Goals & Objectives

The Central Terminal Area (CTA) Campus Vision Guiding Principles are intended to be used as

Design Guidelines for the Development of Projects within the CTA.

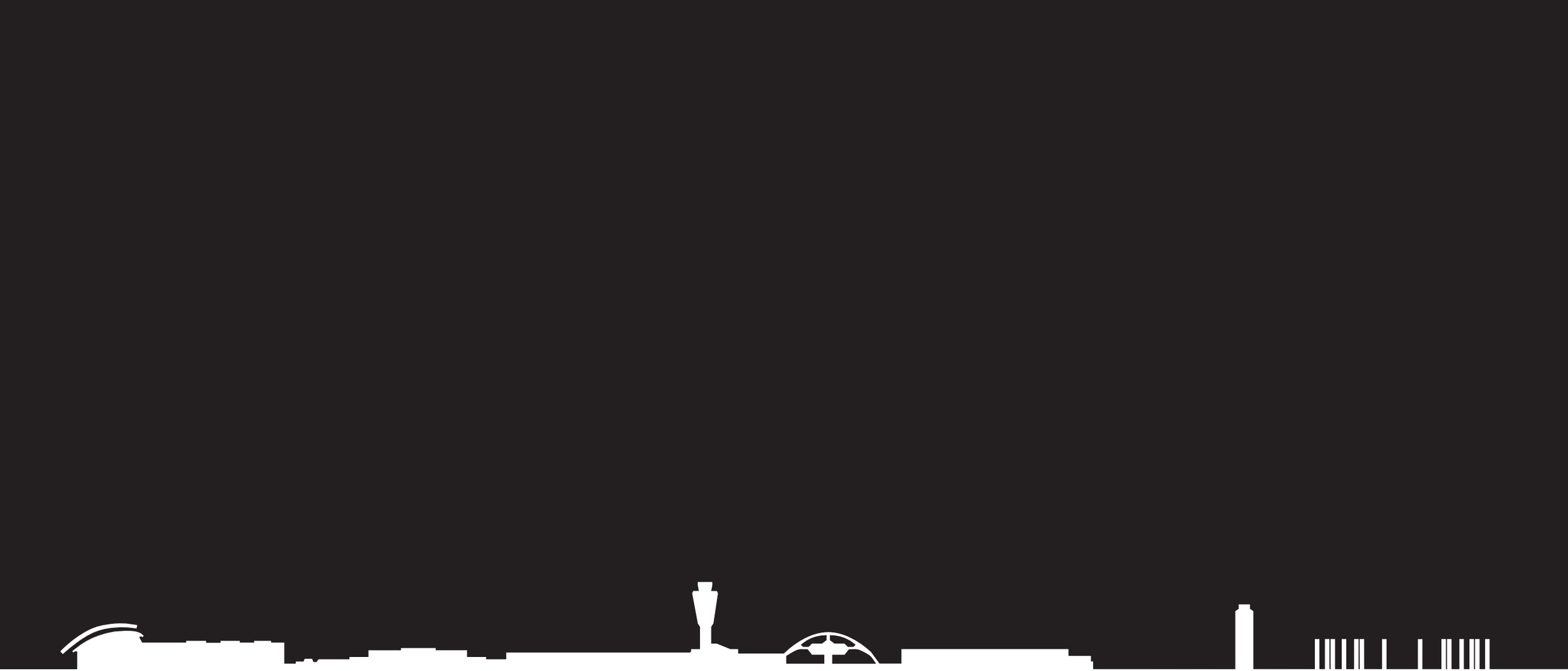
The design guidelines are not intended to prescribe specific design solutions but to provide architects and designers with a set of standards that reflect the overall design vision for the CTA.

LAWA has established that the Guiding Principles will:

- Introduce standards that will incorporate design principles established by the architecture of Bradley West and will complement existing iconic elements such as the Light Pylons, Theme Building, Air Traffic Control Tower, and new CTA Light Poles.
- Bring design cohesion to the CTA
- Be clear and easily understood
- Work for all audiences – LAWA, airlines, tenants, public, etc.
- Stimulate creativity while preserving overall intent
- Improve the publics' experience through color, materials, massing and views
- Encourage sustainable design

The development of this document has been a collaborative effort between the design professionals and the Airport.

Document Date: April 9, 2013



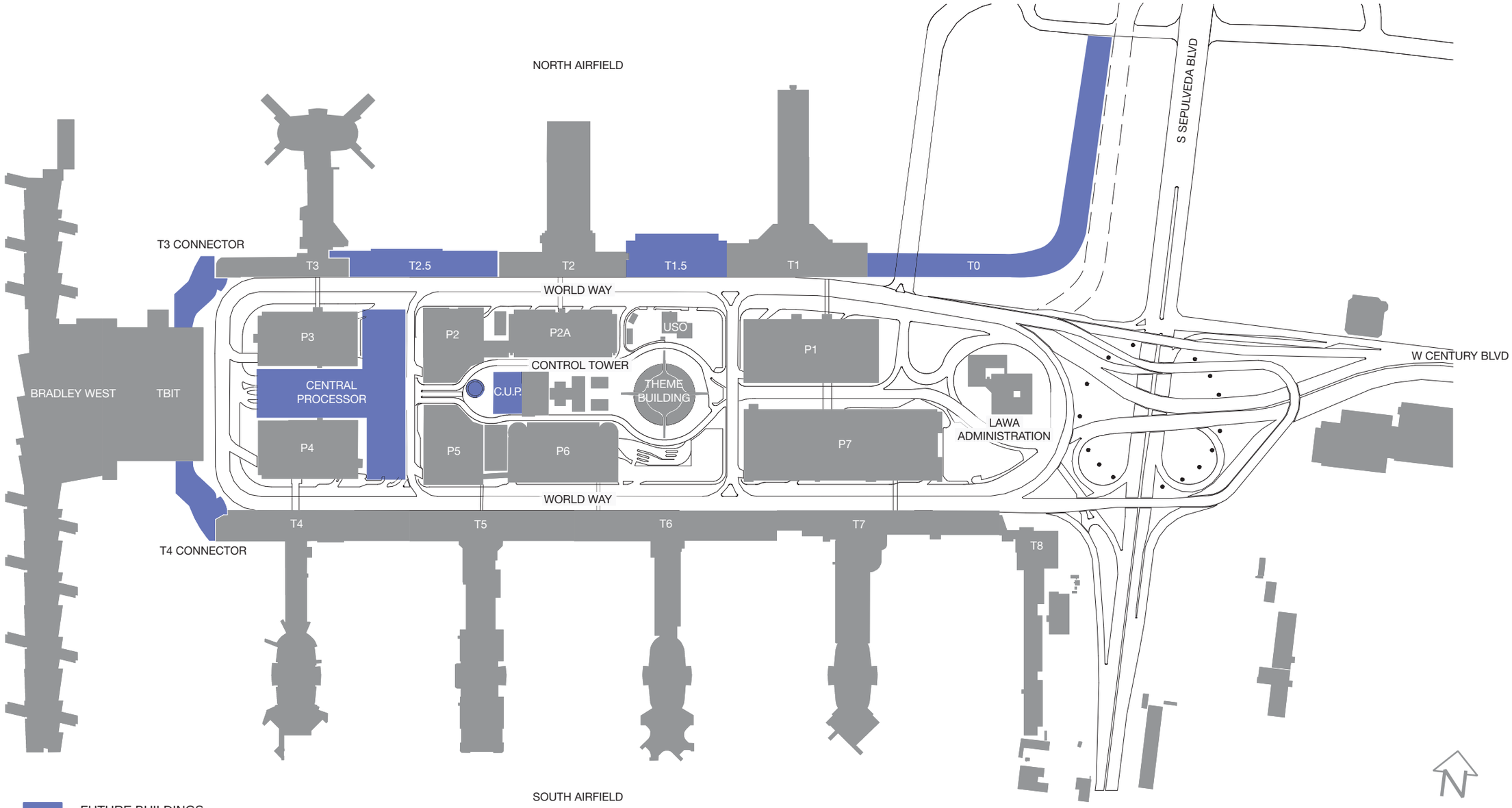
Central Terminal Area
Campus Vision Guiding Principles

Design Guidelines

DRAFT March 18, 2013

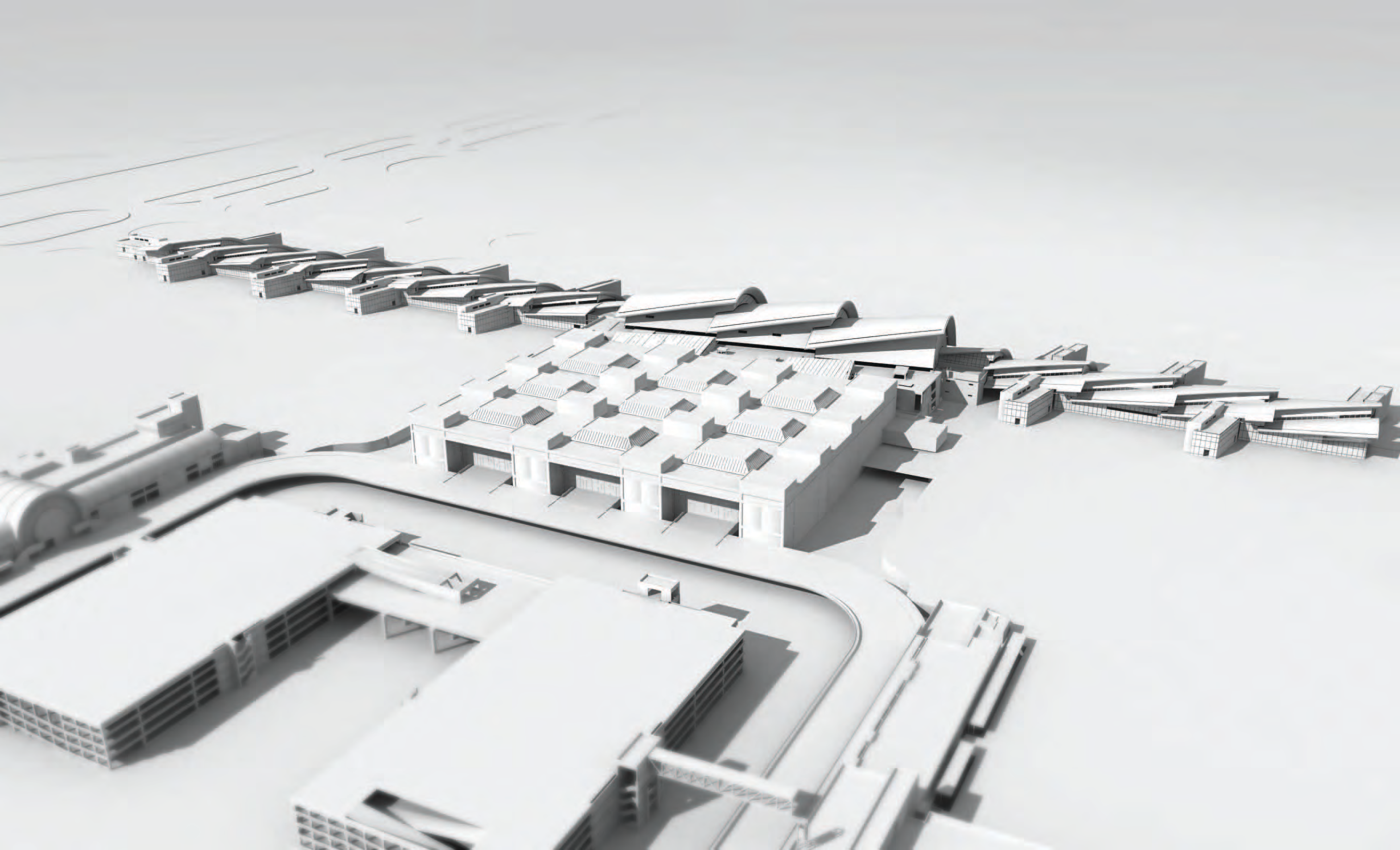
Los Angeles
World Airports

Central Terminal Area
Campus Vision Guiding Principles
Design Guidelines



KEY PLAN
LAX Central Terminal Area - “CTA”

TABLE OF CONTENTS



INTRODUCTION

Mission Statement

Our mission is to assemble a set of design guidelines that can be used to ensure that future CTA projects contribute to and support LAWA's Vision for a visually cohesive CTA by being visually supportive, contributary, compatible and sympathetic to the existing and planned defining elements of the CTA.

Recognize that iconic elements within or planned for the CTA define images that are a part of the LAX architectural design vocabulary.

- Bradley West
- Light Pylons
- Theme Building
- Air Traffic Control Tower
- TBIT Canopy
- CTA Light Poles and Light Band
- Central Utility Plant

Goals and Objectives

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- Stimulate creativity while preserving overall intent
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- Encourage sustainable design

The development of this document has been a collaborative effort between the design professionals and the Airport. Observations were made of existing conditions, as well as projects under concurrent development. The analysis of these observations was synthesized into the recommendations outlined herein.

Overriding Principles

While the Guiding Principles address specific elements within the CTA, future designers must consider the following Overriding Principles:

- **Security** - Recognizing the importance of security to aviation and LAWA, future projects will meet or exceed all Federal, State, City and LAWA standards and requirements for security

- **Safety** - Along with security, a safe environment is of paramount importance to LAWA and future designs will meet or exceed all standards for the safety of passengers, employees, and other areas

- **Accessible Design** - Recognizing that LAX strives to be fully accessible, future projects will meet or exceed all standards for accessible design

- **Sustainability -** In addition to Federal, State and City requirements, future projects will meet or exceed goals for sustainability as established by LAWA for each project and as set forth in the LAWA sustainability Airport Planning, Design and Construction Guidelines (LSAG)

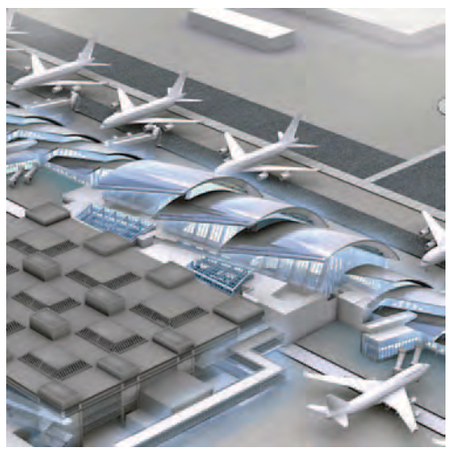
- **Passenger Experience -** Future projects will improve the passenger experience with designs that provide clear and consistent information and enhance wayfinding and comfort

- **Maintainability -** Due to the high volume of use and the potential for damage to facilities from vandalism, consideration should be given to materials, products and systems that withstand abuse and can be easily repaired or replaced

- **Cost -** All future projects are to balance value, durability, and ease of maintenance with life cycle costs and should reflect the fiscal responsibility expected of a public asset.

Architectural Precedents

The foundation of LAWA's Vision for the CTA is based upon the desire that the design of all future projects be informed by, complatible, respectful, deferential and sympathetic to the existing architectural legacy of the built environment. The most significant elements of that legacy and the design engines going forward include the following projects.



Bradley West

LAX's most recent iconic element is a dominate focal point at the end of the CTA . The sweeping, repetitive roof forms and neutral color palette by day and a light beacon-like appearance by night are defining characteristics.

LAX Light Pylons

The LAX Light Pylons act as beacons, provide a strong sense of place, arrival and orientation. Most significantly they set the stage for the use of colored light to reinforce way finding and provide visual cohesion and continuity between disparate elements.

LAX Theme Building

The LAX Theme Building is at the center of the CTA and is a widely recognized representation of the Airport's history.

LAX Air Traffic Control Tower

Located just west of the theme building, the ATC Tower's central location and height make it a significant element within the CTA. The expressed structure and use of curved form provide unique and dynamic character while at the same time pays homage to the older Theme Building.

DEFINING ELEMENTS

TBIT Canopy

The TBIT Canopy will visually unify the west end of the CTA at the departure level, greatly enhancing the sense of arrival for departing passengers, and at the same time improve conditions at the arrivals level through the use of a graceful sweeping curved form.

CTA Light Poles and Light Band

The erection of new and distinctive light standards and a continuous band of color light around the CTA will provide visual cohesion and reinforce the intuitive movement through the CTA while paying homage to the LAX Light Pylons.

Central Utility Plant

The Central Utility Plant (CUP) is the newest building in the CTA and plays off the gentle curves and neutral color palette and materials provided throughout the CTA.

Terminal 4 Connector

Located between TBIT and Terminal 4, the Terminal 4 Connector and future Terminal 3 Connector, in combination with the TBIT Canopy, will visually link Terminal 3, TBIT and Terminal 4 by utilizing the principles presented here.

Future Characteristics of All CTA Elements

The architectural characteristics envisioned for the CTA of the Future are drawn from Bradley West and the other defining projects currently in design or under construction. Future project designers are encouraged to use these characteristics as a catalyst for creativity and inspiration.

Form, Massing & Pattern

Sweeping curves, repetitive and overlapping “wave-like” roof forms are encouraged.

Spatial Scale & Volume

High ceilings and large volume public spaces are encouraged to celebrate and enhance the travel experience for both departing and arriving passengers.

Natural Daylight

Blurring the demarcation between inside and outside takes advantage of the Southern California Climate and will contribute to a more sustainable built environment.

Color

Use of a neutral and calming color palette, similar to and compatible with the metallic, gray and silver exterior materials and glazing, is encouraged.

LEARNING FROM BRADLEY WEST & THE CTA

Quality Materials

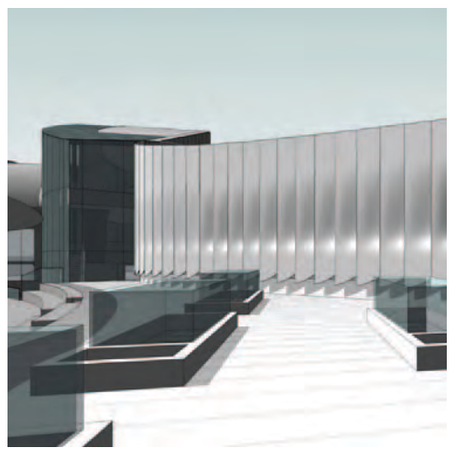
Cost efficient, high quality, low maintenance materials, capable of withstanding the use and abuse of a high traffic airport environment and LAX's corrosive environment over an extended period, should be used.

Artificial Light

The use of light as beacons to provide orientation, a sense of arrival, enhanced way finding and to define boundaries and limits as may be appropriate is encouraged.

Clear Wayfinding

A cohesive wayfinding system should be incorporated that links signage, graphics and advertising, allowing intuitive interpretation.



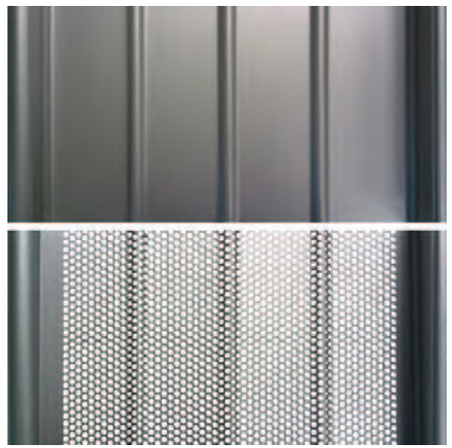
Exterior Public Art

Spaces and opportunities for public art and concessions are encouraged within the backdrop of a calm design palette.

Predominate Materials of Bradley West and other CTA projects
Materials of Bradley West and other precedent projects should be reiterated and reinterpreted in the development of future projects in the Central Terminal Area (CTA).

Metal Panel

- Metal or composite metal panels
- Aluminum or steel
- Metallic grey satin finish
- LAX Fawn Metallic by PPG or similar

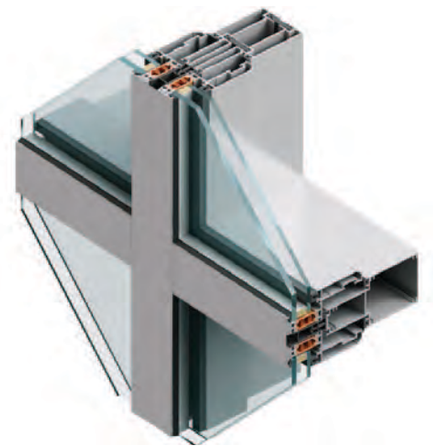


Raised Seam Roofing

- Prefabricated metal roof system
- Perforated for canopy applications
- Kalzip or similar
- Metallic grey satin finish

Glass

- Clear glass
- Light blue tinted glass (PPG Optiblue or similar)
- Translucent glass (Walker Textures Velour Acid Etch or similar)
- Low-E coating as necessary



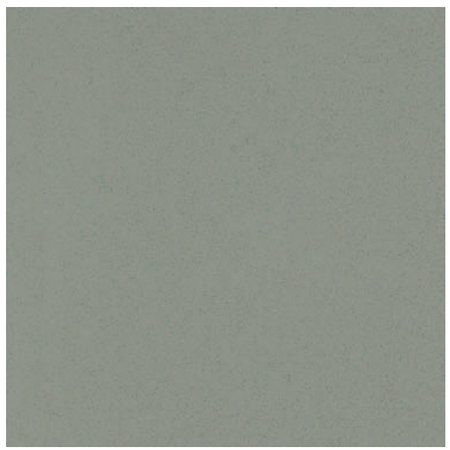
Curtainwall / Storefront Mullions

- Aluminum or steel mullion systems
- Captured or butt-jointed glazing
- Metallic grey satin finish

PREDOMINANT MATERIALS

Standard Concrete

- Smooth or medium sandblast finish
- Simple joint pattern or no pattern
- Neutral colors; light to medium greys, light tans

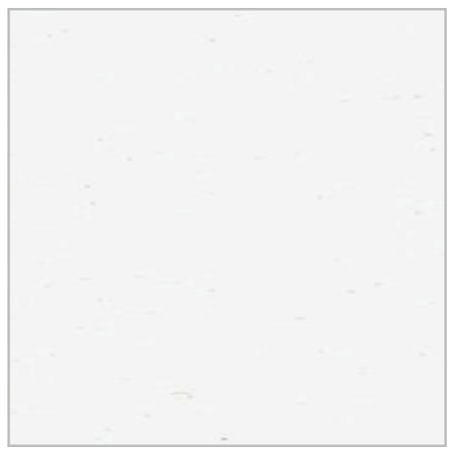


Fiber Cement Panels

- Smooth or lightly textured finish
- Curved geometry may be considered
- Simple joint pattern
- Neutral or grey color

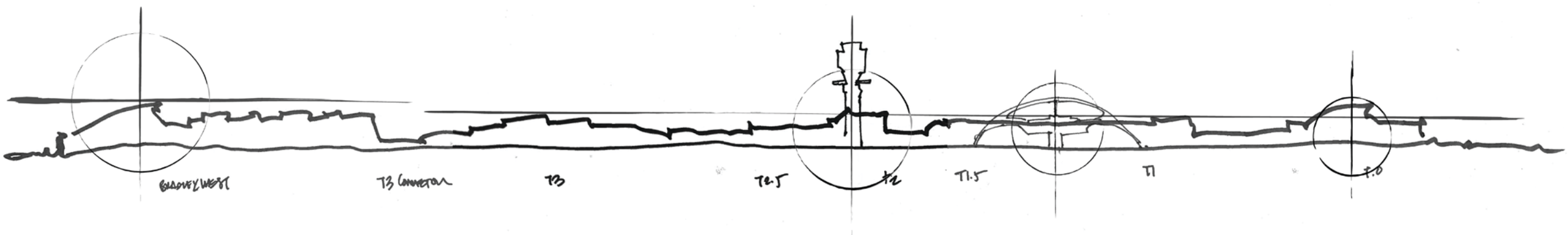
Ultra-High Performance Concrete (UHPC) and Glass Fiber Reinforced Concrete (GFRC) Panels

- Smooth or light sandblast finish
- Texture may be considered
- Curved geometry may be considered
- Simple joint pattern
- Neutral or grey color



Glass Fiber Reinforced Polymer (GFRP)

- Smooth Finish
- Curved geometry may be considered
- Simple joint pattern
- Neutral white or grey color


T3 CONNECTOR
T3
T2.5
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T1.5
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T.O

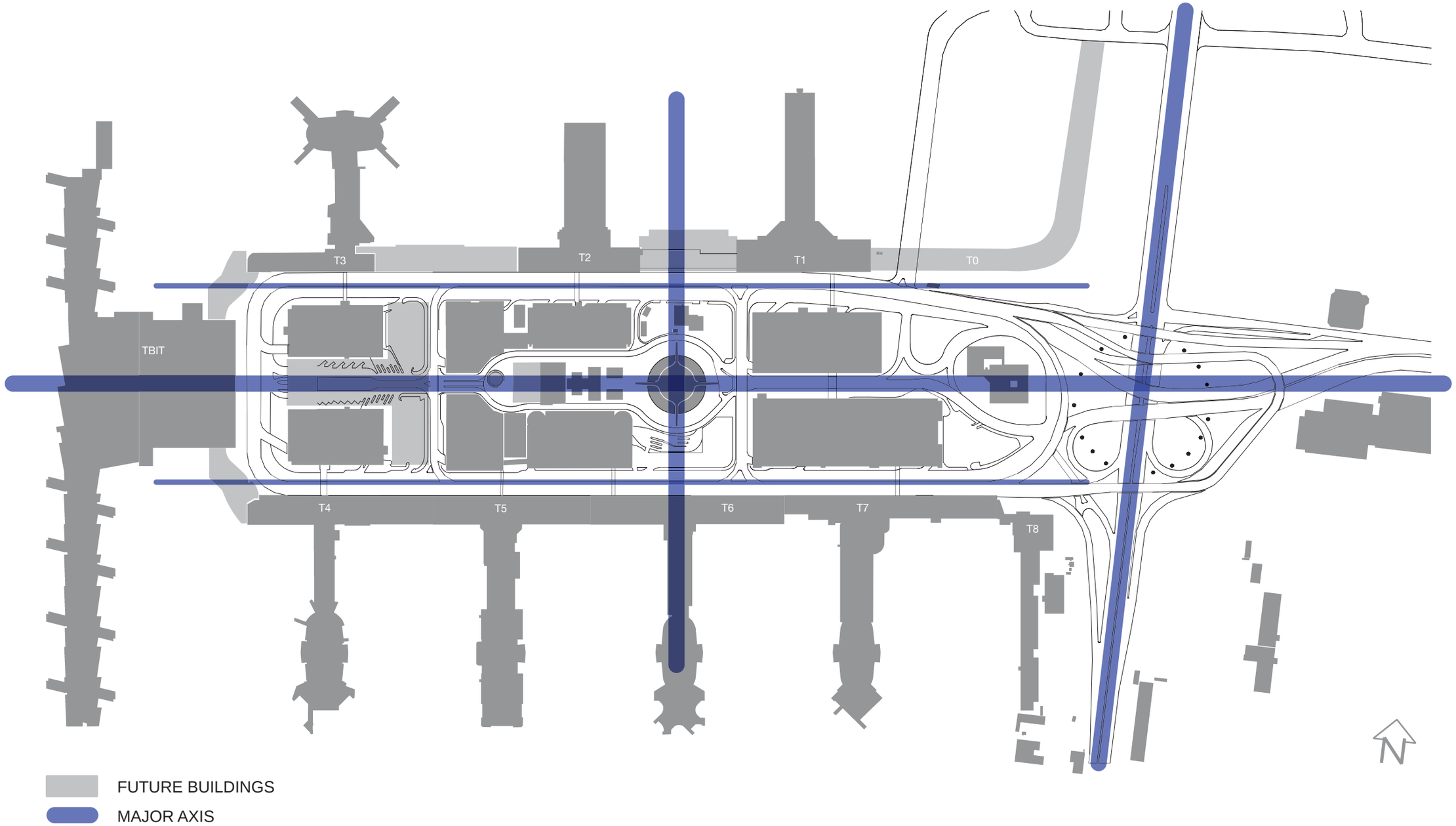
SITE ORGANIZATION

Campus-wide organizational guidelines are introduced to allow creative development of future projects within a large scale planning framework that enhances the overall vision for the CTA Campus.

Guiding Principles are based on observations of existing and planned conditions.

Site Organization includes:

- Organizational Axes
- Vehicular Traffic Patterns
- Streetwalls
- Future Buildings and Open Space
- Key Views and Focal Points
- Roof Profiles and Massing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FUTURE BUILDINGS
MAJOR AXIS

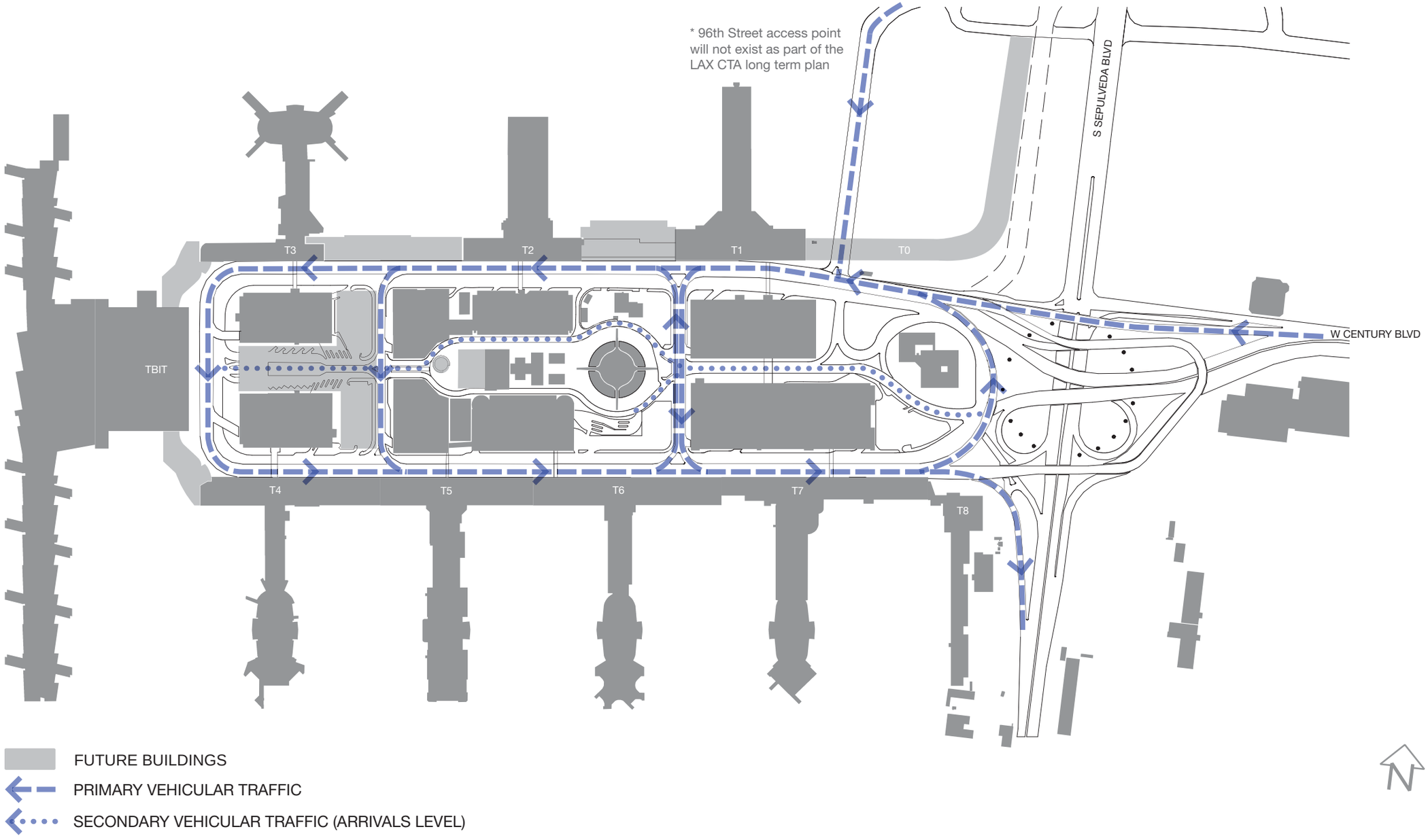
ORGANIZATIONAL AXES

Observations:

- Major and Minor axes identified through the CTA reference existing patterns of buildings, open space, and roadways and are used to organize various campus elements.
- The Major axes are defined by the overall linear organization of the Airport, the Theme Building center-point, and the arrival to the Airport from Century Boulevard and Sepulveda Boulevard.
- The Minor axes are defined by the visual importance of the north and south portions of the ring road as well as at the Airport entry and the Bradley West / TBIT terminus.

Guiding Principle:

❑ Development of future terminals, connectors, and infill buildings should be organized and relate to the axes in a way that emphasizes and does not detract from the Major and Minor axes.


* 96th Street access point
will not exist as part of the
LAX CTA long term plan
S SEPULVEDA BLVD
W CENTURY BLVD
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T6
T7
T8
TBIT
FUTURE BUILDINGS
PRIMARY VEHICULAR TRAFFIC
SECONDARY VEHICULAR TRAFFIC (ARRIVALS LEVEL)
N

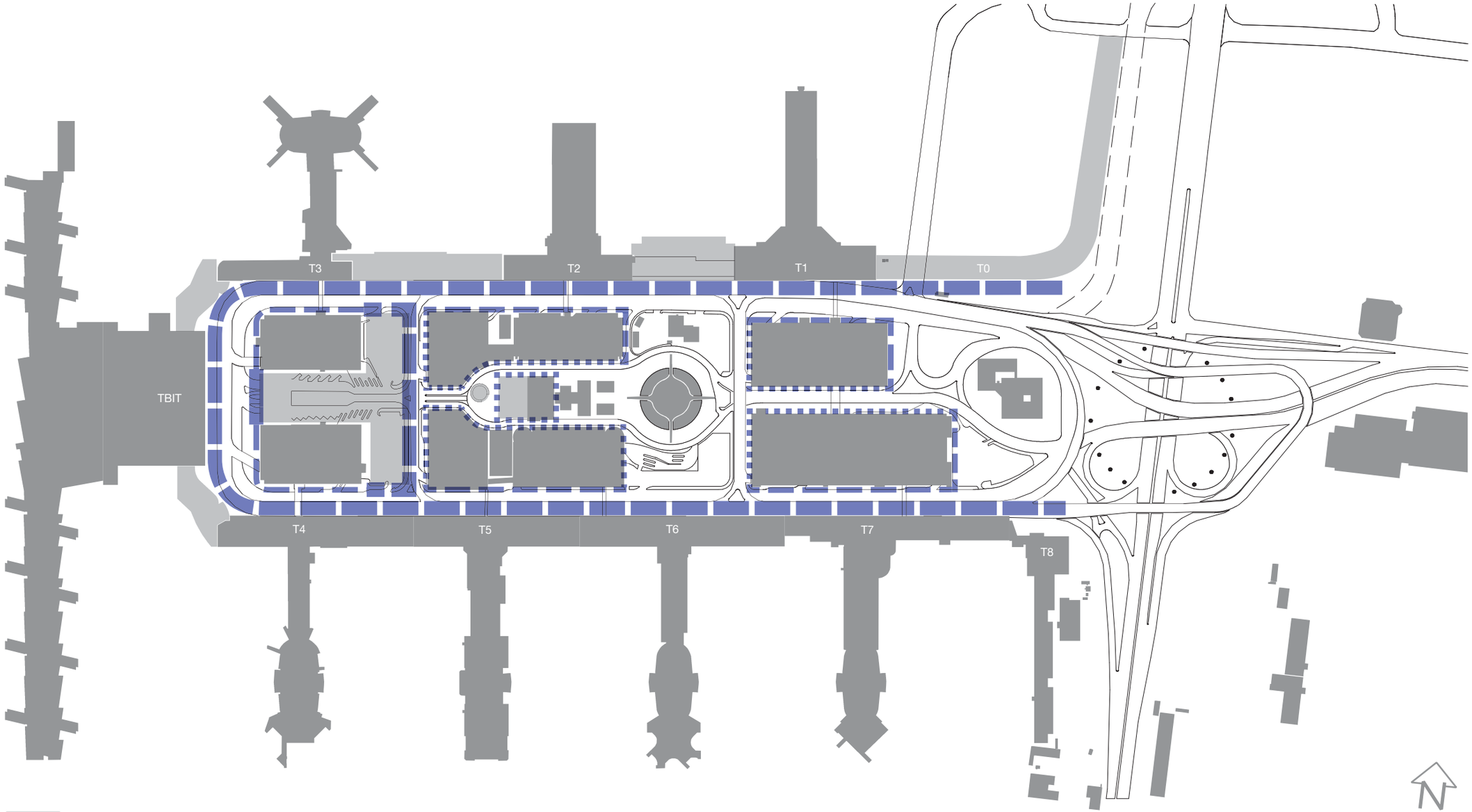
VEHICULAR TRAFFIC PATTERNS

Observations:

- The CTA vehicular entry is angled from the Century / Sepulveda junction relative to the organizational axes of the Airport.
- Primary vehicular traffic is chiefly counterclockwise with inner loops and return roads to the CTA.
- Secondary vehicular traffic occurs at parking garage and surface lot exits at the arrivals 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 orientation and wayfinding.
- ❑ Existing secondary traffic movement maintains the CTA heirarchy and shall be preserved when possible.
- ❑ Future pedestrian bridges design and the possible incorporation of advertising should consider view corridors.



FUTURE BUILDINGS

PRIMARY STREET WALL

SECONDARY STREET WALL

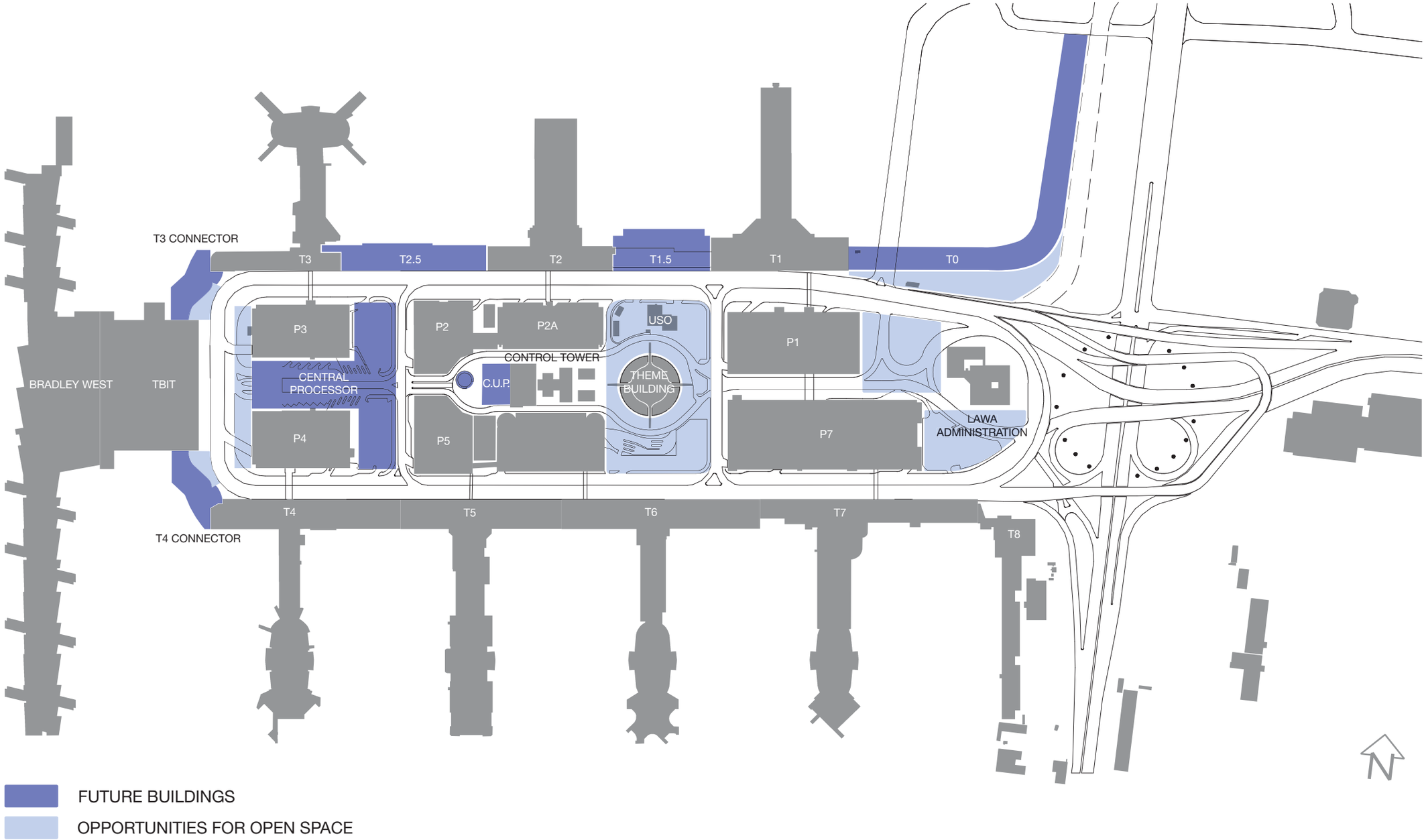
TERTIARY STREET WALL

Observations:

- Streetwalls serve as a visual interface between vehicular / pedestrian visitors and the CTA.
- Primary Streetwalls are defined by the continuous face of the terminal and connector buildings at the outboard side of the ring road, as well as the face of the future Central Processor.
- Secondary Streetwalls are defined by the discontinuous faces of the parking garage buildings.
- Tertiary Streetwalls are defined as campus interior walls not located along primary circulation routes.

Guiding Principles:

- ❑ Cohesive Streetwalls should be further developed to reinforce the Major and Minor axes.
- ❑ Modifications to the existing building facades should be made to reinforce the Streetwall concept and strengthen the unity and cohesion around the ring road and CTA. Modifications should reflect the primary and secondary hierarchy and relate to TBIT / Bradley West as a terminus.
- ❑ To enhance campus cohesion, future buildings should maintain and reinforce the identified Primary and Secondary Streetwalls.
- ❑ It is recommended that the future Terminal 0 be aligned with the Primary Streetwall as opposed to the angled roadway.
- ❑ Facade treatment should be different for the Primary and Secondary Streetwalls. The Primary Streetwalls should use materials and language that promote the overall cohesion of the terminal buildings and connectors. The Secondary and Tertiary Streetwalls should use materials and language that promote the overall cohesion of the parking structures.


T3 CONNECTOR
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P2A
USO
P1
CONTROL TOWER
BRADLEY WEST
TBIT
CENTRAL PROCESSOR
C.U.P.
THEME BUILDING
P4
P5
P7
LAWA ADMINISTRATION
T4
T5
T6
T7
T8
T4 CONNECTOR
FUTURE BUILDINGS
OPPORTUNITIES FOR OPEN SPACE

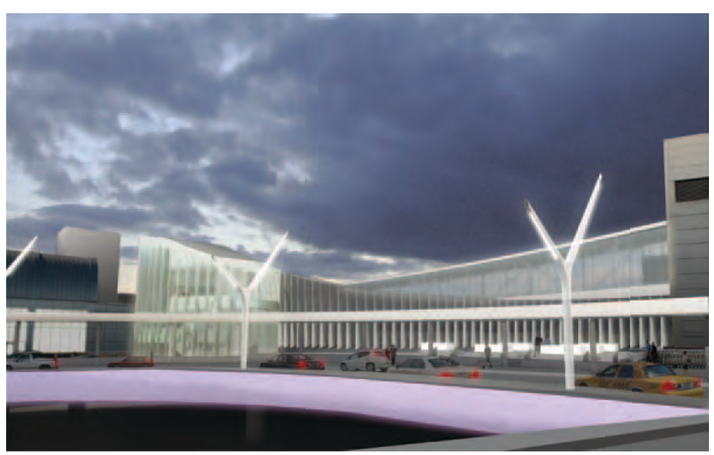
FUTURE BUILDINGS AND OPEN SPACE

Observations:

- Future building projects along the CTA include the T4 Connector, T3 Connector, Terminal 2.5, Terminal 1.5, Terminal 0, the Central Processor, the Central Utility Plant (scheduled for completion in 2013) and the Automated People Mover (APM) system and stations.

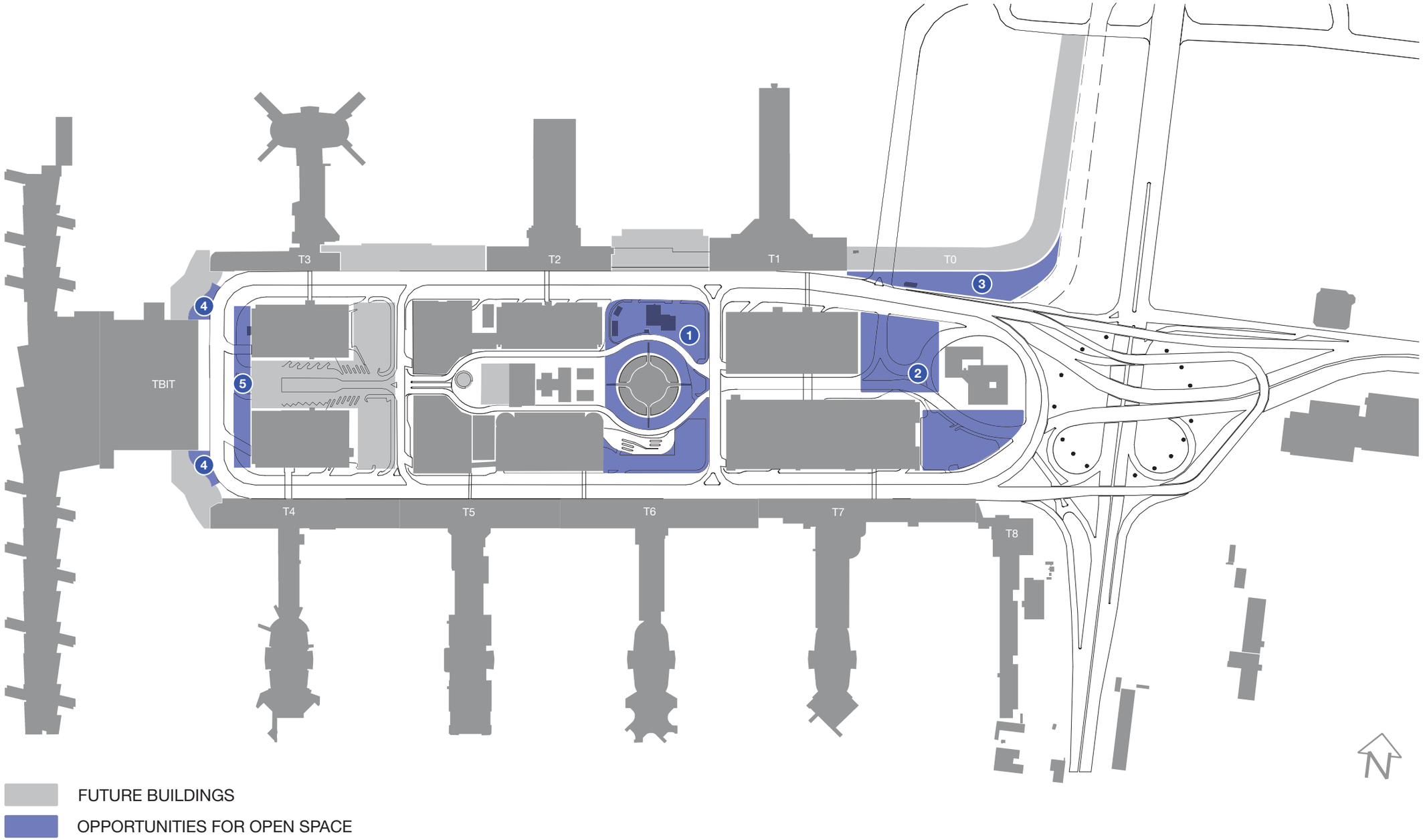
Guiding Principles:

- ❑ Future buildings should relate to the Major and Minor axes and bring cohesion to the Streetwalls.
- ❑ Relief from the Streetwalls should occur at designated zones where views and focal points are framed.
- ❑ Open space should provide the opportunity for protecting focal points.
- ❑ Open space is a valuable asset and consideration should be given to preserving open space in these locations:
  - o Surrounding the Theme Building for use as a plaza
  - o Around the LAWA Administration Building
  - o Fronting the future Terminal 0 building
  - o Between the face of the future T3 and T4 Connectors and the curb at the Departures level roadway
  - o The area east of TBIT across the Arrivals level



T4 Connector

Central Utility Plant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FUTURE BUILDINGS
OPPORTUNITIES FOR OPEN SPACE

Guiding Principles:

1. Open Space at Theme Building:

- ❑ This open space represents valuable real estate on both the north and south sides of the Theme Building. The potential for passenger and vehicle circulation combined with the open space should be evaluated as a part of an area specific master plan. If maintained as open space, this area could include mostly functional hardscape with minimal planting.
- ❑ Planting should be low-maintenance and drought tolerant.
- ❑ The open space design should reference geometries of Bradley West and the Theme Building.
- ❑ The open space is utilized by pedestrians crossing the CTA and the design should facilitate rapid pedestrian circulation along the periphery.
- ❑ Include program that promotes use of the open space but does not require intensive construction

2. Open Space near LAWA Administration Building

- ❑ Consideration should be given to preserving this open space as a “Gateway” to the Airport.
- ❑ The open space design could complement the open space in front of future Terminal 0.
- ❑ The open space may include areas for public art.
- ❑ Planting should be low-maintenance and drought tolerant.

3. Open Space in front of Future Terminal 0

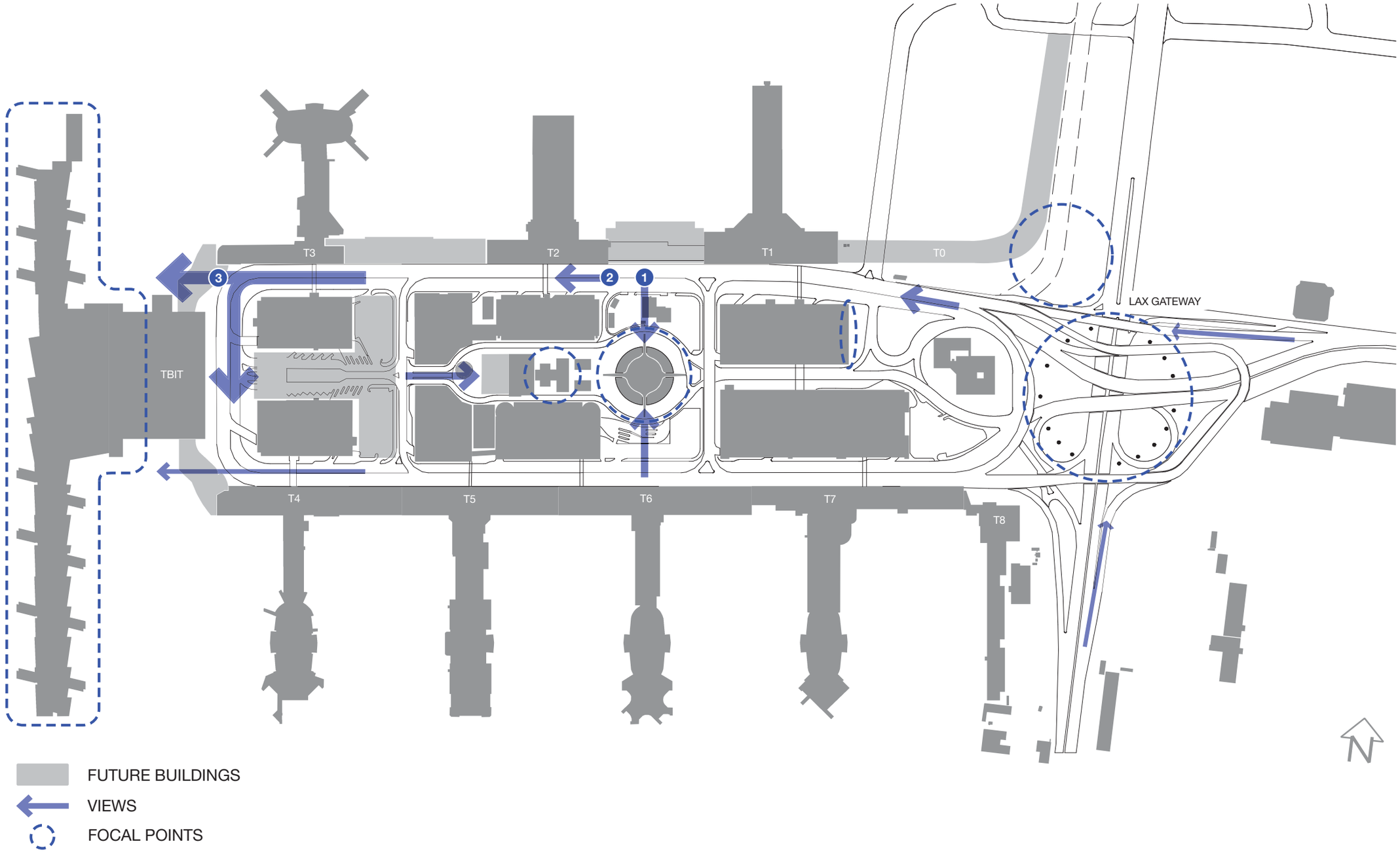
- ❑ The open space could be developed as a potential Transit Station.
- ❑ The open space design could complement the open space near the LAWA Administration Building.
- ❑ The open space may include areas for public art.
- ❑ Planting should be low-maintenance and drought tolerant.

4. Open Space between the face of the future T3 and T4 Connectors and the Roadway

- ❑ The open space in front of the future T3 and T4 Connectors should be of consistent design.
- ❑ The open space may include areas for public art.
- ❑ Planting should be low-maintenance and drought tolerant.

5. Open Space between TBIT and Parking Garages 3 and 4

- ❑ Open space should provide a “first impression” of Los Angeles for arriving international visitors; the design should reflect typical regional styles.
- ❑ The open space in front of Parking Garages 3 and 4 should be of consistent design.
- ❑ The open space may include areas for public art.
- ❑ Planting should be low-maintenance and drought tolerant.


T3
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LAX GATEWAY
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3
FUTURE BUILDINGS
VIEWS
FOCAL POINTS

KEY VIEWS AND FOCAL POINTS

Observations:

- Existing focal points include the Bradley West roof line, the Control Tower, the Theme Building, and the Light Pylons.
- The primary vehicular approach to the CTA via Century Boulevard emphasizes the existing ring of Light Pylons 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 route 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 Departures level roadway along Terminals 4 - 8.
- 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.

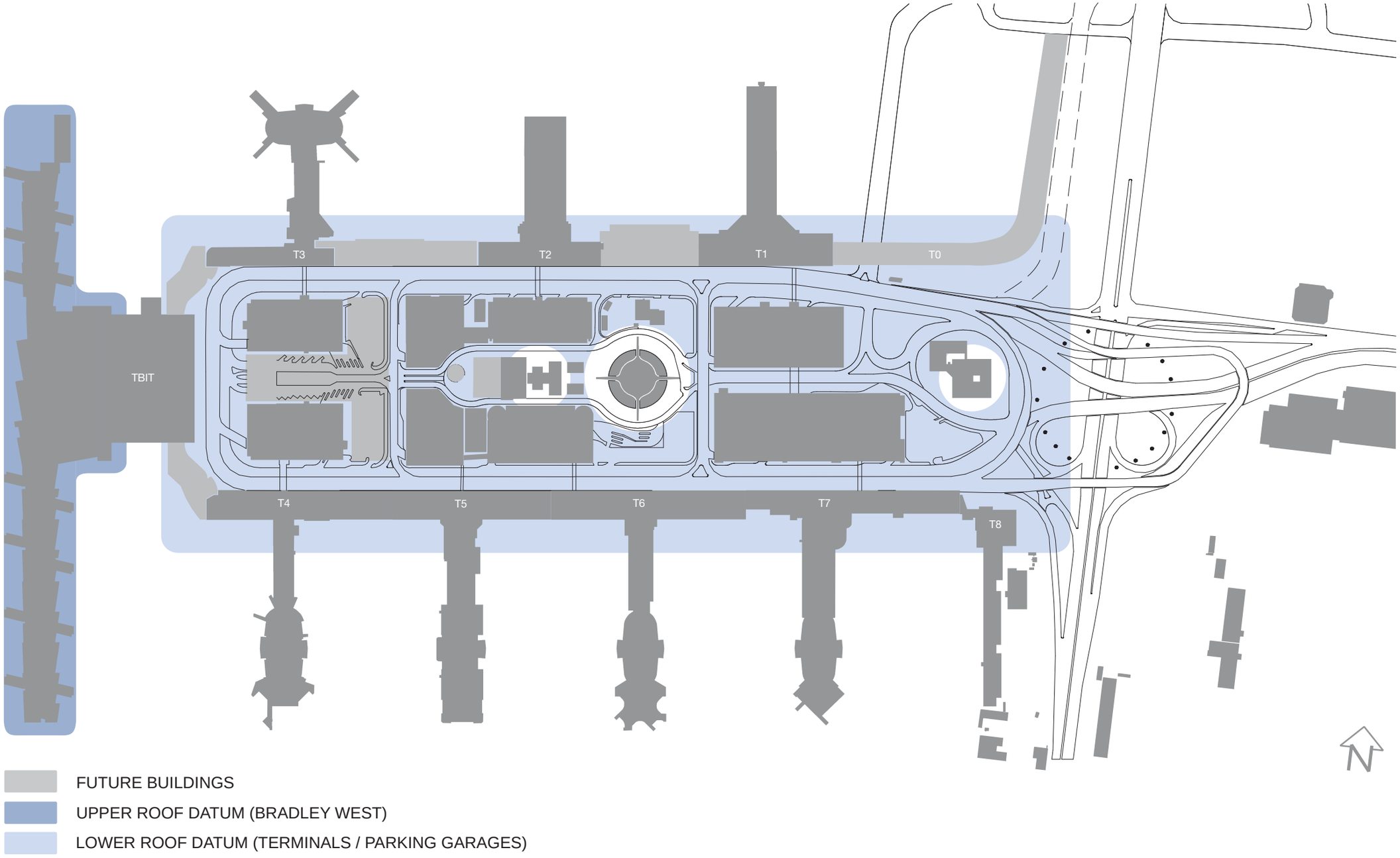
Guiding Principles:

- ❑ The views identified above should be preserved and maintained.
- ❑ Consideration should be given to protect focal points in open spaces.
- ❑ The east wall of Parking Garage 1 and the adjacent open space could be developed to enhance the Airport “Gateway”.

View 1

View 2

View 3



FUTURE BUILDINGS

UPPER ROOF DATUM (BRADLEY WEST)

LOWER ROOF DATUM (TERMINALS / PARKING GARAGES)

ROOF PROFILES AND MASSING

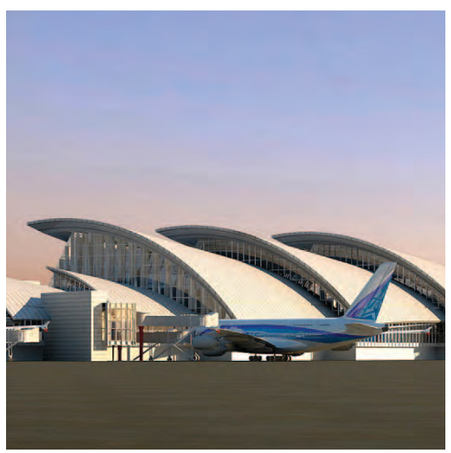
Observations:

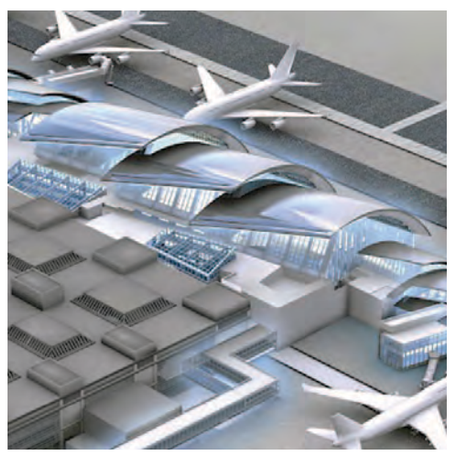
- TBIT and Bradley West serve as a visual terminus or “head” of the CTA.
- The site massing at the north and south edges of the CTA, east of TBIT, consist of medium height
- structures.
- The central portion of the CTA, comprised mostly of parking garage buildings, shows generally low massing, but is punctuated by high points at the Control Towers, Theme Building and Administration Building.

Guiding Principles:

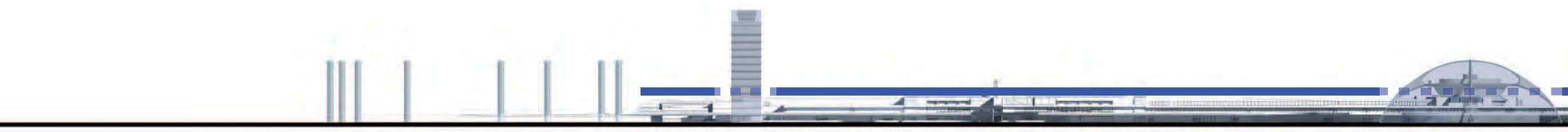
❑ New buildings should reinforce existing massing patterns. Future terminal buildings at the north and south should respect the height of the existing terminals, excluding TBIT. Future buildings located in the central portion of the CTA should consider the height and massing relative to TBIT and Bradley West.

❑ TBIT and Bradley West should be visually reinforced as the CTA “head,” where possible, by retaining views towards the roof line.





CTA Sectional View Looking North



CTA Sectional View Looking South

Roof Datum

CTA TERMINAL MASSING