

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

BROWARD COUNTY, FLORIDA

your **portal** to
paradise

Broward County Aviation Department **TENANT DESIGN GUIDELINES MANUAL**

Revision 1 2017

Leigh|Fisher

in conjunction with

ACAI
associates, inc.

BROWARD COUNTY AVIATION DEPARTMENT TENANT DESIGN GUIDELINES

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Chapter 1 Introduction

1.1 Introduction to the Tenant Design Guidelines Manual

The 21st century airport terminal is a passenger service and technology hub that is in constant motion. Within the terminal various tenants provide retail, concession and other convenience services to travelers who have increasing needs for less stressful and more satisfying traveling experiences. Tenant spaces must be designed to function more efficiently and serve travelers more effectively. This requires the tenant spaces within airport terminals to be optimized in their design and performance as well as integrated as seamlessly as possible into the fabric of the Terminal.

The Fort Lauderdale-Hollywood International Airport (FLL) consists of four Terminals and eight concourses (see figure 1). Each concourse has two floors. The first floor is for arrivals and the second floor is for departures. Terminals one, two and three are for domestic arrivals and departures. Some concourses at Terminals one and four are for domestic and international arrivals and departures.

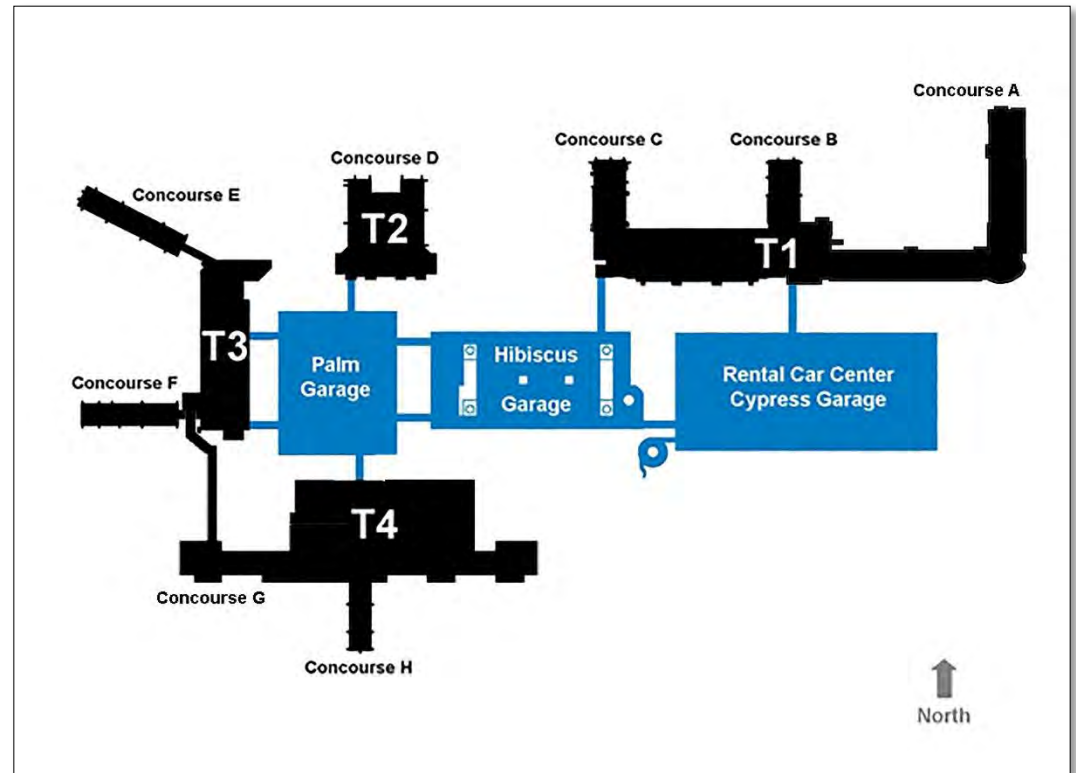


Figure 1: Terminals and Concourses Key Plan of Fort Lauderdale-Hollywood International Airport

To help ensure a consistent design approach for the integration of each tenant project into the Fort Lauderdale-Hollywood International Airport Terminals, a Design Guidelines Manual or “Tenant DGM” has been developed. The term tenant applies to all leased spaces located curbside and within the Terminals. This document’s intent is to help optimize the unique brand of each tenant and incorporate it into the unique regional features and local culture through the “your Portal to Paradise” unifying conceptual statement and other airport branding efforts. It is a resource that helps to clearly outline the Tenant design parameters. The “Tenant DGM” serves as a unifying document for all FLL airport tenant projects and their design optimization.

There are four primary volumes of Design Guidelines for the Fort Lauderdale-Hollywood International Airport:

- Terminal DGM
- Tenant DGM (this document)
- FLL Signage Standards Manual (2015 version)
- Graphic Standards: CAD, BIM, GIS and Electronic Media Submittals Standards (2017 version)

Depending on the type of project, appropriate guidelines govern the design decisions for a project. All Tenant areas within the Airport Terminals will be governed by the available guidelines and standards (see figure 2). A Tenant Improvement Process (TIP) Compliance Review with the Tenant DGM will be conducted by a BCAD Project Review Committee (PRC). Refer to section 3.6 of this document for additional information.

In addition to the Tenant and Terminal Design Guideline Manuals and Signage Standards Manual there are a series of other Guidelines planned to be developed by BCAD. These may include:

- **Construction Guidelines:** provide a technical reference to the acceptable components and assemblies that defines a project.
- **Sustainability Management Plan:** establishes best practices and minimum standards for environmentally sensitive design.
- **Landscape Standards:** establishes best practices for landscaping projects on airport property and surrounding Areas.

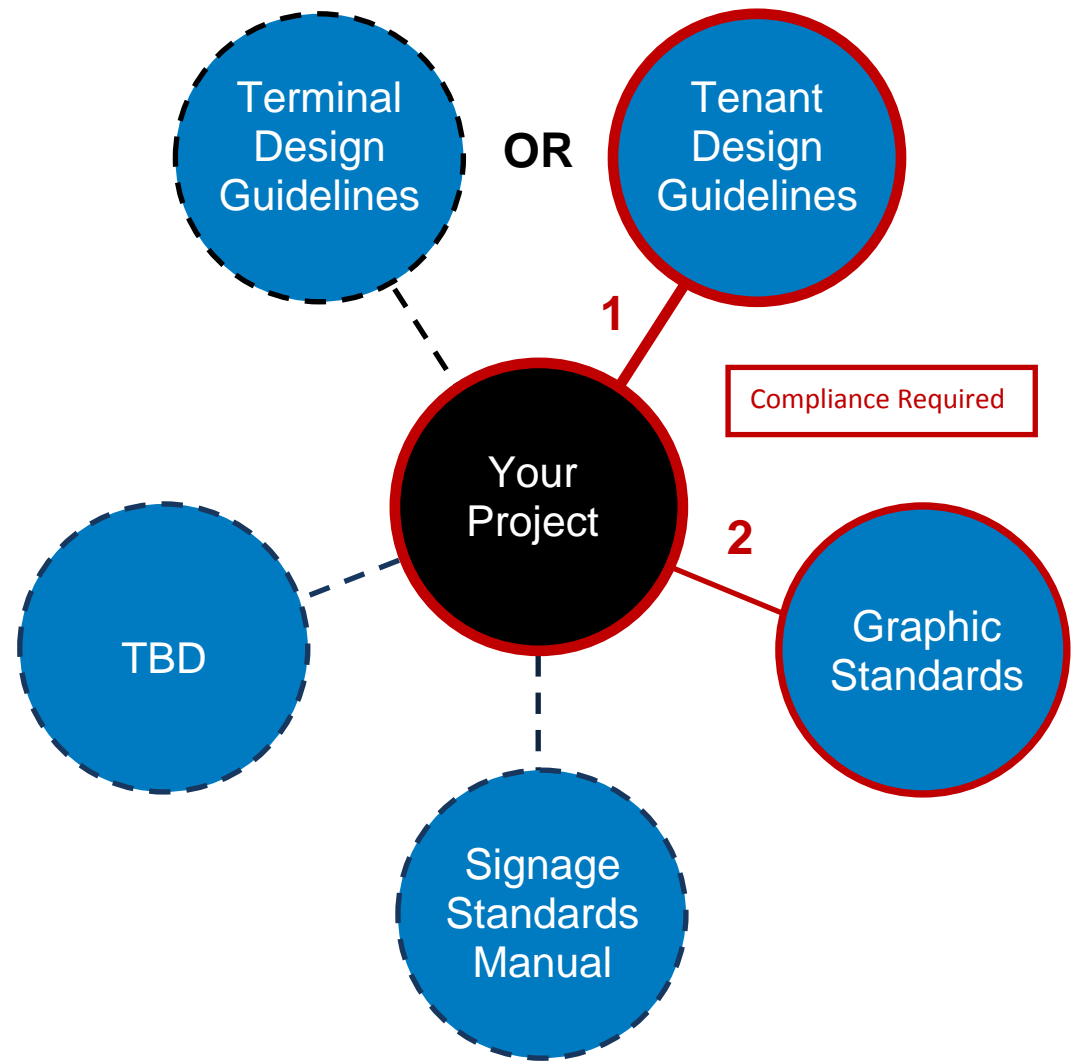


Figure 2: Applicable BCAD Standards for Tenant Projects

Once the aforementioned documents are available from BCAD all tenant projects will need to comply with their requirements.

Several types of Tenant spaces exist at the Fort Lauderdale-Hollywood International Airport. They may include but are not limited to the following:

1. Food & Beverage
2. Retail
3. Airlines (E-Ticketing, Lounges, Ticket service areas)
4. Kiosks and Retail Merchandising Units
5. Automated Retail / Vending Machines & Self Service Kiosks (e.g. ATM, Currency Exchange, Rental Car)

Some local examples of Tenant spaces as well as other airports have been provided so that Design Professionals can develop an understanding of various design solutions (*see figures 3-5*). The Fort Lauderdale-Hollywood International Airport requires consistent and unifying design parameters in order to offer a pleasant, comfortable and unique traveling experience to passengers.



Figure 3: Tenant Retail Example



Figure 4: Tenant Food & Beverage Kiosk Example



Figure 5: Tenant Food & Beverage Example

The Tenant Design Guidelines Manual (Tenant DGM) has been developed for the Broward County Aviation Department (BCAD) with design and performance optimization in mind. The Tenant DGM is intended to provide Architects, Designers and Engineers with design parameters that will direct their creative ideas and solutions toward innovative Tenant projects at the Fort Lauderdale-Hollywood International Airport. Innovative design solutions should consider:

- Aesthetics
- Maintenance
- Sustainability
- Passenger Accessibility
- Customer Service

Figures 6-8 on this are additional examples of various types of modern Tenant spaces that BCAD is seeking for the terminals at FLL.



Figure 6: Modern International Airport Kiosk Example



Figure 7: International Airport Concourse Restaurant Tenant at FLL



Figure 8: Walk through Airport Retail Tenant Example

1.2 General Conditions

General conditions are provided throughout the Tenant DGM document. They represent the basic responsibilities of tenants and their design professionals for tenant projects at the Fort Lauderdale-Hollywood International Airport terminals. The Tenant DGM applies to all projects within the existing Fort Lauderdale-Hollywood International Airport Terminals. Tenants shall NOT reference the Tenant DGM in any construction documents. **No improvement projects shall be performed in the existing airport terminals without a signed Tenant Lease Agreement and written authorization by BCAD.**

The Tenant DGM manual is intended to be a "Living Document" that BCAD may amend at anytime. Adaptation to traveler's needs, maintenance requirements, cost reduction and changing cultural trends will require periodic updates to the Tenant DGM. The Tenant should always check with their BCAD point of contact (TIP Coordinator – BCAD Business Department, *see Section 3.3*) prior to the commencement of any work to verify if the Tenant DGM has been updated. Failure to do so shall be at the sole risk and expense of Tenant.

The following list of General Conditions shall apply to all Tenants that intend to provide passengers retail, food & beverage or kiosk services within the airport terminals. The Tenant shall:

- Obtain a copy of their executed Broward County Tenant Lease Agreement and distribute it to their design team.
- Review the County's improvement provisions in the Lease Agreement provided to each Tenant with the Design Team.
- Retain the professional services of FL Registered Architect and Registered Engineers to produce construction documents for the improvements of their leased space within the Terminal.



Figure 10: Duty Free Retail Tenant Example

- Verify: as-built location, all conditions, physical dimensions of the demised premises and conformance of the final working drawings.
- Utilize the services of a professionally trained graphics designer to create their graphic identity program as it relates to this unique location.
- Submit for a review by the BCAD Project Review Committee (PRC). Refer to submittal requirements in Section 3.6 of this document.

The main purpose of the PRC is to review technical conditions, airport operational conflicts, safety compliance and maintenance agreements, among others. This will apply to all tenant improvements within airport property.

Another significant purpose of the PRC will be to focus on the spatial relationships and aesthetic decisions for all BCAD Airport Tenant projects curbside and within the Terminals that may include but not be limited to the following:

- New construction
- Remodeling and renovation
- Tenant signage
- In-airport advertising (*see figure 12*)

Refer to section 3.6 for additional information.

BCAD reserves the right to reject any proposed Tenant’s design that it considers to be in aesthetic conflict with the base-building design, adjacent tenant designs or both.



Figure 11: Food & Beverage Tenant Kiosk Example



Figure 12: Advertising Integration with Flight Information Display Example

1.3 Design Intent Integration



Figure 13



Figure 14



Figure 15

A successful modern Airport Terminal and its Tenants reflect the local and regional culture of its geographic location. The Broward County Aviation Department has adopted a unifying design concept for the Fort Lauderdale Hollywood International Airport Tenant and Terminal projects. FLL is a major arrival point in the South Florida region. It is a convenient airport for travelers because it is accessible, user friendly, and economical. The airport Terminals are the portals to Broward County and its diverse communities. It is a region that is recognized nationally and internationally as a destination due to its many unique features:

- Bright blue skies, variety of exotic palms, and invigorating sunlight
- Lush green vegetation and other natural vibrant colors
- Beaches, river walks, and long boardwalks
- Boating, yachting and cruise ship capital (“The Venice of the Americas”)
- Active arts and entertainment venues
- Natural wonders (the ocean and Florida Everglades)
- International business travelers
- International vacationers
- Bustling beachfront cafes, restaurants, cocktail lounges and nightlife
- Elegant downtown cafes, upscale restaurants and shopping opportunities
- Growing young, high-tech professional population in the high-rise district
- Diverse demographics of the local population including snowbirds as well as people with Caribbean and Latin ancestry



Figure 16



Figure 17



Figure 18

In delivering their services Architects, Engineers and Interior Designers shall adopt the Concept Statement of:

your **portal** to **paradise**



Figure 19

This conceptual idea should be viewed as an aid in the development of creative, innovative and optimized Tenant design projects within the Terminals. The concept coupled with the design professional’s development of a unique Tenant identity through lighting, materials, textures, colors, and systems integration should all contribute to an elegant and sophisticated Tenant space.

The goal is to create a memorable and iconic traveling experience for passengers arriving and departing from the Fort Lauderdale-Hollywood International airport. The Tenant spaces should capture the vitality and beauty that Fort Lauderdale, Broward County and South Florida have to offer all visitors. The design intent for every project will be carefully scrutinized and reviewed by the BCAD Project Review Committee (PRC). Tacky, excessive, kitsch or other design ideas that lack style and cultural sophistication will be rejected by the PRC. Appropriate design ideas must be attuned to the rich natural, urban and community influences of Fort Lauderdale, Broward County and South Florida.



Figure 20



Figure 21

2.1 General Layout

Tenants must provide designs and layouts that grant quick and easy access to merchandise and services. Clear organization and convenient circulation for passengers must be provided, taking into consideration ADA requirements and passenger luggage. Spacing between aisles and merchandising displays shall be a minimum of 36” in width. BCAD strongly encourages a minimum width of 48” wherever it is feasible.

A Design Control Zone (DCZ) may exist for a tenant’s space depending on its size. It is a transitional area between the public circulation areas and the tenant space. The DCZ is 24” deep and runs the entire length and height of the tenant space. Materials within this area must be durable and designed to integrate well with the Fort Lauderdale-Hollywood International Airport Terminal’s finishes. The use of black granite flooring illustrate the 24” DCZ on this example (*see figure 23*). No point-of-sale devices or checkout counters are allowed within the DCZ. The design layout of all merchandise, fixtures and displays adjacent to or within the DCZ will be reviewed on a case by case basis and approved by the BCAD Project Review Committee.

Display of all merchandise must also be integrated into the design concept. Temporary carts, hangers or merchandise baskets are discouraged for use inside the leasing space and not allowed beyond the leasing space. Adequate storage space for all merchandise associated with the facility operation must be incorporated into the design and out of the passenger’s view.

BCAD strongly recommends that a section of the interior wall, a minimum of 4’ wide and 4’ tall, will be provided by each Tenant within their leased area. This area shall be finished with only one color, pattern or material. Its sole purpose shall be to display the tenant’s logo.



Figure 22: Example of a Duty Free Retail Space, easily accessible



Figure 23: Example of a Tenant space with black granite flooring in the DCZ

2.2 Storefronts and Façade Design

The storefront offers Fort Lauderdale-Hollywood International Airport passengers their first impression of a tenant’s image and product or service offering. In the case of concourse storefronts, the goal is to encourage Tenants to showcase their products, brand and services. Storefront design must also be considered in baggage claim areas. BCAD encourages innovation and creativity that acknowledges the airport’s desire for a high quality well designed environment.

BCAD acknowledges the significance of Contemporary and the Florida Mediterranean style of Fort Lauderdale’s architecture. Certain materials that are not encompassed within this style should be avoided. In most cases these materials include but may not be limited to the following:

- Exposed brick
- Wood siding
- Wood log structures
- Alpine shapes or shingles

Other materials that will not be allowed within the Tenant’s storefront and façade include:

- Vinyl wall coverings
- Large areas of smooth painted drywall
- Sharp or rough surfaces
- Stucco or plaster treated with an exaggerated texture
- Heavy textured stone or brick
- Polished metals

The PRC may make exceptions to the above materials based upon a branded operator’s use of a material in a recognizable design. BCAD prefers modern concepts for all new storefront and façade designs. (See figures 24 and 25)



Figure 24 NanaWall movable glass wall systems at another Airport Terminal



Figure 25 NanaWall movable glass wall facades at another Airport Terminal

Storefronts

The universal wall base height for Tenant storefronts shall be 8” or 12” depending on location of the concession. The preferred storefront finish shall be stainless steel with clear tempered glass. Black or anodized aluminum will be allowed on a case by case basis. Textured, embossed, or etched stainless steel will also be considered on a case by case basis by the PRC. Standard abraded stainless steel finishes that will be allowed include (see figure 26):

- Non-directional
- Random swirl
- Angel hair
- Bead blasted

In terminal concourse areas where ceiling heights exceed 10’-0” the Tenant’s storefront will be defined by the neutral frame. A minimum of 70% must be left open or transparent between the concourse and the tenant lease area (see figure 27). The main storefront’s horizontal band shall meet a minimum standard height of 9’-0” (minimum of 10’-0” applies at new concourses G and A). Exceptions will be made by BCAD where existing spaces do not allow the required height. Hinged swinging doors are not allowed due to their interference with passenger luggage and disruption to easy ingress and egress.

Tenant names, logos or signs shall be centered within the band above the storefront and below the ceiling if space permits in the terminal. If space does not exist above the storefront for signage then a blade sign extending from the tenant’s neutral frame may be provided. In baggage claim areas service storefronts shall be a minimum of 60% clear glass. Every tenant storefront design within the Airport Terminals should complement the interior finish out of the tenant space as well as the terminal architecture.

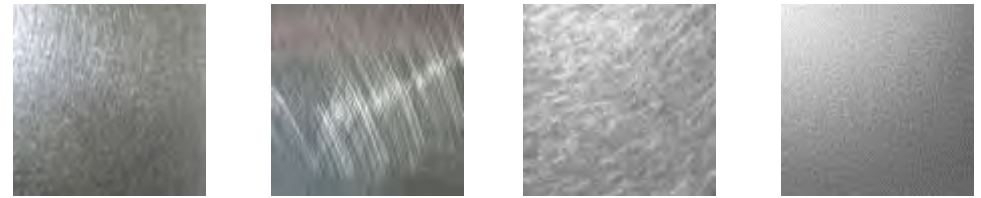


Figure 26: Typical Abraded Stainless Steel Storefront Finishes



Figure 27: Preferred Stainless Steel with Clear Glass Storefront
Swinging doors are NOT ALLOWED

Storefront Security

All open areas of the Tenant’s storefront must be secured during closed hours. All security enclosures must be concealed from view during the required hours of operation and transparent when closed. Structure and design for all security enclosures shall be provided by the tenant.

The following enclosure types are not allowed:

- Opaque grilles and gates
- Sliding gates
- Hinged swinging doors

The following storefront security materials and closure types are acceptable:

- Sliding frameless glass doors: Single track, narrow style located behind the lease line. Doors shall be enclosed in a pocket when open or become a rear enclosure for a window. All sliding doors shall be recessed with the top track mounted flush with the storefront head.
- Folding glass doors and storefronts: Doors shall be enclosed in a pocket when fully open. Minimally framed or frameless glass doors on pivots are encouraged. Enclosure of the folding can occur within the 24” DCZ.
- Overhead rolling grilles and sliding folding grilles: Clear anodized aluminum finish and must be enclosed and concealed within the tenant space. Open curtain or glass paneled (1/8” thick polycarbonate, clear, fire retardant and, scratch resistant) are permitted (Cornell or similar).



Figure 28: Side Folding Security Grilles for a Retail Space



Figure 29: Folding glass door storefront (Notice enclosed pocket at right when open.)

2.3 Materials & Finishes

All Tenant materials and finishes must be durable and abuse resistant. They must be able to maintain their aesthetic appeal when exposed to high occupant use and potential impact by traveler’s luggage. Tenants will submit samples of all materials and finishes for review and approval by BCAD. High quality finishes are especially important at the entrance area of a Tenant’s space and in the 24” Design Control Zone (DCZ).

Flooring

Flooring within Tenant spaces shall terminate at the lease line. At kiosks a separate floor system that is not permanently fastened to the floor may be allowed provided it complies with ADA requirements and is approved in writing by BCAD. All flooring within the tenant area will be exactly level with the concourses finished floor elevation at the lease line. Raised or depressed floor slabs for general sales and service areas are not allowed. Tenant must select a flooring material with a “Slip Resistance Coefficient” greater than or equal to 0.5 when tested in wet and dry conditions. Samples of the flooring material with joint color will be submitted to the BCAD PRC for review and approval prior to installation. Materials that will be considered acceptable include:

- Stone tile: Joint widths will be no greater than 1/8”. Joint color will not contrast with the color of the selected stone. No ridges or pores. Granite and marble will have a polish finish. Limestone will have a honed finish.
- Porcelain tile: Joint width will be no greater than 1/8”. Joint color will not contrast with the color of the selected porcelain and will be stain proof epoxy. Color body porcelain tiles are recommended and will not be smaller than 12” x 12”.

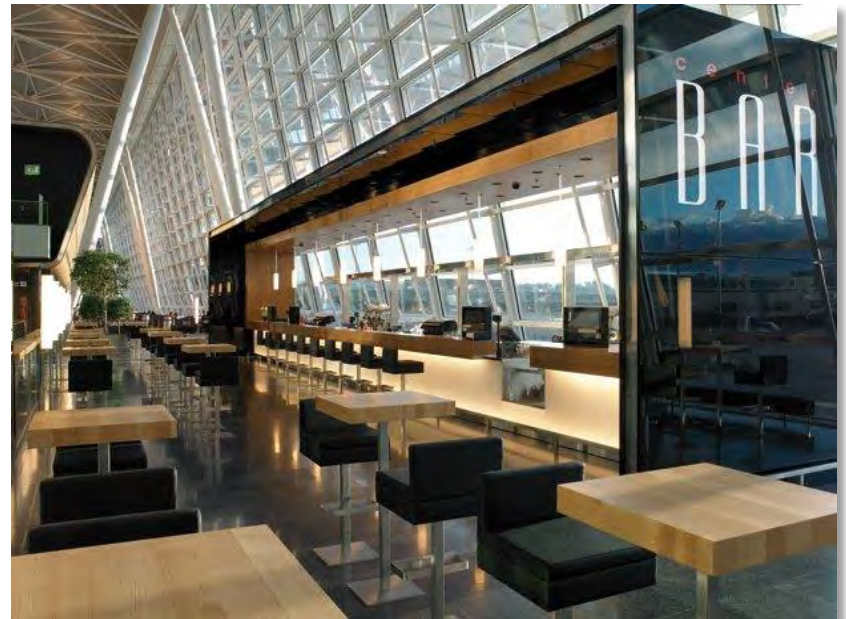


Figure 30: Clean and Modern Example of Airport Materials & Finishes



Figure 31: Newly Installed Terrazzo Floor Standard at FLL Terminal 4

- Terrazzo: The use of this material is strongly encouraged. Primary divider strips shall be 1/4" wide aluminum. Secondary divider joints shall be 1/8" wide aluminum.
- Carpet tile: Carpet tiles may be any size and must be installed in a large repetitive pattern. The manufacturer used will have life cycle guarantees that will be reviewed and approved by BCAD.

Floor materials that will not be allowed include the following:

- Rolled Carpeting
- Laminated wood
- Vinyl Composition tile
- Non-Commercial sheet vinyl with a gauge less than .125"

Base materials adjacent to the Terminal Concourses and within the Design Control Zone will be 8" or 12" in height (depending Terminal the project is located). Acceptable base materials should be complimentary in color, match, or be the same as the adjacent floor material. Kiosks and Retail Merchandise Units will also have at least an 8" high base of stainless steel that is either recessed as a toe-kick or set flush with the counter face. The base must be attached with flush stainless steel fasteners. Base materials that will not be allowed include the following:

- Vinyl & Rubber base
- Wood base

Displays, Cabinetry and Countertops

Display, cabinetry and countertop materials used for merchandise displays, bars and food service must be of a high quality to ensure maintainability in the high traffic airport conditions. They should incorporate creative detailing and clear product display (see figures 32 and 33). Brushed stainless steel, glass, nonporous stone and composite quartz/stone materials are encouraged for countertops. Plastic laminate finishes will not be allowed.



Figure 32: Example of a Tenant's Terrazzo Floor with divider strips



Figure 33: Example of an Airport Terminal Tenant with well-designed cabinetry

Walls

Demising wall framing will be provided by BCAD. Storefront walls are addressed in a previous section. All additional walls are the responsibility of the Tenant. All framing shall be of noncombustible materials. All gypsum board shall have a minimum thickness of 5/8". Tenants shall provide additional fire resistance ratings that may be required per the current enforceable version of the Florida Building Code (FBC). Wall finishes shall also comply with the FBC flame spread requirements for interior wall finishes.

Colors for all painted wall surfaces as well as patterns and other wall finishes will be reviewed and approved by the PRC. Soothing light colors will be used for the main field and bright colors are encouraged as accent color. Niches, shelves or glass displays integrated into the wall are encouraged. Stainless steel edge guards (2" x 2" x 48" H and 1/32" thick min.) will be provided at all extruding wall corners.

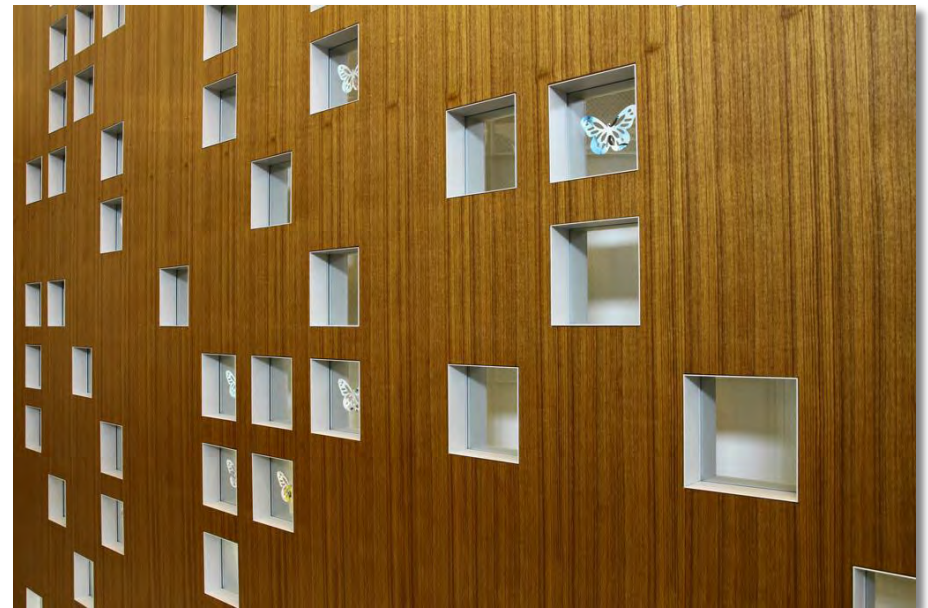


Figure 34: Example of a wood veneer applied wall finish and wall edge guard



Figure 35: Example of Integrated cooler with wall finishes



Figure 36: Example of a media themed wall on a neutral wall finish

Suggested wall finishes include:

- Semi matte paint
- Porcelain tile
- Tempered glass
- Glass tile
- Painted glass
- Wall coverings
- Metal wall panels
- Stainless steel
- Stretched fabric wall systems
- Polished stone in high traffic areas
- Natural stone with rough edges away from high traffic areas
- Mirrors

See figures 37 - 41.



Figure 37: Example of a themed painted glass wall



Figure 38: Example of a mixed wall finishes



Figure 39: Example of a themed painted glass wall



Figure 40: Example of a simple, clean storefront design



Figure 41: Example of a niche's design

Ceilings

Ceilings shall be painted gypsum board within the Design Control Zone. Beyond the DCZ BCAD prefers a Techzone ceiling system with a 9/16" wide grid that can accommodate a Tegular 4' x 4' field panels within the areas of public view. Ceilings may also consist of painted gypsum board and 2 x 2 ceiling grid with acoustical lay-in tiles or perforated metal lay-in panels. This system Designers and Architects should consider the use of the ceiling as a creative design expression within a Tenant space. Other well designed elements may be considered and allowed by BCAD after a PRC review and written approval. All ceiling devices must be centered in the ceiling tiles (see figures 42 - 44).



Figure 43: Example of a well-designed ceiling in a Food and Beverage Tenant space



Figure 42: Example of an Airport Terminal Tenant with well-designed ceiling



Figure 44: Example of an Airport Terminal Tenant with a creative ceiling design

2.4 Lighting

All lighting shall be subject to review and approval by the PRC. Lighting should be designed to illuminate the Tenant’s products, services and signage. It should also be as energy efficient as possible without compromising the design integrity or code required lighting levels. Natural light, LED and other innovative lighting sources are required (*see figures 45 and 46*). Energy Star rated lighting fixtures are preferred. Only commercial-quality light fixtures will be allowed.

Tenants shall install lamps with a Color Rendering Index (CRI) of at least 80 in applications such as specialty retail stores. This is essential where the color rendering of skin tones and merchandise is very important. Strobe lights, lasers, flashing lights and neon are prohibited. Lighting shall not spill into the Terminal or create any glare through the Tenant’s storefront.



Figure 45: Example of LED retail lighting



Figure 46: Example of natural lighting in a restaurant area at an International Airport

All lighting shall comply with applicable local and national codes and regulations. Lighting fixtures must not shine into the eyes of passersby. Other lighting suggestions shall be incorporated:

- Creative use of cove lighting, indirect lighting, LED ropes, backlighting or recessed fixtures are encouraged.
- Storefronts, signage and displays shall be illuminated with higher intensity to draw attention to the retail zone (Incandescent lighting is preferred at show windows).
- Track lighting used in display windows should be recessed in coves or pockets.
- Visible linear fluorescents and sodium lamps are not permitted.
- All display cases must integrate shielded lighting and be vented properly.
- All lamping to have a color temperature of 3000 to 3500 Kelvin.

Several lighting examples are provided on this page (see figures 47 - 50). Design Professionals are encouraged to explore lighting design alternatives for their Tenant spaces that are imaginative and creative. Lighting intensity with color should be carefully considered. Bright vibrant light colors at Tenant entrances will be carefully reviewed by the BCAD PRC.



Figure 47: Example of creative lighting



Figure 48: Example of simple Tenant lighting fixtures



Figure 49: Example of color and cove wall lighting

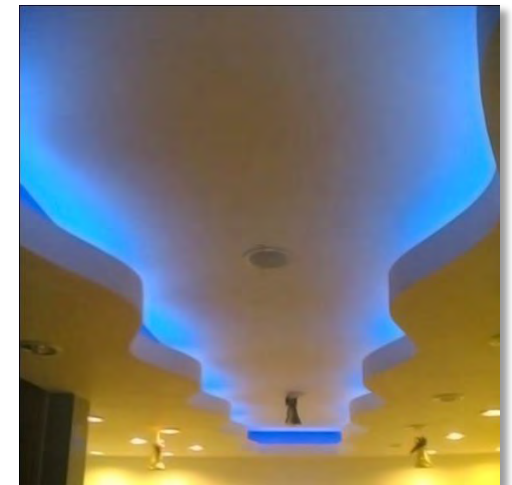


Figure 50: Example of cove ceiling lighting

2.5 Signage & Branding

All tenant signage at the lease line and within the tenant’s leased space will be subject to review and approval by the BCAD Project Review Committee (PRC). No Signage will interfere with the airport’s passenger wayfinding or block HVAC air diffusers. Signage must also comply with ADA Guidelines. Tenants will provide a fascia sign with letters no more than 12” high in terminals where header space permits. In terminal concourses where tenant areas have a ceiling height of 9’-0” or less the tenant will place their signage behind a glass storefront located at the lease line. Tenants will coordinate their signage with the Terminal’s lighting to avoid potential conflicts.

On kiosks backlight letters no larger than 12” high are required (*see figures 51 and 52*). Exceptions may be made by the BCAD PRC on a case by case basis. Kiosks requiring smaller blade signs will be considered on a case by case basis.

Tenant branding shall be limited to signage and other designed elements within the lease line. No menu boards, banners or other branded advertising items are allowed beyond the lease line. Adhesive logos are not permitted. Additional logos are encouraged to be located inside the leased space at eye level. No signage with a bottom edge below 80” AFF shall project more than 4” into the path of travel. Each tenant must utilize the services of a professional graphic designer to generate the tenant graphic image and identity which includes menu boards and all types of kiosks. No exposed wiring or wiring channels will be allowed within view. Letter forms may be one of the following:

- Reverse pan channel letters with halo illumination. Letter face returns may be of painted, brushed or polished metal.
- Pan channel letters with acrylic faces and internal illumination. The acrylic face must have matte finish to avoid reflections.
- Dimensional opaque letters of metal, acrylic cast plaster or resin with indirect or direct illumination.
- Edge lit-glass or acrylic panel deep carved or etched into a metal panel surface yielding glowing letterforms.
- Signs sandblasted or engraved in marble, limestone or other natural stones.



Figure 51: Example of Backlight letters for tenant’s branded sign



Figure 52: Example of backlight kiosk signage

Designated advertisement signage areas within the Airport Terminals will be established by BCAD. Advertisement signage will conform to all applicable codes and regulations. The BCAD PRC will review all advertisement signage to approve graphic design and content. It should adhere to the Tenant Design Guidelines by displaying the message in such a manner that it integrates and/or conveys some aspect of the “Portal to Paradise” design intent which includes sun, sea, beaches, palm trees, Everglades environment, yachting, cruises, aviation, nightlife, community and the arts.

Signage should be securely fastened, installed flush mounted when possible, with no exposed hardware and with a vertical center at average level of 60-66” above finish floor. Repetition, shape patterns and symmetry are encouraged. Frame should be stainless steel, aluminum or black matte finished aluminum metal with antiglare, matte finish screens or transparent view-through panel where required. The whole assembly should be shatterproof. Backlight wall advertisements are preferred (see figure 54).

Where TV services are provided within the Tenant lease area, caption subtitles in English must be set to accommodate hear impaired costumers.

Kinetic and digital imagery through plasma or flat screen signage is permitted but should not compete for attention or cause extreme brightness. Shadows on backlights are not permitted (see figure 54). The distraction of passengers from wayfinding and directional signs is also prohibited. Large wall areas where advertisement signage may be installed must include either recessed lighting improvements that provide an even wash of light on the entire signage area. The required lighting improvements will be the responsibility of the Tenant.

Advertisement signage will not be allowed in any areas where it conflicts with wayfinding signage or passenger comfort. The PRC shall make all final decisions regarding the design of the advertisement signage.



Figure 53: Example of backlight with shadows (not permitted)



Figure 54: Preferred backlight



Figure 55: Example of Food & Beverage Tenant Signage at FLL



Figure 56: Example of Food & Beverage Tenant Signage



Figure 57: Example of Food & Beverage Tenant Signage

Blade Signs

Tenants will be allowed to provide an optional blade sign where space permits in the Terminals. The minimum clear height to the bottom of the blade sign shall be 7'-0". The stainless steel blade sign will be allowed to project a maximum of 3'-6" into the concourse and be separated from the Tenant's neutral frame wall by 6". It will be mounted on the neutral frame wall that is closest to the inbound concourse passengers. The blade sign shall be no larger than a 24" high by 36" long area with a 2" border on all sides. It shall not encroach less than 6" to the lowest height of the ceiling. The Tenant logo shall fit with the frame. The maximum thickness of the sign shall be 4". Round signs are permitted provided they fit within the dimensions of the 2" frame (20" high x 32" wide). Refer to figure 58.

The face of the blade sign shall be an opaque material or graphic with push-through or cut out illuminated letters. All sign lighting shall be 3500k LED lighting with concealed wiring. Blade signs shall be attached to the neutral frame with a 1/4" thick stainless steel (SS) plate that is 6" wide and 24" tall. At each corner of the metal plate a SS fastener shall be used to securely fasten the mounting plate. Two 3" diameter SS metal tubes continuously welded to the mounting plate and the signs frame of the sign shall also be provided for support the blade sign. All SS pieces shall have a brushed finish. The Tenant must design adequate structural support within the neutral frame of the wall to hold up the blade sign. The following types of blade signs or materials are not allowed:

- Vinyl signs
- Stick-on or decal signs
- Noisemaking signs
- Moving, scrolling or blinking signs

Note: Blades signs are not allowed on Concourse A, Terminal 1.

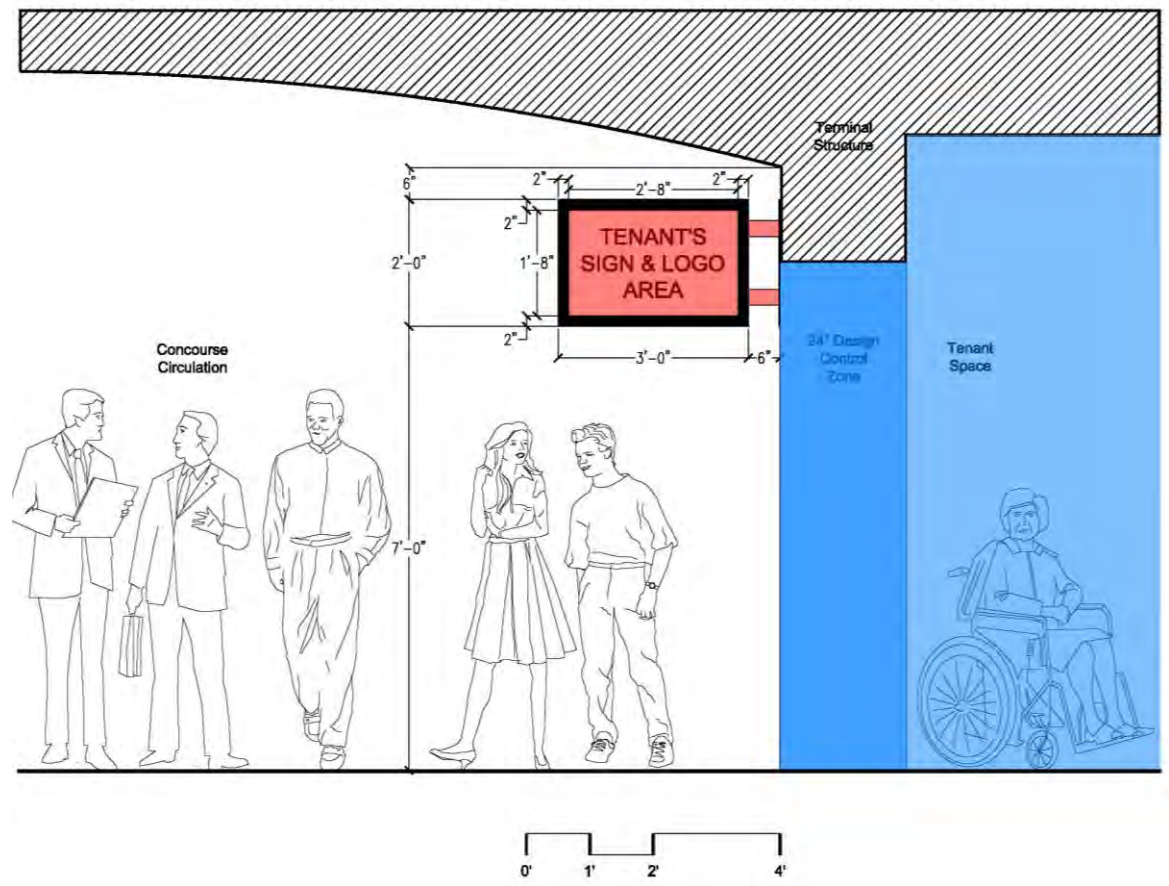


Figure 58: Tenant Blade Sign Diagram

2.6 Specialized Tenant Business Categories

Several specialized tenant business categories exist within the Fort Lauderdale-Hollywood International Airport. Extra attention to more specific and specialized needs must be provided by a Design Professional in the following areas:

- Food & Beverage Services
- Retail
- Airlines
- Kiosks and Retail Merchandising Units
- Automated Retail / Vending Machines & Self - Service Kiosks



Figure 60: Example of Self-Service Kiosks
Fort Lauderdale-Hollywood International Airport



Figure 59: Example of a well Designed Food & Beverage Tenant Space



Figure 61: Example of a well Designed Retail Tenant Space

Food & Beverage Services

Sit down dining and lounge units should be open and inviting to the public circulation areas. They should provide a variety of culinary experiences in a neat and clean atmosphere. Design of these spaces needs to be centered in the attractive exhibition of the food and beverage products. Any food photography needs to be produced by a professional food stylist. Menus and logos shall be designed by a professional graphic designer and is the responsibility of the Tenant. BCAD encourages original design considering the use of the menus as part of the overall composition of the space.

All finishes should be durable and of good quality. Tenants are advised to follow the recommendations in Section 2.2, Material and Finishes. Based on location with respect to the concourse, visual contact between seating area and hold rooms shall be maximized. Passengers are more confident to consume if they have visual contact with their respective boarding gates. Real foliage use may be desired by Food Service Tenants and live plants may be utilized. A contracted service for maintenance and replacement needs is the responsibility of the tenant. Artificial foliage will be not allowed.

Food court seating shall be covered in extremely durable upholstery with a minimum of exposed seams. Seating shall have an opening between the seat and the backrest to eliminate debris and have easily replaceable parts in case of damage. A minimum 48" wide clear path in between tables, measured from the backs of chairs, shall be provided (*see figure 63*). ADA clearances shall be incorporated by the Tenant's Design Professionals. Adequate space shall also be provided for carry-on luggage adjacent to tables. Enclosure handrails delimitating seating are subject by BCAD approval.

Permanent appliances fixtures and equipment shall not display advertising, sponsorship text or branding larger than 9 square inches. Adhesive labels are not allowed if they are within public view. Flight Information Displays (FIDS) (*see figure 62*) should be provided in casual dining tenant spaces that can seat 50 or more occupants.



Figure 62: Food & Beverage Tenant with FIDS



Figure 63: Example of a Food & Beverage Tenant with Accessible Isles

Food & Beverage Services (continued)

Tempered glass sneeze guards shall be incorporated as an integral part of the overall design. It may be flush with the front of the counter and shall be no higher than 4'-6" above finish floor. All ends shall be supported with a stainless steel metal frame (see figure 64). All joints shall be butt glazed to allow for maximum visibility (see figures 65). To provide the highest level of customer service at FLL Airport, queuing devices shall be used to moderate circulation and flow through the tenant space. All devices shall be compatible with the overall design of the space. Recommended lighting levels for food service establishments in foot candles (fc) are as follows:

- Circulation areas: 10 to 30fc horizontal at 3' AFF*
- Dining Areas: 5 to 10fc
- Cashier: 20 to 50fc*
- Food service: 25 to 75fc
- Food selection areas: 25 to 75fc (*Note: Also applies for general lighting)

Kitchen and preparation areas shall be located away from customer view, separated by doors with auto-closer devices and kick plates. Food preparation areas are required to have impervious, non-slip flooring materials. All Tenant cooking surfaces, grill, ranges or ovens shall provide a fume exhaust hood for odor and smoke control that is code compliant. All countertop devices shall be incorporated into the design and screened from the customer's view. Tenants shall provide a list showing the complete inventory of equipment for the project, including photo images of each piece of equipment together with a description of function and finishes. If equipment will be visible to the public, submit color images with clear indication of materials must be submitted. The font selection for quick serve menu boards or electronic menu boards shall also be submitted. The purpose of these submissions is to give the PRC all information about the appearance of the final project.



Figure 64: Integrated Countertop Design for a Food & Beverage Tenant



Figure 65: Integrated Sneeze Guards for a Food & Beverage Tenant

Retail

Tenants must develop designs and layouts that grant quick and easy access to merchandise and services. Clear organization and proper circulation for passengers must be provided, taking into consideration ADA requirements and passenger luggage. BCAD encourages a 48" minimum aisle width between merchandising displays. Display of all merchandise must be integrated into the design concept. Temporary carts and hangers are discouraged for use inside the leasing space and not allowed beyond the leasing space. Check-out queuing should not block areas of circulation.

Adequate storage space for all merchandise associated with the facility operation must be incorporated to the design and out of the passenger's view. A section of the interior wall of the tenants space (4' wide minimum by 3' high minimum) finished with only one color, pattern or material, and displaying the logo (duplicating or replacing the store front sign, at eye level); in order to avoid the cluttering of merchandise.

Countertop service equipment should be recessed in the counter space or screened from customer view. No wires or plugs are to be within sight. Bag sizers should be incorporated by Tenants wherever bulky items are available for purchase in order to help assure that a passenger's bag will fit properly into the airlines overhead storage bin.



Figure 66: Retail Tenant with well Designed Checkout and Service Storage



Figure 67: Retail Tenant with Integrated Merchandise Display and Easy Access

Airlines

E-ticketing

BCAD will provide designated areas for self check-in e-ticketing kiosk arrays in every terminal (see figures 68, 69). The self-service kiosks will be connected by the airlines to their main computer ticketing computer system. Airlines will coordinate with their Design Professionals to assure that Self Check-in arrays are conveniently located in order to avoid the disruption of passenger queuing and processing at standard ticket counters.



Figure 68: Self check-in kiosk



Figure 69: Array of self-check-in kiosks

Lounges

Airline lounges shall be designed in accordance with the specific airlines requirements and criteria. Care should be taken to provide easy access to passengers and their luggage. High quality finishes, materials and elegant lighting design are required in airline lounges in order to offer passengers an exemplary traveling experience (see figure 70).



Figure 70: Example of an American Airlines Admirals Club Lounge

Stanchions

All stanchion posts shall be brushed satin aluminum finish with dark navy blue retractable nylon straps (see figure 71). Stanchion panels, when used, must be the same style with uncolored frosted finish polycarbonate. Stanchions posts located on curb side shall be color black, rust-proof, UV resistant with removable rubber base. Design Professional shall coordinate with BCAD regarding a preferred manufacturer or approved supplier. Any queue sign must be 14" x 11" engraved plastic in a frame attached to the posts.



Figure 71: Standard BCAD stanchion

Kiosks and Retail Merchandising Units

The terms Kiosks and Retail Merchandising Units (RMUs) are used interchangeably. Kiosks and RMUs act as a small store or satellite location for a tenant. At FLL they shall be located in BCAD designated areas of the terminals where available space can accommodate their use.

All proposed kiosk designs shall be submitted to BCAD’s DRC. Tenants will provide an overhang canopy or cornice that delineates the top of the retail area and incorporate the kiosks signage (*see figure 72 and 74*). The bottom level of the canopy or cornice shall match the level designated for the adjacent retail storefronts within the same area. Counters and displays materials should comply with all of the recommendations and requirements found in material and finishes.

Signage

Tenant shall comply with all signage requirements in Section 2.5. Primary signage will be mounted in the center fascia area of the kiosk that faces the primary circulation path of the terminal. One sign per side is allowed (maximum of 4). Corporate logo types and color will be allowed if they do not interfere or create a distraction from the airport terminal’s wayfinding signage.

One secondary sign, offering services or other information related to the kiosk may be permitted. Maximum letter height will be 5” and shall be designed over a backer panel (1/2” min. thickness) with applied or painted letters, or applied letters (1/8” min. thickness) over a glass panel.



Figure 72: Example of a Starbucks Kiosk



Figure 73: Open Retail Merchandising Unit



Figure 74: Retail Merchandising Unit

Security

All RMU’s must be vandal resistant, tamper proof and completely securable during non-operating hours (see figure75).

Lighting

Illumination must be incorporated into the kiosk. It is recommended that Tenants use long life, low voltage light sources for lighting such as LED. Decorative lighting is encouraged as integral part of the design. Track lighting, down lights and rope light concealed in the countertop, and other decorative effects should be explored in the design. Exposed neon, strobe lights or animated features will not be allowed in kiosk or RMU designs.

Automated Retail / Vending Machines

Automated retail/vending machines will be allowed in designated areas of the FLL terminals. BCAD will determine the location of the machines based on available alcove and wall locations. All machines must be approved by the BCAD DRC. The maximum height shall not exceed the nearest tenant storefront or bottom of kiosk fascia. Color schemes shall be coordinated with the overall aesthetics of the terminal. No sound devices will be permitted on the machine and they must be vandal resistant and tamper proof. The Tenant shall provide all required infrastructure for the operation of the machine.

Signage

Stand-alone units shall be limited to one sign per exposed face. Maximum logo height shall not exceed 12”. Text height shall not exceed 8”. No blade signs will be allowed on any machine.

Lighting

All machines shall be designed with energy efficient lighting sources. Light levels shall comply with Section 2.4. Exposed neon, strobe lights or animated features will not be allowed in the design of any machine.



Figure 75: Open and Secured Retail Merchandising Unit



Figure 76: Automated Retail Machine

Self - Service Kiosks

Self-service kiosks have become a convenient way for airport tenants to increase passenger satisfaction. They come in hundreds of shapes and sizes and can offer a large range of services. Kiosks can be applied to virtually any terminal with minimal impact. Tenants that desire utilizing and incorporating self-service kiosks into their FLL Airport service strategy will be required to coordinate their efforts with BCAD.

Designated areas within the Terminals will be identified by BCAD during Terminal modernization projects. Tenants will be allowed to provide self-service kiosks within those designated areas. Tenant’s shall coordinate and provide all infrastructure related elements required for passenger’s use of self-service kiosks. These elements shall include but not be limited to the following:

- Queuing
- Passenger circulation routes
- Accessibility (e.g. ADA, ABA requirements)
- Power supply
- Unit serviceability
- Materials and aesthetics
- Signage (primary surface of unit only facing the user)
- Security

The design and selection of all self-service kiosks must be approved through the BCAD DRC process to help assure that the aesthetic integrity and functionality of the overall terminal is not compromised by the placement of a kiosk.



Figure 77: Service Kiosks

2.7 Sustainability

Tenants will be required to incorporate sustainable practices and materials into the design of their leased space. This will assist BCAD in a transition to a High Performance Building (HPB) which is one of BCAD's long term goals. BCAD is developing a Sustainable Design Guidelines Manual for Tenants to follow. Additional resource guides for sustainable design practices include the following:

- United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design for Commercial Interiors (LEED-CI)

<http://www.usgbc.org/leed#rating>

"LEED for Commercial Interiors is the green benchmark for the tenant improvement market. It is the recognized system for certifying high-performance green interiors that are healthy, productive places to work; are less costly to operate and maintain; and have a reduced environmental footprint. LEED for Commercial Interiors gives the power to make sustainable choices to tenants and designers, who do not always have control over whole building operations." (Source: USGBC Commercial Interiors website)

- Florida Green Building Coalition (FGBC) Commercial Building Standard

<http://floridagreenbuilding.org/commercial>

"The intent of the FGBC Green Commercial Building Standard is to encourage building owners to adopt green and sustainable strategies during the design and construction of their project and to receive recognition for their efforts. The Florida Green Commercial Building Standard covers all commercial occupancies listed in the Florida Building Code."



Sustainable design considerations may include but should not be limited to the following:

- Incorporate LED and other energy efficient lighting sources that meet the Tenant DGM criteria.
- Keep all non-emergency lighting off during non-business hours.
- Provide occupancy sensors in spaces that are not occupied regularly.
- Specify the use of low VOC emitting materials such as: adhesives, sealants, paints, coatings and carpets.
- Specify the use of formaldehyde free materials.
- Select renewable materials and materials with recycled content.
- Specify products fabricated or manufactured in Florida and the Southeast US.
- No use of CFC-based refrigerants in mechanical equipment.

2.8 Tenant Responsibilities

The Tenant's design responsibilities within FLL Terminals include several other considerations. All of these requirements must be reviewed, coordinated and provide by each Tenant. The responsibilities include the following:

- A. BCAD Project Review Committee:** Tenant must obtain written TIP approval letter prior to the commencement of any work.
- B. Building Code Permit:** Tenant must obtain a building permit from the Authority Having Jurisdiction (AHJ) prior to the commencement of any work.
- C. Notice to Proceed:** Tenant must have a written "Notice to Proceed" issued by BCAD prior to the commencement of any work.
- D. Building Code Compliance:** Tenant is responsible for bringing their leased space into compliance with the Florida Building Code regardless of unforeseen conditions.
- E. Terminal Operational Building Systems:**
 - Tenant must protect the integrity and functionality of the terminal's "Operational Building Systems".
 - Any intent or action to add or modify systems must be coordinated with and approved by the BCAD Facility Maintenance Division.
 - All new systems shall be installed as per the applicable codes and standards and have a minimum one year warranty.
 - Tenant is responsible for all costs related to work that will be performed on these systems.
 - Tenant is responsible for maintaining all Operational Building Systems and shall design all required elements up to BCAD's tie-in points.
 - The physical tie-in to the "Operational Building Systems shall be coordinated by the Tenant but performed by an authorized on-call Contractor managed by the BCAD Facility Maintenance Division. The Tenant is responsible for the payment of the Contractors that will perform the physical tie-in during the project's execution.
 - Testing procedures related to the modification or addition to the existing terminals "Operational Building Systems" shall be paid by the Tenant (e.g. fire sprinklers, A/C valve pressure, etc.)
- F. Tie-in Points:** Tenant's design must clearly identify on the construction documents all tie-in points for:
 - Mechanical Systems
 - Electrical Panels

- Plumbing Systems
- Fire Sprinkler Systems
- Fire Alarm Systems
- Communication Systems and Telephone rooms

All coordination for tie-ins and/or additions to any or all existing systems will require a minimum 72 hours advance notice in writing to BCAD Facility Maintenance Division.*

G. Utility Calculations: Tenant's design must provide all calculations related to utility needs in order to obtain approval of their design from BCAD.

H. Utility Work: All utility work shall be approved by the "Broward County Environmental Services Environmental Engineering" and designed per the "Division's Minimum Design and Construction Standards".

Before any underground work is started, all contractors must comply with Sunshine One-Call requirements, contacting 1-800-432-4770 or 811 for guidelines.

I. Regular Power: All electric work shall comply with the National Electric Code, NFPA70, and the Florida Building Code. All electrical work by the contractor will require load calculations and panel identification. No additional load will be added to BCAD emergency panels other than security and life safety unless otherwise approved by BCAD. All electric equipment must be approved by BCAD. All emergency generators shall be diesel driven with a 72 hour runtime day tank system.

BCAD will provide power to the demising walls or lease lines of the Tenant's location. If additional power is required it shall be provided by the Tenant and approved by BCAD.

All electrical conduit outside the tenant space in an unconditioned air space on the ramp level must be (GRC) Galvanized Rigid Conduit, with all steel compression fittings. All electric conduit buried underground, shall provide the minimum number of required conduits, plus at least one spare. All duct banks shall be incased in concrete. Location medallions shall be placed every 50' and before and after turns. Shop drawings will be required in PDF before digging. All interior electrical conduit shall be ½" minimum EMT. No flex conduit longer than 6' used for connection purposes only. All Home Run conduits back to the panel, and any conduit with more than three conduits or more shall be ¾" minimum EMT. 22.

Electrical labeling: All exposed conduits must be labeled with 1-1/2" label tape and included the origin, destination, room numbers, space names, circuit numbers, and system names. These labels need to be every 50' and or on every 90 degree turn or before and after a wall separating the labels from room to room.

All junction box covers shall be color coded:

- 1) Communications shall be Light blue

- 2) Power (120V/208V) shall be Green
- 3) Power (277V/480V) shall be Yellow
- 4) Fire Alarm shall be Red
- 5) HVAC Controls (Johnson Controls) shall be Purple
- 6) Matrix card readers shall be Dark Blue

b. Panel and circuit numbers shall be permanently identified on junction box cover. Must use a labeling machine, NO SHARPY MARKERS.

Typed circuit identifications shall be placed on all faceplates. Panel and circuit numbers shall be permanently identified on junction box cover.

- J. Standby Power:** Tenant shall provide power for all life safety devices and all required interconnecting conduits.
- K. Lightning Protection:** All buildings shall be designed with a lightning protection system and tied-in to an existing system where possible.
- L. Air Conditioning & Heating:** Tenant shall connect to the nearest trunk line for heating and air conditioning service. The Tenant is responsible for the configuration of the spaces supply and return grilles. The Tenant is also responsible for all cost associated with providing additional capacity above and beyond what is furnished by BCAD according to BCAD Engineering Standards.
METASYS Building Automation System: Contact Johnson Controls (JCI), Inc. at (954) 233-3000. All existing VAV boxes, FTB boxes, fan coils, and any other associated HVAC system controls (i.e. sensors, chilled water valves, EPT controllers, etc.) must be wired in electrically and/or pneumatically and must communicate back to the head end. BCAD must receive a commissioning report from JCI through the contractor. All air handlers must have "electronic filtration" systems. Domestic Water shall not be used in the booster pump system in chiller plants. All roof mounted systems should have stainless steel hardware.

Exterior roof-top air handlers shall be constructed of stainless steel. Chilled water piping to be welded, Victaulic style fittings are not acceptable. Valves have to be accessible by BCAD Maintenance staff. Armaflex style insulation is not acceptable on chilled water systems.

- M. Domestic Water:** Wet stacks provide a minimum 1 inch, non-metered, cold water line with a ready tap for Tenant connection. Connection, piping, hot water generation, storage and metering are the Tenant's responsibility. Any water and drain lines outside the concession space will need to be insulated to avoid any sweating above or below their space in question.
- N. Sanitary Waste:** The Tenant is responsible for the design and connection into the Airport's sanitary waste system.
- O. Grease Waste:** In selected locations a 4 inch or 6 inch riser with stub-outs under floor deck are provided for connection into grease interceptors at ramp level. Only the food and beverage Tenants are required to connect to the interception system. All drains in food and beverage locations are to be connected to the interception system. The Tenant is responsible for all costs for connection to grease waste risers.
- P. Fire Protection:** Tenant's shall provide all required sprinkler heads per the Florida Building Code and/or authority having jurisdiction, with the heads turned up. The Tenant is responsible for the design and modification of fire protection system in their premises including special fire protection systems required at hood conditions for food preparation areas. Kiosks and Merchandise Units are encouraged to have a grid type ceiling, open to above, to benefit of the main sprinkler system. Provider: Sprinklermatic. Contact Tim O'Brien @ tim@sprinklermatic.net
- Q. Smoke Detectors:** Tenant's shall provide all required detectors per the Florida Building Code and/or authority having jurisdiction. The Tenant is responsible for the design and modification of smoke detector locations and connection of additional units into existing FLL terminal systems.
- R. CCTV and Security Cameras:** Provider: Micro security (CCTV). Contact Stephen DeMolina at SDeMolina@microsecurity.com. The Tenant will be responsible for the removal or relocation of any security cameras and reconnections.
- S. Fire Alarm Interface:** Interface connection point(s) shall be provided in the general vicinity of each Tenant space. The Tenant shall install all fire alarm components, wiring, annunciation components and interface required beyond those provided by BCAD in the existing terminal. All devices shall be UL listed and tested for use with the Airport fire alarm system. It is the responsibility of each Tenant to provide and assure compatibility with the existing fire alarm system in the FLL terminal where the Tenant is located. Provider: WSA Continuum Fire System. Contact WSA at (954) 570-8155
All fire and sprinkler system work on an existing system must be done between 22:30 and 05:00 with no exceptions. The system must be back in service at that time. WSA shall be present anytime the fire alarm panel is put in manual and restored. Sprinkler system work is the responsibility of the contractor which includes but is not limited to draining the system down, locating shut off valves, and any

other associated work with their project. All new systems shall be compatible with existing system including emergency power notification tied to the fire alarm system.

T. Matrix Security System: Contact Matrix: Jeff Stout Sales Vice-President at (716) 563-5010

All security system work must be done by Matrix with certified reports to verify all hardware and software are operating at the time of project completion. Only authorized Matrix technicians are approved to work on this system and must document all activities within the system.

U. Toilet Exhaust: Tenants shall locate existing ventilation chases or ventilation stacks within the airport Terminals. The Tenant is responsible for the installation of all ductwork and fans from their lease space to the nearest ventilation chase and ventilation stack.

V. Smoke Evacuation: Where required by the Fire Rescue Department, the Airport shall extend a smoke removal ductwork to the concession space. Connection to the system shall be by the Tenant.

W. Cooking Exhaust: Tenants shall confirm with BCAD whether cooking exhaust is available in their proposed area. Fire rated chases and mechanical services dedicated for ventilation of concessions spaces may have predetermined locations throughout the Airport. Food Tenants are responsible for installing a rated grease-exhaust ductwork from their premises, sloped horizontally above the ceilings to the nearest chase or designated connection to minimize the spread of grease waste particles. The total grease exhaust system shall comply with the current edition of NFPA-96. Chase penetrations and ductwork shall be enclosed with a two-hour rated closure or an alternative UL listed high temperature insulation wrap that complies with all applicable codes. Ductwork inside the chase will be vertical and connect to the exhaust fan penthouse. Ductwork, conduit and wiring for fan control, hood with fire suppression system, and exhaust fans are at the Tenant's expense. A separate makeup system of at least 90% outside air is needed for the hood exhaust to avoid drawing conditioned air from adjacent airport spaces. Alternate methods of achieving required duct ratings may be used with BCAD and building department approval. The Airport is providing the right of way path for the grease duct exhaust system.

X. Doors: All interior doors shall solid wood Type with metal framing, fire rated and approved by BCAD before installation.

Y. Telephone and Data: Empty conduit(s) shall be provided by the Tenant from the closest overhead cable tray to the Tenant's demising walls. The Tenant is responsible for the wiring and connection to local phone service and for providing the drop conduit runs from the closest overhead cable tray down to the final location(s) of the outlet(s).

Refer to BCAD "Standards for New or Upgraded Communications Infrastructure Specifications" for guidelines.

<http://www.broward.org/Airport/Business/Documents/Insideplantinfrastructurespecs2016.pdf>

Z. Public Address System: Any required local Tenant paging system within the leased area shall be the responsibility of the Tenant. Any local system shall be equipped with an override feature to accept signals from the main system and provide priority annunciation. QSC Q-Sys Core 3000, with the QSC PS-1600H stations, Provider: P.A. System. Contact Pro Sound at 305-891-1000. All terminations and or work on the existing system must be made by Pro Sound. New equipment must be compatible with existing system.

AA.Gas: Tenants requiring natural gas service shall coordinate with BCAD approved gas provider (Allowed for food preparation only).

BB. Roof Work: All roof work must be coordinated with the BCAD Facility Maintenance Division and approved in writing prior to commencement. The Tenant is responsible for maintaining the integrity of all roof systems and components. All Tenant roofing modifications shall comply with BCAD, FBC, NRCA, and SMACNA roofing standards. FM Global requirements shall also be met. All roof modifications associated with Tenant's build-out of the lease area are at the Tenant's expense. The Tenant must use a BCAD approved bonded and insured roofer. Any roof penetrations to an existing roof must be certified through the appropriate warranty representative, in writing, and approved by BCAD. BCAD will provide warranty information from the roof manufacturer. BCAD reserves the right to review all roof penetration details prior to fabrication.

New roofs shall be built-up type with Single-Ply Thermo-Plastic Membrane Roofing systems (mechanically attached). The warranty of the Airport's roof must be maintained.

CC. Antenna Mounting: All antenna mounting needs to be approved by BCAD Facility Maintenance Division. There are approved areas that are designated for these antennas. There is also conduits that are designated from the communication rooms to the roof top for such services required by concession vendors that need their own services. New antennas located on airport property must be reviewed to determine if Federal Aviation Regulation Part 77, Florida Statutes Chapter 333 and/or the Broward County Airport Zoning Ordinance apply. Based on the location of the proposed antenna, the FAA may need to review to determine whether the project is a potential hazard to aviation. To initiate the Federal Aviation Review, access the Web Page at:

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

DD. Point of Sale: The Tenant shall confirm with BCAD if the Airport is providing a designated room for existing or future connectivity to the concessionaire's hubs, with empty conduits from the nearest cable tray. The tenant shall provide all required connectivity for any point of sale (POS) system that may currently be in use or planned for future use by BCAD.

EE. Trash removal: The Tenant shall handle trash collection within their leased area, providing trash cans and back-of-store places to collect trash until removal (trash collection areas shall not be in contact with food preparation areas). Tenants shall not be permitted to use BCAD's terminals trash cans for their own business operation.

FF. Record Drawings: Specifications, instruction manuals, warranties and as-built drawings shall be delivered to BCAD before the final closeout of the project (follow graphic standards on section 3.4). During construction the contractor must have an ‘up to date’ set of drawings on site.

BCAD Department Name	Contact Information	BCAD Position
BCAD Facility Maintenance Division	Mike Hartnett Phone: (954) 359-7299 E-mail: mharnett@broward.org	BCAD Expansion Project Administrator Aviation - Maintenance Division
BCAD Facility Maintenance Division	Al Nunez Phone: (954) 359-1266 E-mail: ALNUNEZ@broward.org	BCAD

Chapter 3.0 Appendices

3.1 Guideline Revisions

The Tenant DGM may be periodically updated by BCAD. The Tenant shall verify with the BCAD Contract Administrator their possession and use of the latest version of the Terminal DGM and provide a copy to their A/E of record. BCAD intends to update the Tenant DGM once a year or as required. The following table provides a log of the Terminal DGM revisions that may include updates and addenda. Latest versions could be found at: <http://www.broward.org/Airport/Business/Pages/DesignGuidelines.aspx>

TENANT DESIGN GUIDELINES MANUAL VERSIONS	
Document Title	Date Released
Tenant Design Guidelines Manual	April 2012
Tenant Design Guidelines Manual Revision 1	February 2017

3.2 Definitions and Abbreviations

The following Definitions and Abbreviations have been provided as an aid for understanding the Terminal DGM. The Term or Acronym appears in bold case followed by its corresponding meaning or definition.

AFF	Above Finished Floor
AHJ	Authority Having Jurisdiction
BCAD	Broward County Aviation Department
BIM	Building Information Model(ing)
CADD	Computer Aided Design and Drafting

CGM	Construction Guidelines Manual from BCAD
Consultant	The individual or entity hired by the Tenant to perform a predetermined contracted scope of work at Fort Lauderdale-Hollywood International Airport
Curbside	The area adjacent to but outside the terminals where passengers arrive and depart
Demising Wall	The shared wall between two adjacent leased Tenant spaces or between the leased Tenant space and the common area of the Terminal
DCZ	Design Control Zone
FBC	Florida Building Code
FLL	Fort Lauderdale-Hollywood International Airport
HPB	High Performance Building
Kitsch	Art, objects, or design considered to be in poor taste because of excessive garishness or sentimentality
Landlord	Broward County Aviation Department
Lease Line	The limit of the tenant space physically demarcated by a demising partition or demising wall represented on the base Terminal drawing
LOD	Level of Detail required when preparing a Building Information Model (BIM)
NTP	Notice to Proceed
PRC	Project Review Committee which is responsible for all technical reviews of Tenant Projects

T1	Terminal One
T2	Terminal Two
T3	Terminal Three
T4	Terminal Four
Tenant	The occupant of the leased space and legal name of the operator renting or leasing space within the Terminal
Tenant DGM	Tenant Design Guidelines Manual from BCAD
Terminal	The physical building space of the airport where passengers transfer between ground transportation and the facilities that allow them board and disembark from aircraft.
Terminal DGM	Terminal Design Guidelines Manual from BCAD

3.3 CAD and BIM

Tenants shall refer to BCAD's Electronic Media Submittal Requirements for all their graphic deliverable as per their executed contractual requirements. Tenants and their contracted project Architects and Engineers shall obtain a copy of the BCAD CAD Standards. Design Professionals shall provide all construction documents for tenant improvement projects per their contractual documents.

BCAD is transitioning to a BIM environment and is currently in the planning stages of its implementation. A Building Information Model (BIM) may be developed from which the 2D deliverables can be produced. A BIM may offer franchised tenants certain advantages for life cycle management purposes. If BIM is used it shall include all Architectural, Structural, Mechanical, Electrical, Plumbing and Fire Protection. The Tenant shall obtain a copy of the latest CADD and/or BIM standards from BCAD prior to the commencement of work.

BCAD Electronic Media Submittal Requirements: <http://www.broward.org/Airport/Business/Standards>

BCAD CAD Standards: <http://www.broward.org/Airport/Business/Standards>

BCAD BIM Standards: <http://www.broward.org/Airport/Business/Pages/BIMStandard.aspx>

3.4 Design Guidelines Interpretations

Tenants and their contracted design professionals may have questions regarding the intent of the Tenant DGM during the development of their designs. All questions regarding a Design Guidelines Interpretation shall be provided in writing to the assigned Aviation Properties Manager in the Business and Property Management Division, by the Tenant or their authorized design professional, prior to the submittal of any design.

3.5 Broward County Aviation Department Contacts (TIP)

BCAD Department Name	Contact Information	BCAD Position
BCAD Business and Property Management Division	John Hernandez Phone: 954-359-2582 Fax: 954-359-1331 E-mail: JHERNANDEZ@broward.org	BCAD Business Administrative Officer and Tenant Improvement Project (TIP) & Project Review Committee (PRC) Coordinator

3.6 Review Process, Submittal Requirements and Approvals

Review Process

The Business and Property Management Division of BCAD will act as the first point of contact for all Tenants. BCAD has a Tenant Improvement Project Process (TIP) that includes nine key steps:

- Step 1 - Preliminary Meetings - BCAD and Tenant Hold Informational/Conceptual Meetings
- Step 2 - TIP Application- Submission for Conceptual Review
- Step 3 - (10 days) PRC Conceptual Review Period (Letter of Conceptual Approval with PRC Comments Sent to Primary Tenant)
- Step 4 - TIP Application Submitted for Technical Review
- Step 5 - (10 days) PRC Technical Review Period
- Step 6 - TIP Technical Approval Letter (Authorization for Permit sent to the Primary Tenant)
- Step 7 - Pre-Construction Meeting - Notice to Proceed
- Step 8 - Construction & Inspections - Certificate of Occupancy - Submittal of As-Built Final Plans
- Step 9 - BCAD Approval for Starting Operations

The BCAD Project Review Committee consists of BCAD Department Directors and other BCAD assigned specialists. For all new projects the PRC is available to meet with all involved parties during review process. Those meetings will be scheduled by the assigned Contract Manager and the TIP/ PRC Coordinator. It is highly recommended that the Tenant’s Architect and Engineers visit the actual lease space before creating any design or presentation. It is also recommended that they obtain as-built drawings of the Terminal in which the leased tenant space will be provided.

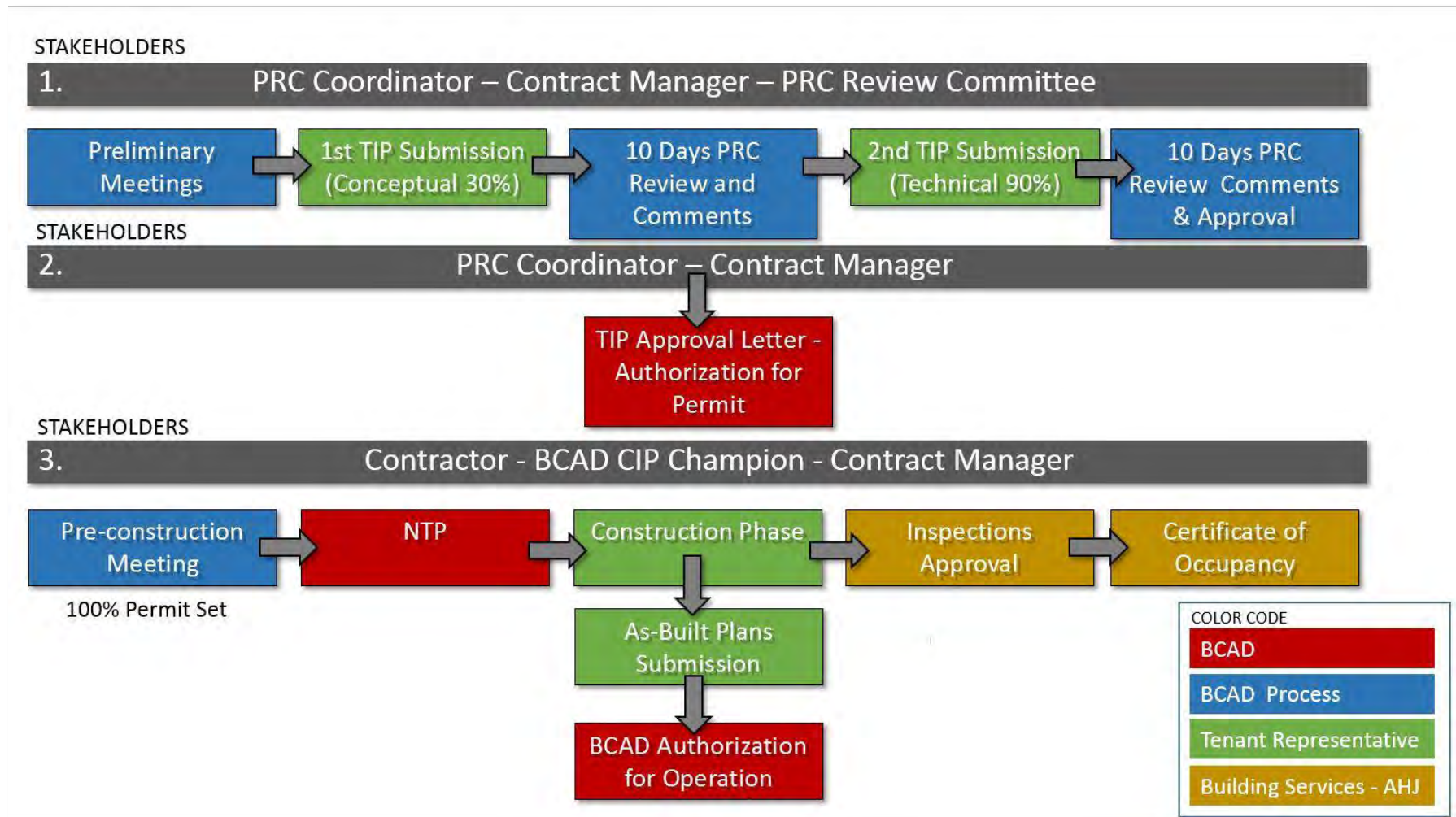


Figure 78: BCAD TIP and Project Review Committee (PRC) Process

Submittal Requirements

The Tenant Design Consultant shall submit to the BCAD Concessions office four identical hard copies and one identical pdf copy on CD-ROM for each design submittal. A cover letter shall be provided outlining the contents for each submittal and include written responses to previous comments. Submittal requirements shall include the following information as a minimum:

A. Project Review Committee (PRC) Submission - TIP Conceptual Review – 1st Submittal

(2) Sets of Plans and PDF version of:

Option 1: (11"x17" Submittal)

1. Location Plans:
 - Plan of Airport Terminal indicating Tenant Location
 - Enlarged plan of Tenant Location and adjacent areas
2. Landscape orientated photos of the Tenant's lease area as defined by BCAD
3. Full color 3-D perspective rendering on 11"x 17" of intended Tenant work representing the design intent
4. Preliminary floor plans (scale 1/8" = 1'-0") indicating Tenant's proposed design concept
5. Typical interior elevations (scale 1/8" = 1'-0") of each wall
6. Preliminary material board that conveys proposed furniture, finishes, color swatches and schemes, and proposed equipment
7. Signage concept scaled to 11"x 17" format
8. Storefront elevation and section, including any graphics and signage. Indicate all materials and finishes (scale 1/8" = 1'-0")
9. Project contact list of the Tenant's design team

Option 2: Full Size Set

1. Architectural/ Engineering 30% Set of Drawings
2. Full color 3-D perspective rendering of intended Tenant work representing the design intent
3. Preliminary material board that conveys proposed furniture, finishes, color swatches and schemes, and proposed equipment
4. Landscape orientated photos of the Tenant's lease area as defined by BCAD
 - *After receiving comments Tenants shall provide written responses to comments to the Contract Manager.*

B. Project Review Committee (PRC) Submission - TIP Technical Review - 2nd Submittal

(2) Sets of Plans, PDF and CAD version of:

1. Architectural/ Engineering 90% - 100% Full Size Set Of Drawings
2. Specifications