



Los Angeles
World Airports

AIRPORTS DEVELOPMENT GROUP

LAX Development Update



DBIA Breakfast

21 January 2014

Presented by:

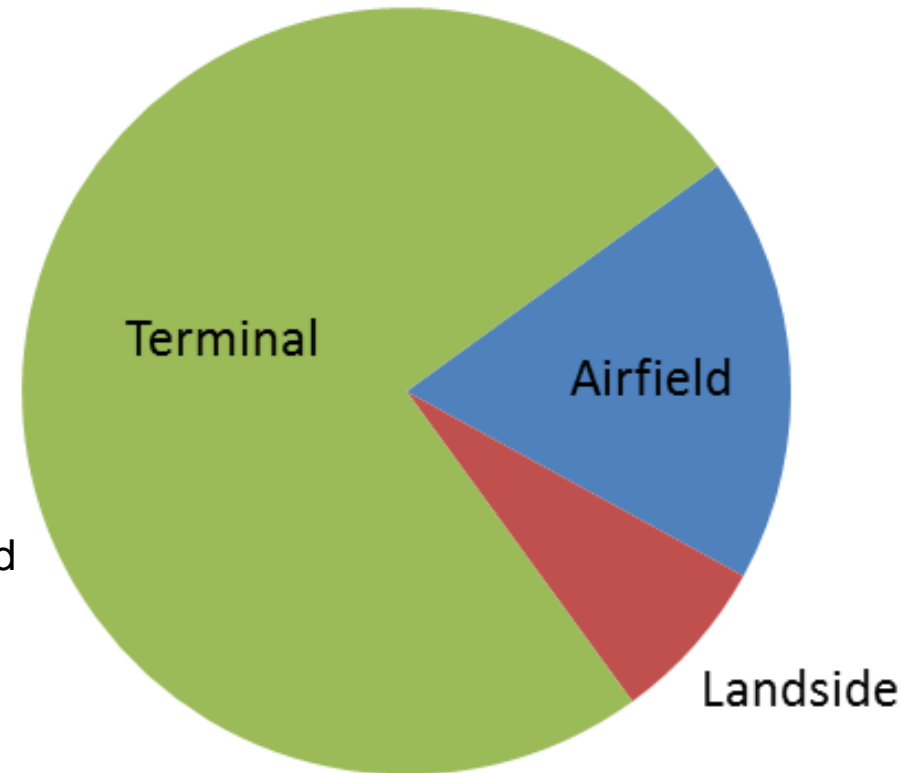
Roger A. Johnson, Deputy Executive Director

\$7.3 billion of capital expenditures projected through Fiscal Year 2019

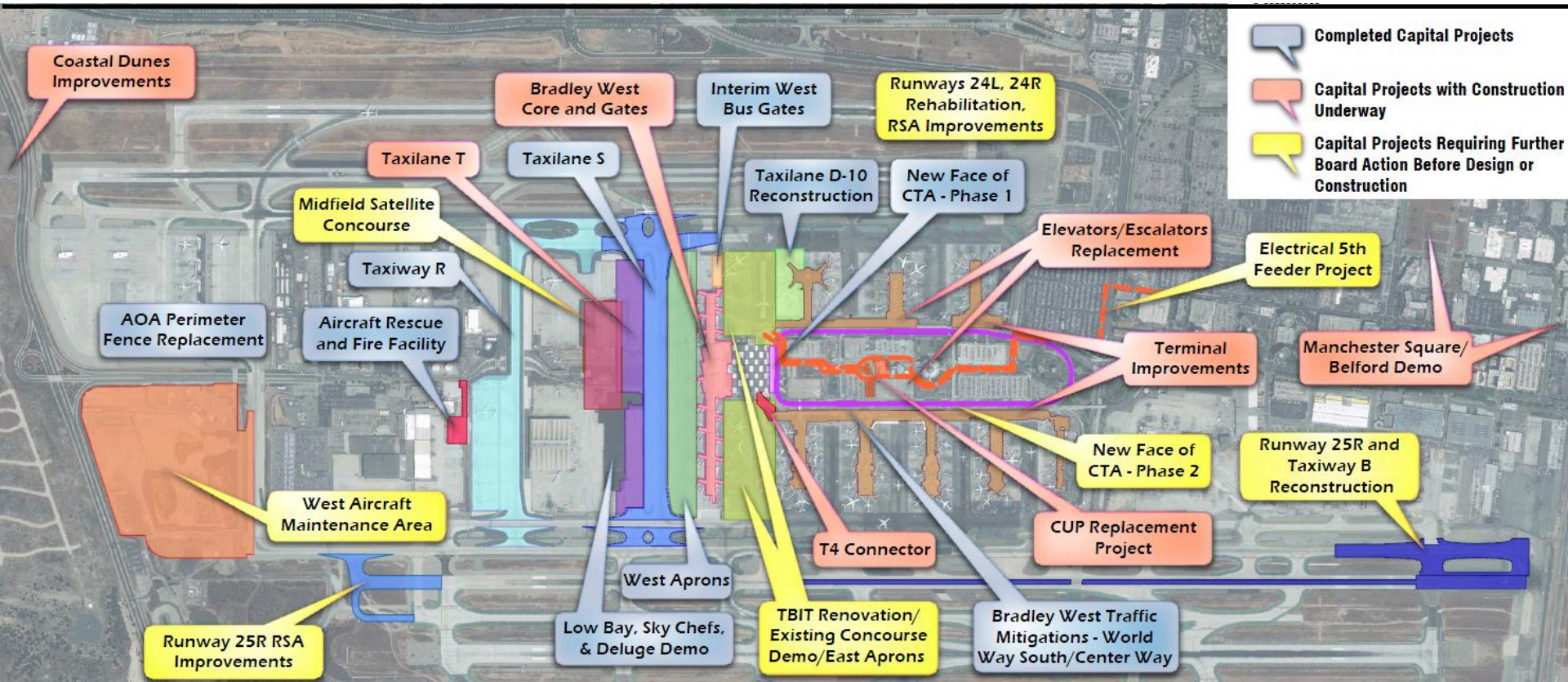
- \$3.4 billion in projects completed or nearing completion
- \$3.9 billion in future projects

Major projects to be completed in the forecast period:

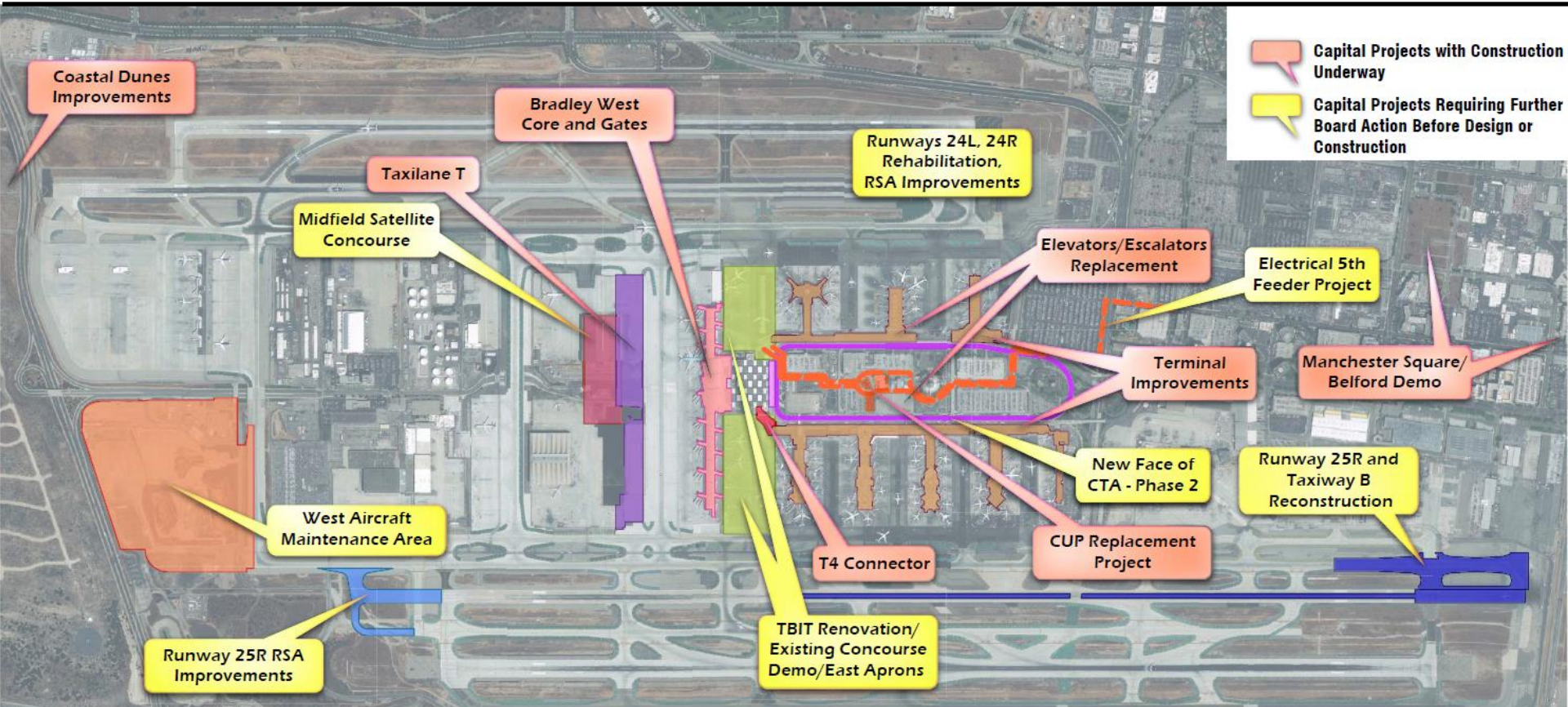
- Bradley West & Bradley Terminal Renovation
- Central Utility Plant
- FAA-compliant Runway Safety Areas
- New Taxiways R, S, and T
- T4 Connector Building
- Midfield Satellite Concourse – North
- Existing Runway and Taxiway reconstruction and rehabilitation
- Significant improvements to T1, T2, T5, T6 and T7/8
- Roadway and curbside improvements
- Utility/IT infrastructure improvements



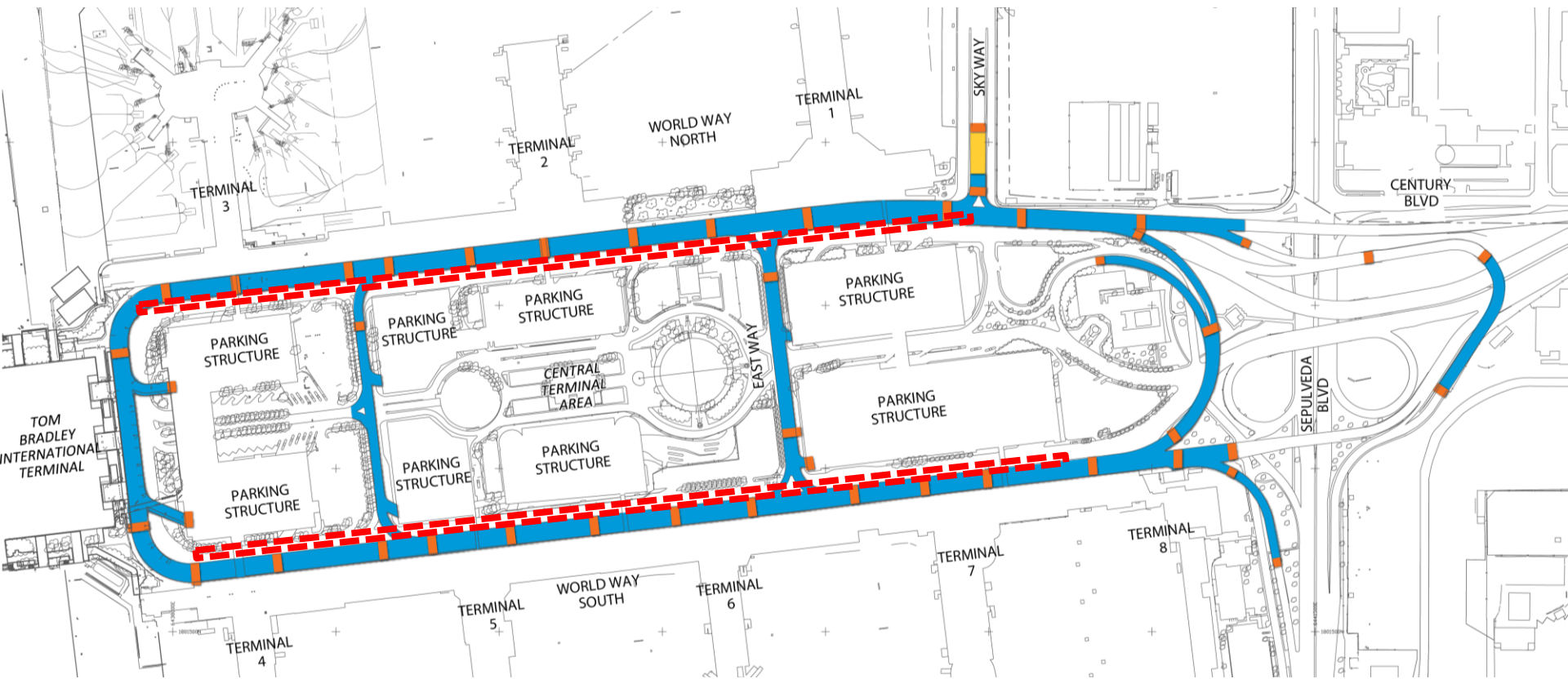
- Approximately \$7.3 Billion in identified Capital Improvements
- Approximately 50% of the improvements are completed






September 2013



September 2013



Second Level Roadway

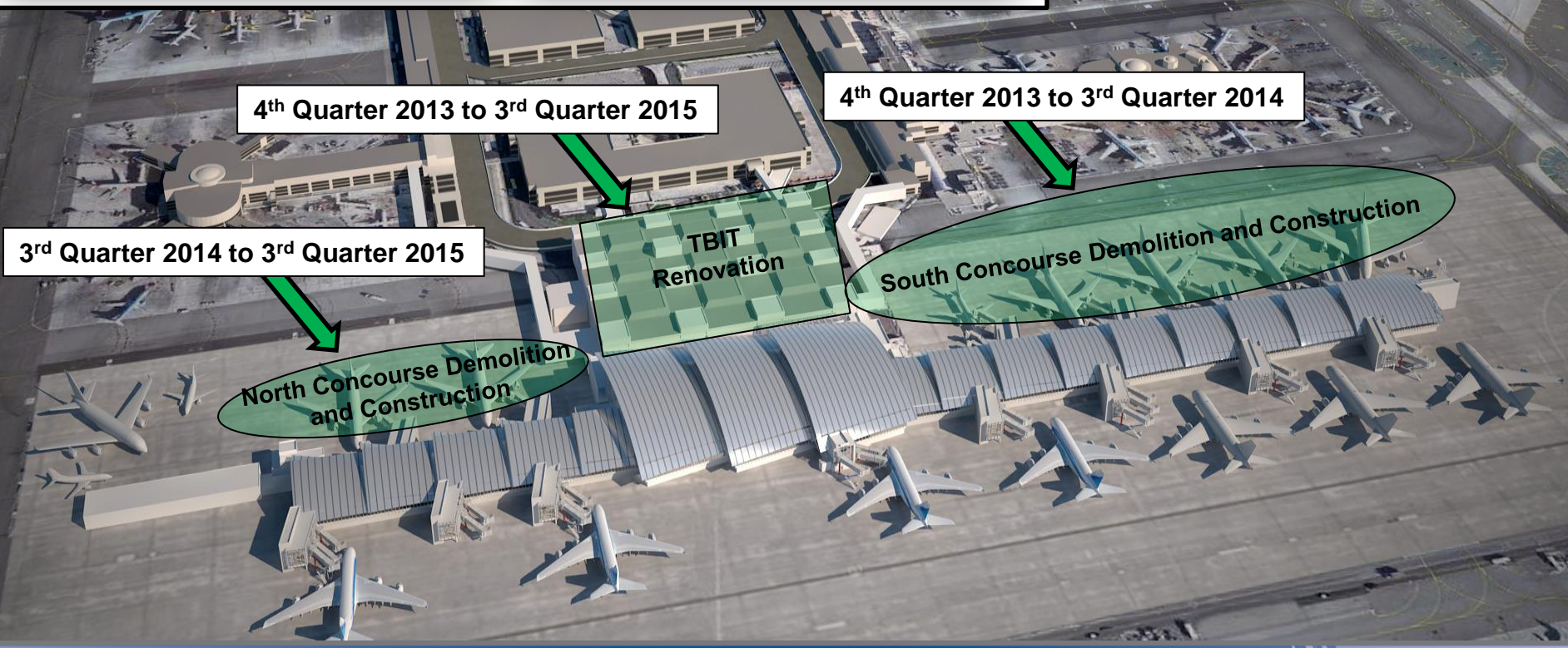
-  Joint Rehabilitation
-  Overlay
-  Sealing

New Face of CTA

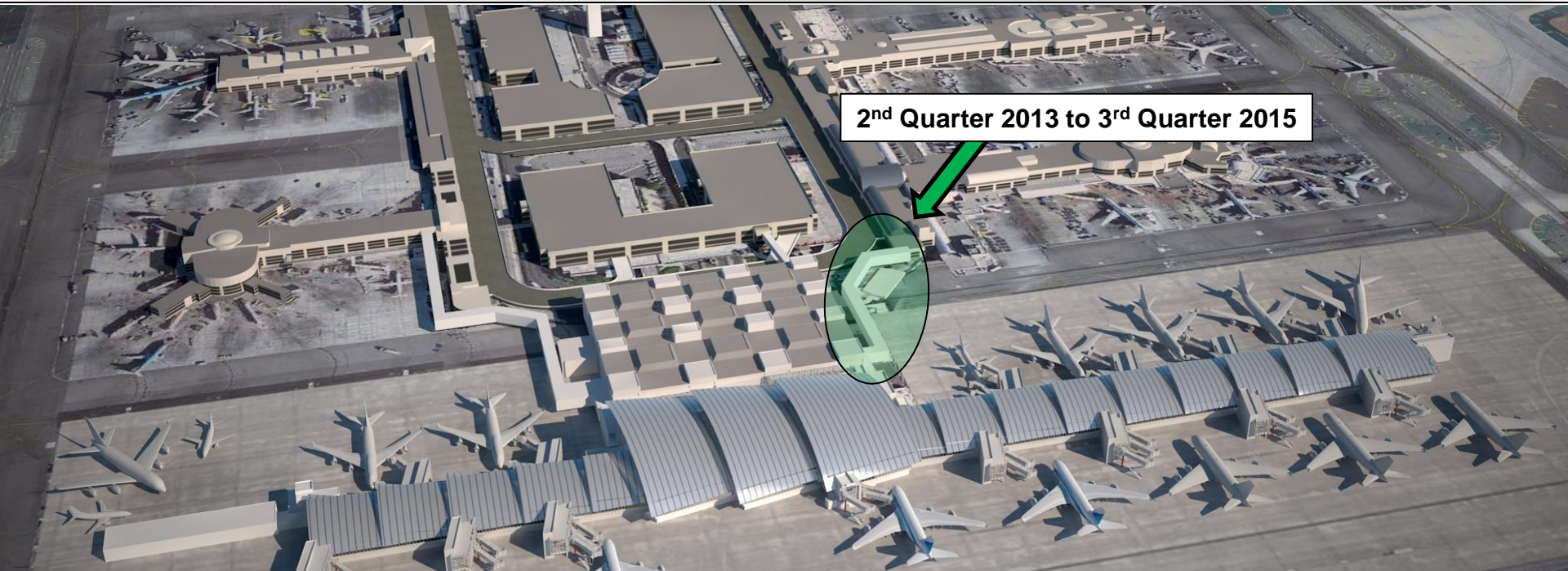
-  Phases 1 and 2



Tom Bradley International Terminal Renovation (Current Project)

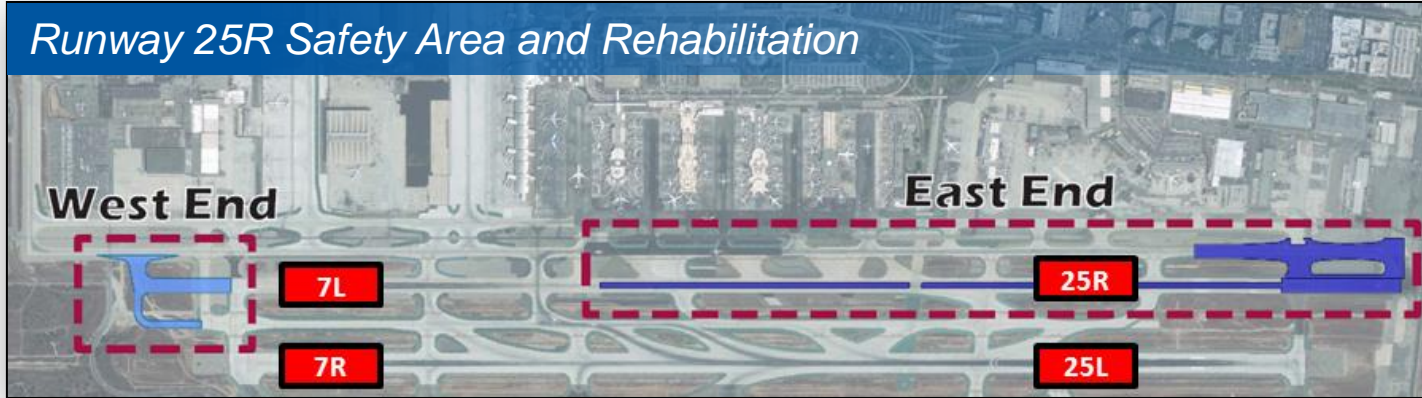


Terminal 4 Connector Building (Current Project)

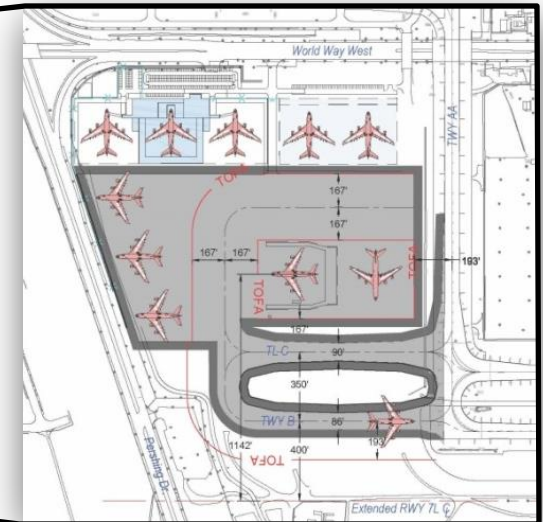


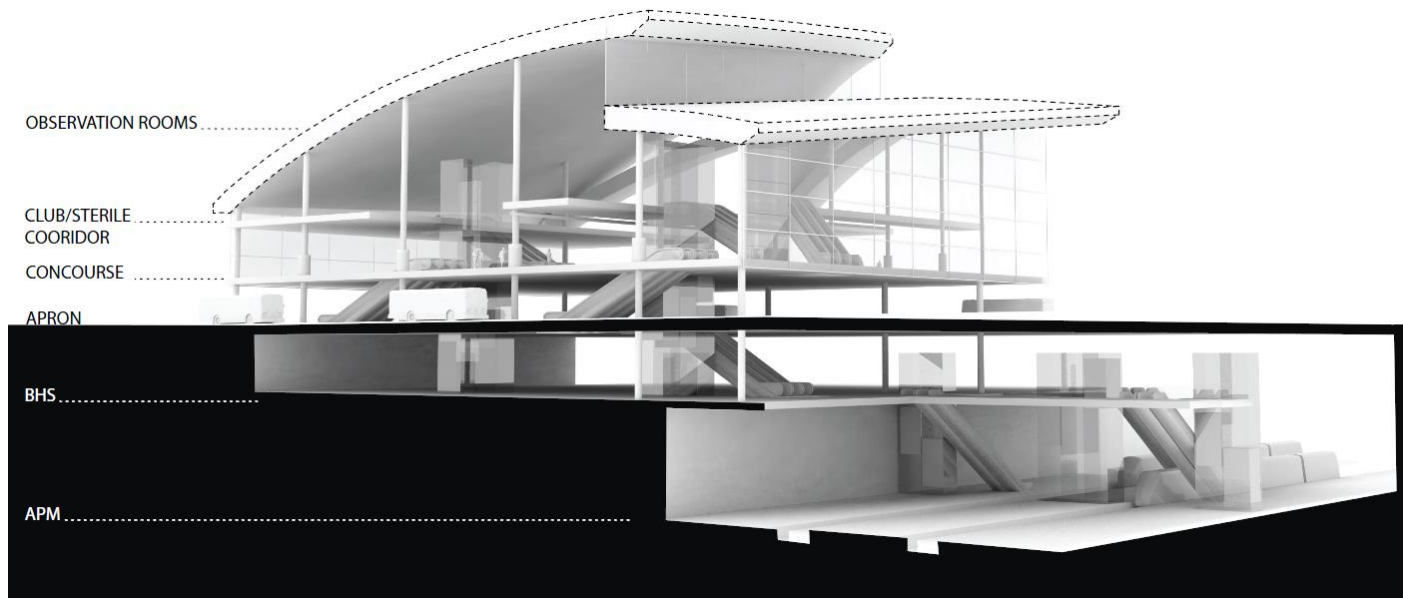


Runway 25R Safety Area and Rehabilitation



West Aircraft Maintenance Area



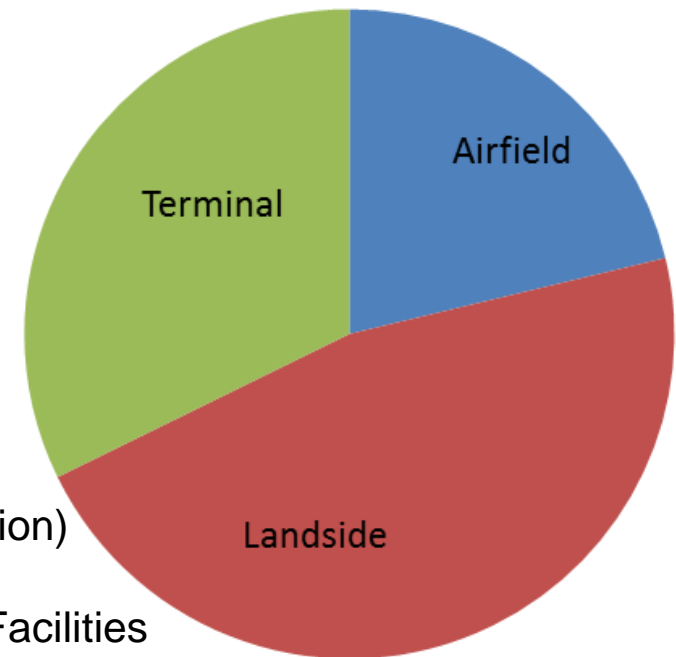


- **Potential future investment as high as \$8.7 billion, consistent with projects envisioned in the Specific Plan Amendment Study – projects completed after the current CIP’s 2019 horizon**
- **Traffic projections assume growth based on the SPAS forecast, with passenger levels reaching 78.9mm in 2024-25**

Potential Project Commitments through 2024:

- Landside/Airside Automated People Mover
- Airfield Taxiway Re-alignments
- Midfield Satellite Concourse – South
- New CTA Roadway Access
- Intermodal Transportation Facility (w/ Light Rail Connection)
- North Airfield Runway Re-alignment & Center Taxilane
- Concourse 0 and New Terminal Passenger Processing Facilities
- Consolidated Rental Car Facility*
- Replacement Parking Facilities**

Program Composition

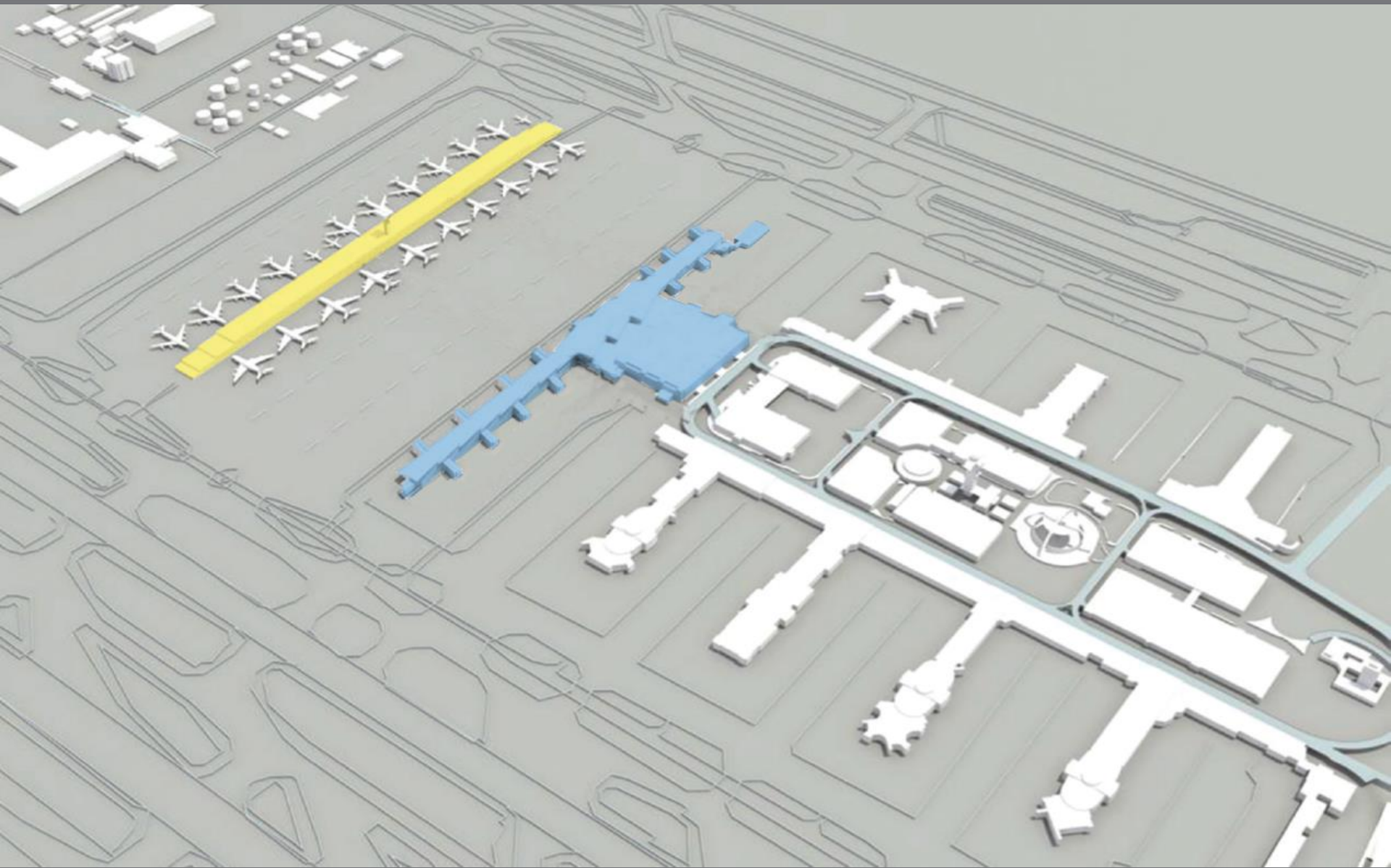


* Neutral impact on metrics – project assumed to have a residual rate setting formula

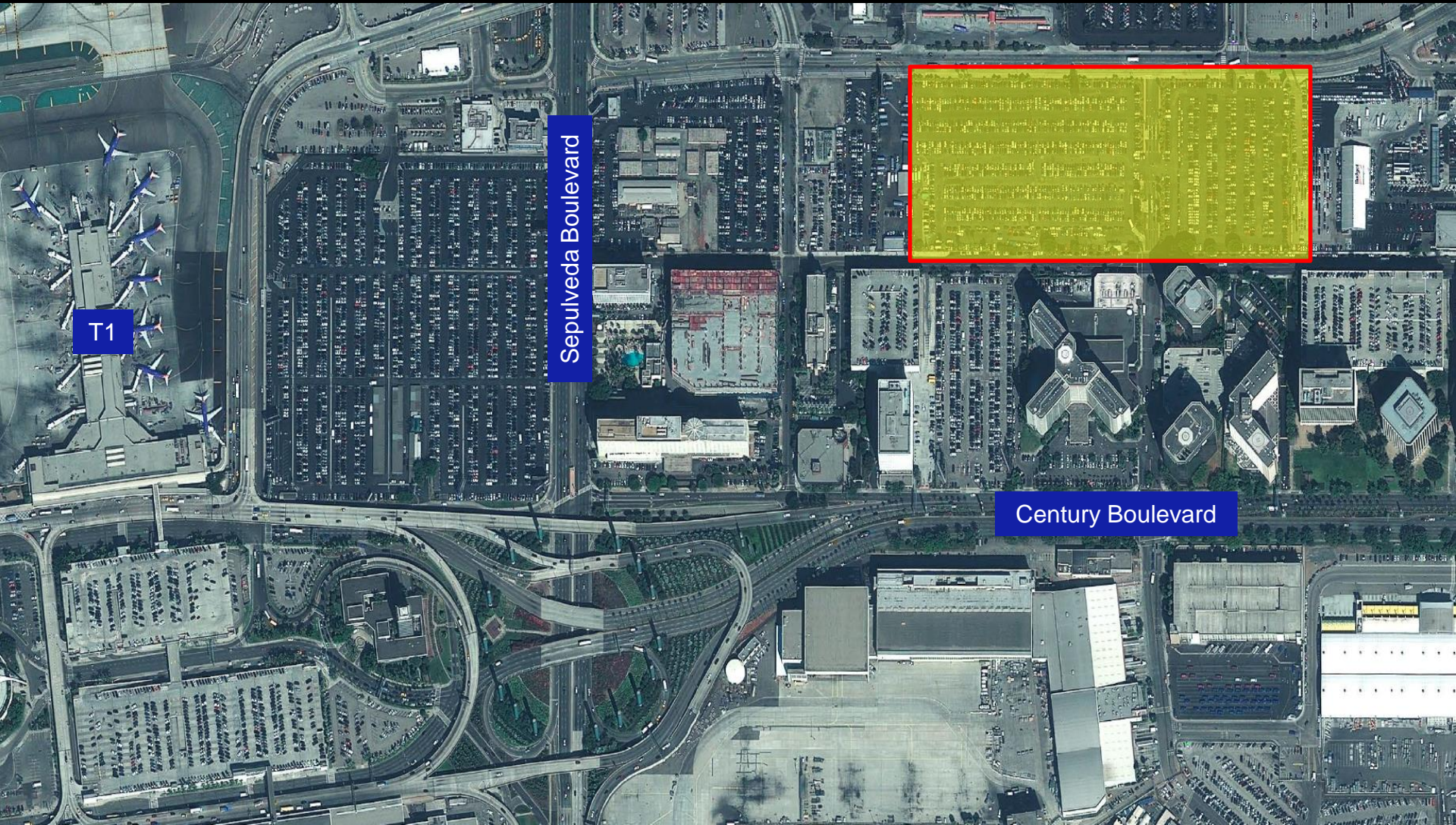
** Neutral impact assumed – project(s) plan of finance to be based on commercial considerations



Midfield Satellite Concourse – Fully Built Out (Concept)



Preliminary Draft for Discussion Purposes Only





Intermodal Transportation Facility

Still in planning stage



Intermodal Transportation Facility

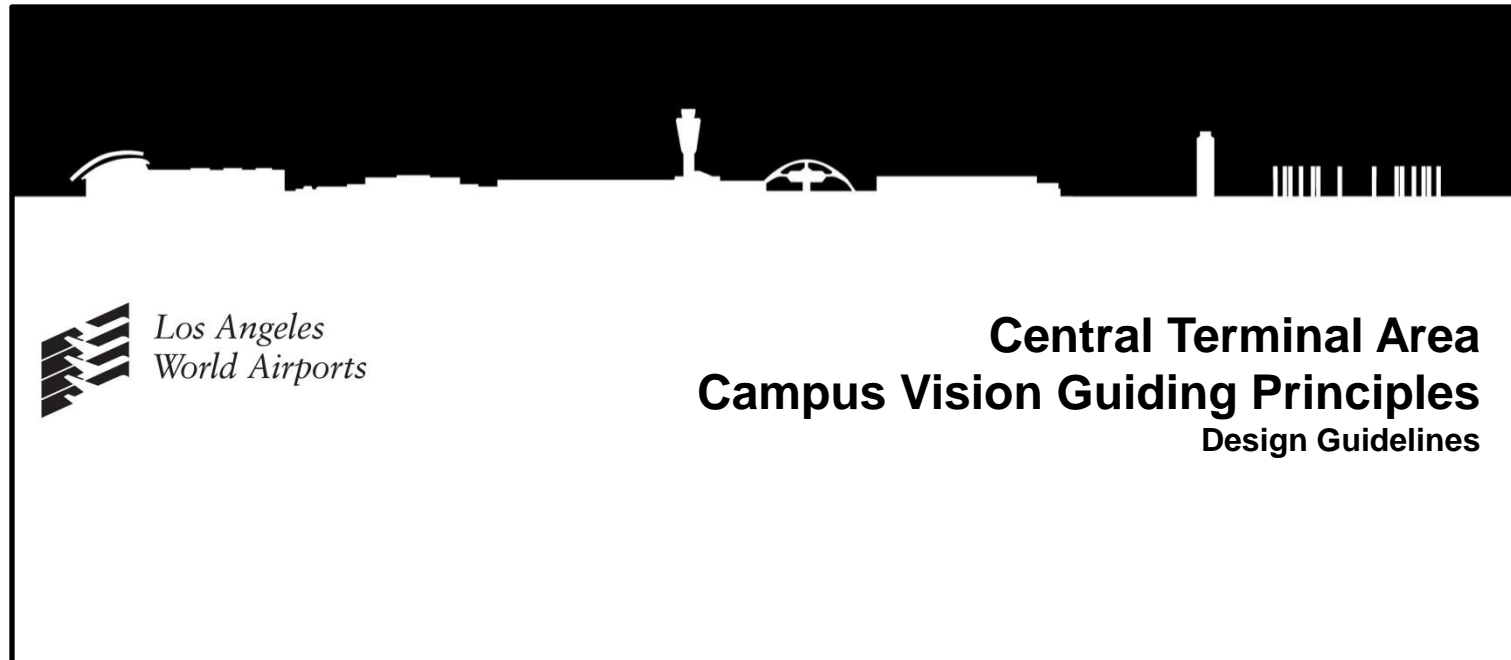
Still in planning stage



Automated People Mover

Still in planning stage

Achieving Design Excellence at LAX





Create guidelines that ensure future projects within the CTA:

- Complement existing iconic elements
- Promote cohesion throughout the CTA
- Improve the public's experience
- Are clear and easily understood by future design teams

Broad enough to not stifle creativity

Defining Elements and Materials

DEFINING ELEMENTS

Architectural Precedents
The foundation of LWA's vision for the CTA is based upon the desire that the design of all future projects be informed by completed, successful, operational and comparable to the existing and future legacy of Terminal environment. The most significant elements of that legacy and the design program going forward include the following projects.



Bradley West
LAX's most recent iconic element is a distinctive focal point at the west end of CTA. The remaining repetitive roof forms and overall color palette for the west light terminal are determined by light and building characteristics.



LAX Light Pylons
The LAX Light Pylons set an iconic precedent as a strong sense of place, arrival and orientation. Most significantly they set the color palette for the west light terminal and are mirrored by light and building characteristics.



LAX Theme Building
The LAX Theme Building is at the heart of the airport's identity.



LAX Air Traffic Control Tower
Located just west of the Theme Building, the ATCT Tower's color palette and height make it a prominent landmark for the CTA.



TBIT Canopy
The TBIT Canopy will visually unify the west end of the CTA at the airport on level, greatly enhancing the sense of arrival for departing passengers, and at the same time provide shade for the arrivals plaza at the west end of the CTA.



CTA Light Poles and Light Band
The selection of new steel distribution light standards and a continuous band of color light around the CTA will provide visual cohesion and reinforce the CTA's color palette through the CTA's color palette through the CTA's Light Pylons.



Central Utility Plant
The Central Utility Plant (CUP) is the central hub for the CTA and plays a key role in the overall color palette and materials provided throughout the CTA.



Terminal 4 Connector
Located between TBIT and Terminal 6, the Terminal 4 Connector and future Terminal 3 Connector will contribute with the TBIT Canopy, Light Pylons, Terminal 3, TBIT and Terminal 6 to define the overall color palette.

Design Palette

- Color
- Glazing
- Floor, Wall, Soffit, etc

LEARNING FROM BRADLEY WEST & THE CTA

Future Characteristics of All CTA Elements
This document provides a vision for the CTA of the future and the overall color palette and materials for the CTA. The design program is intended to be consistent with the existing and future CTA environment.



Form, Massing & Pattern
Inspired by the existing and future CTA environment, the design program is intended to be consistent with the existing and future CTA environment.



Spatial Rhythm & Volume
High ceilings and large volumes are intended to be consistent with the existing and future CTA environment.



Natural Daylight
High ceilings and large volumes are intended to be consistent with the existing and future CTA environment.



Color
Use of neutral and vibrant color palette, with a focus on the existing and future CTA environment.



Quality Materials
Use of high quality, durable materials is intended to be consistent with the existing and future CTA environment.



Artificial Light
Use of light is intended to be consistent with the existing and future CTA environment.



Other Wayfinding
Use of other wayfinding elements is intended to be consistent with the existing and future CTA environment.



Elevated Public Art
Use of elevated public art is intended to be consistent with the existing and future CTA environment.

Cohesive Elements

- Light Beacons
- Stair Towers
- Landscape
- Graphics

PREDOMINANT MATERIALS

Predominant Materials of Bradley West and other CTA projects
Materials of Bradley West and other precedent projects should be referenced and incorporated in the development of future projects in the Central Terminal Area (CTA).



Metal Panel
Metal or composite metal panels. Aluminum or steel. Metallic grey with black. LUX is available in PPS or white.



Painted Steel Roofing
Painted metal roof system. Perforated for canopy applications. White or silver. Metallic grey with black.



Glass
Clear glass. Light blue tinted glass (PPG). Clear or white. Tinted glass (Dakar). Tinted glass (Dakar). Tinted glass (Dakar). Low E coating as necessary.



Curtainwall / Stomch Multibeam
Aluminum or steel mullion system. Caplined or built up steel glazing. Metallic grey with black.



Standard Concrete
Smooth or medium sandblasted finish. Neutral color. Light to medium green, light tan.



Fiber Concrete Panels
Smooth or lightly textured finish. Neutral color. Light to medium green, light tan.



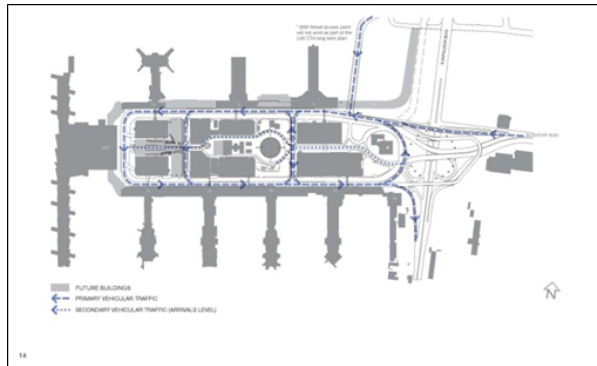
Ultra-High Performance Concrete (UHPC) and Glass Fiber Reinforced Concrete (GFRC) Panels
Smooth or light sandblasted finish. Neutral color. Light to medium green, light tan.



Glass Fiber Reinforced Polymer (GFRP)
Smooth finish. Neutral color. Light to medium green, light tan.

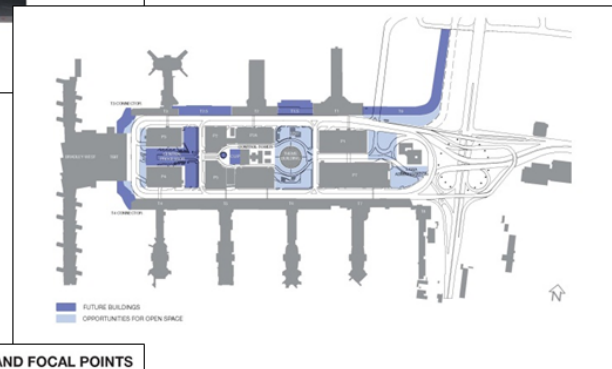
Site Organization

- Traffic Patterns – Pedestrian and Vehicle
- View Corridors
- Open Space
- Streetwalls



VEHICULAR TRAFFIC PATTERNS

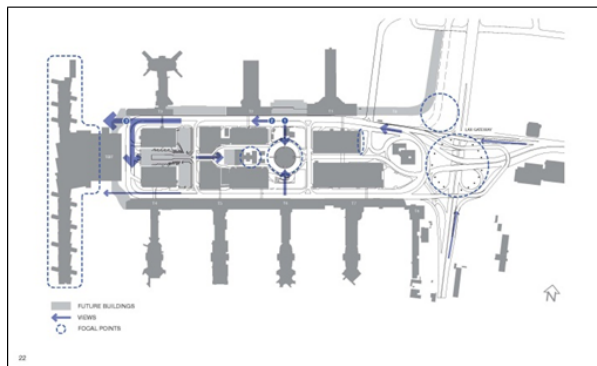
- Observations:**
- The CTA vehicular entry is angled from the Century / Sepulveda junction relative to the organizational axis of the Airport.
 - Primary vehicular traffic is chiefly counter-clockwise with inner loops and return roads to the CTA.
 - Secondary vehicular traffic occurs at parking garage and surface lot exits at the arrival level.
 - Existing pedestrian bridges obstruct views, especially views to Bradley West.
- Guiding Principles:**
- ☑ The angled roadway from the Century / Sepulveda junction is an opportunity for an "Airport Gateway," prior to entering the CTA.
 - ☑ The north roadway from Terminals 1-3 is the first view of the Airport for visitors. Specific views and view corridors should be preserved with an emphasis on clear ventilation and landscaping.
 - ☑ Existing secondary traffic movement maintains the CTA hierarchy and shall be preserved where possible.
 - ☑ Future pedestrian bridges design and the possible incorporation of advertising should consider view corridors.



KEY VIEWS AND FOCAL POINTS

- Observations:**
- Existing focal points include the Bradley West exit line, the Control Tower, the Theme Building, and the Light Pillars.
 - The primary vehicular approach to the CTA via Century Boulevard emphasizes the existing ring of Light Pillars at the Century / Sepulveda junction.
 - The angled approach from the Century / Sepulveda junction currently places a strong visual emphasis on Terminal 1, but will adjust in the future to emphasize the future Terminal 0 and Airport "Gateway."
 - The vehicular entrance to the CTA and counter-clockwise rotation provides a primary view towards the North Concourse of Bradley West and the CTA corridor along Terminals 1-3.
 - Secondary views of the South Concourse of Bradley West will be visible from pedestrian bridges and at the Departure level roadway along Terminals 4-6.
 - The Control Tower and Theme Building are visible from both the north and south portions of the ring road, as well as from the vehicular exit route through the center of the CTA.
 - The views of Bradley West are partially obstructed by pedestrian bridges.

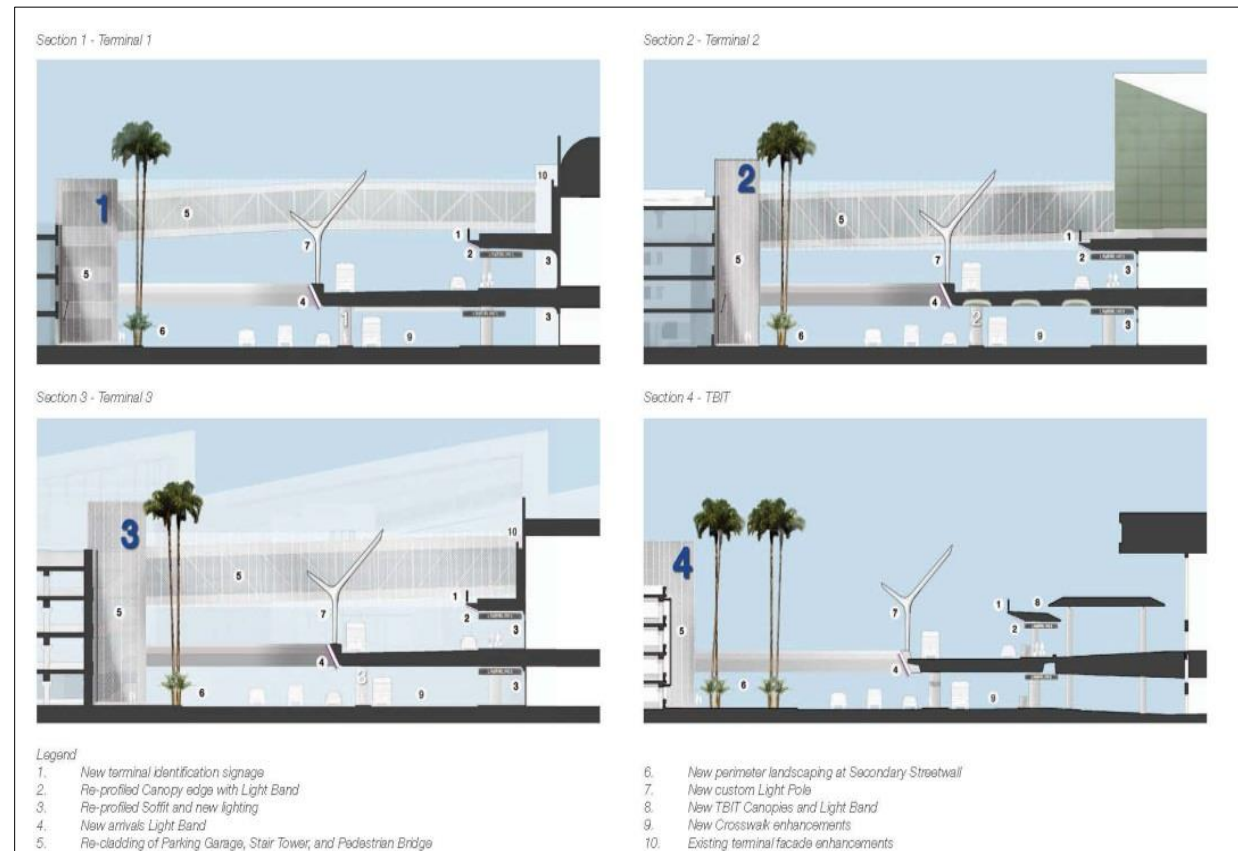
- Guiding Principles:**
- ☑ The views identified above should be preserved and maintained.
 - ☑ Consideration should be given to protect focal points in open spaces.
 - ☑ The east end of Parking Garage 1 and the adjacent open space could be developed to enhance the Airport "Gateway."



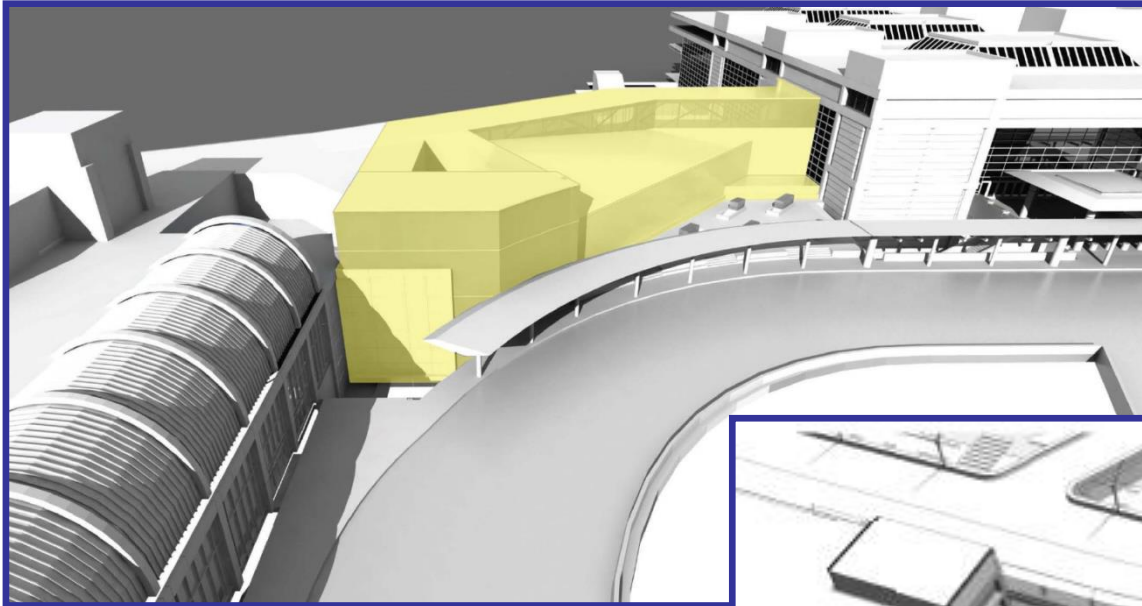
Practical Applications

Incorporate at each Terminal

- Lighting
- Signage
- Landscaping
- Views
- Highlight vs. background
- Site furniture

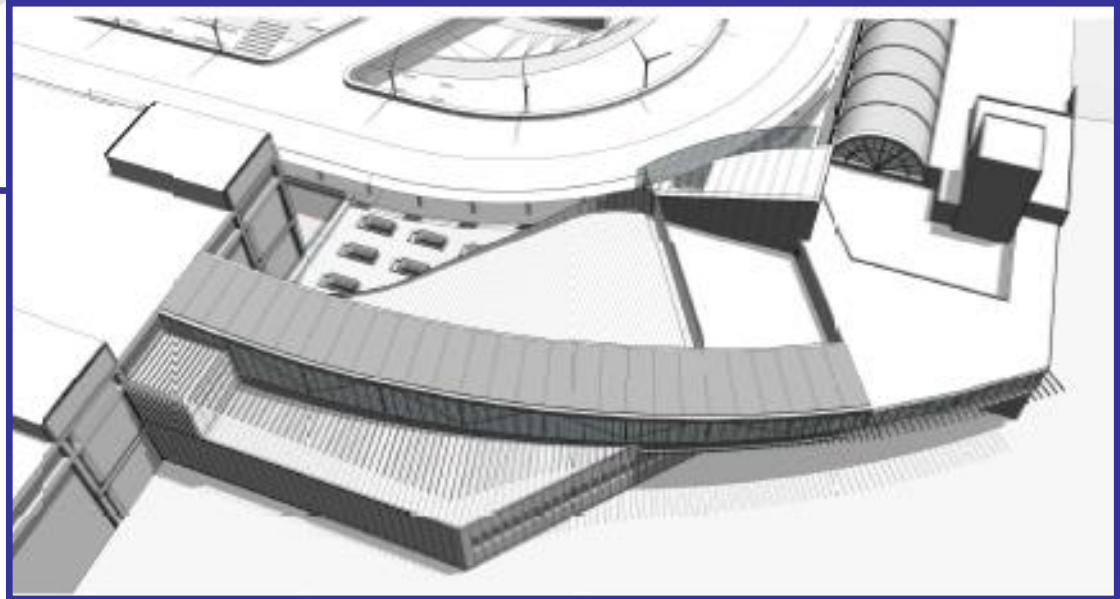


Example: Terminal 4 Connector



Functional Massing

Visioning Application



Example: Terminal 4 Connector



Applying Guidelines

Original Conceptual Design

