

Maddie Kinane
IA 409
Design Development
International Airport in Houston, Texas



Initial Research

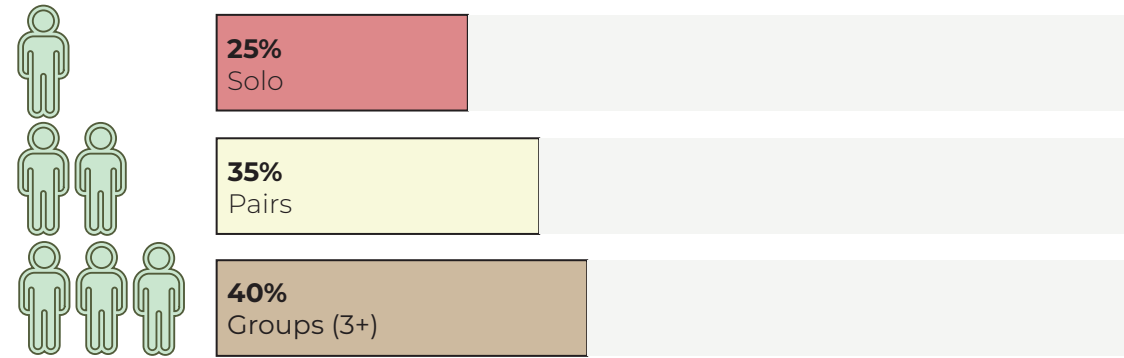
Houston is one of the **most diverse cities** in the United States with no single ethnic or racial group as a majority. It is known for its **food, culture, art scene, and sports**.

Population: **2.3 Million (7.8 Million** in the metro area)

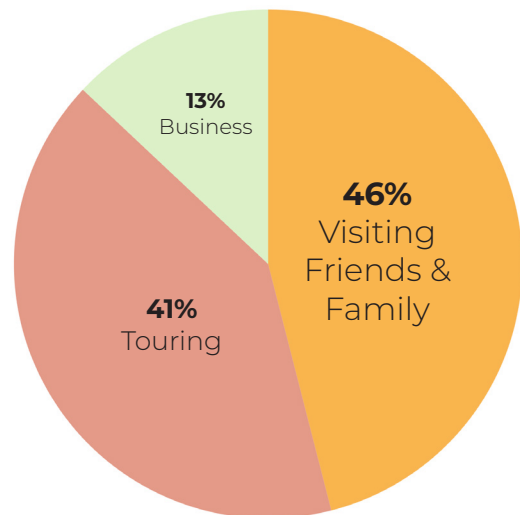
There are **over 50 million** domestic travelers in Houston per year. Domestic travel represents **81%** of all passenger traffic through Houston airports.

Why Houston? Other than it being a popular travel destination and a culturally diverse area, I was born and raised in Houston, and have seen how many people enjoy going to and from the city. Researching and coming up with design solutions feels rewarding to do in my home town!

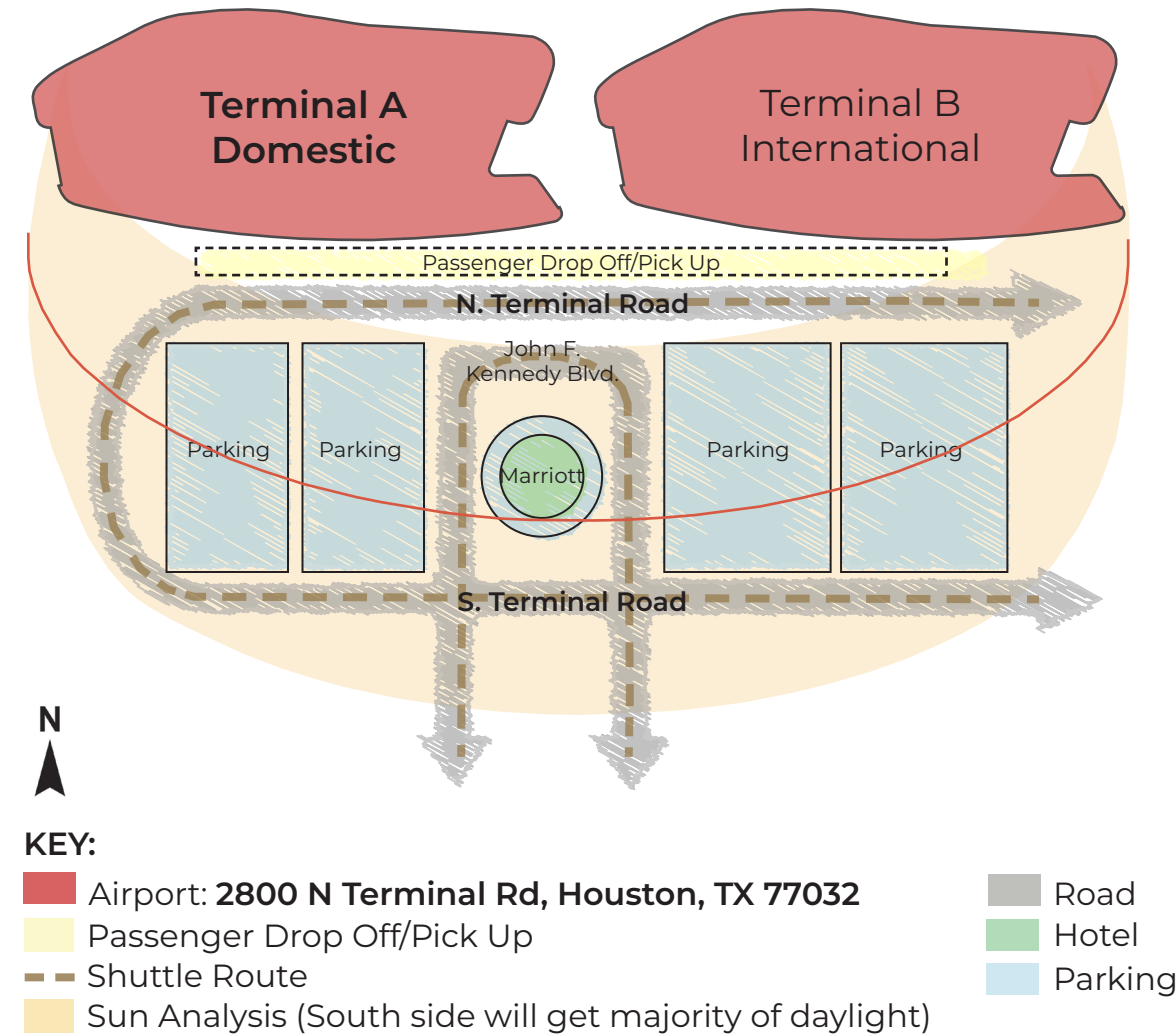
How Domestic Travelers in Houston Travel:



Top Reasons for Domestic Travel in Houston:



Site:



Texans NRG Stadium
26 Miles



Texas Medical Center
22 Miles



Downtown
18 Miles



Galveston Beaches
65 Miles

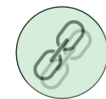


NASA
42 Miles

GATEWAY

A gateway is a point of **controlled entry and transition**. It is a threshold that marks **change through connection** that establishes orientation, identity, and expectation.

This airport functions as the **first and last experiential moments** of Houston. As one of the most **diverse** cities in the United States, Houston serves as a **meeting point** for cultures, languages, and experiences. The airport acts as a gateway that invites travelers in and sends them out with a **clear sense** of place.



Efficient

An efficient design will be done by prioritizing **long-term durability & sustainability** through WELL-standard materials and climate-adaptive technologies like smart glass.

Wayfinding & clear circulation will be shown through things like floor and ceiling elements that seamlessly allow the user to move through the airport.

The design integrates **acoustic control** and comprehensive safety planning to maintain a functional, secure, and comfortable atmosphere.



Flexible

The design will be flexible by having **adaptable furniture options** like solo seating, duo seating, group seating, private seating, public seating, and seating that can be interacted with.

This creates **overlapping zones** in the airport that support a wide range of social behaviors and physical movement.

By integrating **adjustable lighting, acoustic control, diverse finishes,** and **inclusive design with ADA compliance** the environment can transform to meet the needs of various user groups.

Integrated technology also allows for an enhanced journey while in the airport, like self checkout kiosks that move alongside changing passenger and operational demands



Connected

Connected is the most abstract goal because it aims to keep **Houston's culture at the forefront of design**.

This is done through ways like the restaurants/shops promoting local food, regionally grounded materials, and local artist's work displayed throughout.

Doing this celebrates Houston's diversity and **creates a distinct sense of place**.

The design fosters a deep **connection to human health** by prioritizing **peace of mind** through things like acoustic buffering with material absorption and dedicated sensory rooms to mitigate overload and ground users. This allows for **dignity through design**, ensuring all users can find moments of **privacy** and comfort within the airport.

Programming

Adjacency Matrix - Domestic Terminal - Third Floor

KEY:

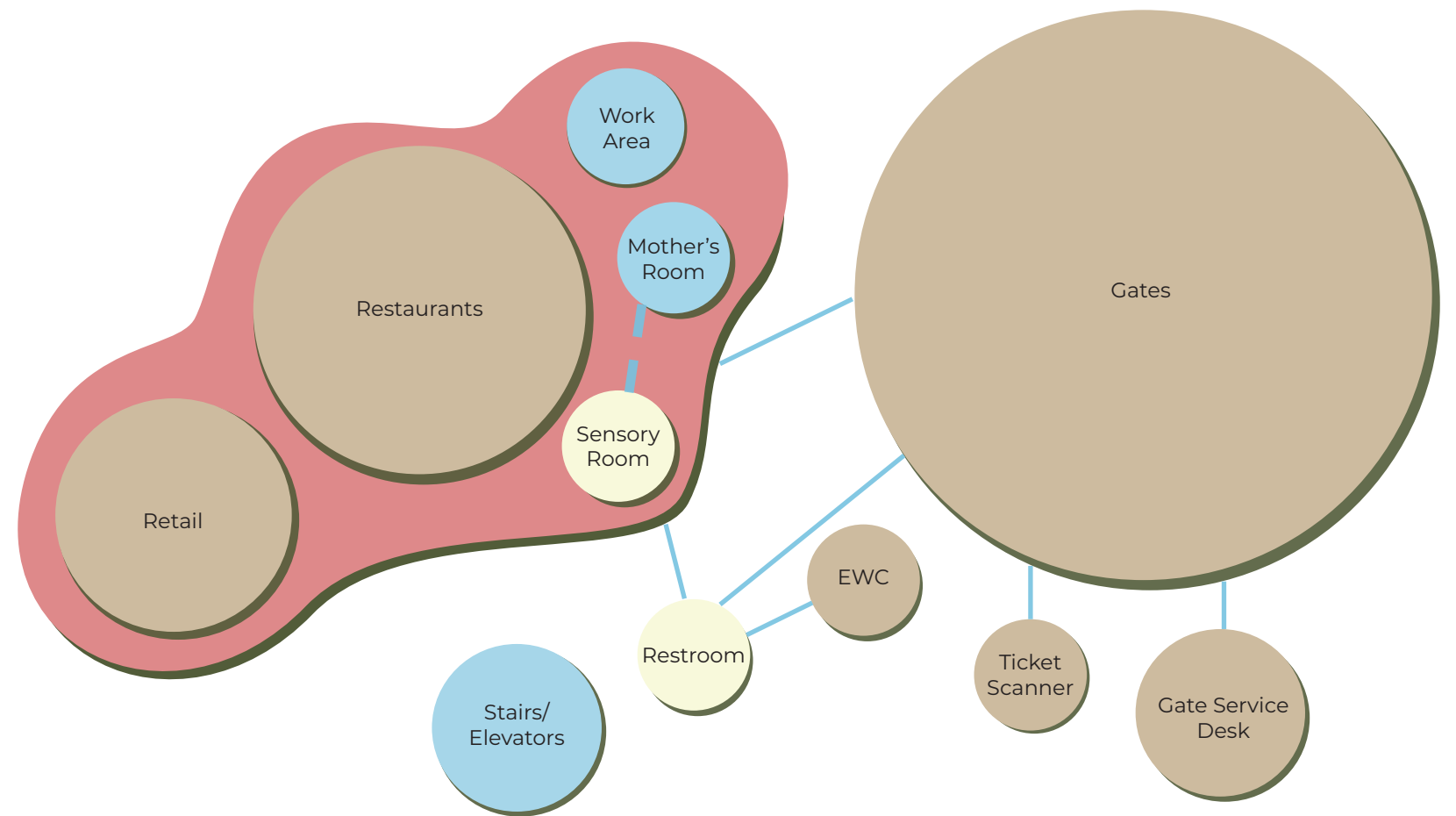
- Major Adjacency
- Minor Adjacency
- Staff
- Passenger
- Staff & Passenger

Daylight	Public	Plumbing	Spaces
No	Yes	Yes	Restrooms
No	Yes	Yes	EWC
Yes	Yes	No	Retail
Yes	Yes	Yes	Restaurants
Yes	Semi	No	Sensory Room
Yes	Semi	Yes	Work Area
Yes	Yes	No	Gates
No	No	Yes	Back of House/Janitor
No	No	No	Storage
Yes	No	No	Staff Offices
Yes	No	Yes	Staff Break Room
No	No	No	IT
No	No	No	MEP
Yes	Semi	No	Mother's Room
Yes	Yes	No	Stairs/Escalators/Elevators
Yes	Yes	No	Gate Service Desk
Yes	Yes	No	Ticket Scanner Station

Bubble Diagram - Domestic Terminal - Third Floor

KEY:

- Essential Adjacency
- - - Desirable Adjacency
- Amenities
- Staff Spaces
- Public Spaces
- Private Spaces
- Semi-Public Spaces



Building Layout Context

The International Airport in North Houston contains one **international terminal** and one **domestic terminal**. Each terminal is approximately 1.6 million square feet, and four stories:

Floor 1: Pick up and Baggage Claim

Floor 2: Drop off and Security

Floor 3: Food/Bev and Gates

Floor 4: Airline Lounges and Staff Offices

3D Model:



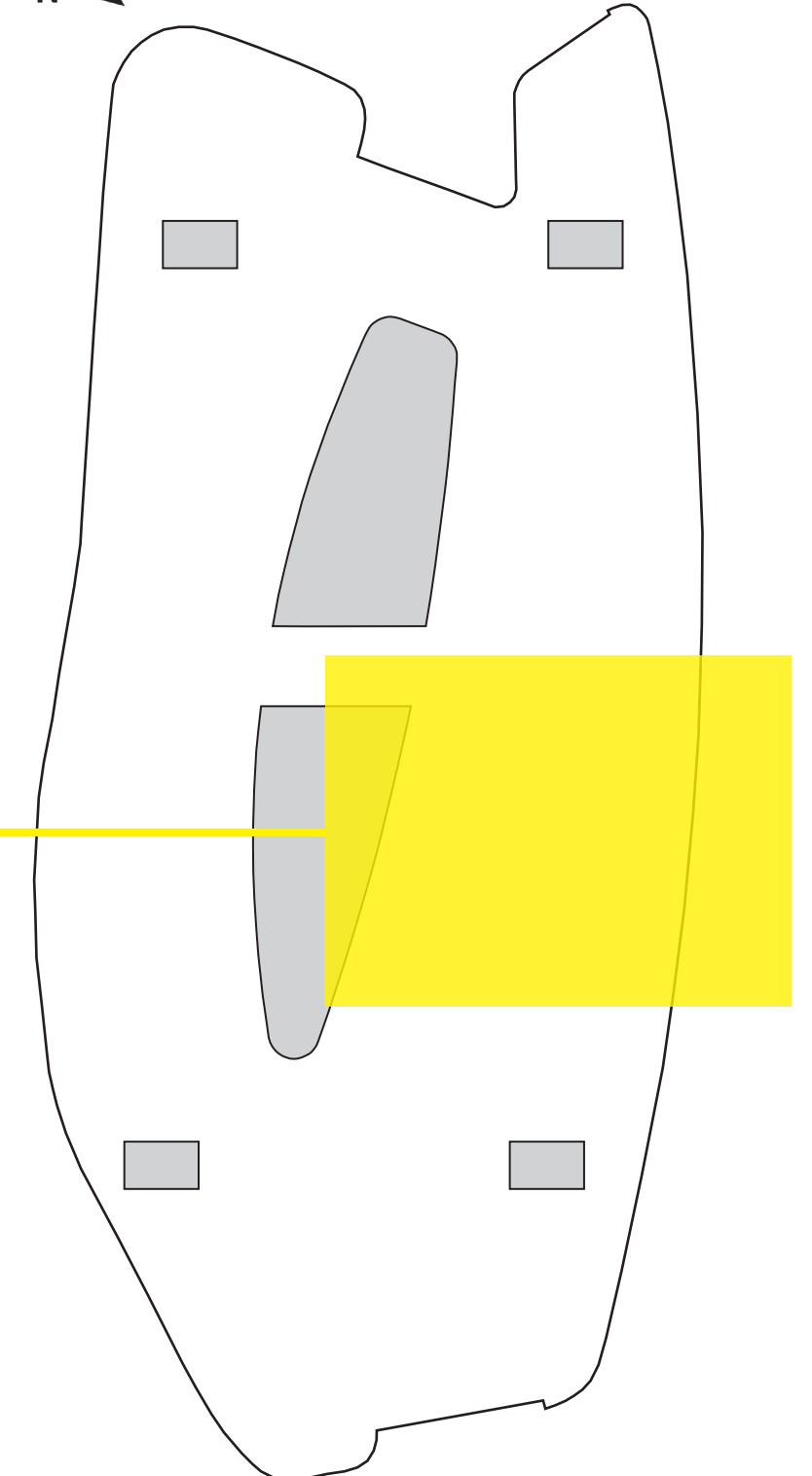
Third Floor has the 50,000 sqft Focus Area:

KEY:

Open to Below

50,000 sqft Focus Area

N



The focus space is along the **South** side of the building to get access to the most daylight possible

Floor Plan

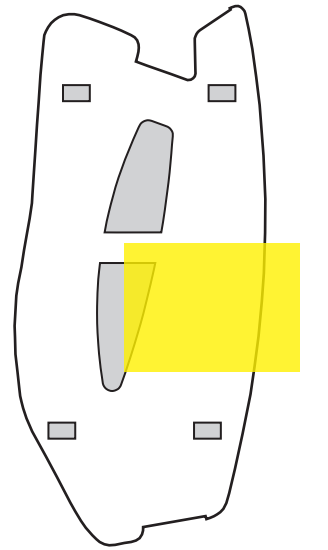
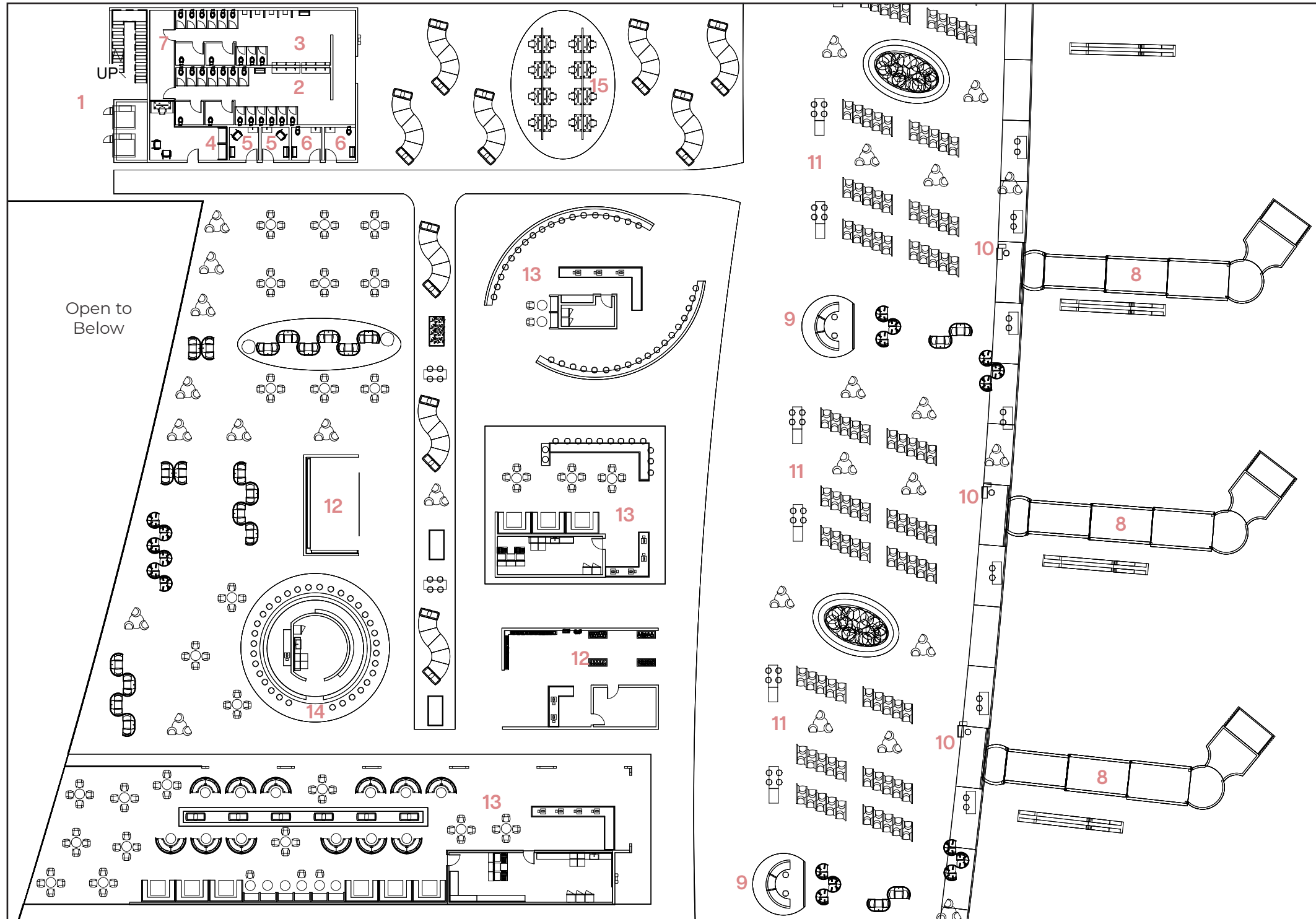
Third Floor - Focus Area

Scale: 1/32"=1'
Approximately 50,000 sqft



KEY:

- 1: Vertical Circulation
- 2: Women's RR
- 3: Men's RR
- 4: Sensory Room
- 5: Mother's Room
- 6: Family RR
- 7: Janitor's Closet
- 8: Passenger Boarding Bridge (PBB)
- 9: Gate Service Desk
- 10: Ticket Scanner
- 11: Gate Waiting Area
- 12: Shop
- 13: Restaurant
- 14: Bar
- 15: Work Area



Areas in the "focus area" are **repeated** throughout the whole building. For example, the sensory room showed is not the only one available in the airport.

Public Zones, Security, Sustainability, and Technology Call outs

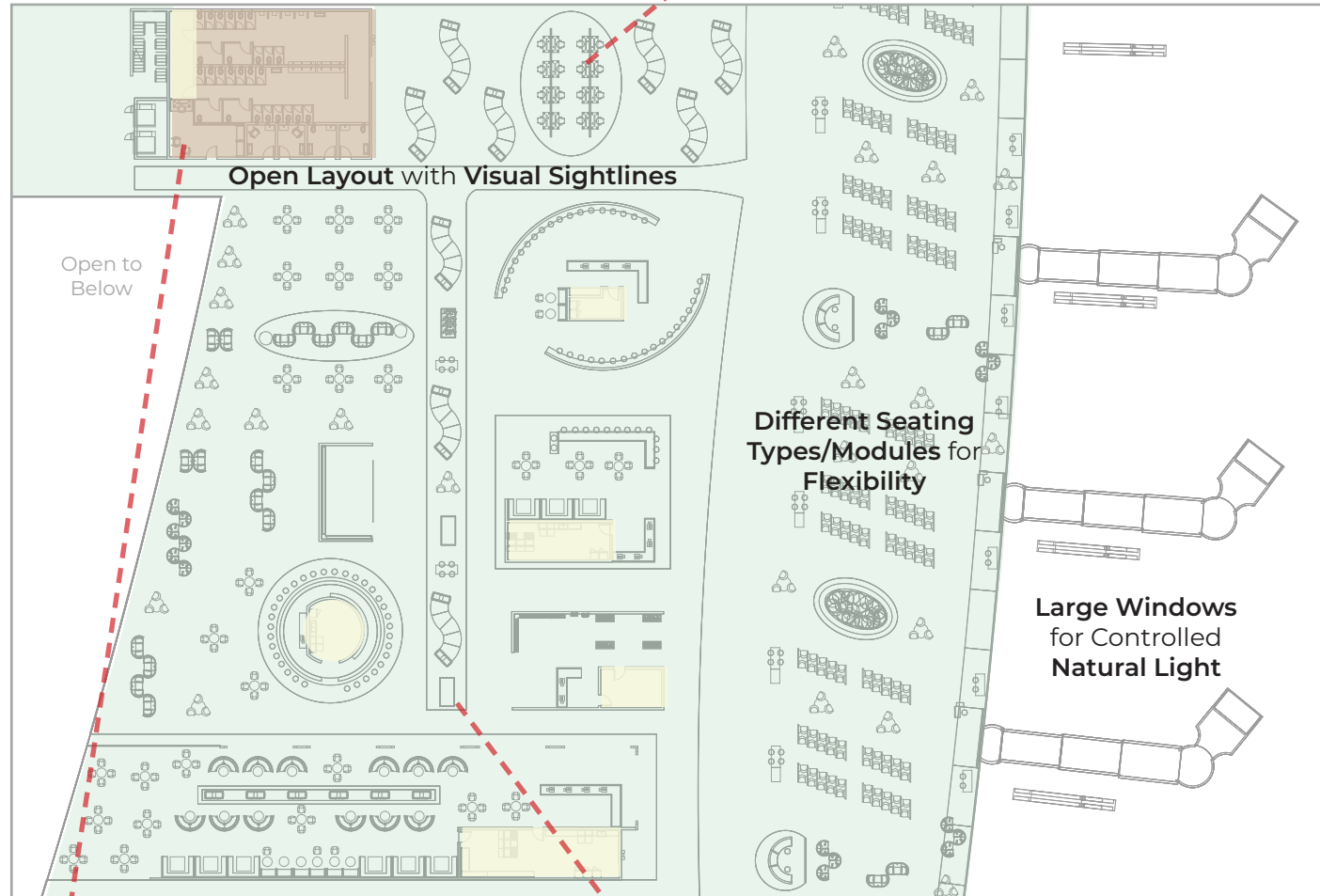
Third Floor - Focus Area

Scale: 1"=50'
Approximately 50,000 sqft



WELL Building Standards: Movement

-Provide Height-Adjustable Work Surfaces, Provide Self-Monitoring Tools, & Provide Chair Adjustability with a work space area



WELL Building Standards: Mind

-Human Health & Well-Being through mental well-being and stress reduction with a sensory room, access to daylight, & biophilic elements



WELL Building Standards: Community

-Social & Cultural Sustainability through community engagement by incorporating work from local artists

KEY:

- Public
- Semi-Public
- Restricted Zones for Staff Only



Smart glass on Exterior Windows

Adjusts based on the amount of sunlight coming through it, preventing too much heat/sun glare from entering, while maximizing natural light



Checkout-Free Shopping

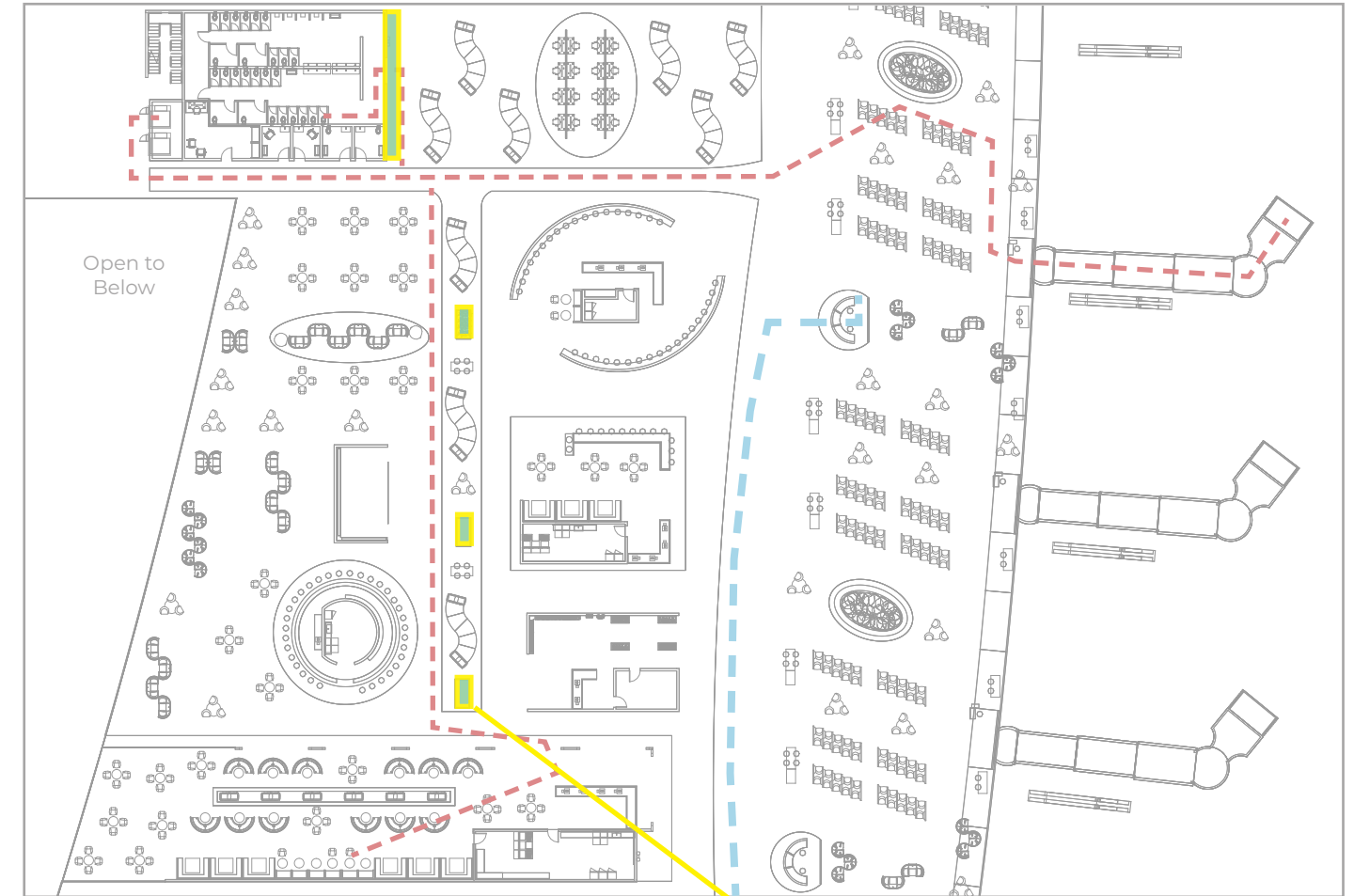
Customers scan card at entry, and the system automatically charges them upon exiting. It uses cameras and weight sensors to detect items removed from or returned to shelves



Sydney - Domestic Traveler - 31 - Taking a weekend trip to Florida to see friends



Jerry - Airport Gate Employee - 39 - Works at the gate desks to make announcements and talk with travelers



KEY:

- Sydney Primary Circulation Path
She comes up from security on previous floor
- Jerry Primary Circulation Path
He comes up from the staff elevator/stairs
- Space for local Houston artwork

NOTE: Whole floor is post security, so passengers cannot go back down

Where to Find Local Houston Artists:



The airport constantly finds local Houston artwork to display in the airport. This art is found mainly from **Sawyer Yards** and the **Archway Gallery**. This helps promote and support local artists while keeping the airport connected to Houston's culture and identity.

Flooring Finish Plan

Third Floor - Focus Area

Scale: 1/32"=1'
 Approximately 50,000 sqft

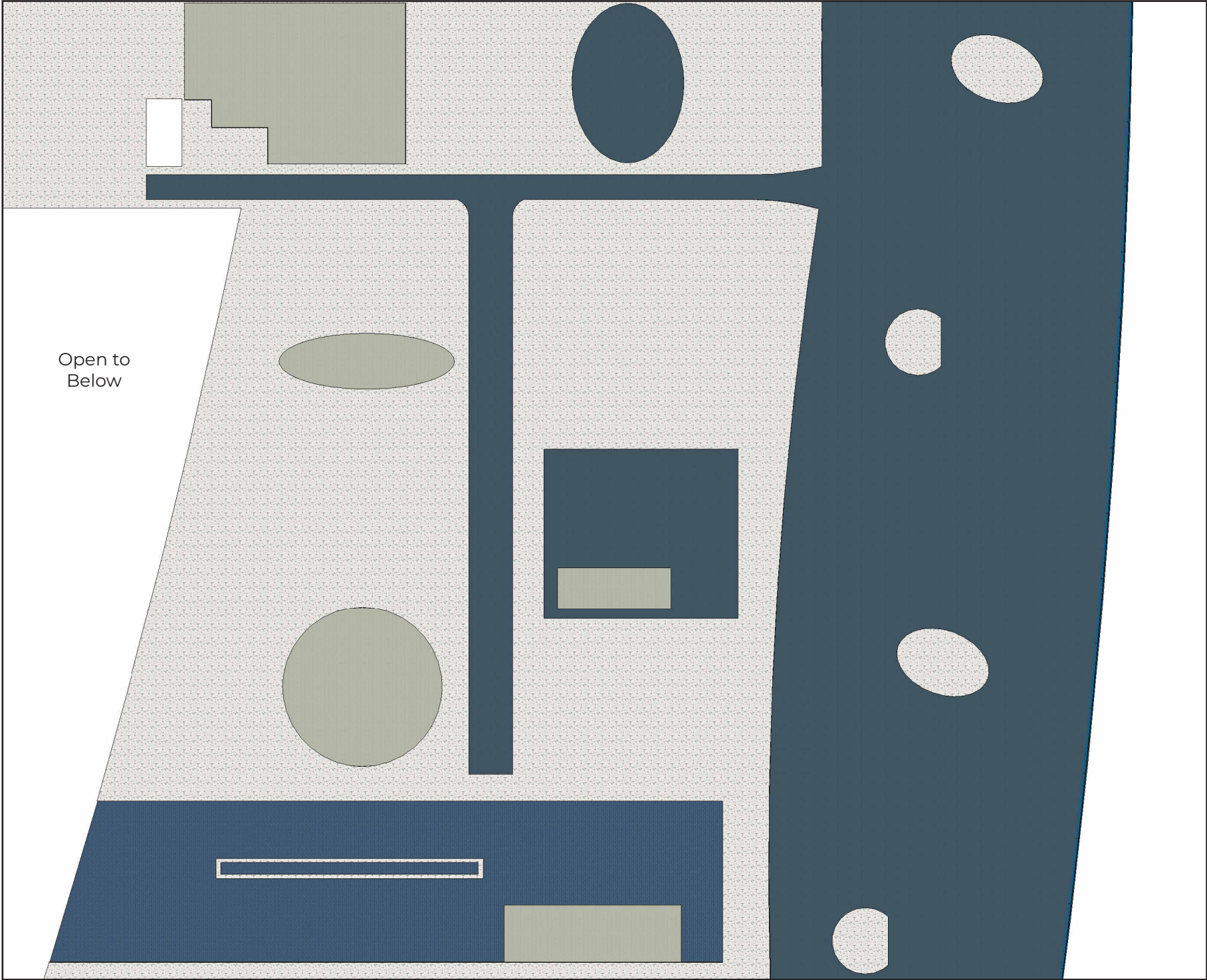


Patterns/colors/textures help visually distinguish different areas to help passengers navigate

Epoxy terrazzo covers large areas and can be installed quicker than other flooring systems. It has **seamless floor transitions**, and wheeled suitcases/heavy equipment can move across the surface **without disruption** from joints and **reduced noise levels**. It's **durable for high levels of foot traffic**, and the floors remain in great condition for decades with **few repairs and damages**. Its long lifecycle helps **save on cost on maintenance and repairs**.

Carpet tiles are designed to **withstand heavy foot traffic and the movement** of luggage carts and trolleys. They are **durable** and help **reduce noise levels** by absorbing sound to create a **comfortable** environment for travelers. Carpet tiles are often chosen for their **slip-resistant** properties since they have a textured surface.

Concord Terrazzo Company. (2025, August 26). Airport architecture: Why airports specify terrazzo flooring. TERRAZZCO. Retrieved January 30, 2026, from <https://terrazzco.com/airport-architecture-terrazzo-flooring/>



FLOORING KEY:

- 

Resinwerks Flooring
 Approximately 20,000sqft
- 

EF Contract Carpet Tiles
 2' x 2' Tiles
 Approximately 24,000sqft
- 

Stonhard Epoxy Flooring
 Approximately 4,000sqft
- 

Stonhard Epoxy Flooring
 Approximately 2,000sqft

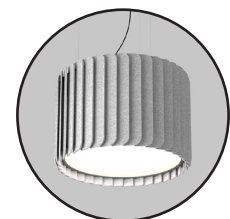
Reflected Ceiling Plan

Third Floor - Focus Area

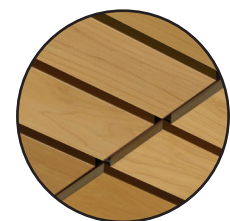
Scale: 1/32"=1'
Approximately 50,000 sqft



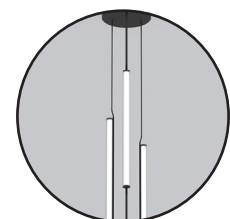
Cooper Halo can LIGHTING FIXTURE



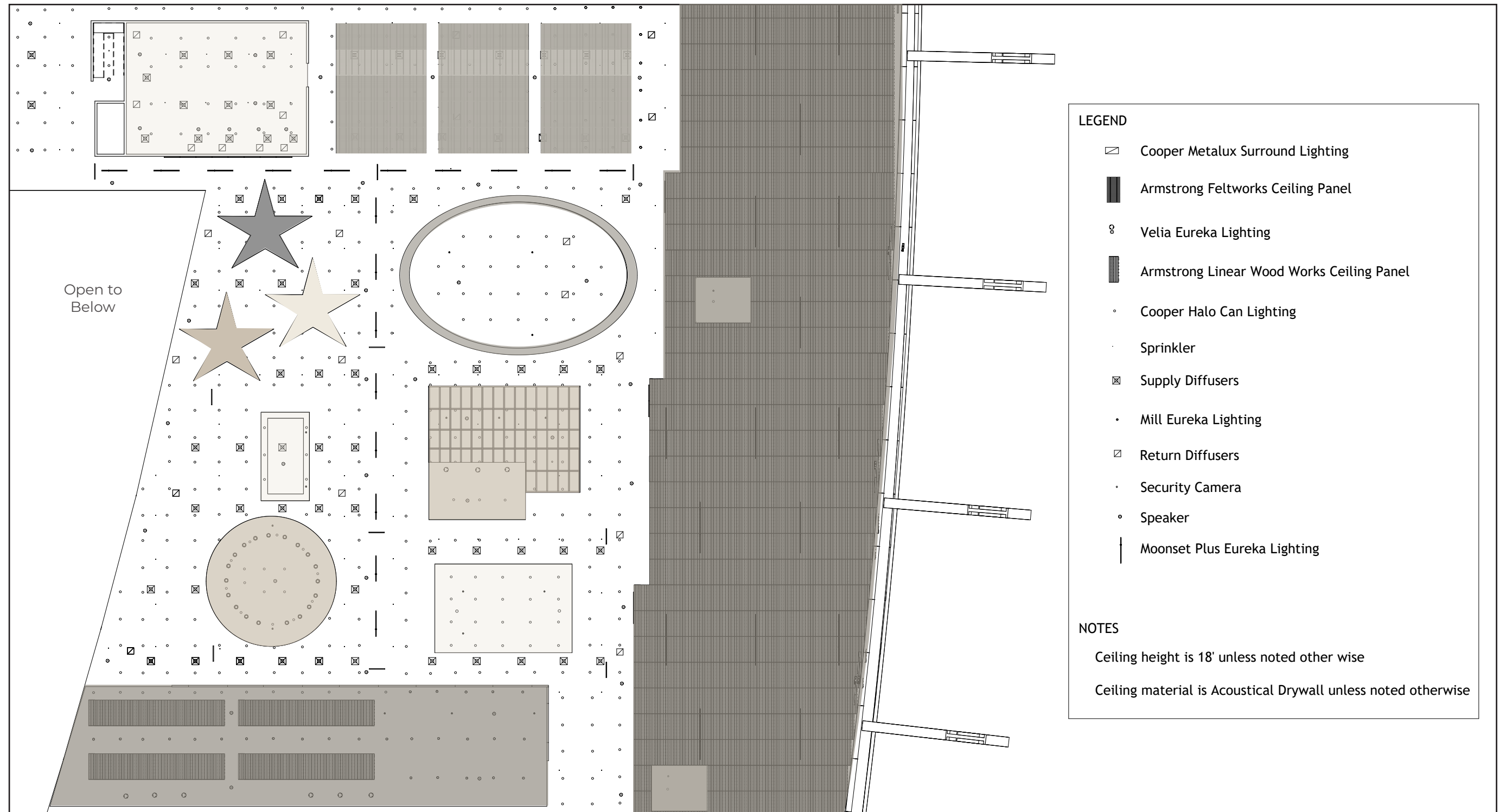
Eureka Mill LIGHTING FIXTURE



Armstrong Woodworks LINEAR SOLID WOOD PANELS



Eureka Velia Chandelier LIGHTING FIXTURE



LEGEND

- Cooper Metalux Surround Lighting
- Armstrong Feltworks Ceiling Panel
- Velia Eureka Lighting
- Armstrong Linear Wood Works Ceiling Panel
- Cooper Halo Can Lighting
- Sprinkler
- Supply Diffusers
- Mill Eureka Lighting
- Return Diffusers
- Security Camera
- Speaker
- Moonset Plus Eureka Lighting

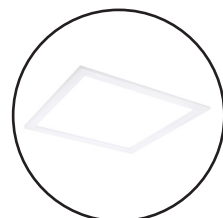
NOTES

- Ceiling height is 18' unless noted other wise
- Ceiling material is Acoustical Drywall unless noted otherwise

KEY:
 12' AFF
 10' AFF
 8' AFF



Arlington CEILING SECURITY CAMERA



Cooper Metalux Surround LIGHTING FIXTURE



Eureka Moonset Plus LIGHTING FIXTURE



PYLE CEILING SPEAKER

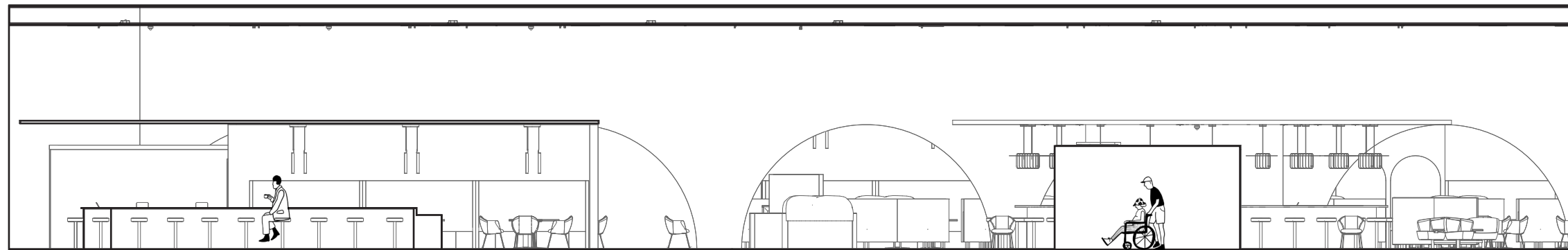
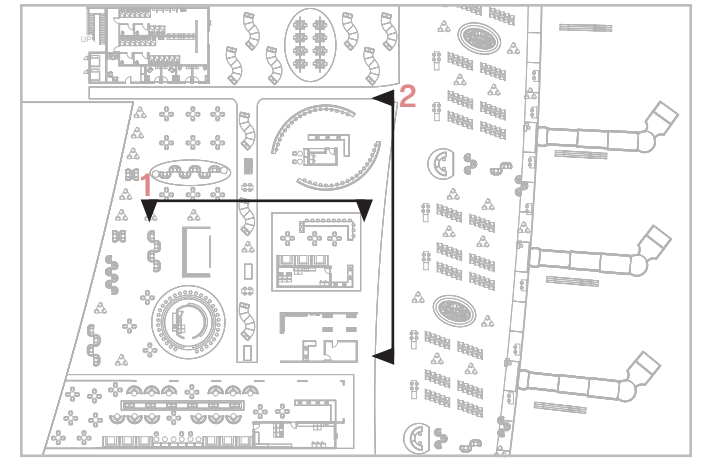


WELL Building Standard: Sound
 -Provide Acoustic Design Plan, Specify Impact Noise Reducing Flooring, & Implement Sound Reducing Surfaces

Sections

Third Floor - Focus Area

Scale: 1/32"=1'

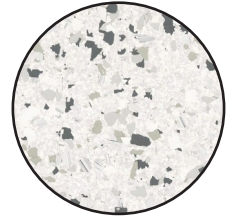


Section 1:



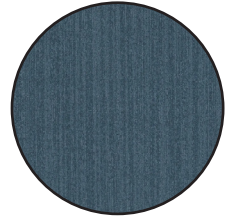
Section 2:

Material Selections + Contribution to Human & Climate Health



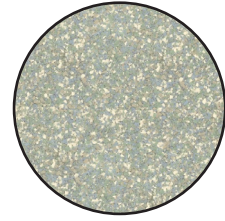
Resinwerks
Juneau
FLOORING

- SPECS:**
-Low Emitting/Low VOC
-May contribute to LEED credits



EF Contract
Water Colors
WTC44
FLOORING

- SPECS:**
-Sustainability Action Plan
-May contribute to LEED Credits
-Formaldehyde Free
-Manufacturer Take-Back Program
-Low Emitting/Low VOC
-Health Product Declaration (HPD)
-Recycled Content



Stonhard
Blue Ridge- C110
FLOORING

- SPECS:**
-CARB Compliant
-May contribute to LEED credits
-Flammability: ASTM E-648 tested. Class 1



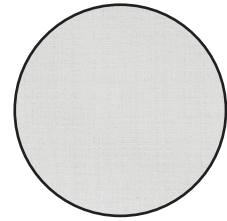
PoliLam
Linden Livido
IV-FRB W0030A
WOOD

- SPECS:**
-UI Greenguard|UI Greenguard Gold
-Forest Stewardship Council (FSC) Certified
-VOC Emissions Testing: CDPH/ CHPS 01350 Compliant
-Abrasion/Wear Resistance: grade 3 (highest)



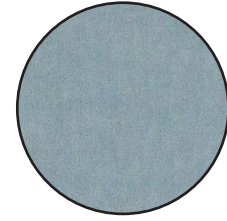
Paul Brayton Designs
Deep Sea Viva
Cattail
TEXTILE

- SPECS:**
-CARB Compliant
-Formaldehyde Free
-BIFMA Level Certified
-PVC free
-Health Product Declaration (HPD)



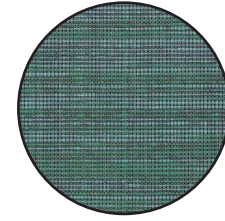
Carnegie
Xorel 813
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Formaldehyde Free
-May contribute towards LEED credits
-Declare Label - Red List Free
-Manufacturer Take-Back Program



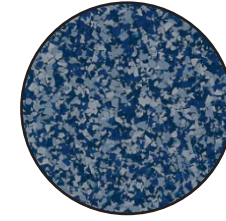
Architex
Angora Mohair
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Oeko-Tex Certified
-Low Emitting/Low VOC



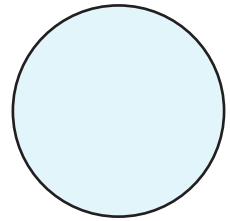
Carnegie
Xorel Comet 12
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Formaldehyde Free
-May contribute towards LEED credits
-Declare Label - Red List Free
-Manufacturer Take-Back Program



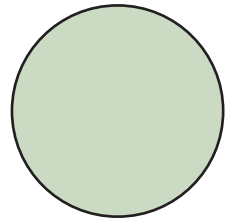
Stonhard
Blue Quarry - C121
FLOORING

- SPECS:**
-CARB Compliant
-May contribute to LEED credits
-Flammability: ASTM E-648 tested Class 1



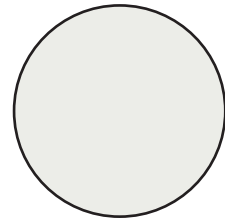
Sherwin-Williams
Iceberg
PAINT

- SPECS:**
-GREENGUARD Gold Certified
-Low VOC
-U.S. Green Building Council LEED v4.1



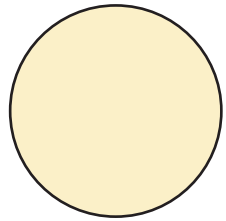
Benjamin Moore
Van Alen Green
HC-120
PAINT

- SPECS:**
-Green Seal
-Environmental Product Declaration (EPD)
-U.S. Green Building Council LEED v4.1
-Zero-VOC and Zero-Emissions
-Recycling Program



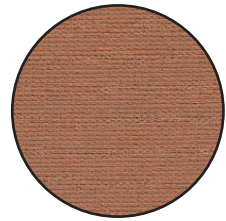
Sherwin-Williams
White Sail 9622
PAINT

- SPECS:**
-GREENGUARD Gold Certified
-Low VOC
-U.S. Green Building Council LEED v4.1



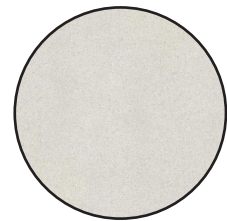
Benjamin Moore
Candlelit Dinner
295
PAINT

- SPECS:**
-Green Seal
-Environmental Product Declaration (EPD)
-U.S. Green Building Council LEED v4.1
-Zero-VOC and Zero-Emissions
-Recycling Program



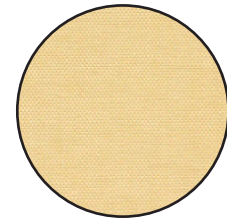
Carnegie
Xorel Circuit 18
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Formaldehyde Free
-May contribute towards LEED credits
-Declare Label - Red List Free
-Manufacturer Take-Back Program



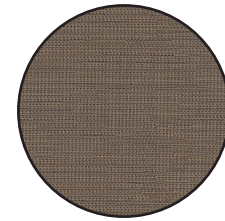
TREND Group
Origina Polar Ice
COUNTERTOP TILE

- SPECS:**
-Red List Free
-GREENGUARD Gold certified
-May contribute towards LEED credits



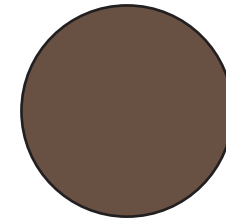
Carnegie
Xorel Comet 13
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Formaldehyde Free
-May contribute towards LEED credits
-Declare Label - Red List Free
-Manufacturer Take-Back Program



Carnegie
Xorel Flux 92
TEXTILE

- SPECS:**
-CARB Compliant
-Cradle to Cradle Certified
-Formaldehyde Free
-May contribute towards LEED credits
-Declare Label - Red List Free
-Manufacturer Take-Back Program



Benjamin Moore
Mocha Brown
2107-20
PAINT

- SPECS:**
-Green Seal
-Environmental Product Declaration (EPD)
-U.S. Green Building Council LEED v4.1
-Zero-VOC and Zero-Emissions
-Recycling Program

Materials on Floor Plan

Third Floor - Focus Area

Scale: 1/32"=1'

Approximately 50,000 sqft



KEY:

- 1: Resinwerks Epoxy Flooring (White)
- 2: EF Contract Carper Tiles (Blue)
- 3: PoliLam Wood (Brown)
- 4: Paul Brayton Textile (Brown)
- 5: Carnegie Textile (White)
- 6: Architex Textile (Blue)
- 7: Carnegie Textile (Blue)
- 8: Stonhard Epoxy Flooring (Blue)
- 9: Benjamin Moore Paint (Green)
- 10: Benjamin Moore Paint (Yellow)
- 11: Carnegie Textile (Pink)
- 12: TREND Group Tile (White)
- 13: Carnegie Textile (Yellow)
- 14: Carnegie Textile (Brown)
- 15: Benjamin Moore Paint (Brown)



Airport Bar



Bar Render & Call Outs

Goals



Efficient

-**Clear circulation** and **zoning** using flooring and over head elements creates a room-within-a-room without needing physical walls

-Allows for 360 service at the bar



Flexible

-Users can **use this space in multiple ways**: sit, stand, or order then go sit somewhere else since seating areas overlap and become shared spaces

-There are **different levels of lighting**: the pendant lights define the intimate bar experience, while the ambient cove lighting keep it functional



Connected

-Connect **users to the space** by grounding the area and creating a sense of place within the airport

-Clear view of the entire surrounding environment, fostering a **sense of safety** and **easy visual communication**

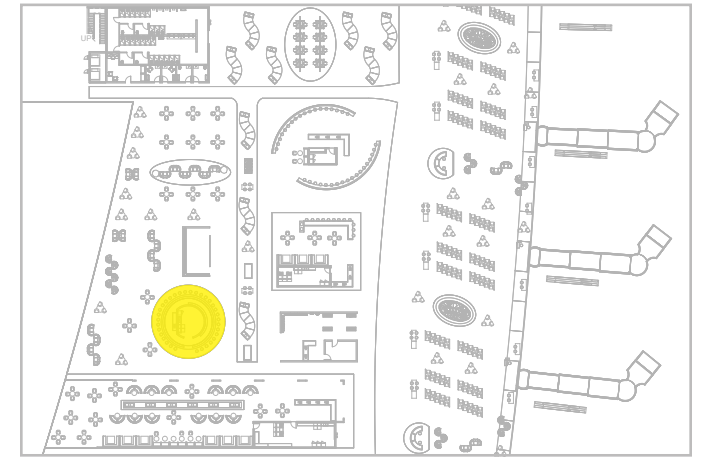


Gateway Concept

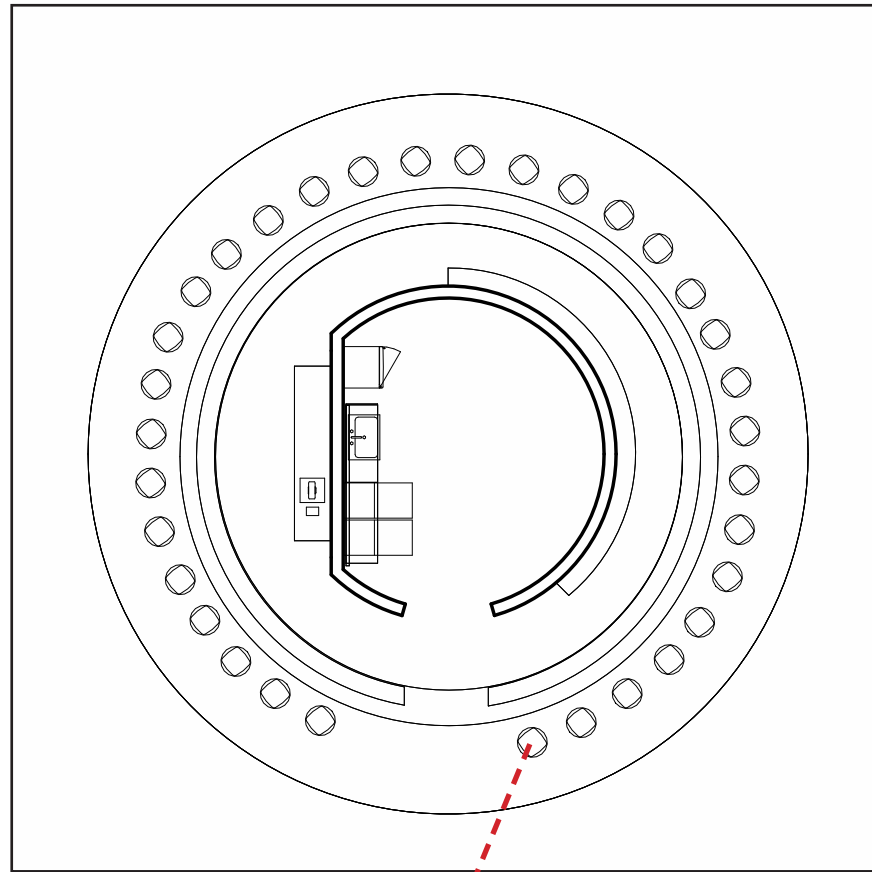
This bar acts as a Gateway because it's either a passenger's first taste of Houston's energy or their last moment of reflection before leaving. By providing a space that is flexible, the user controls their own transition. The openness ensures they never lose connection to the rest of like airport, like their gate. This helps reduce the stress and lets users focus on the experience of the bar.

Bar

Scale: 3/32"=1'
Ceiling Height: 10'
Approximately 1,600 sqft



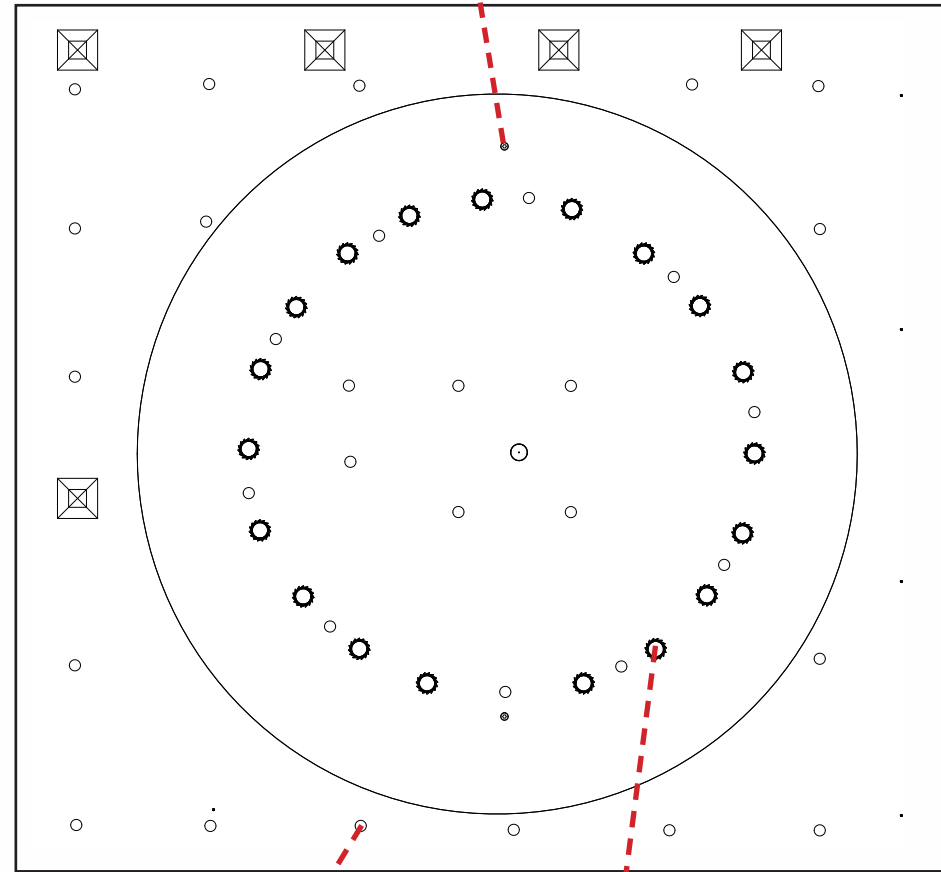
Arlington
CEILING SECURITY
CAMERA



Partial Floor Plan



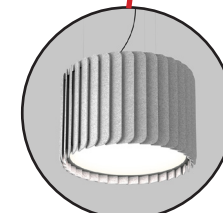
Agati
Altezza Stool
Quantity: 33



Partial RCP



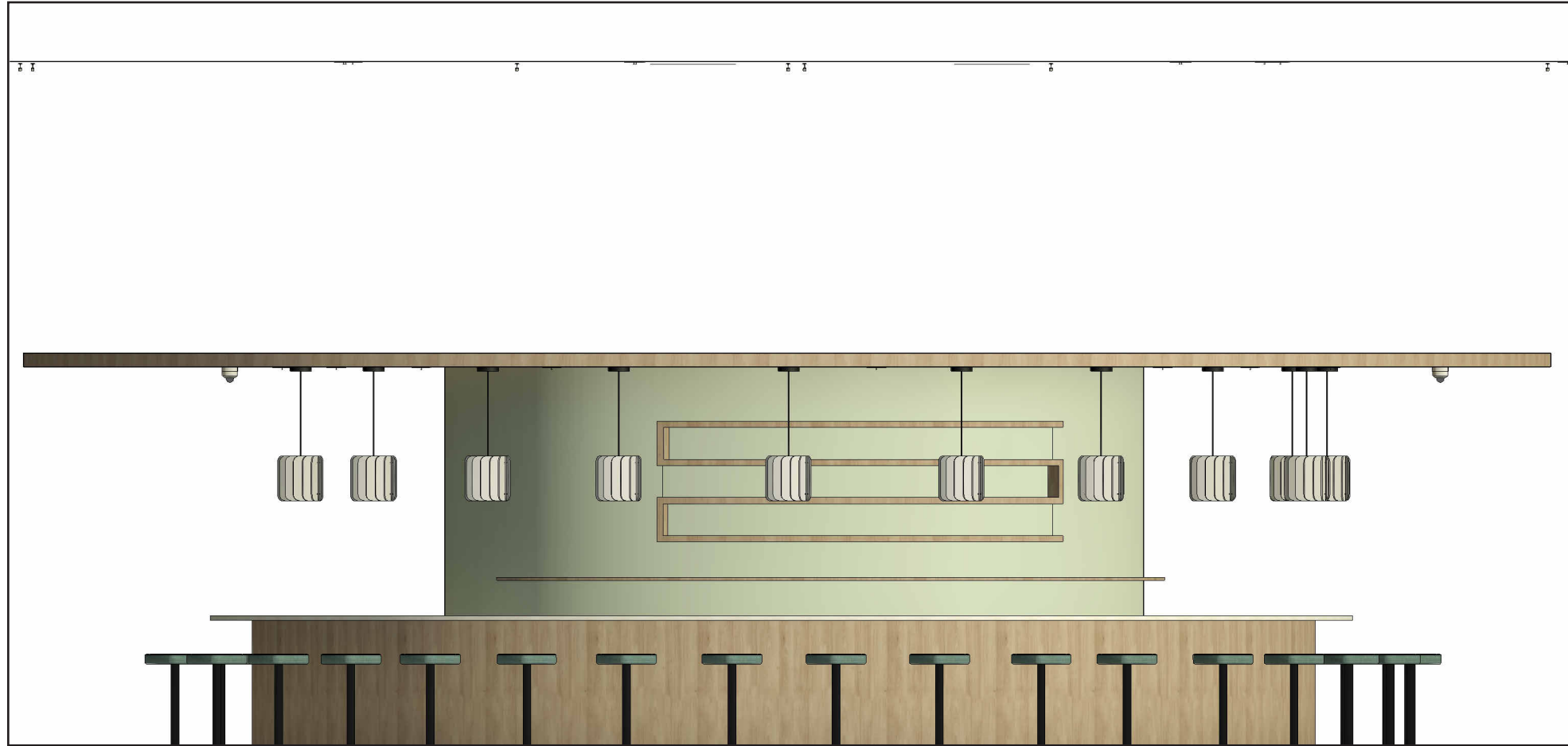
Cooper
Halo can
LIGHTING FIXTURE



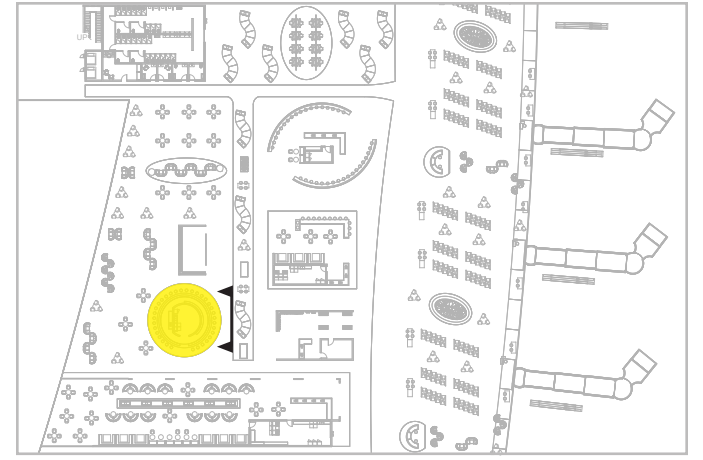
Eureka
Mill
LIGHTING FIXTURE

Bar

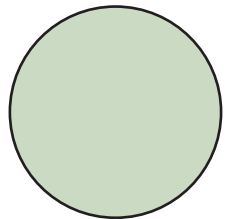
Scale: 1/4"=1'



Bar Elevation



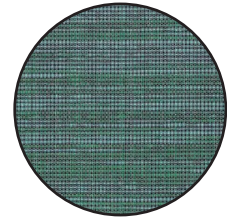
Materials:



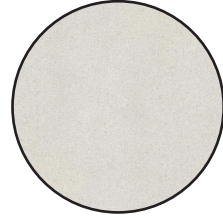
Benjamin Moore
Van Alen Green
PAINT



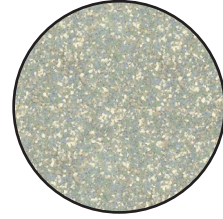
PoliLam
Linden Livido
WOOD



Carnegie
Xorel Comet 12
**STOOL
UPHOLSTERY**



TREND Group
Origina Polar Ice
COUNTERTOP



Stonhard
STONTEC - C110
FLOORING

Waiting Area Gate Service Desk



Gate Service Desk and Waiting Area Render & Call Outs



Gate Waiting Area



Gate Service Desk

Goals



Efficient

-**Access to power** because of outlets in furniture

-Handles noise with **acoustic control** from ceiling and carpet

-**Climate Adaptation** with Smart Glass



Flexible

-Layouts of furniture as **modular systems** and as ways users can **move** their bodies

-**Inclusive design** with ADA compliance



Connected

-**Dignity** through design with areas where users can have **privacy**

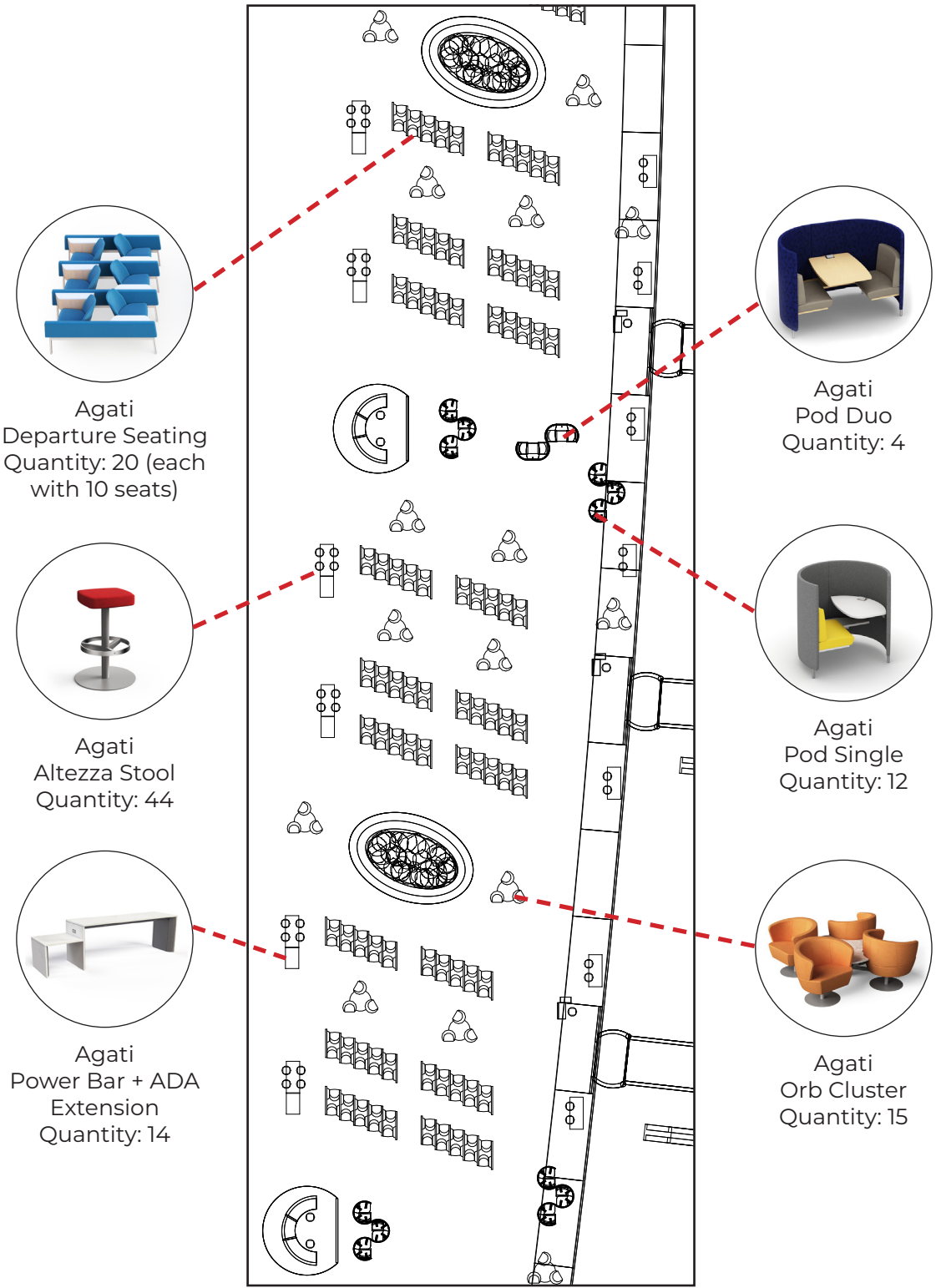
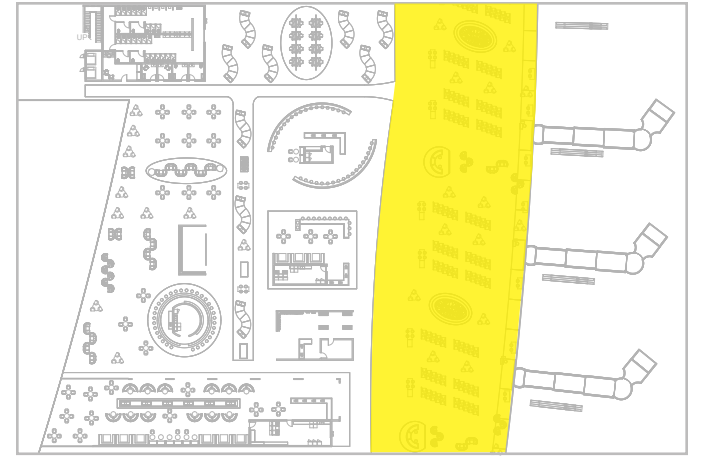
-Connect users to peace of mind through **biophilic designs**

Gateway Concept

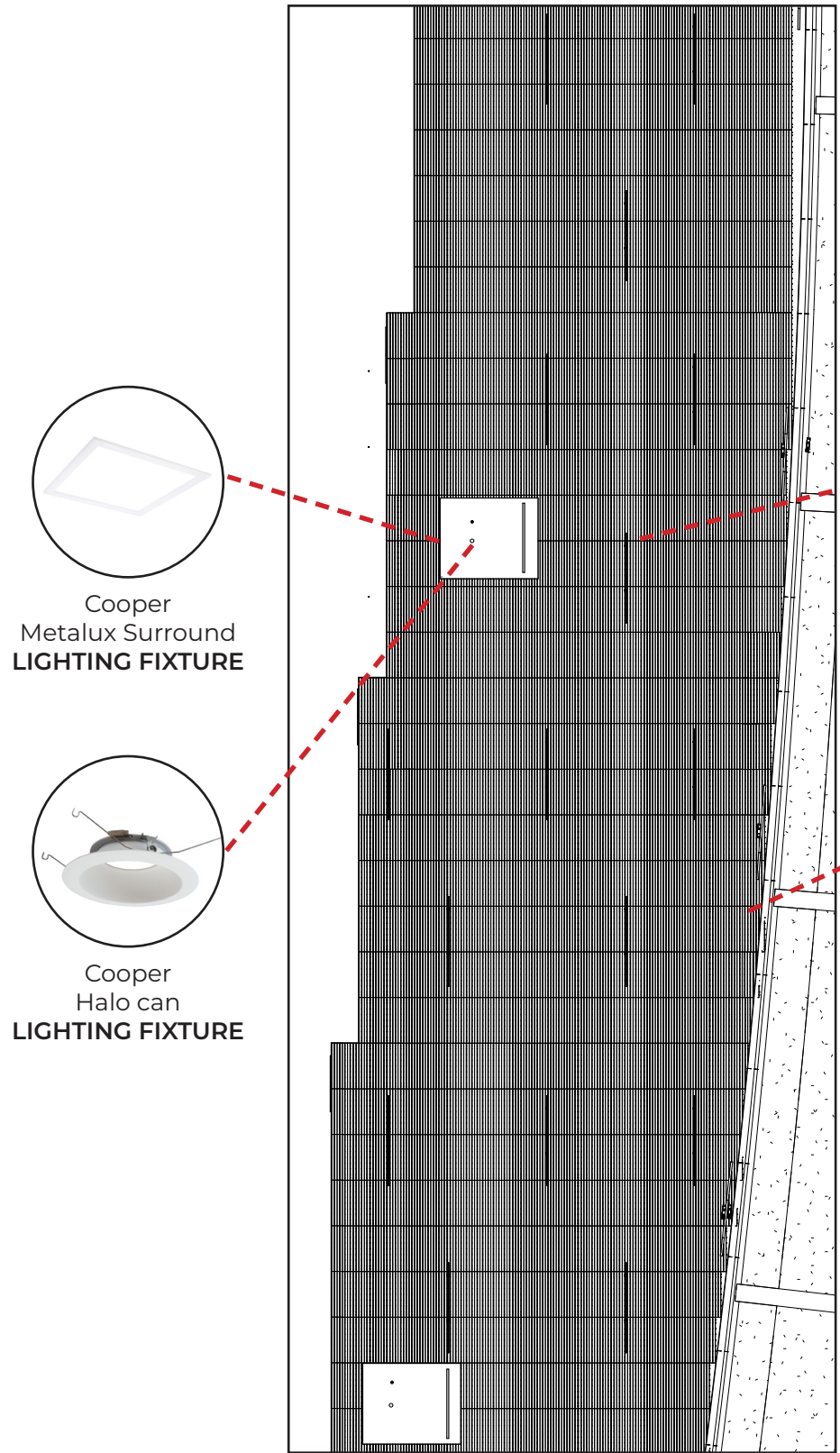
This space functions as the bridge between Houston and the sky. The weight of travel is eased by having a service desk as an illuminated anchor that provides a sense of certainty in a high traffic area. Biophilic elements create a pause for a moment of decompression where the design intentionally slows down passengers. The design is more than just physical gates, it's a sensory transition that prepares the user for the next chapter of their journey.

Gate Service Desk and Waiting Area

Scale: 1"=30'
 Ceiling Height: 12'
 Approximately 16,000 sqft



Partial Floor Plan

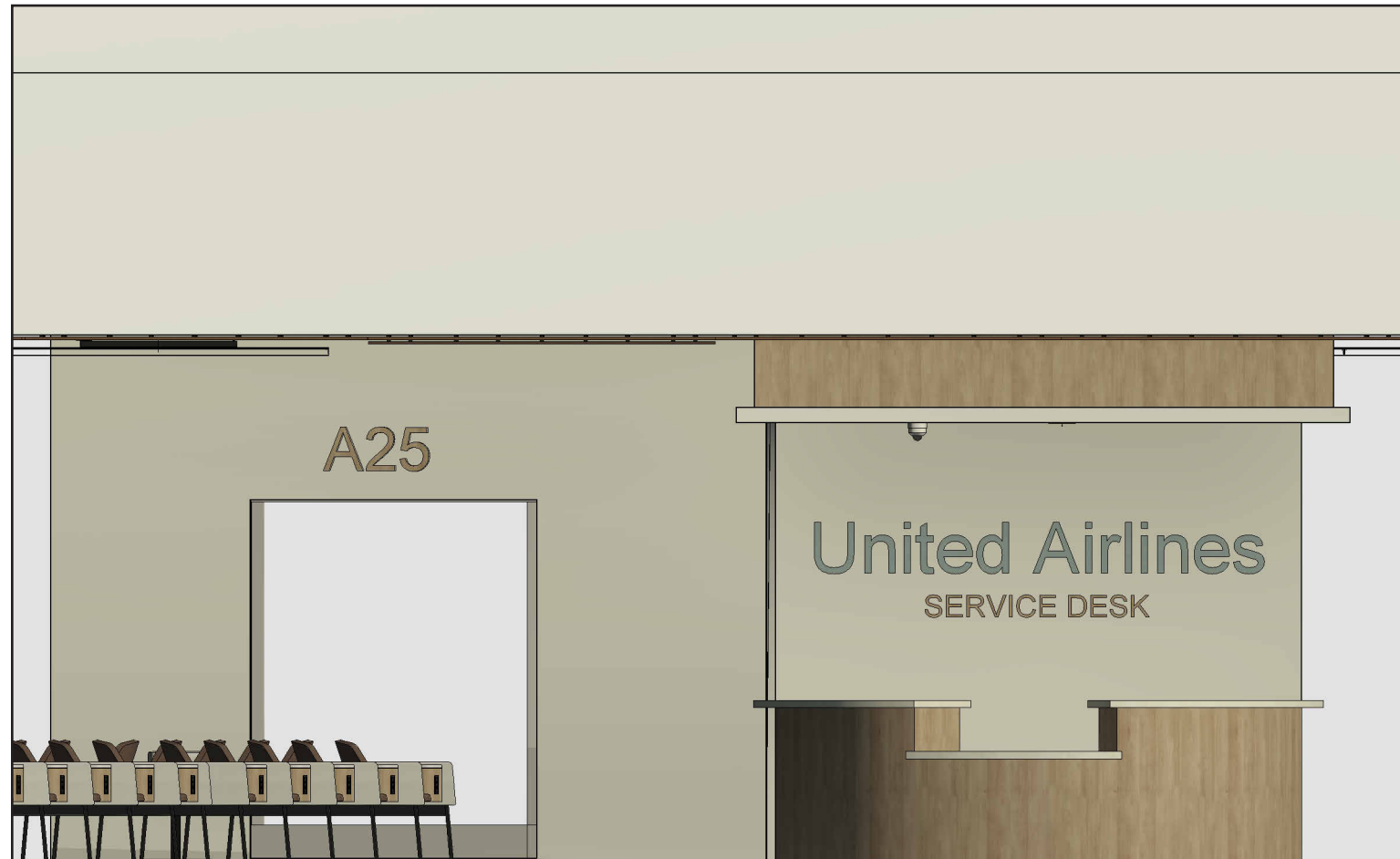


Partial RCP

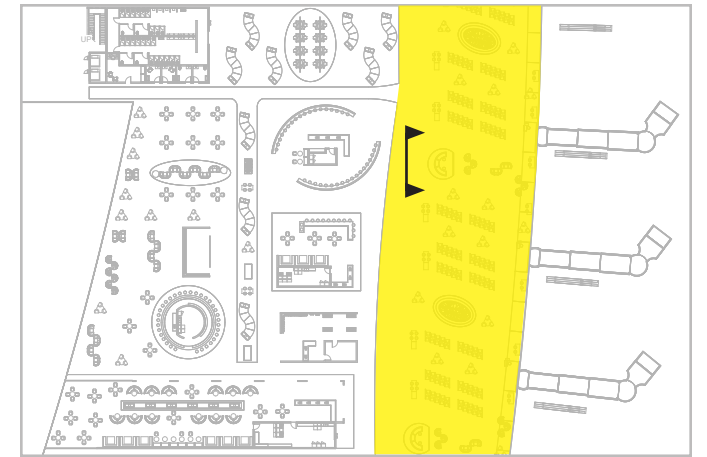


Gate Service Desk and Waiting Area

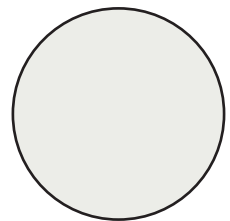
Scale: 1/4"=1'



Elevation



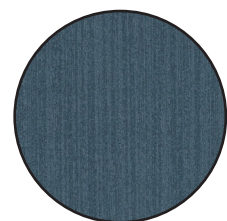
Materials:



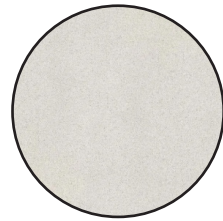
Sherwin-Williams
White Sail 9622
PAINT



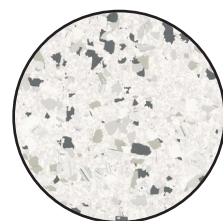
PoliLam
Linden Livido
WOOD



EF Contract
WTC44
**CARPET
FLOORING**



TREND Group
Origina Polar Ice
COUNTERTOP



Resinwerks
Juneau
EPOXY FLOORING

Gateway Restaurant



Gateway Restaurant Render & Call Outs

Goals



Efficient

-Different zones using within the space

-Wayfinding through furniture layouts, materials, and lighting

-Clear circulation



Flexible

-Inclusive design with ADA compliance

-Different types of seating options

-Different levels of lighting



Connected

-Dignity through design with areas where users can have privacy

-The arches create a **partial opening** that connects the user back to the rest of the airport while still giving the restaurant its own space



Gateway Concept

This area provides a transition from the movement of the concourse to a more private area. Curved privacy seating and organic planters offer passengers a sense of security and dignity. By maintaining clear sightlines, the restaurant keeps the user oriented toward their journey while grounding them in a warm, comfortable environment.

Gateway Restaurant

Scale: 1/16"=1'
 Ceiling Height: 12'
 Approximately 6,500 sqft



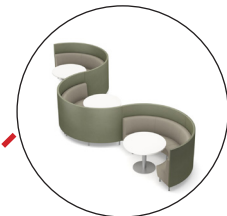
Steelcase
 Kimono Chair
 Quantity: 47



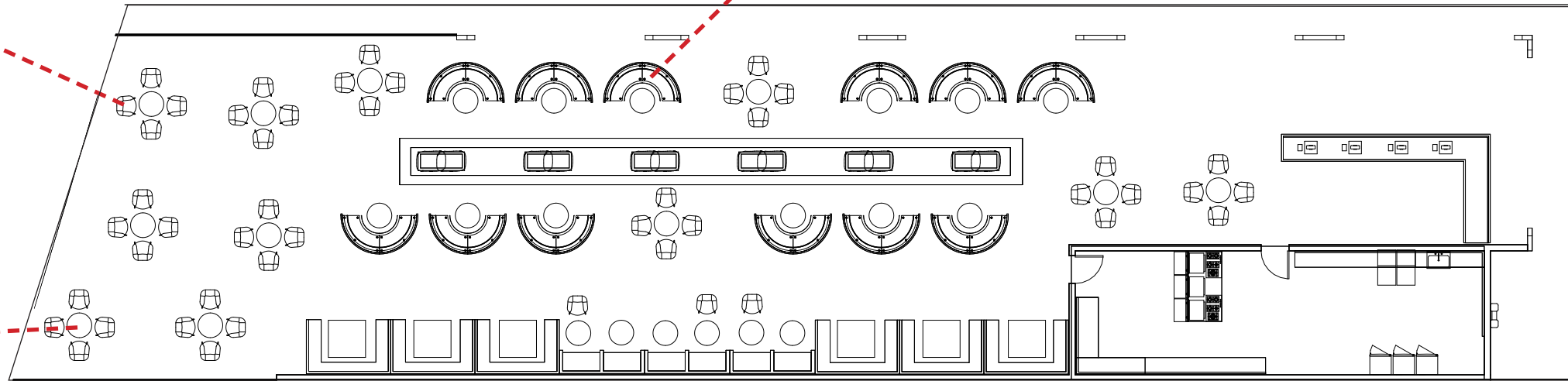
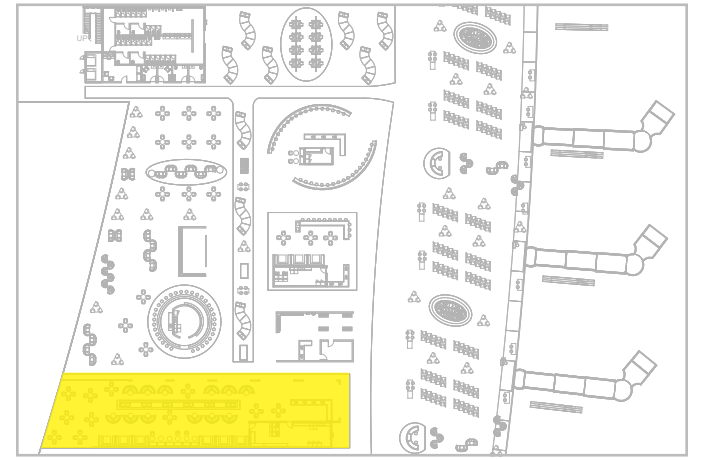
Herman Miller
 OE1 Sit-to-Stand
 Table
 Quantity: 29



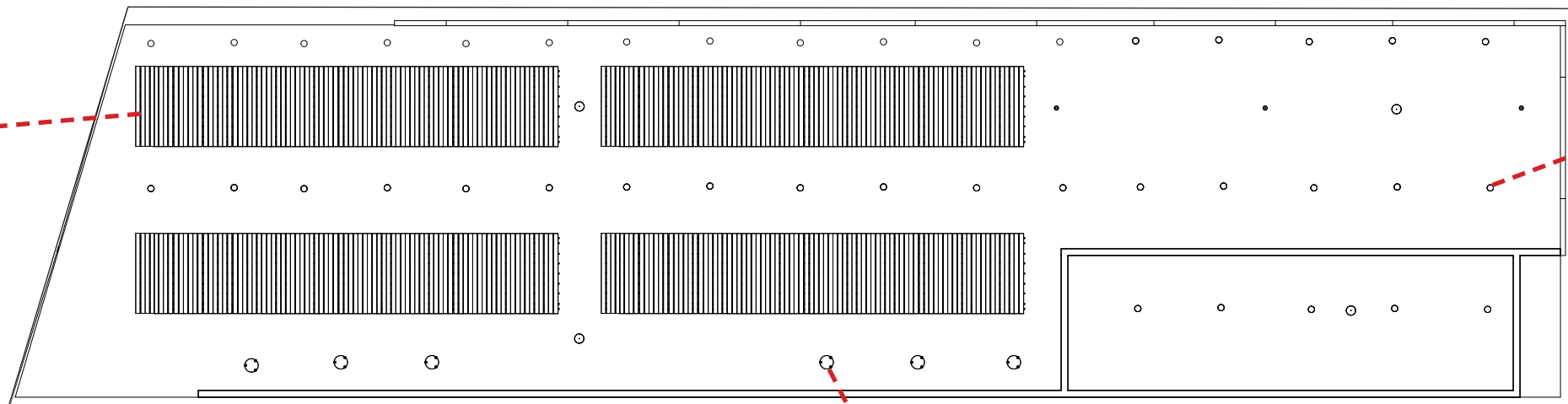
Armstrong
 Woodworks
**LINEAR SOLID
 WOOD PANELS**



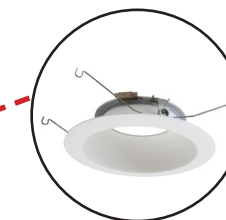
Agati
 Hampton Modular
 Quantity: 12



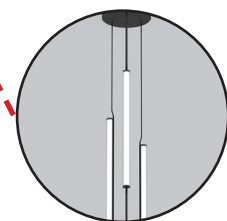
Partial Floor Plan



Partial RCP



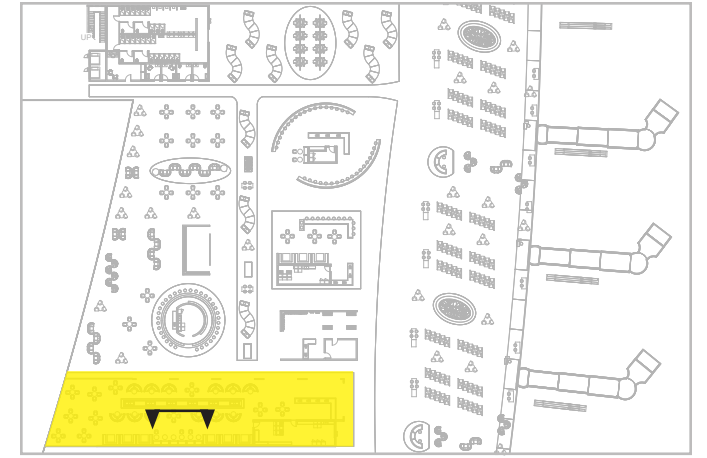
Cooper
 Halo can
LIGHTING FIXTURE



Eureka
 Velia Chandelier
LIGHTING FIXTURE

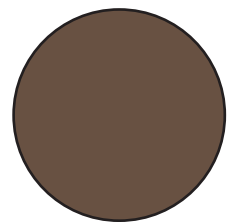
Gateway Restaurant

Scale: 1/4"=1'



Elevation

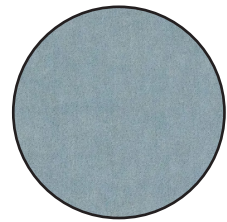
Materials:



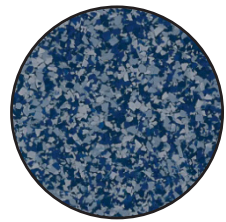
Benjamin Moore
Mocha Brown
PAINT



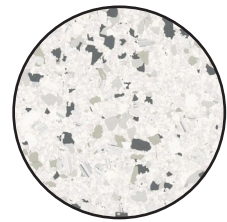
PoliLam
Linden Livido
WOOD



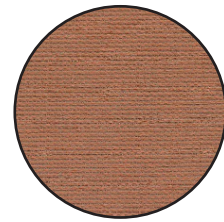
Architex
Angora Mohair
**BOOTH
UPHOLSTERY**



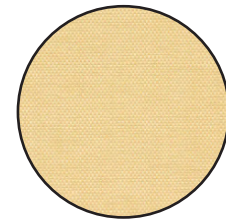
Stonhard
Blue Quarry - C121
FLOORING



Stonhard
STONTEC - C110
FLOORING



Carnegie
Xorel Circuit 18
**SEAT BACK
TEXTILE**



Carnegie
Xorel Comet 13
SEAT UPHOLSTERY

Work + Seating Area

UNITED			
DP.AUORMOIT	DATE	FLOWITION	DMSIAOBKIS
CFL.CUS 094B	CAY	10:31 AM	SDACIYDEET
SAD TENDCOCO.CJH	C88	11:30 AM	FC7 IY913
ENSARB 56M	C80	12:35 PM	SGT I4913
CRNTER 00M	C37	10:22 PM	S23 I4913
HEBDRD SOW	C3T		



Work + Seating Area Render & Call Outs



Work Area



Seating Area

Goals



Efficient

-Clear Circulation and Wayfinding

-Zoned areas

Handles noise with **acoustic control** from ceiling and carpet



Flexible

-Shared areas of overlapping spaces with flexible seating

-Inclusive design with ADA compliance

-Different levels of **lighting/acoustics** and spans of large space



Connected

-Dignity through design with areas where users can have **privacy**

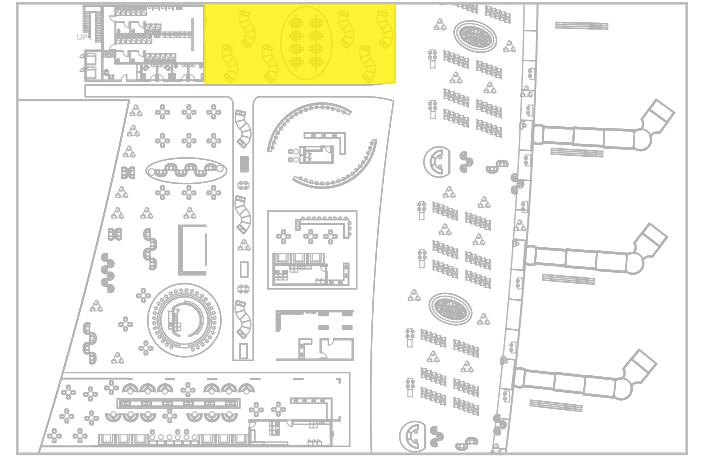
-Promote **Houston and Texas** through local art, like a mural and ceiling elements, like hanging acoustical stars

Gateway Concept

This area is a cultural and productive sanctuary. It is a space where the identity of Houston is expressed through local art and symbols. By balancing a high productivity work zone with culturally grounded social areas, the design ensures that the gateway is not just a place to pass through, but a destination that facilitates meaningful pause while in the airport.

Work + Seating Area

Scale: 3/32"=1'
 Ceiling Height: 18'
 Approximately 4,500 sqft



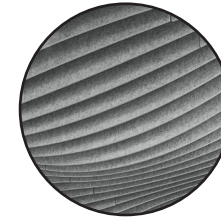
Vitra
Soft Work
Quantity: 6



Herman Miller
Asari Chair
Quantity: 16



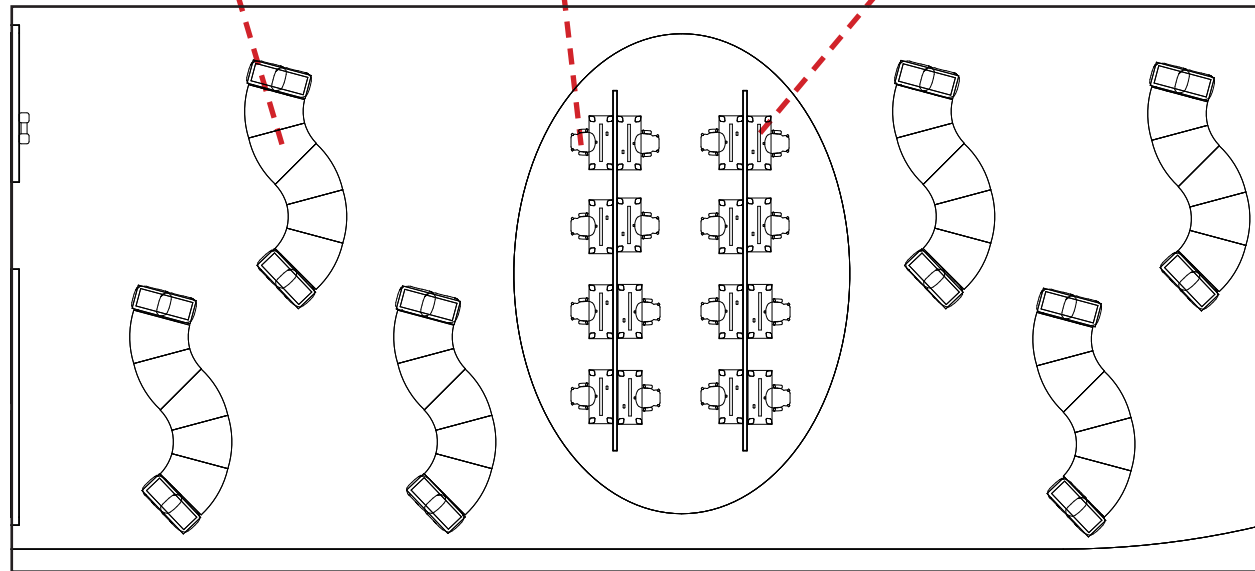
Herman Miller
Nevi Sit-to-Stand
Table
Quantity: 16



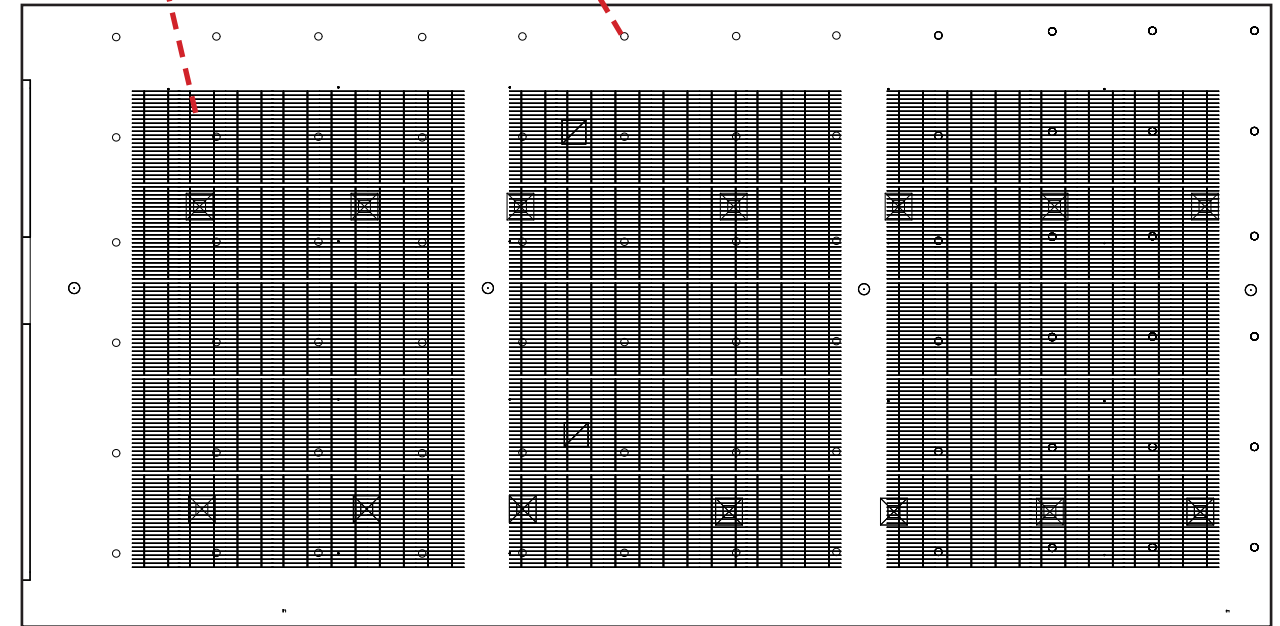
Armstrong
Feltworks Ebbs & Flows
**ACOUSTICAL
CEILING PANELS**



Cooper
Halo can
LIGHTING FIXTURE



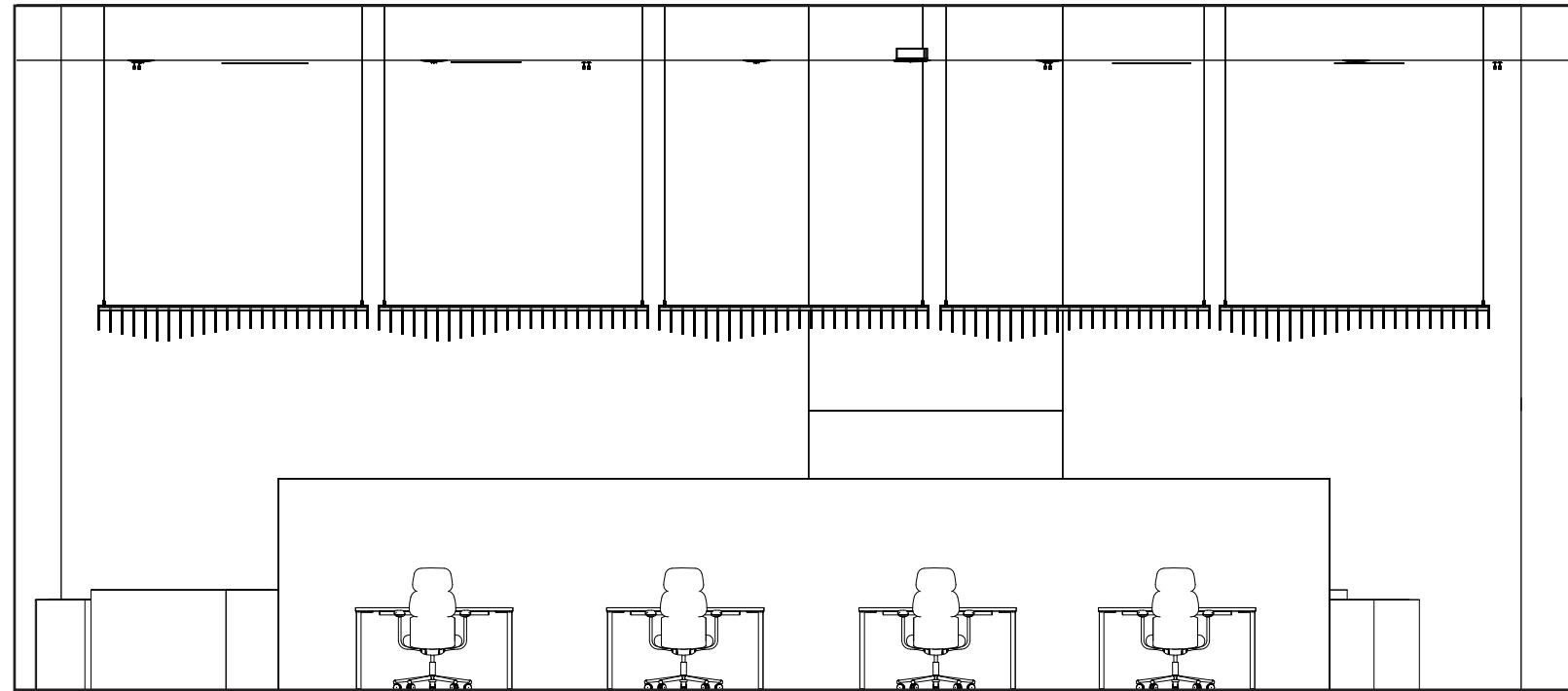
Partial Floor Plan



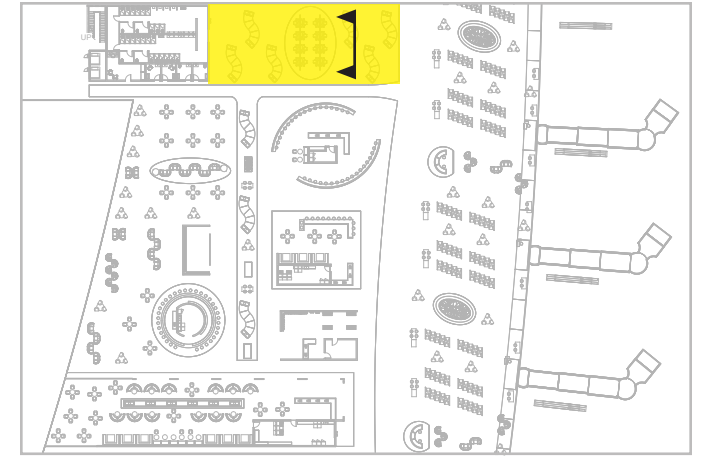
Partial RCP

Work + Seating Area

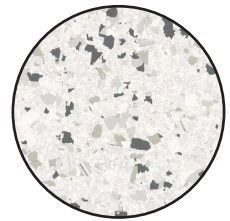
Scale: 3/32"=1'



Elevation



Materials:



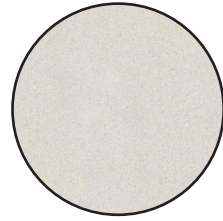
Resinwerks
Juneau
FLOORING



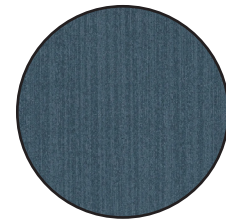
PoliLam
Linden Livido
WOOD



Paul Brayton Designs
Deep Sea Viva
Cattail
SEAT TEXTILE



TREND Group
Origina Polar Ice
COUNTERTOP



EF Contract
WTC44
**CARPET
FLOORING**

Maddie Kinane
IA 409
Design Development
International Airport in Houston, Texas



Thank You!