TERMINAL 4 INTERIOR DESIGN STANDARDS
PHOENIX SKY HARBOR INTERNATIONAL AIRPORT
MAY 8 2014

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Prepared by

ARCHITECTURAL ALLIANCE
INTERNATIONAL

DWL
ARCHITECTS + PLANNERS, INC.

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AVIATION

TERMINAL 4 INTERIOR DESIGN STANDARDS
PHOENIX SKY HARBOR INTERNATIONAL AIRPORT

1.0 EXECUTIVE SUMMARY
MAY 8 2014

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Terminal 4, Concourse S-2

PSHIA Design Standard Philosophies

Terminal 4 opened in 1990 with five concourses and 48 gates. Measuring at 3.9 million square-feet, as of 2014 there are seven concourses in Terminal 4, which handle about 80 percent of Sky Harbor's passengers.

The intent of these design standards is to serve as a road map and reference guide for design teams contracted to provide future interior design services for Terminal 4. The goal of the standards is to ensure cohesive, coordinated designs that are compatible with the aesthetic intent of Terminal 4 facilities and way-finding systems. The design standards work to reflect a contemporary character and sophistication while remaining compatible with the existing aesthetics of the building.

It is the continual goal of PHSIA to establish and maintain an atmosphere that enhances the passenger experience, improves the appearance of the terminals and increases the operational and economic performance of the PHSIA concessions.

This manual for the Terminal 4 Interior Design Standards is a "live" document, which allows the Phoenix Aviation Department to update the standards as necessary. Stakeholders, designers and managers are required to reference and adhere to these standards throughout the design process with the goal of supporting the adopted unified aesthetic and functional vision of PHISA.

How to use this manual

A regional sense of place serves as a major inspiration and influence in forming the Terminal Vision. The Interior Design Standards operate within that context and work to reflect a contemporary character and sophistication consistent with the PSHIA design philosophy. Every project and design should take these goals into consideration. Airport Stakeholders and Design Teams should reference the appropriate sections of this document for decisions relative to space planning, color, material and other elements. The living nature of this document implies that these decisions will build upon themselves for integration throughout terminal 4 and thus contribute to the goal of a cohesive and coordinated environment. The Interior Design Standards are comprised of the Following sections:

1.0 Executive Summary

2.0 Existing Facility Observations
A reference of documented stakeholder issues that was a result of tours, interviews and workshops. This section gives context to the entire document.

3.0 Interior Master Plans
A guide to space use within Terminal 4. The Interior Master Plans identify and resolve primary space-use, item and circulation conflicts. The Master Plans are the conceptual backbone for standards as they identify ideal zones for certain usages and architectural hierarchy/strategies.

4.0 Terminal Vision and Conceptual Renderings

Non prescriptive renderings and diagrams that illustrate the PSHIA design philosophy as well as Interior Master Plans and Interior Color Palette concepts.

5.0 Interior Color Palette Standards

A guide for the selection and application of color so to ultimately create a clean, unified, contemporary design that represents the terminal vision.

6.0 Interior Material Standards

A guide to applied materials to Floors, Walls and Ceilings. These design guidelines provide a road map to assist in determining suitable materials.

7.0 Interior Elements Standards

A guide to aesthetic or service-oriented, three-dimensional objects , equipment or other interior considerations common throughout the airport.

8.0 Items not Included in this Manual
Appendix A - Approved Materials

As a living document, this section is intended to collect approved materials for future application.

Appendix B - Approved Elements, Designs and Details

As a living document, this section is intended to collect approved elements and design solutions for future application.

Applicable T4 Spaces and Design Intent

The Interior Design Standards are intended to apply to all public spaces within Terminal 4. From the 1990 core spaces to the 2013 Sky Train, spaces throughout the terminal exist at varying degrees of the terminal vision. A major goal of these standards is to provide guidelines to better unify the interior spaces.

While the principles of this document apply throughout, the intent of the following is to identify and briefly describe the how the Interior Design Standards might apply to many of the public spaces.

Baggage Claim - Level 1

The Baggage Claim is an anchor space of the terminal and is currently outdated in terms appearance and passenger experience. As the Interior Master Plans imply, the space would benefit from a programming exercise to optimally locate many of the suggested elements within the space - including lounges, baggage service and other tenant program. The recommendation to remove the security rail also has a big impact on the programming. To the extent that it can be supported by future projects, a baggage claim schematic design process (expanding on master planning concepts) could best define a comprehensive approach to floors, walls, ceilings and programming. Incremental projects should work to allow future flexibility in engaging that process.

Ticketing - Level 2

The Ticketing Level is often the front door and first impression to the Terminal. The current space is outdated and does not provide the desired impression. To the extent that it can be supported by future projects, a ticketing hall schematic design process (expanding on master planning concepts) could best define a comprehensive approach to floors, walls, ceilings and programming within the Ticketing area. Such a process might best inform elements like the ticketing backwall, light coves and other elements that could be uniformly designed and applied. Incremental projects should work to allow future flexibility in engaging that process.

Pre Security - Level 3

Renovations since 2001 have provided a retail appropriate environment that is consistent with the Terminal Vision. Although materials and the core architecture are sound, many of the elements that have accumulated over time contribute to a visually cluttered space. These design standards will serve Level 3 by seeking to better organize such elements and provide balance and consistency for current and future projects.

Sky Train

The Terminal 3 Sky Train platforms, opened in 2013, provides a link to the contemporary vision of the entire Phoenix Sky Harbor International Airport.

Checkpoints

As technology and regulations evolve, the checkpoints are one of the most rapidly changing spaces within the terminal. These standards worked to respond to the recent checkpoint renovations and adopt a complementary color palette. Future checkpoint projects should follow these design standards while also understanding the context of the existing spaces.

Concourses

With the exception of concourse S-2, the concourses are outdated. To the extent that it can be supported by future projects, each concourse should be evaluated and programmed to be most effective in terms of passenger service and offerings. Such a process might best inform the location of amenities, information, advertising or art that result in a balanced and cohesive environment. Further, future projects should seek to develop a standard approach that can be applied to all concourses.

Garage Elevator Cores - Levels 4-9

As a part of the T4 public spaces, the Garage Elevator Cores should be rely on these standards.

Concessions

Concessions should complement the goals identified in these and are ultimately subject Terminal 4 Food & Beverage Concessions Tenant Design Criteria and Business and Properties contracts.

International Arrivals

Overall, the International arrivals addition is generally consistent with the Terminal Vision. These standards worked to adopt a complementary color palette to the project. Future projects should follow these design standards while also understanding the context of the existing space, color palette and materials. Further, planning efforts should follow the spirit of these guidelines by working to group similar elements into zones and reduce visual clutter.

Elevator Cores and Cabs

Elevator Cores and Cabs should adhere to these standards to achieve a cohesive fit with Terminal 4 as a whole. It is important that all the Cores and Cabs are consistent in design and approach to tie the multiple levels together and support the Terminal Vision. Note that using different colors or approaches to distinguish floor levels or North/South has been discouraged.

Rest rooms

Many of the existing rest rooms are outdated, while others are consistent with the Terminal Vision and complement the Interior Design Standards Color Palette. Rest room projects should adhere to these standards while consulting the recent projects for precedence and standards.

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2.0 EXISTING FACILITY OBSERVATIONS

MAY 8 2014

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Introduction

The Existing Facilities Observations section is intended to document stakeholder issues that were discussed through tours, interviews and workshops. The direction of the Interior Design Standards is based on these conversations. This section should be referenced to give context to the following sections of the Interior Design Standards.

Facility Tours and Interviews

The Design Team conducted a series of staff interviews and Terminal 4 tours with the goal of identifying facility needs and opportunities. Airport representatives from the Airport Museum, Business and Properties, Facilities and Services, and Design and Construction Services participated. The Terminal 4 tours and interviews focused on the primary public spaces, such as the Baggage Claim, Ticketing Hall, Level 3 Terminal and Concourse . The process allowed for the design team to listen to the airport stakeholders, discuss key issues and begin seeing the facility through the eyes of those that operate Terminal 4. The following pages illustrate the range of issues discussed and observed .

Tour discussion about visual clutter and maintenance issues
associated with plants and waste receptacles.

Art

The Airport Museum Gallery space serves as an anchor for Terminal 4. The museum itself has a strong presence throughout the terminal and there are many successful installations. In addition, there already exist many art display solutions that will serve as a precedent for future work.

Despite this progress, there are still several issues affecting the success of the art program. Many areas of the terminal have fully integrated exhibits, while other areas, such as the baggage claim, have little presence. Further, many of the exhibits are not coordinated with adjacent elements or not ideally integrated with the interior architecture. For example, the close proximity of SSD signage to the Art Cases on Level 3. Design standards, master planning and developing a process for coordination will ultimately strengthen the Airport Museum.

Successful art projects abound.

The goal of the airport museum is that Art should "greet you wherever you go". Future work should be sympathetic to this mission and look for opportunities to continue integration of art throughout Terminal 4.

Coordination between existing Art exhibits and other airport elements is often lacking, resulting in unintended juxtapositions. Art exhibits should include a buffer zone to separate them from adjacent signs and elements.

Design standards for exhibit cases should account for elements such as lighting, security and air filtration.

Wall recess protects art.

From wall-mounted art to display cases, there are various types of applications for which standards can be developed.

Art exhibits are often intended to be visually connected with adjacent display cases/installations. New projects within the terminal can often break these connections - FID monitors in this instance. A process for better collaboration between the Airport museum and other stakeholders should be developed.
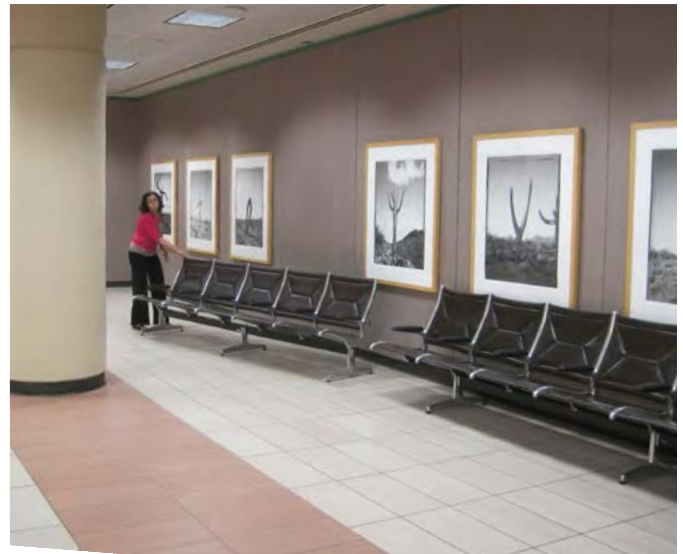
Movable seating damages art when placed against it. Thoughtful consideration should be used when placing seating - fixing when necessary. Intentional seating areas, compositions and groupings are less likely to be moved than haphazardly placed seating.

Business and Properties

Tenants and revenue generating elements are constantly evolving and being added to the terminal, for example ATMs or airline ticket counters. Applying comprehensive solutions and standards to these elements can reduce the visual clutter that currently fills many spaces. In addition, many elements and amenities throughout Terminal 4 are outdated, which detracts from the environment. Ultimately, integrated and coordinated design solutions ultimately improve the image of the space and the passenger experience at the airport.
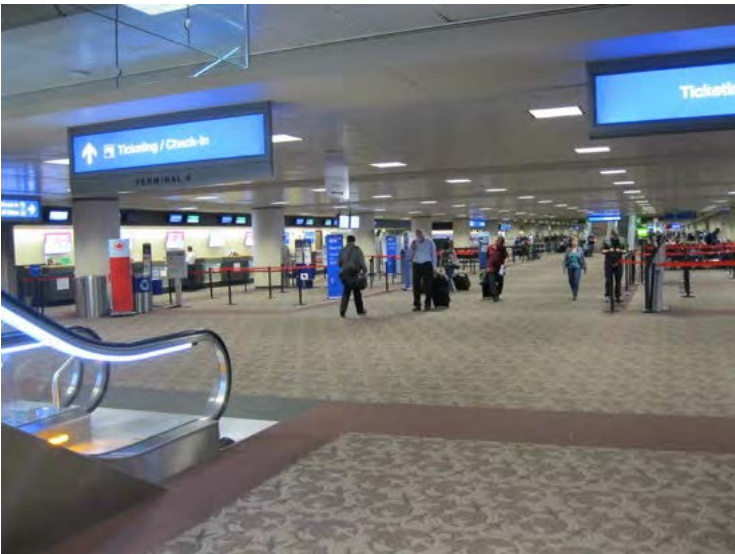
The ticket lobby has many tenants with varying needs and approaches.

Multiple stanchion types and varying toppers create visual clutter throughout the ticket lobby. Design Standards should provide a consistent approach.
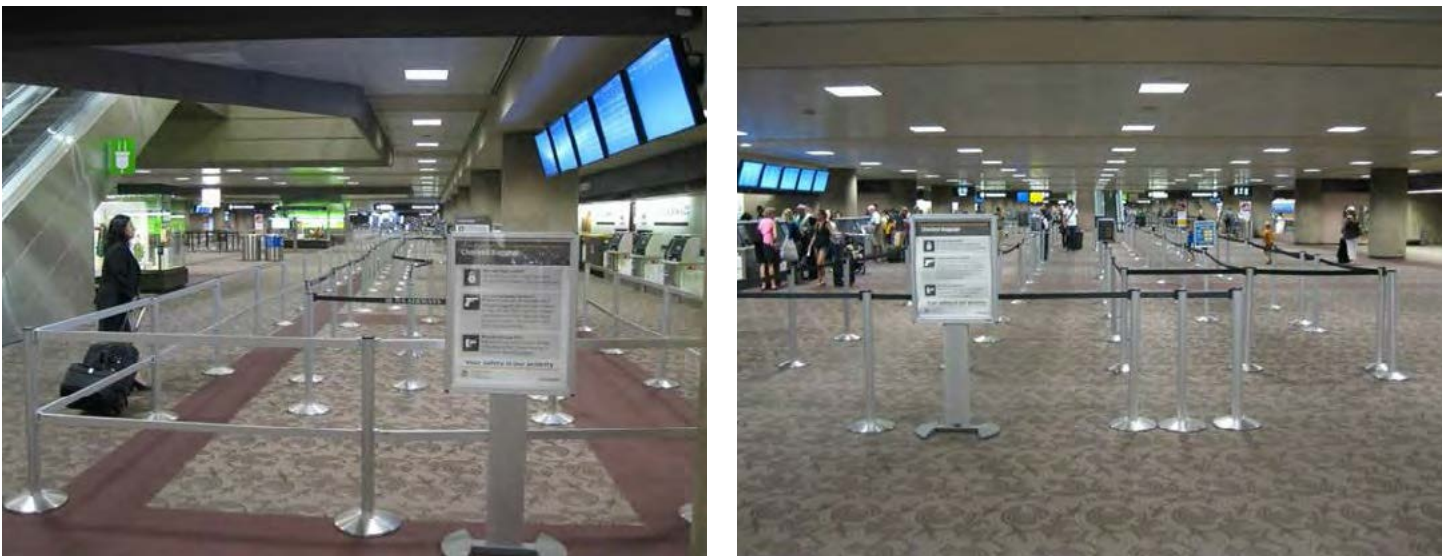
Future flooring patterns should identify queuing and lease lines.

Standards are needed for airline tenant back walls. Such standards should include branding zones and typical materials. Advertising or revenue generating banners should not be allowed.
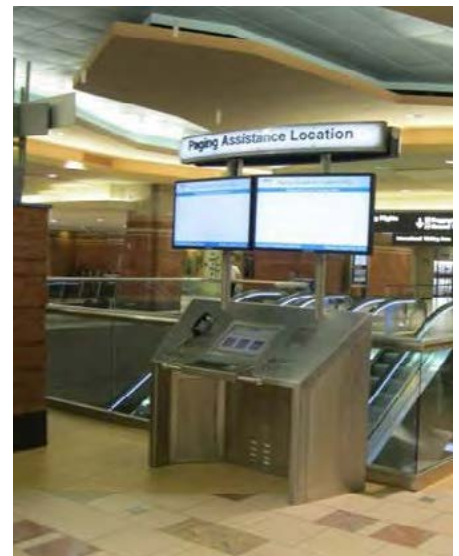
Visual Paging locations are out of scale and not well integrated. Terminal directories look out of date and are not consistently located.

Service and baggage counters should be standardized. A solution is needed for ancillary airline baggage and carts.

Changes are anticipated for phones, both courtesy and pay, throughout the terminal.

Facilities

The Facilities staff is responsible for items ranging from waste receptacles to seating throughout the terminal. It is important that the right solutions and design standards are in place so that these elements are consistent and effective. Facility maintenance is one of the most important issues at the terminal, and design standards should consider the quality and durability of materials. There are many existing examples of poorly suited materials such as difficult to repair plastic laminate wall panels or unprotected gypsum board walls. Future discussions should address life cycle costs and maintenance needs while working to enhance the passenger experience at Terminal 4,

The terminal finishes are affected by both high passenger traffic and equipment.

Trash and recycling receptacles often are placed haphazardly.

Fake plants add to visual clutter and create maintenance issues.

Durable materials must be a priority - especially at walls, flooring, and base. A sturdy wainscot is preferred at walls - noting that flat stainless steel easily scratches and smudges. A hard surface flooring is ultimately preferred in high circulation areas as there have been many issues with the existing carpet.

Design standards should mandate seam to seam patching of terminal elements so that unsightly holes or partially removed elements do not remain. This should also include the removal of abandoned equipment.

Vending machines and other amenities should be recessed into walls or have enclosures provided so that they are integrated into the interior architecture.

Where possible, amenities should be strategically located and grouped together.

Facility Observation Workshop

The first workshop occurred on September 30th, 2013 with the goal of gathering feedback and impressions on Terminal 4. A range of images were presented from public areas throughout Terminal 4 and airport staff were asked to comment on issues, problems and preferences. Representatives from the Airport Museum, Business and Properties, Facilities and Services, and Design and Construction Services attended. The following image boards from the workshop note the stakeholder comments.

Workshop participation

Busy carpet and wall texture detract from advertisements

Texture Pattern Conflict

A

Boring lobby

Each lobby should have a similar design

Brown and Gray. Not a good combo. No color palette.
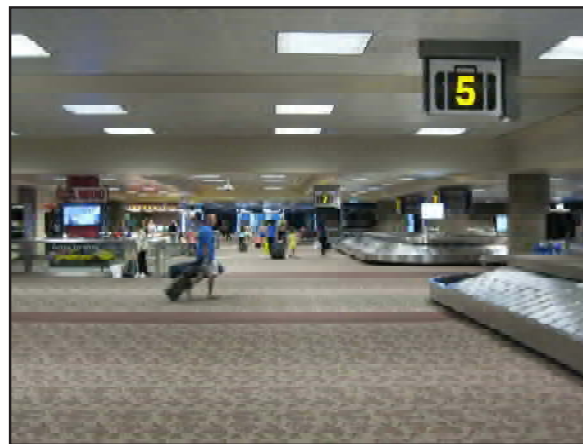
B
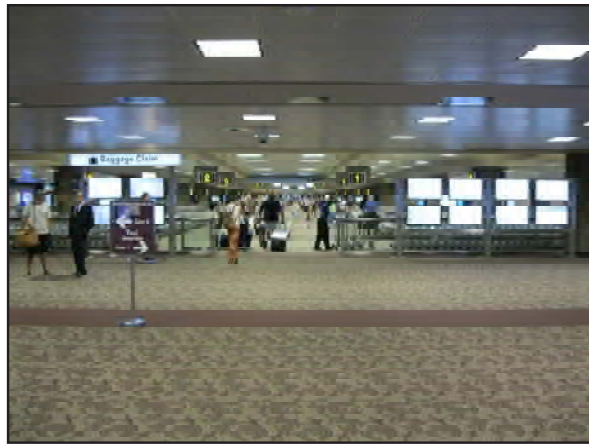
Boxes create patterns with texture of carts behind - not inviting

first impression is not positive

C
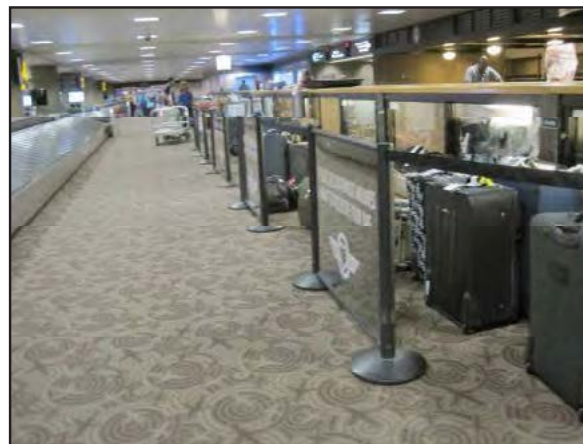
Unsightly baggage queuing and storage

Unruly bags outside of lockers.

Need Alternate solution to bag lockers.
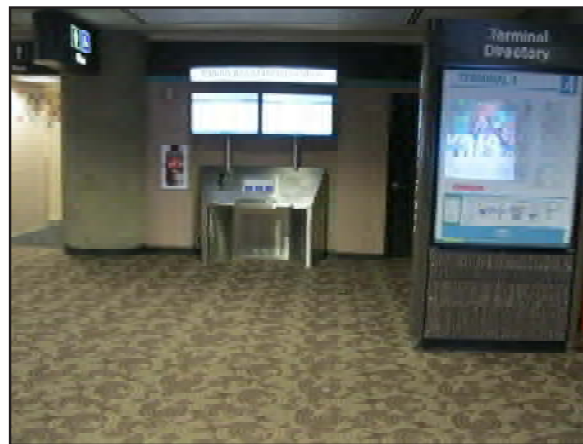
This is an ugly outcome.

D

Lacking sense of arrival to space.

Rug is ugly.

E

Is free standing sign a symptom of unclear way-finding?

Sign - this will travel. Ugly.

F

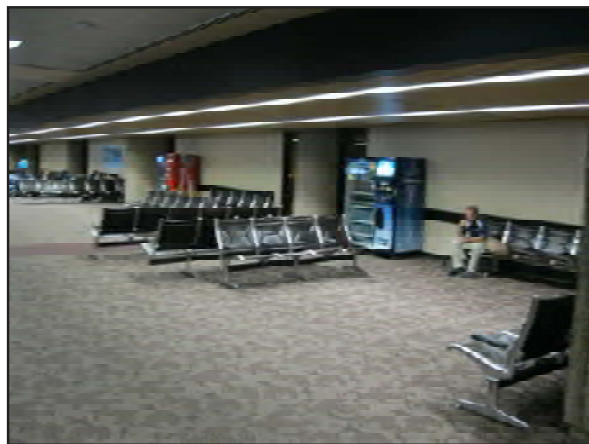Inconsistent approaches to information amenities

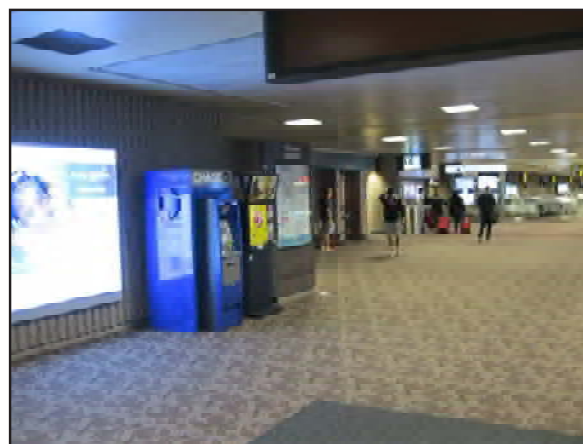G

Information desk is out of scale

Not a part of the design (if we have a design)

H

Brown, Brown, Brown and more brown. No contrast for focus points.

J

Poorly integrated amenities

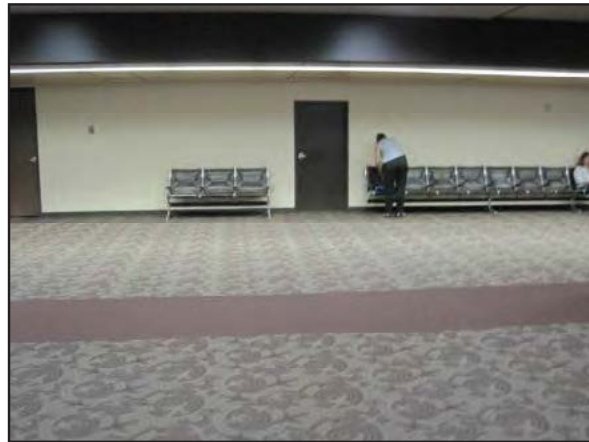No consistency in vending machines.

Create Visual clutter.

K

Lack of storage for baggage carts

Need storage/park location for bag carts.

UGH! This should be hidden - and is dangerous.

Workshop

Baggage Claim

Existing Facility Observations
Terminal 4 Interior Design Standards
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undefined space

agree

Temp areas should be made attractive.

Could be a great temporary art in area in stanchions.

This temp area has been there for years.

A

Inconsistent back-wall branding, advertising and decorating

Agree - hate the decor

agree - need consitstency

standardization needed

B

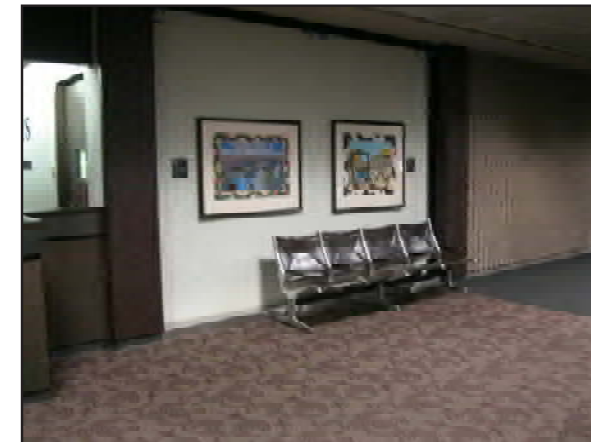Poor sense of arrival to Ticketing Level

Dark
Dark
Level 2 needs light

C

Logos and words create clutter and are probably not that important.

F ... no

Undesirable passenger experience issues

super busy - not welcoming

dark

D

Poorly defined art zone
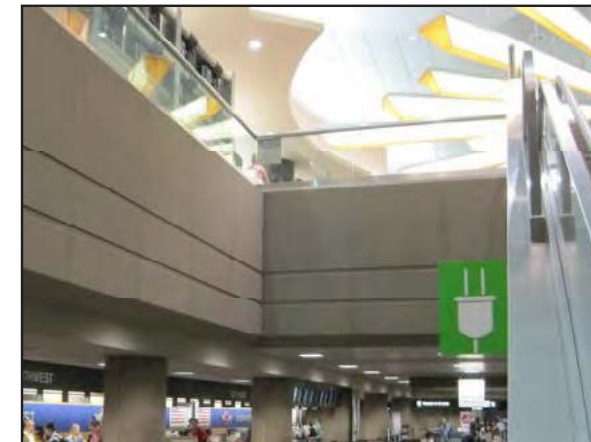
Seating conflicts with art

E

Adverse glare on art case from recharge sign

F
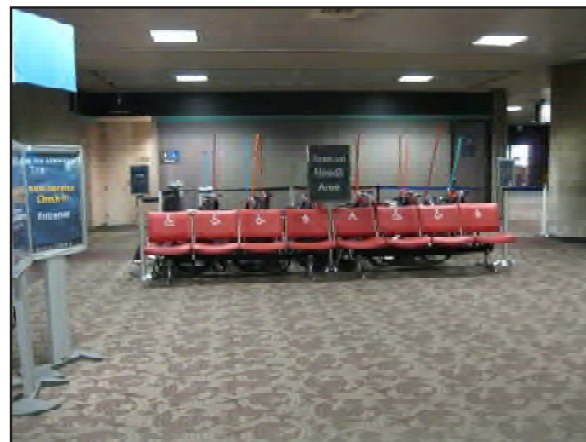

dark

old looking

dated

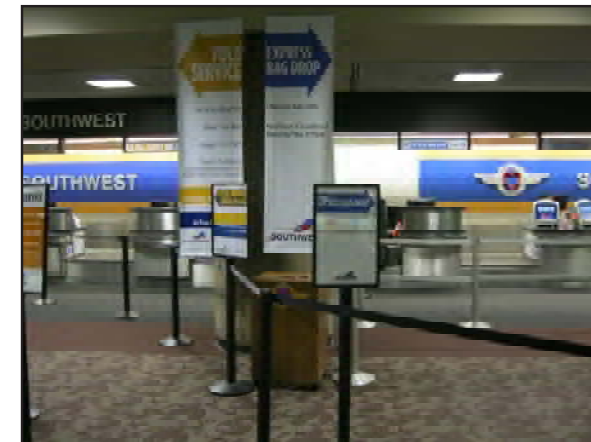confetti?

Poor connection between level 2 and level 3

H

Dark.....

Lighting is boring

J

Poorly defined Special Needs Area

K

Visual Clutter

Yes

Workshop

Ticketing

Existing Facility Observations
Terminal 4 Interior Design Standards
Phoenix Sky Harbor International Airport

exposed back of FIDS

Ugly

Nasty
Out of scale

A

Like this

these add another distraction - and do not add way finding as promised, also: trite and kitchy

what is this?

Tenant sign too close to art feature

too busy

strips create pattern

too busy, clutter.

Too tight to display

Nice dead plant.

Awkward groupings of trash, recycling and plants
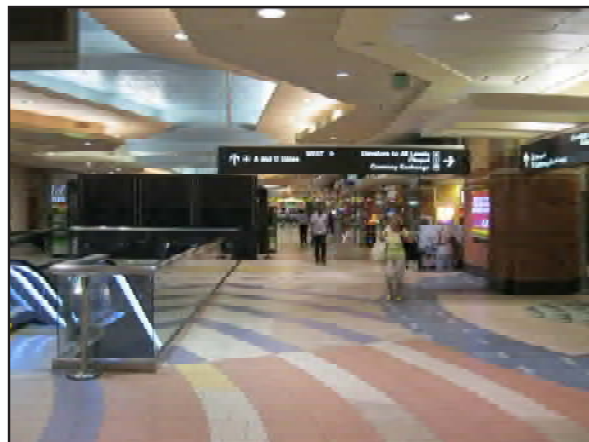
agree

agree

Tenant banner competes with way-finding
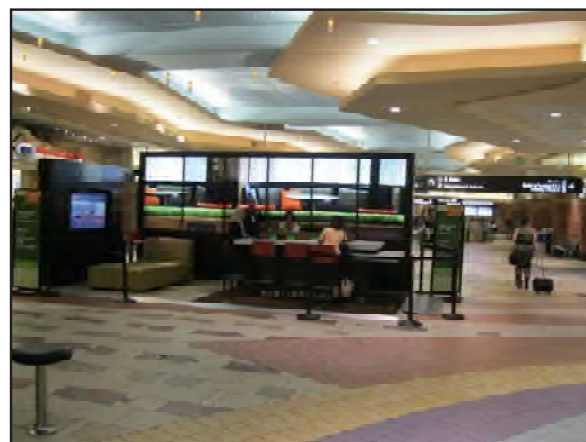
agree

Lacking sense of arrival

agree nice

B

Big black wall confusing

obstruction

C

Installation blocks sight lines

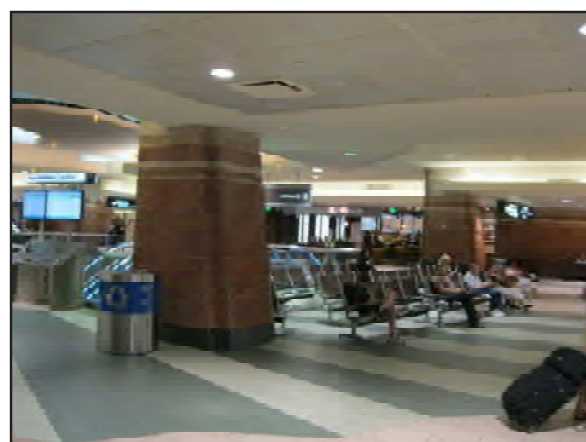huge - out of place

obstruction

D
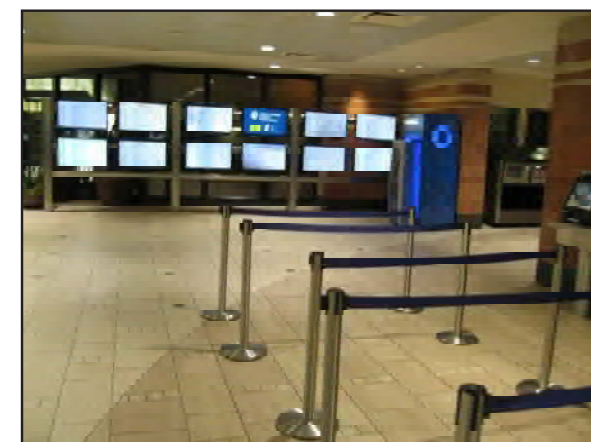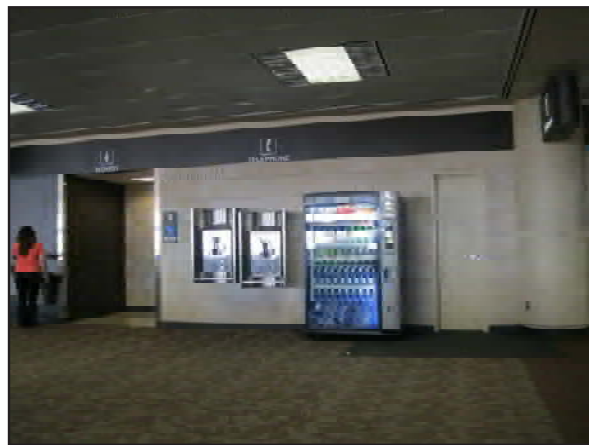

Plants ugly

inviting area

dead plants

E

Why stanchions here

agree

FIDS block potential light

Workshop

Level 3

Existing Facility Observations
Terminal 4 Interior Design Standards
Phoenix Sky Harbor International Airport

After thought

A

Confusing

Lack of circulation area

Wow, who even reads this

B
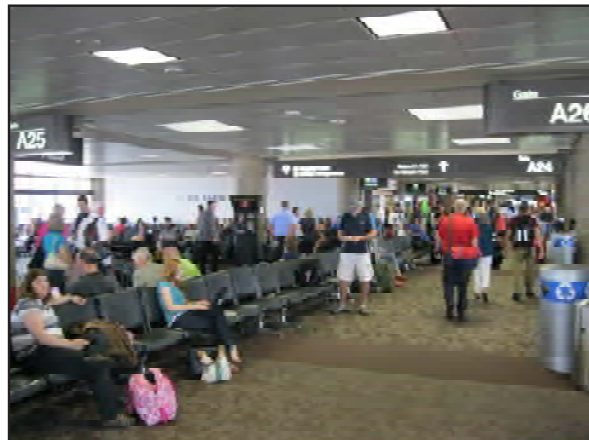
Unorganized
Stressful

Low ceiling

No light

Cluttered

No light

C
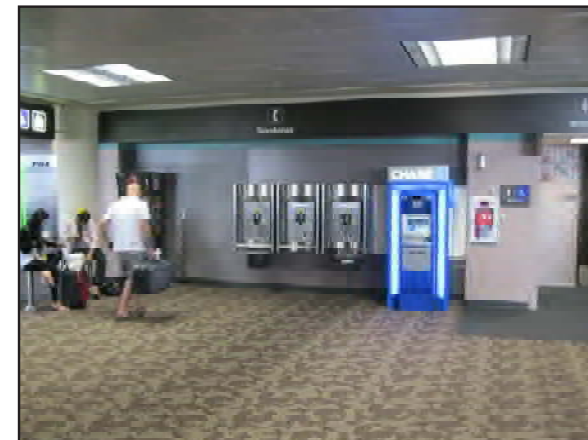
Busy and confusing

Squares everywhere

Consolidate

Nice Men Sign

Workshop
Concourses

Existing Facility Observations
Terminal 4 Interior Design Standards
Phoenix Sky Harbor International Airport

Cluttered

Light is great

agree

Ugly - arch
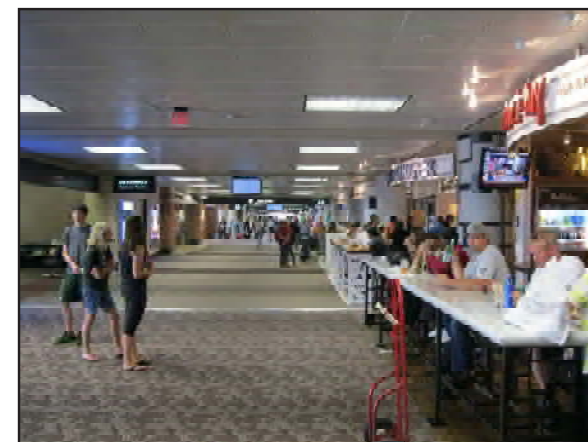
Art doesn't flow.
Adds to the clutter
Does not add...

unsuccessful arch. Did not work as artist said it would.

natural light!

Ceiling is fabulous

Width is great

good area for art

Too many finishes - chaos

Like floor

Workshop
Concourse S-2

Existing Facility Observations
Terminal 4 Interior Design Standards
Phoenix Sky Harbor International Airport
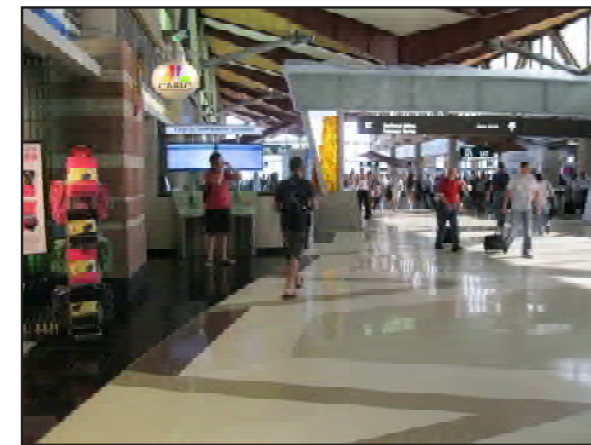
Checkpoint

Public art opportunity in the future

Really
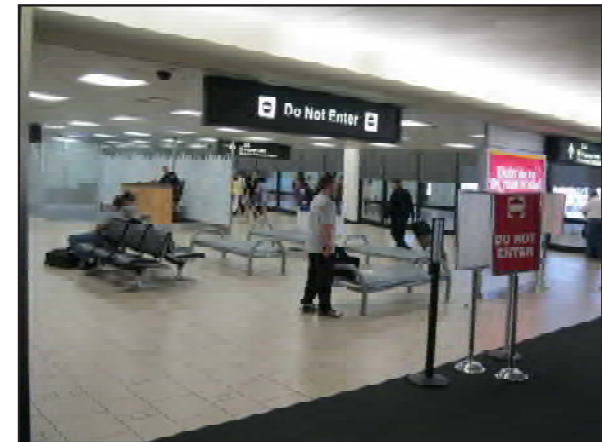
Too many signs

Benches do not fit interior use
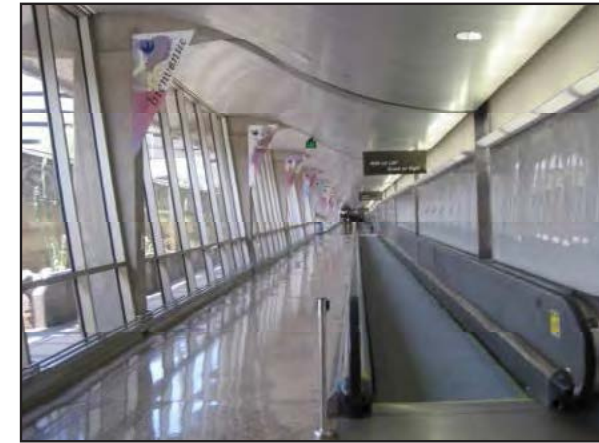
International Arrivals

plants and art outdoors - attractive use of space

Was nice until signs stuck on fronts of counter

Good update but need integrated solution for signs on counters

Sky Train

Nice - colors nice

Only necessary amenities displayed

light allowed to come in

Like finish

Workshop

Recent Projects

Existing Facility Observations
Terminal 4 Interior Design Standards
Phoenix Sky Harbor International Airport
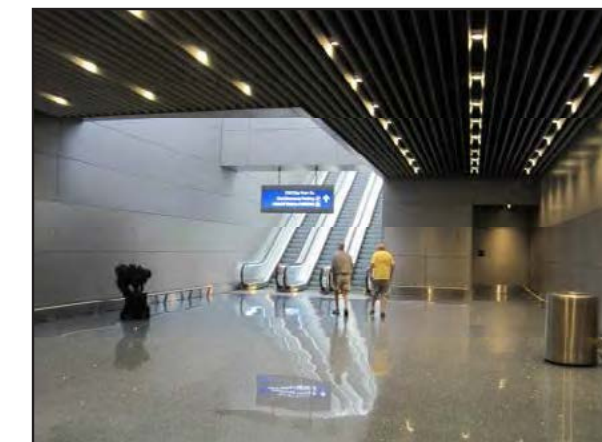
TERMINAL 4 INTERIOR DESIGN STANDARDS
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INTERIOR MASTER PLAN
MAY 8 2014

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Introduction

An important goal of this resource is to enhance the function, circulation and aesthetics of Terminal 4. In order to achieve this, the Interior Master Plans identify and resolve primary space-use, item and circulation conflicts. (For example, artwork relationship and sight-line preservation relative to placement of other airport items such as directories, signage or FIDS) The master plans are the conceptual backbone for standards as they identify ideal zones for certain usages, architectural hierarchy and strategies.

Beyond the general base architecture, terminals build up layers of existing elements over time. From seating and ATMs to Airline Tenant equipment, these elements are often uncoordinated or not installed with the overall experience in mind. Many of these items often are an isolated response to the daily issues or problems that constantly arise at the facility. The Interior Master Plan documents address the Baggage Claim, Ticketing, Level 3 and the Concourses and identify many such elements. The following major terminal elements are categorized in these documents:

- Orientation

- Seating

- Advertising

- Art

- Information

- Amenities

- Tenant

- Trash/Recycling

- Plants

- Neutral Zones

Existing and Master Plan comparisons are provided for each category on each level. The intent is to show where opportunities exist to collect elements and organize them with other functions. For example, haphazardly placed seating can be organized into an intentional seating zones or lounges. Further, synergies with adjacent elements such as Art or Vending can dramatically improve the aesthetic and experience. These elements and zones should be considered as a part of an overall composition as opposed to individual unconnected pieces. Most importantly, these zones are to guide and integrate with the Color Palette and Material Standards of these Interior Design Standards. In effect, palette and materials should appropriately respond to these zones, functions and programmatic elements. The goals for each of these terminal zones are listed a at the beginning of this section and are intended to give context to airport stakeholders and design teams as they make space use decisions. Interior planning and design is a fluid process with continually evolving program and space needs. In combination, the terminal zones and master plans are meant to be a starting point to evaluate these needs and offer context to guide expected variances.

Master plan example

Terminal Zones

Orientation Zones

As travellers progress through the Terminal, they will encounter many different level changes and functional spaces. Both the business traveler and the first time flyer must be able to efficiently navigate the airport and successfully engage the complex airport program. The transitions between these major terminal spaces are crucial to creating a comfortable and intuitive passenger experience.

This standard identifies and defines these important transitions as Orientation Zones. As a traveller enters an Orientation Zone, they survey the space and either intuitively or using wayfinding, are able to make a decision on how to continue through the terminal. Both terminal designers and airport stakeholders should endeavor to preserve the decision making priority of these spaces.

Programmatically, Advertising, Vending and Amenities should generally avoid these zones as they tend to compete for the traveler's attention and add visual clutter. Successful advertising, for example, should easily outbid terminal wayfinding and capture the one's attention.

Informational elements such as FIDS, Directories or Information desks are closely related to these decision making spaces. In some instances, these elements may be appropriately located within the orientation zones as long as they do not distract from wayfinding elements or constrict circulation. Alternatively, they may directly follow the zone so that the traveler may proceed into the space and then stop, if necessary, and obtain more detailed information.

In addition to supporting wayfinding, these zones also have the opportunity to reinforce the Terminal Vision as they engage travelers in a new space. Public Art or Airport Museum Exhibition spaces may be incorporated into these spaces to reinforce a regional sense of place and greet travelers.

The overall design intent of the Orientation Zone is to create a hierarchy within the floor plan such that it supports decision making and is a punctuation of the contemporary aesthetic of the terminal.

1 - Orientation Zone Concept at Baggage Claim
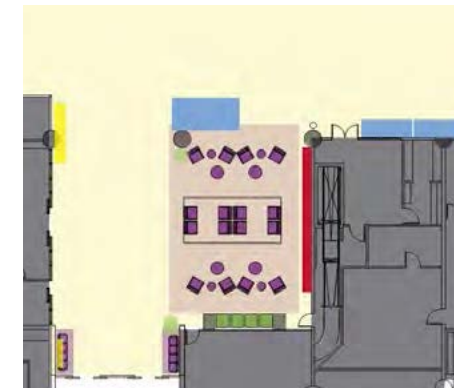

Orientation Zone Concept at Baggage Claim

Seating Zones

From waiting benches and lounges to gate hold furniture, seating is an important passenger amenity throughout the Terminal. It is also important that design teams consider the many types of airport travelers that rely on seating. Aging travelers may require convenient resting areas. Families often look for recomposing areas. Meeters/Greeters seek welcoming lounges. Seating is rarely a stand alone element and typically supports other functional areas. The intent of the Seating Zone concept is to not only call attention to the importance of traveler seating, but also to the importance it plays in determining the overall aesthetic. Mismatched or haphazardly placed seating creates a feeling of disorganization.

Airport Stakeholders and Design Teams should endeavor to coordinate seating with the supported functions and zones adjacent to the seating area. Organizing seating with adjacent art, amenities, advertising or informational elements creates synergies between them - strengthening those functions. It may be appropriate in some spaces, like seating lounges, to express Seating Zones architecturally by expressing floor or ceiling design. Use of light coves or floor inlays, for example, strengthens the composition and supports the planning ideas. These well composed and intentional seating zones will add a successful and important layer to the passenger experience.

Advertising Zones

Advertising is a fundamental component of the terminal program and important to both revenue generation and the passenger experience. Well designed and integrated advertising adds a richness throughout the terminal and designers should be encouraged to provide creative, alternative and progressive advertising solutions. Such solutions should strive to compliment the terminal vision and aesthetic. Effective advertising integration is most successful when it is not in competition with wayfinding elements and other zones. When possible, an entire wall surface should be given to advertising to maximize the impact of the zone. At a minimum, a 2'-o" free area matte around advertising should be maintained. Elements like seating or cart dispensers are often mingled with advertising zones and designers should work to carefully compose all elements to ultimately strengthen the zone. Airport stakeholders should work to balance advertising zones throughout the terminal while respecting the integrity of orientation, art and information zones.

Seating Zone Concept at Baggage Claim

1 - Lounge concept
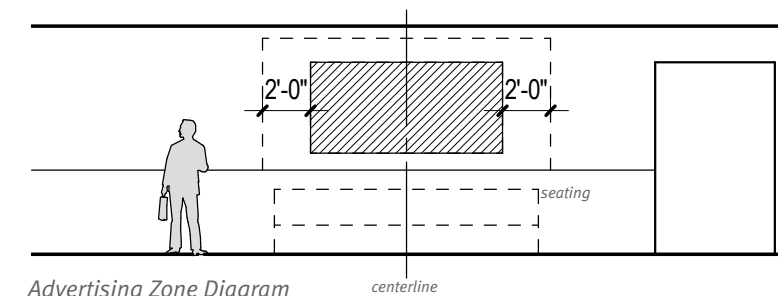
Advertising Zone Diagram

Art Zones

The mission of the Phoenix Airport Museum is to enhance the traveling public's experience by creating a memorable environment that promotes Arizona's unique artistic and cultural heritage . The intent of dedicated Art Zones is to organize and create specific spaces for art throughout the terminal. To maximize the success of these zones, it is important that they are coordinated and balanced with the other zones such as advertising or information. Ideally, each zone is given its own area to be effective, but at a minimum, all other elements should be 2'-0" min away from Art Zones. Airport stakeholders and designers should also find opportunities to maximize impact of Art Zones by finding synergies with appropriate spaces and elements. For example, Art Zones can enhance the passenger experience by leveraging their impact within orientation zones, rest room waiting areas or lounges. Key to that success is well composed elevations and planning strategies that integrate Art Zones into the space.
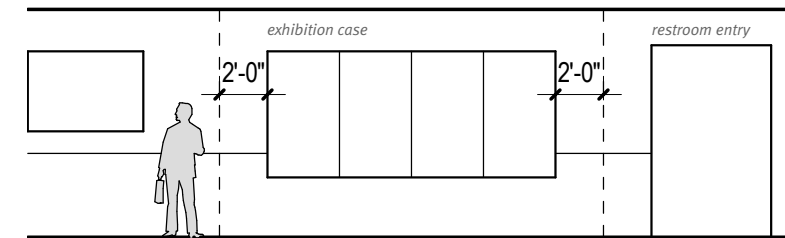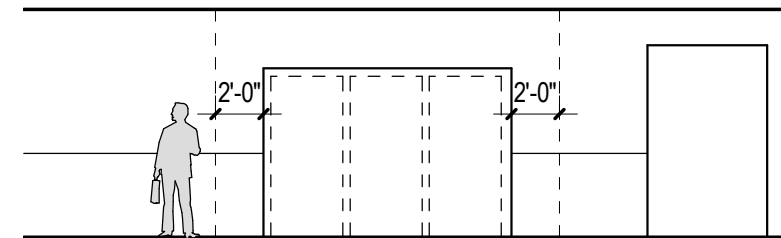

Art Zone diagram

Information Zones

The airport provides many different types of information and communication throughout the terminal. Staffed information desks, visual paging, directories, courtesy phones, Flight/Baggage information and interactive displays all provide service to passengers. The intent of information zones is to collect these programmatic elements and locate them so that they may be the most useful to travelers. Haphazardly placed elements can appear disorganized and create visual clutter. By collecting, composing and creating clearly defined information zones, travelers will be able to better find and utilize these services. When appropriate, designers should consider architectural strategies such as floor, ceiling or lighting design to identify these areas. Space planners and designers should also consider locating Information zones directly after key circulation decision-making areas like Orientation Zones or by waiting areas such as rest room entries. Information zones should be spaced apart from other elements, maintaining 2'-0" clear a minimum. Strategies might include combining these services into Information Casework adjacent to an orientation zone. Alternatively grouping information next to concourse rest rooms may improve access and service. Balancing information zones with Art Zones and Advertising Zones is important so that each may be the most effective. Ultimately, clearly defined and accessible Information Zones improve the passenger experience and support the Terminal 4 Vision.
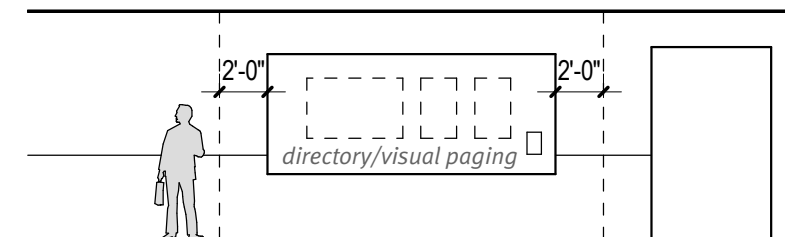

Information Zone diagram

Amenity Zones

Revenue generating and service amenities are an important component of the terminal program. ATMs, vending machines and vending carts all play a role in servicing terminal travelers. Although seemingly minor, the accumulation of these amenities throughout plays an important role in the Terminal image and aesthetic. Randomly added elements can create visual clutter throughout the airport and negatively impact Advertising, Art, Information and the passenger experience. Accordingly, it is important that airport stakeholders and designers consider the effect of these elements and effectively plan for their integration into spaces. By clearly defining Amenity Zones, design teams can collect these services into one area, balance with other Zones and developing a consistent design language (signage, lighting)

Amenity Zone diagram showing vending machines

Tenant Zones

Tenant Zones are intended to broadly define tenant areas in public spaces that may include elements like remote self-serve ticketing machines, tenant service counters or even concessions seating that shares space within public way. In order to fully promote the terminal tenants, other zones should not crowd tenant areas - keeping 2'-0" minimum clear. When other terminal zones are located adjacent to tenant areas, the goal should be to compose such elements and identify synergies that promote a cohesive environment. Further, signage or advertising within the tenant zone should support the terminal environment corralling and composing signage and advertsising - avoiding visual clutter.
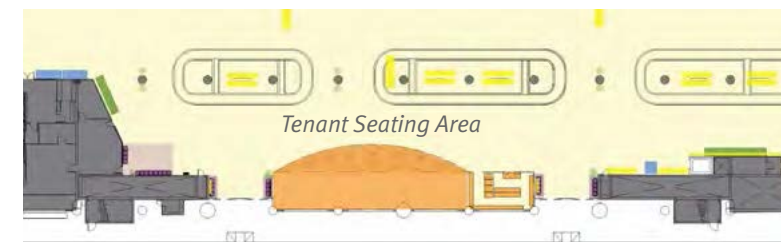
Tenant Zone and master plan diagram

Trash & Recycling Receptacles

Trash and Recycling Receptacles play an important role in maintaining a clean airport environment and have a great impact on the visual aesthetic. To support this, Trash and Recycling Receptacles should always be paired together and maintain a consistent image throughout. Further, it is critical that the receptacles respect proper spacing from other zones and when required, are properly coordinated.

Plants

Use of Plants and fake Plants should be minimized as they can easily add unnecessary clutter to the terminal. Any plants used should be highly coordinated, composed with the entire area and integrate elements that support a successful installation (access to light, watering, fertilizing, etc...)

Neutral Zones

Airport stakeholders should consider the value of leveraging and programming neutral areas. The complex terminal program often leads to a competition for free wall or floor space. Choosing to leave certain spaces free of program may provide 'eye rest' areas and emphasize the inherent architectural materials and palette that provide a cohesive environment. Programming Neutral Zones ultimately emphasizes other zones throughout the terminal.

Other Space Planning Considerations

There area many other programming elements that enhance the level of service or resolve functional issues within the Terminal. When needs are identified, Airport Stakeholders should work to locate such spaces within the context of the Interior Master Plan. Space decisions can be difficult to balance within the constraints of the Terminal and should be approached corroboratively with the Terminal Vision in mind. Following are a number of spaces that have been discussed for future implementation and design standard development.

Mothers Rooms

To support nursing mothers, a basic Mother's room should include the following:

- Privacy, including a lock on the door
- An electrical outlet close to where the mother will sit
- A comfortable chair (either a desk or café type chair for use at a table OR a lounge chair with a seat cushion that is not too low or too deep; not a reclining chair; and cleanable as spills are likely.)
- A table located in front of the chair - preferably at desk height when used with a chair at desk height
- OR a lower table if the chair is a lounge chair; about 24" wide x 12"
- An accessible approach to room and turn space within room
- A sink with hot and cold running water (for washing hands and pump parts)
- Paper towel dispenser
- A mirror (for checking clothes when done)
- A coat hook
- Consider sizing space for multiple family memebers and children when space is available.

Pet Relief Areas

Pet assistance is an important service for both passengers' pets and guide dogs. Ideal locations are near concourses, pre-security space and exterior dog parks.

Children Play Areas

Children Play Areas should be located near concourses. If dedicated spaces are not available, airport stakeholders should consider digital programming, mobile solutions such "Art Carts" or interactive art exhibits.

Wheelchair Storage

Dedicated spaces for wheelchairs reduces visual clutter.

Other Storage

When needed, space storage solutions should be developed in lieu of "in the open" storage.

Interior Master Plans
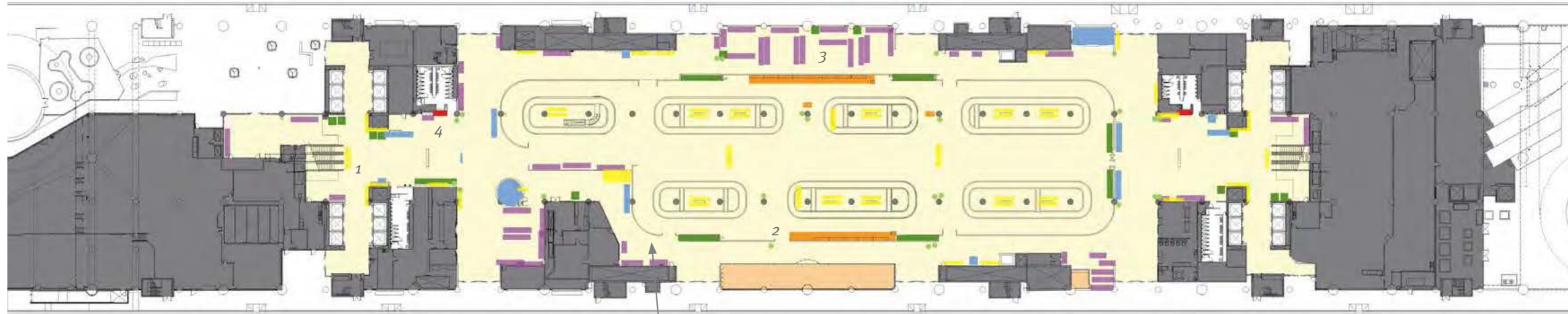
Baggage Claim Level - Overall Existing Organization

Removal of unstaffed secure baggage enclosure will enhance circulation, image and overall experience. This approach is consistent with Terminal 3.

Key

- Seating
- Advertising
- Art
- Information
- Amenities
- Tenant
- Trash/Recycling
- Plants

1 - Arrival to Baggage Claim

2 - Ancilliary Baggage

3 - Seating

4 - Art
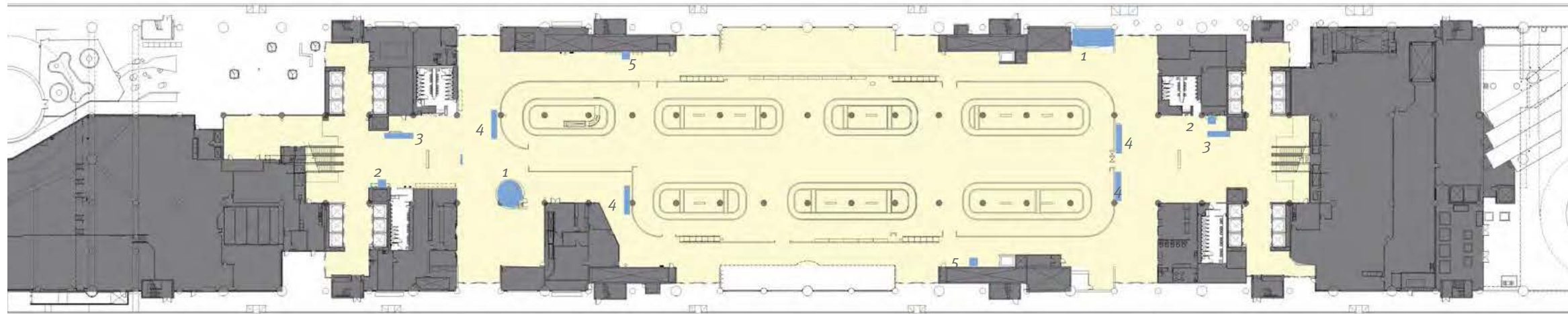
Notes

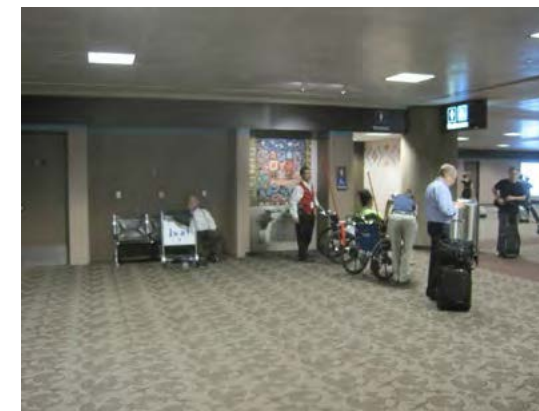|	
1	*Information desk*
2	*Visual paging*
3	*Directory*
4	*Baggage Information Display (BID)*
5	*Orientation Zone*
6	*Hotel Information Board*

Existing Information Organization

Existing information is inconsistent and not optimally located. Elements like visual paging seem independently designed, conflicting in scale and image. The information desks are oversized for current needs and as with many other elements, contribute to an outdated appearance.

Although oversized, the existing information desk is still a suitable location. Programming efforts may determine that there is value in using the space for concessions.
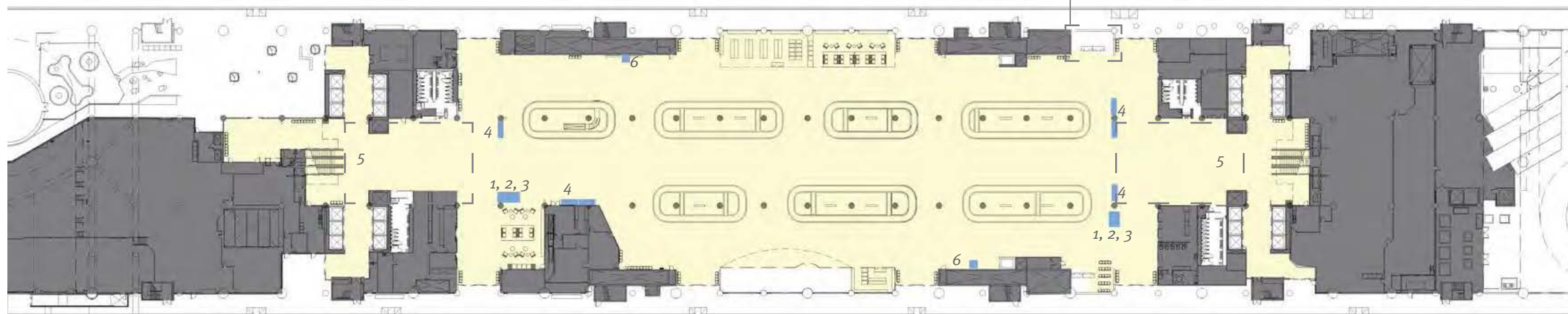
Key

■	*Seating*
■	*Advertising*
■	*Art*
■	*Information*
■	*Amenities*
■	*Tenant*
●	*Trash/Recycling*
●	*Plants*

Information Master Plan Concept

Notes

1   Ancillary Baggage Storage

2   Concession (Starbucks)

3   Car Service Tenant

4   Tubs, Carts, or other equipment

Existing Tenant and ancillary Baggage Organization

Existing baggage storage and service is unsightly, cluttered and appears over capacity. In combination with the unstaffed security wall, this ancillary baggage creates a constrained and seemingly chaotic space.

Based on programming, there is an opportunity for new leaseable space by relocating the info desk.

Key

Seating

Advertising

Art
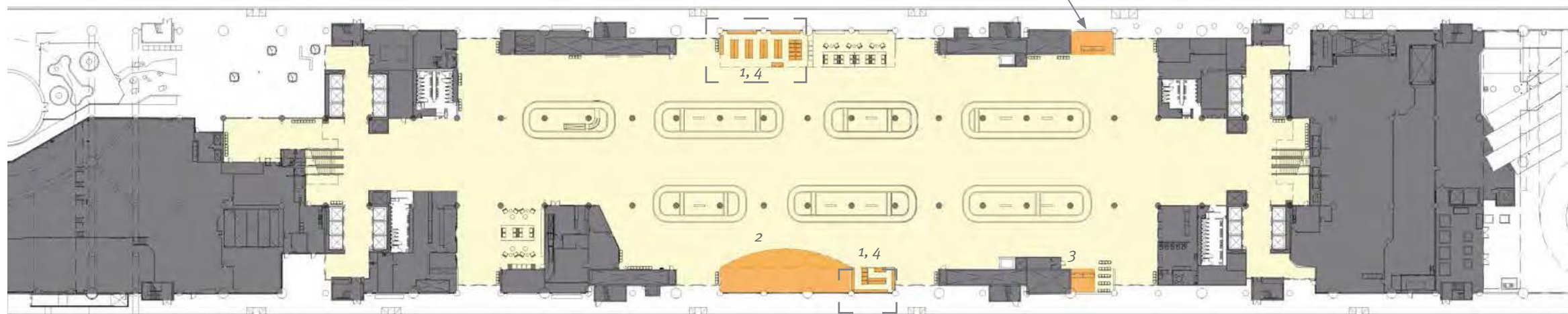
Information

Amenities

Tenant

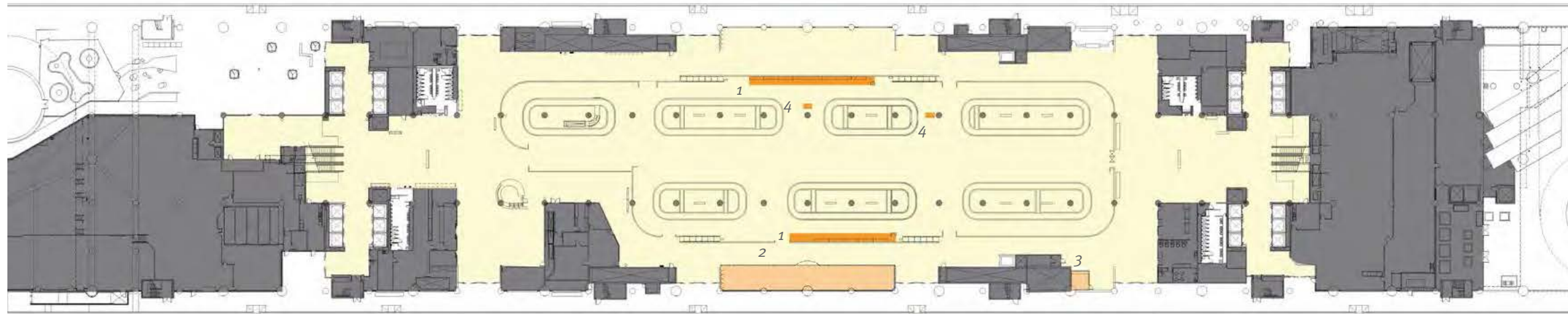Trash/Recycling

Plants

Tenant and Ancillary Baggage Master Plan Concept

With thorough operational programming, ancillary baggage should relocate out of the baggage claim device circulation zone to the perimeter. These baggage areas could be open, highly visible and should also account for carts and tubs that are currently left around the claim devices. The removal of the security wall will provide a stronger connection between concessions and the waiting area as meeter & greeter cafe seating can spill into the claim device area.
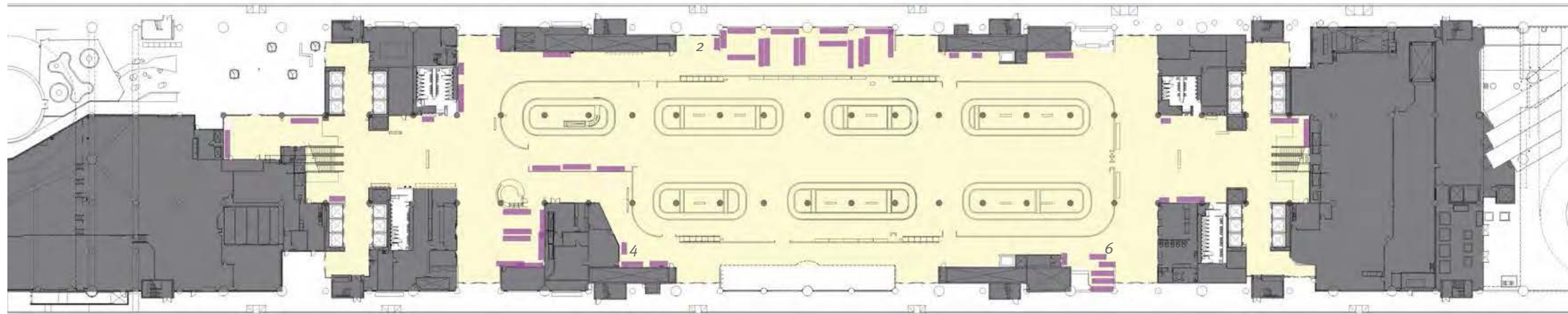
Notes

1   Lounge Seating
2   Exit waiting
3   Concession cafe seating
4   Global entry waiting
5   Miscellaneous convenience seating
6   Tenant seating

Existing Seating Organization

Existing seating is poorly composed and grouped - made up entirely of gate hold beam seating. Loose furniture is pulled around to wait near exits and generally scattered throughout.

Key
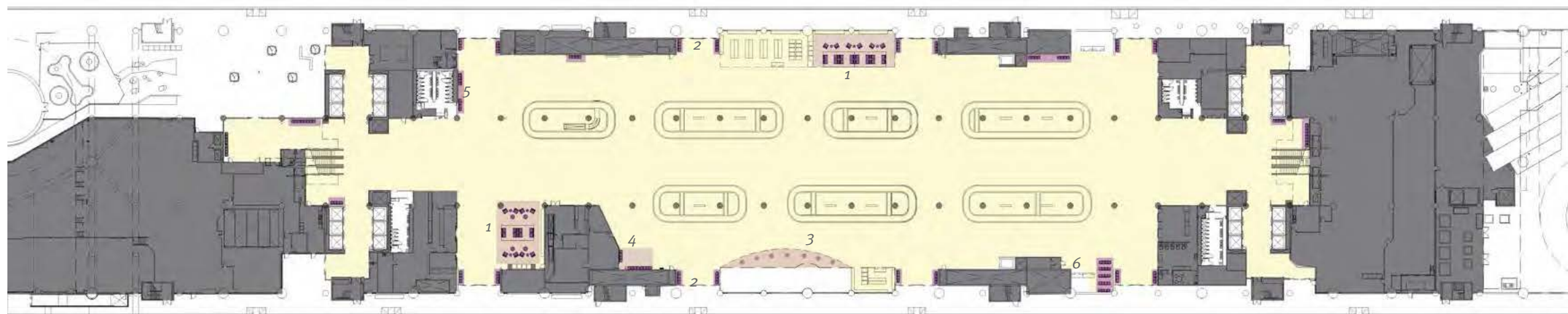
■ Seating
■ Advertising
■ Art
■ Information
■ Amenities
■ Tenant
● Trash/Recycling
● Plants

Seating Master Plan Concept

Intentionally defining a variety of seating options and areas will help define the baggage claim level. Lounges create hospitable waiting areas and can be combined with vending and art programming. Seating near exits and miscellaneous convenience seating can firmly be established and composed with advertising opportunities. Such composed areas are less likely to be moved, but may also be fixed. Concessions cafe seating, not separated by a security wall, provides a great waiting area for both travellers and meeters & greeters.
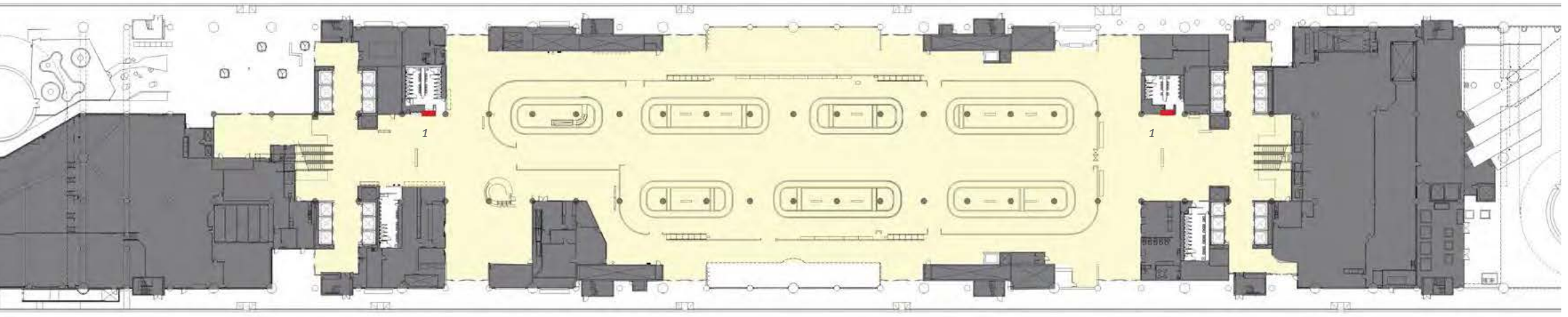
Notes

1   *Drinking fountain art*

2   *Art within orientation and arrival zone*

3   *Art within lounges*

Existing Art Organization

The existing baggage claim level has yet to fully incorporate the Airport Museum concept. Current art solely consists of drinking fountain backdrop murals. The configuration is poorly lit and doesn't provide ideal viewing. It is recommended that this area is renovated and reorganized. These art pieces should be separated from the drinking fountains and given a stand alone zone with proper lighting.
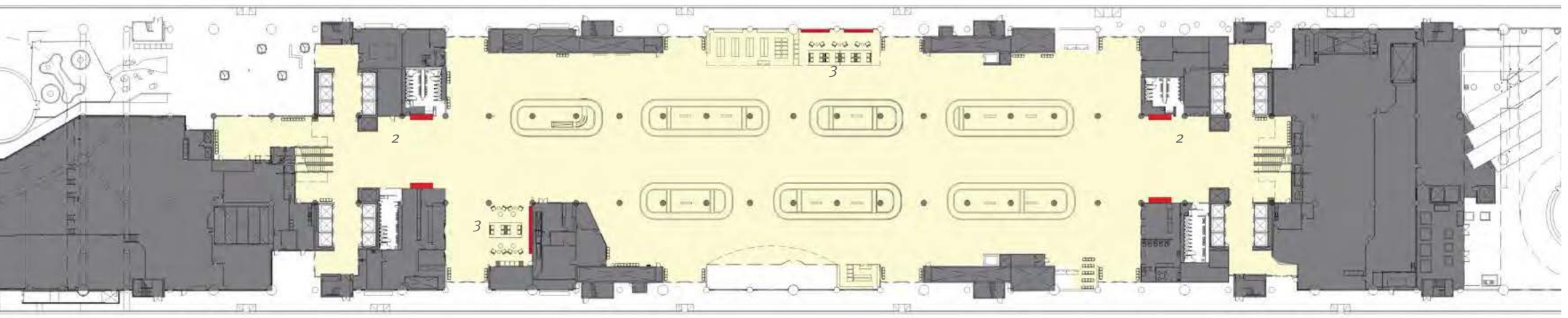
Key

■ *Seating*

■ *Advertising*

■ *Art*

■ *Information*

■ *Amenities*

■ *Tenant*

● *Trash/Recycling*

● *Plants*

Art Master Plan Concept

In the spirit of the Airport Museum, where *Art greets you wherever you go*, locating art at the arrival to baggage claim is ideal. It should be carefully composed with other elements like rest room entries. Within lounges, art and furniture groupings can create natural synergies.
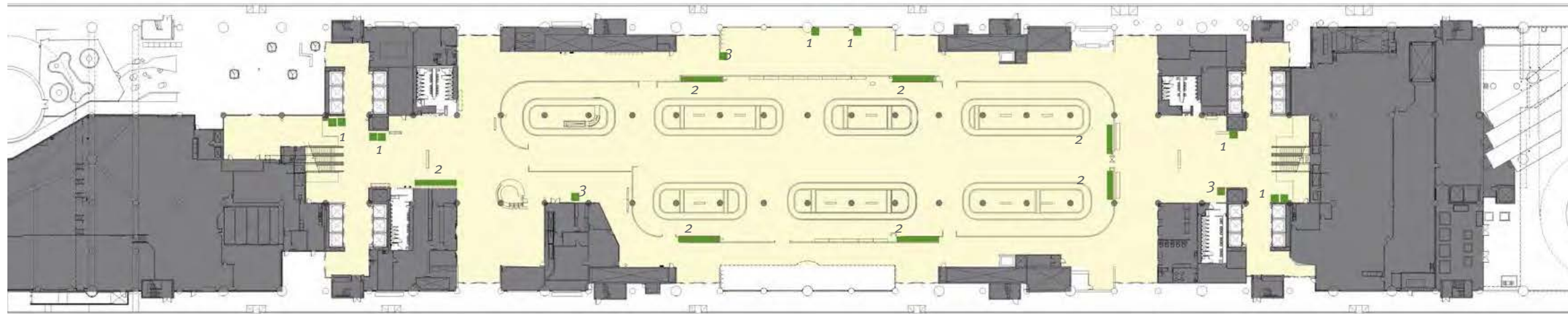
Notes

1   *Vending*

2   *Baggage Carts*

3   *Phone*

Existing Amenities Organization

Current vending amenities are not well integrated with into space. Placed as an after thought, they contribute to a cluttered appearance. Cart locations are evenly spaced within the security wall, which constricts circulation. Pay phones are being phased out and to be replaced with courtesy phones which should be located near or at info desks.
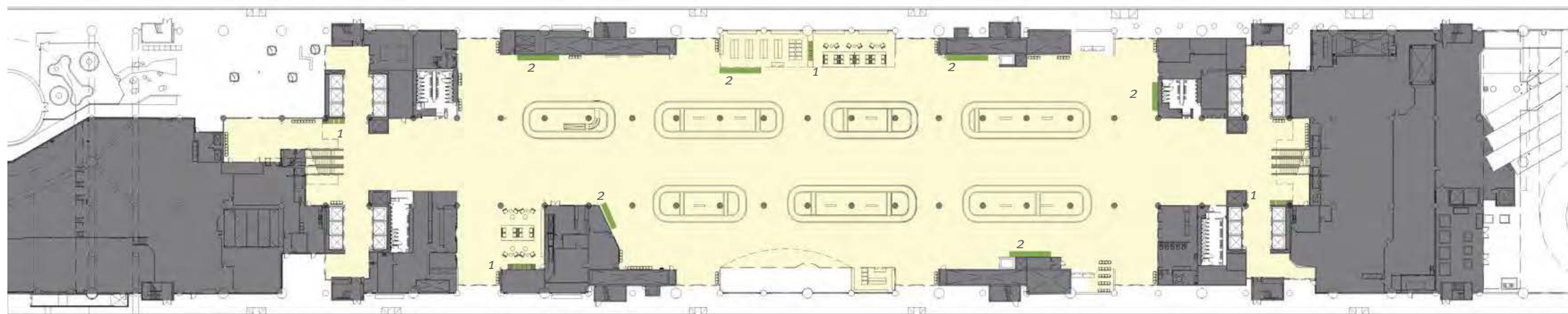
Key

■ *Seating*

■ *Advertising*

■ *Art*

■ *Information*

■ *Amenities*

■ *Tenant*

● *Trash/Recycling*

● *Plants*

Amenities Masterplan Concept

Main vending areas should consistently be located near the elevator cores on all levels. Vending machines should be grouped together and recessed into furred out walls. Baggage cart vending should be located uniformly around the perimeter. There may be opportunities to compose cart vending with advertising - such as placing a advertising band 24" directly above the length of the carts.
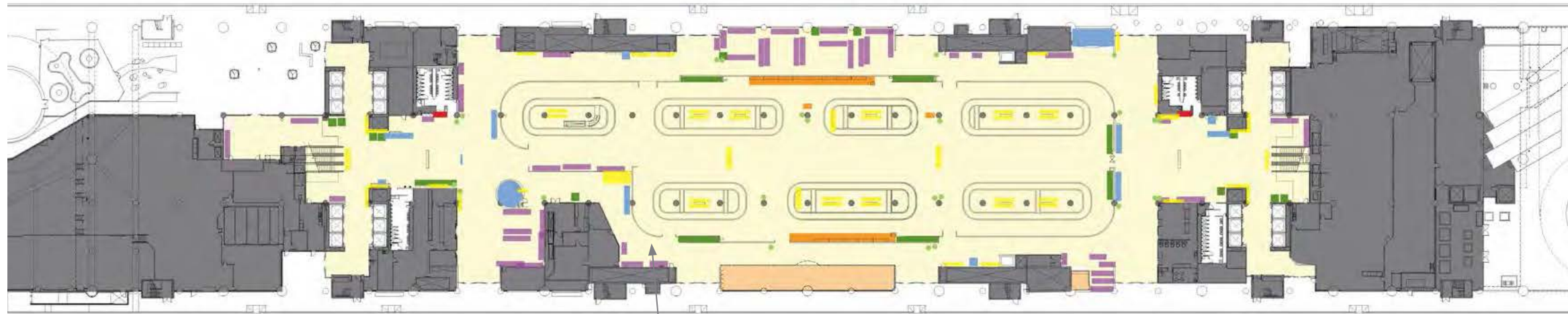
Baggage Claim Level - Overall Existing Arrangement

Removal of unstaffed secure baggage enclosure will enhance circulation, image and overall experience. This approach is consistent with Terminal 3.

Baggage Claim Level - Overall Master Plan Concept

Key
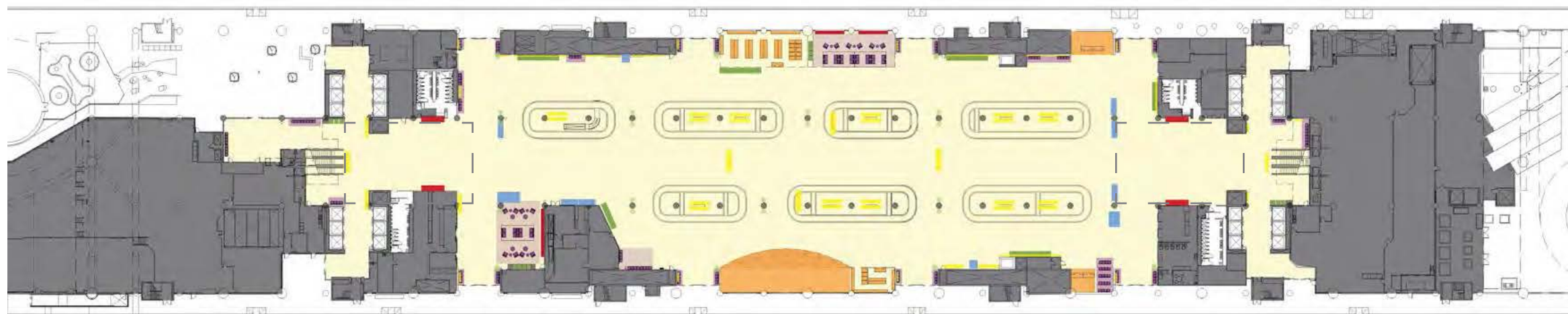
- ■ *Seating*
- ■ *Advertising*
- ■ *Art*
- ■ *Information*
- ■ *Amenities*
- ■ *Tenant*
- ● *Trash/Recycling*
- ● *Plants*

1 - Arrival to Baggage Claim

2 - Lounge, vending and art

Orientation Zone

Orientation Zone

Key

■ Seating

■ Advertising

■ Art

■ Information

■ Amenities

■ Tenant

● Trash/Recycling

● Plants
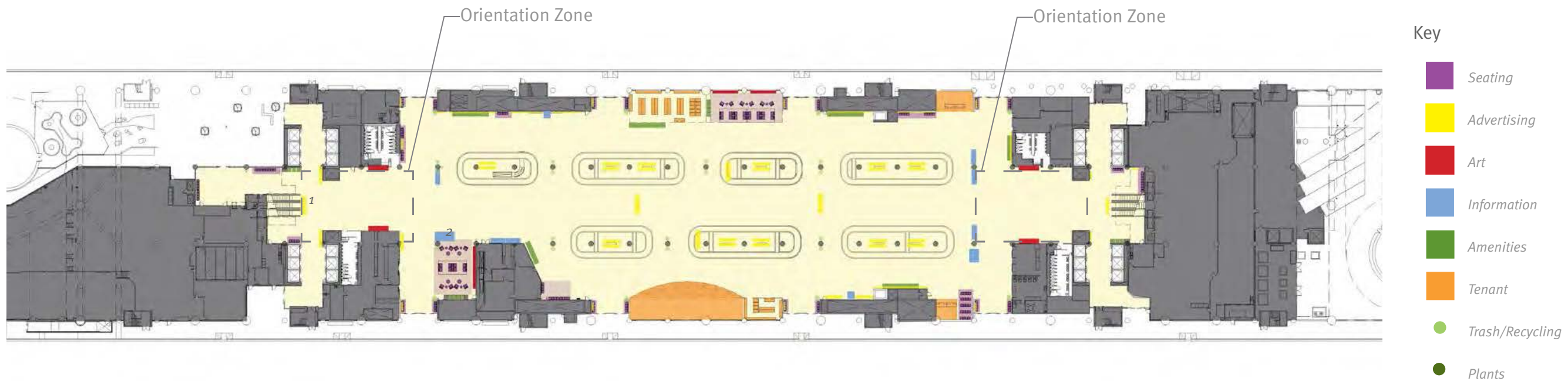
Baggage Claim Level - Overall Master Plan Concept

An Orientation Zone should be created at the arrival to baggage claim level. Careful design composition of this major decision making point - keeping it free of clutter and distractions, will establish the baggage claim passenger experience.
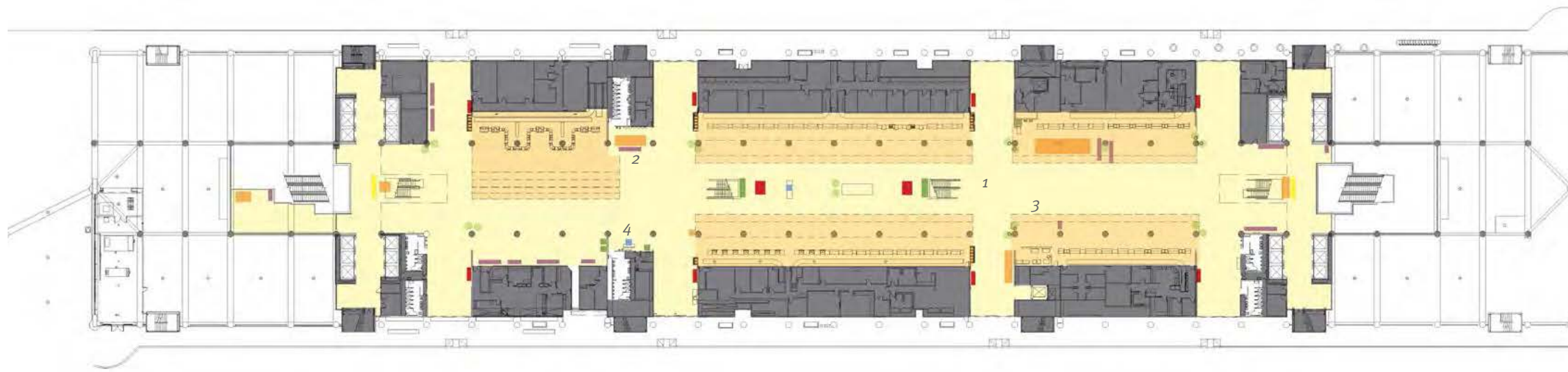
Existing Ticketing Organization

Key

1 - Arrival zone
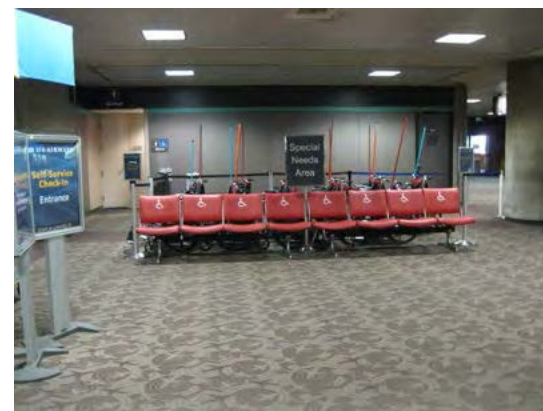
2 -Special area

notes:

3 -Queuing

4 - ATM and Visual Paging

Seating

Advertising

Art

Information

Amenities

Tenant

Trash/Recycling

Plants

Visual paging devices are out of scale and are not uniformly located.

Existing Information Organization
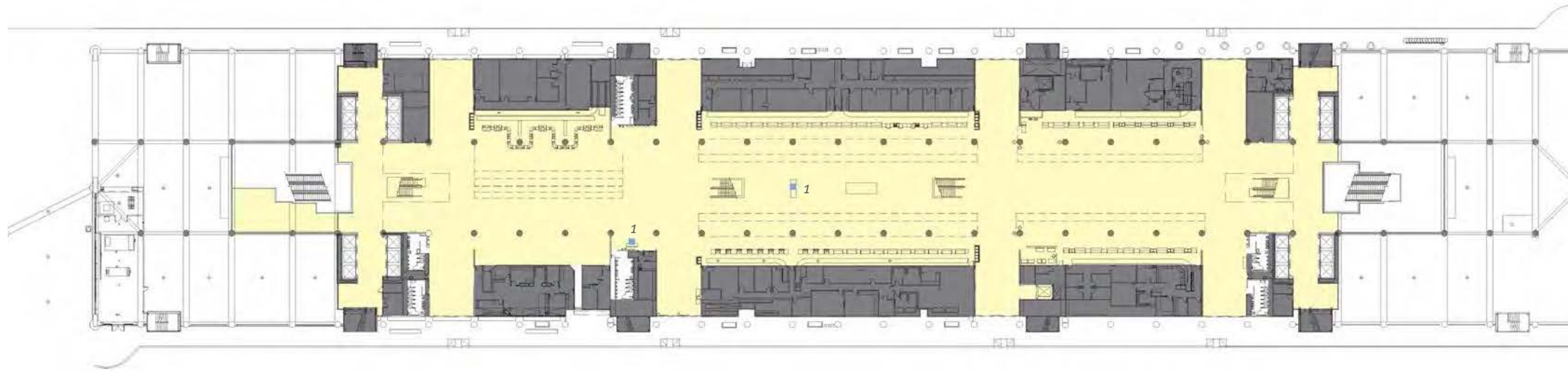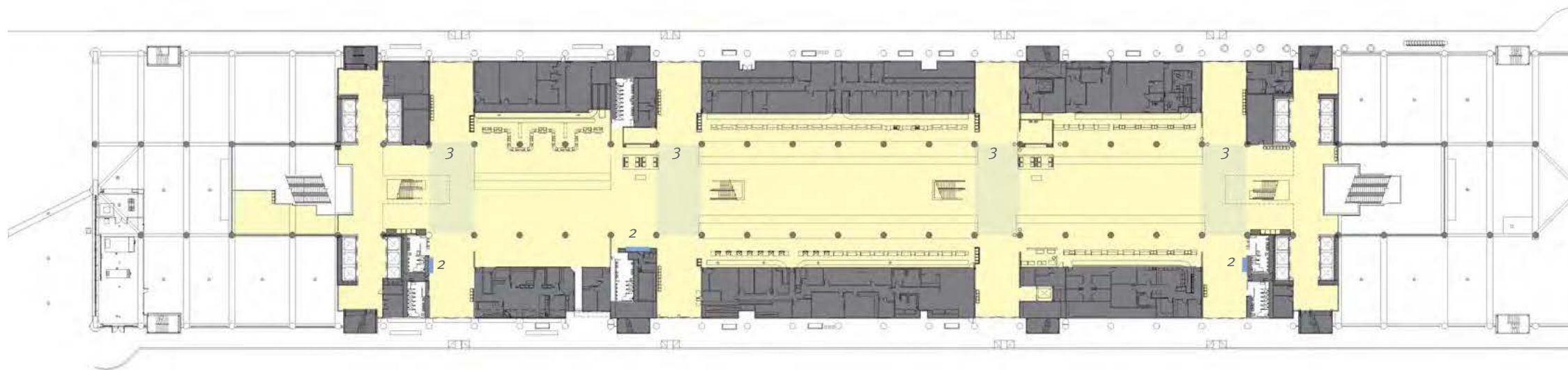
Notes

1 Visual Paging

2 Information zone (Visual Paging, Directory, Courtesy Phone)

3 Orientation zones

Keeping the Orientation Zone free from distractions, Informational elements such as directories, visual paging and courtesy phones should be composed and located around the rest rooms.

Information Master Plan Concept

Key

■ Seating

■ Advertising

■ Art

■ Information

■ Amenities

■ Tenant

● Trash/Recycling

● Plants

Existing Tenant and Queuing Organization

Existing queues are inconsistent (including stanchions and signage) with some pushing past the lease lines. Exposed wheelchair storage is unsightly.
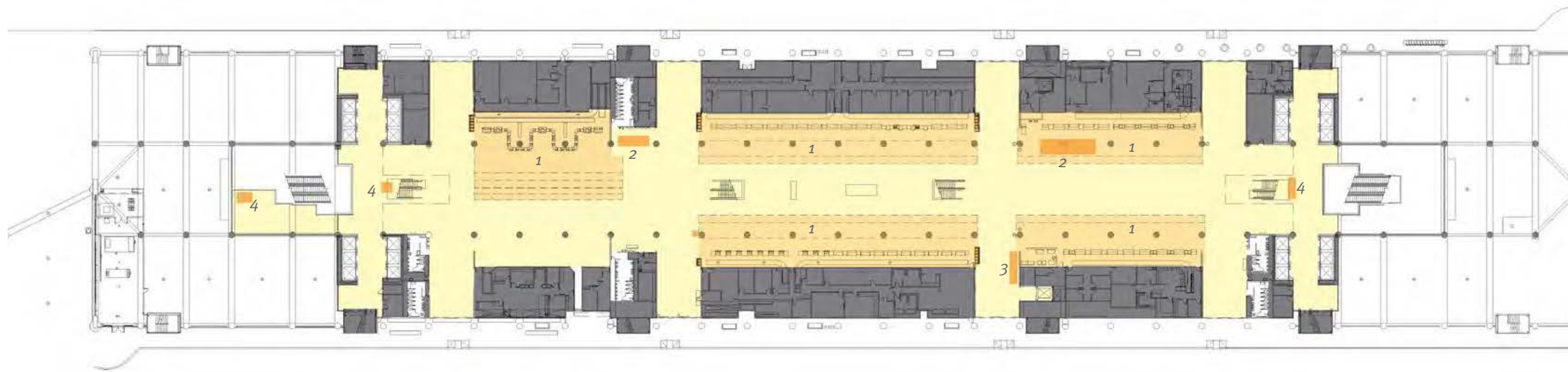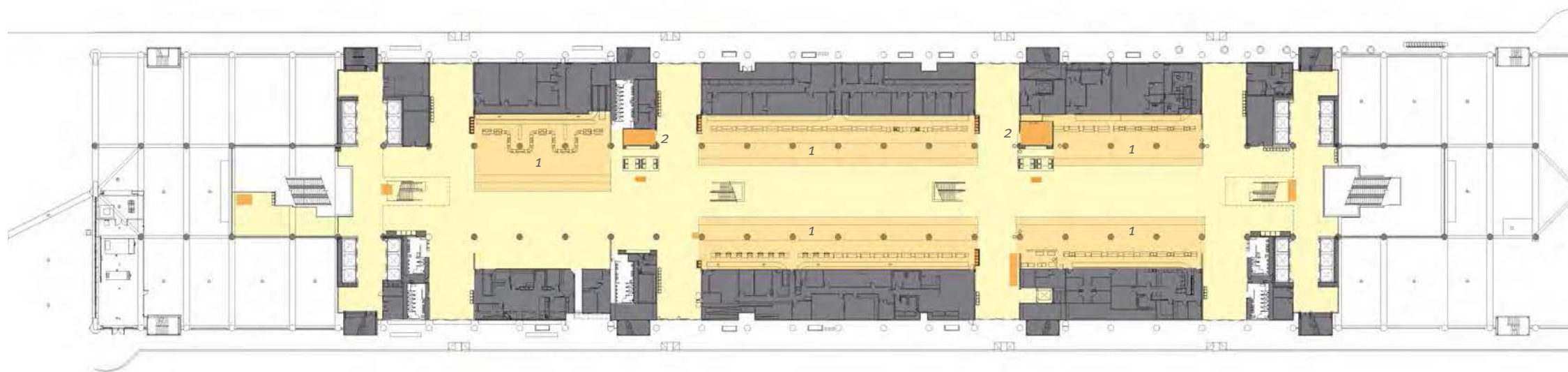
Notes

1 Airline Queuing
2 Wheelchair Storage
3 TSA
4 Overflow Stanchions

Tenant and Queuing Master Plan Concept

Future floor design should provide guidance on queue extents and spacing while allowing for flexibility. Enclosed spaces for wheelchair storage or other tenant storage should be created.

Key

■ Seating
■ Advertising
■ Art
■ Information
■ Amenities
■ Tenant
● Trash/Recycling
● Plants

Existing Seating Organization

Existing seating is poorly composed and grouped - made up entirely of gate hold beam seating. Loose furniture is pulled around to wait near entries and interferes with art. Special needs wheelchair seating areas are unsightly.
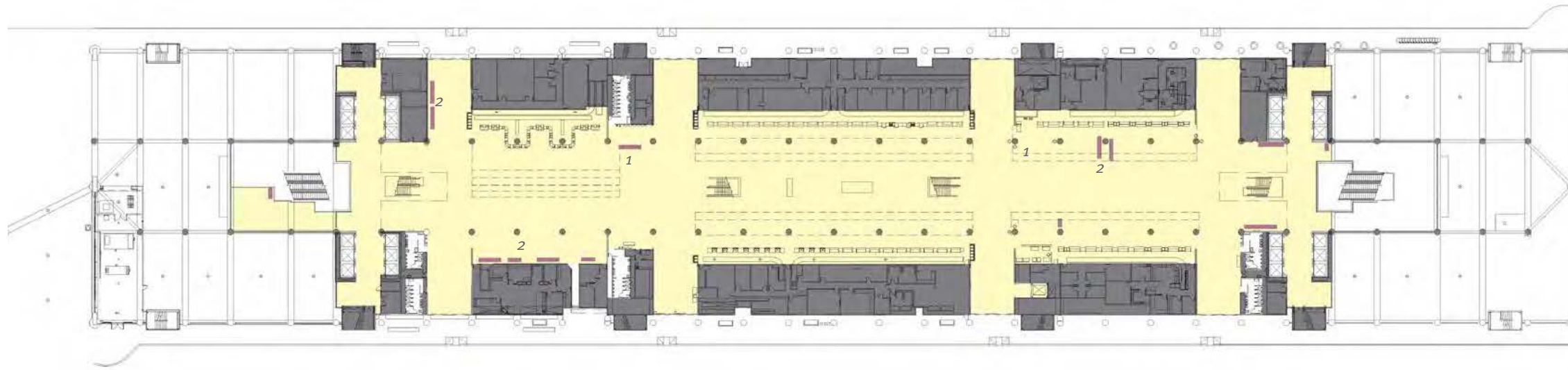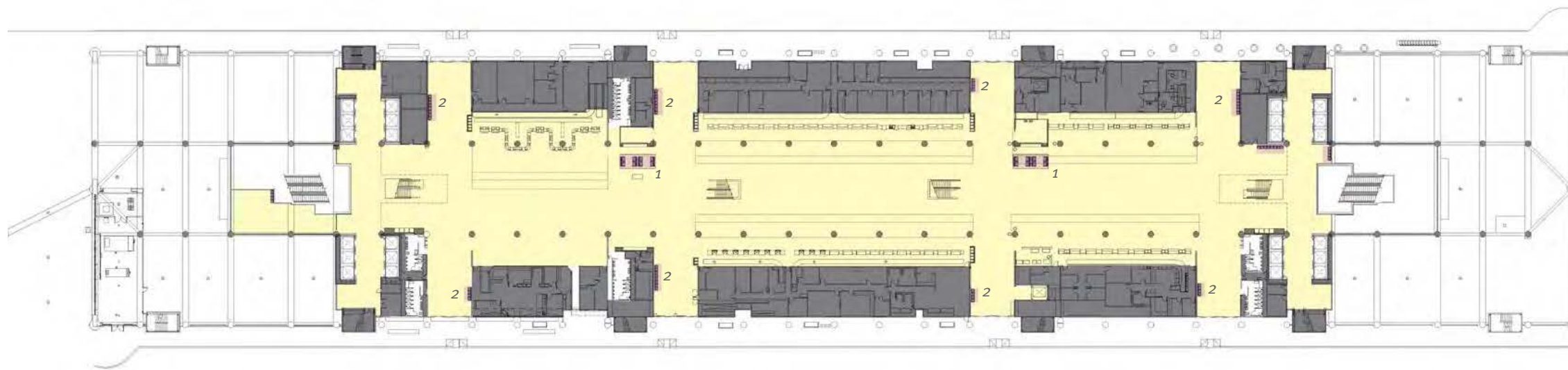
Notes

1 Wheelchair assistance seating

2 Convenience seating

Seating Master Plan Concept

The current special needs seating should be replaced with a respectful waiting lounge. With wheelchair storage out of sight, there is opportunity to create synergies with art vitrines. If needed, a check-in counter can assist passengers. Where resting and waiting seating is needed, they should be composed at entries with the art (adjacent or across) or with rest rooms. Seating should generally be limited so to encourage passengers to proceed level 3 retail and checkpoints.

Key

■ Seating

■ Advertising

■ Art

■ Information

■ Amenities

■ Tenant

● Trash/Recycling

● Plants

Existing Art Organization
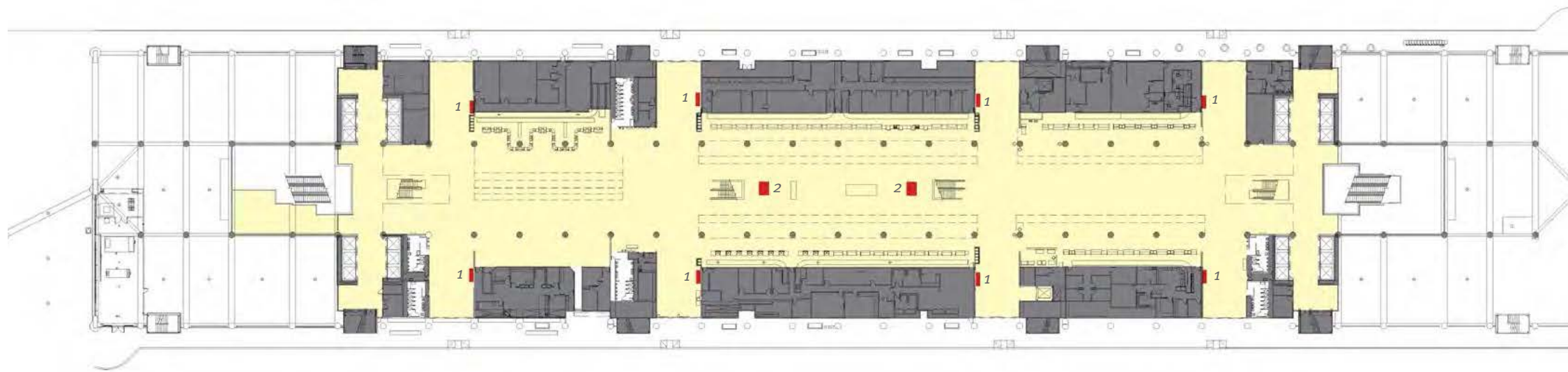
Notes

1 Entrance Mural
2 Display case
3 Art Vitrine
4 Temporary Airport Museum Exhibition

Art is currently provided throughout the Ticketing Level. Uniform flooring, ceiling and lighting throughout the space does little to highlight these Airport Museum features.
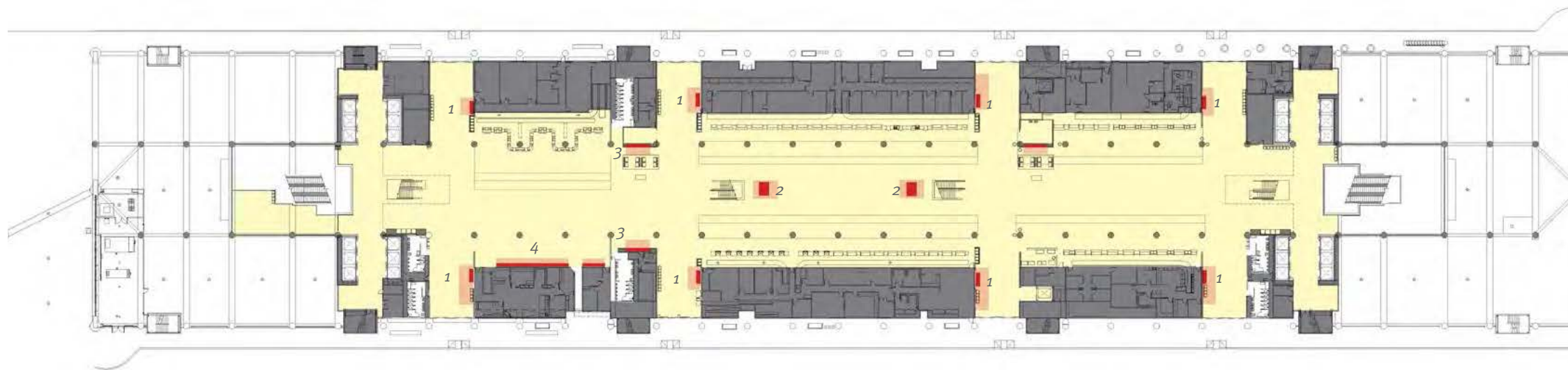
Art Master Plan Concept

Key

■ Seating
■ Advertising
■ Art
■ Information
■ Amenities
■ Tenant
● Trash/Recycling
● Plants

The existing art locations should be considered as art zones and the flooring, ceilings and lighting should respond to these zones. Fixed seating adjacent or across from the art can provide nice viewing positions and compositions. New art opportunities may be available next to special needs seating or redeveloped rest room entries. The overflow queue space provides suitable space for temporary art exhibition when coordinated with queuing.
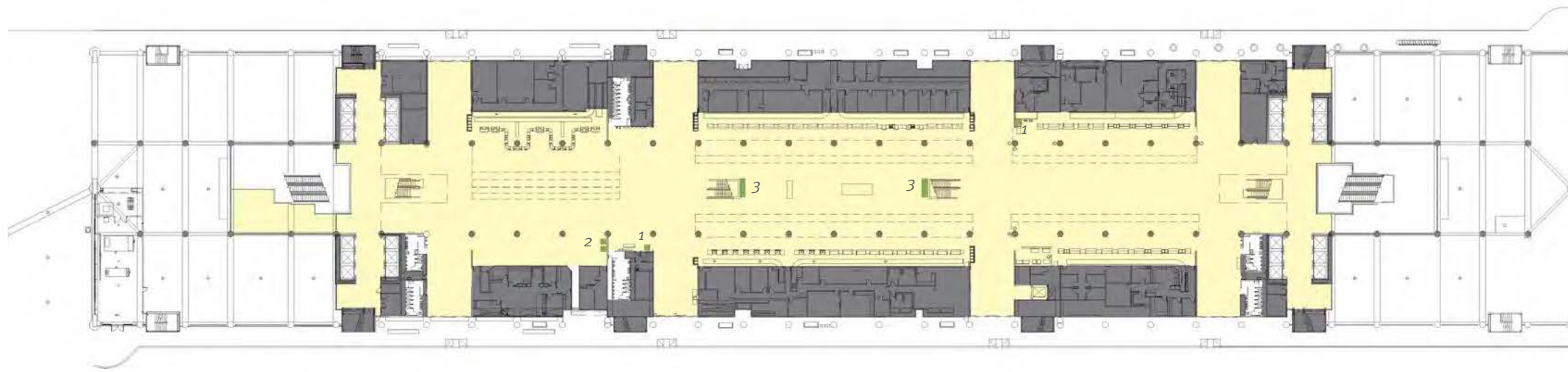
Notes

1   *ATM*

2   *Vending machine*

3   *Recharge*

Current vending amenities are sporadically placed and not well integrated with the space.

Existing Amenities Organization
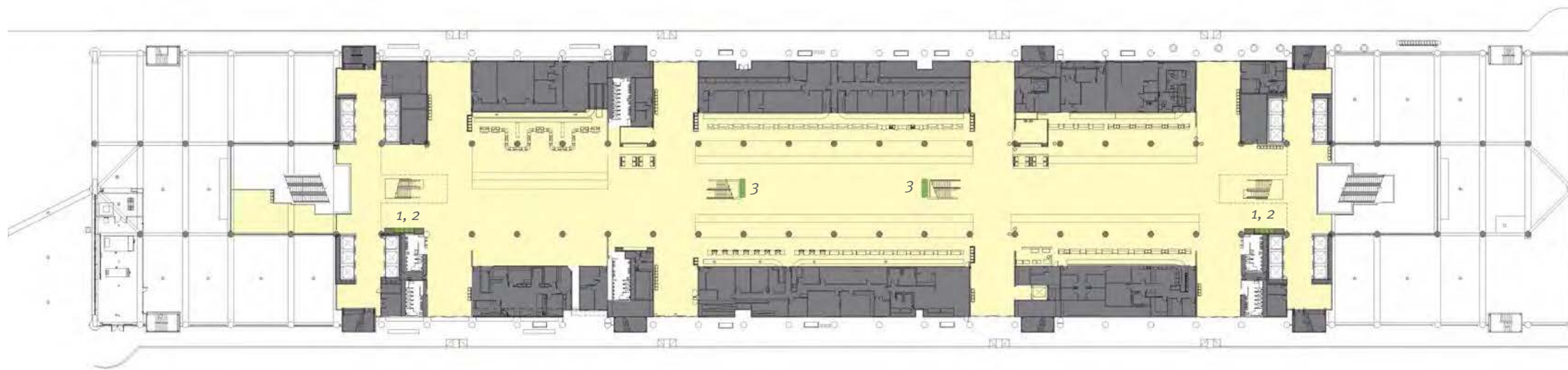
Key

■ *Seating*

■ *Advertising*

■ *Art*

■ *Information*

■ *Amenities*

■ *Tenant*

● *Trash/Recycling*

● *Plants*

Amenities Master Plan Concept

Matching other levels, vending machines and ATMs should be located near the building elevator 'cores'. Ganged together, these amenities should be recessed into a wall.
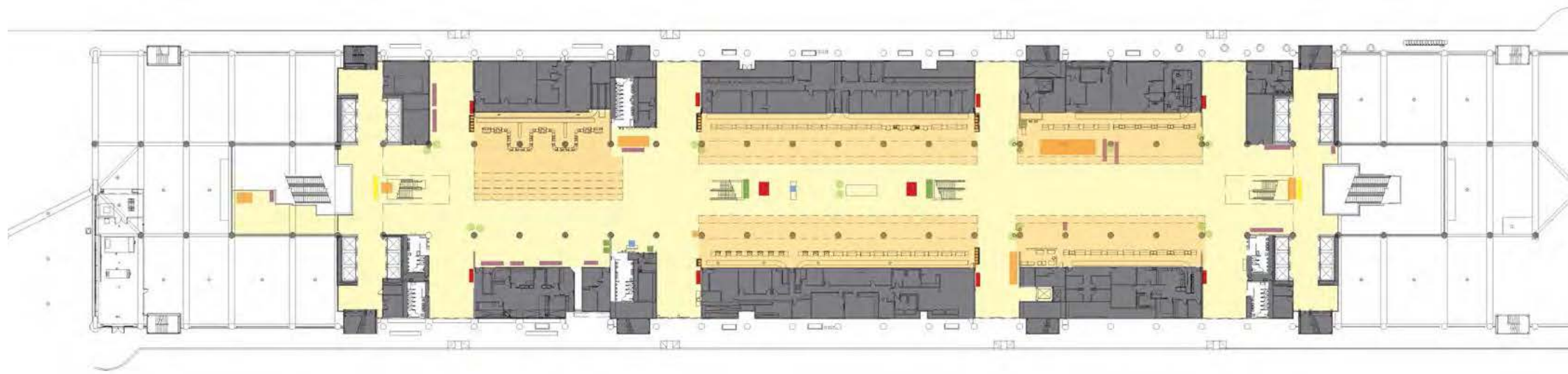
Existing Ticketing Organization

Orientation Zones

Ticketing Master Plan Concept

Key

- 🟪 *Seating*
- 🟨 *Advertising*
- 🟥 *Art*
- 🟦 *Information*
- 🟩 *Amenities*
- 🟧 *Tenant*
- 🟢 *Trash/Recycling*
- 🟢 *Plants*

1 -Orientation Zone at Ticketing.

Orientation Zones

Key

■ (purple)	*Seating*
■ (yellow)	*Advertising*
■ (red)	*Art*
■ (blue)	*Information*
■ (green)	*Amenities*
■ (orange)	*Tenant*
● (light green)	*Trash/Recycling*
● (dark green)	*Plants*
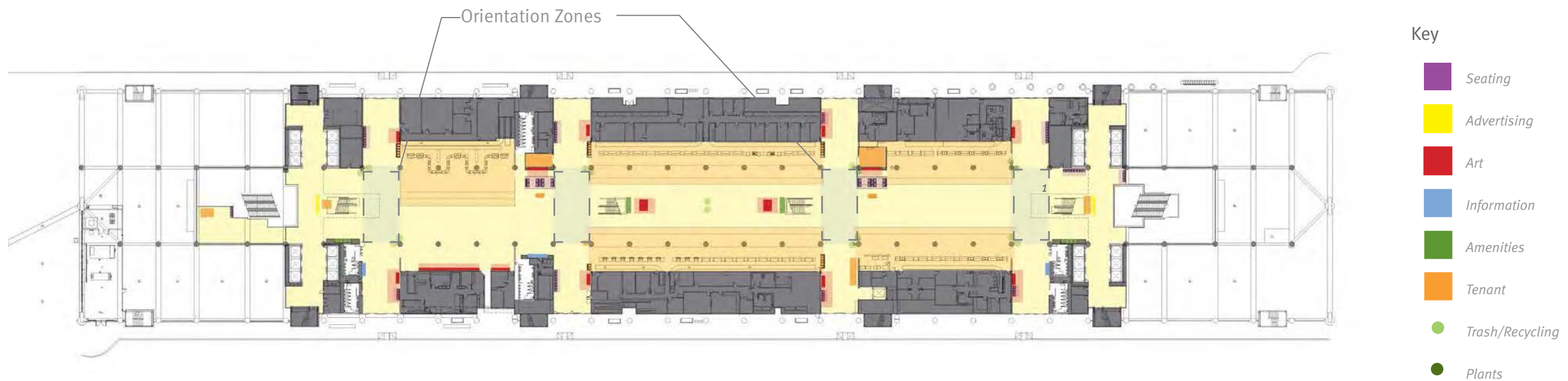
Ticketing Master Plan Concept

Developing orientation zones will promote intuitive way finding at key decision making points for passengers. Prominent floor, ceiling and lighting design should be considered for these zones to promote hierarchy throughout the level.
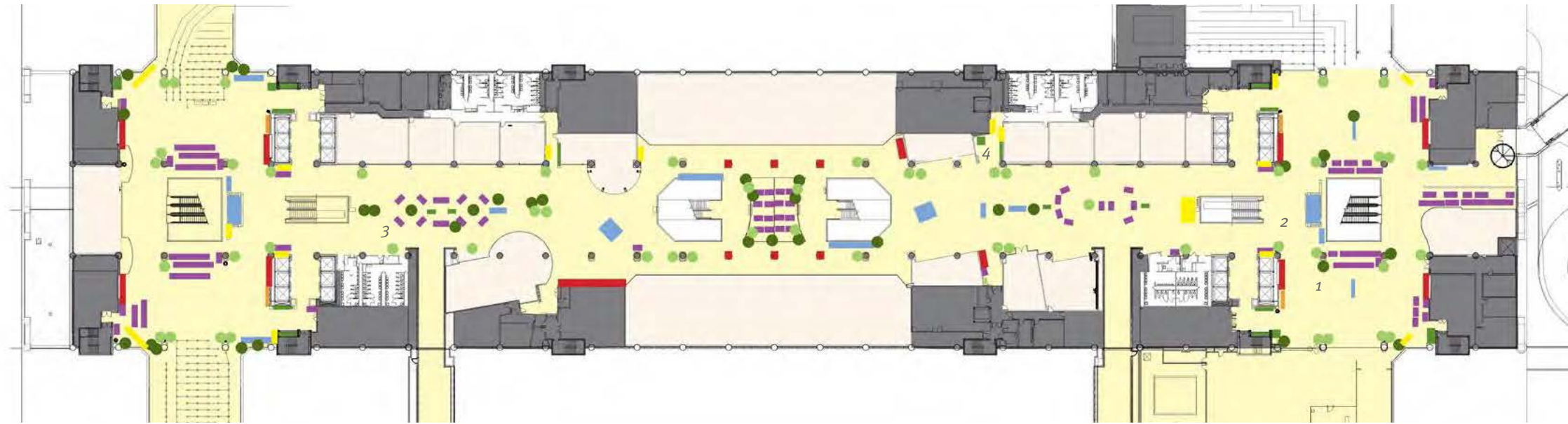
Existing Level 3 Organization

1 - Meeter and Greeter space

2 -Information

3 - Lounge and waiting

4 - ATM

Key

■ Seating

■ Advertising

■ Art

■ Information

■ Amenities

■ Tenant

● Trash/Recycling

● Plants
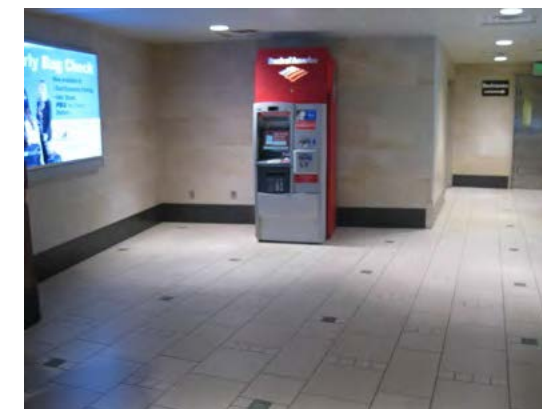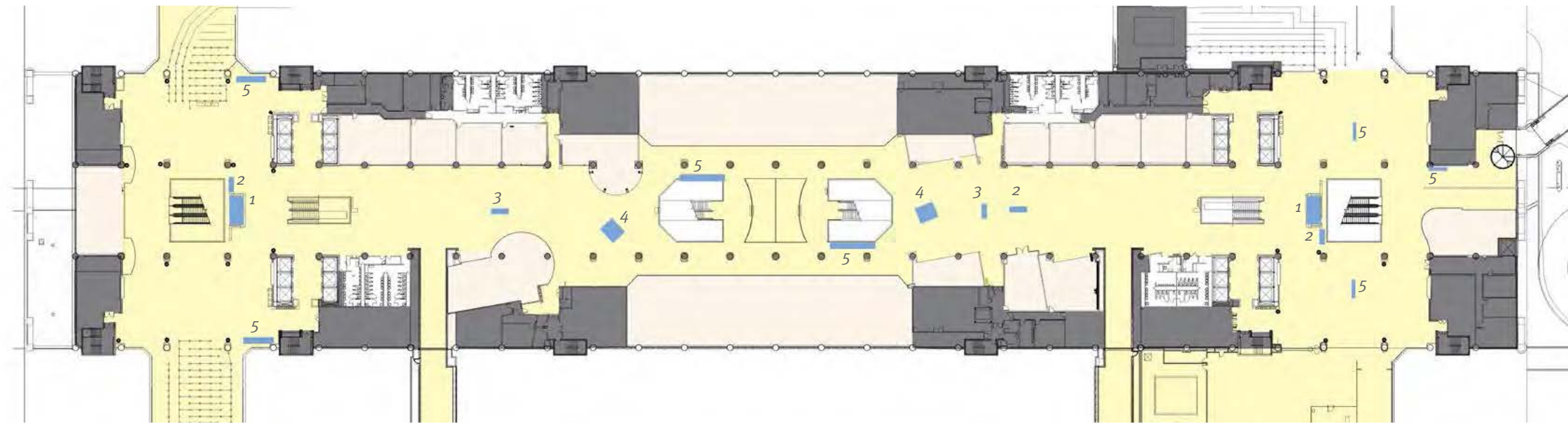
Notes

1   *Info desk*
2   *Visual Paging*
3   *Directory*
4   *Info Kiosk*
5   *Flight Information Display (FID)*
6   *Orientation Zone*

Existing Information Organization

Existing information elements are separated throughout the level and inconsistent in design. For example, the FIDs at the east end of the level are placed differently than those on the west. The existing info kiosk is scheduled to be replaced with a tenant kiosk.
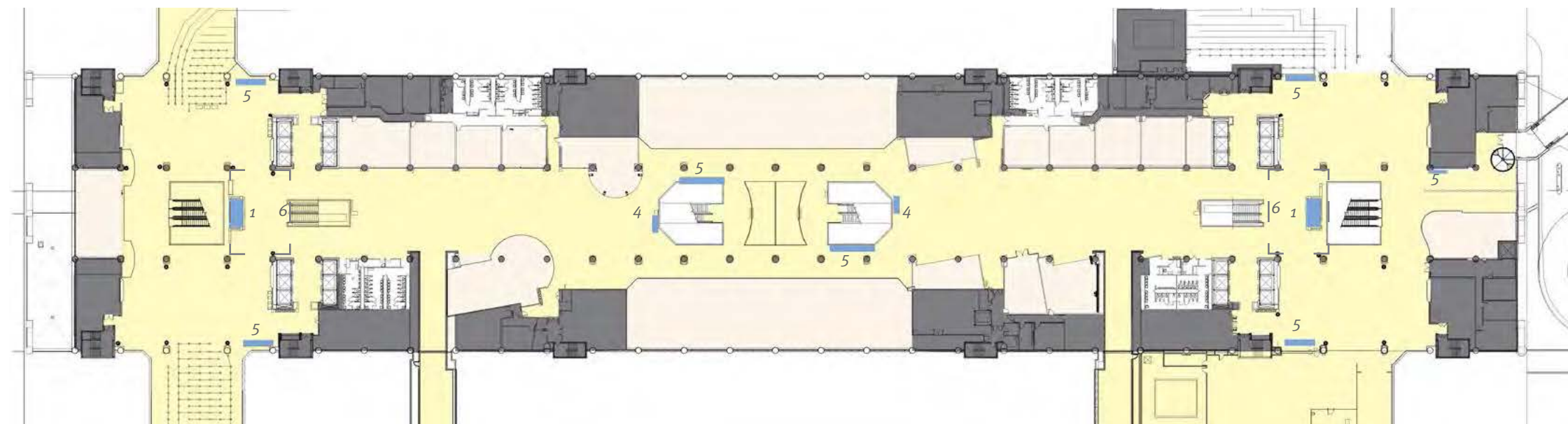
Key

■ *Seating*

■ *Advertising*

■ *Art*

■ *Information*

■ *Amenities*

■ *Tenant*

● *Trash/Recycling*

● *Plants*

Information Master Plan Concept

The FIDS on the East should move toward the checkpoints to match the west keeping the valuable middle of the space open for circulation and views. Consolidate directories, visual paging and courtesy phones into the primary information desks. Secondary directories can be incorporated into the center of the level near the FIDS.
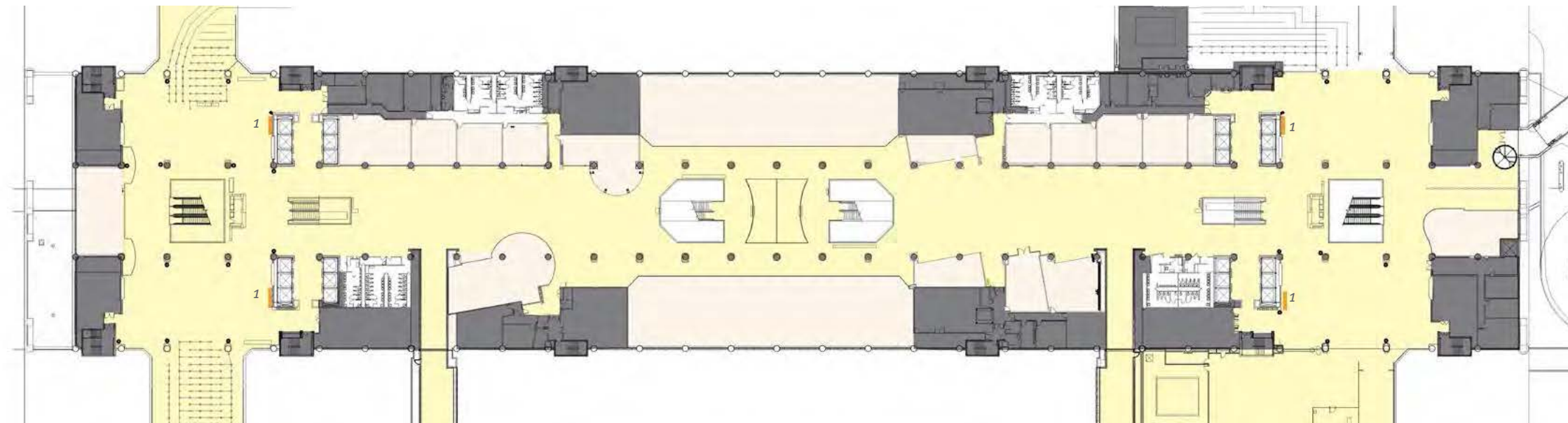
Existing Tenant Organization

Existing SSDs are placed directly adjacent to Art Vitrines often crowding the art area with loose signage and stanchions.
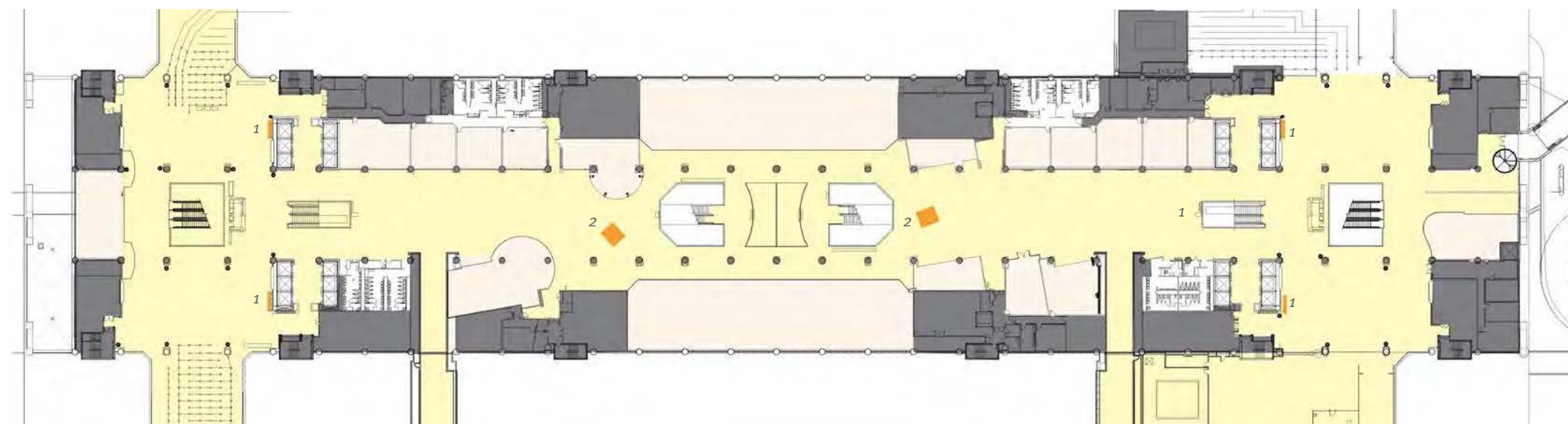
Airline Master Plan Concept

Key

🟪	*Seating*
🟨	*Advertising*
🟥	*Art*
🟦	*Information*
🟩	*Amenities*
🟧	*Tenant*
🟢	*Trash/Recycling*
🟢	*Plants*

The existing SSD locations should be tightly controlled to keep circulation free and give the adjacent art vitrines a buffer zone. Tenant retail kiosks are planned and should be located to allow for proper circulation through the space.

Existing Seating Organization
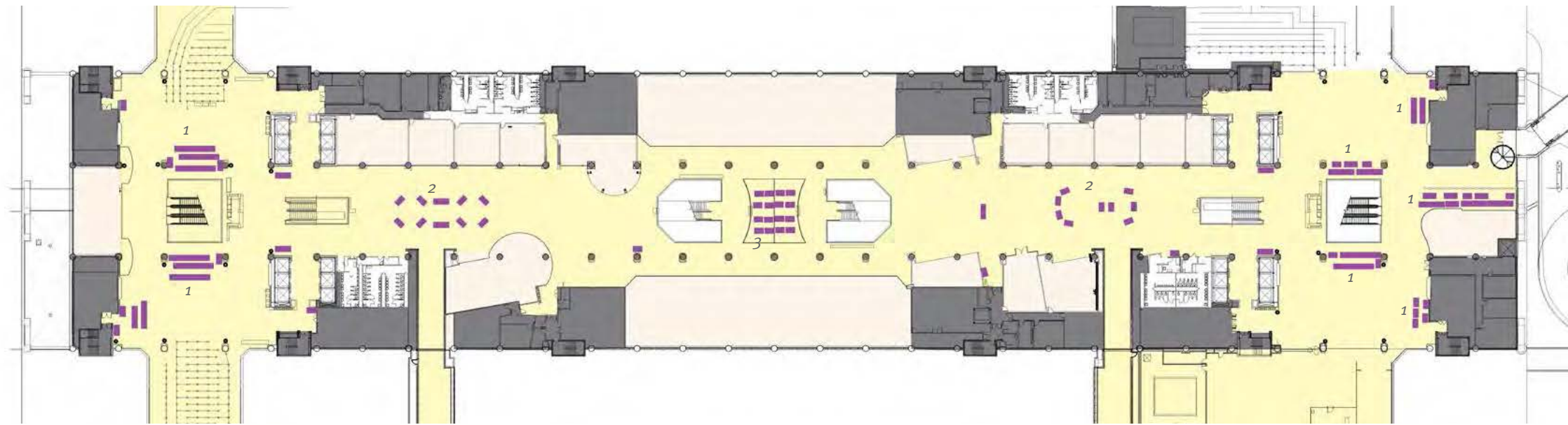
Notes

1 *Meeter & Greeter seating*

2 *Lounge seating*

3 *Food Court seating*

Existing Level 3 seating is primarily composed of meeter & greeter, lounge and food court seating. The meeter and greeter seating is currently using gate hold furniture which isn't ideally suited for the area. The lounge furniture is effective, but there are opportunities to better organize it with the Sky Train circulation and other amenities.
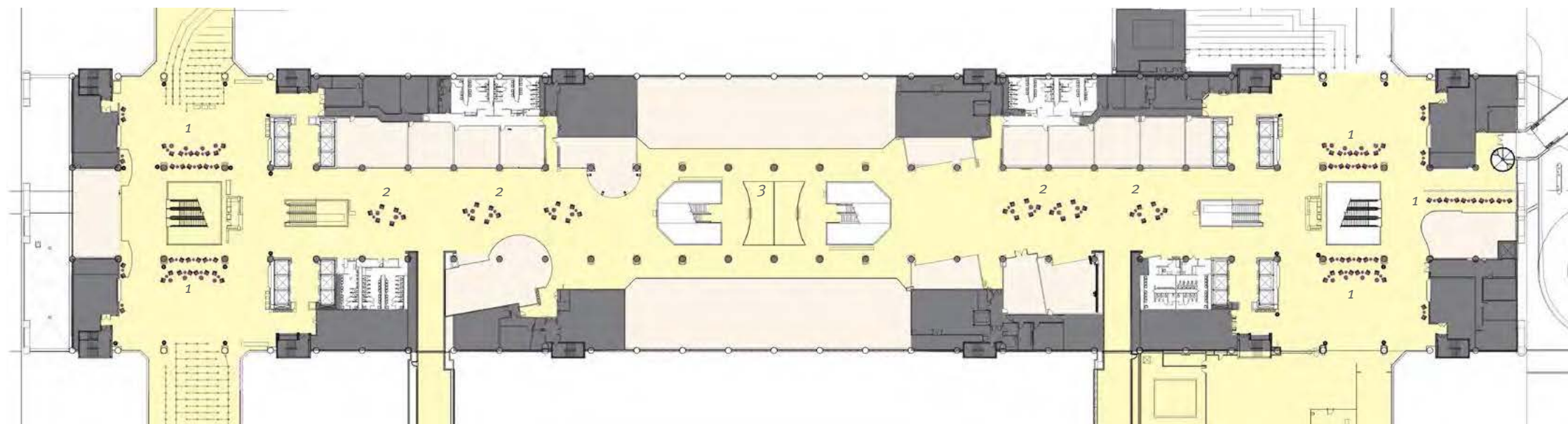
Seating Master Plan Concept

Key

■ *Seating*

■ *Advertising*

■ *Art*

■ *Information*

■ *Amenities*

■ *Tenant*

● *Trash/Recycling*

● *Plants*

Meeter and greeter seating should be reconfigured into hospitable lounge groupings and work with adjacent art zones. The retail lounge furniture should be shifted to allow more circulation at the Sky Train connection. Decluttering the area by removing plants and consolidating adjacent information will make the lounges more inviting.

The Airport Museum program is well integrated into Level 3.

Existing Art Organization
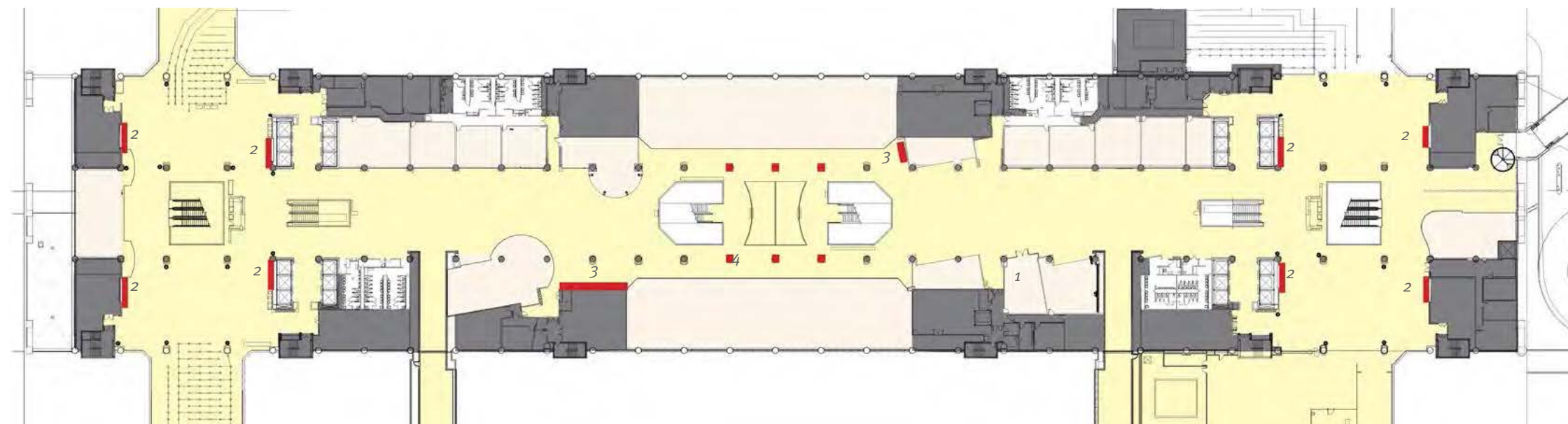
Notes

1   Airport Museum

2   Art Vitrine

3   Wall exhibit

4   Integrated Art Column

Art zones should be created around each area. Art vitrines should keep other signs or advertising at a distance. Wall exhibits should incorporate subtle wall recesses or other elements to protect the work.

Art Master Plan Concept

Key

■	*Seating*
■	*Advertising*
■	*Art*
■	*Information*
■	*Amenities*
■	*Tenant*
●	*Trash/Recycling*
●	*Plants*

Existing Amenities Organization
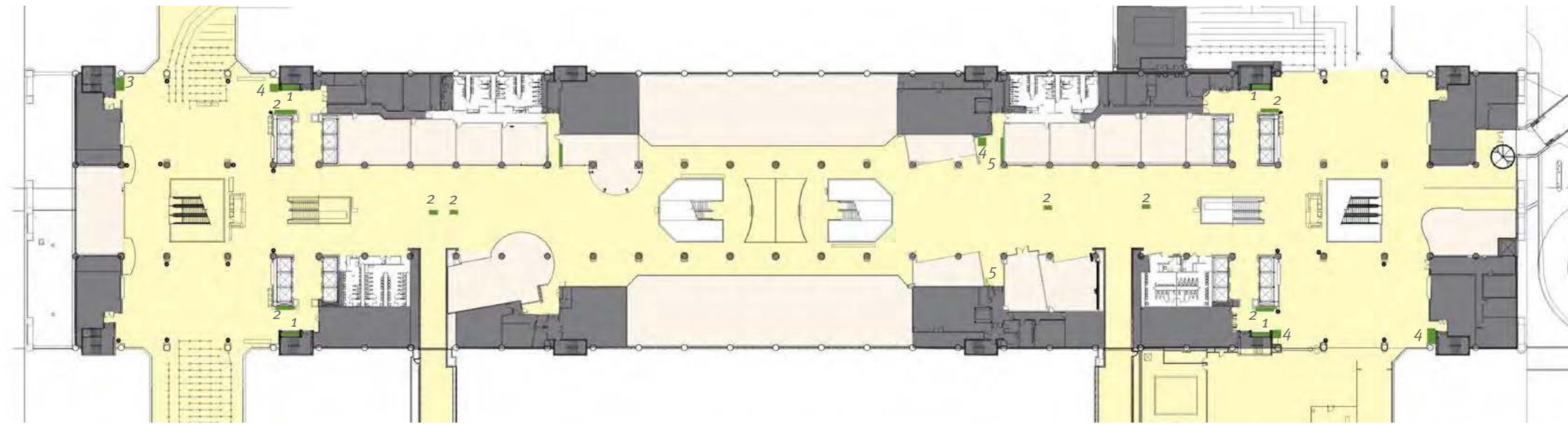
Notes

1 *Newspapers*
2 *Recharge*
3 *Shoeshine*
4 *ATM*
5 *Phones*
6 *Vending Aera*

Existing amenities are mostly consolidated near elevator cores or centrally off the main circulation. The masted recharge kiosks are a better fit for gate hold areas as the glowing mast detracts from the retail environment.
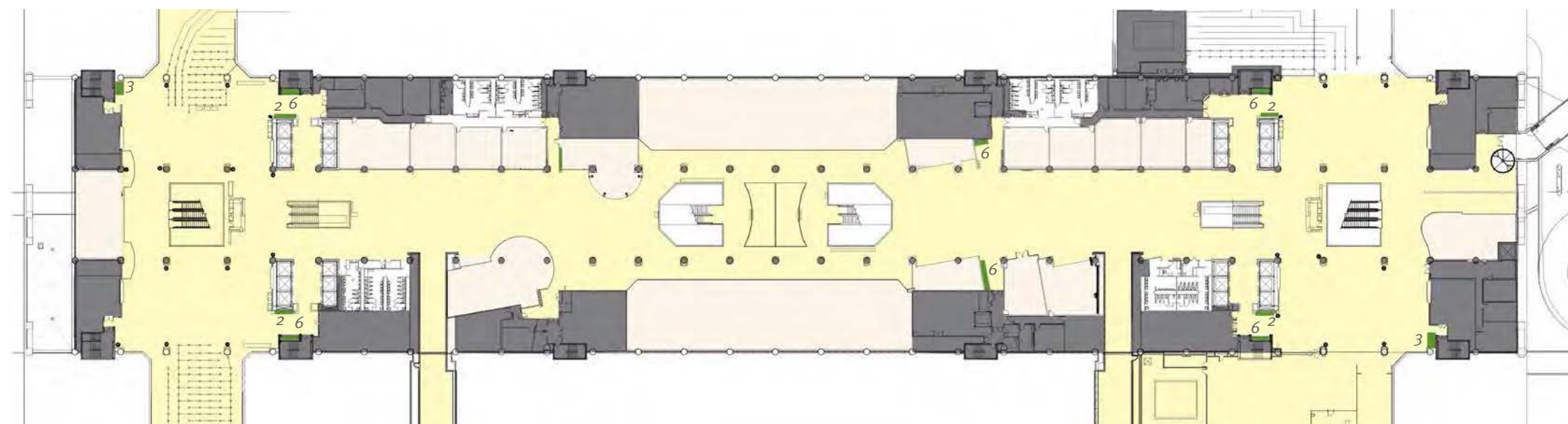
Amenities Master Plan Concept

Key

- *Seating*
- *Advertising*
- *Art*
- *Information*
- *Amenities*
- *Tenant*
- *Trash/Recycling*
- *Plants*

Vending areas should be further developed. Vending machines and ATMs should replace or partially replace newspaper vending and be recessed into the wall. Ideally, recharge should be available at any lounge seating.
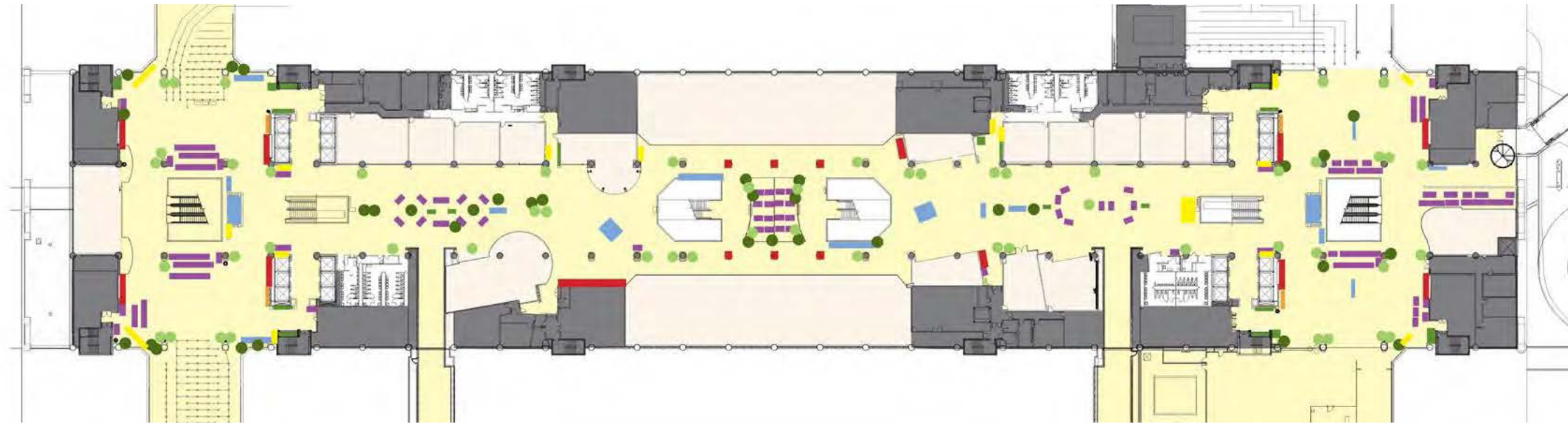
Existing Level 3 Organization
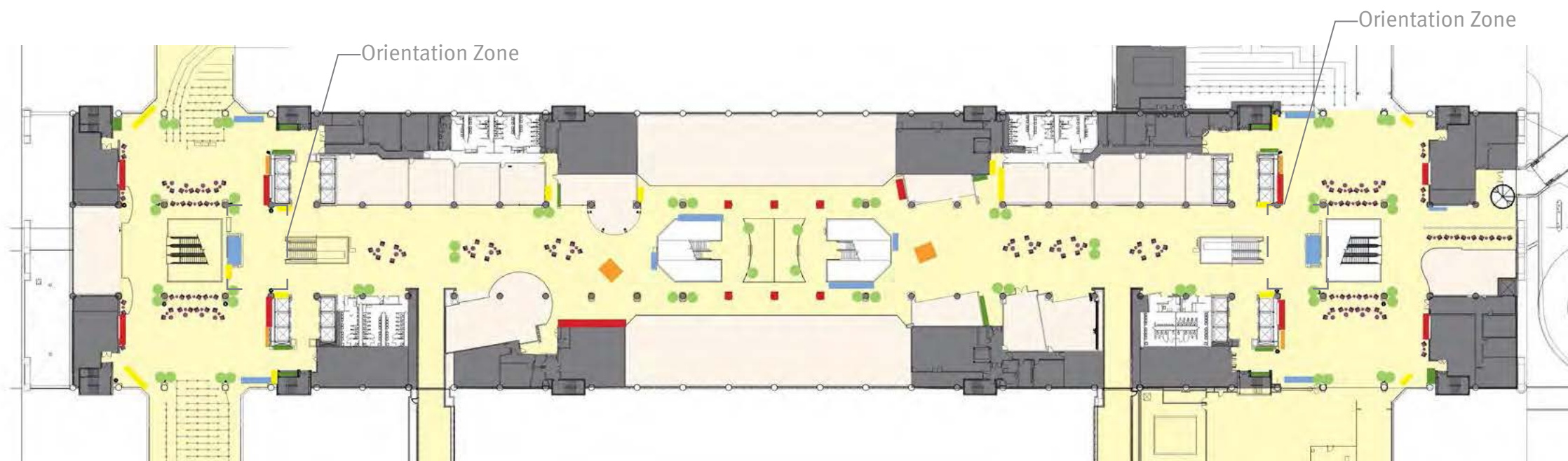
Orientation Zone

Orientation Zone

Level 3 Master Plan Concept

Key

🟪	*Seating*
🟨	*Advertising*
🟥	*Art*
🟦	*Information*
🟩	*Amenities*
🟧	*Tenant*
🟢	*Trash/Recycling*
●	*Plants*

Orientation Zone

Orientation Zone

Level 3 Master Plan Concept

Key
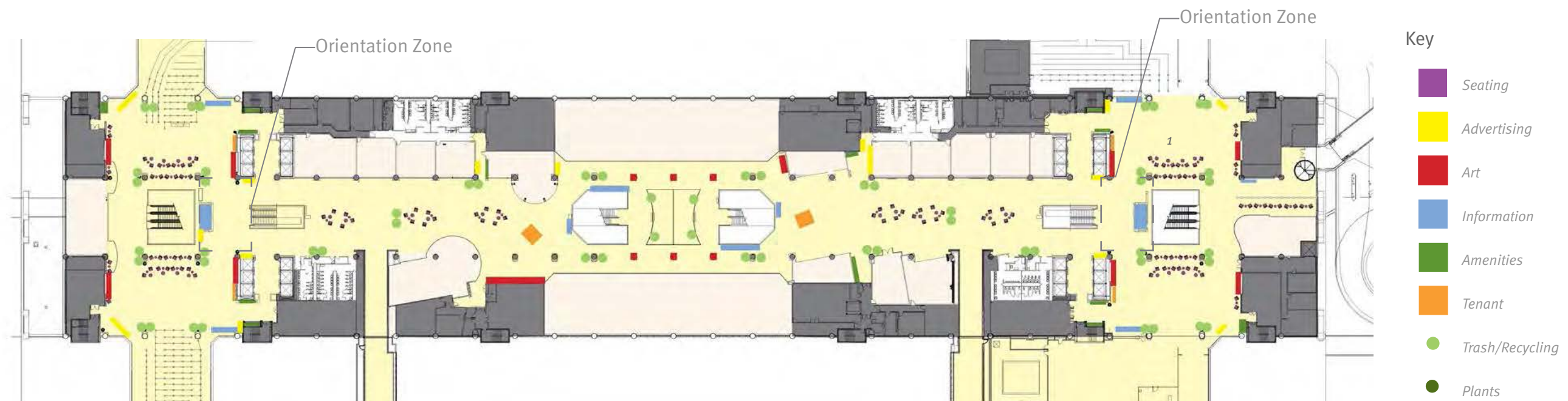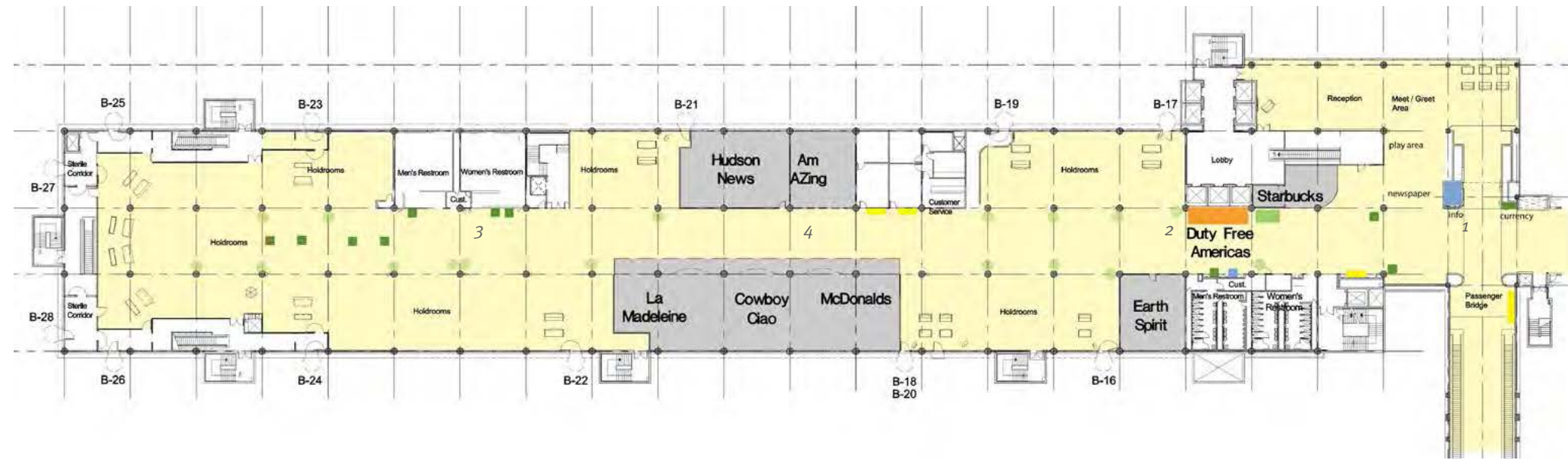
■ Seating
■ Advertising
■ Art
■ Information
■ Amenities
■ Tenant
● Trash/Recycling
● Plants

Existing Concourse N-4 Organization
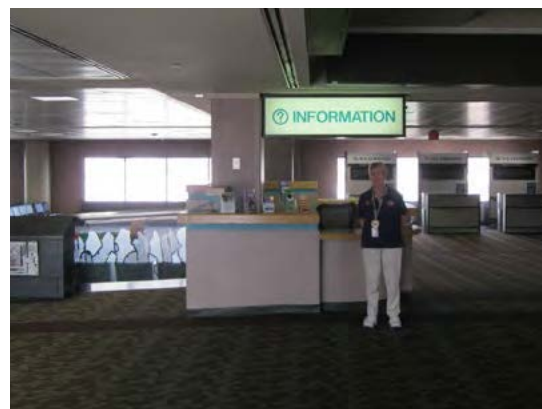
1 - Info Desk

2 -Duty free

3 - Amenities

4 - Retail Zone

Key

- 🟪 *Seating*
- 🟨 *Advertising*
- 🟥 *Art*
- 🟦 *Information*
- 🟩 *Amenities*
- 🟧 *Tenant*
- 🟢 *Trash/Recycling*
- 🟢 *Plants*

Existing Information Organization

The info desk is appropriately located at the beginning of the concourse, but appears outdated. Visual paging is not well integrated into the space.
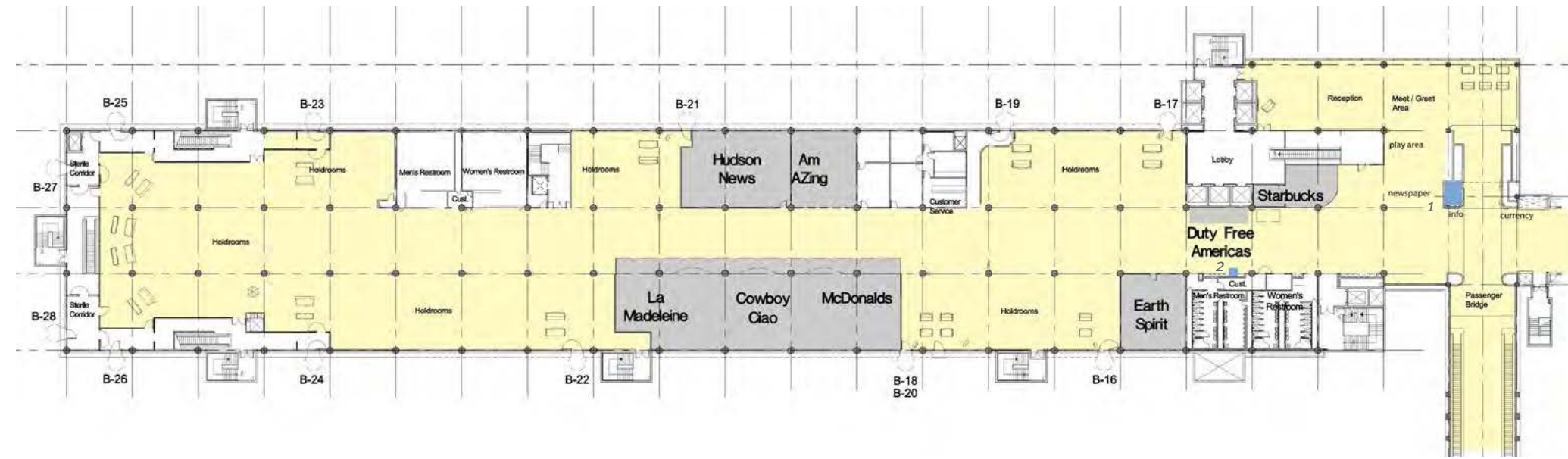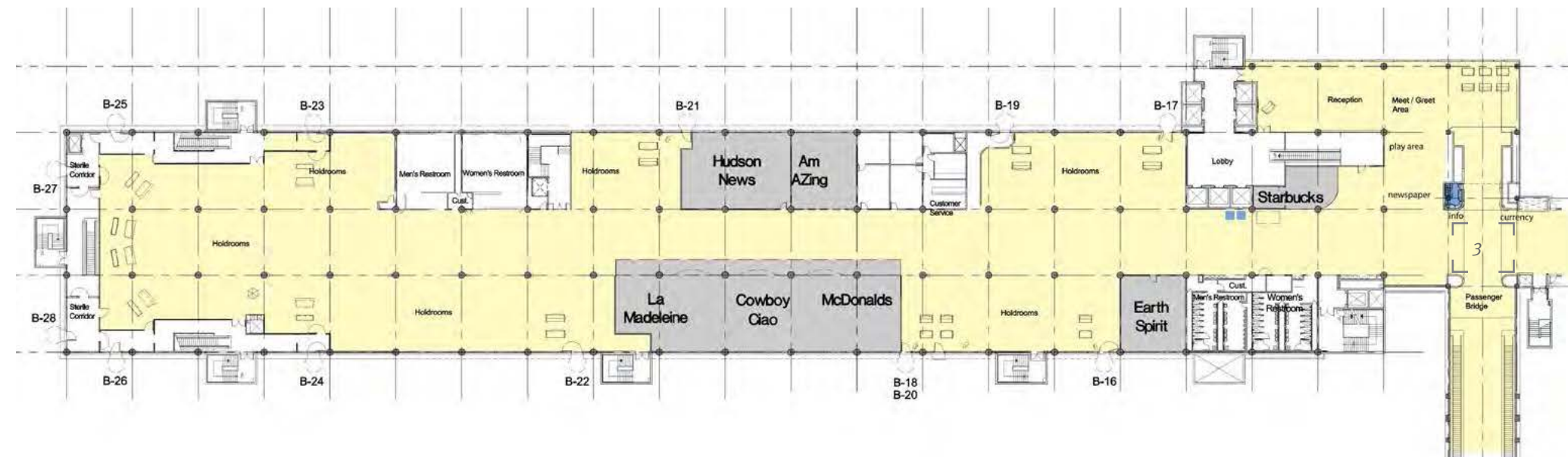
Notes

1 *Info desk*
2 *Visual Paging*
3 *Orientation Zone*

Information Master Plan Concept

Information elements should be around service cores - such as rest room areas or adjacent to the orientation zone as one enters the concourse. Visual paging, with courtesy phones and/or directories can be composed and recessed across from the rest rooms. A renovated info desk should meet design standards similar to ticket counters and other service desks.

Key

- *Seating*
- *Advertising*
- *Art*
- *Information*
- *Amenities*
- *Tenant*
- *Trash/Recycling*
- *Plants*
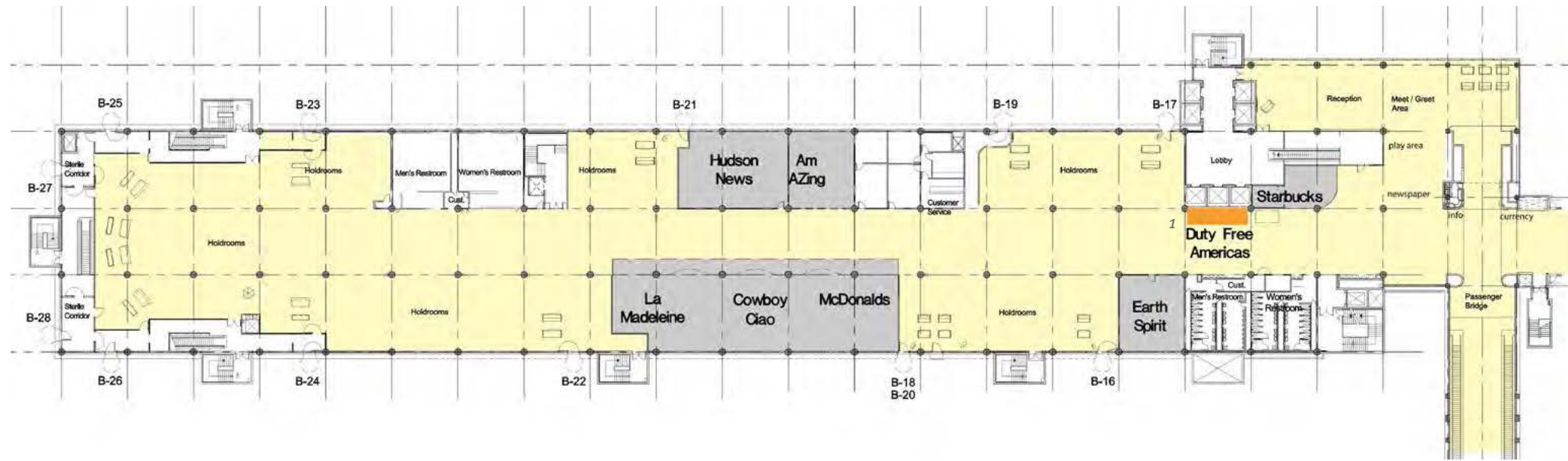
Existing Tenant/Concesstions Organization

The Duty Free store encroaches upon the circulation of the concourse and creates a chaotic space.

Tenant/Concessions Master Plan Concept
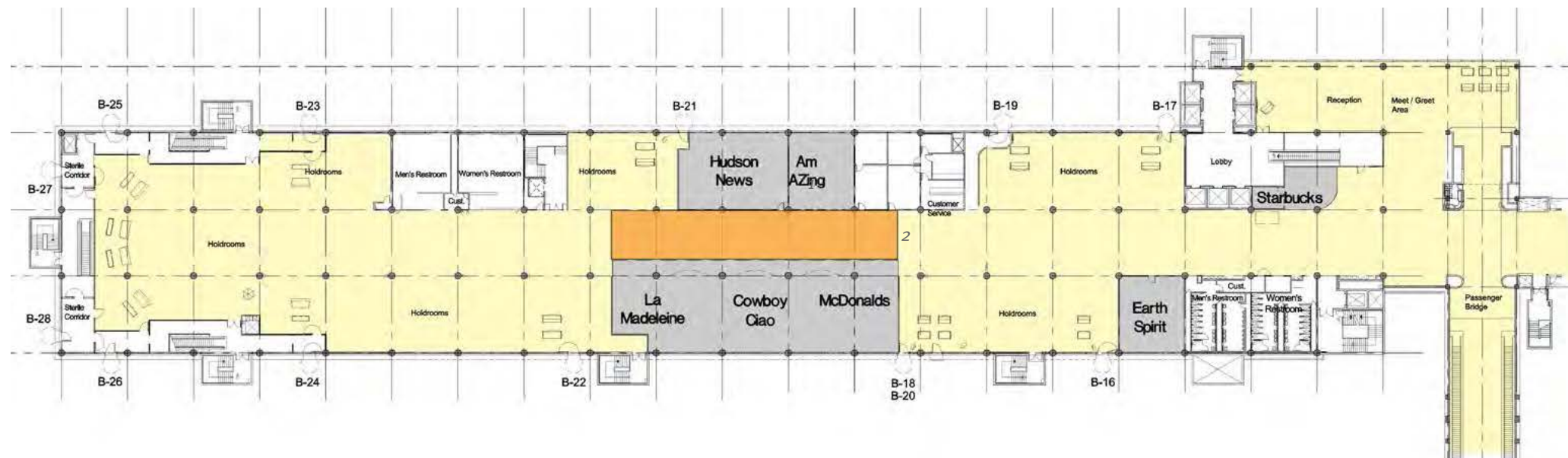
The Duty Free store should be relocated out of the concourse circulation. In lieu of using stanchions and signs to form the space, a more inviting and permanent space should be created near other concessions. A concessions zone can take advantage of floor and ceiling design to differentiate from the main circulation.

Key

■	*Seating*
■	*Advertising*
■	*Art*
■	*Information*
■	*Amenities*
■	*Tenant*
●	*Trash/Recycling*
●	*Plants*
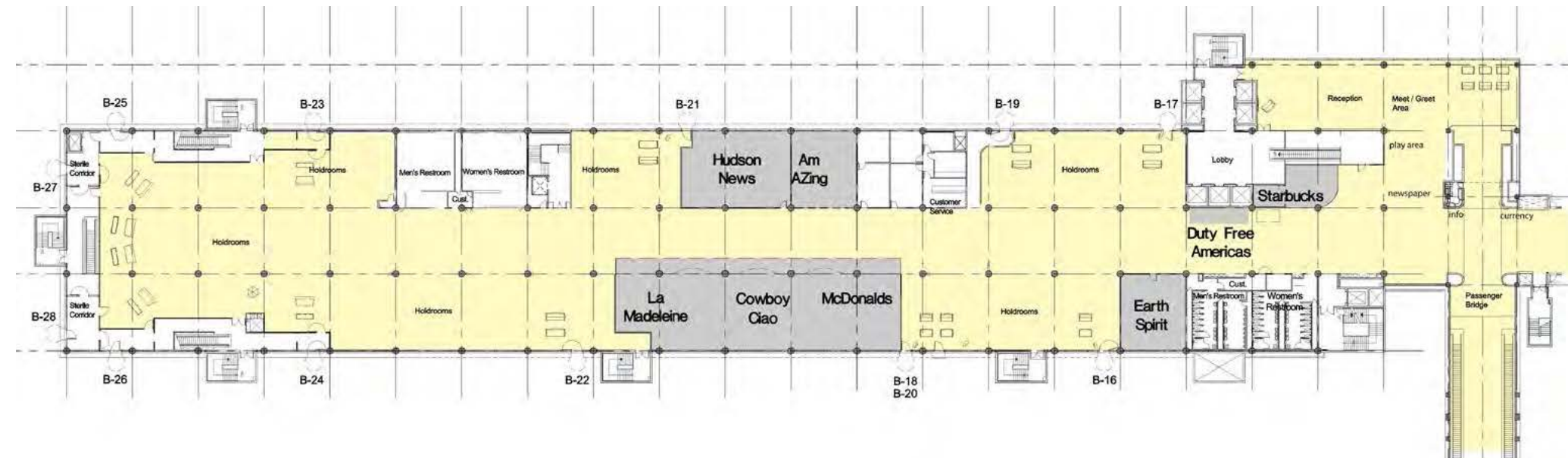
Currently there is little integration of the Airport Museum at the Concourse.

Existing Art Organization
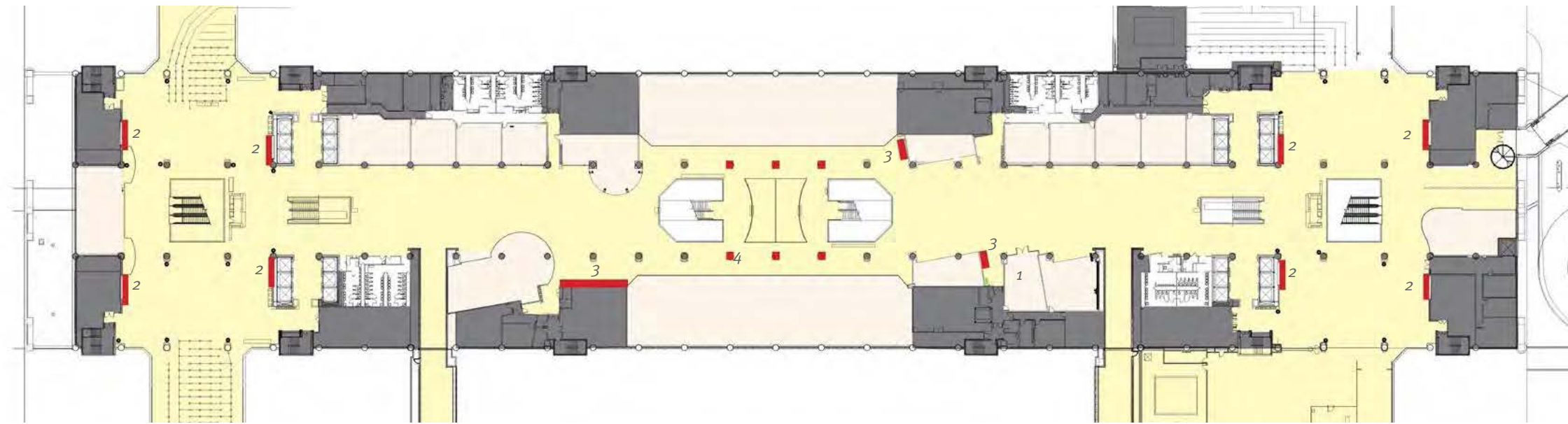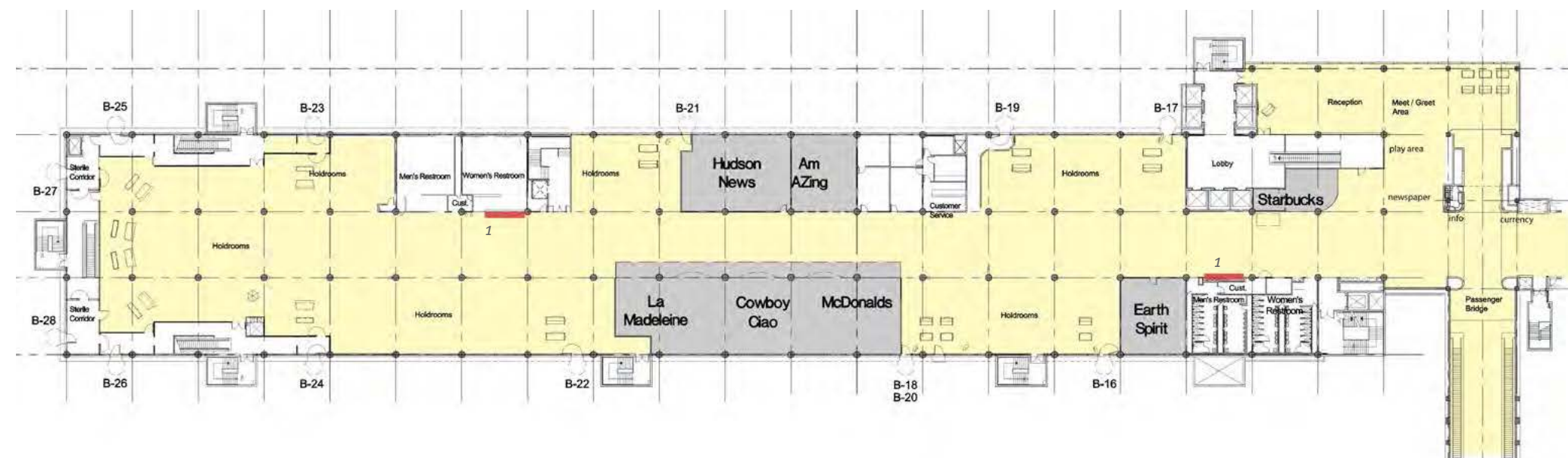

Key

- Seating
- Advertising
- Art
- Information
- Amenities
- Tenant
- Trash/Recycling
- Plants

Art Master Plan Concept

Art Vitrines can be integrated into service cores - composed with rest room areas for example. Alternatively, Art can be introduced into the gate areas and reserving the rest room areas for advertising, vending or informational elements.

Existing vending is not well integrated into the space.

Existing Amenities Organization
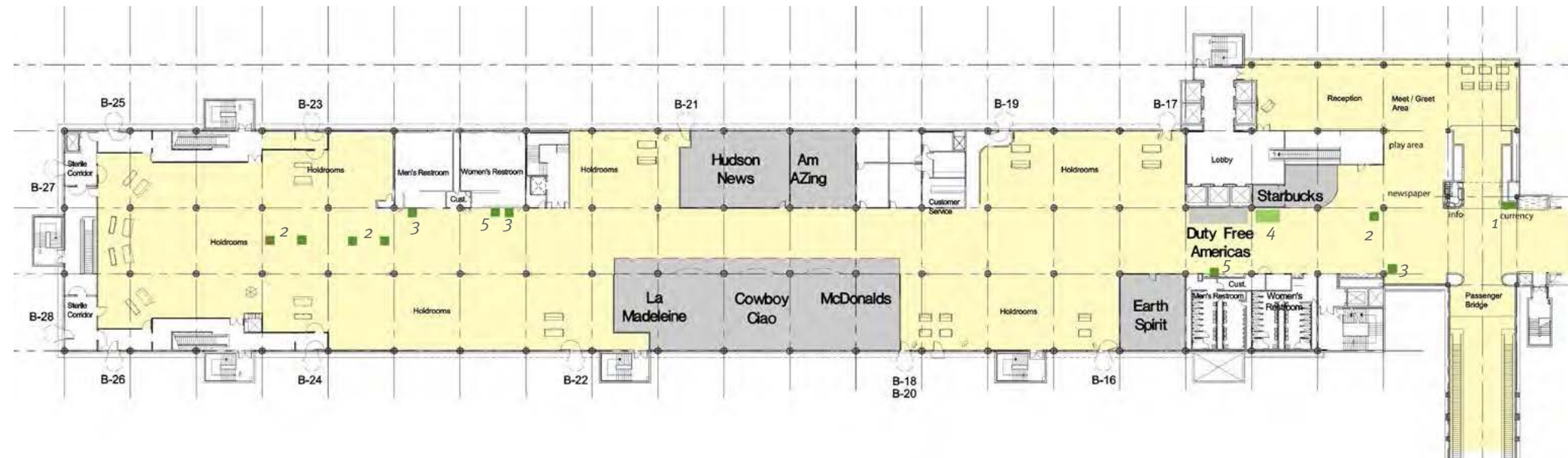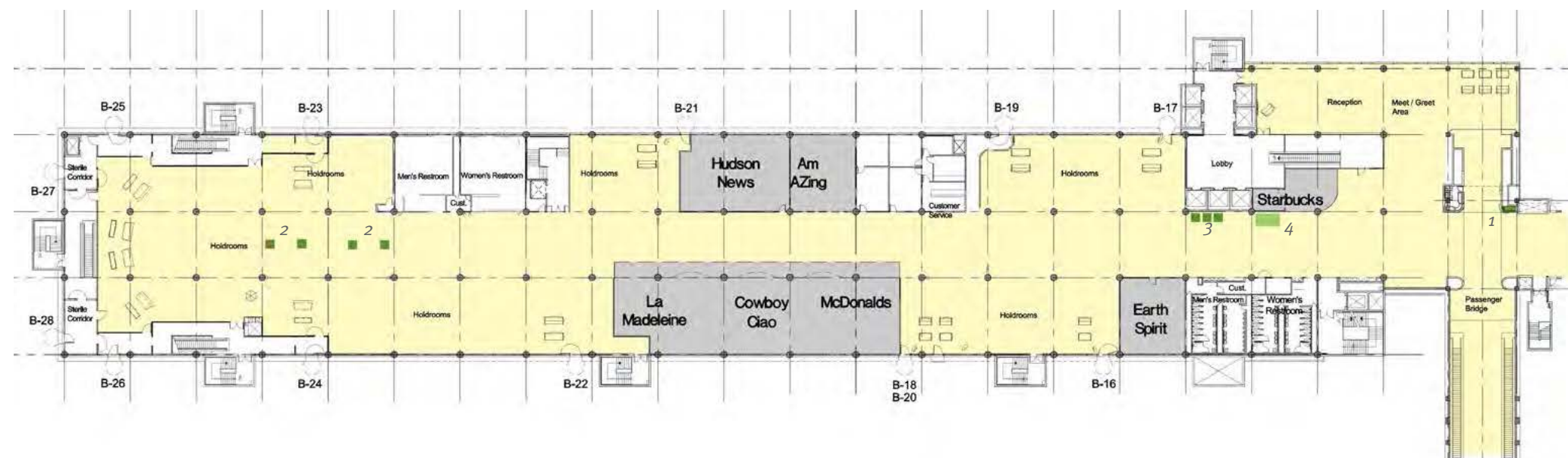
Notes

1   Currency Exchange
2   Recharge
3   Vending
4   Shoe Shine
5   Phones

Key

■ Seating
■ Advertising
■ Art
■ Information
■ Amenities
■ Tenant
● Trash/Recycling
● Plants

Amenities Master Plan Concept

Pay phones should be phased out and replaced with courtesy phones within info zones. Vending amenities should be grouped near service cores like rest rooms, recessed into the walls and composed with adjacent elements. The Shoe shine and the currency exchange should meet design standards similar to ticket counters and other service desks. Masted recharge kiosks are appropriate gate hold areas.
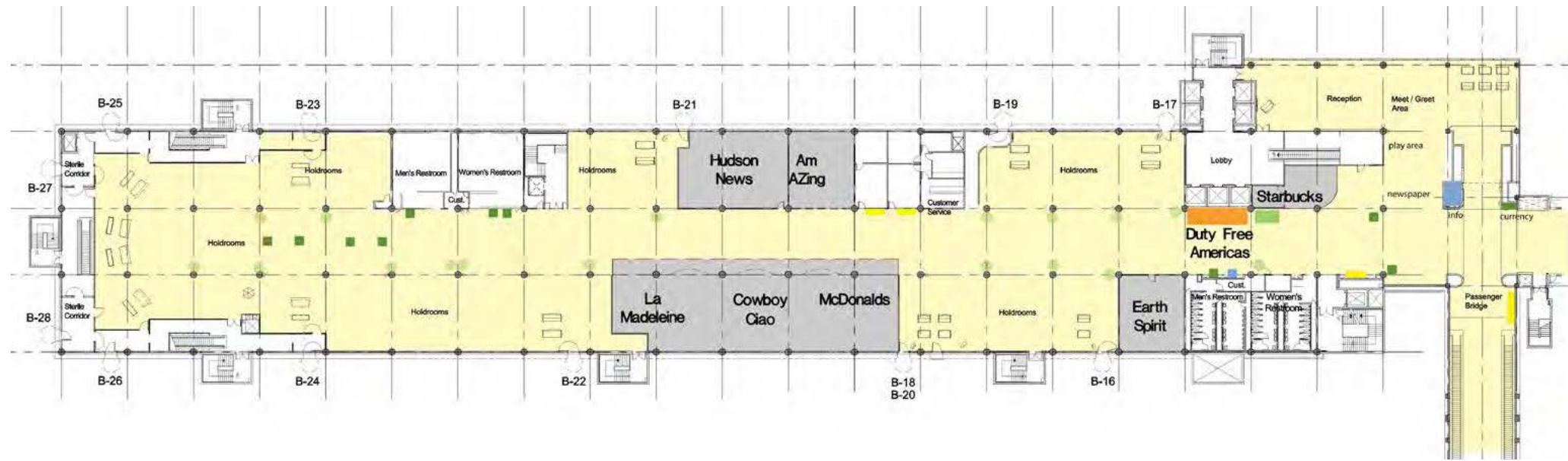
Existing Concourse N-4 Organization

Orientation Zone

Key

■ (purple)	*Seating*
■ (yellow)	*Advertising*
■ (red)	*Art*
■ (blue)	*Information*
■ (green)	*Amenities*
■ (orange)	*Tenant*
● (light green)	*Trash/Recycling*
● (dark green)	*Plants*

Concourse N-4 Master Plan Concept

1 - Retail Zone

Orientation Zone

Key

Seating

Advertising

Art

Information

Amenities

Tenant

Trash/Recycling

Plants
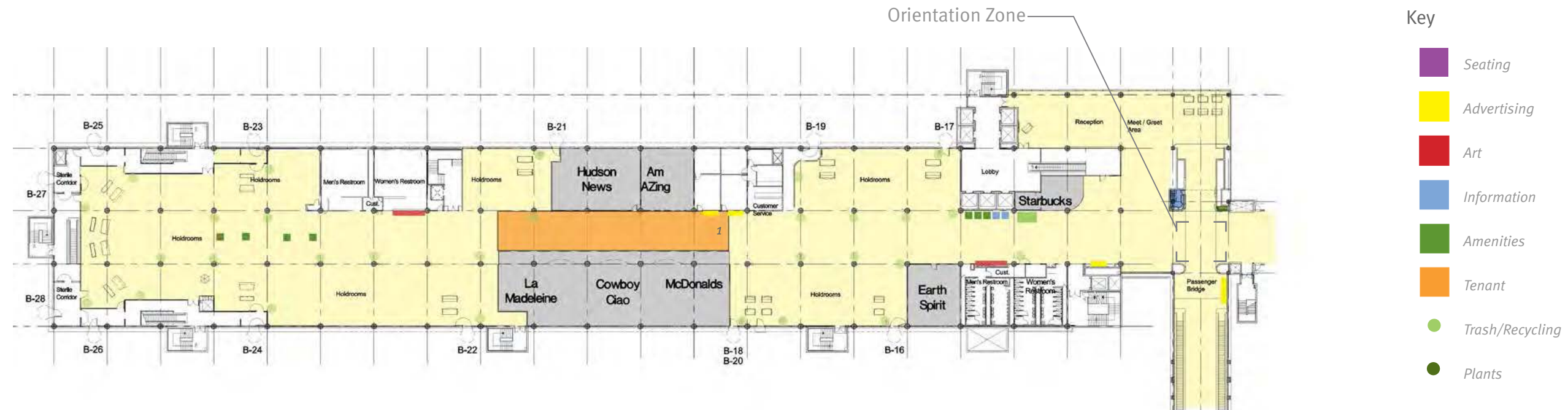
Concourse N-4 Master Plan Concept

Concourse N-4 illustrates zoning concepts that can be applied throughout all concourses. The concourse program is strengthened by grouping elements together and forming the different Terminal Zones. There is a great opportunity around rest room entries to compose zones for Art, Information, Amenities or Advertising. This diagram illustrates an Art Zone concept, however airport stakeholders should weigh the elements and program on each concourse and determine which zones are most appropriate.

4.0 VISION AND CONCEPTUAL RENDERINGS

MAY 8 2014

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Introduction

The intent of Terminal Vision and Renderings Section is to illustrate the PSHIA design philosophy as well as Interior Master Plans and Interior Color Palette concepts.

These renderings work to reflect a contemporary character and sophistication while remaining compatible with the existing aesthetics of the building. Further, they aim to reflect the goal of PHSIA to establish and maintain an atmosphere that enhances the passenger experience.

The following renderings and diagrams are not intended to be prescriptive but rather to inspire and set a direction for Design Teams and Airport Stakeholders.

Baggage Claim Orientation Zone

The Baggage Claim Orientation Zone is an important transitional space as passengers arrive from level 3 or the parking garage. Primarily, the space is a decision making point for both travelers and meeters/greeters, especially those that are unfamiliar with Terminal 4. The space should give a good first impression, promote intuitive wayfinding and support clear signage/wayfinding. Special floor and ceiling design should be considered to support these goals, establish spacial hierarchy throughout the level and create a memorable node.

Existing

In addition to being outdated, the existing space is cluttered with vending machines, amenities and advertising. Floor and ceiling applications are uniform throughout the entire baggage claim level.

Composition and Synergies

There is a natural synergy for Art within the orientation zone as it can help create a memorable space while supporting both the cultural goals of the Airport Museum and PSHIA. Carefully composing the elements within the space is important to creating a cohesive environment. Opportunities exist to compose rest room entries with art cases or other elements. The visual connection between these elements on both sides of the space supports the concept.

Information

Information areas should be clearly identifiable and adjacent to this decision making point. The space should promote intuitive flow into the claim area by utilizing floor design and by keeping the space free of visual clutter.

Ticketing Orientation Zone

The Ticketing Orientation Zone is an important transitional space as passengers arrive from curbside or move to Level 3 after completing the ticketing process. This decision making point should give a good first impression, promote intuitive wayfinding and support clear signage/wayfinding. Special floor and ceiling design should be considered to support these goals and to establish spacial hierarchy throughout the level.

Existing Ticketing Hall

The existing space is outdated, free of any hierarchy and is visually cluttered.

Orientation Zone

The ceiling and flooring should provide spatial cues for intuitive wayfinding.

Tenant Zones

Tenant zones should support the airport goal of a contemporary and cohesive environment by reducing visual clutter and providing elements that are complementary to the vision and color palette.

Baggage Claim Lounge

Lounge spaces can be an important amenity for both waiting travelers and meeters & greeters. They provide both an enhanced passenger experience and level of service. A successful lounge is intentional in its use furniture and adjacency to other elements. Many existing lounge and seating spaces within Terminal 4 are haphazardly organized using leftover furniture.

Seating Zone

The ceiling and flooring provide spatial cues and boundaries for the seating area adjacent to the entry.

Synergies

Art and vending provide a natural synergy with the seating zone. Collecting Vending in such a way also serves to keep it out of other areas that could create visual clutter.
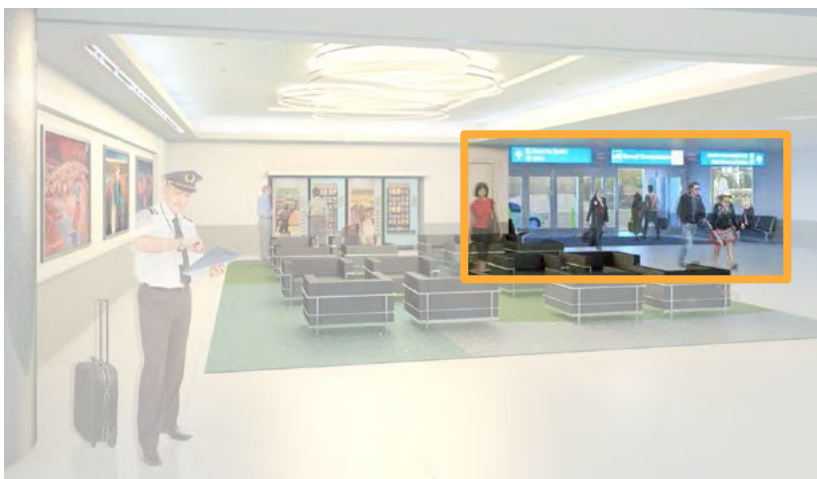
Composition

Arrangement of elements should be complementary and create a coherent composition. In this example, a walk off mat, waiting bench and advertising panel appear coordinated and support the goal of a cohesive environment.

Concourse Concessions Zone

The terminal architecture can support concessions by breaking up the length of the concourse and creating a memorable concessions space.

Existing

The existing space does not fully integrate the concessions. Further the outdated carpet and uniform ceiling do not support the terminal vision.

Synergies

Feature flooring and ceiling design should complement the concessions, but be careful to feature them rather than over power the space. A successful solution will promote the tenants while strengthening the passenger experience and concourse image.

TERMINAL 4 INTERIOR DESIGN STANDARDS
PHOENIX SKY HARBOR INTERNATIONAL AIRPORT

5.0 INTERIOR COLOR PALETTE STANDARDS
MAY 8 2014

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Introduction

The Interior Color Palette Standards have been developed to create a guide for the selection and application of color at Phoenix Sky Harbor International Airport (PSHIA) Terminal 4 (T4). The goal for the Interior Color Concept Palette Standards and its application in t4 is to create a clean, unified, contemporary design that represents the desired image set forth by the PSHIA.

The intent of these standards is to provide design teams, project managers, and airport stakeholders a framework for decision making. Such decision making should supports the development of design, encourage creativity and foster design solutions that support the Airport's vision. Additionally, the intent of these standards is to develop a cohesive and balanced approach to color. The goal is to create visually coherent spaces that unify the Terminal, support enhanced passenger experience and Airport functions. This document illustrates color application opportunities that reinforce the master planning ideas and support operational and maintenance challenges. These spaces include but are not limited to the baggage and ticketing levels as well as the various concourses. Designers and Design Teams are encouraged to be familiar with current projects representative of the Airport goals.

Color is an important factor in unifying an appropriate character and image for the Airport. Additionally, color can help "stitch" a variety of spaces together for a unified and cohesive design.   The use of color in appropriate quantities and placement can have a positive impact on the passenger experience while enhancing the overall environment. Inversely, when color is used insensitively it can add visual chaos, compete with way finding, art, advertising and Airport functions thus creating a negative impact on passenger experience.

A Concept Color Palette has been developed that responds to desired elements of the existing palette of materials used throughout T4. The Concept Color Palette focuses on four primary components: a Primary Core Color, Secondary Core Colors, Accent Colors, and Accent Highlight Colors. Each color has an associated Pantone Color Selector number for designers and design teams to use for color consistency.

Design Philosophy

The Concept Color Palette Standards illustrate location opportunities for the appropriate application of color and recommend proportions of the Concept Color Palette as they relate to interior building surfaces and location opportunities. Specifically, this document will address color as it relates to floors, walls, ceilings, design elements, and specialty zones. The following general design philosophies for each of the surfaces and zones have been developed. These design philosophies are meant to be a guiding principle for approach to color application that is representative of the Terminal Vision.

Floors

The floorscape represents a significant canvas for design solutions to utilize color as a tool for creating memorable spaces. These opportunities can enhance the passenger experience by promoting intuitive wayfinding, articulating orientation and information zones, defining circulation zones and complimenting amenity areas. The Master Plan Document defines and describes the planning ideas associated with these zones. Design Teams are required to be familiar with the goals set forth in the Master Plan Document.

As part of these standards, diagrams have been developed illustrating the use of color, acceptable levels of color and associated proportion of color found in the Concept Color Palette. These diagrams include baggage and ticketing level and a concourse example. The intent of floor pattern and color application for floor designs is to highlight the various zones as described in the Master plan Document.

Walls

Walls throughout T4 are subjected to high levels of abuse and ware. Additionally, walls are a visual collection point for a number of airport functions from art and advertising to information boards and other passenger related amenities. Therefore, wall surfaces represent the largest opportunity to create a clean, neutral envelope that does not compete with the inevitable visual clutter that can occur in this zone. Walls should be thought of as the "neutral" canvas. Therefore, The Primary Core Color from the Concept Color Palette is considered the appropriate level and range of color for Area "B" illustrated in the Material Standards. Wall Area "A" and Area "Y" should also be considered part of the "neutral" canvas when selecting materials. Wall Area "A" illustrates the highest wear zone for walls. The materials selected for this zone should be complimentary to wall Area "B", durable and easy to maintain by Airport staff.

Area "B"

Area "A" Wainscot

Area "Y" Base

3'-6"

1'-0"
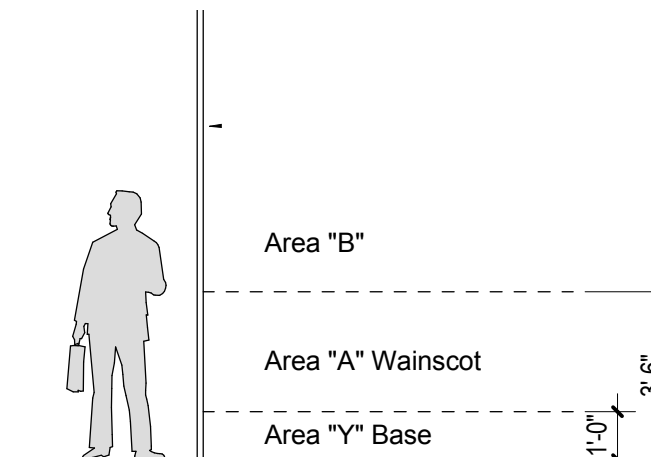
Design Philosophy cont.

Ceilings

The ceilingscape represents a surface that should be considered an extension of the neutral envelope as described in the design approach for Walls . When articulated appropriately and combined with lighting features, ceiling designs can also help create hierarchy to the different zones described in the Master Plan. Design Teams are encouraged to look for opportunities when developing ceiling designs that support the goals of reinforcing passenger orientation and intuitive way finding. When considering the design of ceiling elements, the color included should not compete with way finding or other informational signage. Due to the number of different types of ceiling treatments available to design teams, ALL application and locations are subject to Airport approval.

Specialty Zones

There are a number of areas throughout the Airport that may be appropriate for additional color opportunities. The intent of color in these zones should be considered to highlight the uniqueness of the environment when it supports the design vision of the Airport. These spaces include but are not limited to:

> Airport Lounges
> Children's Play Area
> Amenities Zones

In areas where art resides, if color is being considered as either a wall surface application or is integral to a specific material/finish, coordination with the Art Department is required. Similarly, where color intersects with advertising zones, coordination and approval with the Business and Properties Department is required.

Concept Color Palette

T4 existing material palette

PMS colors indicated are intended as references for an overall intent. Actual colors selected may vary from the PMS colors as long as they reflect and reinforce the overall palette intent. Likewise the zones and "focal areas" indicated in the following diagrams are intended to illustrate overall intent and actual geometries may vary as long as they reflect and reinforce the overall organizational intent

Concept Color Palette - Pantone Color Selector

warm gray 1 C				primary core color
420 C		421 C		secondary core colors
5477 C	316 C	303 C	350 C	accent colors
		5555 C	7475 C	7470 C	364 C	
		623 C	563 C	549 C	577 C	accent highlight colors
		5595 C	5523 C	7475 C	580 C	
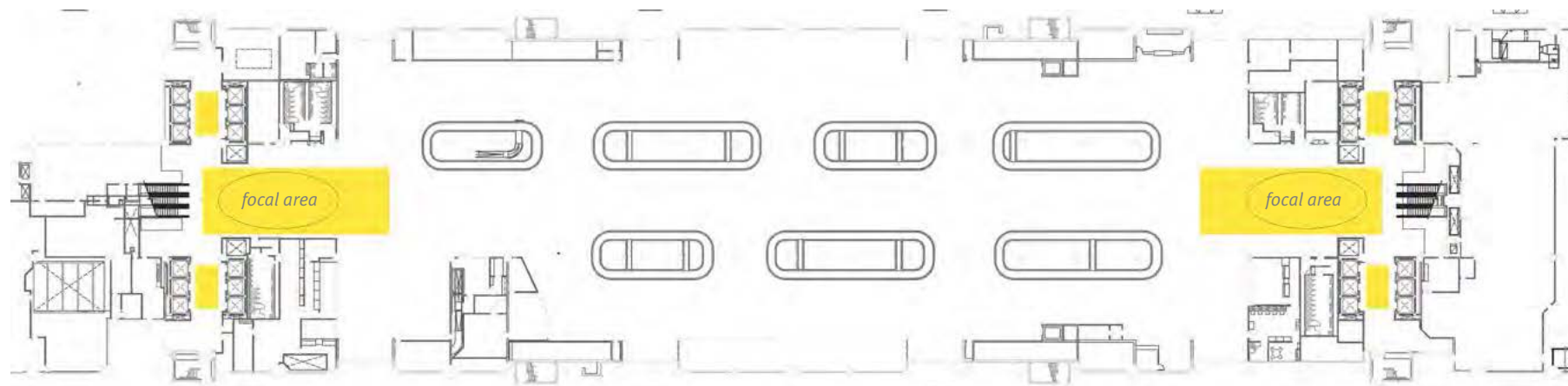
Baggage Claim Level - vertical circulation & orientation zones

Percentage of concept color palette per zones

primary and secondary core
25-35%

accent
25-35%

accent highlight
35-45%

The extent of accent & accent highlight colors in any given space should reside within a neutral "matte" and not extend fully to edges of the space in these zones.
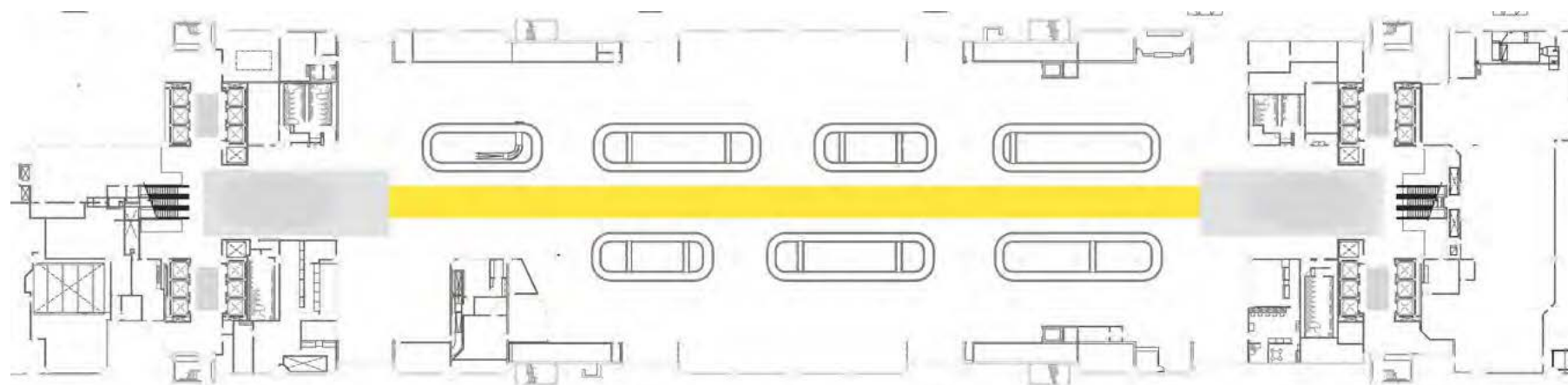
Baggage Claim Level - primary circulation

primary and secondary core
28-38%

accent
28-38%

accent highlight
28-38%

"Focal areas" are suggested in some zones with the intention being that greater intensity pattern and/or color could further reinforce the larger orientation and circulation zones. Overall color percentages for each zone (including "focal areas") should reflect the indicated percentages.

Where floor meets walls or other vertical surface, color shall be neutral portion of palette to create a neutral "matte" for floor pattern and colors.

Baggage Claim Level - secondary circulation

primary and secondary core
75-85%

accent
0-10%

accent highlight
5-15%
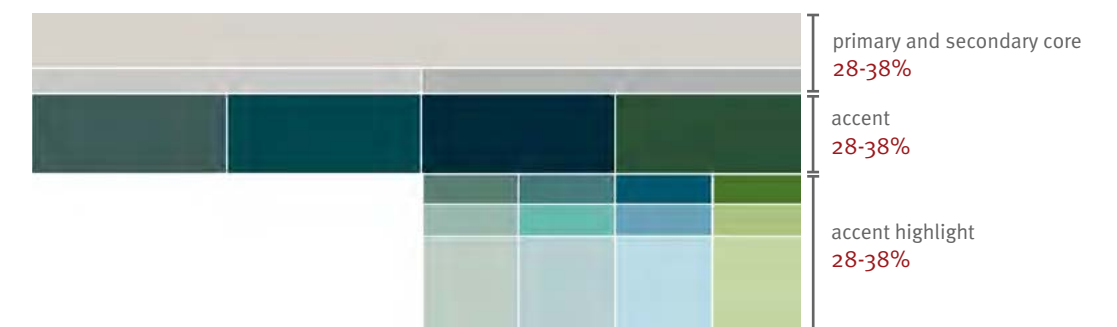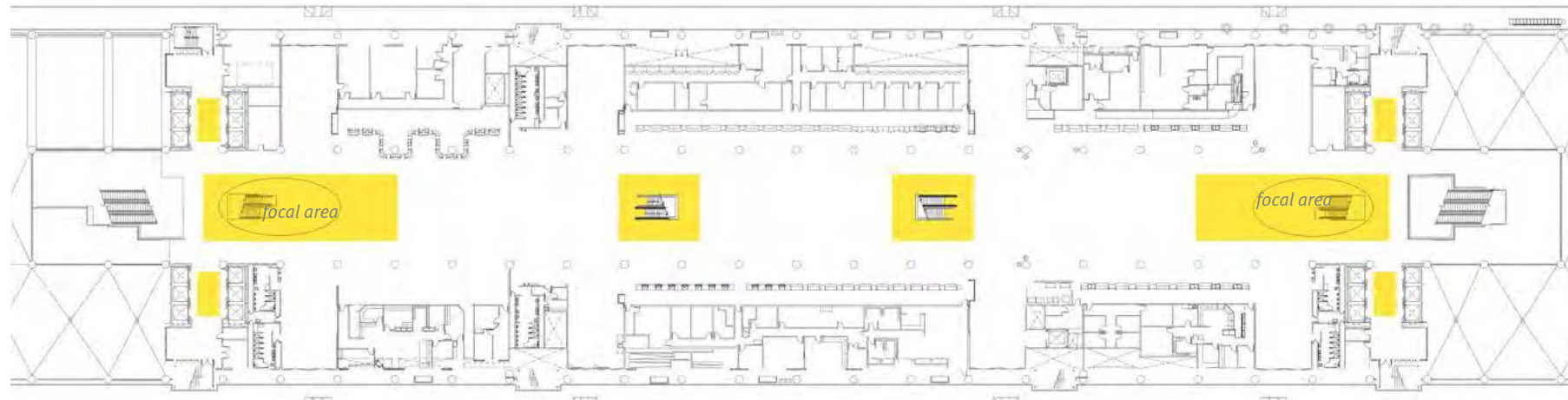
Ticketing Level - vertical circulation & orientation zones
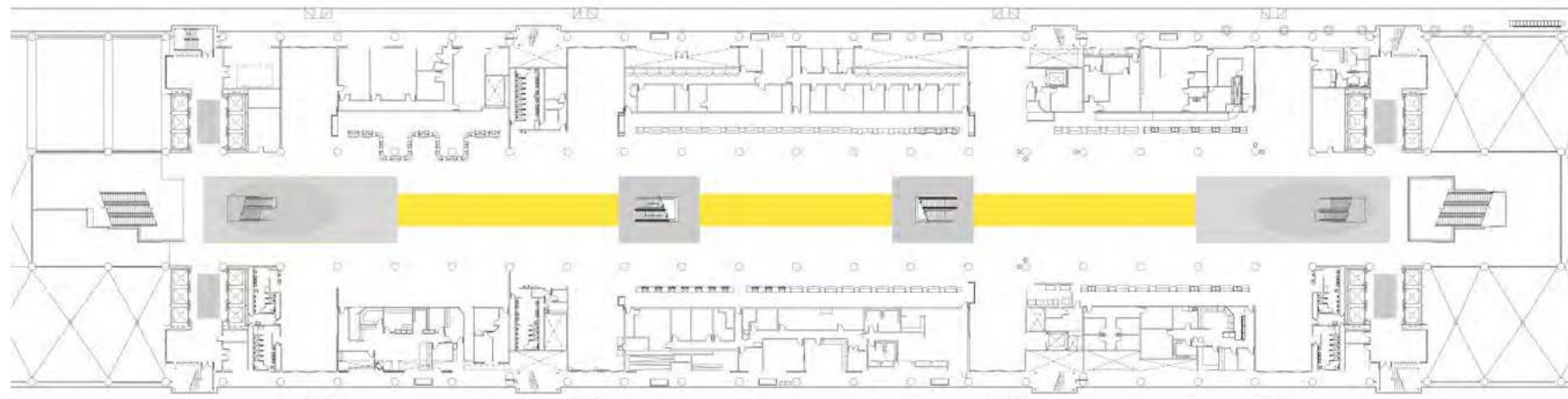
Ticketing Level - primary circulation

Where floor meets walls or other vertical surface, color shall be neutral portion of palette to create a neutral "matte" for floor pattern and colors.
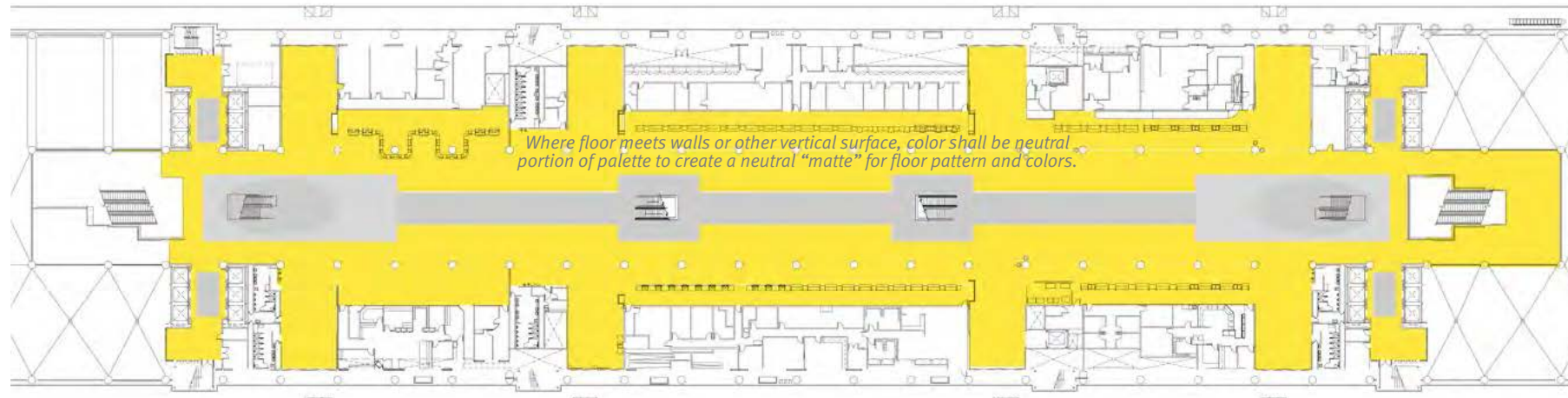
Ticketing Level - secondary circulation

Phoenix Sky Harbor International Airport
Terminal 4 Interior Design Standards

Percentage of concept color palette per zones

primary and secondary core
25-35%

accent
25-35%

accent highlight
35-45%

The extent of accent & accent highlight colors in any given space should reside within a neutral "matte" and not extend fully to edges of the space in these zones.

primary and secondary core
28-38%

accent
28-38%

accent highlight
28-38%

"Focal areas" are suggested in some zones with the intention being that greater intensity pattern and/or color could further reinforce the larger orientation and circulation zones. Overall color percentages for each zone (including "focal areas") should reflect the indicated percentages.

primary and secondary core
75-85%

accent
0-10%

accent highlight
5-15%

Concourse- orientation zone
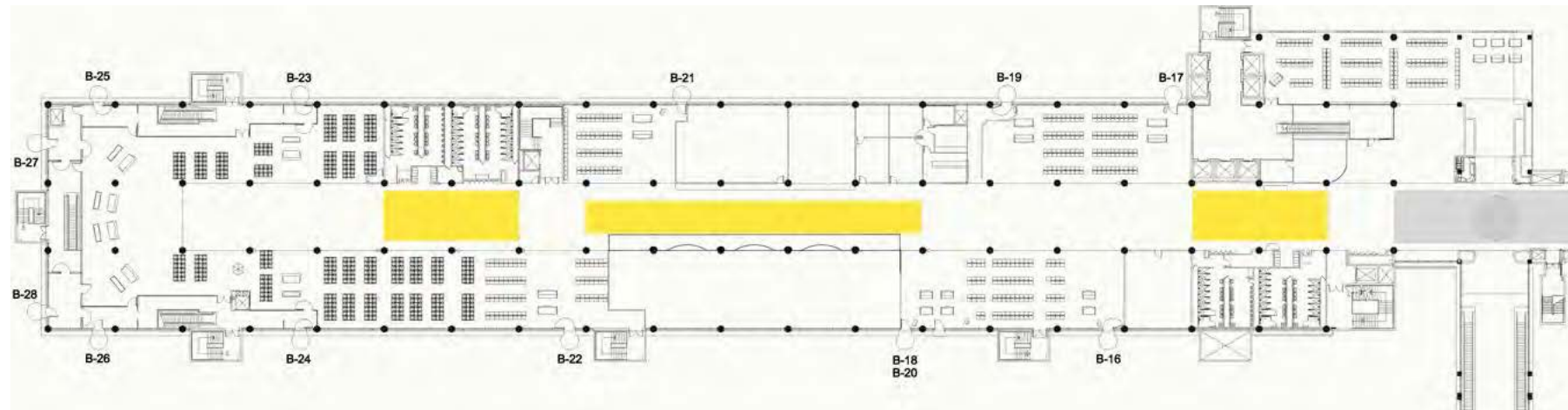
Concourse - concession - restroom - passenger amenities
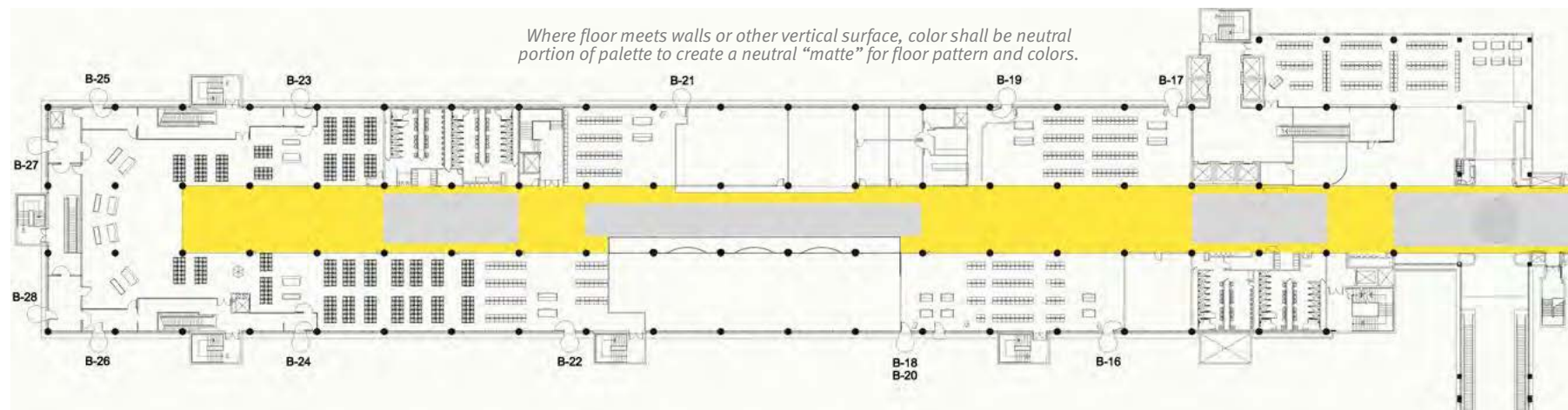
Concourse - primary circulation

Phoenix Sky Harbor International Airport
Terminal 4 Interior Design Standards

Percentage of concept color palette per zones

primary and secondary core
25-35%

accent
25-35%

accent highlight
35-45%

"Focal areas" are suggested in some zones with the intention being that greater intensity pattern and/or color could further reinforce the larger orientation and circulation zones. Overall color percentages for each zone (including "focal areas") should reflect the indicated percentages.

primary and secondary core
15-25%

accent
15-25%

accent highlight
45-55%
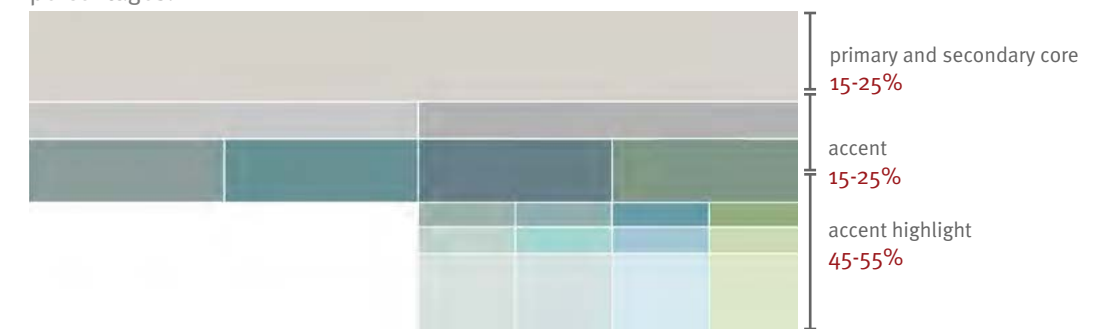
Application of color in zones adjacent to concession areas are important for creating an unique environment differentiating these areas from the rest of the concourse. However, colors should be less saturated as to not be visually competitive with storefronts and concession signage. Color Diagram represents a 40% reduction in color saturation.

primary and secondary core
75-85%

accent
0-10%

accent highlight
5-15%

The extent of accent & accent highlight colors in any given space should reside within a neutral "matte" and not extend fully to edges of the space in these zones.

6.0 INTERIOR MATERIALS STANDARDS
MAY 8 2014

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Introduction

The Interior Material Standards describe applied materials to Floors, Walls and Ceilings . These design guidelines provide a road map to assist in determining suitable materials.

This manual is a "living document" and Design Teams will ultimately contribute to it's evolution. Materials must be vetted for aesthetic intent, quality, durability, maintainability, life-cycle costing and sustainability. This process may also include testing, mock-ups and pilot projects that ultimately result in Airport approved standard materials and details.

Such approved materials, design solutions and details will anchor the Terminal 4 design, providing cohesive coordinated environment compatible with the functional and aesthetic intent. These standards might include field carpet, terrazzo standards, or wainscots. See Appendix A and Appendix B for approved Materials and Elements.

Design Teams should also note the following Airport positions relative to Terminal 4 Development:

Material Sourcing
Attic Stock
Submittal Review
Material Patching
Sustainability
Acoustics

Material Sourcing

After meeting the outlined material design intent, consideration should be given to the material's source. Future repair is easier with readily available materials and they are preferred to difficult to obtain products. When quality and aesthetics are not sacrificed, local or regional materials may allow such access and also promote sustainability.

Attic Stock

Refer to the Aviation Design Manual for Attic Stock Requirements

Submittal Review

Substitutions or changes made during the submittal process must conform to these design standards. Any deviations from approved and conforming materials must be approved by the airport. Substitutions during the submittal process is highly discouraged.

Material Patching

When materials are patched or repaired, it is important that the work is performed from seam to seam. Such an approach ensures the long lasting aesthetic throughout the terminal by preventing the accumulation of piecemeal repairs and patches. This applies to both Tenants and Airport maintenance staff that are interacting with Airport Finishes. This implies that many elements should be easily demountable and/or projects should plan on returning airport finishes to their original state.

Sustainability

PSHIA intends that its interior spaces and operations be sustainable, considering the health of users, the health of the community and the health of the environment in general.

Sustainable Design principles should be incorporated as part of the normal course of design and development. Design consultants from different disciplines should coordinate closely from early in the design process, and should keep the Airport Project Manager informed of proposed strategies. Sustainable Design Guidelines such as LEED may be used as design references, but certification of design would be only as directed by the Airport on a case-by-case basis. Refer to the Aviation Department Design Manual for further notes on sustainability.

Acoustics

As wall, floor and ceiling materials change througout the terminal, Design Teams should inform the airport of potential adverse acoustical issues and provide options to address issues.

Carpet Inlay Example

Floor Materials

The following list includes materials acceptable for flooring and describes design goals, minimum performance, and installation criteria. These systems should strictly follow Manufacturer and code installation guidelines. All materials are subject to approval by the Airport.

Floor Material Transitions

The airport goal is for flush material transitions. When not achievable, such conditions should be approved by the airport and meet code requirements. Design teams should also consider and avoid high color contrast material changes that could appear to be a level change to aging eyes.

Expansion Joints

Refer to to the Aviation Department Design manual for expansion joint information. Expansion joints should attempt to provide flush transitions and complement the interior design.

Carpet - Broadloom

General Information

- Use of border carpets in floor designs are encouraged to break up large field areas

- Designs should avoid large areas of solid light color

- Contractors/Designers must work with Airport approved Carpet Vendor

Carpet - Broadloom cont.

Unless noted otherwise, all carpet should:

- Carpet Vendor to store attic stock

- do not specify or design carpet in heavy traffic areas. Use carpet fibers that are premier yarn dyed fibers only such as Antron Legacy with Duracolor or Antron Lumena

- be tufted loop construction

- be installed according to manufacturer's instructions and the Carpet and Rug Institute's installation standards

- seaming diagrams are to locate seams in the least trafficed areas and out of areas of pivoting traffic and heavy cart traffic

- require all seams to be securely cemented to form an invisible seam

- orient primary carpet seams parallel to primary traffic

- specify that installers are to verify carpet match before cutting to ensure minimal variation between dye lots

- specify that any final installation that has bulges, buckling, poor seams, or improper fitting may be rejected by the Airport

- transitions between colors/flooring between adjoining rooms seperated by a door should occur at the threshold centerline.

- NOT locate seams perpendicular through door openings

- all transitions between carpet and hard surfaces are to be flush with a stainless divider strip in between materials.

Carpet - Tile
General Information

- use of border carpets in floor designs are encouraged to break up large field areas

- Designs should avoid large areas of solid light color

- Contractors/Designers must work with Airport Carpet Vendor

- Carpet Vendor to store attic stock

- do not specify or design carpet in heavy traffic areas.

Unless noted otherwise, all carpet should:
- be installed according to manufacturer's instructions and the Carpet and Rug Institute's installation standards

- use carpet fibers that are premier yarn dyed fibers only such as Antron Legacy with Duracolor or Antron Lumena

- be tufted loop construction

- be non-cushion backed

- be installed with releasable water-based glue

- transition color changes on the centerline at door thresholds where different colors occur to adjoining rooms

- NOT locate seams perpendicular through door openings

- all transitions between carpet and hard surfaces are to be flush with a stainless divider strip in between materials.

Carpet Sustainability Note:

Carpet materials should be designed to LEED Indoor Environmental Quality standards for Low-Emitting Materials-Flooring Systems and compliant with the Carpet and Rug Institute (CRI) Green Lable Plus . All materials should meet or exceed industry standards for sustainability (e.g. Green Label, Green Label Plus, etc). This includes requirements for maximum VOC concentrations, carpet backing and carpet adhesive VOC limits. The intent is to improve and maintain high indoor air quality for both installers and occupants. Design Teams should coordinate with Airport representatives on other Sustainable Design Goals including but not limited to; local sourcing, recycled content, waste diversion, etc.

Stone Tile

The use of natural stone should be carefully evaluated on a case by case basis. When used as a flooring material, certain types of stones may not be suitable for the purposes of duariblity and maintainabilty.   Testing to dertermine physical quailites should be evaluated and repeated for each individual project.

Unless otherwise indicated, all Stone Tile should:

- meet all ASTM standard specifications for dimesion stone

- have joint layout and location of all expansion joints that coordinate with all adjacent finishes.

- not have pores/ridges that collect dirt (difficult to clean)

- avoid light colored grouts that will darken unevenly over time

- have minimum compression strength of 16,000 psi., with a minimum abrasion resistance index of 33 in heavy traffic, open area public spaces

- have minimum density of 155 lbs per cubic foot and minimum flextural strength of 1,500 psi

- apply stone penetration sealer

- have equal joints no more than 1/8" thick nominal maximum

- NOT use polished finishes in areas exposed to wet conditions such as food courts, beverage service areas and entrances

- meet the minimum criteria for ADA slip resistance, and slip resistance in both wet and dry conditions

- absorption of 1.5%   or less

- use a neutral PH cleaner on floor

Stone Tile continued

- be specified to include anti-fracture and waterproof membrane below tile at existing floor control joints and cracks and locations per manufacturer's recommendation

Porcelain Tile

Unless otherwise indicated, all porcelain tile should:

- consider use of larger tile dimensions to minimize floor joints

- be rectified, through color body

- have grout joints that do not exceed 1/8"

- use stain proof epoxy grout that is a neutral, darker color (not black) complementary to the tile

- NOT have pores or ridges that collect dirt

- be specified to include anti-fracture and waterproof membrane below tile at existing floor control joints and cracks and locations per manufacturer's recommendation

- meet the minimum criteria for ADA slip resistance, and slip resistance in both wet and dry conditions

Tile Sustainability Note:

Tile should be designed to LEED Indoor Environmental Quality standards for Low-Emitting Materials-Flooring Systems. Tile typically meets Indoor Air Quality requirements without testing. Site applied adhesives, grouts, finishes and sealers must be compliant for mineral-based flooring systems.

Terrazzo

Terrazzo is a desireable floor material due its characteristics of being highly durable and the wide range of opportunies for design. Please refer to the Aviation Department Design Manual and consult the airport for current product specificaiton guidlines.

Unless otherwise indicated, all Terrazzo should:

- use a epoxy matrix with colors selected to adhere to the Airport Concept Color Palette Standards

- NOT use absorbent aggregates especially in areas prone to possible staining i.e. restrooms

- NOT use 100% glass as the aggragte mix

- be finished in a way that helps mitigate scuffing

- be finished in a way that minimizes the need for exspensive and time consuming maintenance procedures

- when able use domestically harvested aggregate

- Provide minimum slip resistance per ADA, appllicable codes or airport standars - whichever is most restrictive

- provide crack suppression and waterproofing per airport specifications

- be designed to accomodate existing floor conditions through appropriate preparation of floor slab

Entry Floor Mat

Terrazzo Sustainability Note:

Terrazzo should be designed to LEED Indoor Environmental Quality standards for Low-Emitting Materials-Flooring Systems. Terrazzo typically meets Indoor Air Quality requirements without testing. Site applied finishes must be compliant for mineral-based flooring systems.

Floor Mat - Roll Goods

Unless otherwise indicated, all Floor Mats should:

- be located at all public entrances from the exterior

- lie in an approximate 2" built-in recess

- be flush with the surrounding floor

- extend no less than 7'-0" and no greater than than needed to terminate at an ideal location

- extend no less than 6" on either side of the door opening, designer shall investigate ideal locations for transitions

Floor Mat -   Carpet Tile

Unless otherwise indicated, all Floor Mats should:

- be located at all public entrances from the exterior

- lie flush with the surrounding floor

- extend approximately no less than 7'-0" and no greater than 8'-0" toward the interior space from the doors

- extend no less than 6" on either side of the door opening, designer shall investigate ideal locations for transitions

Wall and Column Materials

Description and Goals

The following includes materials acceptable for wall design and application throughout the public spaces of the terminal. As a result of the varying durability requirements up the wall surface, appropriate materials for the different wall areas have been noted. All materials are subject to approval and should strictly follow manufacturer and code installation guidelines.

Full height integral corner
guard at corners

Area "B"

Area "A" Wainscot

3'-6"

Area "Y" Base

1'-0"

Wall Height Zones

Area "B"

Area "A"

4'-0"

8"

Area "Y"
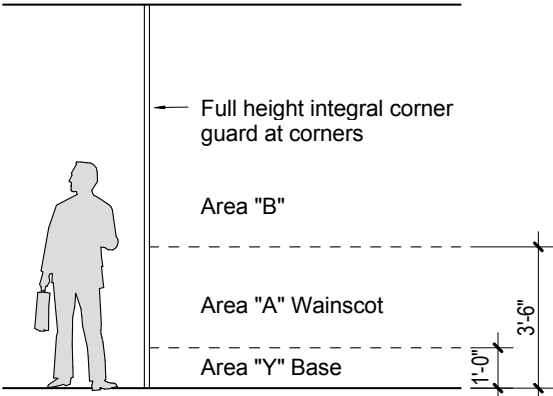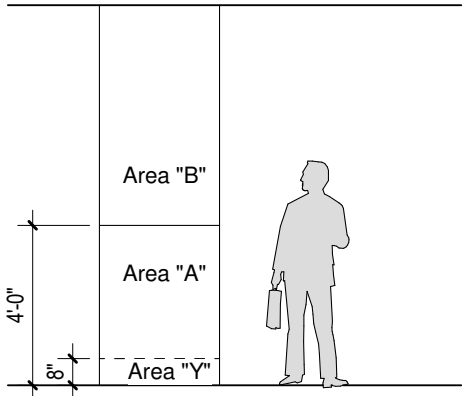
Column Height Zones

Base Rail Example

Wall and Column Height Zones

Public spaces within the airport are subject to high traffic and abuse. Luggage, carts, and equipment can cause severe damage to wall finishes. The following are acceptable materials for each area:

Area A - Wainscot

- Textured Stainless Steel (w/ smooth accents)

- Porcelain Tile

- Quartz Veneer Tile

- Stone Veneer Tile

- Other materials as approved by airport

Area B

- Metal Panel or Composite Panel

- Paint

- Wall Covering

- All Area A Materials

Area Y - Base

The base receives damage from elements such as riding cleaning equipment. Consideration should be given to durable materials that hide discoloration/scratches. A base rail - similar the Sky Train wall system is a suitable approach. At Columns, an 8" lightweight concrete fill behind Area Y will provide impact durability. Consider extending filled base to 4'-0", Area A, for maximin durability.
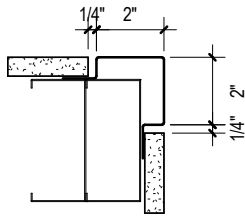
Corner Guard Type 1
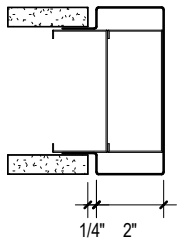
Corner Guard Type 2
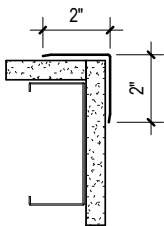
Corner Guard Type 3

Corner Guards

Corner Guards must be incorporated to further protect wall surfaces and materials from damage. Consistent use also promotes a cohesive aesthetic throughout the terminal.

Type 1 - Integrated

Type 2 - End wall

Type 3- Surface Mounted

> (Surface mounted corner guards should only be used when integrated corner guards are not practical.)

Unless otherwise indicated, all Corner Guards should:

• Formed Stainless Steel

• Type 304

• #4 Finish

• 16 Gauge

• Full Height or from Top of Base to Ceiling, depending on wall design

• use concealed fasteners

• have no sharp edges or corners

Unacceptable Material Transitions

Transition Type 1 - Inside Corner
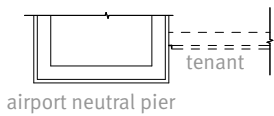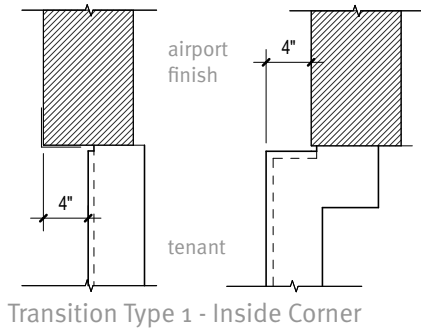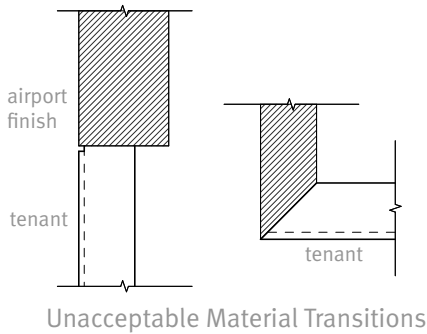
Transition Type 2 - Neutral Pier
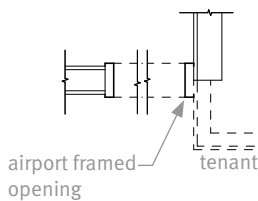
Transition Type 3 - Framed Opening

Tenant & Airport Material Transitions

Well executed transitions between Airport base finishes and tenant finishes are critical to maintaining a cohesive terminal environment. Tenant finishes or even non standard airport finishes can be very different in terms of color palette, materiality and scale. Avoiding awkward or blunt transitions supports the image of the airport public spaces and the tenant space. Design Teams should evaluate these conditions and make recommendations to achieve the best results, which may include removal of existing finishes outside of the original scope. The following transition types are acceptable:

Type 1 - Inside Corner
Creating transitions at inside corners provides a natural and forgiving point in which to change wall systems. Outside corner transitions are easily damaged and unsightly. A 4"min return better supports the adjacent outside corner and appears more intentional.

Type 2 - Neutral Pier
An airport neutral pier brings consistency throughout the terminal. Tenant finishes should die into these airport designed elements.

Type 3 - Framed Opening
Tenant finish transitions may occur next to openings such as a corridor or restroom entry. At such conditions, design teams should use a stainless steel framed opening to conceal and protect the in-line transition.

Effective wall areas at International Arrivals. 4' textured stainless steel wainscot with durable finish above.

Stainless Steel

Unless otherwise indicated, all Stainless Steel should:

- be 20 gauge minimum with a #4 finish and backed

- primarily use textured types that do not show finger prints

- be considered as a wainscot in areas as indicated in the 'Wall Height Zones' section

- use stainless steel base on lower wall surfaces and column surrounds in high traffic areas where excessive damage could occur

Moving Walks and Escalator Side Panels

In addition to complementing the Terminal Vision and aesthetic, new or replacement side panels for moving walks or escalators should be durable and hide scratches. Textured stainless steel or glass are preferred materials. Existing swirled stainless steel patterns is being phased out and is not acceptable. Successful implementation of new side panels should be considered for use as a terminal wide standard.

Paint

Unless otherwise indicated, all Paint Finishes should:

- apply coatings using methods recommended by manufacturer

- use a primer or undercoat preparatory coating

- use a eggshell/satin finish

- use neutral colors that adhere to Airport Palette standards when applied over a large surface area

- be considered for use above wainscot when design intent is to provide a less durable, but easily repairable solution

- incorporate VOC content according to the latest guidelines for low emitting materials

Wall Covering

Product must be comparable to a Carnegie Xorel in terms of quality, durability and performance and be fully vetted with the airport prior to selection.

Unless otherwise indicated, all Wall Covering should:

- only be considered for use above wainscot

- be considered appropriate for specialty areas but not for use terminal wide

- require the installer to replace the knife blade after EACH cut during installation

- be solution dyed, woven product of high performance

- use neutral colors that adhere to Airport Palette standards when applied over a large surface area

Composite Panel

Unless otherwise indicated, all Composite Panels should:

- consider only the most durable of composite panels for wainscot or full height uses

- use neutral colors when applied over a large surface area and may use accent colors when applied over small surface areas

- apply integral stainless steel corner/edge profile at all exposed corners and edges from floor to ceiling

- have all fasteners hidden

- consider use of through color composite panel

Wood Panel

Unless otherwise indicated, all Wood Panels should:
- be limited in use to specialty areas with airport approval

- use a wood species and module consistently throughout the terminal, unless otherwise determined

- use 3/16" joints, with veneer returned at all exposed surfaces, including joint interiors have species and stains that complement accent colors and be most similar to the natural wood colors depicted in the color palette

- NOT use rotary and other "busy" cuts

- use satin or matte finishes

- use a solid wood along all exposed edges

- have all fasteners hidden

Stone Tile

Unless otherwise indicated, all Stone Tile should:

- have minimum joints, no greater than 1/8" if possible

- coordinate stone joint layout and location of all expansion joints with all adjacent finishes

- NOT have pores/ridges that collect dirt

- All Stone Walls to have a penetrating sealer

Ceramic/Porcelain Tile

Unless otherwise indicated, all Stone Tile should:

- use ceramic tile from floor to ceiling on all 'wet' walls

- be rectified to ensure uniformity and precision of tile size

- have grout joints that do not exceed 1/8"

- use a stain proof epoxy grout

- use a neutral, darker color (not black) grout that is complementary to the tile color

Wall Base

The base receives damage from elements such as riding cleaning equipment or mopping. Consideration should be given to durable materials that hide discoloration/scratches. (Dark cove base for example) Unless otherwise indicated, all Wall Bases should:

• consider use of a base railing in high traffic areas

• design teams should be considerate of base transitions to the floor material or other base material

• limit use of rubber base to light duty or temporary areas (use rolled rubber base with preformed corners when needed)

• use Carpet and Vinyl base in non-public areas only
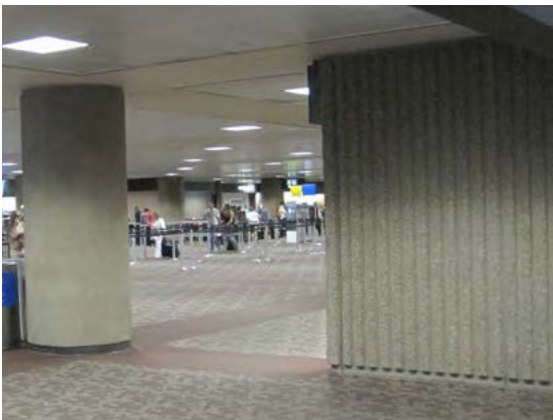
Existing Concrete Column and Wall Panel at Ticketing

Existing Walls and Columns

Both the Ticketing Level and Baggage Claim level have many existing concrete columns and wall panels. It is important that design teams fully evaluate how to approach these conditions. The terminal vision for a contemporary interior environment may be better served to conceal or remove such elements, however there are many issues to consider with such an intervention. Considerations include how materials transition or the impact on adjacent elements. For example, covering wall panels near the entries may affect the glazing/door in addition to the character of the entry sequence as the exterior wall panel turns inside. In conjunction with the appropriate project, design teams should evaluate the proper approach and apply the solution consistently.

Ceiling Materials

The following list includes materials acceptable for application in ceiling areas. All materials are subject to approval.

All systems listed below should also strictly follow manufacturer and code installation guidelines.

Acoustic Ceiling Tiles and Panels

Acoustic ceiling tiles and panels are an appropriate choice for terminal ceilings. Airport stakeholders and design teams should consider researching, piloting and incorporating products that can become standardized and used throughout the terminal. Such products should be durable, maintainable, accessible and readily available for replacement. Provide a minimum NRC of .90.

Acoustical Note

Design teams should always consider the acoustical implications of material choices relative to the entire space and the public address system. For example, teams should understand the impact of changing a floor from carpet to terrazzo and the role of the ceiling design. The goal should be to avoid harmful noise and provide a space that is acceptable to occupants and their tasks. When necessary, design teams should rely on professional acoustical advice and/or modeling to meet these goals.

Paint

Unless otherwise indicated, all Paint should:

- have a flat finish

- use neutral colors that adhere to Airport Palette standards when applied over a large surface area

Exposed Structure

Exposed Structure is not allowed except by special approval from the airport. With special approval, any exposed structure should:

- paint all metal with a semi-gloss finish

- paint all exposed components of building systems, such as electrical conduit, mechanical ducts and equipment and fire protection piping

- paint all exposed ceiling concrete structure with a flat finish

- use neutral colors when applied over a large surface area and may use accent colors when applied over small surface areas

- account for acoustical impact on space and remedy if necessary

Metal Ceiling Panels at Sky Train

Metal Ceiling Panels

Airport stakeholders and design teams should consider researching, piloting and incorporating metal ceiling products that can become standardized and used throughout the terminal. Such products should be durable, maintainable, accessible and readily available for replacement.

Unless otherwise indicated, metal ceiling panels should:

• use the metal ceiling panels at the Sky Train as design precedence and influence

• have continuous acoustical backing

• NOT be reflective or have a mirrored surface

• be easily removable for maintenance and utility access

• have a minimum NRC of .90

TERMINAL 4 INTERIOR DESIGN STANDARDS
PHOENIX SKY HARBOR INTERNATIONAL AIRPORT

7.0 INTERIOR ELEMENTS STANDARDS
MAY 28 2014 - DRAFT

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Table of Contents

Introduction

The Interior Elements Standards describe either aesthetic or service-oriented, three-dimensional objects , equipment and unique areas common throughout the airport.

Whether a specific product, design intent or design guideline, the goal is to provide a road map to assist in integrating interior elements.

This manual is a "living document" and Design Teams will ultimately contribute to it's evolution. Elements must be vetted for aesthetic intent, quality, durability, maintainability, life-cycle costing and sustainability. This process may also include testing, mock-ups and pilot projects that ultimately result in an Airport approved standard for elements throughout the airport.

Approved elements and details will anchor the Terminal 4 design, providing a cohesive coordinated aesthetic. These standards might start with design intent and guidelines but may ultimately end up as standard details and products upon Airport approval.

Design Teams should also note the following Airport positions relative to Terminal 4 Development:

Submittal Review
Sustainability
FFE

Submittal Review

Substitutions or changes made during the submittal process must conform to these design standards. Any deviations from approved and conforming materials must be approved by the airport. Substitutions during the submittal process is highly discouraged.

Sustainability

PSHIA intends that its interior spaces and operations be sustainable, considering the health of users, the health of the community and the health of the environment in general.

Sustainable Design principles should be incorporated as part of the normal course of design and development. Design consultants from different disciplines should coordinate closely from early in the design process, and should keep the Airport Project Manager informed of proposed strategies. Sustainable Design Guidelines such as LEED may be used as design references, but certification of design would be only as directed by the Airport on a case-by-case basis. Refer to the Aviation Department Design Manual for further notes on sustainability.

FFE

Design Teams should submit layout plans as a part of their design solutions. (waste receptacles, furniture, etc.)

Passenger Amenities

Description and Goals

This section includes acceptable products and guidelines for
Passenger Amenities such as the following:

> ATMs and Vending Machines
>
> Luggage Carts
>
> Courtesy Phones
>
> Airport Information Areas
>
> Information Displays (FIDs, BIDs)
>
> Waste and Recycling Receptacles
>
> Plants
>
> Seating

Passenger Amenities are often not fully addressed or integrated
into airport spaces until after the design and construction is
complete. This approach can result in 'after the fact' placement
and contribute to visual clutter. It is important that Airport Staff
and Design Teams understand the interaction between Amenities
and other Airport Elements such as Tenant spaces, Art or general
passenger flow.

Required amenities should be considered during the design
process - integrating elements where possible and collaborating
to address conflicts.

Recessed Vending Concept

Automatic Teller and Vending Machines

ATMs and Vending machines provide an important convenience for the traveler. They can often be strategically located to encourage travelers to visit a certain area (concessions zone for example). ATMs and vending machines must be highly visible and accessible, yet maintain visual compatibility with contextual architectural elements.

The most commonly used forms of ATMs and Vending are:

Type 1: Free-Standing
Type 2: Built-In/Recessed

Unless otherwise indicated, all ATMs/Vending should:

• be in an alcove or recessed when possible

• be grouped with other vending machines when possible

• be adjacent to the natural path of travel

• not impede or create an impediment to the natural path of travel

• conform to all applicable codes, regulations, and accessibility guidelines

• be distinct yet complimentary to the architectural context

- be easily removed without causing damage to the underlying material or such that the vendor returns it to the original state

- provide ample spacing to locate luggage adjacent to the unit

- be finished on all sides

- be made of a highly durable material, not plastic laminate

- when needed, inlude newspaper machines with this section

ATM/Vending Type 1: Free-Standing

- have no visible wires or conduit

- NOT be placed in front of a window unless it functions at front and back

- NOT have a height greater than 6'-0"

- NOT block the view of other tenants or vendors

ATM/Vending Type 2: Built-In (preferred)

- be serviceable from the front of the unit

- NOT utilize the wall surface adjacent to the unit as part of the corporate identification

- have a distinct, yet complimentary finished surface adjacent to the unit that is visually divisible from the corporate identity

- consider consistent design approach to all vending clusters. A pilot design may include a soffit, lighting or signage approach that could be used throughout the terminal.

Free-Standing ATM

Luggage Carts

Luggage Carts

Luggage carts are an amenity that help passengers transport luggage through the terminals. Although usually purchased from an off-site vendor, there are on-site design decisions that can enhance the ready-made cart once it is on site.

Unless otherwise indicated, the carts and dispensers should:

- be made of brushed or powder coated stainless steel

- have signage color matching way finding signage throughout the airport

- have no sharp edges

- have wheels that do not make skid marks on the floor

- have a floor space clearance of no less than 5'-0" in front of and behind the Dispenser Unit

- have a Dispenser Unit that does not display any advertising

- have a Dispenser Unit that only displays the international luggage cart symbol on a sign post mounted to the top of the unit at an acceptable viewing height

- NOT have any exposed wires or conduit on the Dispenser Unit

- limit use of luggage carts with brakes to areas without moving walks

Courtesy Phones

Courtesy Phones augment the airports informational and wayfinding programs and provide a level of comfort, security and convenience for the traveler. The goal of this standard is to regulate the design of Courtesy Phones to complement the Architectural and aesthetic goals.

Unless otherwise indicated, Courtesy Phones should:
- be located in major paths of travel

- be located with similar informational elements like info desks, kiosks or directories

- conform to all applicable codes, regulations and accessibility guidelines (ADA accessible including height and braille requirements)

- utilize the same design and colors in every location throughout the Terminal

- have hidden connections in surround wall plate

- be vandal resistant and be installed with tamper-proof security screws

- be flush mounted when possible

- include a standard informational sign at every location for easy identification

- have a backer wall plate made of heavy gauge stainless steel

- have an armor-corded handset, be made of a highly durable material and have a chrome plated cast metal cradle

Airport Information Areas

Airport information areas are an important part of the way finding system as they reduce confusion and wayfinding questions. The objective of this standard is to regulate the design, and location of these structures to ensure consistent application. The detailing should visually integrate the amenities into the space where they will be installed. Depending on the design, they should house some or all of the following features:

1. Directory maps/Interactive Displays
2. Courtesy phones
3. Brochures slots
4. Visual paging system
5. AED's
6. Fire Extinguishers

The goal is to better collect these informational amenities and to develop consistency throughout the Terminal. For example, an information desk may be developed to collect these different features -see criteria under Full Service Casework. Accordingly, they should be coordinated with the Interior Master Plan. (Approved Designs and Details should be integrated into these standards so that the design is consistent throughout the Terminal.)

Information Displays (FIDS, BIDS)

Information displays are an important part of the airport wayfinding and information program. Airport stakeholders and design teams should consider piloting design solutions that can become standardized and used throughout the terminal. Such an approach will reinforce the Terminal Vision of a cohesive environment. Precedent setting design solutions should be developed for the following types:

Type 1: Ceiling Mounted Displays
Type 2: Wall Mounted Displays
Type 3: Free Standing Displays

Unless otherwise noted Information Displays, should:

- conform to all applicable codes and regulations

- be reviewed by the Airport with a Design Professional

- be complimentary to the overall architectural context and color palette

- be securely fastened, with no visible wires or computers

- be finished on all sides with finished edges and projections

- be made of a highly durable materials such as stainless steel

- coordinate with master plan concepts of information zones

- not be oversized or bulky

- consider recessing into walls when available

Waste and Recycling Receptacles

Waste and Recycling Receptacles form an important part of the airport maintenance program and are typically located in sight of any public area. Airport stakeholders and design teams should consider researching, piloting and incorporating waste and recycling receptacles that can become standardized and used throughout the terminal. Such products should be durable, vetted with for adequate capacity and be harmonous with the Interior Color Palette.

Locations

Waste and Recycling Receptacles should be visible from all public spaces, spaced no less than 30' apart and no more than 60'-0" apart and be along natural paths of travel. Placement should also be near seating zones, checkpoint entries and within gate areas.

General Characteristics

Unless otherwise indicated, all waste and recycling receptacles should:

- conform to all applicable codes and regulations

- be made of highly durable material such powder coated steel with graffiti clear coat or stainless steel.

- be non-combustible and vandal resistant

- have a replaceable stain resistant liner

- have no advertising

- have concealed connections and hardware

- always co-locate waste and recycling containers

Plants

Use of Plants and fake Plants should be minimized as they can easily add unnecessary clutter to the terminal. In addition, they create maintenance difficulties. Any plants used should be highly coordinated, composed with the entire area and apporved by the airport. Further, they should be located and designed for successful implementation with proper lighting or watering.

Seating

Unless otherwise noted, public seating should:

*   Refer to the Aviation Department Design Manual for current standards

*   Consider whether fixing seating is appropriate – in collaboration with the airport.

*   be harmonious with colors identified in the Interior Design Standards Color Palette for material selection. Refer to approved existing furniture when appropriate.

*   use appropriately programmed furniture. i.e Lounge furniture for meeter & greeter areas. Beam seating for gate holds. Misappropriating furniture can look haphazard.

*   Public seating must be modular and employ replaceable seats and backs to permit repair of damaged units

*   The intersection of the seat and back should remain open to discourage to accumulation of debris

*   Seating must be easily accessible, particularly for the elderly

*   Seating area must provide adequate and convenient access to electrical power for the use and charging of portable electronic devices

Art Display at International Arrivals - Terminal 4

Airport Museum

The mission of the Phoenix Airport Museum is to enhance the traveling public's experience by creating a memorable environment that promotes Arizona's unique artistic and cultural heritage through an Art Collection, Exhibition Program and the Phoenix Aviation Archive. It is not the intent of this standard to regulate or censure the 'work' itself other than to say it should be appropriate to the Airport Environment. These standards have been developed to provide guidelines for display of the 'work' to ensure a consistent application throughout the Terminal.

Art display Types described:

Type 1: Wall Surface Mounted Displays
Type 2: Exhibition Cases
Type 3: Architecturally Integrated Public Art
Type 4: Suspended Ceiling Mounted Displays
Type 5: Gallery Space
Type 6: Public Art Children Play Areas

Locations
Memorable spaces that create first and last impressions are primary candidates for Art. (For example, Orientation Zones noted in the Interior Master Plans.) Secondary Spaces such as lounges and corridors are also a consideration. Locations should be coordinated with the Interior Design Standards Master Plan and are subject to airport approval.

General Characteristics
Unless otherwise dictated in a specific section all Art Types should:

- conform to all applicable codes and regulations

- be reviewed by the Airport in consultation with a Design Professional

- complement overall aesthetics and design of Directional/ Wayfinding Signage

- provide 24" min buffer zone around art – free of advertising or other elements, including fire extinguishers, AED cabinets, courtesy phones , etc...

- have stainless steel artist plaques mounted nearby the art piece where possible

- be well illuminated

- exhibit clean and simple lines

- have edge conditions to be finished with an edge trim or solid stock

- NOT distract passenger views and understanding of Directional/Way finding Signs

- NOT accept wallpaper murals as Art

Recessed Wall Display

Type 1: Surface Mounted Wall Display
Unless otherwise indicated, all Surface Mounted
Displays and Accessories should:

- have its vertical center at an average eye level of 56" above finish floor, but not its lowest height less than 38" above finish floor unless dictated otherwise by applicable codes

- be recessed into wall where possible to protect artwork

- NOT project more than 4" from the wall surface

- have hidden connections (no exposed hardware)

- be securely fastened to the internal wall structure

- be easily secured and accessed from the front

Type 2: Exhibition Cases
Exhibition cases should be minimal and clean in design so to focus attention on art. Architectural components and structure should fade into the background an not distract from the exhibit Unless otherwise indicated, all Exhibition Cases should:

- be secured at the bottom of the glass doors using an airport standard lock with a sergeant removable core cylinder. (To be replaced by airport lock shop with the art program's core.)

- provide positively pressurized HEPA air filtration system to reduce heat and dust. (500 CFM, 99.7% particulate free to .3 microns, comparable to IAF DASH 5. Provide filter access.)

Exhibit Case - Level 3

Floating back wall

Raised base

Type 2: Exhibition Cases continued:

•   provide laminated, low iron glass (museum glass or Starphire Ultra Clear). Tinted or colored glass is not acceptable

•   provide ceiling mounted track lighting mounted toward the front of the case with dimmer switch. Switches should be located out of view. Consider recessed or hidden illumination.

•   coordinate current lighting fixture and lamping with airport museum (current standards: Gimbal Ring, 50w LED lamp at 3000K, GU-10)

•   provide flush mounted internal power located close to the floor

•   provide a white 'floating' back wall; gypsum board over 3/4" plywood with 3" reveal on each side. (designed for frequent repainting). Coordinate case depth with airport museum.

•   provide back wall that is parallel to glass

•   provide neutral color at case bottom so to not conflict with art

•   consider extending adjacent floor material into case for floor mounted locations for maximum integration into space. (Raising 4" with kick/cleaning area)

•   consider raising base of case to match adjacent base (4"-12" typically) to provide durable kick space in high traffic areas

Architecturally Integrated Public Art at Terminal 4
Sky Train platform.

Suspended Art at International Arrivals

Type 3: Architecturally Integrated Public Art (Floor or Wall Medallions, Carpet Inlays)

Unless otherwise dictated in a specific section all Architecturally Integrated Displays should:

• consider the long-term implications of Architecturally Integrated Public Art and appropriateness for specific locations (e.g. regulations preventing future alteration)

• have all dissimilar materials transition properly

• have a non-directional design when applied on the floor

• not project over the base surface forming a tripping hazard

• be permanently affixed to the substrate

• use materials that are compatible with maintenance standards of the field area.

• use durable materials consistent adjacent wear properties

Type 4: Suspended Displays
Unless otherwise indicated, all Suspended Displays and Accessories should:

• be secured to the ceiling structure with simple connections

• be laterally braced as required by codes and regulations.

• NOT be accessible by an unauthorized individual

T4 Gallery

Type 5: Gallery Space
Gallery Spaces serve as an anchor for the Airport Museum. Airport Stakeholders should consider incorporating Gallery Space so that it has a presence both pre and post security. The space creates a focal point for the Museum programming. The formality of the space is easily identified by the public as a museum and in turn brings their awareness to other temporary exhibitions they see in seating areas, walkways and waiting areas. This anchor also acts as a landmark and meeting place for passengers.

Art/Play concept at SFO

Type 6: Public Art Children Play Areas
Airport Stakeholders and Design Teams should consider incorporating Public Art and Children Play Areas throughout the Terminal.

Ticketing Vision concept image

Ticketing

Description and Goals

The Ticketing Hall often serves as the first impression of the Terminal for arriving passengers as they stop to obtain boarding documents or check luggage. Accordingly, the hall must accommodate staffed ticket counters, self-service kiosks, passenger queuing areas and cross-circulation. From terminal way-finding and airline branding to queuing directions, the space has a high quantity of signage and information. These standards seek to ensure that this process is cohesive and clear by providing consistency throughout and reducing visual clutter. It is the overall intent to provide a clear and calming passenger experience. This section includes guidelines for Ticketing Elements such as the following:

Ticket Counters
Self Serve Ticket Counters
Gate Counters
Ticketing Back Wall
Stanchions and Queuing

Ticket Counters

(This section also applies to Airline Gate Podiums and Self-Serve Ticketing Machines counters)

The Ticket Counter is a crucial point as the traveler proceeds through the Terminal. In addition to housing all of the required functional elements, they must be accessible and maintain compatibility with the terminal architecture.

It is not the intent of this standard to dictate the overall Ticket Counter design. The ultimate design responsibility lies with each Airline Tenant or Design Team, however, this standard does define the counter's general characteristics.

Materials

In order to ensure basic aesthetic consistency throughout the ticketing hall, all ticket counters should rely on durable materials and neutral colors within the terminal's Interior Color Palette Standards. The following materials are provided as an example and guide, while actual material selection is left to design teams and subject to airport approval.

Counter top: 2cm Silestone "Stellar Snow" Quartz

Vertical Surfaces: Stainless steel, No Pattern

Vertical Surfaces Accent: Forms & Surfaces,8mm Stainless Steel, "Seastone Finish" Dallas Pattern

Ticket Counter Material examples

Las Vegas (LAS) terminal 3 ticket counter concept example

General Characteristics

Ticket counter needs and trends are constantly evolving. The current vision for Terminal 4 ticket counters is to integrate smaller check-in positions and move away from large shell/insert solutions. Airport and tenant collaboration is an important part of the process in order to define the current goals. Unless otherwise indicated, all Ticket Counters should:

- conform to all applicable codes and regulations including ADA accessibility guidelines

- be reviewed by the Airport in consultation with a Design Professional

- be complimentary to the overall architectural context

- be securely fastened, with no visible wires

- be easily de-mountable without causing damage to the underlying architectural materials

- have finished edges and projections

- be finished on all sides

- have no advertising

- be made of highly durable materials

- NOT distract passenger views and understanding of Directional/Way finding Signs

- consider placement of required regulatory and airline information signage with the design to reduce visual clutter

Ticketing Back Wall

Ticketing Back Wall design and branding establish the corporate identity of the airline tenant through the use of name and/or logo. They also function as a directional and way finding elements for passengers. The intent of this standard is to give provisions for equal visual presence and to reinforce the directional potential of Back Wall Ticket Counter Graphics.

Back Wall and Counter Concept
In order to ensure basic aesthetic consistency throughout the ticketing hall, all Back Walls should adhere to the one of the following Types:

Type 1: Monitor Back Wall
(Primary, preferred approach)
Unless otherwise noted, All Monitor Back walls should:

- limit branding to uniform back wall monitor consistent with other ticketing monitors (40")

- be allowed to utilize monitors for other messaging and tenant services with airport approval

- Utilize an airport directed Primary Core paint color for the back wall - consistent with the Interior Color Palette Standards and the Ticketing Palette.

Airport Neutral Color
Standard Monitor
Ticketing Position

6'-6"

Ticketing Back Wall - Type 1

Airport Primary Core Color
Tenant Sign Zone
Ticketing Position

3'-6"

4'-9"
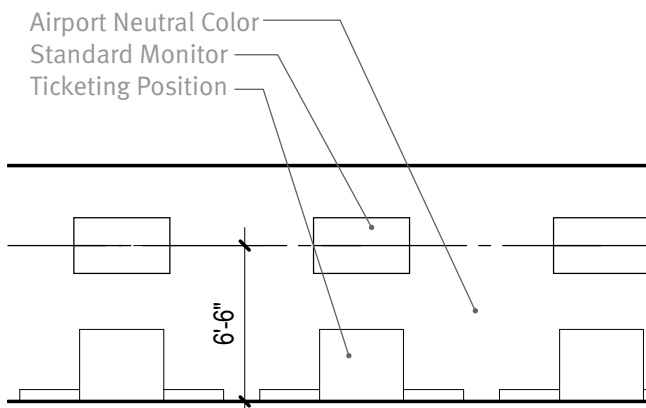
Ticketing Back Wall - Type 2
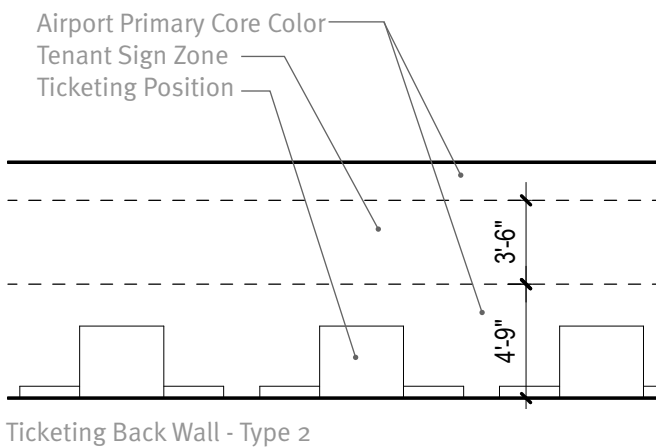
Type 2: Signage Zone Back Wall
(alternative approach with airport approval)
Unless otherwise noted, All Signage Zone Back Walls should:

•   Be reviewed by the Airport

•   NOT distract passenger views and understanding of
    Directional/Way finding Signs

•   have no advertising or decorations including holiday
    decorations

•   Conform to all applicable codes and regulations

•   Should have hidden connections (no exposed hardware)

•   Have signage visibly distinct from the wall system

•   DO NOT project more than 2" from the wall surface

•   Be easily demountable without causing damage to the
    underlying architectural materials

•   be externally illuminated

•   utilize limited Tenant Sign Zone area as described in diagram

Materials
Unless otherwise indicated, all ticket counter back wall graphics
should be either metal or opaque acrylic. Colors shall adhere to
ADA signage contrast guidelines at a minimum, so as to stand out
from the main wall color and aid in passenger wayfinding.

Ticketing Stanchions and Queuing

Stanchions are a critical component of the ticketing process and occupy a large portion of the ticketing area. Mismatched and inconsistent stanchions create a visually cluttered environment while over signed and disorganized messaging can be confusing and unsightly. In order to ensure basic aesthetic consistency throughout the ticketing hall, all stanchions should match the following basis of design:

Lavi Industries, Beltrac 3000 series, Retractable Belt Crowd Control Stanchions. Satin Finish with Black Belt or single color with airport approval. Minimal tenant branding or logo is acceptable with airport approval. 1 color. Stanchion Sign Frame should be Satin Finish and not to exceed 22"x28".

Unless otherwise indicated, stanchions,and signage should:

- have no advertising or service offerings. Wayfinding only

- NOT distract passenger views and understanding of Directional/Way finding Signs

- NOT exceed sign height of 68" above floor

- be limited to one non stanchion sigh per structural bay and not exceed a height of 68" above the floor. (i.e. banners)

- should be maintained with periodic inspection to tighten fasteners, straighten, etc... (Tilting is not acceptable)

- have uniform stanchions within a tenant area. Mixing multiple types and colors is not allowed

68" Max

Standard stanchion and sign frame

Queue and Floor Design

In order to ensure basic aesthetic consistency throughout the ticketing hall and to ensure proper passenger flow, the floor design should indicate the extents of the tenant's leased area as well as suggest queue spacing. For example, a divider strip in a terrazzo floor may subtlety indicate the lease line and ideal spacing for which stanchions should align. Design teams must coordinate with the airport project manager and business/ properties manager to identify tenant lines and required adjacent circulation.

Tenants should layout stanchions to align with the floor design and queue indicators.

Floor Design indicating queue spacing

Floor design indicating leased extents
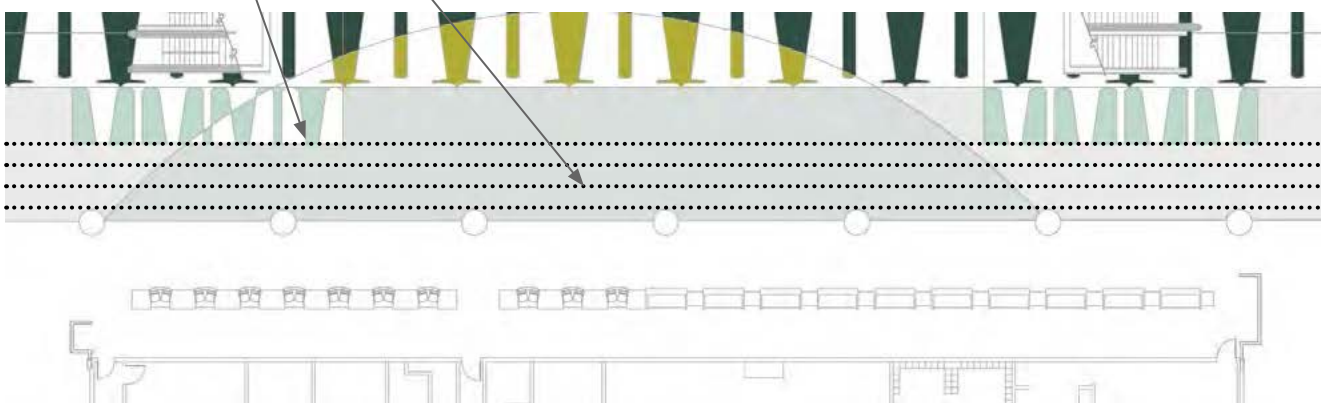
Ticketing Queue

7.4 Full-Service Casework

Description and Goals

Service Casework is located throughout the entire Terminal and provides an important point of interaction with airport passengers. The units are typically custom fabricated to meet the programmatic needs of the tenant or airport. With the overall intent to create a cohesive environment, these standards ensure that all casework within the Terminal public spaces are generally consistent and meet baseline criteria.

This section includes acceptable guidelines for Full-Service Casework such as the following:

> Service Counters
> Information Desks
> Shoe Shine Stands
> Tub Storage (Ticketing)
> Charging Stations

Service Counters

Many tenants or airport programs require Service Counters to interact with travelers. From baggage service and shuttle counters, to wheelchair service podiums, they have an important role in defining the terminal image. In addition to housing all of the required functional elements, they must be accessible and maintain compatibility with the terminal architecture.

It is not the intent of this standard to dictate the overall Counter design. The ultimate design responsibility lies with the design team, however, this standard does defines the counter the general characteristics. Further, airport stakeholders and design teams should consider service counter precedence that is established by future pilot projects that could be applied throughout the terminal.

Materials

In order to ensure basic aesthetic consistency throughout the terminal, all counters should rely on durable materials and neutral colors harmonious with the terminal's Interior Color Palette Standards. The following materials are provided as an example and guide, while actual material selection is left to design teams and subject to airport approval.

Counter top: 2cm Silestone "Stellar Snow" Quartz

Vertical Surfaces: Stainless steel, No Pattern

Vertical Surfaces Accent: Forms & Surfaces,8mm Stainless Steel, "Seastone Finish" Dallas Pattern

Ticket Counter Material Standards

Information Desk Concept with integrated Visual Paging, Courtesy phone and Directory.

General Characteristics

Unless otherwise indicated, all Service Counters should:

• conform to all applicable codes and regulations including ADA accessibility guidelines

• be reviewed by the Airport with a Design Professional

• be complimentary to the overall architectural context

• be securely fastened, with no visible wires

• be easily de-mountable without causing damage to the underlying architectural materials

• have finished edges and projections

• be finished on all sides

• have no advertising

• be made of a highly durable materials

• NOT distract passenger views or disrupt Way finding Signs

• consider placement of necessary counter signage with the design intent to reduce visual clutter

• not be oversized

Example of Paging Assistance integrated into Information Desk

Information Counters

Information counters are an important part of the wayfinding system as they reduce confusion and wayfinding questions. The objective of this standard is to regulate the design, and location of these structures to ensure consistent application. The detailing should visually integrate the amenities into the space where they will be installed.

Information Counters should follow the guidelines listed in the Service Counters portion of this section. In addition, design teams should consider incorporation of other informational elements like Visual Paging, Directories, scrollable FIDS, Interactive Displays or courtesy phones into the counter. Approved Designs and Details should be integrated into these standards so that the Information counter design is consistent throughout the Terminal.

Locations:
Information counters, when programmed by the airport, should be located in Information Zones as noted in the T4 Interior Master Plan.

Charging Stations

Charging is an important passenger amenity and must be located throughout the terminal. Airport stakeholders and design teams should consider design solutions that can become standardized to reinforce the Terminal Vision and promote intuitive wayfinding to charging options. Precedent setting design solutions should be developed for the following types:

Type 1: Charging Casework
Type 2: Furniture Integrated Charging
Type 3: Concessions Charging

Type 1 - Charging Casework
Charging Casework should follow the material and design guidelines listed in the Service Counters portion of this section. Details should be integrated into these standards so that the design is consistent throughout the Terminal. Note that existing green masted charging solutions are not cohesive with large public spaces and are more suitable for Gate Hold areas.

Type 2 - Furniture Integrated Charging
Design teams should provide convenient access to electrical power and seek to develop a consistent approach throughout. This will reduce the reliance on casework, reserving space for other programming

Type 3: Concessions Charging
Airport Stakeholders should work with tenants to provide convenient access to power such that travelers can easily expect the amenity - thus promoting patronage.

Shoe Shine Stands

Shoe Shine Stands are a traditional casework airport amenity.

Locations:
The locations of Shoe Shine Stands should:

• be adjacent to concession areas if possible

• not create an impediment to the natural path of travel

Materials
Unless otherwise indicated, all materials should:

• be similar to those noted in the Service Counter section

• have a stainless steel base

• Not use plastic laminate or porous materials

• use a non-skid surface on all flooring surfaces

General Characteristics
Unless otherwise indicated, all shoe shine stands should:

• be built in an alcove when possible

• incorporate 3-dimensional signage of the stand name

• provide sufficient storage so that products are hidden
  when not in use

• incorporate staff seating position into unit

Tub Storage (Ticketing)

The plastic tubs adjacent to the ticket counters and required by the the baggage handling system should be collected and concealed. Tub storage casework should be designed for maximum durability with an understanding of the extreme abuse caused by constant activity, carts and workers.

Locations:

Tub storage casework should be located at the ends of leased ticket counter sections as determined by the airport.

Materials

Unless otherwise indicated, all materials should:

- be similar and harmonious to those noted in the Service Counter section

- have a stainless steel base

- use durable corner guards and cap on top of wall

- use strong interior wall construction

- use materials that do not easily show scratches or fingerprints

Advertising

Description and Goals

Advertising primarily provides a visual image that conveys a thought, event, product or service that is unique to the marketing goals of a particular organization. In addition to adhering to the standards listed here, consultants should refer to the latest Business and Properties advertising contract requirements. Further, consultants and designers are encouraged to research creative, alternate/progressive advertising methods and designs not outlined in these standards.

Locations

The airport is a primary gateway and inherent ambassador to the region. Memorable spaces that create your first and last impression of PSHIA, such as Orientation Zones, should be devoid of Advertising Programs that imprint a 'commercialized' impression of the airport and the city. Advertising should be coordinated with the Interior Master Plan and balanced with other elements such as Art and Information. Special consideration should be given to adjacent elements so that the composition as a whole is enhanced.

General Characteristics

Unless otherwise indicated, all Advertising should:

- conform to all applicable codes and regulations

- be reviewed by the Airport Authority in consultation with a Graphic Design Professional

- complement overall aesthetics and design of wayfinding signage

- be flush mounted when possible

- have a buffer zone of at least 2'-0" for adjacent elements or objects

- have graphics and text copy designed by Professional Graphic Designer

- exhibit clean and simple lines

- be complimentary to other airport elements' design

- have hidden connections (no exposed hardware)

- have no gaps between wall and unit greater than 1/16"

- be securely fastened

- maintain a reasonable footcandle output of illumination so as not to compete for attention, or cause extreme brightness

- have NO shadows in back-lit units

- NOT compete with or be similar to Wayfinding sign design

- NOT distract passenger views and understanding of Directional/Wayfinding Signs

- NOT impede the natural path of travel

Materials
Unless otherwise indicated, all materials should:

- have frames made of white metals such as Stainless Steel or Brushed Anodized Aluminum

- be of a high quality, non-fading inks and color processing for graphics and text

- have an anti-glare, matte finished screens and outermost, transparent, view-through panel where required

- have a shatterproof outermost assembly

Signage and Wayfinding

Signage and Wayfinding is an important component of the airport process and contribuites heavily to the overall terminal image. Concept design standards have been developed as a part of the PSHIA Signage and Wayfinding Master Plan (June 2011) that includes criteria for color, shape, size, materials, lighting, mounting heights, and modularity. The system has been designed around modularity to allow for ease of replacement of lighting components, graphic messaging and the addition or removal of entire sign panels as Airport operations dictate.

Design teams should work in context of the Signage Masterplan and reference those documents, in collaboration with the airport, to ensure a cohesive signage environment. Further, Design Teams and Airport Stakeholders should endeavor to evaluate and coordinate with existing wayfinding signage as major changes are made throughout the Terminal. In some instances, design approaches may need to be adjusted to preserve the effectiveness of important wayfinding elements. In other instances, it may be appropriate to move or alter wayfinding based on changes or new observations within spaces. The Terminal is an evolving environment and it is the goal of the airport to provide a contemporary environment and positive passenger experience that balances the Terminal program, intuitive wayfinding and Signage.

Door Treatments

Description and Goals

Although the general public will rarely have to use interior doors, there are numerous doors that are seen by the public and hence affect terminal aesthetics.   Within public spaces, these doors and their frames should blend with their surrounding context and colors. These doors are used frequently by airport and airline staff and must be durable.

Materials

All doors and frames should be painted hollow metal or stainless steel where appropriate.

General Characteristics

Unless otherwise indicated, all Doors should:

- be primed in a dark gray color, consistent throughout
- be painted in a darker color as chosen from the color palette in order to better hide when primer is exposed by chipping
- have a 18" high stainless steel kick plate with hidden fasteners on high traffic doors
- use a brushed white metal ADA lever handle that is ADA complient
- be either lockable or accessible through card entry on the public side
- have a viewing window in doors that lead to secure areas

Window Treatments

Description and Goals

In general window treatments are discouraged unless sun glare prohibits terminal activities from functioning efficiently.

Locations

If a window or set of windows has potential glare issues, built-in window treatments should be used on those windows and all surrounding similar windows within visual proximity, whether or not they contribute to the glare.

Materials

A motorized system such as "MechoShade", "ElectroShade" or an approved equal is the only type of method approved to mitigate glare. Other methods such as applied vinyl or curtains are not approved.

General Characteristics

Unless otherwise indicated, all window treatments should:

- be grouped to open and close together electrically
- have built-in, hidden housing
- have maximum visibility, while still mitigating glare
- have hidden electrical controls, not publicly accessible
- be designed so that building appearance is consistent from the exterior

Life Safety Equipment

Description and Goals
Fire Extinguishers, and Automated External Defibrillators
(AEDs) should be easily accessible and located with input from
authorities having jurisdiction and airport operations.

Locations
All Life Safety Equipment locations should be placed according to
building code and fire code regulations. The equipment should
avoid walls that feature art, advertising or other elements and
instead utilize less prominent locations. This may mean providing
more than the minimum quantity required in favor of the optimal
visual aesthetics.

General Characteristics
Unless otherwise indicated, all Life Safety Equipment should:

- have a #4 finish, stainless steel cabinet that is not painted
- be identified with Terminal signage standards (color, font)
- be latched close, but easy to open upon emergency
- be placed at a height as regulated by building code and ADA
- have identification sign above AEDs for easy identification
- Avoid placing equipment in columns
- be fully recessed when possible
- be semi recessed only with airport approval
- meet all ADA requirements including cane detection on an
  accessible path of travel

Fire Protection Stand Pipe note
Coordinate existing elements with Fire Marshall and remove any
abandoned pipes.

Lighting

Artificial lighting standards and strategies are an important aspect of creating a cohesive environment. Further, lighting design such as light coves, wall washers and specialty lighting can work to support the terminal program by responding to space uses and zones identified in the Interior Master Plan. Design Teams and Airport Stakeholders should further evaluate the application of lighting and intentionally develop a unified approach to lamp color, fixtures and design details.

Existing Lighting
Lamp Color: 4100K
(2x2 fixtures with T-5 biaxial pin tubes, 3 tube fixtures; T-5 fixtures; recessed PL florescent can fixtures; 2x2 and 2x4 LED fixtures from Cree and Cooper)

Maintenance note:
Design teams should coordinate with the Facilities to ensure that lighting is accessible and maintainable.

Sustainability Note:
Design teams should employ energy efficient lighting and control strategies.

8.0 ITEMS NOT INCLUDED IN THIS MANUAL
MAY 8 2014

Items not included in this manual

The Terminal 4 Design Standards are not meant to be a comprehensive reference. Where applicable, Design Teams and other stakeholders must reference the following:

• Aviation Department Design Manual

• Building Codes and Regulations

• Security Regulations

• Accessibility guidelines and laws

• Tenant Contracts and Design Guides

• Signage and Wayfinding Master Plan