

MARCH 2024

Civic Design Review

Terminal 3 West Modernization

EXTERIOR FACADES

SCHEMATIC DESIGN | PHASE 1

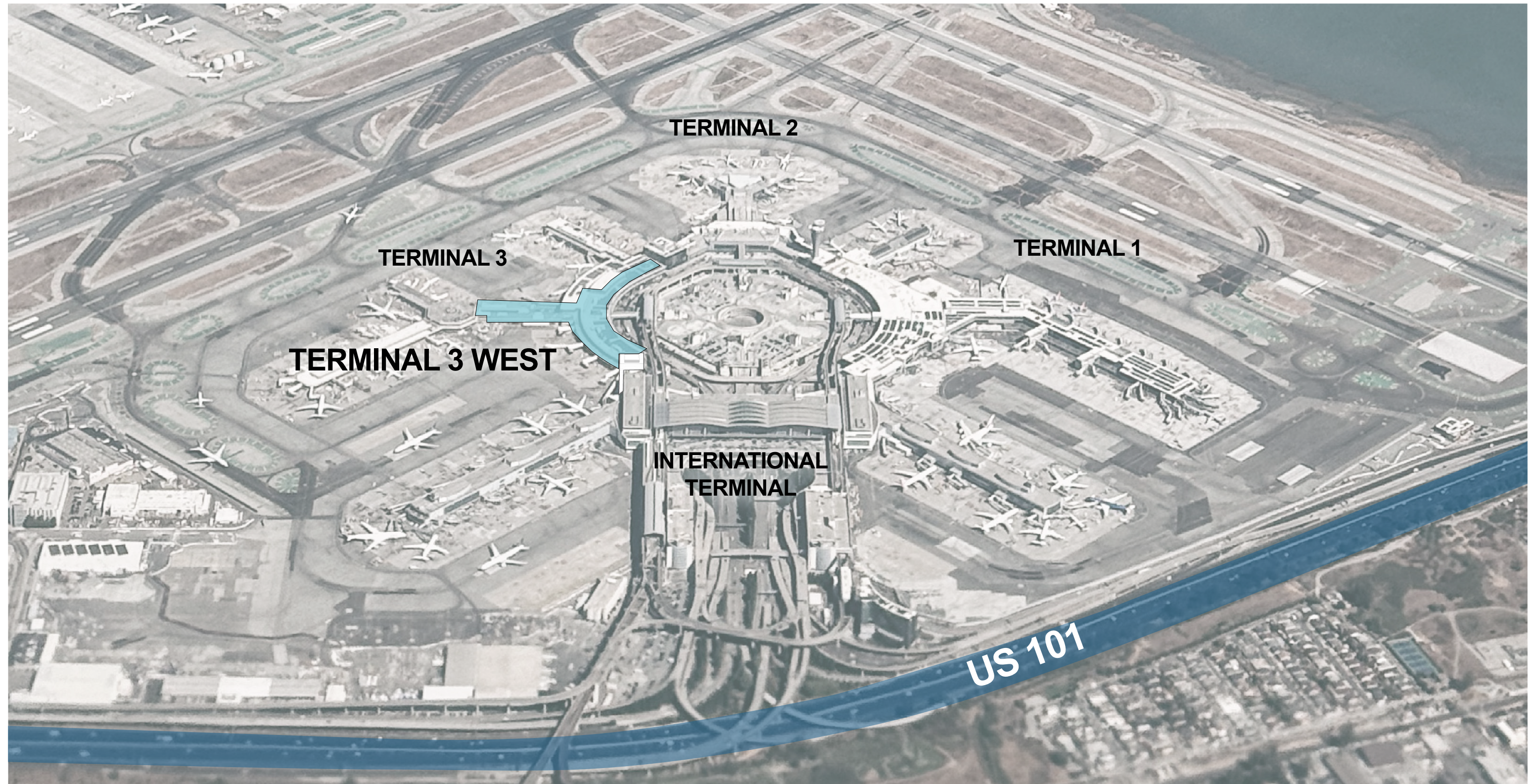


SAN FRANCISCO INTERNATIONAL AIRPORT



Contents

- A** Project Background / Goals
- B** Existing Conditions / Context
- C** Context / Massing Components
- D** Facade Goals / Principles
- E** Facade Solar / Glare Analysis

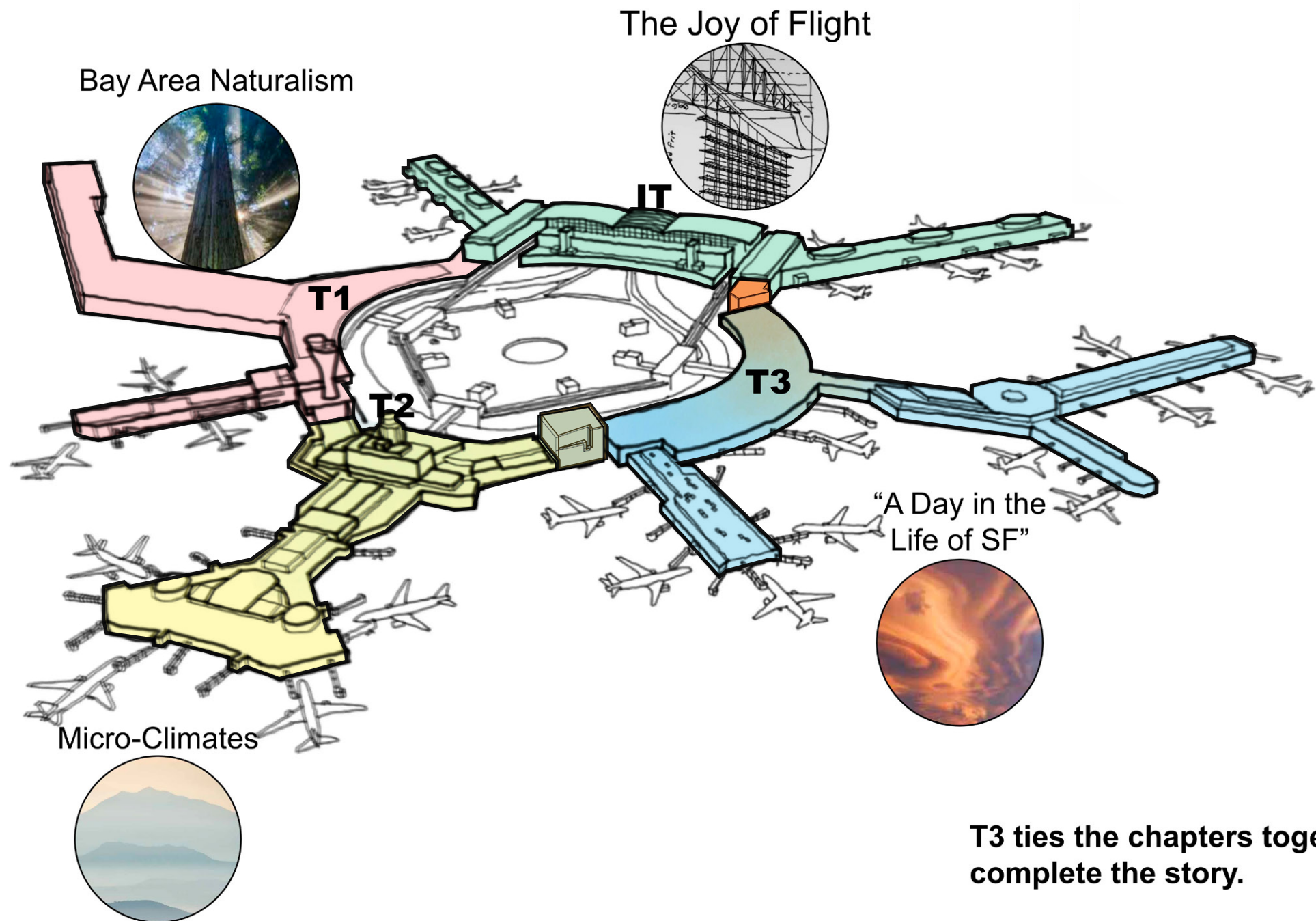


What we heard...

- 1**
Create a more visually cohesive SFO.
- 2**
Terminal 3 should closely relate to Harvey Milk Terminal 1 with both terminals emphasizing the roadway curve.
- 3**
Can rooftop Stations Operations Center be better integrated into curved theme or be more harmonious in massing?
- 4**
Avoid visually heavy box for the AirTrain bridge connection to the terminal, similar to Harvey Milk Terminal 1, which breaks up the emphasis of the roadway curve.
- 5**
Consider art and how it could reinforce architecture and interiors of Terminal 3.
- 6**
Consider how central security area impacts vehicular congestion & ensure it doesn't exacerbate issues.
- 7**
Details and materials are important to reinforce the roadway curve.

Terminal Identity

Like the spokes of a key ring, Terminal 3 continues the masterplan hierarchy that allows the International Terminal to remain as the “Jewel” of the Airport and primary in Architectural importance. The design builds upon the existing context that Terminal 3’s previous capital improvements have created while improving wayfinding, circulation, clear entrance points, and identity as a distinct “key” to the other terminals.

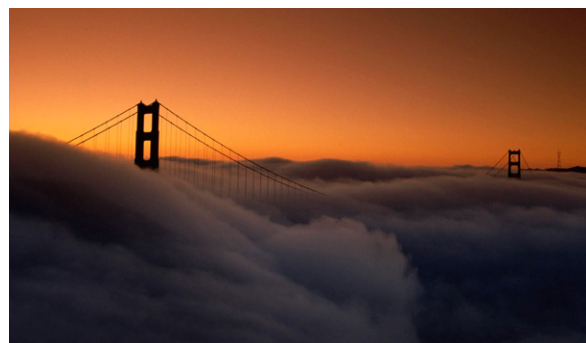
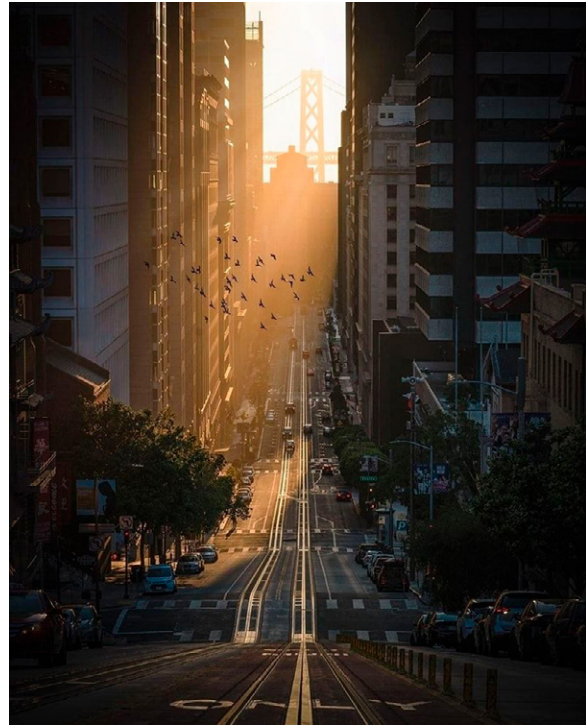


T3 ties the chapters together to complete the story.

SFO Airport Context



A Day in the Life of San Francisco



LANDSIDE FACADE CONCEPT

Reflecting different stages of light throughout the day and into the evening



Human Experience

- Visual acuity both in & out
- Intuitive wayfinding
- Occupant comfort

Climatic Performance

- Tuned solar / glare control
- Thermal comfort
- Wind
- Rain / weather protection

Context

- **Look and Feel**—fitting within SFO campus but having unique terminal identity
- Architecture intuitively aids in alleviating vehicular congestion

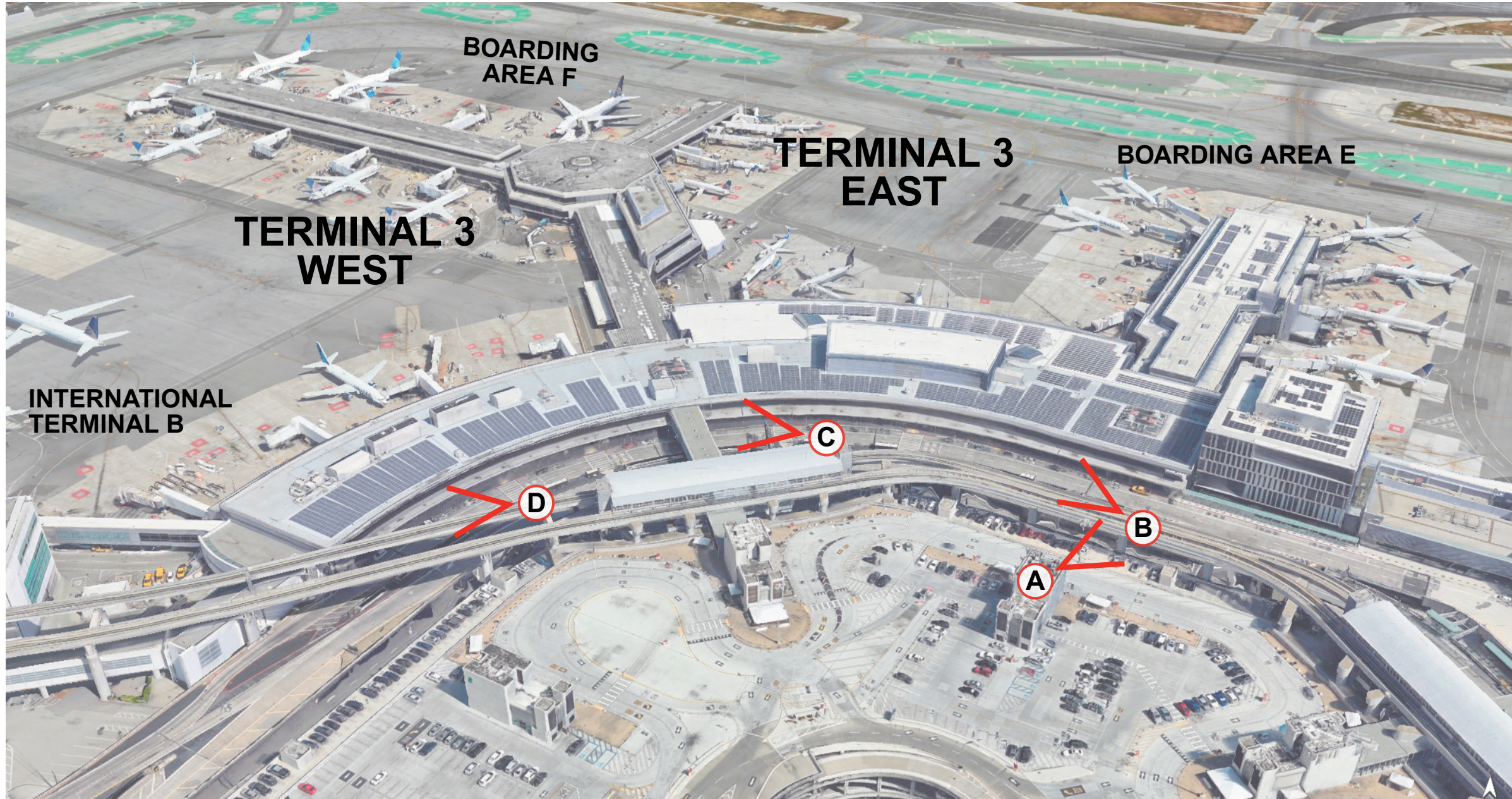
Operations

- Reduce reliance on electric lighting
- Reduce curbside obstacles
- Right-size vestibules
- Curbside baggage drops
- Universal access

Maintenance

- Cleaning / Lifespan
- Security
- Bird Safety

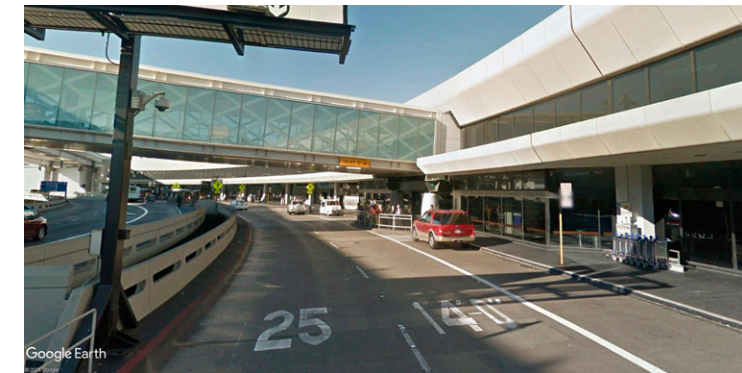
Existing Landside Aerial & Context



A COURTYARD 3 BUILDING



B TERMINAL 3



C TERMINAL 3 / AIRTRAIN BRIDGE



D TERMINAL 3 END

Existing Landside Exterior Considerations



A
Disrupted visual continuity due to bridge

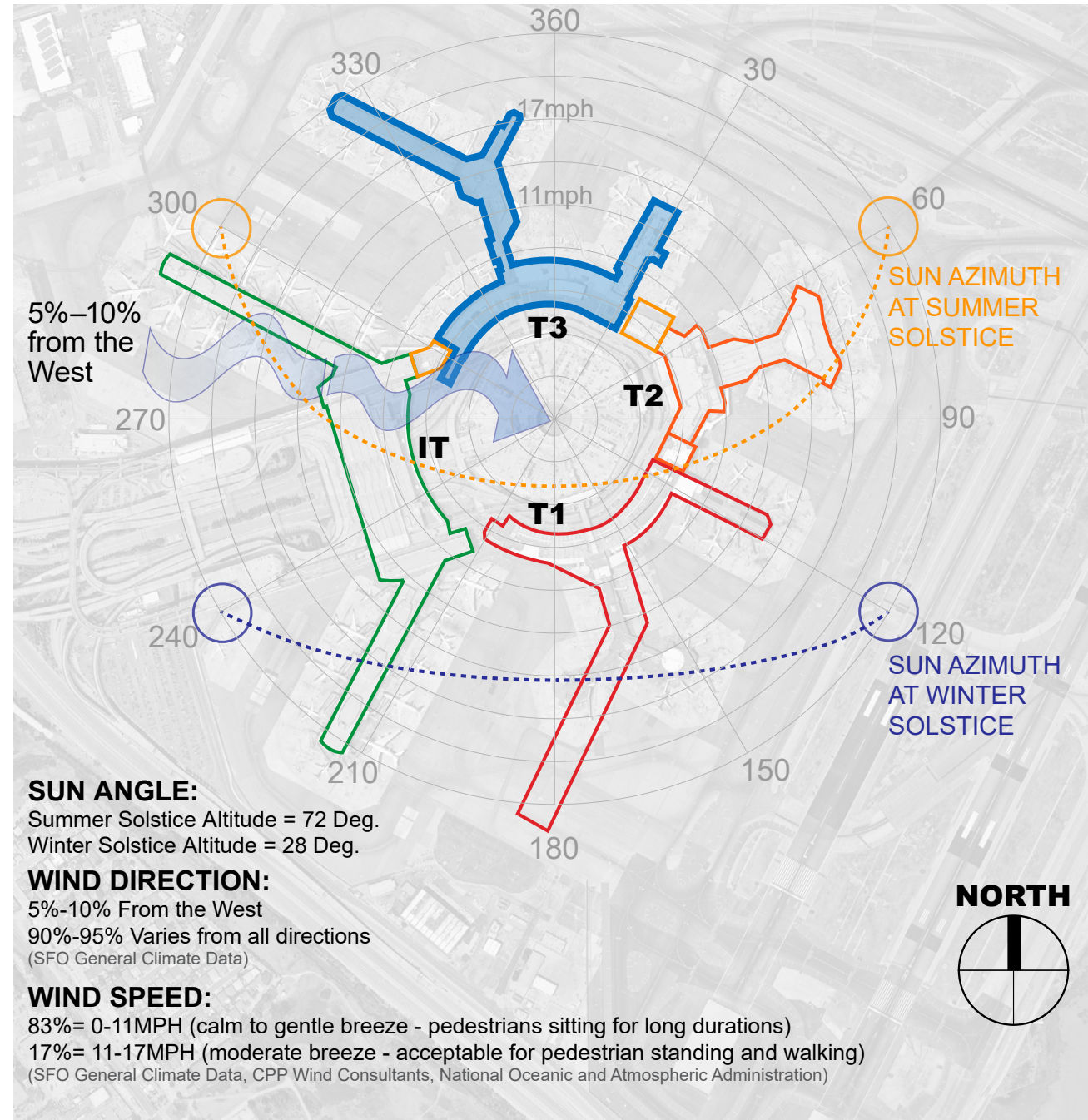
B
Lack of glare control results in shades always down

C
Lack of visual acuity and intuitive wayfinding

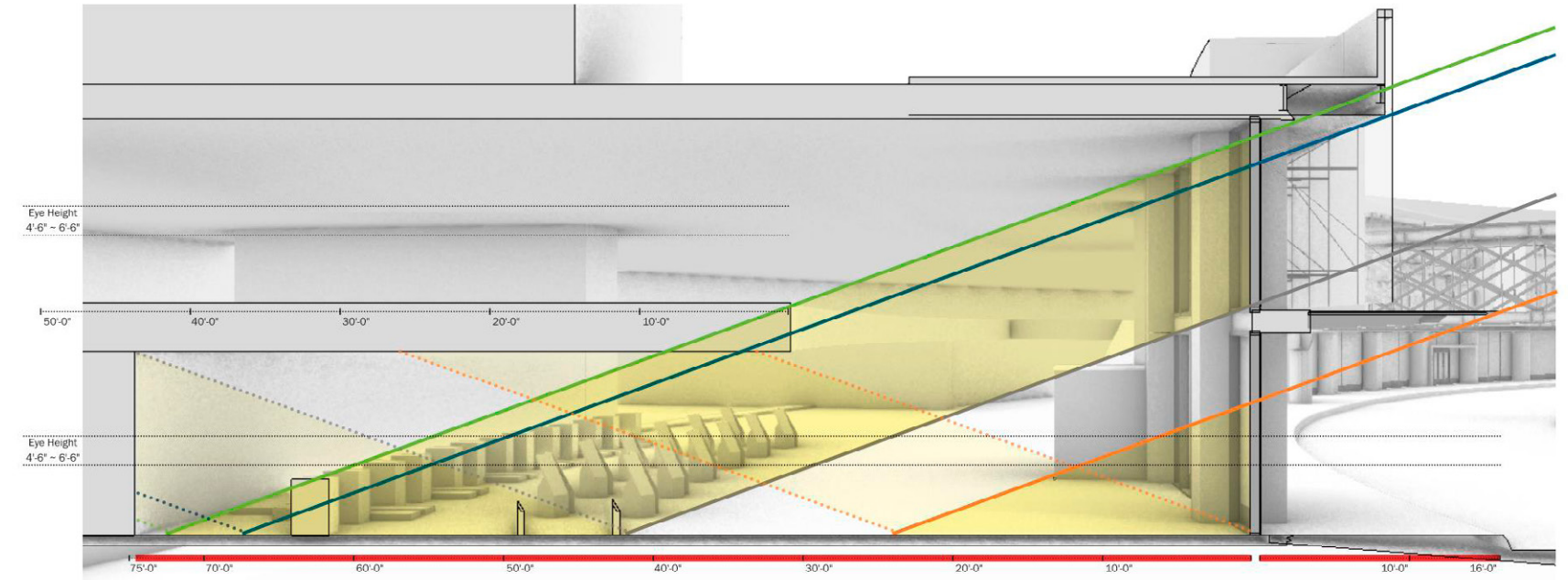
D
Curbside congestion
At first entrance point

Landside Exterior Expression

Solar / Glare Analysis

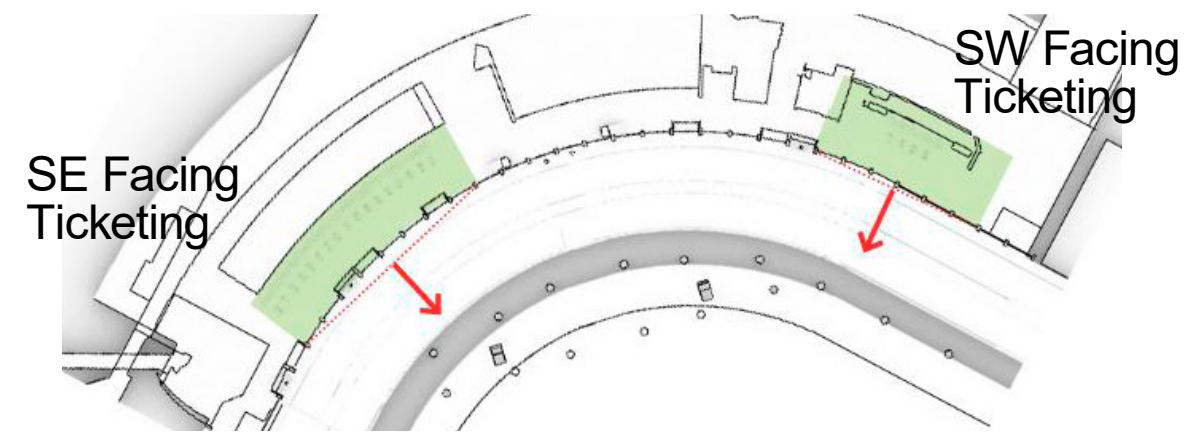


20 Degree Profile Angle

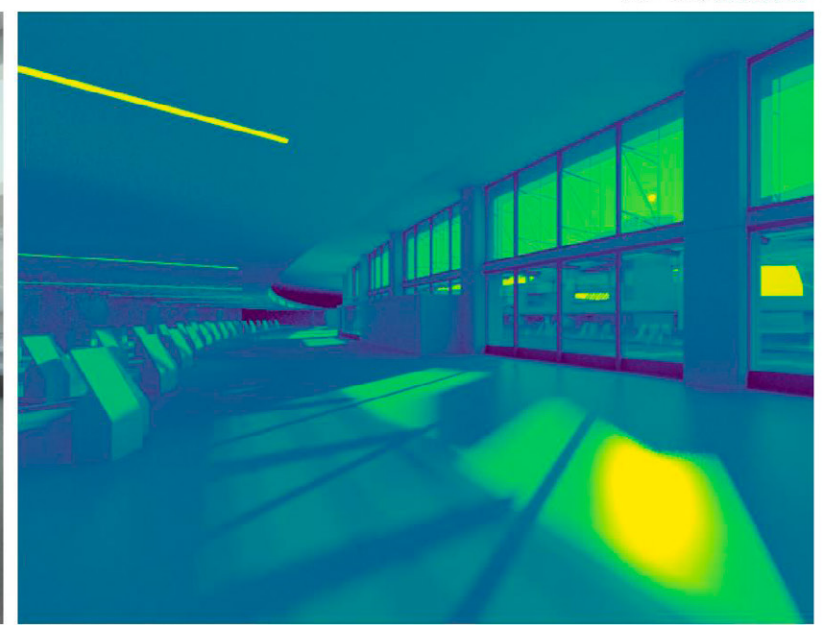


Daylight Experience | Ticketing, Southeast Facade | Sep. 21, 7:30am | Very Dense Frit (80% opacity)

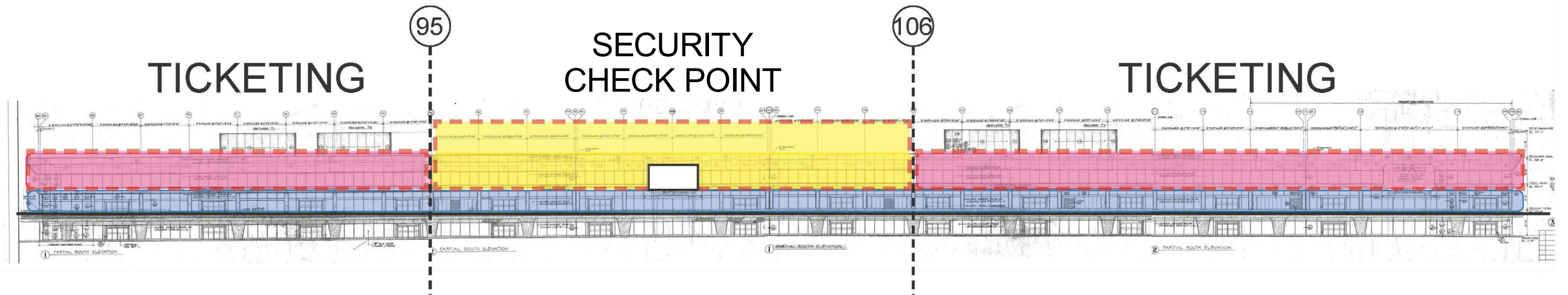
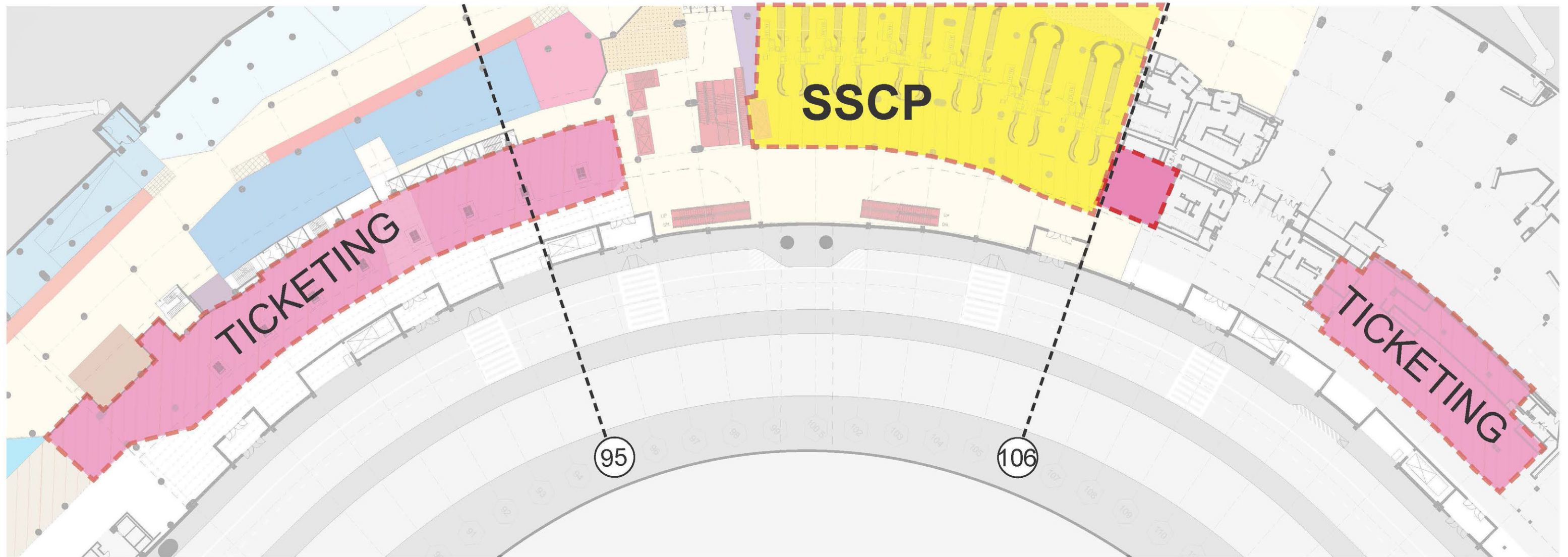
X Glare from the disk of the sun remains. Maintaining clear glass for ground floor transparency, and glare from the floor reflections remains.



HUMAN VISION PERCEPTION



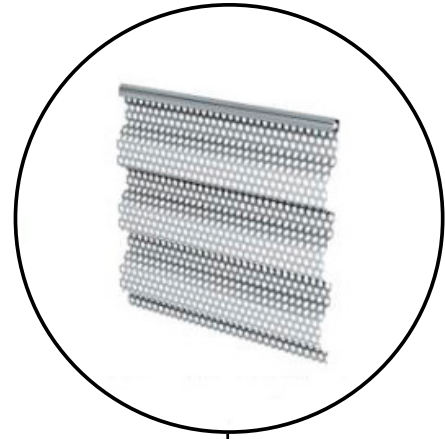
FALSECOLOR LUMINANCE MAP



Design Parameters Program + Facade Relationship



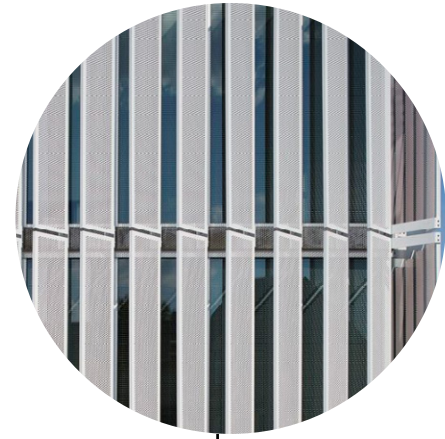
PAINTED ALUMINUM
ENTRY VESTIBULES



PERFORATED
CORRUGATED METAL



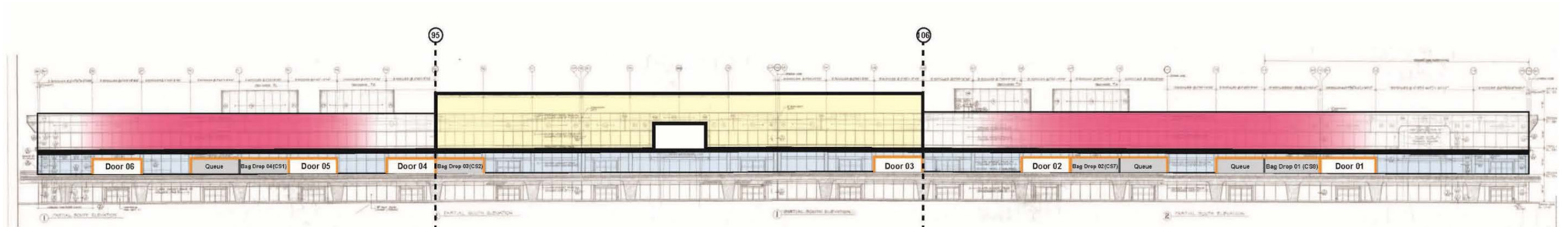
TRANSLUCENT /
FRITTED GLASS



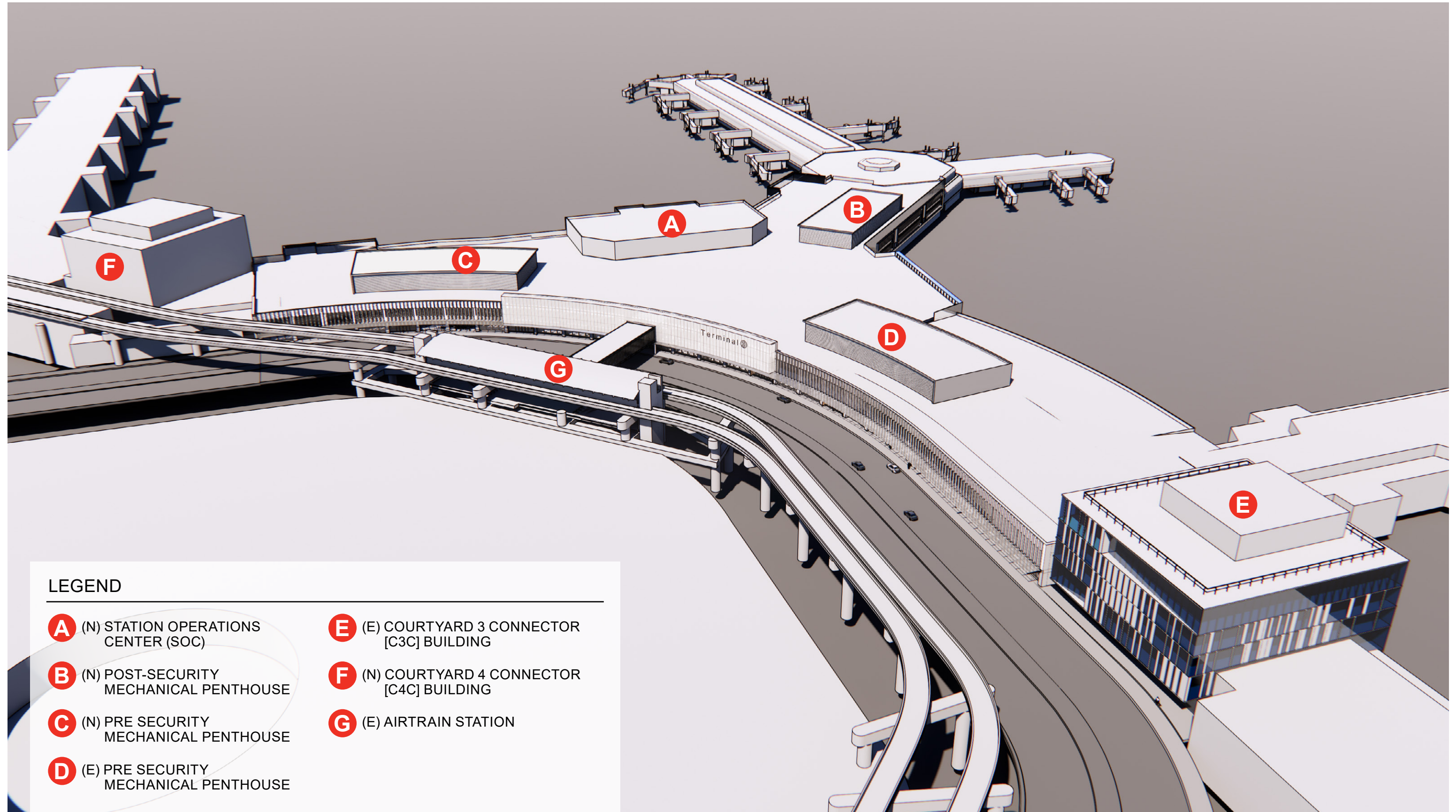
PAINTED ALUMINUM
SHADING FINNS



TRANSLUCENT / FRITTED
GLASS CANOPY



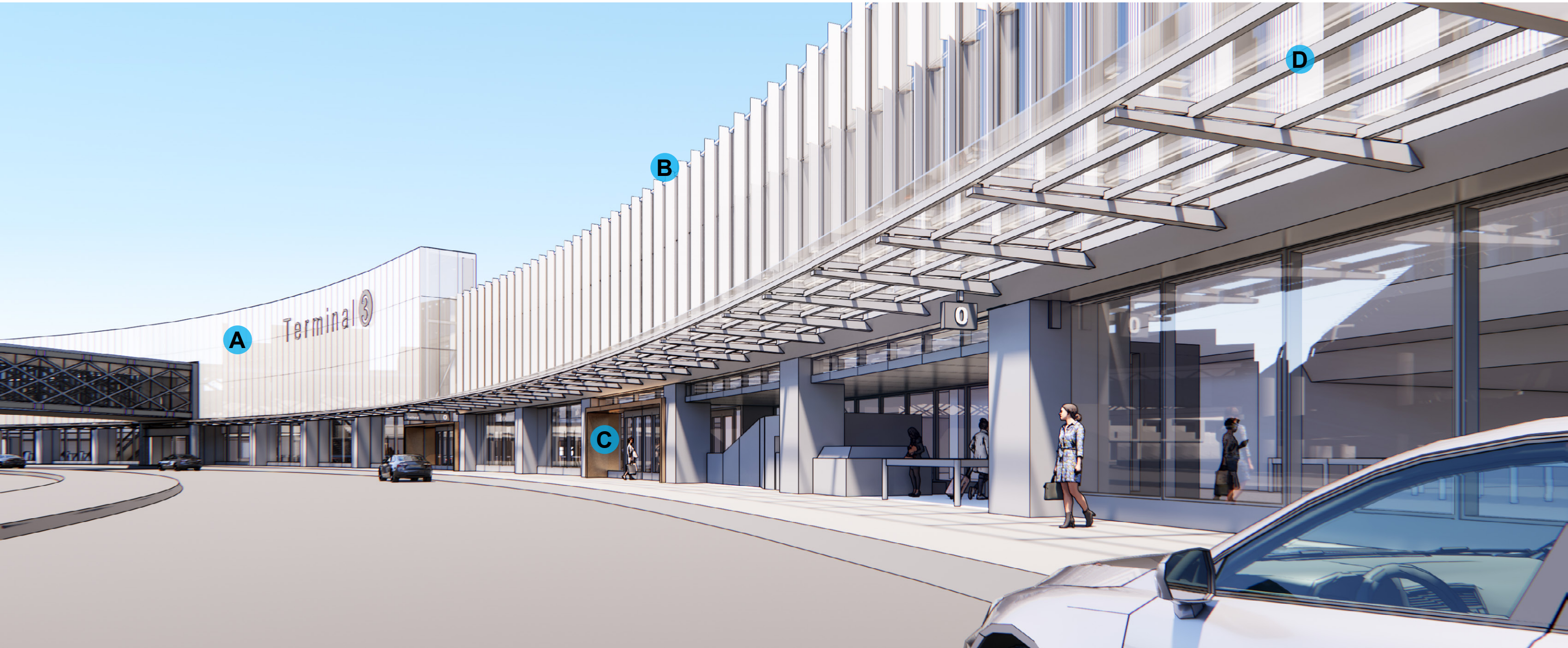




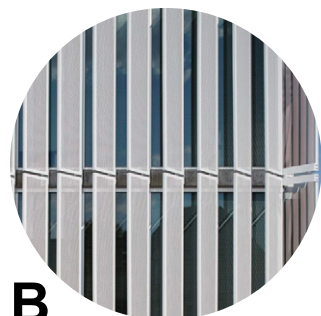
LEGEND

- | | |
|---|---|
| A (N) STATION OPERATIONS CENTER (SOC) | E (E) COURTYARD 3 CONNECTOR [C3C] BUILDING |
| B (N) POST-SECURITY MECHANICAL PENTHOUSE | F (N) COURTYARD 4 CONNECTOR [C4C] BUILDING |
| C (N) PRE SECURITY MECHANICAL PENTHOUSE | G (E) AIRTRAIN STATION |
| D (E) PRE SECURITY MECHANICAL PENTHOUSE | |





A
TRANSLUCENT
GLASS



B
PAINTED ALUMINUM
SHADING FINs



C
PAINTED ALUMINUM
ENTRY VESTIBULES

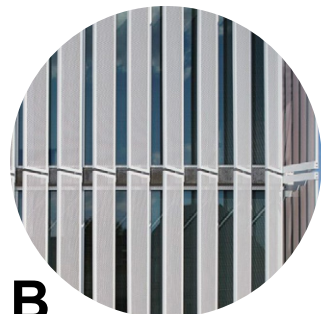


D
TRANSLUCENT
GLASS CANOPY





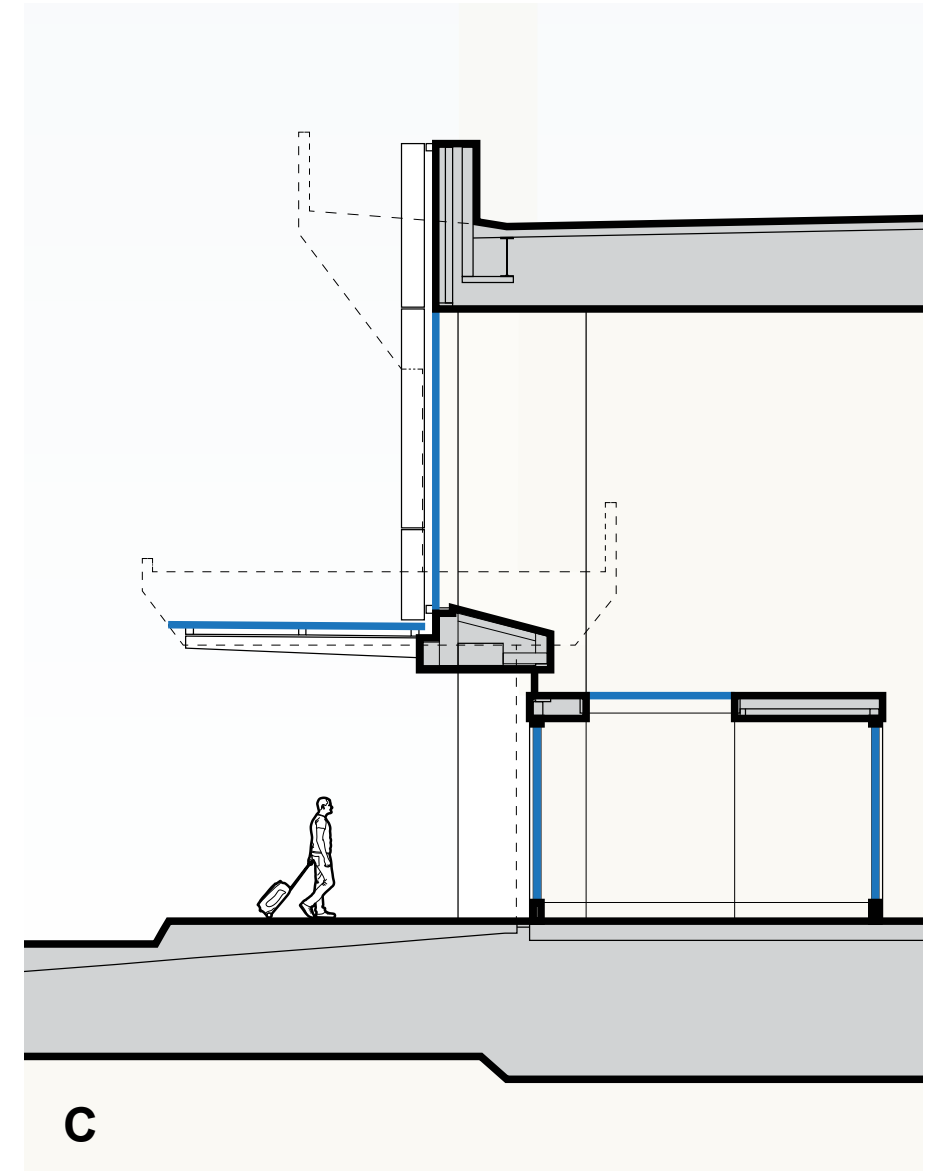
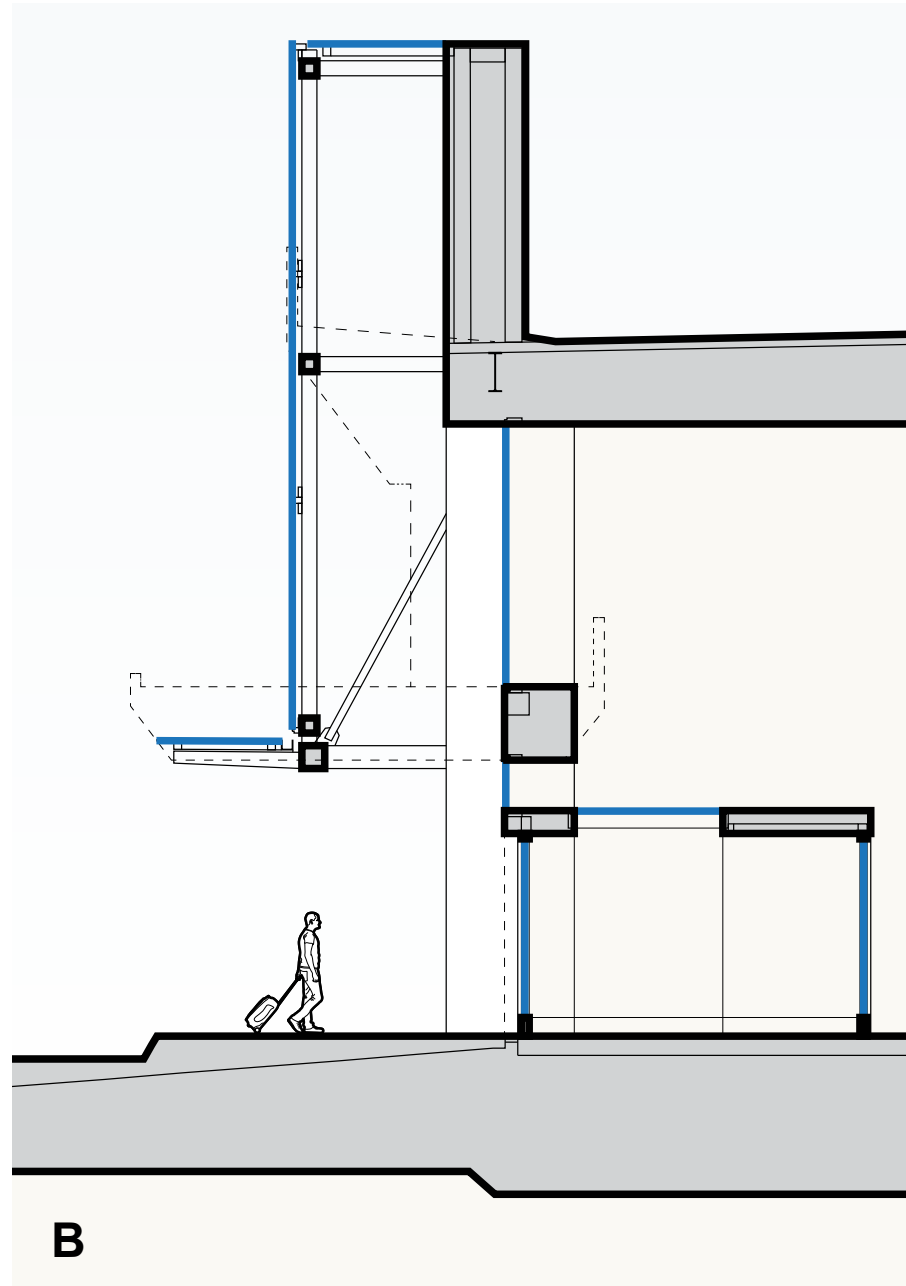
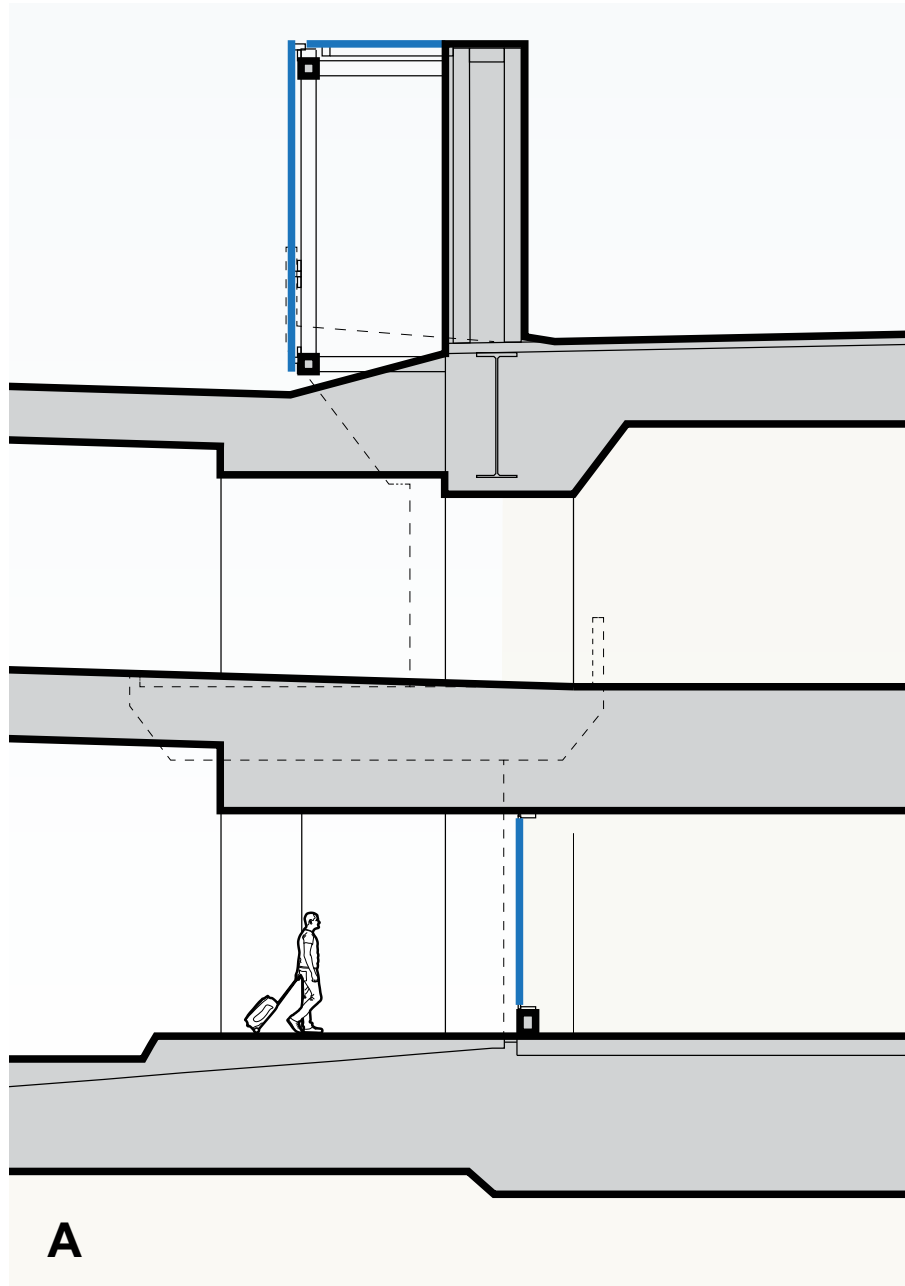
A
PAINTED ALUMINUM
ENTRY VESTIBULES



B
PAINTED ALUMINUM
SHADING FINs



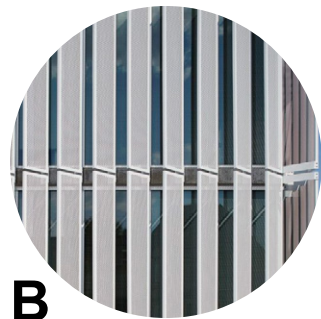
C
TRANSLUCENT
GLASS CANOPY







A
TRANSLUCENT
GLASS



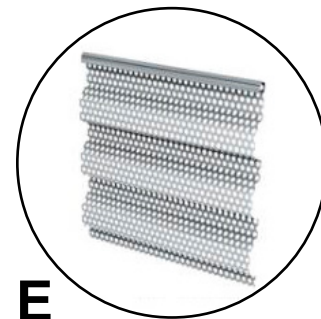
B
PAINTED ALUMINUM
SHADING FIN



C
PAINTED ALUMINUM
ENTRY VESTIBULES



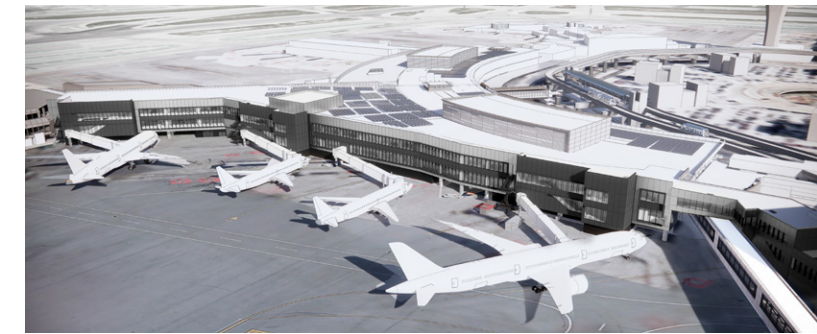
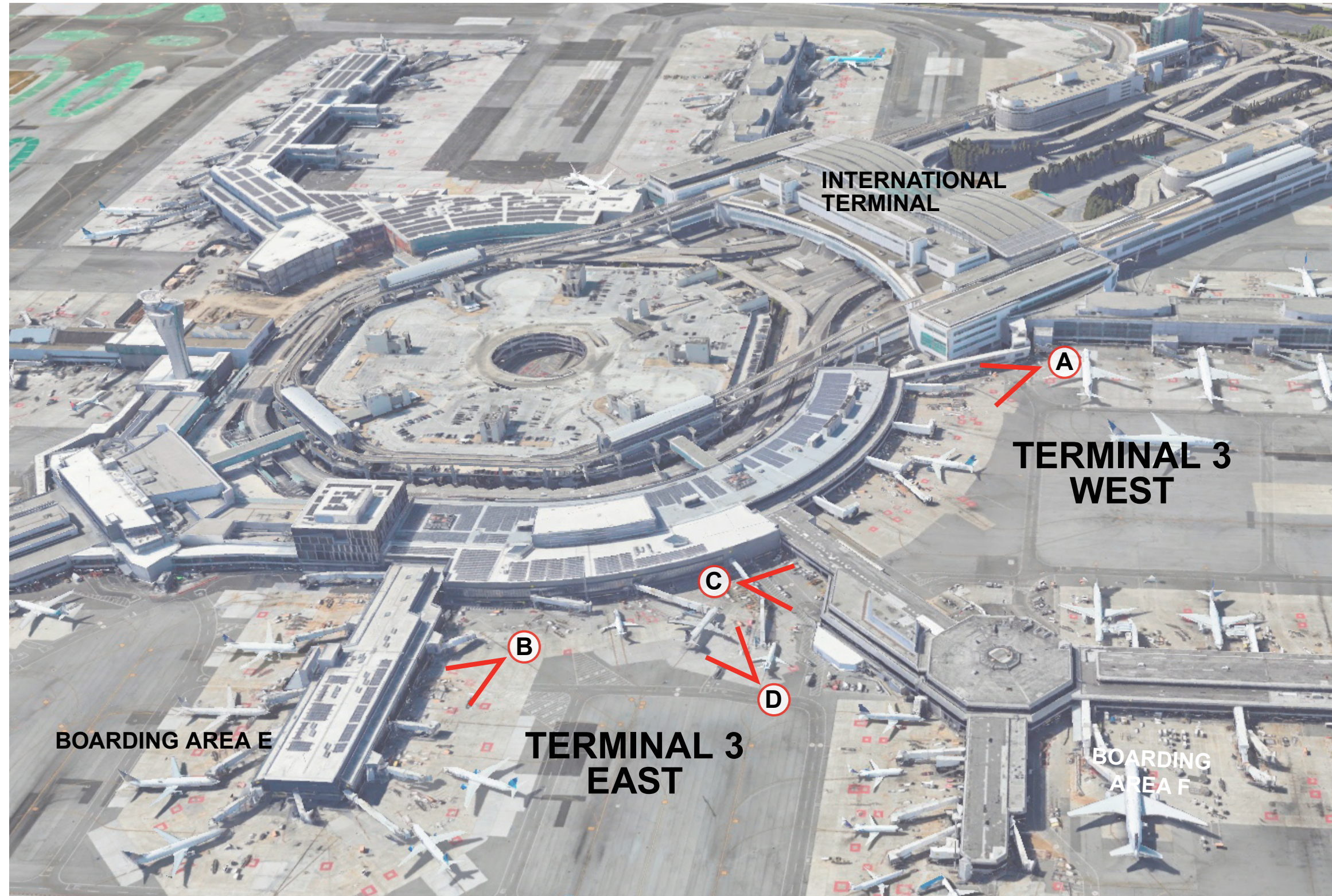
D
TRANSLUCENT
GLASS CANOPY



E
PERFORATED
CORRUGATED METAL

Play Animation

Existing Airside Aerial & Context



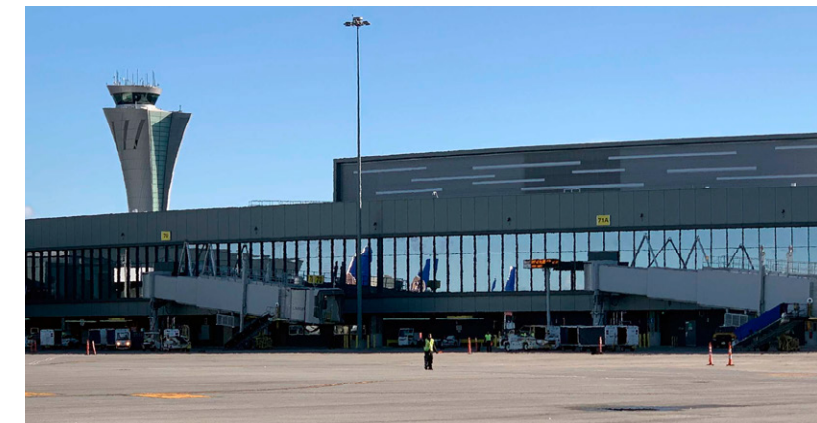
A. APPROVED TERMINAL 3 WEST FACADE



B BOARDING AREA 'E'

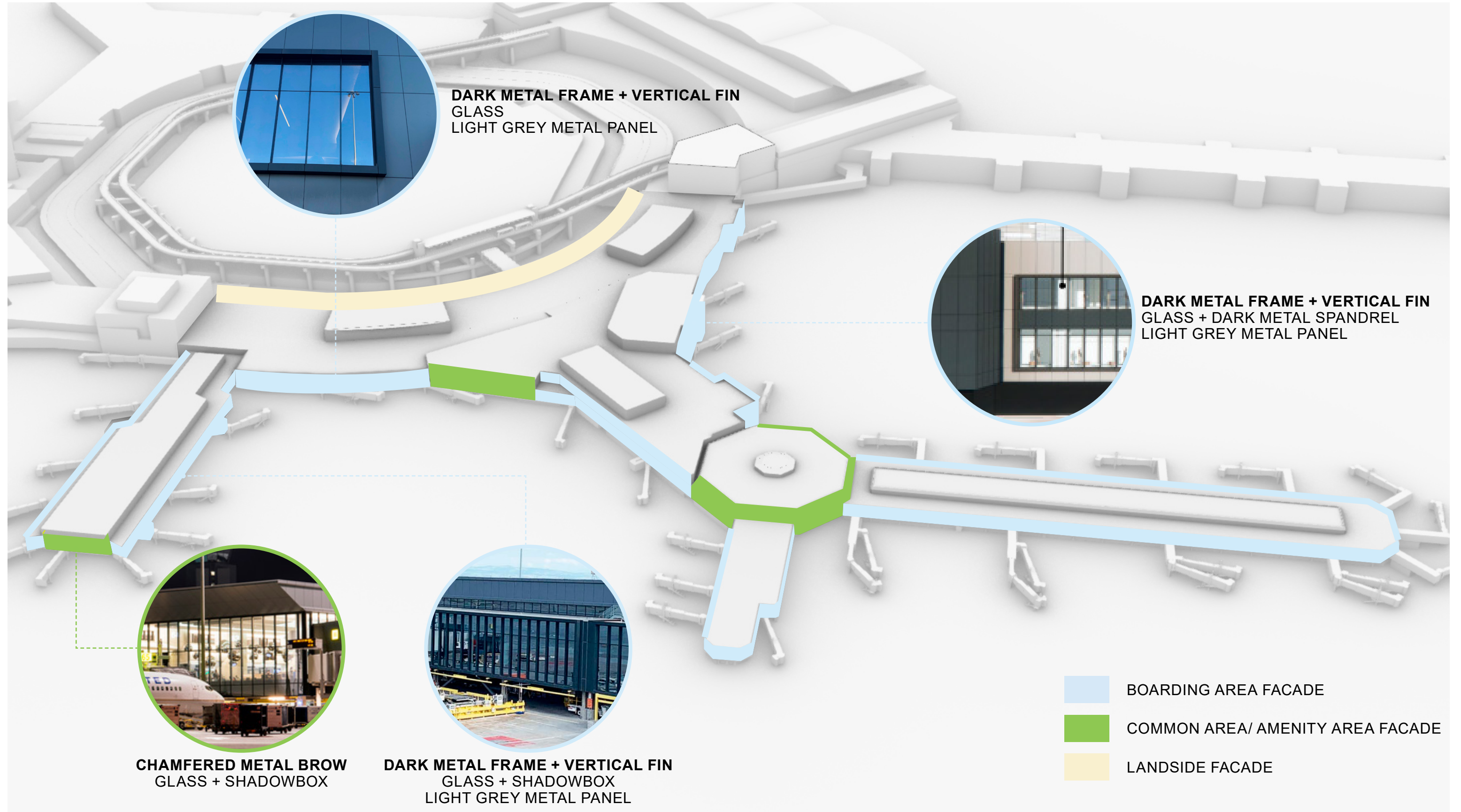


C EXISTING STATIONS OPERATIONS CENTER (SOC)



D. EXISTING TERMINAL 3 EAST FACADE

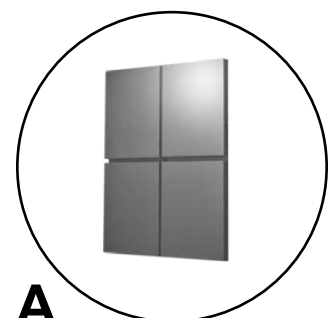
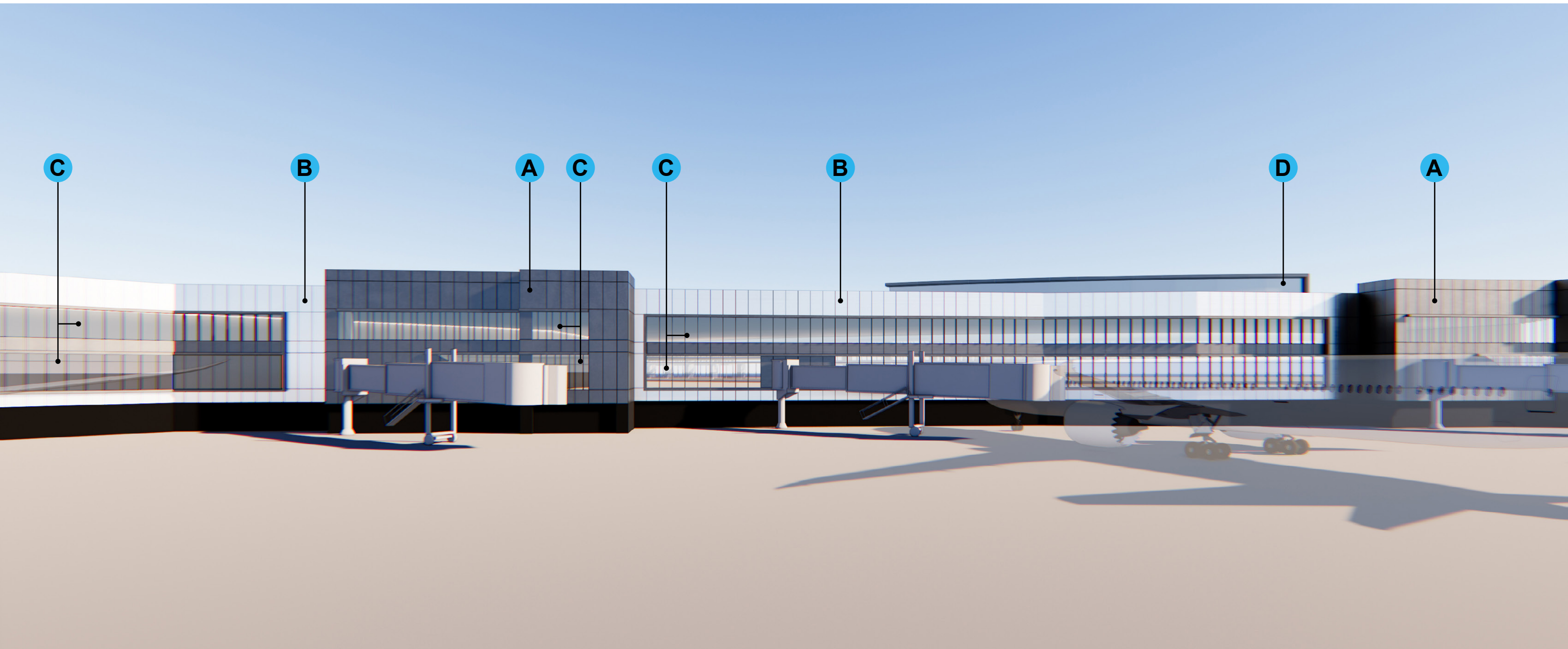
Airside Facade Design Language



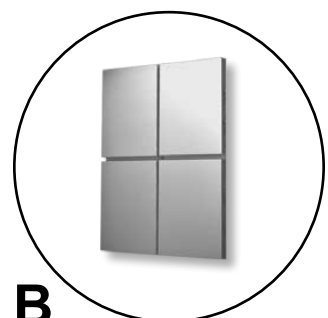
Terminal 3 West Airside View of SOC (Existing)



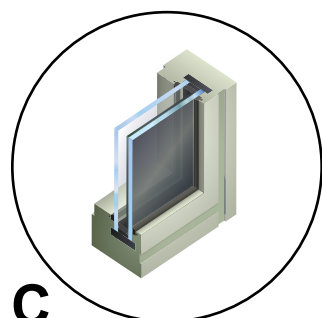
Terminal 3 West Airside View of SOC (Approved)



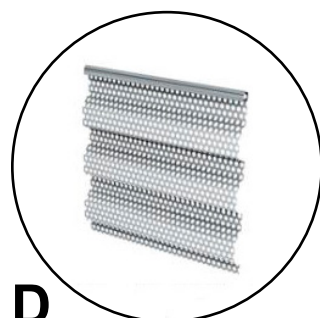
A
METAL PANEL
(DARK GRAY METALLIC)



B
METAL PANEL
(PLATINUM)

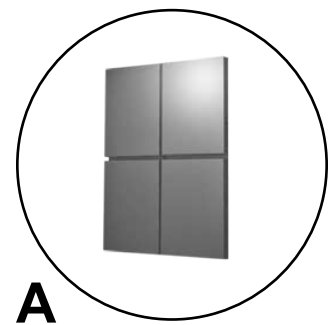
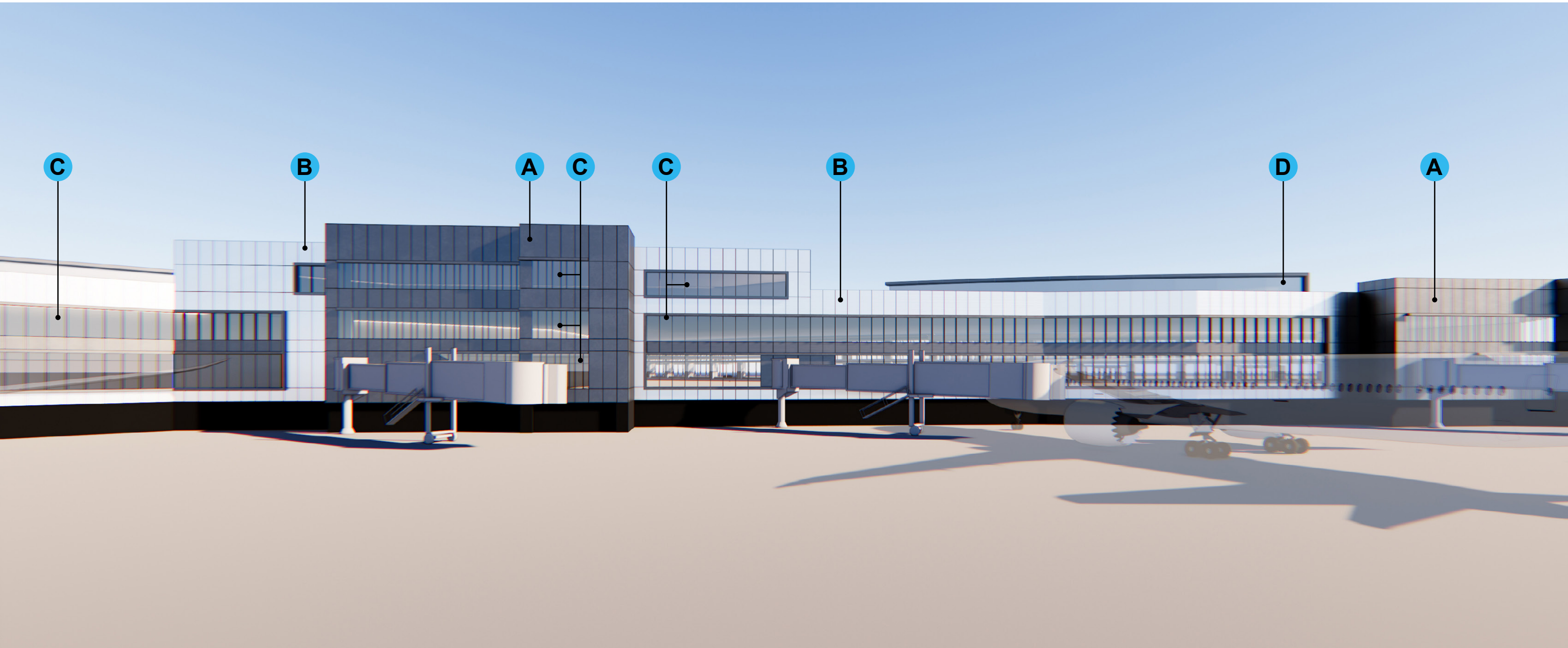


C
ELECTROCHROMIC
GLAZING

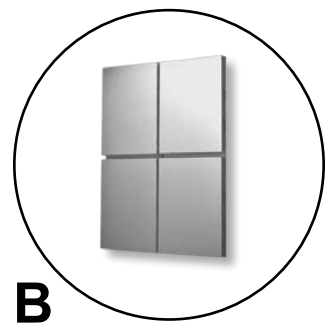


D
PERFORATED
CORRUGATED METAL

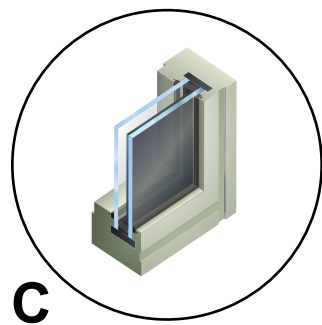
Terminal 3 West Airside View of SOC (Proposed)



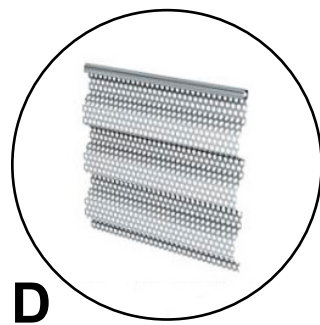
A
METAL PANEL
(DARK GRAY METALLIC)



B
METAL PANEL
(PLATINUM)



C
ELECTROCHROMIC
GLAZING

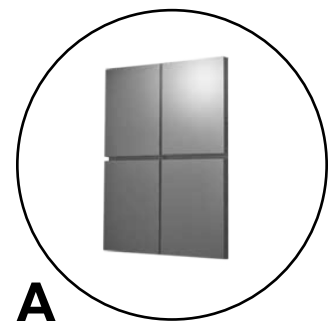


D
PERFORATED
CORRUGATED METAL

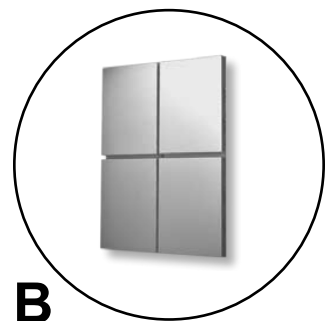
Terminal 3 East Addition Airside View (Existing)



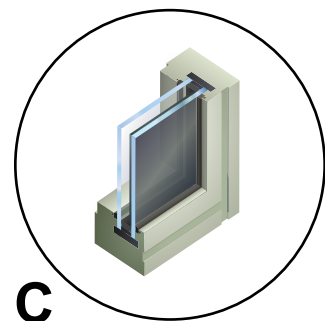
Terminal 3 East Addition Airside View (Proposed)



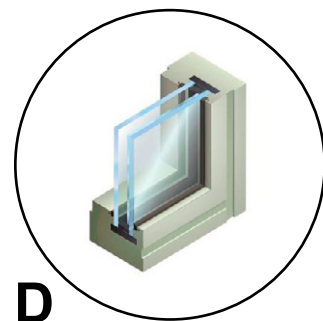
A
METAL PANEL
(DARK GRAY METALLIC)



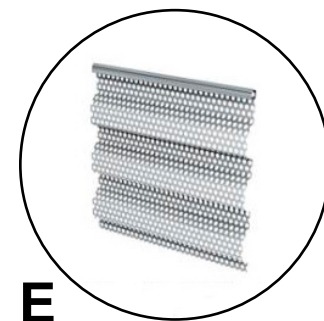
B
METAL PANEL
(PLATINUM)



C
ELECTROCHROMIC
GLAZING



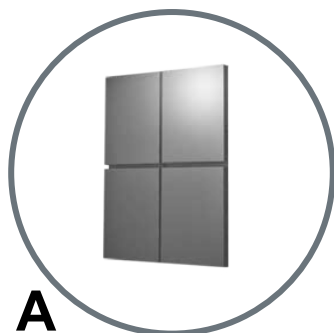
D
LOW (E) COATED
GLAZING



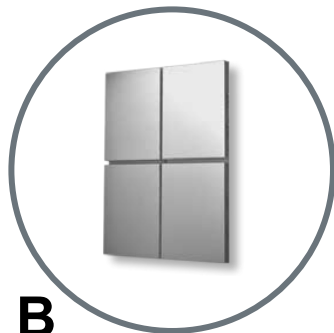
E
PERFORATED
CORRUGATED METAL



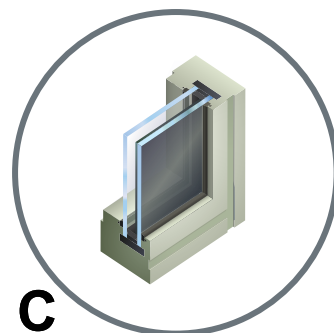
East Addition Airside View (Proposed)



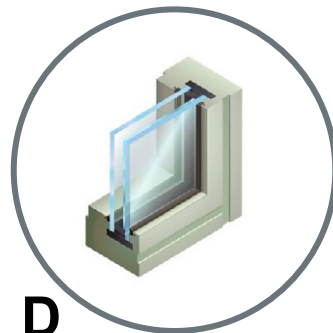
A
METAL PANEL
(DARK GRAY METALLIC)



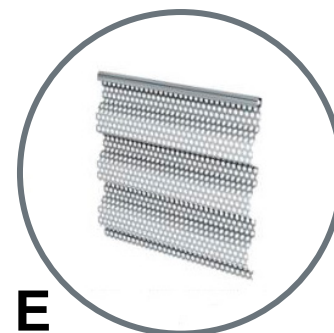
B
METAL PANEL
(PLATINUM)



C
ELECTROCHROMIC
GLAZING



D
LOW (E) COATED
GLAZING



E
PERFORATED
CORRUGATED METAL

Thank you



SAN FRANCISCO INTERNATIONAL AIRPORT



Appendix

1 Seismic Retrofit the Terminal Building

2 Upgrade Building Systems

3 Replace Baggage Screening Equipment

4 Provide World-Class Experience & Optimize Opportunities for Revenue Generation

5 Enable International Operations

6 Increase Checkpoint Capacity

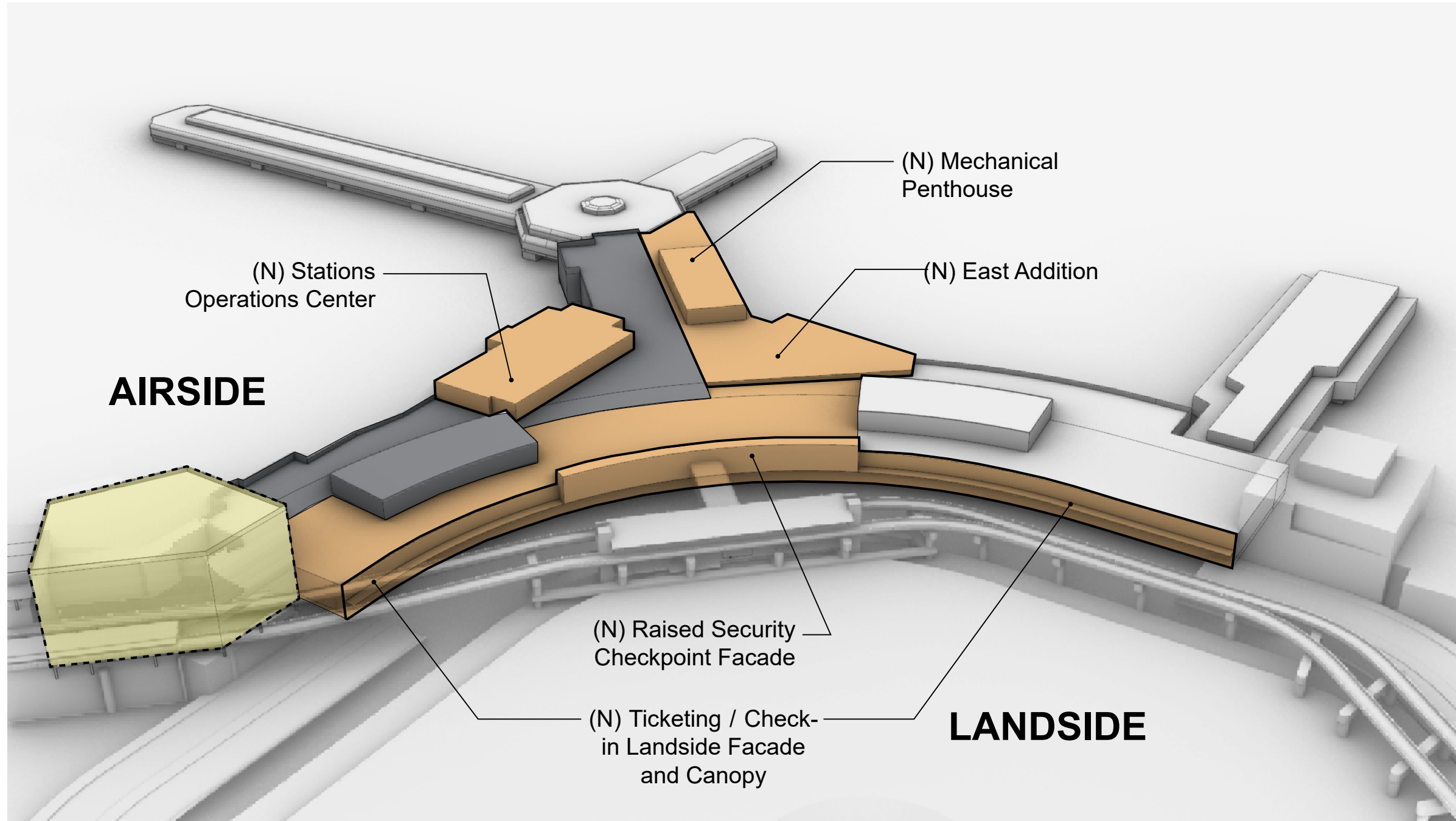
7 Enhance Circulation & Project Adjacencies





8 Mitigate Curbside Congestion

9 Advance Climate Action & Employee Well-Being

Landside Exterior Expression

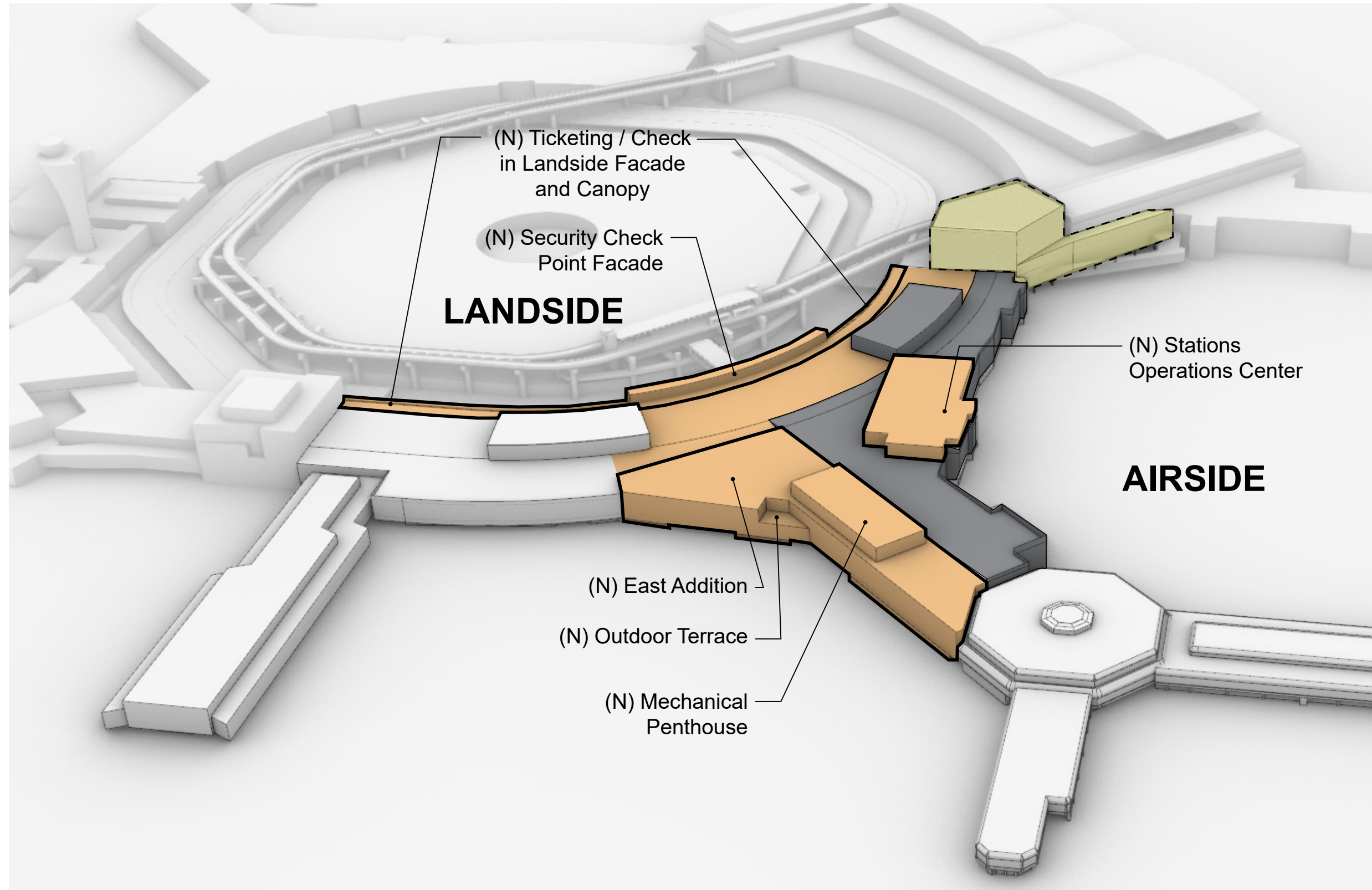
Proposed Massing







- NOT IN SCOPE 
- NEW SCOPE AREA 
- PREVIOUS APPROVED SCOPE 
- FUTURE SCOPE 

Airside Exterior Expression

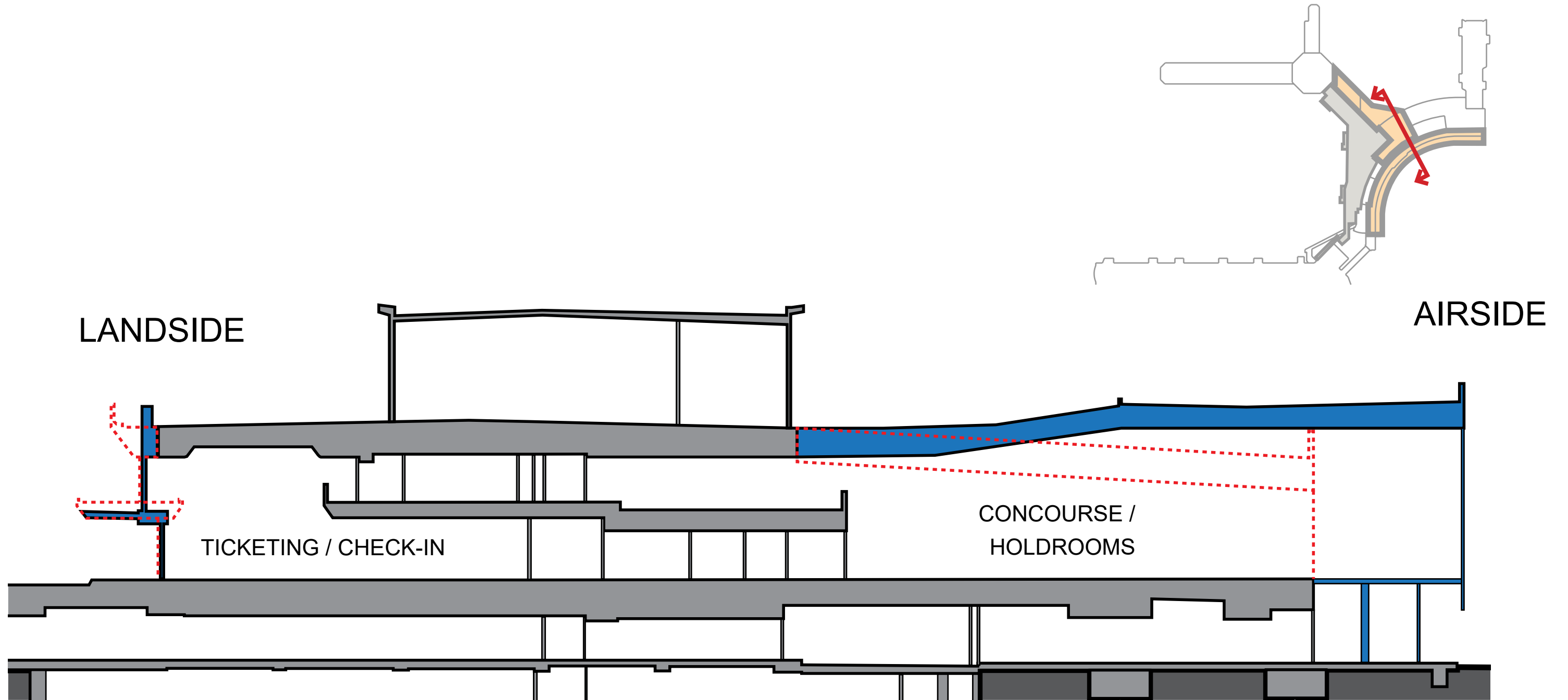
Proposed Massing






- NOT IN SCOPE 
- NEW SCOPE AREA 
- PREVIOUS APPROVED SCOPE 
- FUTURE SCOPE 

Airside East Addition

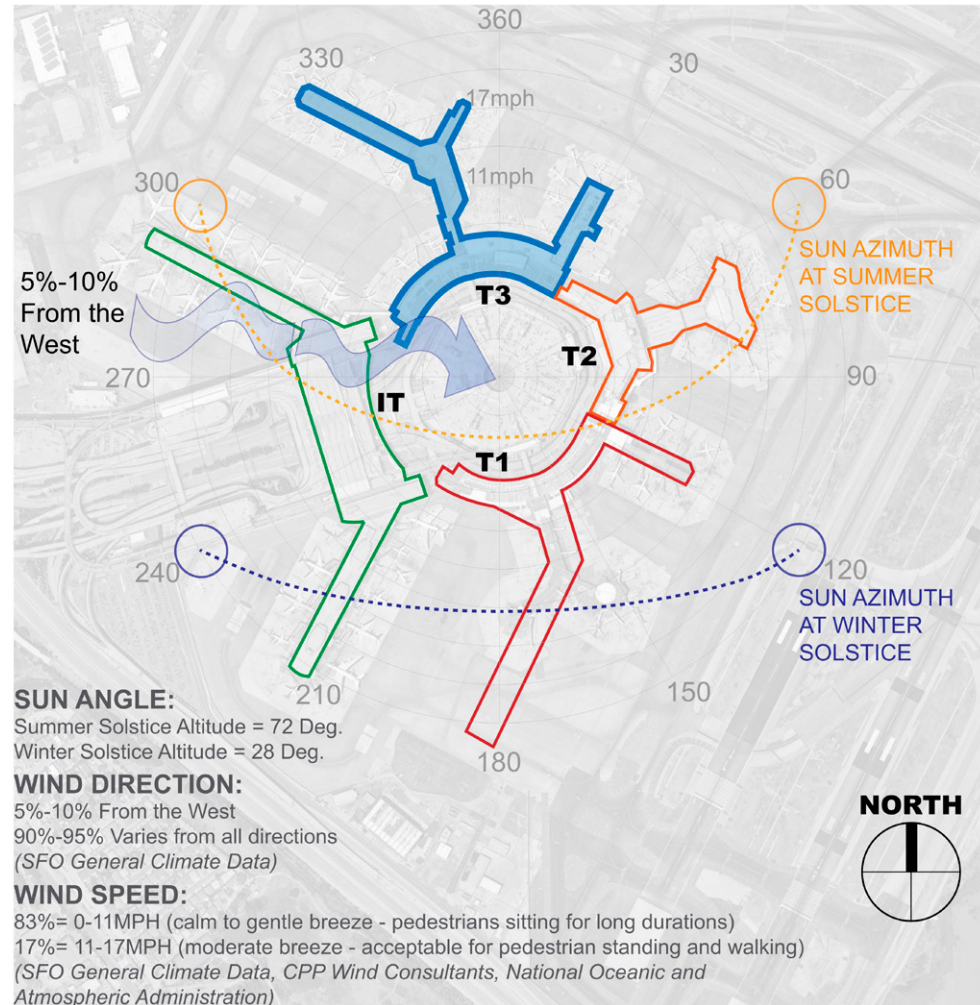
Building Section



- NEW SCOPE 
- EXISTING TO REMAIN 
- TO BE DEMOLISHED 

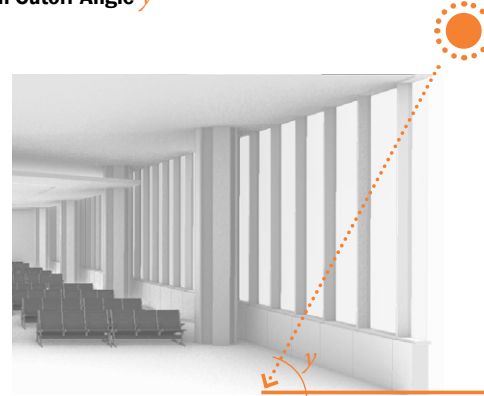
Airside Exterior Expression Solar Analysis

NORTHEAST ANALYSIS



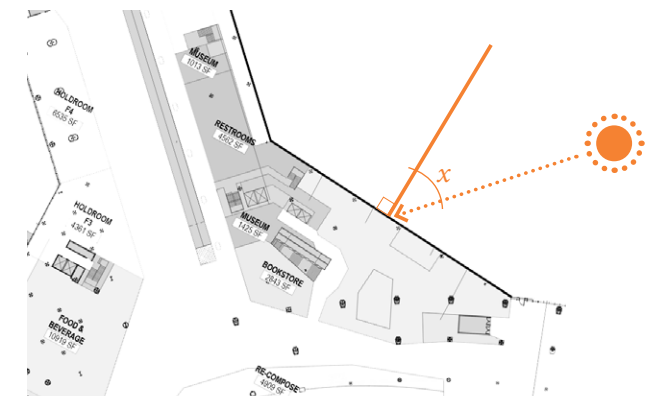
Solar Profile Angle, Section Cutoff Angle y

Solar Profile Angle	ANNUAL HRS.
00° - 10°	71
10° - 20°	59
20° - 30°	74
30° - 40°	50
40° - 50°	00
50° - 60°	103
60° - 70°	56
70° - 80°	70
80° - 90°	116



Orientation Azimuth Angle, Plan Cutoff Angle x

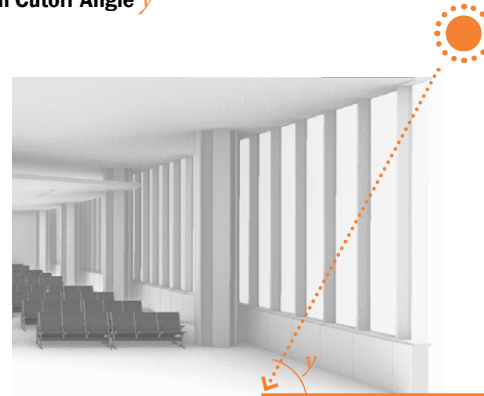
Orientation Azimuth Angle	ANNUAL HRS.
00° - 10°	00
10° - 20°	00
20° - 30°	00
30° - 40°	41
40° - 50°	72
50° - 60°	99
60° - 70°	120
70° - 80°	132
80° - 90°	135



WEST ANALYSIS

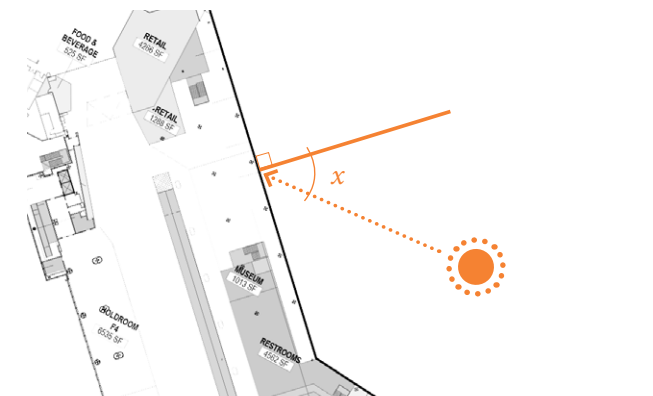
Solar Profile Angle, Section Cutoff Angle y

Solar Profile Angle	ANNUAL HRS.
00° - 10°	138
10° - 20°	129
20° - 30°	137
30° - 40°	108
40° - 50°	145
50° - 60°	70
60° - 70°	171
70° - 80°	153
80° - 90°	64



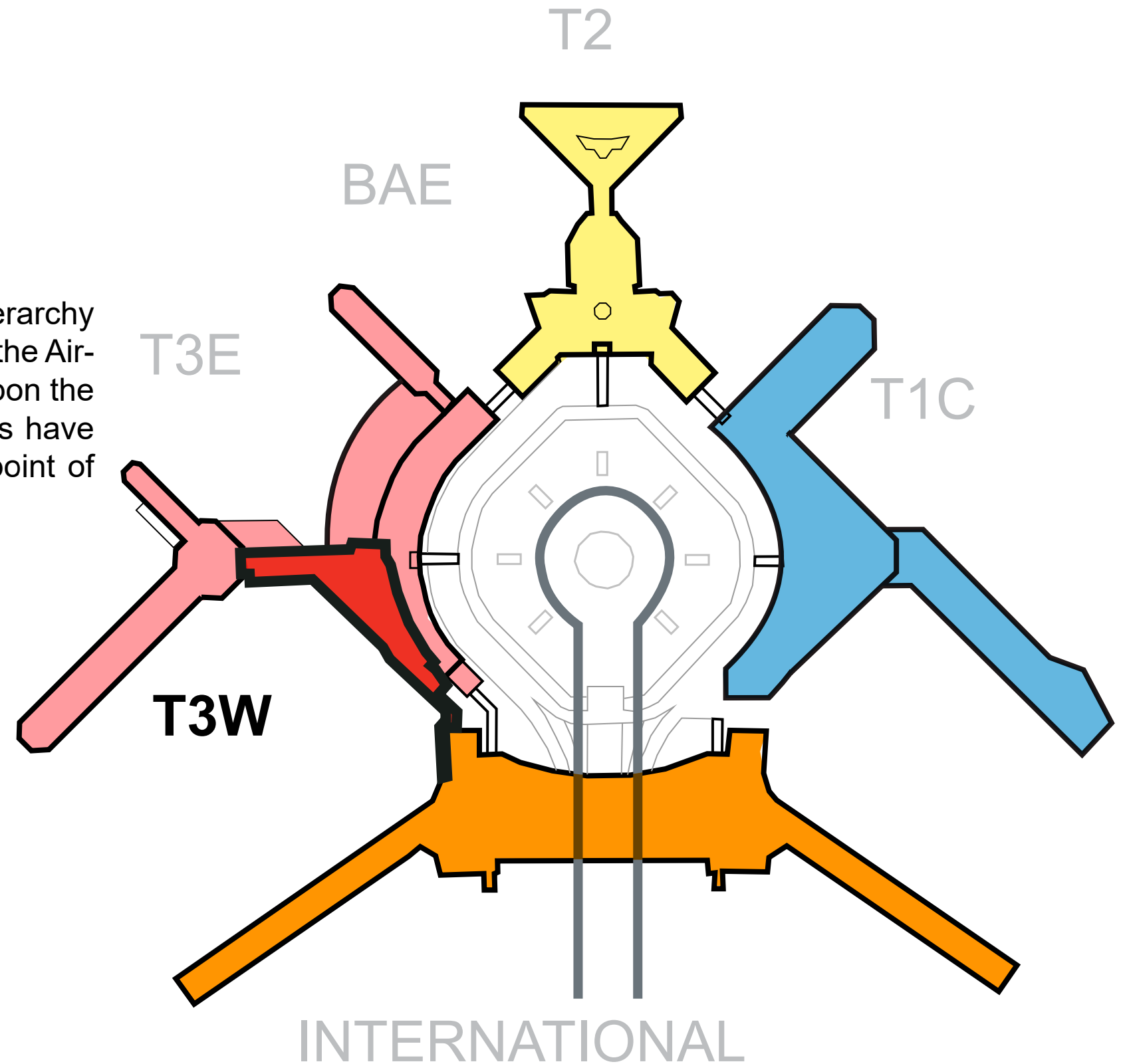
Orientation Azimuth Angle, Plan Cutoff Angle x

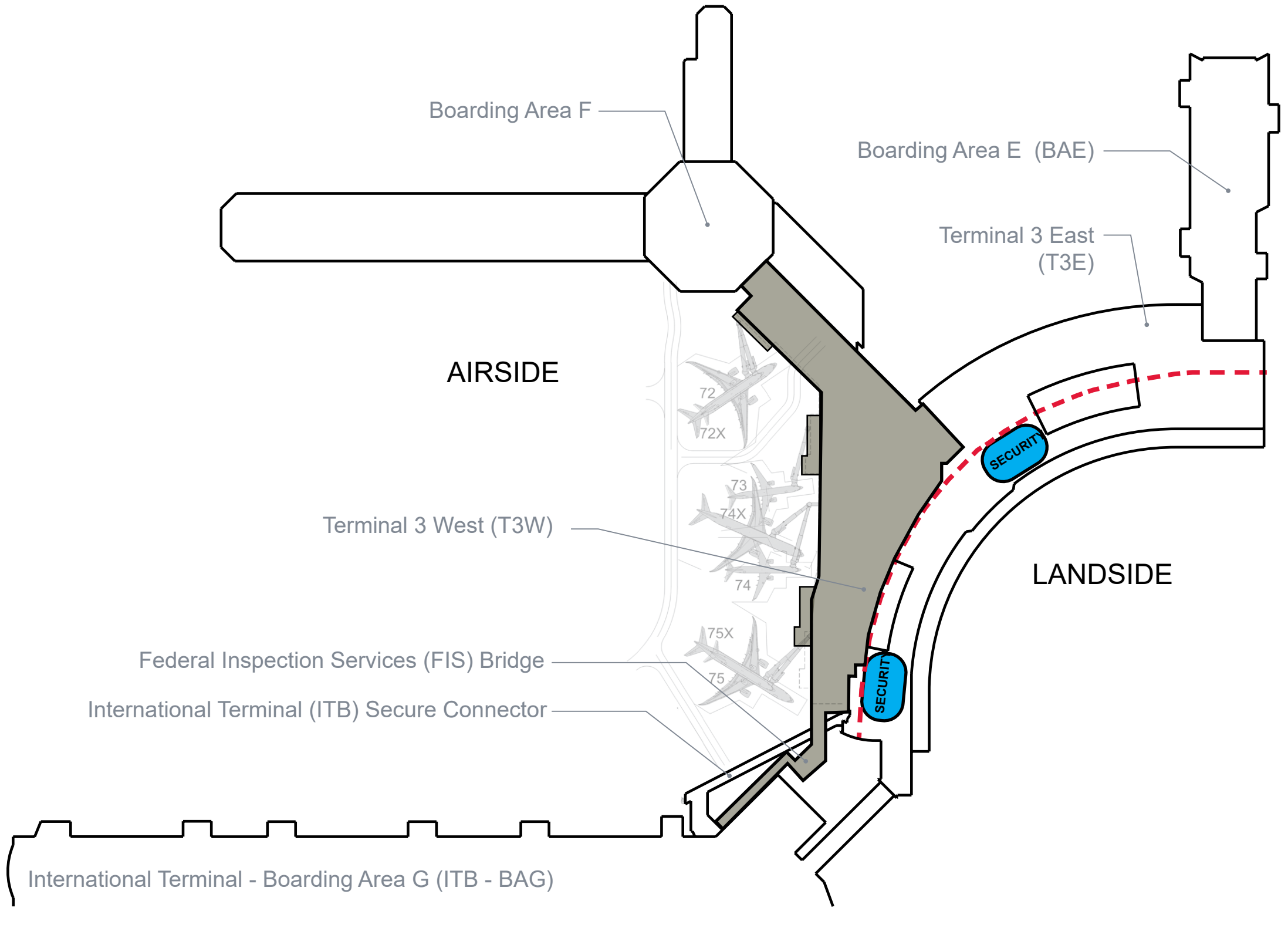
Orientation Azimuth Angle	ANNUAL HRS.
00° - 10°	122
10° - 20°	126
20° - 30°	132
30° - 40°	146
40° - 50°	128
50° - 60°	157
60° - 70°	126
70° - 80°	110
80° - 90°	68



ADJACENCIES MATTER

Like spokes of a key ring, Terminal 3 continues the masterplan hierarchy that allows the International Terminal to remain as the “Jewel” of the Airport and primary in Architectural importance. The design build upon the existing context that Terminal 3’s previous capital improvements have already created while improving wayfinding, circulation, clear point of entrance and identity as a distinct “key” to the other terminals.





PREVIOUS APPROVED SCOPE



T3 WEST GATE TABULATION

	NARROW	WIDE
EXISTING GATES	5	0
PROPOSED GATES	4	3

- NOT IN SCOPE
- NEW SCOPE AREA
- PREVIOUS APPROVED SCOPE
- FUTURE SCOPE

