

2.0 REVIEW AND APPROVAL PROCESS

2.1 CONCEPT SUBMITTALS

2.1.1 INITIAL SUBMITTAL

Prior to the preparation of designs and related documents, the Tenant must submit to DOA an outline proposal of the technical and planning aspects of the proposed improvement, in the form of the Concept Proposal Information Sheet (Appendix A), plus any additional pertinent information.

In the case of improvements involving sub-leasees, all submittals must be initiated by the Tenant, and not the sub-tenant, or its consultants or contractor.

2.1.2 PROJECT STATUS REVIEW

DOA will advise the Tenant in writing of the approval or rejection of the concept and DOA determination of project status: Miscellaneous, Renovation, or Major Construction. DOA sets project status categories in order to determine the amount of DOA project overview necessary. Subsequent requirements will vary based upon the scope of project. Rejected concept proposals will include the reasons for rejection. The Tenant may resubmit a proposal which corrects conditions cited as reasons for rejection.

2.1.3 CONDITIONAL APPROVALS

Approvals shall be valid for a period of six (6) months from the date of DOA approval. If documentation has not been submitted for commencement of the next phase within six (6) months from date of approval, then the approval shall become void and the project will be considered abandoned.

2.1.4 DOA RECORD DRAWINGS

DOA attempts to maintain drawings of existing and as-built conditions of Airport facilities. This material is available for inspection at DOA Planning Design & Construction (PDC). This material represents the latest information DOA has on file; however, all "as built" conditions may not be

2.0 REVIEW AND APPROVAL PROCESS

completely recorded. Therefore, the Tenant is advised to field measure and verify all dimensions and existing conditions in its leased premises before proceeding with Tenant improvements.

2.2 MISCELLANEOUS PROJECTS

Miscellaneous projects are defined as minor, non-structural, decorative changes leaving walls, floors, ceilings and fixed equipment in place. No modifications to electrical, mechanical or plumbing systems are required. Examples of miscellaneous projects are repainting or refinishing, or the replacement of existing floor covering with similar material.

2.2.1 MISCELLANEOUS PROJECTS - APPROVAL PROCESS

Once DOA has determined that the Tenant improvement is a miscellaneous project, the Tenant must complete the Construction or Alteration Permit (see Appendix F) and submit it to PDC Construction Division Project Manager. DOA may at its sole discretion waive the requirements for a preconstruction conference (see Section 2-8). The completed and approved permit must be posted at the project site or as directed by the PDC - Construction inspector. Record drawing documents (Section 2.15) must be provided to PDC - Design within thirty (30) calendar days of project completion.

2.3 RENOVATION PROJECTS

Renovation projects are defined as those that involve the relocation, demolition, construction, installation or removal of non-load bearing walls, partitions, electrical lines, mechanical diffusers, ducts, plumbing equipment, and fixed equipment. Structural modifications are limited to minor penetrations through slabs for electrical conduit or plumbing lines.

2.3.1 RENOVATION PROJECTS - APPROVAL PROCESS

The following submittals are required for all renovation projects:

- (1) Construction Documents: (see Section 2.5).
- (2) Final Approval Drawings: (see Section 2.6).

- (3) Shop Drawing and Product Maintenance Data Requirements: (see Section 2.12).
- (4) Record Drawing Requirements: (see Section 2.15).

A Pre-Construction Conference (Section 2.8) is required prior to the start of any tenant improvement project. Project Coordination Meetings may be scheduled at the discretion of DOA.

2.4 MAJOR CONSTRUCTION PROJECTS

A major construction project may involve new construction at an undeveloped site, or extensive modifications within existing facilities. It will generally involve at least one of the following: an increase in electrical power supply requirements, a significant increase of the load requirements on the Airport's Central Plant systems, an increase in site utilities, significant impact on existing terminal HVAC systems, significant penetrations of existing structural slabs, significant impact on passenger, airline or vehicle circulation systems. This category recognizes that a greater degree of DOA overview is required.

2.4.1 MAJOR CONSTRUCTION PROJECTS - APPROVAL PROCESS

Once DOA has determined that the Tenant improvement is a Major Construction Project, the following requirements apply:

- (1) Preliminary Phase Submittal: Outlining building plans, sections, elevations and preliminary specifications. Seven (7) sets of drawings are required.
- (2) Perspective Sketch: In the case of a new building or other significant structure, DOA may require submittal of perspective renderings.
- (3) 50% Construction Documents Submittal.
- (4) Construction Documents (see Section 2.5).
- (5) Final Approval Drawings (see Section 2.6).

- (6) Project Schedule (see Section 2.11).
- (7) Pre-Construction Conference (see Section 2.8).
- (8) Project Coordination Meetings: Scheduled at the discretion of DOA.
- (9) Shop Drawing Submittals (see Section 2.12).
- (10) Product Operating and Maintenance Data (see Section 2.12.2)
- (11) Record Drawing Requirements (see Section 2.15).

2.5 CONSTRUCTION DOCUMENTS
(ALL PROJECT CATEGORIES)

Once DOA Concept Approval has been issued, seven (7) sets of construction documents must be submitted to DOA for review. The minimum requirements for construction documents are:

- (1) Site and Civil plans and specifications, where applicable, including a site drainage plan prepared according to Section 3.4.
- (2) Demolition plans showing specific walls, equipment and systems or portions thereof to be removed.
- (3) Architectural plans and specifications showing completely the extent of new construction, including elevations of all permanent millwork, and types of new and modified partitions and finishes.
- (4) Structural plans showing any new work or modifications to existing systems.
- (5) Mechanical and HVAC plans and specifications showing complete diagrams of the new equipment and connections to existing; diagrams of all new duct work, including all

2.0 REVIEW AND APPROVAL PROCESS

register locations, all return air locations; thermostat locations, and fire stat and smoke detector locations.

- (6) Electrical plans and specifications, showing power wiring to all switches and receptacles; communications and data cables and outlets; emergency lighting systems; fire alarm systems. In addition, all plans and specifications are to include DOA's Electrical Safety Rules (Appendix G).
- (7) An outline statement of the Mechanical and Electrical design criteria for the project, including an electrical load analysis and proposed connections to the Airport's utilities infrastructure (see Appendix B).
- (8) Key plan(s) indicating the location of the improvements (usually on the cover sheet of the construction documents).
- (9) One sample board, covering basic finishes, materials and colors.

All drawings shall be prepared on standard 24" x 36" or 30" x 42" sheets. A block for DOA final approval signatures is required on each drawing sheet, near the lower right corner (see Illustration 2A).

Any industry, FAA or other standards or specifications cited in Tenant Improvement Manual, must be incorporated into the Tenant's construction documents.

2.5.1 CONSTRUCTION DOCUMENTS - SPECIAL PROJECT PROCEDURES

On all projects where the construction or staging of the project may affect or fall inside the AOA, the construction documents shall include Appendix C of this manual, Special Project Procedures, Construction on Airports, as Section 01030 of the specifications.

2.6 FINAL REVIEW AND APPROVAL

Upon receipt of the required submittals, DOA will review for compliance with the lease/contract and the Tenant improvement standards. DOA will issue an official letter of response, generally

2.0 REVIEW AND APPROVAL PROCESS

within three (3) weeks of DOA receipt of the submittal. This letter will contain review comments by various DOA divisions. The Tenant will address these comments and resubmit the final original drawings for DOA authorization. DOA authorization does not presume approval of the work by the City of Houston or other federal, state, or local agencies. It is the Tenant's responsibility to determine the need for City building and/or demolition permits and/or all other required permits, and to secure the required permits prior to scheduling the pre-construction conference. No permits will be issued by other City departments prior to the authorization signature being placed on the drawings by DOA. Projects which include modifications or additions to plumbing and/or impact water or waste water systems may require that DOA issue a Letter of Availability in order for Tenant to secure a building permit. Tenant is responsible for payment of any capital recovery charge incurred.

2.7 BUILDING PERMITS

It is the Tenant's responsibility to make separate application to the appropriate City department(s) for City building permits and to make separate application to any other federal, state, or local agencies for permits as may be required by the nature of the project. FAA response to the Tenant's submittal of FAA Form 7460-1 must be received by the Tenant prior to construction. All required permits must be secured prior to scheduling DOA pre-construction conference.

2.8 PRE-CONSTRUCTION CONFERENCE

At least two (2) weeks before construction is to begin, the Tenant must contact DOA PDC - Construction to schedule a pre-construction conference. Attendance should include the Tenant, architect/engineer and contractor. Discussion items include DOA requirements for security, safety, site access, site maintenance, inspections, coordination with other projects, insurance, bonds, etc. The Tenant must submit the DOA Construction or Alteration Permit for completion by DOA. A Tenant Project Information Sheet will be completed and the required submittals tendered (see Appendix F). Tenant must provide five (5) sets of "as permitted" construction documents, and copies of all building permits, project schedules, project directory, estimate of project construction cost, and certificates of insurance. Notice to proceed will be issued by DOA - Construction upon completion of the items listed as "Pre-Construction Requirements."

2.0 REVIEW AND APPROVAL PROCESS

2.9 PERMIT POSTING

DOA Construction and Alteration Permit and all other required building permits from local, state and federal agencies must be clearly posted at the project site or as directed by the PDC - Construction inspector for the duration of the construction project.

2.10 CONSTRUCTION REQUIREMENTS

All contractors shall be properly licensed to do the type of work required under their contract. All construction must meet the requirements of applicable codes, laws, and any subsequent amendments or additions thereto. Certain other authorities and DOA requirements are referenced or defined in Section 5 or in various subsections of this volume. A partial listing of applicable codes and regulations is found in Section 6 of this Manual. However, it is the Tenant's responsibility to determine which codes and regulations are applicable to the project and to assure that the project is designed and constructed in accordance with those requirements.

2.11 PROJECT SCHEDULE

A Project Schedule must be provided at the pre-construction conference. DOA may require a detailed schedule for any construction which may affect Airport operations, or the work of another contractor. All work activities must be planned to have minimum impact on the Airport. The work must then be done in accordance with the schedule. Prior DOA written approval is required for schedule changes. All work must be coordinated through DOA PDC - Construction and Airport Management.

2.12 SHOP DRAWING SUBMITTALS

During the course of construction, DOA may require the Tenant to submit two (2) copies of the following submittals:

- (1) Approved Shop Drawings (see Section 2.12.1).
- (2) Product Operating and Maintenance Data (see Section 2.12.2).

Waiver of this requirement is at the sole discretion of DOA.

2.12.1 SHOP DRAWINGS SUBMITTAL REQUIREMENTS

DOA will identify to the Tenant which project shop drawings are to be submitted.

The Tenant shall transmit each item under AIA Form 810 or a similar form and number. Number each submittal consecutively based upon CSI Specification Section numbers (for example 06400-1, 06400-2, 06400-3, etc.). The form will require the following:

- (1) Identify project, contractor, subcontractor, major supplier, and generic name of component or system.
- (2) Identify pertinent project drawing sheet, detail number, and specification section number as appropriate.
- (3) Identify any deviation from drawings and specifications.
- (4) Minimum Sheet Size: 8-1/2 x 11 inches, of quality suitable for reproduction. All sheets larger than 11 x 17 inches shall be submitted in reproducible form (sepia or Mylar) clearly showing all marks and comments made by the reviewing architect or engineer.

2.12.2 PRODUCT OPERATING AND MAINTENANCE DATA REQUIREMENTS

In all cases, Tenants shall keep and maintain on their premises an Operations and Maintenance Manual. DOA may request copies of this document. The Tenant should update the manual periodically as equipment is added, removed or replaced. The Tenant is required to produce the on-premise document for DOA inspection when required. When the Tenant vacates or abandons leased premises, the O&M Manual must be forwarded to DOA for record. The manual shall include the following:

- (1) Identification of equipment, location, intended use, identification numbers, systems, etc.
- (2) Equipment function, normal operating characteristics and limiting conditions.

- (3) Instructions for assembly, installation, alignment, adjustment, and checking.
- (4) Operating instructions for start up, routine and normal operation, regulation and control, shut down and emergency conditions.
- (5) Lubrication and maintenance instructions.
- (6) Guide to "troubleshooting."
- (7) Parts lists and predicted life of parts subject to wear and recommended spare parts list.
- (8) Outline, cross section and assembly drawings; engineering data and wiring diagrams.
- (9) Test data and performance curves, where applicable.

O&M manuals shall be in addition to any instructions or parts lists packed with or attached to the equipment when delivered.

Manuals shall be printed on heavy, good quality paper, 8-1/2" x 11" size with standard 3-hole punching. Drawings and diagrams shall be reduced to 8-1/2" x 11 " or 11" x 17". Where reduction is not practical, larger drawings shall be folded separately and placed in envelopes which are bound into the manuals. Each envelope shall bear suitable identification on the outside. Information shall be arranged in a logical sequence with divider sheets between sections and a table of contents for each binder.

The following information shall be provided for each piece of equipment:

- (1) Manufacturer's Data:
 - (a) Name and description.
 - (b) Size and model number.
 - (c) Manufacturer's name, address and telephone number.
 - (d) Supplier's and Installer's name, address and telephone number.

2.0 REVIEW AND APPROVAL PROCESS

- (e) All equipment serial numbers.
- (2) Name Plate Data: Supply all applicable information for each piece of equipment.
- (a) Horsepower.
 - (b) RPM.
 - (c) Volts.
 - (d) Amps.
 - (e) Watts.
 - (f) Phases.
 - (g) Hertz.
 - (h) Frame.
 - (i) Type.
 - (j) BTU/H.
 - (k) CFM.
 - (l) GPM.
 - (m) PSI.
 - (n) Other pertinent information.

2.13 REVISIONS TO APPROVED DOCUMENTS

All revisions, alterations, or deletions to the approved plans and specifications must be submitted for DOA review. Seven (7) copies of such changes must be submitted for DOA approval and may not be incorporated into plans and specifications and the work on the site until written approval is received by the Tenant from DOA. The revisions must be clearly marked/numbered ("clouded") on plans and dated.

2.14 INSPECTION

The Tenant is responsible for construction inspection through its agent. DOA will observe the work in progress to assure that the work conforms to approved drawings and meets performance standards in this manual. DOA reserves the right to reject work which is not in conformance with the approved drawings and to reject workmanship which is considered substandard in quality.

2.0 REVIEW AND APPROVAL PROCESS

The DOA PDC - Construction inspector may order the work to cease should unauthorized work be observed.

It is the Tenant's responsibility to advise the DOA PDC - Construction inspector prior to the covering of any work requiring inspection (such as conduit and piping).

It is the Tenant's responsibility to secure necessary inspections, approvals, and certificates from other inspecting or permitting agencies. These inspections and approvals are required before DOA will conduct its own final inspection.

2.15 RECORD DRAWING DOCUMENTS

Within thirty (30) calendar days of the completion of the work, the Tenant shall furnish DOA PDC Design Division with one (1) set of reproducible sepias and two (2) blue-line sets of the entire job set, or one complete set in IBM compatible AutoCAD 11.0 (or later) 3-1/2 inch data disk format. These record drawings shall include all revisions and changes, reflect the finished state of the construction and be marked "AS-BUILT," stamped and dated. DOA shall also be furnished with updated copies of specifications, which may have been altered or added to during the course of the work.



TENANT PROJECT REVIEW PROCEDURE

- 1 **Initial Submittal**
Tenant submits eight (8) complete sets of final construction documents to PDC-Design Division for review [Attention: Frank D. Crouch, AIA].
- 2 **HAS Response**
PDC-Design Division sends written review comments to Tenant. This letter will advise Tenant to either forward original drawings or reproducibles for signature, or revise and resubmit. Approximate time required: 30 days from receipt of submittal.
- 3 **HAS Authorization**
When all review comments have been resolved, PDC-Design Division will sign the Tenant's construction documents and issue the authorization letter. The HAS authorization block shown below must be located in the lower right corner of each sheet of drawings. The authorization letter will advise Tenant regarding scheduling the Pre-Construction Conference through PDC-Construction Division.
NO WORK MAY PROCEED PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.
- 4 **Pre-Construction Conference**
Tenant should schedule the Pre-Construction Conference as advised in the authorization letter. Representatives of the Tenant, Tenant's contractor and design consultant should attend. Tenant should provide six (6) sets of approved construction documents, copies of building permit(s), project schedule, project directory and certificates of insurance at the Pre-Construction Conference. Certificates of Insurance must indicate the City of Houston as additional insured.
- 5 **Record Drawings**
Within 30 days of completion of construction, Tenant must provide to PDC-Design Division record drawings which accurately represent all as-built conditions.

PLEASE NOTE

Construction documents submitted for final HAS approval signatures must be signed and sealed by a registered Architect or Engineer licensed to practice in the state of Texas.

Obtaining building permits required by other authorities is the responsibility of the Tenant.

All projects must be submitted to the Texas Department of Licensing and Regulation, Elimination of Architectural Barriers section, for ADA compliance review [P. O. Box 12157, Austin, Texas 78711; (512) 463-3211; (800) 803-9202].

Projects involving demolition may require notification to the City of Houston Bureau of Air Quality Control, (713) 640-4200.

Projects in which construction cranes are required or which may penetrate airspace must file FAA Form 7460-1 through the Airport Manager's office and receive FAA approval prior to beginning construction.

HAS authorization block:

Houston Airport System

Manager--Design Division

Date