PLEASE WAIT: RE-DEFINING THE WAITING EXPERIENCE THROUGH DESIGN

Kedzie Rutan

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RE-DEFINING THE WAITING EXPERIENCE THROUGH DESIGN

KEDZE RUTAN, CAPSTONE. BACHELOR OF SCIENCE (BS) IN INTERIOR DESIGN. WESTERN MICHIGAN UNIVERSITY. 22-23
DEFINING THE USER
Satisfaction Generators
Target Area: Rest Time
Waiting Area Typologies

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Waiting Area Typologies

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W hen one is eagerly impatient to do something or for something to happen.

n o u n
1. A period of waiting.

Synonyms: stand by, hold back, be patient, bid one’s time, hang fire, mark time, kill time, waste time, cool one’s heels, kick one’s heels, twiddle one’s thumbs

verb
1. The act of waiting: remaining inactive in one place while expecting something.
2. Used to indicate that one is eagerly impatient to do something or for something to happen.

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ABSTRACT

Waiting is an unavoidable part of the commercial flying experience. From checking into the airport, navigating through the maze of security checkpoints, to checking personal belongings, every traveler experiences the ritual of waiting.

While airports aid in assisting travelers from one destination to another, airport designs and programs risk being too vast to understand differences in user sensitivity. Cultivating customer satisfaction presents a challenge in the context of air travel. The unfamiliar environment, noise levels, large crowds, long lines and changes in routine are inherent in the airport journey and can be anxiety-provoking for travelers.

Airport waiting areas are often designed to be occupied for the short term and thus undervalue user experience. Creating inclusive, wellness-centered waiting spaces would influence user satisfaction, encouraging more positive travel journeys.

This research explores the capabilities of multi-sensory design in order to redefine the waiting experience. This dialogue seeks to understand the complexities of human sensitivity and awareness by exploring the tangible and intangible design considerations that influence connection and spatial understanding.

SPACE  |  TIME  |  SENSES  |  CONNECTION

THESIS STATEMENT

Waiting is an experience that is perceived differently by every traveler. People shape the action of waiting through their needs, habits, attitudes, and behaviors. As individuals wait, they are influenced by the ambience of their surrounding environment.

Most airports lack ‘in-between’ waiting spaces that are sensitive towards the diversity of travelers. Applying sensory-focused design considerations to the active and passive spaces that travelers interact with during their travel journey can redefine waiting to be more supportive of user differences.

By integrating a design approach that enables the five senses, the structure of waiting spaces can result in the promotion of comfort and aid in reducing common travel anxieties. Designing spaces that create a variety of choice will further support the interaction between people and the built environment.

Universal Design is the composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

Sensory design is inclusive and embraces human diversity. By addressing multiple senses, design can support the diversity of the human condition.

PROJECT OUTCOMES

- Design a transitional space that supports multipurpose traffic and a variety of user needs
- Implement an informed design solution that considers accessibility, public safety and privacy
- Integrate tangible and intangible design considerations that influence connection and spatial experience
- Advocate a sense of individual identity within the ecosystem of a large commercial environment

SCIENCE OF THE SENSES

While all of our senses have an important function independently, they also depend on one another. The five senses interact to influence perception and spatial understanding. Sensory design offers people multiple ways to communicate, perceive their environment, and find their way through space.

**SIGHT**

- Considered the dominant sense, it is the sense that the brain relies on the most for input of essential information.

**TOUCH**

- Touch delivers full-bodied impressions of places and things. It inspires and pleases; warnings and delight, it can calm us, warm us, comfort us, and exhilarate us.

**SMELL**

- The sense of smell is beyond doubt a tool of great precision. The sense of smell has many functions, including detecting desirable foods, hazards, and pheromones.

**TASTE**

- Taste’s importance to human biology is helping people perceive and distinguish sweet, sour, bitter, salty, or savory qualities.

**HEARING**

- Sound alerts humans and other creatures to their environment in 360 degrees. Architecture shapes sound — and sound shapes architecture.

**PERCEPTION**

- Considered the ‘dominate’ sense, sight is the sense that the brain relies on the most for input of essential information.

**SENSORY DESIGN**

Sensory design is the orchestration of spatial stimuli in built environments, regulated to lift the quality of experience for the occupants they serve cumulatively.

**PHENOMENOLOGY**

Phenomenology is the study and exploration of the physical experience of buildings, building material, and their sensory properties.

**UNIVERSAL DESIGN**

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SCIENCE OF THE SENSES

SIGHT

Contextual: Visual perception allows individuals to receive, interpret, and act upon visual stimuli. Sight gives individuals direction and context of the spaces they function within.

Physical: Sight is a sensory experience in which light reflects off of shapes and objects. This allows individuals to interpret color, shape, dimension, texture etc.

SMELL

Memory: Many studies have shown that smell also has a powerful effect on memory. Psychologists have suggested that a particular smell associated with a time and/or place can stimulate a person’s ability to recall a memory as much as or more than a visual cue.

Objective: Smell is objective and inconsistent from person to person.

TASTE

Primal: Tactile buds contribute to involuntary actions and responses such as breathing and digestion.

Tactile: Touch receptors embedded in the skin of the mouth and tongue react to food’s unique physical qualities.

Contextual: Environmental factors change our flavor experiences: family and friends, packages and plates, names and numbers, lights and colors, shapes and smells, distractions and distances, cupboards and containers.

TOUCH

Layered: touch delivers tangled impressions of temperature, texture, pressure, and resistance.

Social: From a pat on the arm to a slap on the face, touch communicates feeling.

Spatial: Proprioception is the awareness of a body’s location, posture, and movement, enabled by receptors distributed throughout the skin, muscles, tendons, and joints.

Active: Touch allows for the exploration of active perception enabling movement to interact with one’s surroundings.

Haptic: Body-based touch and skin-based touch work together to create haptic perception: how one feels an object relative to their body and their body relative to an object.

HEARING

Personal: Individuals have their own hearing ranges that will change over a lifetime. Individuals have different responses and reactions to varying sound frequencies.

Haptic: Interior spaces give off interfaces that communicate through tactile and audible signals.

Spatial: Sound and its direction help listeners recognize sources and visually picture pictures of places and events.

Energy: Sound always results from an action: a string has been plucked, a rock has been thrown, or a door has been slammed.

Communicative: Humans construct intricate discourse when they speak, laugh, sing, hum or scream.

Experiential: Whether heard with the ears or felt with the body, sound envelops human beings and creates awareness.

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DEFINING THE USER

- These travelers prefer spaces that are fully equipped for working in the go, accessories such as tablet arms, and seating or standing height workstations with ample room. Business travelers often spend time in VIP or member lounges that have comfortable hospitality-inspired seating or standing height workstations with table room. They are seeking efficiency and avoiding confusion out of their journey.

- These travelers understand the importance of functionality and efficiency. They are appreciative of technology. This group appreciates a well-connected airport, with accessible power without charge stations, and looks like a flat, horizontal escalator. Moving walkways are often very helpful for passengers carrying lots of luggage.

- The group appreciates furniture configurations that enable and direct the flow to traffic. The group makes heavily on the high-quality, customer service at the airport, to make checkpoints an easier and smoother process. The group appreciates furniture configurations that enable and direct the flow to traffic.

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TARGET AREA: REST TIME

These infographics identify six common emotions: excitement, delight, disappointment, sadness, confusion and boredom and when they are most frequently experienced by travelers during their airport journey.

BUSINESS TRAVELER
Traveller: CEO
Purpose: Attending a conference

FAMILIES
Traveller: Parents with two young children
Purpose: Moving away to be closer to extended family

LEISURE SEEKER
Traveller: Dating Couple
Purpose: Traveling to attend a funeral

OCCASIONAL TRAVELER
Traveller: Middle Aged Woman
Purpose: Yearly visit to spend time with family

ADVENTURE SEEKER
Traveller: Young Adult who just graduated college
Purpose: Two week trip (alone) to backpack across a foreign country

REST TIME/WAITING:
Among the traveler groups examined, rest time consistently had heightened results, as every user group identified feeling multiple emotions simultaneously. With today’s continuing obligation to cater to the needs of all individuals, the target area for this thesis will focus on the active and passive waiting spaces that travelers interact with during their travel journey.

¹ Rutan Kedzie. Interview with Conner Rutan (Recently Graduated Male- Results Based on Last Travel Experience) December 2, 2022.
² Rutan Kedzie. Interview with Eric Hakim (Middle Aged Male- Results Based on Last Travel Experience) December 4, 2022.
³ Rutan Kedzie. Interview with Brittany Adams (Married Mother of Nine Year Old Twin Girls- Results Based on Last Travel Experience) December 3, 2022.
⁴ Rutan Kedzie. Interview with Peter and Leslie Zigarac (Married Couple over Fifty Years of Age- Results Based on Last Travel Experience) December 3, 2022.
WAITING AREA TYPOLOGIES

STANDARD WAITING AREAS
These spaces are situated in the airport concourses, commonly known as a "gate" and aid in the pre-boarding process.

USER GROUPS
Common travelers, people with layovers, people in-between connecting flights, people with canceled flights.

SPATIAL FEATURES
- Uniform seating and areas to charge electronics.
- These spaces are within close distance to restaurants, convenience stores, coffee shops, bars, and conveyor belts for transport.
- They are usually spacious but can get very crowded when multiple flights are leaving at once.

AIRPORT LOUNGES
Airport lounges are usually higher-end, private options where people can await their flights.

USER GROUPS
These travelers commonly have a first-class ticket, a certain status on an airline, or have a particular credit card to gain access to these areas.

SPATIAL FEATURES
- Most lounges are quieter and overall, more comfortable than waiting areas located within the concourse.
- Often, they have high-end amenities integrated into their design such as restaurants, showers and places to sleep, spa services, and personal workspaces.
- Many of these lounges are a good distance from the gates.

References:
## Precedent Study

### Pittsburgh International Airport

#### Concourse C: Standard Waiting Area
- **Sight:**
  - High vaulted ceilings and floor-to-ceiling windows to show exterior views and natural light.
  - Wayfinding elements: color blocking.
  - Projected flight information and media.
- **Swell:**
  - N/A
- **Smell:**
  - N/A
- **Taste:**
  - Variety of food and refreshment options served by an award-winning local chef.
- **Touch:**
  - Hard and soft surface seating, variety of work surfaces and seating arrangements.
- **Hearing:**
  - Zoned music throughout the lounge.

#### Club PIT: Airport Lounge
- **Sight:**
  - Visual stimulation: Bubble tubes.
  - Variety of lighting solutions including the mimicking of natural daylight.
  - Projected flight information and media.
- **Swell:**
  - Sustainable, odor-free materials.
- **Smell:**
  - Automated shades and mood lighting.
- **Taste:**
  - Variety of food, drink and refreshment options served by an award-winning local chef.
- **Touch:**
  - High-end hospitality like finishes.
- **Hearing:**
  - Zoned music throughout the lounge.

#### Presley’s Place: Sensory Room
- **Sight:**
  - Visual stimulation: Bubble tubes.
  - Automated media and mood lighting.
  - Projected flight information and media.
- **Swell:**
  - Sustainable, odor-free materials.
- **Smell:**
  - Automated shades and mood lighting.
- **Taste:**
  - Variety of food, drink and refreshment options served by an award-winning local chef.
- **Touch:**
  - Tactile, touchable surfaces.
- **Hearing:**
  - Calming sounds projected through the space.

### Synthesis:
- **Similarities:**
  - Communication of flight information through technology.
  - Design used elements to bring the outdoors in.
  - Durable, cleansable surfaces suited for high-traffic commercial areas.
  - Variety of furniture systems and space planning considerations.
  - Adjacency to amenities and other airport services.
  - Level of consideration regarding the human senses, specifically for hearing, smell, and taste.
- **Differences:**
  - Communication of flight information through technology.
  - Design used elements to bring the outdoors in.
  - Durable, cleansable surfaces suited for high-traffic commercial areas.
  - Variety of furniture systems and space planning considerations.
  - Adjacency to amenities and other airport services.
  - Level of consideration regarding the human senses, specifically for hearing, smell, and taste.

### Site Map
PROJECT CONSIDERATIONS

SPACE PLANNING
- Create an indoor environment that is distraction-free and promotes productivity.
- Solutions include design standards and recommendations: thermal and acoustic controllability and selections of materials and finishes.
- The solution should support mental and emotional health providing the user with regular feedback and knowledge about their environment through design elements, relaxation spaces, and technology.
- Integrate spatial zoning to create different levels of safety, security, and privacy.

CIRCULATION & EFFICIENCY
- Integrate Accessible/Universal design standard.
- Create awareness for Public Life safety.
- Incorporate Wayfinding elements and clear communication for direction.
- Identify Key Circulation paths to maximize traffic control.
- Create a variety of choice in order to meet differences in user habits and needs.
- Recommend adjacencies to services and amenities.

RELATIONSHIP TO SURROUNDING ENVIRONMENT
- Utilize natural and artificial daylighting. Requirements for window performance and design, light output, and lighting controls, and task-appropriate illumination levels are included to improve energy, mood and productivity.
- Optimize and achieve indoor air quality. Strategies include removal of airborne contaminants, prevention and purification.
- Design should be representative of surrounding culture and local identity.
- Focus on specifying applications that are environmentally friendly and acknowledge lifecycle and maintenance.

INTEGRATION OF DESIGN FEATURES
- Urban existing architectural features and attractions.
- Integrate technology to aid travel processes.
- Make design decisions that are based of current identity.
- Focus on specifying applications that are environmentally friendly and acknowledge lifecycle and maintenance.

AIRLINE LOUNGES
DINING
RESTROOMS
SERVICES/AMENITIES
SHOPPING
EXPRESS TRAM
TSA/SECURITY CHECKPOINTS

Travelers are greeted by a 39’ wide fountain, located in the center of the McNamara Terminal.

LED TUNNEL
Connecting Concourses B/C with Concourse A at the McNamara Terminal building, Detroit Metropolitan Airport's underground Light Tunnel is an artistic display of sight and sound.

THE WESTIN HOTEL:
Westin Hotel is available from level 2 through an elevated walkway. It offers all kind of services such as restaurants and gym.

PROJECT CONTEXT:
Figure 25: ‘Site Analysis’ Illustrated by Kedzie Rutan

LOCATION: Detroit Metropolitan Airport; McNamara Terminal

OVERVIEW: The McNamara Terminal, which opened in 2002, is nearly a mile long and is exclusively used by Delta and Delta partners. McNamara houses three Concourses (A, B and C) with 103 gates.

LEVELS: Lower Level
- International Arrivals
- Arrival level and Baggage Claim
- All security exits and the international arrivals are handled in separated halls.

Level 1
- Boarding gates and concourse area
- Access to Parking and Ground Transportation
- Passengers can access to Westin Hotel from this level.

Level 2
- Focihers at the check in facilities
- Move to the lower level to boarding gates and concourses.

CONCOURSES

Concourse A
- It is home of boarding gates A42-A61, A63-A65, A67-A78. It offers services such as snacks, Wi-Fi, newspapers, children’s area, snacks, TV, among others.

Concourse B
- It is home of boarding gates B1-B8, B10-B12, B15, B16, B18-B21. It offers services such as snacks, Wi-Fi, newspapers and magazines.

Concourse C
- It is home of boarding gates C1-C7 (Lower Level), C8-C12, C14-C25, C27. It offers services such as drinks, Wi-Fi, newspapers and magazines.

THE WESTIN HOTEL:
Westin hotel is available from level 2 through an elevated walkway. It offers all kind of services such as restaurants and gym.

LEVEL 2 TICKETING
LEVEL 1 BAGGAGE CLAIM
CONCOURSE A: 1.5 miles (1.6 km)
CONCOURSE B/C: .3 miles (0.8 km)

WHY DTW:
The Detroit Metropolitan Airport; McNamara Terminal is a prime location as it serves a variety of users with diverse backgrounds on a regular basis. In 2019, DTW commercial hall was named the best large U.S. airport among all others.

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AIRPORT TERMINAL:

LOUNGES:

Free Flight Center
- McNamara Terminal Concourse A. Services: Snacks, Wi-Fi, newspapers, magazines, smoking, TV, among others.

Delta Air Lines Delta Sky Club (Gate A43):
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Delta Air Lines Delta Sky Club (Gate C1)
- McNamara Terminal Concourse C. Services: drinks, spirits and liquors, Wi-Fi, newspapers and magazines.

Minute Suites (Gate A43):
- McNamara Terminal Concourse A. Minute Suites offers a unique service that provides five private (clean and sanitized) suites, complete with a shower room, work area, mini frig, coffee and more—before their flight. Priority pass members are accepted and receive a free one hour stay and discounted rates for additional hours.

FACILITIES:
- Food, drink and retail concessions
- Duty free stores
- Vending machines & Bottle Filling Stations
- Shoe Shine Stations
- Banking services/ATMs/Currency Exchange
- Wellcome Facilities
- Baby care facilities/nursing rooms
- Children's play area
- Religious Reflection Room
- Information desks
- Pet relief area
- Lost & Found
- Elevators & Escalators
- Public and courtesy restrooms
- Multilingual Waiting Rooms
- People Mover/Moving Walkway
- Security checkpoints
- Turnstiles
- Baggage Claim
- P6/P7/Car Rental
- P3/P5/Tabi
- Concourse C
- Concourse B/C
- Concourse B

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- McNamara Terminal Concourse A. Services: Snacks, Wi-Fi, newspapers, magazines, among others.

Delta Air Lines Delta Sky Club (Gate C1)
- McNamara Terminal Concourse C. Services: drinks, spirits and liquors, Wi-Fi, newspapers and magazines.

Minute Suites (Gate A43):
- McNamara Terminal Concourse A. Minute Suites offers a unique service that provides five private (clean and sanitized) suites, complete with a shower room, work area, mini frig, coffee and more—before their flight. Priority pass members are accepted and receive a free one hour stay and discounted rates for additional hours.

FACILITIES:
- Food, drink and retail concessions
- Duty free stores
- Vending machines & Bottle Filling Stations
- Shoe Shine Stations
- Banking services/ATMs/Currency Exchange
- Wellcome Facilities
- Baby care facilities/nursing rooms
- Children's play area
- Religious Reflection Room
- Information desks
- Pet relief area
- Lost & Found
- Elevators & Escalators
- Public and courtesy restrooms
- Multilingual Waiting Rooms
- People Mover/Moving Walkway
- Security checkpoints
- Turnstiles
- Baggage Claim
- P6/P7/Car Rental
- P3/P5/Tabi
- Concourse C
- Concourse B/C
- Concourse B

LOCATION:
- Detroit Metropolitan Airport: McNamara Terminal

OVERVIEW:
The McNamara Terminal, which opened in 2002, is nearly a mile long and is exclusively used by Delta and Delta partners. McNamara houses three Concourses (A, B and C) with 103 gates.

LEVELS:
- Lower Level
  - International Arrivals
- Level 1
  - Arrivals level and Baggage Claim
  - All security exits and the international arrivals are handled in separated halls.
- Level 2
  - Boarding gates and concourse area
  - Access to Parking and Ground Transportation
  - Passengers can access to Westin Hotel from this level.
- Level 3
  - Focihers at the check in facilities
  - Move to the lower level to boarding gates and concourses.

CONCOURSES:
- Concourse A
  - It is home of boarding gates A42-A61, A63-A65, A67-A78. It offers services such as snacks, Wi-Fi, newspapers, children’s area, snacks, TV, among others.
- Concourse B
  - It is home of boarding gates B1-B8, B10-B12, B15, B16, B18-B21. It offers services such as snacks, Wi-Fi, newspapers and magazines.
- Concourse C
  - It is home of boarding gates C1-C7 (Lower Level), C8-C12, C14-C25. It offers services such as drinks, Wi-Fi, newspapers and magazines.

THE WESTIN HOTEL:
Westin hotel is available from level 2 through an elevated walkway. It offers all kind of services such as restaurants and gym.

LEVEL 2 TICKETING
LEVEL 1 BAGGAGE CLAIM
CONCOURSE A: 1.5 miles (1.6 km)
CONCOURSE B/C: .3 miles (0.8 km)
PROGRAMMING
SPATIAL TYPOLOGIES

PUBLIC
AIRPORT GATE
Main Waiting Area
Secondary Waiting Area
Help Kiosk
Boarding Zone

SEMI-PRIVATE
AIRPORT LOUNGE
Welcome/Check-In Area
Interior Lounge Area
Exterior Lounge Area
Bar & Service Area
Retail Refresh Area
Restrooms/Locker Room
Gym & Spa

PRIVATE
PRIVATE AMENITY
Welcome/Check-In Area
Relaxation Pod
Private Office
Shower Room
Refresh Area

SPATIAL TYPOLOGY INTRODUCTION:
This thesis will explore three different waiting typologies that range from public to private. First, we will explore a public airport gate. This is the space that is most universally known by the common traveler. It provides direct access to aircraft boarding within a public environment. Second, we will look at a semi-private airport lounge, similar to a Delta Sky Club or a Capital One partner lounge. In the context of this program, this space will be a space that is accessible to all travelers. Lastly, we will review a new waiting typology: the private amenity. The private spaces will include private areas or pods that travelers are able to utilize and control based on their waiting needs and preferences.

WHAT IS A WELL DESIGNED SPACE?
Psychology defines a ‘well designed’ space as a built environment that enhances life experiences. A well designed space supports and choreographs a desirable emotional state.

UNIVERSAL FEATURES OF WELL DESIGNED SPACES:
Complying: The space should support people in completing their task at hand by giving them the tools they need to be successful and functional.

Communicating: Places communicate and create a social context. Socialization or the lack thereof is a key to how people experience space. A well designed space allows for socialization when desired, and allows for privacy when desired.

Comforting: Comfort is a characteristic that is desirable to any interior environment. Comfort can be experienced through a space’s flexibility and controllability: lighting levels, temperatures, noise distribution. A comfortable space decreases cognitive barriers and allows people to meet their psychological needs.

Challenging: Spaces should support development and provide positive opportunities for people to grow.

Continuing: Spaces need to change as the ways people need to use them change.

Connecting: Design has the ability to connect people to the places they inhabit. Supporting people and their function is the main role interior space plays within the built environment, leading to positive spatial awareness and perception.

22
23
DEFINITION: An Airport Gate is a seating area in an airport where passengers wait immediately prior to boarding.

FEATURES:
- Main Waiting Area
- Secondary Waiting Area
- Help Kiosk
- Boarding Zone

ADJACENCIES TO EXISTING TYPOLOGIES:
- Information Desks, Elevators & Escalators, People Mover / Moving Walkways
- Terminal Entrance, Restroom facilities, Baby Care facilities/Nursing rooms, Flight Exchange
- Vending machines & Bottle Filling Stations, Banking services/ATMs/Currency Exchanges

ENVIRONMENTAL NEEDS:
- Lighting: The environment should follow the lighting criteria listed in the DTW Airport Master Plan.
- Creating an Atmosphere: The lighting environment is required to be soft and uniform to avoid passenger confusion. Due to the large net height, it is necessary to consider using indirect lighting or arranging certain effect lighting on the ceiling or vertical surface. A combination of Artificial and Natural light is encouraged to create a sense of comfort.
- Using light to Communicate: Lighting should not be direct or glaring reflection should be minimal, and light should be clearly visible at the terminal.

ADJACENCIES WITHIN TYPOLOGY:
- Furniture: Unique furniture arrangements should be integrated to allow for the variety of choice. Furniture should support the usage of technology and development. Arrangements should encourage innovative ways to stay connected to the surrounding environment.
- Flex: Flexible finish products and systems should support ease of travel and achieve a level of acoustic and spatial comfort.

EXISTING AIRPORT GATE CRITIQUE:

The existing model for the typical airport gate lacks variety in furniture solutions that cater towards users' needs and their preferences. The layouts tend to be vast, repetitive and uniform in nature. Paired with the lack of choice, the typical airport gate tends to neglect implementing different levels of privacy, making this space uncomfortable for some travelers. The overwhelming amount of space can create psychological need for acoustic comfort and thermal controllability. Additionally, the overstimulation of lights and sounds can become problematic in increasing common travel anxieties.
TYPOLOGY 1: AIRPORT GATE EXISTING CONDITIONS

EXISTING FLOOR PLATE AND ARCHITECTURAL CONDITIONS
- Boarding Zone
- Gate Waiting Area
- Access to Moving Walkways

Figure 32: 'DTW Ceiling'

EXISTING CEILING

Figure 33: 'Gate Perspective' Illustrated by Kedzie Rutan

Figure 34: 'Gate Isometric' Illustrated by Kedzie Rutan

Airport Gate Floor Plan

Airport Gate Perspective
SPATIAL KEY
- MAIN WAITING AREA
- SECONDARY WAITING AREA
- HELP KIOSK
- BOARDING ZONE

SPATIAL EXPLORATION:
These blocking iterations explore spatial arrangements within the existing floor plate. These layouts put forward the idea of creating a symmetrical and balanced environment. A common theme during initial space planning was to evenly break up the seating arrangements to make logical sense and also create direct access to the boarding zone and help kiosks.
tyPology 2: Airport Lounge Program

-existing airport lounge critique:
airport lounges such as Delta Sky Clubs and Capital One Partner Lounges are typically only accessible to member or card holders, making these spaces exclusive to specific travelers. These spaces commonly offer travelers with a more private setting that offers amenities that are very dining focused. That being said, airport lounges tend to overlook other amenity services that focus on health and wellness would allow travelers to refresh. Additionally, it is rare for these spaces to provide public thermal conditions should reference the recommended comfort criteria for airport terminal spaces (CIBSE). Departure Lounges should be between 22-24 degrees Celsius. Private areas should support personal tasks and range in sizes to support individuals and groups. This furniture may be more formal in design.

Evolved Seating:
Each Typology should enable travelers with multi-sensory wayfinding elements. Arrangements should encourage innovative ways to stay connected to the surrounding environment.

Unique furniture arrangements should be integrated to allow for the variety of choice. Layouts should be flexible, allowing for the best mix of hard and soft materials for operation and acoustical needs. Acoustical products and solutions should support ease of travel and achieve a level of acoustic and spatial comfort.

thermal conditions should be comfortable and feasible to meet user preferences.

EnvironmentaL neeDs:
• Lighting: The solution should follow the lighting criteria listed in the DTW Airport Master Plan.
  • Creating an atmosphere: The lighting standard in this area should be slightly higher than that of the lobby to attract passengers to enter. With the thin area of the Lounge, a slight source of medium color temperature is recommended to form a quiet, aircraft light environment to ease the mood of passengers.26
  • task-based: Lighting should not be direct or glaring reflection should be minimal and signs should be dim, while at the terminal. The ratio of ambient brightness to the average brightness of other surfaces should not be less than 1.5 to ensure the brightness contrast of the overall environment.
  • Acoustics: The solution should follow the acoustical criteria listed in the DTW Airport Master Plan.
  • General: Acoustic in airport facilities requires consideration of interior surface treatments to control reverberation and noise. Acoustic designs should reference the criterion for the DTW airport master plan28.
  • Specialty: Specialty consideration should be paid to each room, each space, and each finish to determine the best mix of hard and soft materials for operation and acoustical needs. Acoustical products and solutions should support ease of travel and achieve a level of acoustic and spatial comfort.

Environmental needs should be controllable and flexible to meet user preferences.

EXTERIOR LOUNGE AREA

GYM & SPA

BAR & SERVICE AREA

WELCOME CHECK-IN

VACATION LOUNGE AREA

GIM & SPA

Figure 35: ‘Lounge Example 1’
Figure 36: ‘Lounge Example 2’
Figure 37: ‘Lounge Example 3’
Figure 38: ‘Lounge Adjacency’ Illustrated by Kedzie Rutan

Lighting Standard: Lighting standard should follow an atmosphere that follows the lighting criteria listed in the DTW Airport Master Plan.

Creating an atmosphere: The lighting standard in this area should be slightly higher than that of the lobby to attract passengers to enter. With the thin area of the Lounge, a slight source of medium color temperature is recommended to form a quiet, aircraft light environment to ease the mood of passengers.26

Task-based: Lighting should not be direct or glaring reflection should be minimal and signs should be dim, while at the terminal. The ratio of ambient brightness to the average brightness of other surfaces should not be less than 1.5 to ensure the brightness contrast of the overall environment.

Acoustics: The solution should follow the acoustical criteria listed in the DTW Airport Master Plan.

General: Acoustic in airport facilities requires consideration of interior surface treatments to control reverberation and noise. Acoustic designs should reference the criterion for the DTW airport master plan28.

Specialty: Specialty consideration should be paid to each room, each space, and each finish to determine the best mix of hard and soft materials for operation and acoustical needs. Acoustical products and solutions should support ease of travel and achieve a level of acoustic and spatial comfort.

Thermal: Public thermal conditions should refer to the recommended comfort criteria for airport terminal spaces (CIBSE). Departure lounges should be between 22-24 degrees Celsius. Private areas should be comfortable and feasible to meet user preferences.

Stage:

Furniture:
Personal/Space: Arrangement that create a sense of privacy for the traveler. These solutions should support personal tasks and be designed to support individuals and groups. This furniture may be more formal in design.

Dynamic Group Seating: Unique furniture arrangement may be arranged to allow for the variety of choice. Layouts should be flexible, allowing for the best mix of hard and soft materials for operation and acoustical needs. Acoustical products and solutions should support ease of travel and achieve a level of acoustic and spatial comfort.

Evolved Seating: The furniture should support the use of technology and development.

Amorangement should encourage innovative ways to stay connected to the surrounding environment.

Finishes: Interior finishes should be selected based on performance such as desirability, durability, functionality, and lifecycle within a high traffic, commercial environment. Selections should consider impact on user health and wellness and comfort to their surrounding environment. The selections should follow the acceptable interior finishes criteria listed in the DTW Airport Master Plan.

Equipment:
Each Typology should enable travelers with multi-sensory wayfinding elements. It will be vital to incorporate technology in form of communication to keep travelers informed and in tune with their surroundings.

DEFINITION:
Airport lounges are usually higher-end, private options where people can wait their flights.

Floor area/square footage: 3000-3200 sf

TyPology Breakdown:
- Welcome/Check-In
- Interior Lounge Area
- Exterior Lounge Area
- Bar & Service Area
- Retail Refresh Area
- Restroom/Locker Room
- Gym & Spa

Advantages to Existing TyPologies:
Easy access to surrounding travel spaces such as dining, retail, and retail concessions, vending machines & bottle filling stations, banking services/ATMs/Currency exchange, electronic facilities, Sky club facilities, and easy access to transportation options.

Information desks, Elevators & Escalators, People Mover / Moving Walkways

Advantages with TyPology:

Public thermal conditions should reference the recommended comfort criteria for airport terminal spaces (CIBSE). Departure lounges should be between 22-24 degrees Celsius. Private areas should be comfortable and feasible to meet user preferences.

Environmental Needs:
- Lighting: The solution should follow the lighting criteria listed in the DTW Airport Master Plan.
  - Creating an atmosphere: The lighting standard in this area should be slightly higher than that of the lobby to attract passengers to enter. With the thin area of the Lounge, a slight source of medium color temperature is recommended to form a quiet, aircraft light environment to ease the mood of passengers.26
  - Task-based: Lighting should not be direct or glaring reflection should be minimal and signs should be dim, while at the terminal. The ratio of ambient brightness to the average brightness of other surfaces should not be less than 1.5 to ensure the brightness contrast of the overall environment.
  - Acoustics: The solution should follow the acoustical criteria listed in the DTW Airport Master Plan.
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Finishes: Interior finishes should be selected based on performance such as desirability, durability, functionality, and lifecycle within a high traffic, commercial environment. Selections should consider impact on user health and wellness and comfort to their surrounding environment. The selections should follow the acceptable interior finishes criteria listed in the DTW Airport Master Plan.

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  - General: Acoustic in airport facilities requires consideration of interior surface treatments to control reverberation and noise. Acoustic designs should reference the criterion for the DTW airport master plan28.
  - Specialty: Specialty consideration should be paid to each room, each space, and each finish to determine the best mix of hard and soft materials for operation and acoustical needs. Acoustical products and solutions should support ease of travel and achieve a level of acoustic and spatial comfort.
  - Thermal: Public thermal conditions should refer to the recommended comfort criteria for airport terminal spaces (CIBSE). Departure lounges should be between 22-24 degrees Celsius. Private areas should be comfortable and feasible to meet user preferences.

Stage:

Furniture:
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Equipment:
Each Typology should enable travelers with multi-sensory wayfinding elements. It will be vital to incorporate technology in form of communication to keep travelers informed and in tune with their surroundings.
TYPOLOGY 2: AIRPORT LOUNGE EXISTING CONDITIONS

EXISTING FLOOR PLATE AND ARCHITECTURAL CONDITIONS

FIRST FLOOR

SECOND FLOOR

ISOMETRIC DIAGRAM

EXPLODED ISOMETRIC DIAGRAM

Figure 39: 'Movement & Views' Illustrated by Kedzie Rutan

Figure 40: 'Lounge Isometric' Illustrated by Kedzie Rutan

Figure 41: 'Lounge Exploded Isometric' Illustrated by Kedzie Rutan

- ROOF
- SECOND FLOOR EXTERIOR SPACE
- ELEVATOR CONNECTING FIRST & SECOND FLOORS
- FULL HEIGHT WINDOWS TO EXTERIOR
- FULL HEIGHT STOREFRONT: ALLOWS VISIBILITY TO INTERIOR
- FIRST FLOOR AND STRUCTURAL COLUMNS
SPATIAL EXPLORATION:
These blocking diagrams aim to understand and test the breakdown of amenity adjacencies and relationships. As this lounge is two floors, the questions of access is a major influencer in how these spaces are organized. The first iteration puts most of the major amenities on the first floor while isolating the exterior lounge to the second floor. The second iteration explores breaking some of the larger accessoires up to take up more of the floor plate. Keeping the more utilized spaces on the first floor such as the retail refresh as well as the bar and service area ensures that users in the go can easily access them. The second floor then services travelers that are looking to stay for a more extended period of time through the locker room, gym and exterior lounge.

SPATIAL KEY
- WELCOME/CHECK-IN
- RETAIL REFRESH AREA
- RESTROOM/LOCKER ROOM
- GYM/SPA
- EXTERIOR LOUNGE
- INTERIOR LOUNGE
- BAR & SERVICE AREA
- ELEVATOR

TYPOLOGY 2: AIRPORT LOUNGE DIAGRAMS
Lack of connection to exterior environment. Spaces cut off the connection to the exterior environment and the lack of space leads to a sense of discomfort. Even then, they have their flaws. The private amenity space at DTW provides travelers with limited space and little variety in choice to support tasks. These enclosed spaces cut off the connection to the exterior environment and the lack of space leads to a series of discomfort.

EXISTING AIRPORT PRIVATE AMENITY CRITIQUE:
In any large commercial environment, it is essential to provide breakout areas for people to feel personally supported. Within the context of air travel, it is easy for travelers to reboot and refresh during their waiting experience. But even then, they have their flaws. The private amenity space at DTW provides travelers with limited space and little variety in choice to support tasks. These enclosed spaces cut off the connection to the exterior environment and the lack of space leads to a series of discomfort.

DEFINITION:
A private amenity is a private area that can be utilized to help travelers reboot and refresh during their waiting experience.

FLOOR AREA / SQUARE FOOTAGE: 300-400 SF

TYPOLOGY BREAKDOWN:
- Personal Office
- Relaxation Pod
- Private Office
- Shower Room
- Refreshment Area

ADJACENCIES WITHIN TYPOLOGY:
- Primary Adjacency
  - Welcome/Check-In
  - Public Spaces
- Secondary Adjacency
  - Private Spaces
- Pod

ENVIRONMENTAL NEEDS:
- Lighting:
  - The solution should follow the lighting criteria listed in the DTW Airport Master Plan.
  - Creating an Atmosphere:
    - The lighting standard in this area should be slightly higher than that of the lobby to attract passengers to enter. Within the main area of the lounge, a light source of medium color temperature is recommended to form a quiet and soft light environment to ease the wear of passengers.
- Task Based:
  - Lighting should not be used for glare or reflection; they should be designed to avoid glare and ensure visibility.
- Acoustics:
  - The solution should follow the acoustic criteria listed in the DTW Airport Master Plan.
- General:
  - Acoustics in airport facilities require consideration of interior surface treatments to control reverberation, wall, window and roof constructions to control noise from aircraft movements, noise isolation measures to control noise from building systems, and well-designed public address systems.
- Safety:
  - Special consideration should be paid to each room, each space, and each fixture to determine the best mix of hard and soft materials for operation and acoustical needs.
- Material products and systems should support ease of travel and achieve a level of acoustic and spatial comfort.

Thermal:
- Public thermal conditions should reference the recommended comfort criteria for airport terminals. Difference degrees Celsius. Private areas should be comfortable and flexible to meet user preferences.

FURNITURE:
- Personal Space: Arrangements that create a sense of privacy for the traveler. These solutions should support personal tasks and range in size to support individuals and groups. This furniture can be made in a variety of materials and styles. Arrangements should be encouraged to stay connected to the surrounding environment.
- Freestanding: The finish should be selected based on performance such as durability, sustainability, and adaptability to the high traffic commercial environment. Selections should consider impact on user health and wellness and comfort to people to their surrounding environment. The selections should follow the acceptable interior finishes criteria listed in the DTW Airport Master Plan.

SUBJECTS:
- Each typology should integrate with multi-sensory wayfinding elements. This furniture should support the usage of technology and development. Arrangements should be encouraged in a variety of ways to stay connected to the surrounding environment.
- Dynamic Group Seating: Unique furniture arrangements should be integrated to allow for the variety of choice. Layouts should be composed of posture types and multi-purpose use.
- Modular Seating: The furniture should support the usage of technology and development. Arrangements should encourage innovative ways to stay connected to the surrounding environment.

FURNITURE DETAILS:
- A variety of furniture arrangements should be integrated to allow for the variety of choice. Layouts should be composed of posture types and multi-purpose use.
TYPOLOGY 3: PRIVATE AMENITY EXISTING CONDITIONS

EXISTING FLOOR PLATE AND ARCHITECTURAL CONDITIONS

**FIRST FLOOR**
- Roof
- Second Floor
- Stair connecting first & second floors
- Full height window to exterior
- Full height storefront allows visibility to interior
- First floor and structural columns

**SECOND FLOOR**
- Roof
- Full height window to exterior

Figure 46: 'Amenity Exploded Isometric' Illustrated by Kedzie Rutan

Figure 47: 'Amenity Isometric' Illustrated by Kedzie Rutan
Spatial Exploration:
The spatial exploration seeks to understand how the composition of breakout spaces can support the people using them and the people around them. These iterations explore different arrangements of prototypical private offices, relaxation pods and shower rooms.
DESIGN METHODOLOGY
ESTABLISHING A METHOD

PARTICIPATORY DESIGN

We envision and utilize Participatory Design to evaluate and stimulate a physical environment for users to explore and reflect upon. Simulating a virtual reality and showcasing physical materials will allow users to connect and experience design considerations in a more meaningful way.

SEMIANIC DIFFERENTIAL SCALE SURVEY

A semantic differential scale is a survey or questionnaire rating scale that asks people to rate a product, company, brand, or entity within the frames of a multi-point rating option. These survey answering options are grammatically opposite adjectives at each end. Questionnaires that use the semantic scale are considered to be a very reliable way to get information on people's emotional reactions when it comes to a wide variety of subjects.

- Results based on people's emotional attitude towards a topic of interest.
- Results based on people's vitality, rationality, and authenticity.
- Expression of opinion about the matter in hand in more accurate way, due to the polar options provided in the semantic differential scale.

WHY ARE PROJECT OBJECTIVES IMPORTANT

Project objectives constitute the foundation for impact-oriented project work.

- All objectives should be Specific, Measurable, Action-oriented, Realistic, and Time-specific.

IMPORTANCE OF EVALUATING PROJECT OBJECTIVES

- Project evaluation allows for reflection on the success and failure of a project based on metrics.
- Evaluation and feedback can help determine whether the project program is achieving what it set out to do.
Defining the Evaluation Process

Integrate tangible and intangible design considerations that influence connection and spatial experience.

Design a transitional space that supports multipurpose traffic and a variety of user needs.

Implement an informed design solution that considers accessibility, public safety and privacy.

Advocate a sense of individual identity within the ecosystem of a large commercial environment.

Functionality and efficiency
Ease of access and proximity to other amenities
Acknowledgment to decrease confusion to aid in a positive travel experience
Implementation of technology and information services
Comfortability

1. Rate this environment on how well it accommodates your needs and values:
   - Functional and efficiency
   - Ease of access and proximity to other amenities
   - Acknowledgment to decrease confusion to aid in a positive travel experience
   - Implementation of technology and information services
   - Comfortability

2. Rate this environment on how well it accommodates short term use/tasks

3. Rate this environment on how well it accommodates long term use/tasks

1. Rate the environment on how well it translates a sense of:
   - Direction
   - Comfortability
   - Effective communication
   - Privacy/territoriality (ranging from public, semiprivate and private)

1. Rate the environment on how well it accommodates your sensitivity to:
   - Lighting levels
   - Sound distribution, volume, and acoustics
   - Physical properties of tactile surfaces
   - Odor and scent
   - Air Temperature

1. Rate how the furnishings, fixtures and equipment in this space support and enable you.

2. Rate how the furnishings, fixtures and equipment in this space prohibit and create conflict for you.

3. How does this space make you feel?
   - Excited
   - Delighted
   - Disappointed
   - Sad
   - Confused
   - Bored

Please Wait: Project Outcome Evaluation Survey

Figure 50: 'Survey QR Code' Illustrated by Kedzie Rutan
DESIGN STYLIZATION

ITERATION 1: WIREFRAME

ITERATION 2: SHADED

ITERATION 3: PHOTOREALISM: COOL LIGHT

ITERATION 3: PHOTOREALISM: WARM LIGHT

Figure 51: 'Wireframe Test 1' Illustrated by Kedzie Rutan

Figure 52: 'Wireframe Test 2' Illustrated by Kedzie Rutan

Figure 53: 'Shaded Test 1' Illustrated by Kedzie Rutan

Figure 54: 'Shaded Test 2' Illustrated by Kedzie Rutan

Figure 55: 'Shaded Test 3' Illustrated by Kedzie Rutan

Figure 56: 'Realistic Test 1' Illustrated by Kedzie Rutan

Figure 57: 'Realistic Test 2' Illustrated by Kedzie Rutan

Figure 58: 'Realistic Test 3' Illustrated by Kedzie Rutan

Figure 59: 'Realistic Test 4' Illustrated by Kedzie Rutan

Figure 60: 'Realistic Test 5' Illustrated by Kedzie Rutan
Please wait while the system processes your request. This may take a few moments.
AIRPORT GATE DESIGN RESPONSE

The gate design redefines the typically predictable, repetitive, and uninteresting airport gate commonly experienced by travelers. Through a comprehensive program and space plan, this space includes a variety of design elements and considerations that create a more welcoming physical environment for users. The space includes a wider variety of furniture arrangements that further support differences in user needs. Architectural features, wayfinding elements and access to facilities also further the connection between the built environment and its occupants.
AIRPORT GATE DESIGN RESPONSE

PRIMARY SEATING
The primary gate seating is the Interwoven’s Embra collection. These pieces are intuitively designed with thoughtful details, including accessible power, storage for personal items, surfaces, and task lighting. These design features support natural human responses and behaviors to ensure the gate area is a supportive environment.

EVOLVED & PRIVATE SEATING
A variety in seating arrangements is created in the secondary waiting areas. These spaces integrate high and low top tables as well as hard and soft seating. used by travelers to alternate seating options to the primary seating. Space division and acoustic factors are achieved through usage of the BuzziMe high back chairs.

WAYFINDING
Clear communication through wayfinding elements is vital to any travel journey. Typical to many airport gates, this space integrates wayfinding through the usage of signage systems, guidance mechanisms, and branding to ensure that travelers are well informed during navigation to and from the waiting area.

ACCESS TO FACILITIES
This design integrates modern facilities such as drinking fountains and bottle fillers, a sanitation stand as well as trash receptacles.

ARCHITECTURAL COMPONENTS
Architecture has the power to give every space a distinct identity. This gate design incorporates a lowered, curved ceiling design with integrated light panels, the element gives the boarding zone a distinct and grounding effect.

Figure 65: 'Airport Gate Color Block Plan' Illustrated by Kedzie Rutan
Figure 66: 'Primary Seating'
Figure 67: 'Dynamic Group Seating'
Figure 68: 'Personal Seating'
Figure 69: 'Arktura Panel'
Figure 70: 'Airport Gate Color Block Perspective 1' Illustrated by Kedzie Rutan
BUSINESS TRAVELER: These travelers prefer spaces that are fully equipped for working on the go: accessories such as tablet arms, and seating with standing height workstations and table space are key elements that these travelers appreciate.

FAMILIES: They are looking for areas that provide a comfortable place for multiple people to rest and recharge. The primary seating ensures that families can feel comfortable and welcome within the gate area.

LEISURE SEEKER: Leisure seekers enjoy comfortable and clean environments that include easy access to facilities. This gate supports these preferences by integrating a variety of furniture types as well as access to bottle fillers, sanitation stations and trash receptacles at every boarding zone.

LEISURE SEEKER: Leisure seekers enjoy comfortable and clean environments that include easy access to facilities. This gate supports these preferences by integrating a variety of furniture types as well as access to bottle fillers, sanitation stations and trash receptacles at every boarding zone.

ADVENTURE SEEKER: Outfitting terminals with accessible power makes a large difference to this group of travelers, so can stay charged and connected until they board. The evolved, personal and primary accommodate this need by integrating power for each traveler.

AIRPORT GATE DESIGN ELEMENTS BY USER GROUP
AIRPORT GATE FINISH PALETTE
AIRPORT GATE RENDERINGS

Figure 76: 'Airport Gate Panorama QR Code' Illustrated by Kedzie Rutan

Figure 77: 'Airport Gate Rendering 1' Illustrated by Kedzie Rutan

Figure 78: 'Airport Gate Rendering 2' Illustrated by Kedzie Rutan

Figure 79: 'Airport Gate Rendering 3' Illustrated by Kedzie Rutan
AIRPORT GATE RENDERINGS

Figure 80: 'Airport Gate Rendering 4' Illustrated by Kedzie Rutan

Figure 81: 'Airport Gate Rendering 5' Illustrated by Kedzie Rutan
AIRPORT LOUNGE DESIGN RESPONSE

This airport lounge offers travelers a place to relax, refresh and rejuvenate. Offering a variety of amenities such as a bar and service area, a gym and locker room as well as an exterior lounge with a pet relief station, this space proposes a variety of dynamic spaces. Acknowledging the need to stay connected and in tune with flight schedules, this space includes technology to keep travelers informed during their stay. Integrating a variety of furniture solutions, this lounge accommodates user preferences and includes spaces that support short and long-term use.

**Design Response**

- **PET RELIEF**
- **EVOLVED SEATING**
- **VISUAL & ACOUSTIC PRIVACY**
- **FACILITIES**
- **DYNAMIC GROUP SEATING**
- **WAYFINDING**
- **PERSONAL SEATING**
- **ARCHITECTURAL COMPONENTS**

**Interior Lounge Area**
- Welcome/Check-In
- Retail Refresh Area
- Bar & Service Area
- Gym

**Exterior Lounge Area**
- Recreation

**Restroom/Locker Room**

**REFERENCE PLAN**

Figure 82: ‘Airport Lounge Final Floor Plans’ Illustrated by Kedzie Rutan

Figure 83: ‘Airport Lounge Reference Plans’ Illustrated by Kedzie Rutan
ARCHITECTURAL COMPONENTS

Architectural components play a key role in creating spatial division in the airport lounge. Elements can be seen through a variety of dropped and suspended ceilings, bulkheads and slatted walls. These components create zones that indicate different uses within the space.

ACCESS TO FACILITIES

Ensuring that all guests feel comfortable and welcome was a key driver to the design of this space. Including a variety of facilities from a gym to a convenience store as well as a bar and service area, this space hosts a variety of amenities to keep travelers entertained during their wait.

VISUAL & ACOUSTIC PRIVACY

In order to create a ‘controlled’ environment, this lounge utilizes visual and acoustic solutions to enable travelers during their wait time. By integrating acoustic and visual privacy into public and private areas of the lounge through ceiling baffles, wall systems, architectural and biophilic elements, the lounge enables people in the spaces they inhabit.

DYNAMIC GROUP SEATING

In order to create a relaxing feel, this space incorporates dynamic soft seating that encourages people to sit back and get comfortable. The Resonate Lounge was selected for its contemporary style and design which supports people in spaces of collaboration or rejuvenation.

PERSONAL SEATING

This lounge includes seating arrangements that keep people connected to their surrounding environment. The Cabana Lounge was selected as it includes interactive technology to assist travelers during their journey.

ELOVATED SEATING

This lounge strategically includes seating arrangements that keep people connected to their surrounding environment. The Cabana Lounge was selected as it includes interactive technology to assist travelers during their journey.

PERSONAL SEATING

While this lounge accommodates for a large quantity of people, it also introduces different levels of privacy through break out areas for personal use, whether a traveler is looking to take a personal phone call or get away from crowds of people, the lounge creates space for them to step away.

Figure 84: ‘Airport Lounge Color Block Perspective 1’ Illustrated by Kedzie Rutan
Figure 85: ‘Breakout Rooms’
Figure 86: ‘Lounge Furniture’
Figure 87: ‘Bar/Service Furniture’
Figure 88: ‘Booth Seating’
Figure 89: ‘Acoustic Division’
BUSINESS TRAVELER: Business travelers often prefer to spend time in lounges that have comfortable, highly inspired ergonomic seating. A variety of posture types are supported through a unique combination of furniture, making it easy to work on the go for any user.

FAMILIES: These users prefer waiting spaces that are placed near interesting artwork or entertainment. The booth seating offers an interactive experience for users through integrated technology. The space also provides a level of privacy for a group.

LEISURE SEEKER: This user group tends to be more willing to spend money at the airport in retail and restaurant areas. The bar & service area, as well as the convenience space are valued by these travelers.

OCCASIONAL TRAVELER: This group relies heavily on the high-quality customer service at the airport to make checkpoints an easier and smoother process. The easy access to facilities in the lounge makes travelers feel at ease.

ADVENTURE SEEKER: This traveler is just as likely to travel alone as they are within a group, so including a variety in open group seating and private spaces is valued.
AIRPORT LOUNGE FINISH PALETTE

Figure 94: 'Airport Lounge Finish Palette' Illustrated by Kedzie Rutan
AIRPORT LOUNGE RENDERINGS

Figure 95: 'Airport Lounge Rendering 1' Illustrated by Kedzie Rutan
Figure 96: 'Airport Lounge Rendering 2' Illustrated by Kedzie Rutan
Figure 97: 'Airport Lounge Rendering 3' Illustrated by Kedzie Rutan
PRIVATE AMENITY DESIGN RESPONSE

In response to airports having limited options in waiting environments, this typology seeks to understand the importance of providing travelers with a more private waiting experience. This transitional space offers a collection of breakout areas that include relaxation pods for individual and group use, private offices as well as shower rooms. This amenity also includes a welcome area and two small refresh lounges. Providing users with an environment that can be controlled at an individual level further supports user sensitivity to the built environment.

**ARCHITECTURAL COMPONENTS:**
- Dynamic Group Seating
- Personal Offices
- Shower Rooms
- Relaxation Pods
- Privacy Pods
- Facilities

**Figure 102:** 'Private Amenity Reference Plan' Illustrated by Kedzie Rutan

**Figure 103:** 'Private Amenity Final Floor Plan' Illustrated by Kedzie Rutan

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**FIRST FLOOR**

**SECOND FLOOR**

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**REFERENCE PLAN**
PRIVATE AMENITY DESIGN RESPONSE

DYNAMIC GROUP SEATING
Travelers are greeted immediately by a hospitality-like check-in and welcome area. The area sets the mood for the rest of the usable space. While the intention of these spaces is to offer travelers a private space away, dynamic group seating provides a secondary experience that is more private in comparison to typical waiting areas. Comfortable, soft seating supports a calm and collective environment.

EVOLVED SEATING
Evolved seating is incorporated into the private amenity area in the refresh areas. These spaces offer users a more collaborative working or resting environment by introducing high-top tables and upholstered stools. Additionally, these areas include a small coffee bar to further support the hospitality feel.

PERSONAL SEATING
What truly sets this waiting space apart from a typical commercial airport waiting area, is its consideration of personal seating. Private offices and relaxation areas offer personal seating and space that is away from the hustle and bustle. The private offices look to serve the purpose of working on the go, whether for short or long term. The space is a workspace and is equipped with accessories such as lighting, storage and technology, to aid in productivity. The relaxation pods provide a private lounge experience, access to natural light as well as technology, to keep travelers informed. The implementation of private areas further support and acknowledge user differences and needs, making a more friendly environment.

ACCESS TO FACILITIES
The private amenity area offers travelers facilities similar to a hospitality environment. A design driver and main consideration in this area was to provide travelers easy access to facility areas such as the front desk, refreshment areas and the three main breakout areas.

ARCHITECTURAL COMPONENTS
Similar to the entry experience stimulated in the airport lounge, architectural components create the backdrop of the welcome check-in area. Along the corridor’s that lead to the three amenity areas stabilize and ground down the spaces, creating a consistent and cohesive design between the first and second floors.

PERSONAL SEATING

ARCHITECTURAL COMPONENTS

DYNAMIC GROUP SEATING

PERSONAL SEATING

EVOLVED SEATING

FIGURE 104: ‘SOFT SEATING’

FIGURE 105: ‘PERSONAL RELAXATION SEATING’

FIGURE 106: ‘PRIVATE OFFICE’

FIGURE 107: ‘REFRESH SEATING’

FIGURE 108: ‘PRIVATE AMENITY COLOR BLOCK PERSPECTIVE 1’ ILLUSTRATED BY KEDZIE RUTAN

Similar to the entry experience stimulated in the airport lounge, architectural components create the backdrop of the welcome check-in area. Along the corridor’s that lead to the three amenity areas stabilize and ground down the spaces, creating a consistent and cohesive design between the first and second floors.

The private amenity area offers travelers facilities similar to a hospitality environment. A design driver and main consideration in this area was to provide travelers easy access to facility areas such as the front desk, refreshment areas and the three main breakout areas.

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The private amenity area offers travelers facilities similar to a hospitality environment. A design driver and main consideration in this area was to provide travelers easy access to facility areas such as the front desk, refreshment areas and the three main breakout areas.
PRIVATE AMENITY DESIGN ELEMENTS BY USER GROUP

BUSINESS TRAVELER: These users understand the importance of functionality and efficiency. Private office space and touchdown-refresh areas are ideal waiting areas for these travelers.

- Evolved Seating
- Personal Seating
- Facilities

FAMILIES: These travelers value privacy and territoriality, especially when traveling with young children. The relaxation pods provide a quite environment for family to refresh during their journey.

- Personal Seating
- Dynamic Group Seating
- Facilities

LEISURE SEEKER: Proximity to amenities are key values for this user group. The three amenity areas created within this typology would be valued for their ambience and personalization.

- Personal Seating
- Dynamic Group Seating
- Facilities

OCCASIONAL TRAVELER: This traveler appreciates the small amenities and thoughtful design considerations that take the confusion out of their journey. Offering a private area for these travelers to refresh is a vital consideration.

- Evolved Seating
- Personal Seating
- Facilities

ADVENTURE SEEKER: These travelers thrive through the implementation of technology. Integrating technology and power to private relaxation areas create a connection between these users and their environment.

- Evolved Seating
- Personal Seating
- Facilities

Figure 109: ‘Private Amenity Color Block Perspective 2’ Illustrated by Kedzie Rutan
Figure 110: ‘Private Amenity Color Block Perspective 3’ Illustrated by Kedzie Rutan
Figure 111: ‘Private Amenity Color Block Perspective 4’ Illustrated by Kedzie Rutan
Figure 112: ‘Private Amenity Color Block Perspective 5’ Illustrated by Kedzie Rutan
PRIVATE AMENITY FINISH PALETTE
CONCLUSION

In any large commercial environment, it is essential to provide space for people to feel personally supported to give each user an identity. "PLEASE WAIT" explores this concept within the context of three different waiting typologies: an airport gate, an airport lounge, and a private amenity space. By combining programmatic elements such as psychological needs, environmental needs, and considerations in furniture and equipment, each design response is focused on creating space that understands and supports differences in user sensitivities and preferences.

This discourse and re-imagination of space is to act as a conversation starter, to allow one to ponder the capabilities of Interior Design within the build environment. This topic of travel is an intriguing subject, but what about waiting? So much of the travel experience is waiting within an interior environment. Waiting can be boring, dull, exciting, exhilarating, terrifying. So are the interior spaces that people wait within supportive of these emotions, feelings and reactions? Does design have the capabilities to acknowledge and design for the human experience? Can the design process integrate research centered towards designing for human sensitivity and awareness?

The comprehensive research and the design response shared here may not hold the answers to all of these questions, but it does encourage creative thinking, it challenges a human centered design approach, and advocates for the recognition of Interior Design as a discipline.
BASIS OF DESIGN: DTW McNAMARA GUIDELINES

In addition to meeting minimum ADA building standards, 49 CFR Part 27 imposes the following facility and equipment requirements for new airport terminals:

1. The basic terminal design shall permit efficient entrance and movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety. It is intended that design, especially in relation to the allocation and location of such features, shall be in light of the maximum possible number of wheelchair users, while at the same time concentrating on the needs of other persons with disabilities. A critical element is the use of clear, logical, and predictable directional systems.

2. All public circulation spaces, other than loading and unloading areas, shall be designed to accommodate persons with special needs, making every effort to provide adequate clearance and unobstructed access. In all airport terminals, passenger facilities shall be designed and constructed to facilitate efficient movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety.

3. Boarding areas and passenger loading ramps shall be designed to accommodate persons with disabilities and shall be accessible to and usable by persons with mobility aids, such as wheelchairs, walkers, and canes.

4. Boarding areas and passenger loading ramps shall be designed to accommodate persons with special needs, making every effort to provide adequate clearance and unobstructed access. In all airport terminals, passenger facilities shall be designed and constructed to facilitate efficient movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety.

5. The environment in the waiting area/public space of the airport terminal facility gives confidence and security to the person with a disability using the facility. This means that not only is the space to be designed to accommodate individuals with a disability, but that it is also to contain clear directions for using all passenger facilities.

6. That airport terminal information systems take into consideration the needs of individuals with disabilities. Although the primary information mode required is visual (words, letters, or symbols), that system shall also provide other modes (such as audio, braille, or tactile) to ensure that the information is accessible to all individuals, including those with disabilities.

7. That the international accessibility symbol is displayed at accessible entrances to terminal buildings.

8. That the basic terminal ‘design shall permit efficient entrance and movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety. It is intended that design, especially in relation to the allocation and location of such features, shall be in light of the maximum possible number of wheelchair users, while at the same time concentrating on the needs of other persons with disabilities. A critical element is the use of clear, logical, and predictable directional systems.

9. That several spaces adjacent to the terminal building entrance, separated from the main flow of traffic, and clearly marked, are made available for the loading and unloading of passengers and deplaning wheelchair users.

10. That boarding by jetways and by passenger lounges are the preferred methods for movement of persons with disabilities between terminal buildings and aircraft. Where this is not practicable, operators may accommodate this requirement by providing lifts, ramps, or other devices that are normally used for movement of freight, which are available for loading and unloading wheelchair users.

11. That the spaces adjacent to the terminal building entrance are made available for the loading and unloading of passengers and deplaning wheelchair users.

12. That boarding areas and passenger loading ramps are designed to accommodate persons with special needs, making every effort to provide adequate clearance and unobstructed access. In all airport terminals, passenger facilities shall be designed and constructed to facilitate efficient movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety.

13. That boarding areas and passenger loading ramps are designed to accommodate persons with special needs, making every effort to provide adequate clearance and unobstructed access. In all airport terminals, passenger facilities shall be designed and constructed to facilitate efficient movement of persons with disabilities, while at the same time considering their convenience, comfort, and safety.

14. That the environment in the waiting area/public space of the airport terminal facility gives confidence and security to the person with a disability using the facility. This means that not only is the space to be designed to accommodate individuals with a disability, but that it is also to contain clear directions for using all passenger facilities.

15. That the international accessibility symbol is displayed at accessible entrances to terminal buildings.
4.3. Interior Finishes and Materials

4.3.1. Glass – etched (sealed), sandblasted (sealed), tinted, clear, glass block.
4.3.2. Wood – natural, stained, painted.
4.3.3. Metals – powder coated or stainless steel, bronze, copper, brass, light bronze, anodized or painted aluminum, perforated, gun metal.
4.3.4. Tile – a variety of quality glazed and unglazed thinset type tiles.
4.3.5. Natural Stones.
4.3.6. Manufactured Stone, including Quartz counter surfaces.
4.3.7. Wood – natural, stained, painted.
4.3.8. Solid surface materials – e.g., Corian or equal upon WCAA approval. Tenant Design Criteria Manual - North Terminal - Detroit Metropolitan Wayne County Airport Section 4000 Design Criteria and Technical Requirements Page 26 of 93 March 16, 2010

4.2.1.1. The Tenant shall provide interior partitioning, painting and decorative floor coverings, store fixtures and furnishings as accepted by the WCAA. All Tenant proposed finishes are subject to WCAA review and approval. The WCAA reserves the right to reject any Tenant proposed finishes and materials that in their WCAA opinion are contrary to aesthetic, conflict with the base building finishes, and/or adjacent approved Tenant finishes. The WCAA reserves the right to approve Tenant finishes when considered necessary. All materials and workmanship shall be of a high quality and performed in accordance with the very best standards of practice. In any event not in WCAA’s base building standards.

4.2.1.2. All work by the Tenant within the Premises shall be completed within new materials. All materials and workmanship shall be of a high quality and performed in accordance with the very best standards of practice. In any event not in WCAA’s base building standards.

4.2.1.3. Any damage to the Premises or the Building caused by the Tenant or any of its employees, contractor(s) or construction worker(s) shall be repaired forthwith by and at the expense of the Tenant.

4.2.1.4. Food preparation areas are required to have an under-floor moisture barrier and the flooring must be impervious, slip resistant materials as well as being in accordance with Wayne County Health Department requirements.

4.2.1.5. Food preparation areas are required to have an under-floor moisture barrier and the flooring must be impervious, slip resistant materials as well as being in accordance with Wayne County Health Department requirements.

4.2.2.2. Flooring – Thinset epoxy terrazzo, ceramic tile or carpet.

4.2.2.4. Bulkheads – Painted steel, painted drywall, or pre-finished aluminum grille.

4.2.2.5. Columns – Brushed stainless steel, and/or impact resistant wall panels with painted gypsum board.

4.2.2.7. Other – glass curtain wall, painted metal panels, brushed stainless steel, high-pressure laminate wall panel system, laminated glass wall-cladding system.

4.2.3.1. Glass – etched (sealed), sandblasted (sealed), tinted, clear, glass block. 4.2.3.2. Wood – natural, stained, painted.

4.2.3.3. Metals – powder coated or stainless steel, bronze, copper, brass, light bronze, anodized or painted aluminum, perforated, gun metal.

4.2.3.4. Tile – a variety of quality glazed and unglazed thinset type tiles.

4.2.3.5. Natural Stones.

4.2.3.6. Manufactured Stone, including Quartz counter surfaces.

4.2.3.7. Wood – natural, stained, painted.

4.2.3.8. Solid surface materials – e.g., Corian or equal upon WCAA approval. Tenant Design Criteria Manual - North Terminal - Detroit Metropolitan Wayne County Airport Section 4000 Design Criteria and Technical Requirements Page 26 of 93 March 16, 2010

4.2.3.9. Ceilings – see paragraph 4.3.
1. General

1.1. As part of this manual, guidelines for barrier free design have been included. It will be every Tenant’s responsibility to ensure that the design of its space conforms to current code requirements for barrier free access as laid out in the Michigan Building Code and the Americans with Disabilities Act. This section in no way is meant to replace applicable barrier free codes and/or legislation and if there is a conflict, the more stringent requirement should be followed.

1.2. The WCAA intends to promote the accessibility aspects of its facilities, and encourages persons with disabilities to use its services, maintaining good access for persons with disabilities within each Premise is required. The following are guidelines for providing a barrier free environment in Tenant Premises.

2. Lounges

2.2.1. Bars must be in compliance with ADA regulations and should have a lowered section for wheelchair users and/or people unable to use high stools with identification of accessibility permanently mounted on a vertical surface of the table viewable from the concourse.

2.2.2. Small tables need a minimum clearance of 2'-6" under the table and a diameter of approximately 2''-0" to be accessible to persons with disabilities with identification of accessibility permanently mounted on a vertical surface of the table viewable from the concourse.

2.3. Restaurants/Lounges Specific recommendations will depend on the exact nature of the concession and its décor. What follows are basic “rules of thumb” for food service concession design as it relates to persons with disabilities:

2.3.1. Menus (approximately five) are to be provided in alternate formats – large print, Braille and/or audiotape, for persons with low vision or blindness. Where possible, wall mounted menu boards should be at a convenient height for wheelchair users and be well lit with spotlights from track lighting or lit from behind. Identification of accessibility must be permanently mounted on a vertical surface of the table(s) viewable from the concourse.

2.3.2. Seating for persons with disabilities should be dispersed throughout the restaurant. Fixed seating such as booths are generally difficult for people with poor mobility and older adults, and are inaccessible for wheelchair users. Booths are integral to the design concept, additional moveable seating arrangements, such as wider aisles to allow wheelchair users to sit at the table identification of accessibility must be permanently mounted on a vertical surface of the table viewable from the concourse.

2.3.3. Chairs should be light and easy to reposition.

2.3.4. Seat height should be 18" from the floor, approximately 17” deep x 17” wide, and 50% of the chairs should have armrests. Tenant Design Criteria Manual North Terminal - Detroit Metropolitan Wayne County Airport Section 5000 Barrier Free Design Requirements Page 55 of 93 March 16, 2010

2.3.5. Supports or cross bracing may not interfere with kick space under the chair.

2.3.6. An aisle width of 36" minimum needs to be maintained to allow wheelchair access.

2.3.7. To accommodate wheelchairs, a minimum clearance of 30" under tables and 30" between legs is important. Tabletops should be a minimum 36" x 30", with any sharp square corners rounded off.

2.3.8. If round tables with center posts are reserved for wheel chair use, the minimum diameter of these tables should be 48".

BASIS OF DESIGN: DTW McNAMARA GUIDELINES
