

Source: Ricondo & Associates, Inc.; Martínez Corp. Aerial Photography (1996);  
 Department of Aviation Airport Management and Records  
 Prepared by: Ricondo & Associates, Inc.

Exhibit V-57



## West Terminal Area Refined Concept 3

- A parking structure is set back 300 feet west of the face of the terminal facility to meet security requirements and facilitate roadway development options.

Three variations on the north/south pier concept were developed within the constraints noted above. Differences between these alternatives are primarily associated with the separation between piers and orientation of the easternmost concourse, since it is limited by the site constraints (primarily Runway 4L/22R). The following paragraphs discuss each refined concept for the West Terminal Development Area.

- *Refined Concept 1*, shown on Exhibit V-55, illustrates three concourses with a linear layout for the west and center concourses, and an L-shaped east concourse. The terminal layout plan indicates that a possible total of 21,050 linear feet of apron frontage could be achieved with the development of all three concourses.
- *Refined Concept 2*, shown on Exhibit V-56, is similar to Refined Concept 1 with the exception of the east concourse, which is shown configured as a T-shaped layout. The terminal layout plan indicates that a possible total of 16,700 linear feet of apron frontage could be achieved with the development of all three concourses.
- *Refined Concept 3*, shown on Exhibit V-57, provides four linear concourses. The terminal layout plan indicates that a possible total of 19,300 linear feet of apron frontage could be achieved with the development of all four concourses.

Subsequent to the development of these refined concepts, airfield operational analysis by the planning team, in collaboration with the FAA, determined that the West Terminal Development Area should be developed without constraining the operations of Runway 4L-22R. Furthermore, to provide efficient movement of aircraft between the north and south sides of the airfield, dual north/south ADG VI taxilanes should be provided at the west end of the airfield with independent pushback areas on either side. In response to these specific airfield operational requirements, it was determined that further refinement of the West Terminal should be developed to maximize future gate capability and the efficient and safe flow of aircraft through the airfield movement areas. Further development of the West Terminal concept should also incorporate either an independent apron area taxilane or an independent parking/push-back area to act as a buffer between the taxiways and the aircraft apron.

#### **5.2.4 Preferred Terminal Concept**

The additional gate capability provided by the extension of Concourse K, the new Terminal 4, and the new Terminal 6 identified as part of the WGP is anticipated to provide a total gate frontage of approximately 29,760 linear feet (see **Table V-11**). To achieve the total gate frontage requirement of 38,070 linear feet for the 2018 planning horizon (as defined in Section 5.2.1), an additional 8,300 linear feet of gate frontage is needed. The previously discussed Refined Concepts for the West Terminal Development Area were developed further to meet this minimum gate frontage requirement. **Exhibit V-58** shows the revised finalized concept for the West Terminal. The significant enhancements that were not shown in the previous versions and that make this scheme preferred to the Refined Concepts are as follows:

**Table V-11**

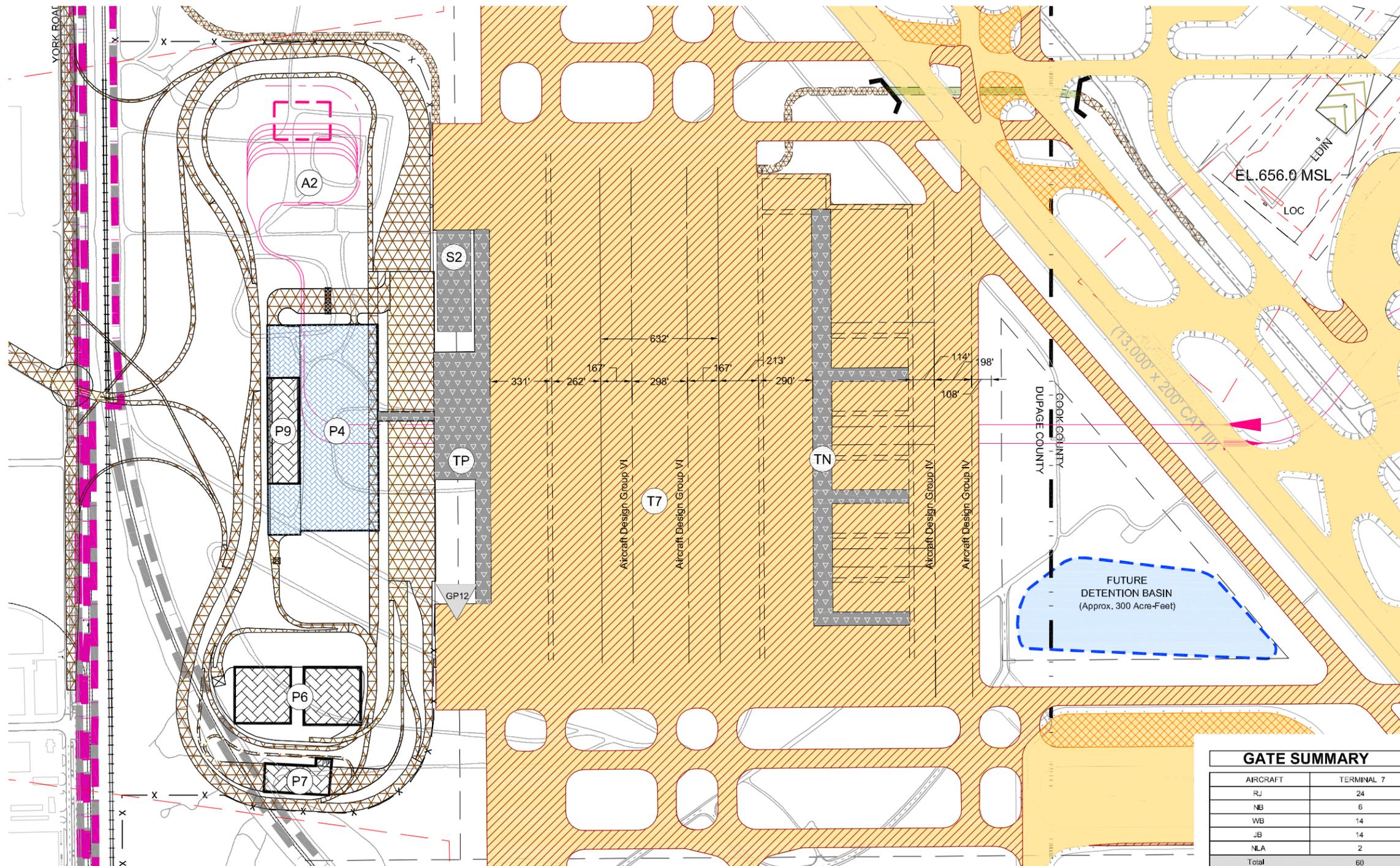
## Summary of Future Gate Frontage Planned Compared to Existing Frontage

|                           | Existing <sup>1/</sup> |               | Future <sup>2/</sup> |               |
|---------------------------|------------------------|---------------|----------------------|---------------|
|                           | Gates                  | Frontage (LF) | Gates                | Frontage (LF) |
| <b>Terminal Core Area</b> |                        |               |                      |               |
| Terminal 1                |                        |               |                      |               |
| Concourse B               | 21                     | 2,969         | 19                   | 2,969         |
| Concourse C               | <u>29</u>              | <u>4,290</u>  | <u>26</u>            | <u>4,290</u>  |
| Subtotal                  | 50                     | 7,259         | 45                   | 7,259         |
| Terminal 2                |                        |               |                      |               |
| Concourse E               | 16                     | 2,362         | 13                   | 2,362         |
| Concourse F               | <u>29</u>              | <u>2,074</u>  | <u>13</u>            | <u>2,074</u>  |
| Subtotal                  | 45                     | 4,436         | 26                   | 4,436         |
| Terminal 3                |                        |               |                      |               |
| Concourse G               | 24                     | 2,237         | 23                   | 2,294         |
| Concourse H and K         | 39                     | 5,636         | 33                   | 6,306         |
| Concourse L               | <u>10</u>              | <u>1,991</u>  | <u>-</u>             | <u>-</u>      |
| Subtotal                  | 73                     | 9,864         | 56                   | 8,600         |
| Terminal 4                |                        |               |                      |               |
| Subtotal                  | -                      | -             | 12                   | 2,900         |
| Total Terminal Core Area  | 168                    | 21,559        | 139                  | 23,195        |
| <b>East Terminal Area</b> |                        |               |                      |               |
| Terminal 5 – Concourse M  | 21                     | 3,970         | 17                   | 3,748         |
| Terminal 6                | <u>-</u>               | <u>-</u>      | <u>16</u>            | <u>2,818</u>  |
| Total East Terminal Area  | 21                     | 3,970         | 33                   | 6,566         |
| <b>West Terminal Area</b> |                        |               |                      |               |
| Terminal Building         | -                      | -             | 15                   | 3,000         |
| Satellite Concourse       | <u>-</u>               | <u>-</u>      | <u>45</u>            | <u>5,700</u>  |
| Total West Terminal Area  | -                      | -             | 60                   | 8,700         |
| Total All Terminals       | 189                    | 25,529        | 232                  | 38,461        |

1/ Existing gates represent actual number of aircraft positions that are accommodated by apron markings (i.e., lead-lines, gate numbers, etc.).

2/ The future number of gates represents the aircraft parking positions identified in the gate model for the 2018 schedule. The size of aircraft assigned to each carrier group and terminal is significantly different from the existing utilization.

Source: Ricondo & Associates, Inc.  
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- Existing Airfield Pavement
- Future Airfield Pavement
- Airfield Pavement Demolition
- Existing Apron Pavement
- Future Terminal Building
- Existing Airport Buildings In AOA To Be Relocated
- Existing Airport Facility
- Relocated Airport Buildings Previously In AOA
- Future Roadway
- Future Structured Parking
- Future Surface Parking
- Future Airport Property Line
- Existing Airport Property Line
- Future Guard Posts
- Future Service Road
- Service Road Upgrade
- Runway Protection Zone
- Runway Safety Area
- Object Free Zone
- Air Operations Area (AOA)
- Localizer Critical Area
- Automated People Mover System (Underground)
- Relocated Railroad

| GATE SUMMARY |            |
|--------------|------------|
| AIRCRAFT     | TERMINAL 7 |
| RJ           | 24         |
| NB           | 6          |
| WB           | 14         |
| JB           | 14         |
| NLA          | 2          |
| Total        | 60         |

| FACILITY LIST |                                  |
|---------------|----------------------------------|
| (T7)          | FUTURE TERMINAL 7                |
| (TP)          | FUTURE CONCOURSE P               |
| (TN)          | FUTURE CONCOURSE N               |
| (A2)          | APM MAINTENANCE & STORAGE YARD   |
| (P4)          | PARKING STRUCTURE                |
| (P6)          | BUS/LIMO STAGING AREA            |
| (P7)          | TAXI STAGING AREA                |
| (P9)          | RENTAL CAR QUICK TURN AREA       |
| (S2)          | HEATING & REFRIGERATION FACILITY |

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Exhibit V-58



## West Terminal Complex Preferred Concept

- Two linear concourse facilities, one connected directly to the terminal on the west side of the site and a satellite concourse on the east side of the site. This terminal configuration provides an additional 8,700 linear feet of apron frontage, which exceeds the 2018 facility requirements for total gate frontage at the Airport combined with the gate capability in the Terminal Core and East Terminal Areas, as defined in the WGP.
- Provision of dual north-south taxilanes between the two concourses with independent ADG VI push-back areas to allow parking and push-back movements by aircraft into and out of the gates without obstructing taxilane movements accessing the terminal area from the North and South Airfield facilities.
- Ability to develop terminal components without encroaching on the operations of Runway 14R-32L or Runway 4L-22R.
- Indication of finger piers on the east side of the satellite concourse to show one of several potential options to accommodate regional jet operations. It is possible that there may be an early phase development requirement to accommodate regional jet operations in advance of mainline jet operations.

**Exhibit V-59** indicates the layout of the Preferred Terminal Concept showing the total combined apron area of 38,460 linear feet provided in all three terminal areas—Terminal Core, East Terminal, and West Terminal (assuming WGP development). Table V-11 summarizes the planned future gate frontage for each terminal and concourse and compares it to the existing gate frontage currently available.

**LEGEND (Continued)**

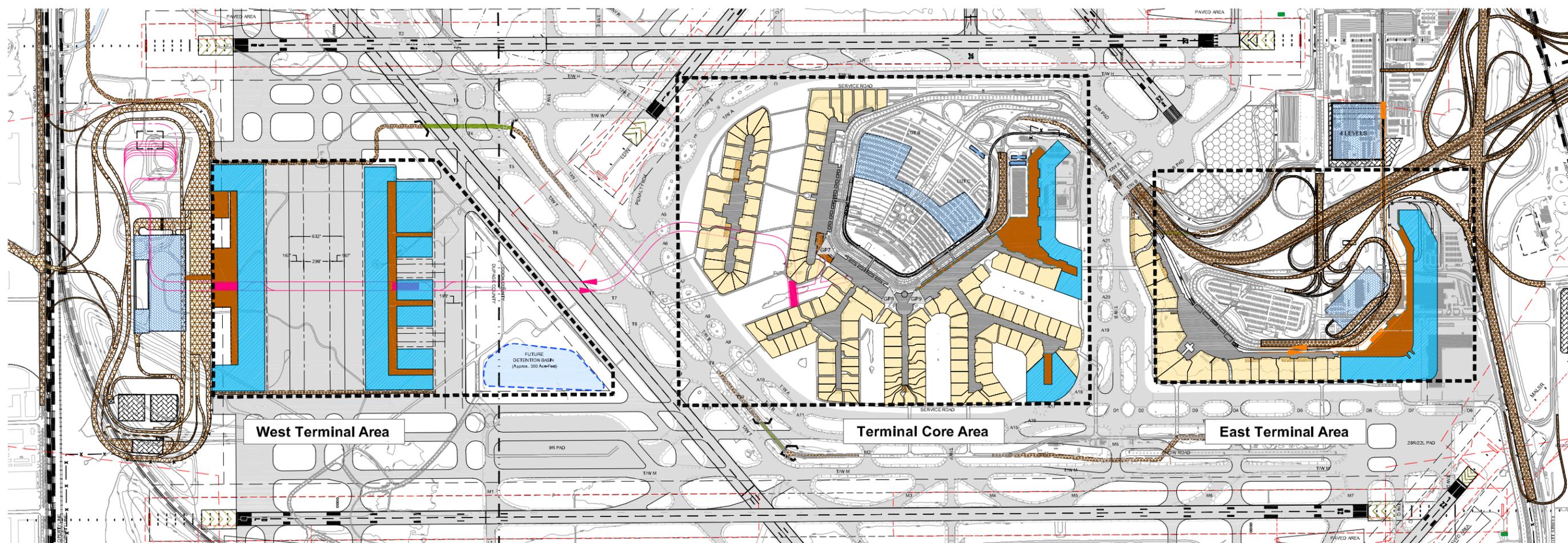
-  Runway Visibility Zone
-  Glide Slope Critical Area
-  Localizer Critical Area
-  Topographical Contours
-  Future Airport Transit System
-  Automated People Mover System (Underground)
-  Relocated Railroad
-  Airport Reference Point
-  Existing Guard Posts

**LEGEND (Continued)**

-  Future Surface Parking
-  Existing Airport Property Line
-  Future Airport Property Line
-  County Line
-  Runway Protection Zone
-  Runway Safety Area
-  Object Free Area
-  Precision Object Free Area
-  Air Operations Area (AOA)

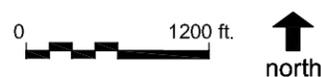
**LEGEND**

-  Airfield Pavement
-  Existing Airport Building
-  Future Terminal Building
-  Existing Concourse Apron
-  Future Concourse Apron
-  Water Element
-  Future Airport Facility
-  Future Aviation Development
-  Future Structured Parking



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Exhibit V-59



**Preferred Terminal Concept**