAC).

### Section 4.04 Completion Requirements

Deficiency lists (also referred to as "punchlist") often contain a similar list of requirements which the TDT and contractor may anticipate beforehand. These items may include, but are not limited to the requirements to:

- Label any and all equipment, motors, "J" boxes and disconnects as per POS standard numbering guidelines.
- Label hot and cold-water meter as per POS standards lettering guidelines and insulate water supply line from point of connection to fixture hook-up. Provide DDC connections to water meters.
- Label Gas meter as per POS standards lettering guidelines. Provide DDC connection to gas meter.
- Label Tenant breaker at POS distribution panelboard per the numbering guidelines in POS standards. , In addition, label the Tenant electrical meter per POS standards, to identify the aforementioned breaker as its source of power and also, the name of the Tenant panel being fed through this meter.

# Tenant Road Map

- Clean / repair all base building surfaces affected by Tenant Improvement work until no work traces can be observed with the naked eye.
- Demonstrate that all construction materials, tools, debris have been removed from all areas impacted by tenant construction (roof, areas below or above where utilities were routed, and dumpster staging area).
- Provide copy of final HVAC test and balance report.
- Provide As-built Drawings, Native CAD CDs and three (3) half size hard copies.
- Provide certified statement specifying the total cost of construction in such detail as necessary to ascertain the costs of all leasehold improvements, furniture, fixtures, and equipment constructed or installed by Lessee in the Premises.
- Provide certification that the improvements have been constructed in accordance with the approved drawings and specifications and in strict compliance with all Legal Requirements and Port Standards.

## Section 4.05 Lien Releases

Concession Tenants have a requirement in their lease to submit Lien Releases. Tenant shall forward to POS PM within 30 days after Temporary Certificate Occupancy has been granted, a Notarized copy of Lien Releases by the General Contractor for any contract exceeding \$ 2,500.

## Section 4.06 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.

## Section 4.07 As-Built Submittals

As-Built drawings must comply with [AFUS/CAD standards](#) and be provided in a CD format with two (2) full size hard copies after the project completion and in accordance with the STIA, Schedule of Rules and Regulations No. 4, page 3-12, paragraph 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.

## Section 4.08 Certificate of Occupancy

Effective immediately, the ABD will not issue final Certificates of Occupancy for Tenant Projects until it is verified 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 acceptance of the as-builts has been confirmed.

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

# Tenant Road Map

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.

## Section 4.09 Lessons Learned

A lesson learned discussion might be held following project completion to analyze and document what worked and what could have been done better. The POS PM may conduct the lessons learned meeting. The Tenant representative, Tenant contractor & sub-contractors, TDT and LOB's may be required to participate. If a Lessons Learned session takes place on a project, the POS PM will record the Lessons Learned and distribute them to the Participants.

# Tenant Road Map

## Chapter 5 - Appendices

<b>Appendix A</b>	List of Acronyms
<b>Appendix B</b>	Contacts
<b>Appendix C</b>	Communications Diagram
<b>Appendix D</b>	Responsibilities Matrix
<b>Appendix E</b>	Action Plan at a Glance – Tenant Version
<b>Appendix F</b>	Action Plan at a Glance – Project Manager Version
<b>Appendix G</b>	Flow Chart: Pre-Design Phase
<b>Appendix H</b>	Pre-Design Meeting Checklist – Tenants
<b>Appendix I</b>	Pre-Design Meeting Checklist - Concessionaires
<b>Appendix J</b>	Flow Chart: Design Phase
<b>Appendix K</b>	Pre-Construction Meeting Checklist
<b>Appendix L</b>	Flow Chart: Construction Phase
<b>Appendix M</b>	Flow Chart: Project Close-Out Phase

# Tenant Road Map

## Appendix A: List of Acronyms

<u>ACRONYM</u>	<u>DEFINITION</u>
ABD:	Airport Building Department
A/E:	Architect Engineer
AFUS:	Automated Facilities Utilities System (an as-built drawing system)
AOA:	Aircraft Operations Area
ARC:	Architectural Review Committee
ASP:	Airport Security Plan
AV:	Aviation Division
AV/ENV:	Aviation Environmental Program
AV/M:	Aviation Maintenance Department
AV/OPS:	Aviation Operations Department
AV/PA:	Aviation Public Affairs
AV/PMG:	Aviation Program Management Group
CAD:	Computer Assisted Design
CD:	Compact Disc –or- Construction Documents
CM:	Construction Manager
COPS:	Compliance of Port Standards Certificate
CofO:	Certificate of Occupancy
CUTE:	Common Use Terminal Equipment
Cx	Commissioning
DCS:	Document Control Specialist
DCRF:	Design Comment Resolution Form
DLT:	Direct Lease Tenant
EC:	Environmental Coordinator
ESD:	Engineering Services Division
F&I:	Facilities and Infrastructure
FAA:	Federal Aviation Administration
GC/CM:	General Contractor/Construction Manager
HVAC:	Heating, Ventilation and Air Conditioning
ILA:	Inter-Local Agreement with City of SeaTac
L & I:	Department of Labor and Industries, State of Washington
LOD:	Lease Outline Detail
MUST:	Mechanical Utilities Systems Team
NPDES:	National Pollutant Discharge Elimination System
PCS:	Port Construction Services
PDRC:	Preliminary Design Review Conference (through ABD)

# Tenant Road Map

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
RAC:	Regulations for Airport Construction
QA/QC:	Quality Assurance/Quality Control
SEPA/NEPA:	State/National Environmental Protection Act
SIDA:	Security Identification Display Area
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 Contractors)
TI:	Tenant Inspector (POS)
TSA:	Transportation Security Administration
WAC	Washington Administrative Code (Safety)
WISE:	Water, IWS, Storm & Sanitary Sewer Team

# Tenant Road Map

## Appendix B: Contacts

Department	Title	Phone Number
Airport Building Department	Assistant Manager	(206) 835-5848
	Permit Technician	(206) 433-4644
Aviation/Engineering	AFUS-Exterior Construction Site Surveys	(206) 431-4061
	Construction Impact Center Manager	(206) 988-5526
Airport Operations	Director	(206) 248-4833
	AV Terminal Operations Manager	(206) 433-5307
	ABM Coordinator	(206) 433-5307
	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)	(206) 433-4606
	(Communications)	(206) 431-4040
Aviation/Properties/Leases	Manager	(206) 248-7113
	Prop Works/CAD	(206) 835-7563
Aviation/Maintenance	Electrical Systems Manager	(206) 431-4905
	Lock Shop Manager	(206) 431-4084
	Receptionist	(206) 248-6890
	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) 431-4003
	Systems & Electronics Manager	(206) 431-4065
	Mechanical Systems Manager	(206) 431-4906
Aviation Environmental	Coordinator (Tenant Project)	(206) 988-5527
Aviation/Facilities & Infrastructure (AV/F&I)	Administrative Assistance	(206) 433-5298 or (206) 431-4953
	Architectural Review	(206) 431-4904
	Communications Systems (START)	(206) 444-4389
	F&I General Manager	(206) 431-4491
	IWS/SDS Systems	(206) 444-4388

## Tenant Road Map

	Mechanical Systems	(206) 248-4815
	Signage	(206) 431-4005
	Water/Waste Systems	(206) 434-4388
	Electrical Systems	(206) 248-7452
	Utilities Manager	(206) 433-4600
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) 248-6864
	Security Manager	(206) 835-7591
	FAA 7460 Forms	(206) 439-6626
	Operations Supervisor	(206) 433-5041
Aviation/Public Affairs	Barrier Sign Coordinator	(206) 431-4067
Aviation/Project Management	Airport Safety Manager	(206) 988-5514
	Project Labor Agreement Manager	(206) 835-5712
	Tenant Project Coordinator	(206) 248-7473
	Program Leader	(206) 433-4640
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	Construction Safety	(206) 444-6720
	Health & Safety	(206) 439-7712

# Tenant Road Map

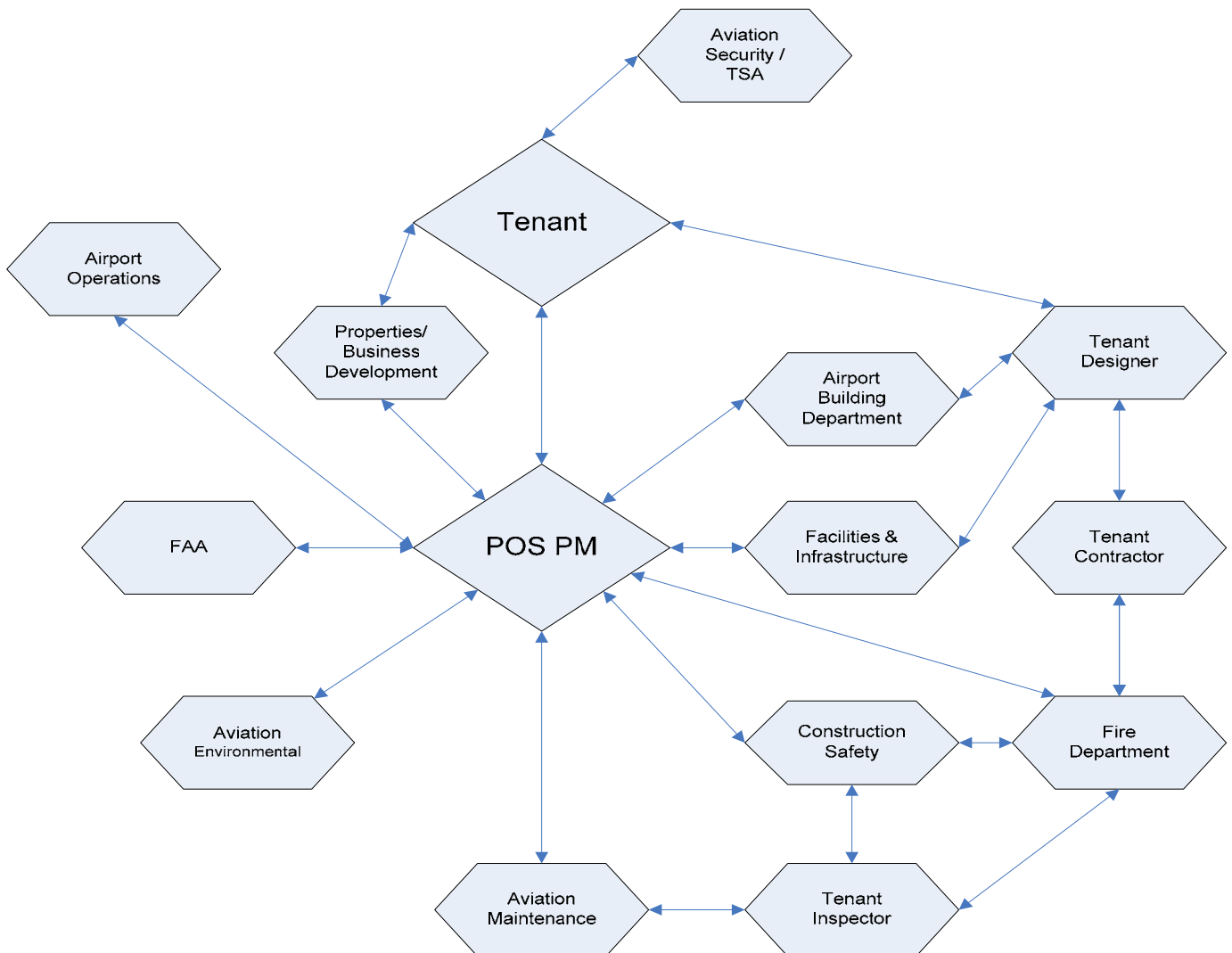
## Appendix C: Communications Diagram

The primary contractual relationship of the parties is between the Tenant and its consultant Designer. The Port's Project Manager (PM) represents the relevant POS department 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 the Aviation Properties such as provision of utilities, lease amendments, and the like. The Tenant hires their own consultant for design of the facility. 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. 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 POS review and acceptance as conforming to Port specifications. The POS PM does the final review for conformance to Port Standards and Regulations, and 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 POS listed as the Landlord.

The following diagram illustrates the lines of communications:



# Tenant Road Map

## Appendix D: Responsibilities Matrix

Initiation of Tenant Project	Tenant	POS	Remarks
Tenant contacts appropriate POS Manager 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 or BusDev	Stakeholders: Operations, Security, others as applies
Identify facility and financial resources required and policy implications (including Port responsibilities if any)		Properties or BusDev	
Document and communicate stakeholder decision to tenant		Properties or BusDev	
Adjust Lease accordingly		Properties or BusDev	Signed lease amendments required
Communicate conceptual approval and handoff to Project Management		Properties or BusDev	
Pre-Design	Tenant	POS	Remarks
Setup Project File		PM	Utilize standard tabs
Attend Pre-Design Meeting and Complete Checklist	Tenant		PM to schedule meeting
Base Site and Building Drawings		PM	PM forwards info to TDT
Existing Site Conditions Surveys	Tenant		TDT verify
Airport Security and Badge Process	Tenant		TDT works w/Security
RMM Design Surveys		PM	PM forwards info to TDT
Available Air and Water Surveys		PM	PM forwards info to TDT
7 and 30-day Electrical Metering		PM	PM forwards info to TDT
AFUS/CAD Drafting Standards and Orientation	Tenant		TDT to comply
Regulations for Airport Construction	Tenant		Tenant to review and comply
Design Development	Tenant	POS	Remarks
POS Standards, Specifications, Connection to Utilities Forms		PM	PM forwards info to TDT
Technical Reviewer Process	Tenant		PM schedules reviews
Architectural Reviewer Process	Tenant		PM schedules reviews
Environmental Program Review		PM	
Life and Safety Issues	Tenant		TDT to consider for cost and schedule impacts
Systems Reviewer Process (PEST, MUST, START, WISE & ARC)	Tenant		PM schedules reviews
Utility Meters	Tenant		TDT to meet standards
Reservation of Electrical Breakers	Tenant		TDT to reserve w/ AV/Maint.
Design Considerations for Bidding Process	Tenant		TDT to incorporate NTP requirements
Submittal criteria and Requirements	Tenant		Review requirements
Compliance of Port Standards Certificate	Tenant		TDT to apply online
ABD & Electrical Permitting	Tenant		
Permit Assessment, Fees and Requirements	Tenant		
Food Facilities Permitting	Tenant		Issued by King County Health
Provide electronic copy of 100% design drawing for architectural floor plan(s)	Tenant		Tenant to issue to POS PM who will forward to Properties
Airfield Operations Coordination		PM	TDT provides schedule
FAA Coordination		PM	TDT to provide documentation
Airport Security Plan Changes		PM	PM to advise Security dept.

## Tenant Road Map

Construction	Tenant	POS	Remarks
Project Labor Agreement	Tenant		TDT to consider
Construction Safety Plan	Tenant		TDT to comply
Contractual Liability Insurance	Tenant		TDT to comply
Tenant Contractor Business License	Tenant		Issued by SeaTac
NTP Requirements	Tenant		TDT to provide
Pre-Construction Meeting		PM	TDT to review checklist
POS Overview of Construction		PM	POS to Inspect
Construction Barricade Signage		PM	TDT provides art-work
Change Order Submittals and Resolution	Tenant		Forward to PM for impact.
Temporary Ceiling Removal	Tenant		TDT to comply
Utility Shutdowns	Tenant		TDT applies, PM routes
Door Hardware and Keying	Tenant		PM to work w/Propworks & Security
Project Closeout	Tenant	POS	Remarks
Commissioning	Tenant		PM to determined if needed
Inspection Card Sign-off	Tenant		TDT to comply
Deficiency List		PM	TDT to Participate
Completion Requirements	Tenant		TDT to anticipate
Lien Releases	Tenant		TDT to comply
Operations and Maintenance Manuals	Tenant		TDT to Comply
As-Built Submittals (if required)	Tenant		AFUS Manager to verify
Final Certificate of Occupancy		PM	Based on as-built docs.

# Tenant Road Map

## Appendix E: Action Plan at a Glance – Tenant Version

REF	Action	√	Complete Date	Cost
<b>Pre-Design Phase</b>				
1.01	Obtain Concept Approval Signature from Port and finalize lease negotiations			hrs
1.05	Meet with assigned POS PM to discuss project requirements and specific issues.			hrs
1.06	Review all phases to include activities within design			hrs
1.08	Arrange all existing conditions site surveys			hrs
1.09	Obtain ID/Access Security Badges for all personnel working at STIA			hrs
1.10	Contact the POS PM for RMM Survey			hrs
1.11	Contact the POS PM for Air Survey of available flow of water and HVAC			hrs
1.12	Contact POS PM for copies of existing electrical load readings, or request new ones			hrs
1.13	Hire consultant, include AFUS orientation and As Built drawings in consultant's contract.			hrs
1.13	Provide AFUS Coordinator with the approximate number of sheets and titles			hrs
1.14	Review Regulations for Airport Construction as it applies to Tenant Project			hrs
<b>Design Phase</b>				
2.02	Receive and respond to Reviewers in the Design Comment Resolution Form			hrs
2.04	Provide documents/questionnaire/presentation to Environmental Programs Coordinator and designated Aviation Environmental Programs staff			hrs
2.06	Prepare Documentation for Systems Review Process (PEST, MUST, START and ARC)			hrs
2.06	Arrange to attend reviews by (PEST), (MUST), (START), (ARC), and (WISE)			hrs
2.06	Receive approval for Connection to Utilities			hrs
2.07	Incorporate Utility Meter requirements into documents			hrs
2.08	Complete forms for Reservation of Electrical Breakers			hrs
2.09	Review Contractor requirements and incorporate into bid documents			hrs
3.02	Incorporate a project safety plan into the construction documents			hrs
3.08	Notify consultant of requirement to provide Art work and Copy for barricades signage			hrs
3.12	Notify A/E of need to comply with POS Standards for Door Numbering and Keying			hrs
4.01	Notify consultant of Commissioning plan inclusion on drawings if required by POS PM			hrs
2.10	Provide two weeks advance notice to POS PM as to when design will be completed			hrs
2.11	Forward requested number of copies of drawings for review, with Letters of			hrs

# Tenant Road Map

	Transmittal included to POS PM			
2.11	Incorporate all Comments by Reviewers in Construction Documents			hrs
2.12	Enter project into online project tracking system for COPS and PDRC requirements			hrs
2.13	Apply for all ABD Permits. Forward drawings and permit applications to POS PM			hrs
2.15	Apply for Food Facilities Permit if applicable			hrs
2.18	Make application to FAA's Form 7460			hrs
2.19	Submit for changes to Airport Security Plan			hrs
<b>Construction Phase</b>				
3.01	Consider usage of the Project Labor Agreement			hrs
3.02	Prepare and submit Contractors Construction Safety Plan			hrs
3.02	Designate a site representative for Safety Plan (OSHA 10-hour prerequisite)			hrs
3.03	Prepare and submit Contractors Certificate of Liability Insurance			hrs
3.04	Contractor must have a business license			hrs
3.05	Comply with all NTP requirements			hrs
3.06	Arrange to have A/E, Contractor and Subcontractors at Pre-Construction Meeting			hrs
App. J	Review Pre-Construction Meeting Checklist, and prepare all required information			hrs
3.09	Forward all approved Change Orders to POS PM			hrs
3.11	Complete Utility Shutdown Request Forms and forward to POS PM			hrs
3.12	Provide numbering sequence and number of key copies required to POS			hrs
<b>Project Close-Out Phase</b>				
4.01	Perform Commissioning of facilities project walk thru with POS stakeholders, arrange training of maintenance personnel (if applicable).			hrs
4.02	Submit to POS PM copy of inspection card sign off			hrs
4.03	Participate in walk through to identify deviations from Construction Documents			hrs
4.04	Remove all project materials / tools and clean up job site			hrs
4.05	Forward to POS PM, within 30 days, notarized copies of Lien Releases from Contractor			hrs
4.06	Forward 3 copies of Operations and Maintenance Manuals to POS PM			hrs
4.07	Submit As Built verified drawings that comply with AFUS Standards to POS PM			hrs
4.08	Obtain Certificate of Occupancy from ABD			hrs
4.09	Participate in Lessons Learned session if applicable			hrs

Project Completed \_\_\_\_\_ Date \_\_\_\_\_ Total \_\_\_\_\_ hrs.

# Tenant Road Map

## Appendix F: Action Plan at a Glance – Port Project Manager Version

REF	Action	√	Complete Date	Cost
<b>Pre-Design Phase</b>				
1.02	Receive assignment from Properties or Business Development Manager			hrs
1.02	Familiarize yourself with Lease Arrangements			hrs
1.03	Set up PID # and budget with TPC, also electronic, paper files & Chartfields			hrs
1.05	Set up Pre-Design Meeting with Tenant to review scope, checklist and specific issues			hrs
1.05	Determine the type and numbers of reviews required based on scope (AV/F&I)			hrs
1.06	Review all phases w/ TDT to ensure incorporation of relevant issues.			hrs
1.06	Review project scope with Fire Department for potential impacts			
1.07	Provide Base Site/Building drawings for TDT to field-verify			hrs
1.08	Arrange TDT's site surveys and meetings with AV/Maintenance			hrs
1.10	Request RMM- survey and clear project to proceed			hrs
1.11	Request new Available Air and Water survey			hrs
1.12	Request new electrical readings from AV/M, if prior readings are not available			hrs
1.13	Verify that TDT is instructed to comply with all RAC requirements			hrs
2.18	Determine if FAA 7460 is required with Airfield Operations			hrs
<b>Design Phase</b>				
2.02	Send e-mail to DCS requesting technical reviewers assignment to project			hrs
2.02	Receive Project Assignment Form from DCS			hrs
2.11	Verify drawing set numbers needed w/TDT, forward sets to reviewers			
2.02	E-Mail Design Review Comment Resolution Form to DCS			hrs
2.03	Coordinate Architectural Review Team meeting			
2.04	Forward one (1) sets of plans and specifications to Environmental Programs Coordinator. Assure Environmental Questionnaire is completed early in the Design Phase. Notify AV/ENV Coordinator if building department requires sign-off.			hrs
2.06	Set up ARC/PEST/MUST/START/WISE Meetings and arrange schedule with TDT			hrs
2.06	Receive copies of all Connection to Utilities approvals from AV/F&I			hrs
2.12	Verify that TDT has entered project into online system and completed both COPS and PDRC forms			
2.13	Forward three (3) sets of plans to the ABD with Permit applications. (1 set to AV/FIRE by ABD)			hrs
2.15	Verify that TDT is processing applicable permits with other Regulatory			hrs

## Tenant Road Map

	Agencies			
3.08	Contact Public Affairs regarding construction barricade signage			hrs
2.16	Send Tenant Plan to AV/PROP (Prop Works)			hrs
<b>Construction Phase</b>				
3.01	Review Project Labor Agreement with Tenant			
3.02	Receive and forward Contractor Safety plan to POS Safety Manager for review			hrs
3.05	Review and receive NTP Requirements			
3.06	Arrange Pre-Construction Meeting with TDT and Stakeholders, prepare minutes and Contact list; distribute to all attendees.			hrs
2.05	Request weekly site visits by Av/Fire Dept. inspectors			hrs
3.07	Perform weekly site Inspections, check inspection cards for code compliance			hrs
3.08	Notify the TDT of Construction Barricade requirements			hrs
3.09	Review Change Orders, Submittals and Substitution Requests			hrs
3.10	Review Ceiling Removal requirements w/ Tenant Inspector			
3.11	Complete AV/M work Request Form and route Utility shut downs			hrs
3.12	Contact AV/Properties to assign Airport Room Numbering system for project			hrs
3.12	Arrange for POS Key Shop for final keying			hrs
<b>Project Close-Out Phase</b>				
4.01	Perform Commissioning effort of facilities			hrs
4.02	Receive copies of inspection card sign off			hrs
4.03	Perform walk through with Maintenance, F&I and Sponsor			hrs
4.03	Compile Deficiency List and forwarded to DCS, Sponsor, and Tenant			hrs
4.05	Receive copies of final lien releases			hrs
4.06	Receive Operations and Maintenance Manuals and forwarded to AV/F&I			hrs
4.07	Receive As Built drawings and verified with AV/F&I			hrs
4.08	Issue Final Certificate of Occupancy			hrs
4.09	Conduct a Lessons Learned meeting and publish minutes			hrs

Project Completed \_\_\_\_\_ Date \_\_\_\_\_ Total \_\_\_\_\_ hrs.