

8. Land Acquisition

Land necessary for the OMP is assumed to be acquired and cleared prior to specific areas being required for development. The following text details the various areas that are required for acquisition, with the associated timeframes for development. Both fee-simple and avigation easement acquisitions are proposed as part of the OMP. **Exhibits 25** through **28** depict both the fee-simple and avigation easement acquisition areas. It is envisioned that fee-simple acquisitions will be conducted on areas that may be required for Airport development and avigation easements may be acquired in areas where fee-simple may not be necessary but control of obstacles is required.

8.1 Fee-Simple Acquisitions

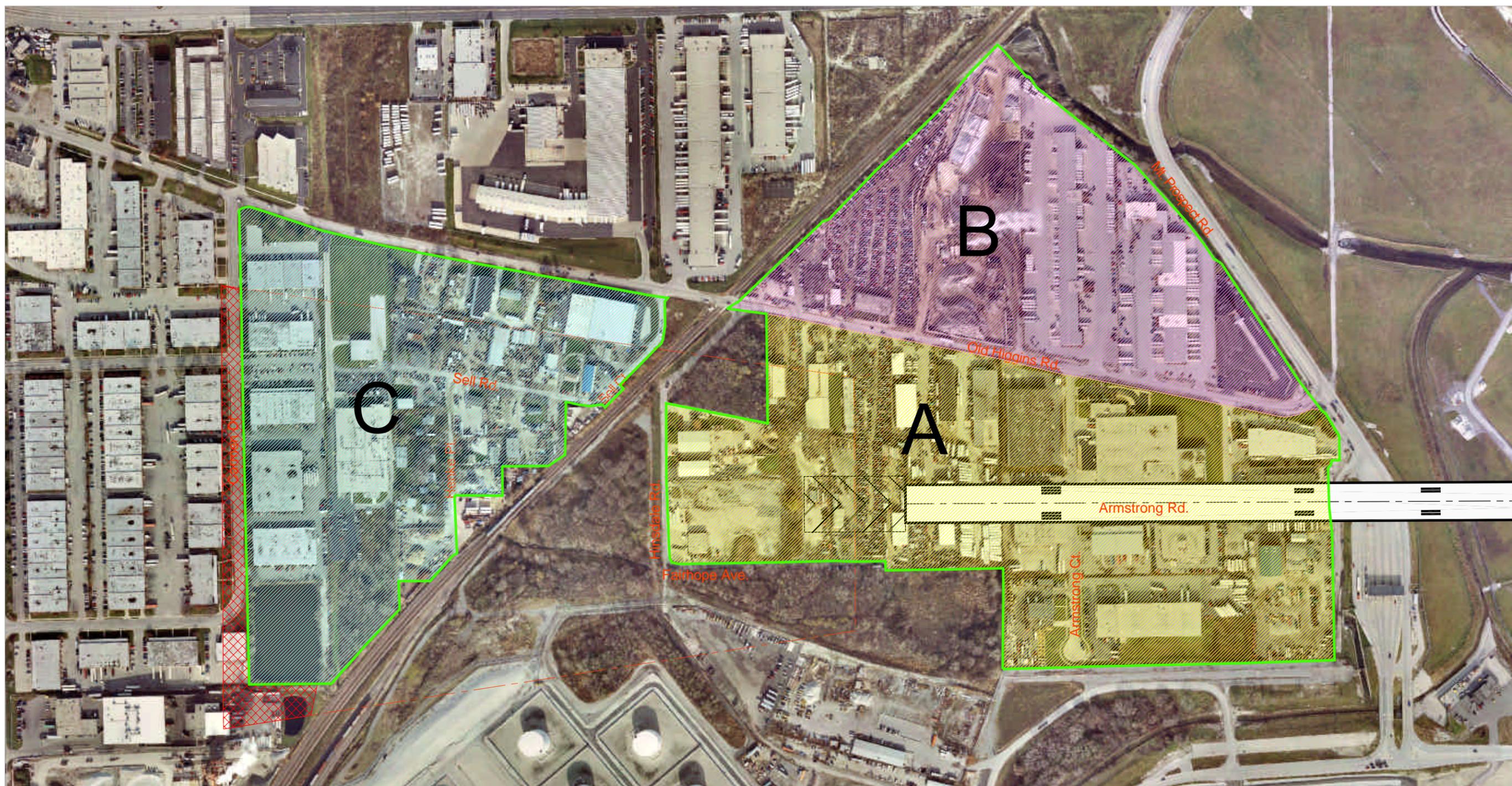
Exhibit 25 illustrates the northernmost acquisition area. Fee-simple acquisition areas A, B, and C are included. Area A includes the area bounded by the existing Airport property line, Old Higgins Road on the north, and the Union Pacific/Canadian Pacific Rail on the west. Area A is approximately 56.73 acres. **Table 7** details the characteristics of the existing facilities in the acquisition areas. Area A is required for the construction of Runway 9L-27R.

Area B is the proposed fee-simple acquisition area bounded by Old Higgins Road on the south, Mt. Prospect Road on the east, and the Union Pacific/Canadian Pacific Rail on the west. Area B includes the bordering Old Higgins Road. This area, depicted on Exhibit 25, is approximately 35.73 acres. This area is required for the relocation of Mt. Prospect Road and associated construction activities for the road and new Runway 9L-27R. Mt. Prospect Road should be relocated prior to impacts on the existing road alignment by the new Runway 9L-27R.

Area C also depicted on Exhibit 25, is the area bounded by the Union Pacific/Canadian Pacific Rail on the east, Old Higgins Road on the north, and Carmen Drive on the west. Carmen Drive is not included in Area C. This area, approximately 42.23 acres, is proposed for fee-simple acquisition for controlling Airport-compatible land uses in conjunction with the RPZ of the new Runway 9L-27R. This parcel may also be used for construction staging.

Area D is depicted on Exhibits 26 and 27. The area is bounded by the existing Airport property line and the Canadian Pacific Rail on the west and south. This area, approximately 199.01 acres, is proposed for fee-simple acquisition for development of the new Runway 10C-28C and the relocation of the Irving Park Road and the Union Pacific Rail. This land area will also be used for the relocation of the Bensenville Ditch.

Area E contains the St. Johannes Cemetery, which is illustrated on Exhibit 26. This existing cemetery currently contains approximately 1,200 gravesites of which approximately 85 percent are occupied. This area is planned for fee-simple acquisition for the purposes of development of Runway 10C-28R and the relocation of the Union Pacific Rail.



Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

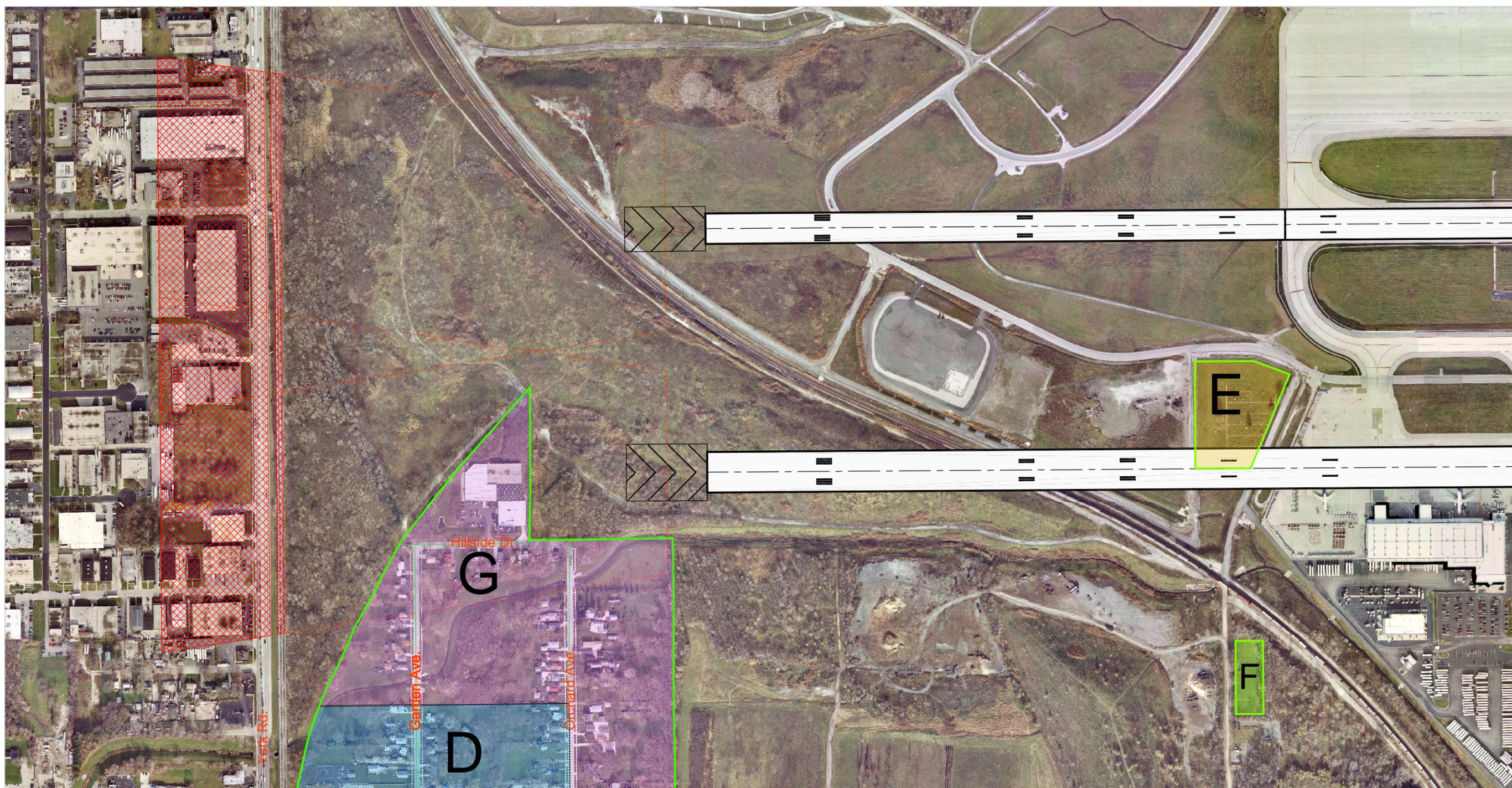
Exhibit 25



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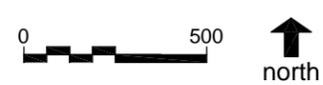
- Fee-Simple Acquisition Boundary
- Runway Protection Zone
- ⊠ Avigation Easements

Property Exhibit
Northwest



Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

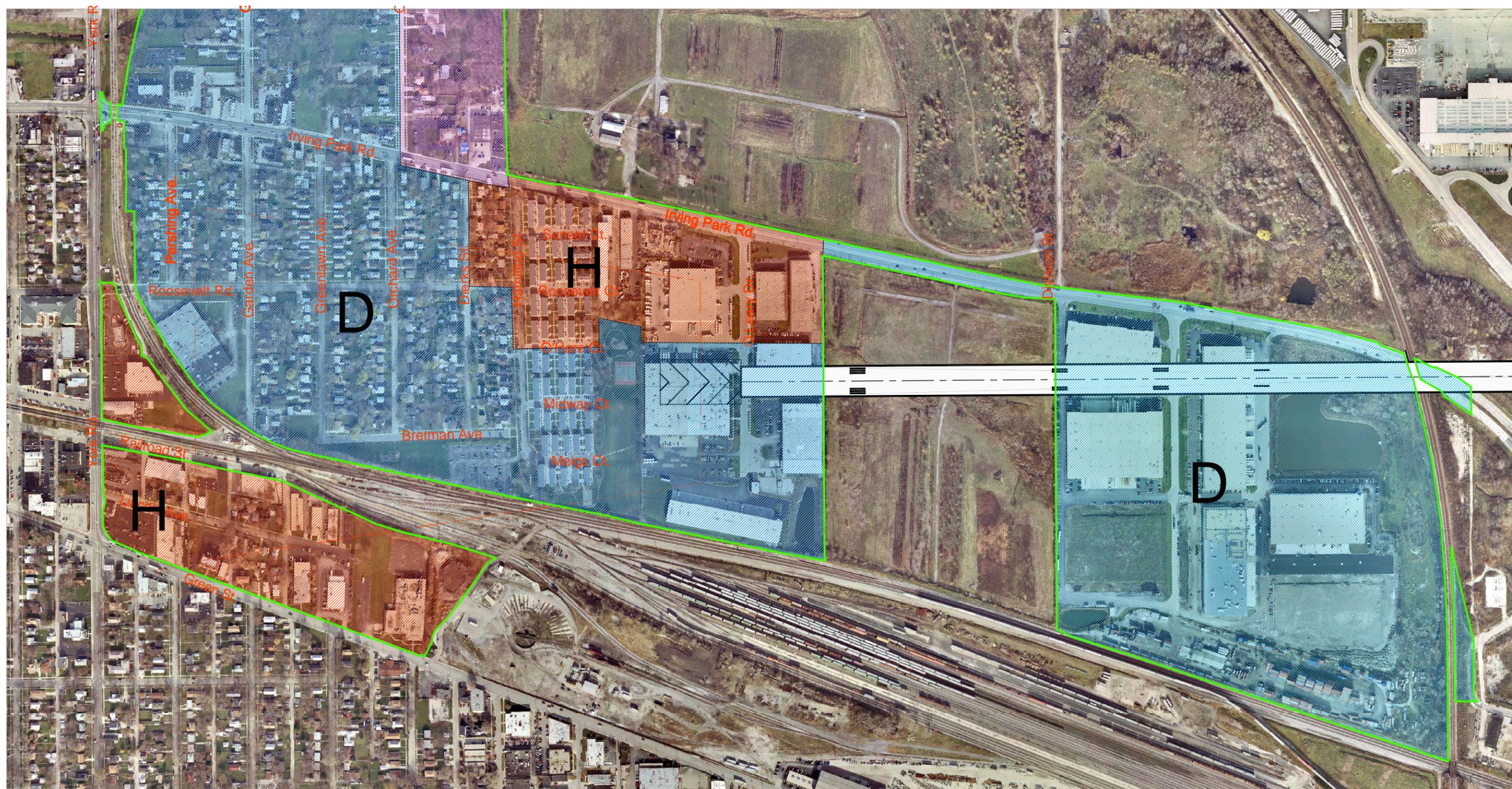
Exhibit 26



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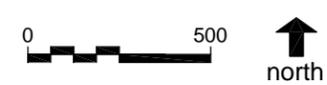
- Fee-Simple Acquisition Boundary
- - - Runway Protection Zone
- ▨ Avigation Easements

**Property Exhibit
Southwest (1 of 2)**



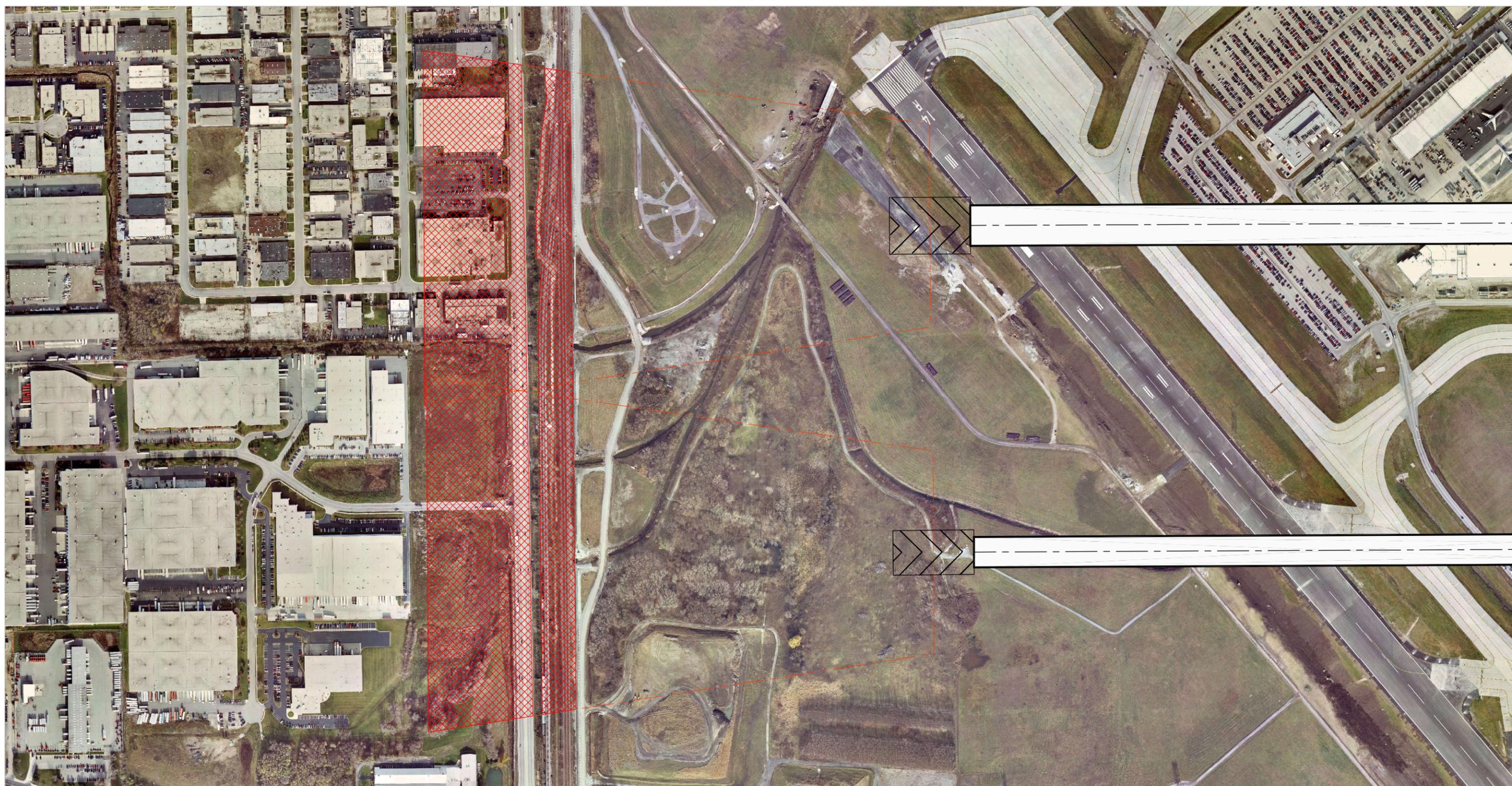
Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 27



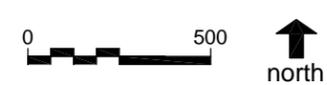
Legend:
 — Fee-Simple Acquisition Boundary
 - - - Runway Protection Zone

**Property Exhibit
 Southwest (2 of 2)**



Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit 28



Legend:

- Fee-Simple Acquisition Boundary
- Runway Protection Zone

Avigation Easements

Property Exhibit - Avigation Easement

Table 7

Summary of Land Acquisition Areas

Area	North (A, B, & C)	South (D, G, & H)	E	F	Total
Commercial/ Industrial Properties	54	55	St. Johannes Cemetery	Resthaven Cemetery	109
Residential Units	6	533			539
Approximate Acreage	135	297	5	1	438

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Area F contains Resthaven Cemetery depicted on Exhibit 26. This existing cemetery currently contains approximately 200 gravesites of which approximately 95 percent are occupied. This area is planned for fee-simple acquisition for the purposes of development of Runway 10C-28C and the relocation of the Union Pacific Rail.

Area G is approximately 45.84 acres and is required for relocation of the Union Pacific Rail and the construction of Runway 10R-28L. The area, bounded by Irving Park Road to the north and Area D to the west and south, is planned for fee-simple acquisition.

Area H, approximately 52.67 acres, is an area bounded by York Road to the west, the Canadian Pacific Rail to the northeast, and Green Street to the south. This area is planned for fee-simple acquisition for the purpose of controlling Airport-compatible land uses associated with the RPZ of Runway 10R-28L.

8.2 Avigation Easement Acquisitions

There are several areas on the west side of the Airport where avigation easement acquisitions are planned. Avigation easements should be pursued in order to control developments within RPZs in situations where fee-simple acquisitions may not be practical or necessary. The western RPZs of Runways 9C-27C, 9R-27L, 10L-28R, and 10C-28C partially extend west of York Road. For practical purposes, fee-simple acquisitions are not planned west of York Road; however, avigation easements are planned for acquisition within these areas. Such areas for easements are illustrated on Exhibits 25 through 28. Avigation easement acquisition is also proposed for the eastern RPZ of Runway 9L-27R.

It should be noted that, as an alternative to avigation easement acquisitions, it may be possible to pursue zoning restrictions in order to obtain the same abilities to control development.

9. Preliminary Phasing Plan

The phased implementation of the OMP is a complex multi-year process entailing the construction of one new runway, the relocation of three existing runways, development of associated taxiways and related facilities, lengthening two runways, relocating existing facilities, and construction of a new West Terminal Complex with supporting roadway and parking facilities. The following is a general overview of the sequence of activities that are required to complete the phased implementation plan. This sequence of activities will define the process for constructing planned improvements while maintaining airport operations.

Phased construction is undertaken in two major phases, each having three primary parts. Associated exhibits for each phase present the location and order of the sequence of events throughout project phasing. **Exhibits 29 through 37** depict the preliminary phasing plan. While these parts are depicted separately, each of the parts, and the phases, may occur concurrently. Refinement of the implementation plan will occur through the design and construction planning process.

9.1 Phase 1

Phase 1 encompasses the construction of the northernmost runway, Runway 9L-27R, the southern closely spaced parallel runway, Runway 10C-28C, and the extension of Runway 10L-27R (existing Runway 9R-27L). The first major element of Phase 1 is the construction of the north runway. The second part is the construction of an extension to Runway 10L-28R, followed by the construction of Runway 10C-28C.

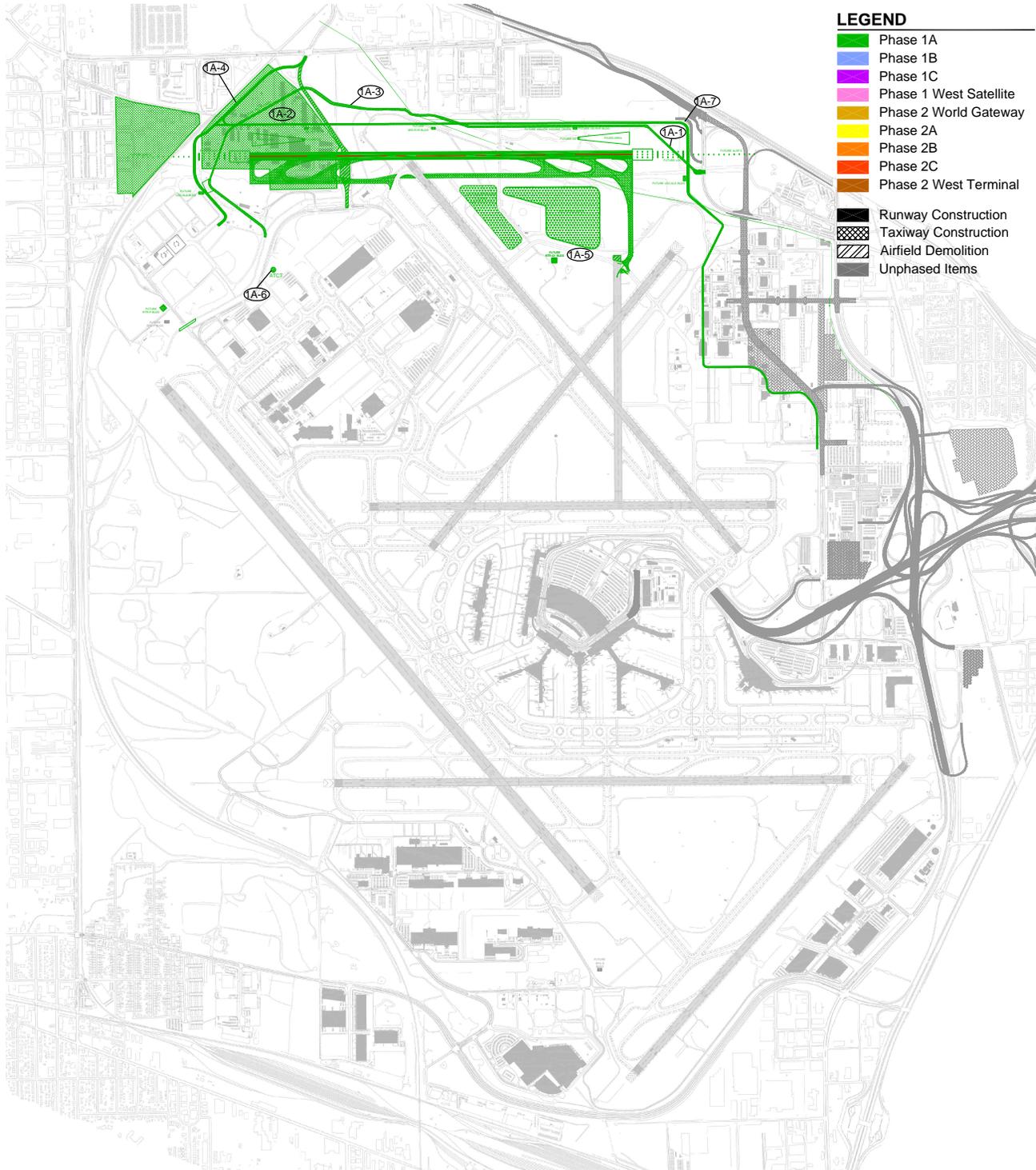
9.1.1 Phase 1A - Runway 9L-27R

Runway 9L-27R and associated taxiways will be built during the first phase of construction. The construction of this runway is dependent on the relocation and/or reconfiguration of various facilities, roads, and waterways and the acquisition of property in the northwest quadrant of the Airport. The following is a list of significant facilities that are impacted by Runway 9L-27R construction:

- 1A-1. Willow-Higgins Creek Culvert:** To meet FAA requirements, the portion of the creek near the east end of Runway 9L-27R will be enclosed in a culvert through the runway OFA. This work will enable construction to begin on the eastern half of Runway 9L-27R.
- 1A-2. Northwest Area Land Acquisition:** Land acquisition efforts for the north airfield focus on the northwest area of the Airport to allow for the construction of Runway 9L-27R. Existing facilities in this acquisition area must be demolished to allow the construction of the western end of Runway 9L-27R. This land acquisition will be completed as necessary prior to the construction of the runway.
- 1A-3. Willow Creek Relocation:** A portion of Willow Creek must be relocated in order to relocate facilities and service roads in the Northwest Maintenance Area and to meet runway OFA requirements. This creek relocation will enable construction of the western end of Runway 9L-27R. Additionally, two portions of the realigned creek will be enclosed in a culvert through a future taxiway OFA.

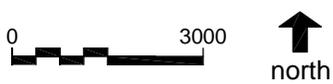
Exhibit

29. Implementation Phase 1A

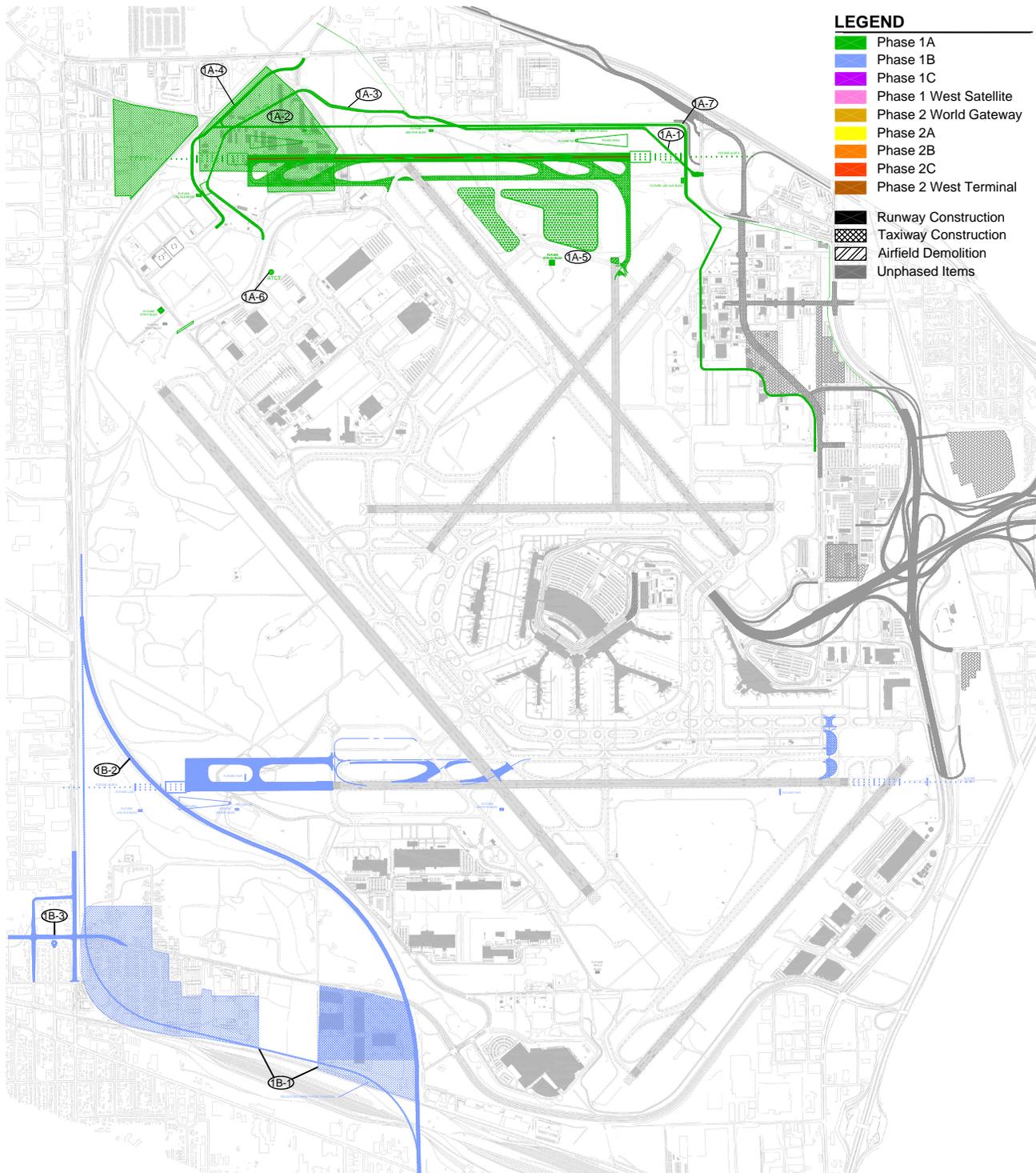


Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 29

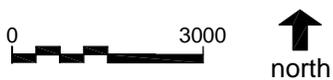


Implementation Phase 1A

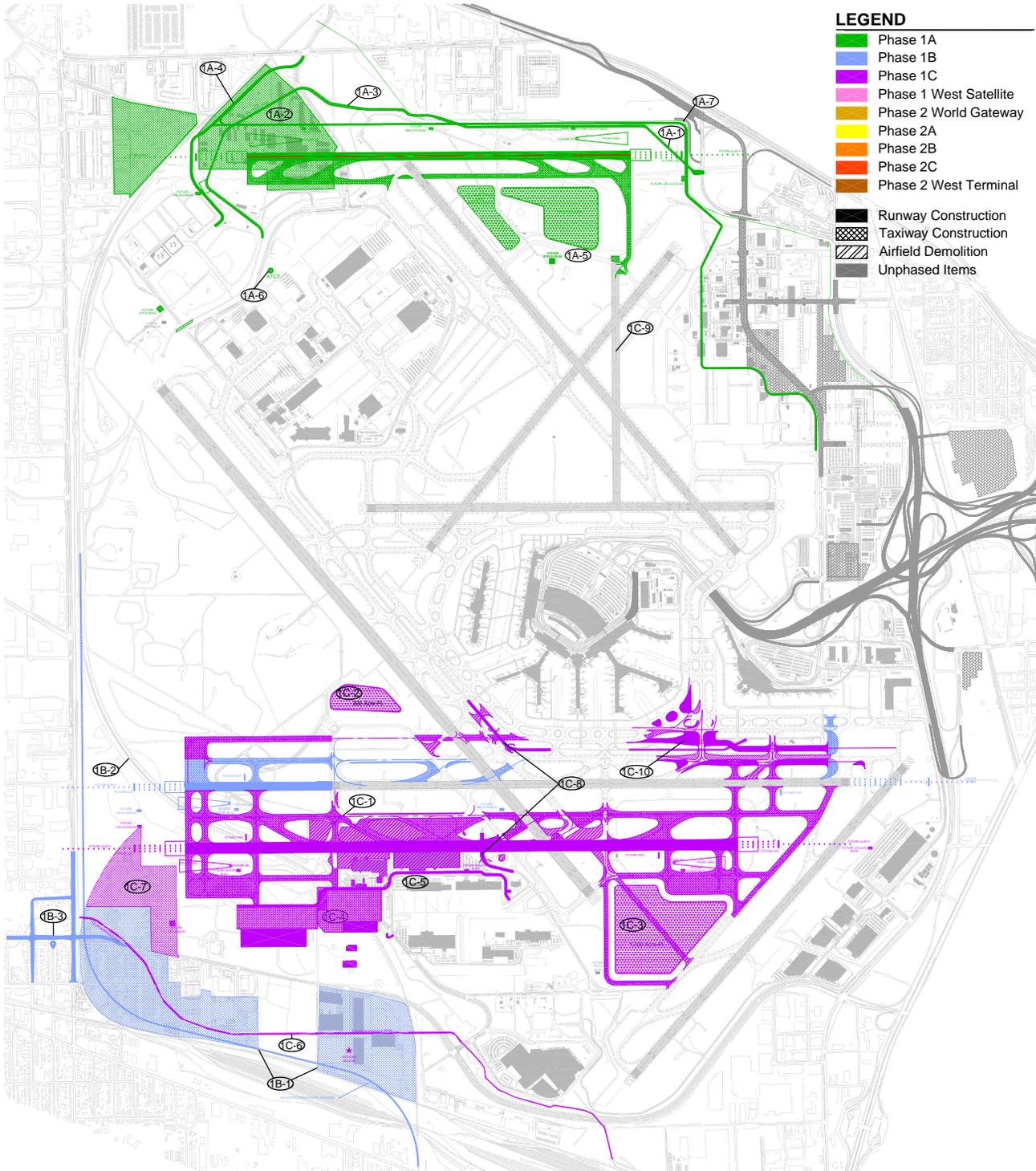


Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 30

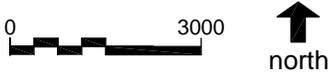


Implementation Phase 1B

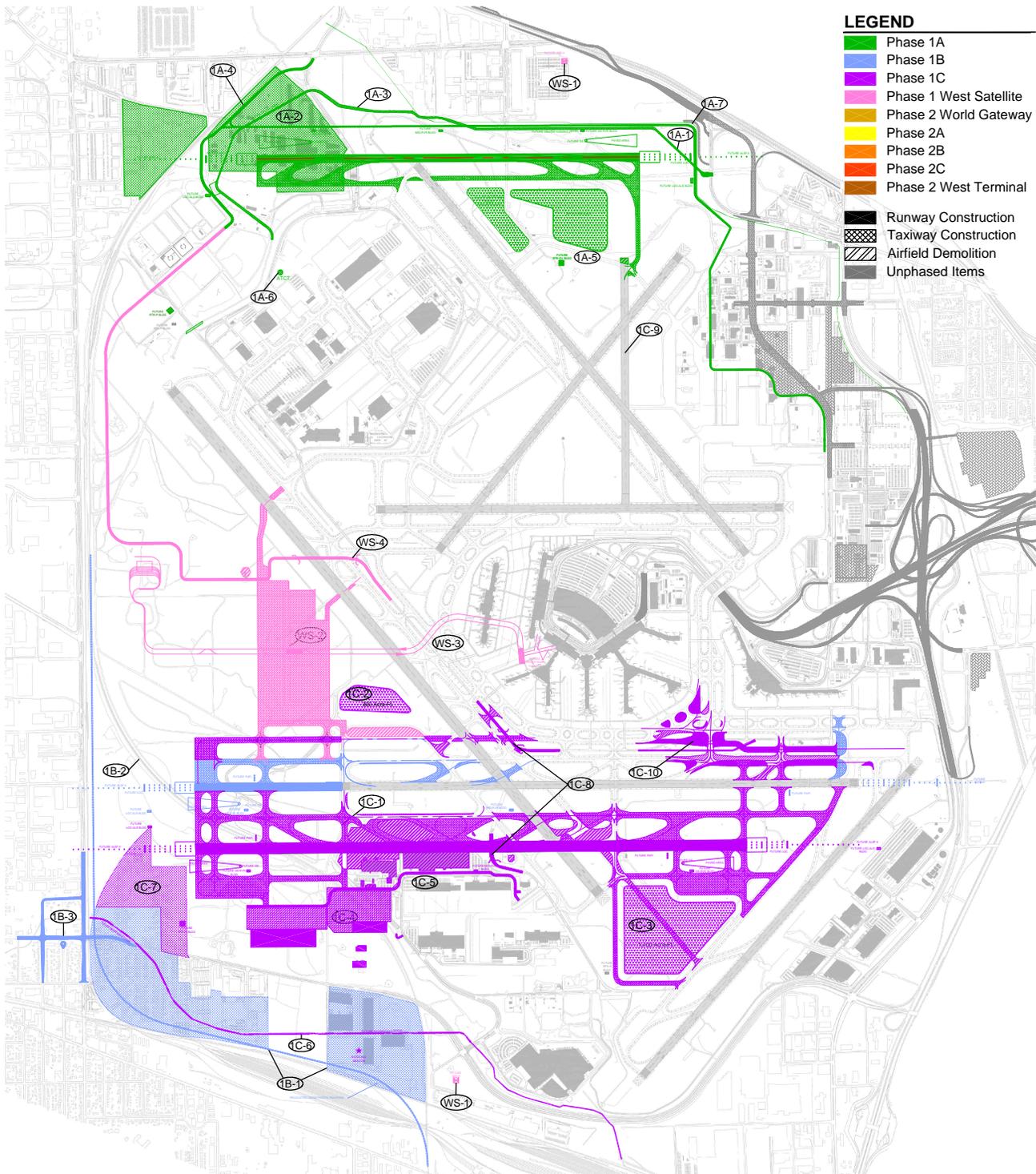


Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 31



Implementation Phase 1C



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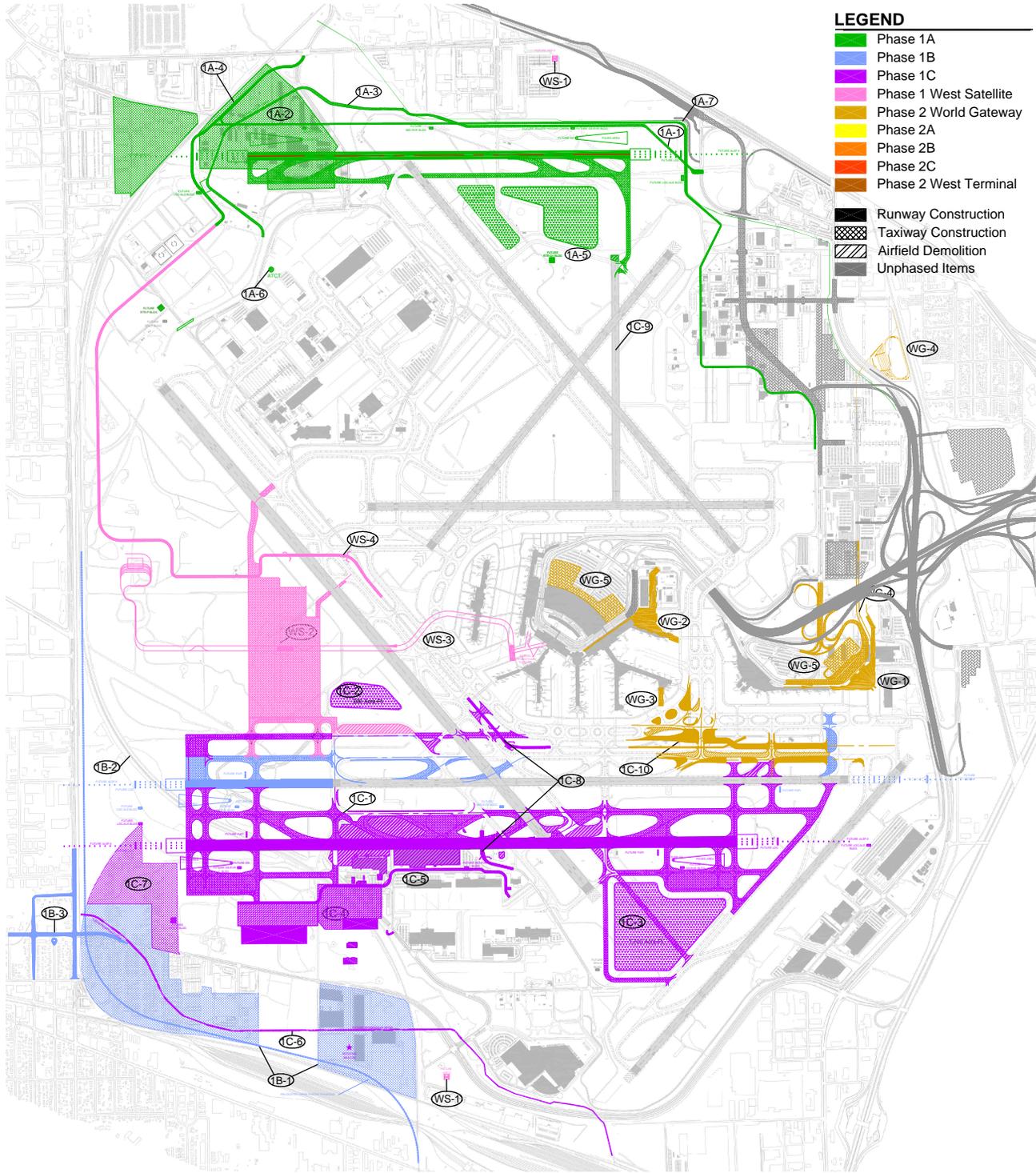
- Phase 1A
- Phase 1B
- Phase 1C
- Phase 1 West Satellite
- Phase 2A
- Phase 2B
- Phase 2C
- Phase 2 West Terminal
- Runway Construction
- Taxiway Construction
- Airfield Demolition
- Unphased Items

Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 32



Implementation Phase 1 West Satellite Concourse



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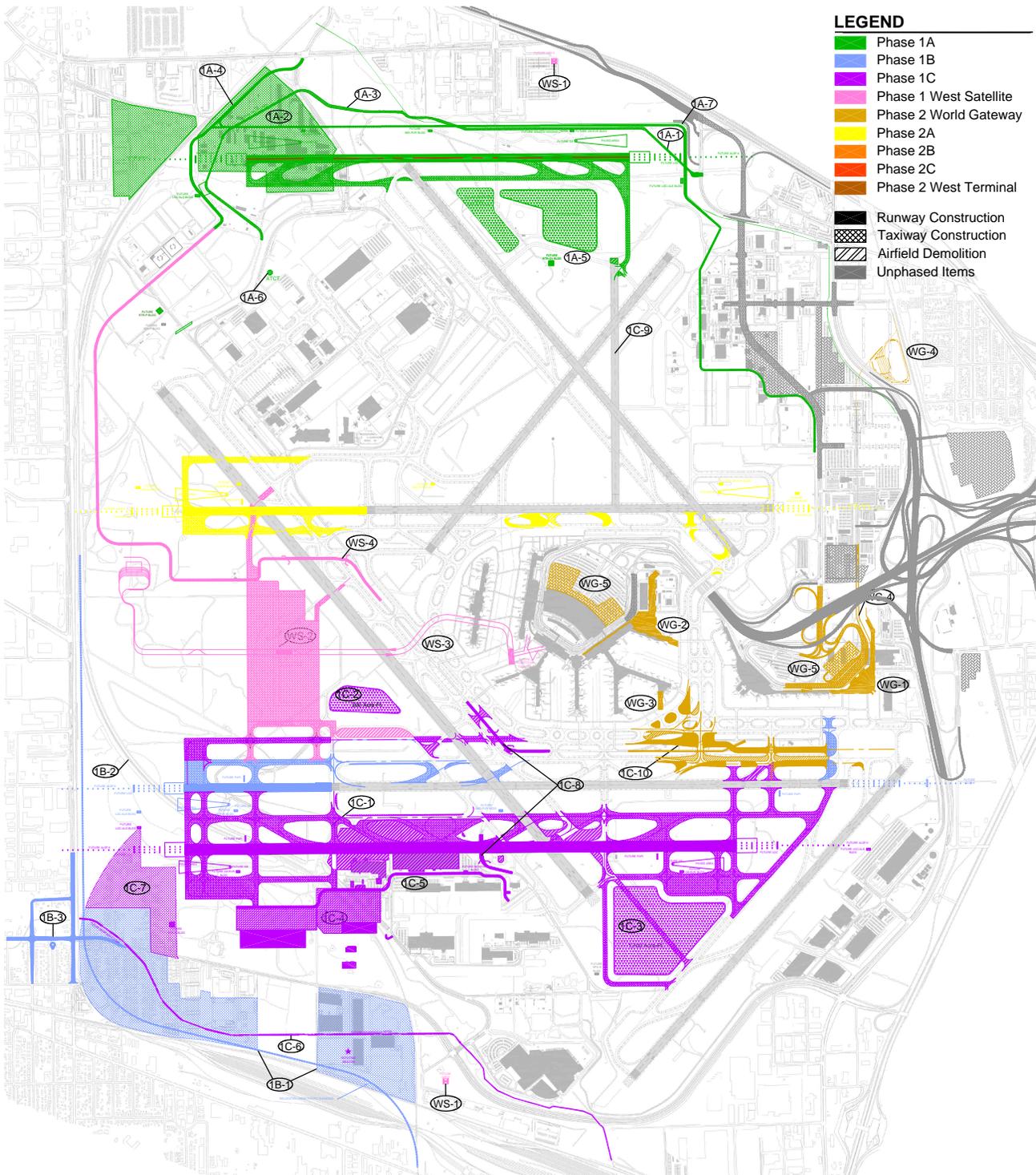
- Phase 1A
- Phase 1B
- Phase 1C
- Phase 1 West Satellite
- Phase 2 World Gateway
- Phase 2A
- Phase 2B
- Phase 2C
- Phase 2 West Terminal
- Runway Construction
- Taxiway Construction
- Airfield Demolition
- Unphased Items

Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 33



Implementation Phase 2 World Gateway



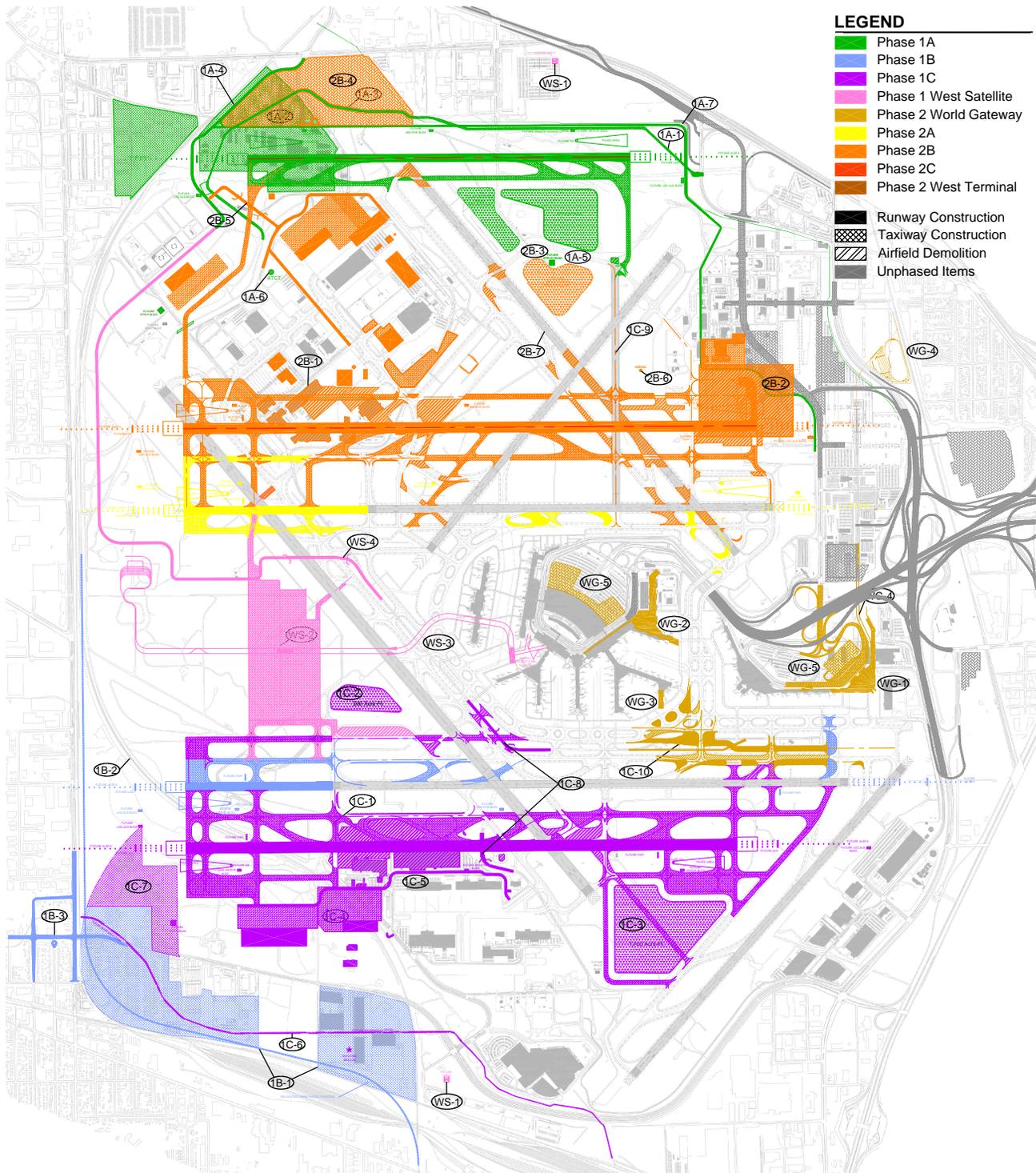
- LEGEND**
- Phase 1A
 - Phase 1B
 - Phase 1C
 - Phase 1 West Satellite
 - Phase 2 World Gateway
 - Phase 2A
 - Phase 2B
 - Phase 2C
 - Phase 2 West Terminal
 - Runway Construction
 - Taxiway Construction
 - Airfield Demolition
 - Unphased Items

Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 34



Implementation Phase 2A

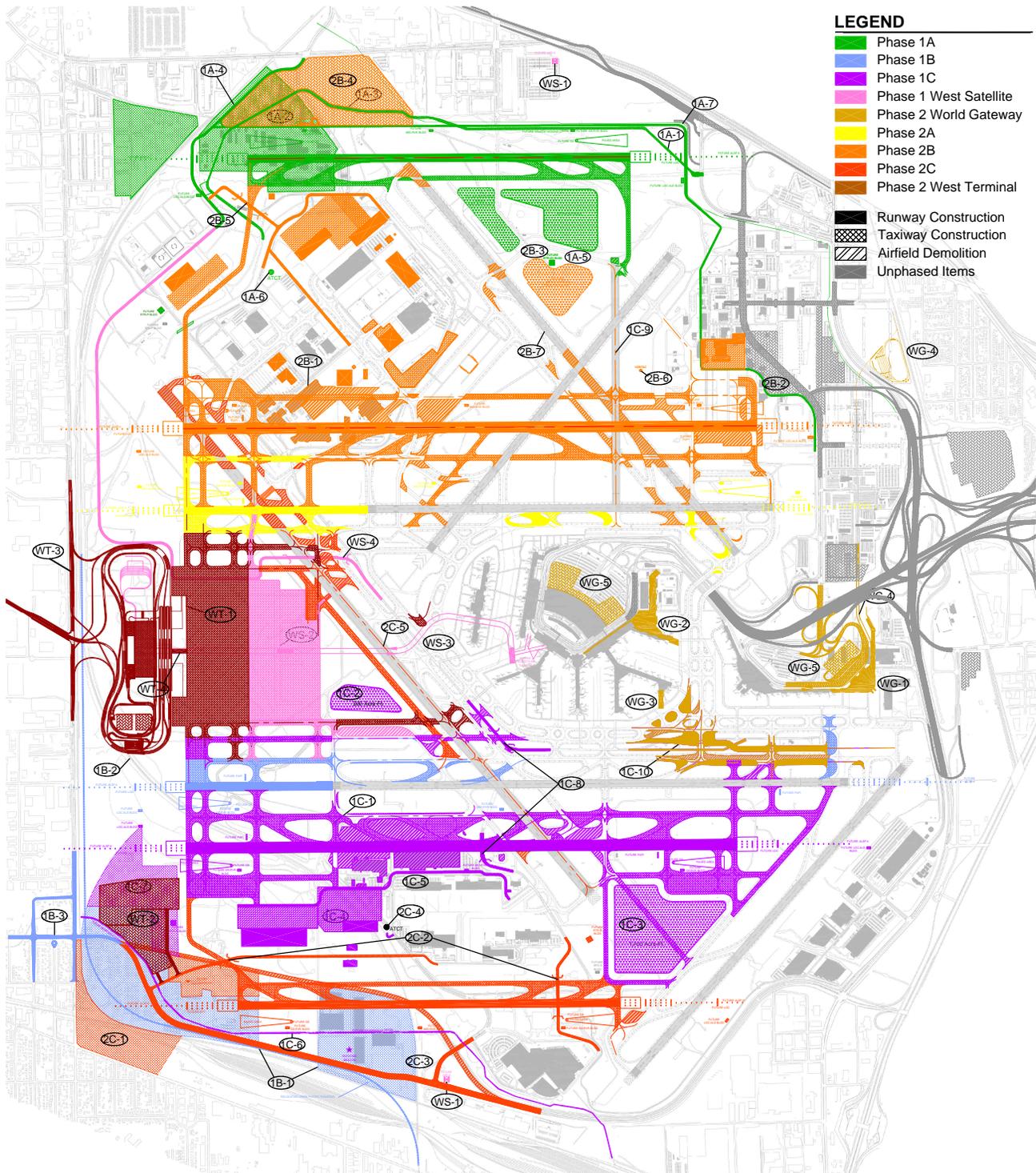


Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 35



Implementation Phase 2B



- LEGEND**
- Phase 1A
 - Phase 1B
 - Phase 1C
 - Phase 1 West Satellite
 - Phase 2 World Gateway
 - Phase 2A
 - Phase 2B
 - Phase 2C
 - Phase 2 West Terminal
 - Runway Construction
 - Taxiway Construction
 - Airfield Demolition
 - Unphased Items

Source: Ricondo & Associates, Inc.
 Prepared by: Ricondo & Associates, Inc.

Exhibit 37



Implementation Phase 2 West Terminal

- 1A-4. Northwest Maintenance Facilities Relocation:** In order to construct the western half of the runway, it is necessary to relocate several airport facilities, including the Explosive Chamber, DOA Communications Center, Airport Repair Center (ARC) Complex, and Guard Post #1 Guardhouse. The guardhouse and entrance roadway from Mt. Prospect Road will be relocated northwest of their current location.
- 1A-5. North Detention Basins:** The construction of Runway 9L-27R will not require modification to the flood control basin but will require modification of the intake infrastructure. The basin capacity will remain at 1,150 acre-feet. The increase in impervious area from the construction of Runway 9L-27R will require the construction of a new basin with a capacity of approximately 335 acre-feet.
- 1A-6. Air Traffic Control Tower:** The construction of Runway 9L-27R will require the development of a north ATCT. The ultimate location and characteristics of this facility will be subject to ATCT Line-of-Sight requirements established in coordination with FAA.
- 1A-7. JAWA Water Main Relocation:** The Joint Action Water Agency (JAWA) 90-inch diameter water main crosses the east end of Runway 9L-27R. The relocation of this water main will be required before construction of Runway 9L-27R in the area of the existing water main.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing and any navigational aids associated with the new runway construction.

Operational Impacts:

- Runway 14L-32R - Full and Nighttime Closures, approximate 1,200-foot Displaced Threshold during a portion of the construction (runway shortened to approximately 8,800 feet)
- Runway 14L - Category II/III Interruption
- Runway 14L-32R – Category I Disruptions

Operational Assumptions:

- Category II/III capability is scheduled to be available on existing Runway 27L (new Runway 28R) and existing Runway 27R (new Runway 27L) before Phase 1A. Category II/III capability will be restored to Runway 14L upon completion of the (new) Runway 9L-27R construction, if deemed necessary.
- A maximum runway length of 13,000 feet is available on Runway 14R-32L.

9.1.2 Phase 1B - Runway 10L-28R Extension

Phase 1B encompasses the construction of the Runway 10L-28R extension (existing Runway 9R-27L) and associated taxiways. This extension will provide a runway length of 13,000 feet, operationally similar to Runway 14R-32L. The extension is necessary to offset the operational impacts to Runway 14R-32L associated with the eventual construction of Runway 10C-28C. The following is an outline of the general facilities included in Phase 1B:

- 1B-1. Southwest Area Land Acquisition:** Land in the southwest corner of the Airport must be acquired and cleared before relocation of the railroad and the Irving Park Road/York Road Intersection during this phase, and Bensenville Ditch relocation later in the project.
- 1B-2. Railroad Relocation:** In its current alignment, the Union Pacific Railroad is intersected by future Runway 10C-28C, Runway 10R-28L, and critical aeronautical surfaces associated with the Runway 10L-28R extension. A segment of the line in the southwest corner of the Airport will be relocated around the future airfield and associated aeronautical surfaces.
- 1B-3. Irving Park Road/York Road Intersection Reconstruction:** The relocation of the railroad requires the reconstruction of the Irving Park Road/York Road intersection. The intersection will become grade separated, with Irving Park Road depressed beneath York Road and the railroad.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing, and any navigational aids associated with the new runway extension construction.

Operational Impacts:

- Runway 10L-28R - Full and Nighttime Closures, approximate 1,000-foot Displaced Threshold (runway length shortened to approximately 9,140 feet)
- Runway 28R - Category II/III Interruption.
- Runway 10L-28R - Category I Interruption.

Operational Assumptions:

- Category II/III capability is available on Runway 14R and Runway 14L (Category II/III capability to be restored to Runway 14L if required).
- Category II/III capability is available on Runway 27R and Runway 27L.
- Category II/III capability will be restored to Runway 28R upon completion of the runway extension construction, potentially at the original runway threshold.
- A maximum runway length of 13,000 feet is available on Runway 14R-32L.

9.1.3 Phase 1C - Runway 10C-28C

The third part of Phase 1 encompasses the construction of Runway 10C-28C and associated taxiways. The timing of the relocation and implementation of the following facilities is a major factor in phasing runway construction. The following identifies the significant elements to be undertaken in Phase 1C:

- 1C-1. St. Johannes Cemetery:** Construction of Runway 10C-28C will require the relocation of the St. Johannes Cemetery to an off-Airport location.
- 1C-2. West Terminal Detention Basin:** The increase in impervious area due to airfield construction and the reconfiguration of the South Detention Basin (described below) will require additional storm water storage in the West Terminal Detention Basin. The detention

basin near the future West Terminal will be enlarged in order to handle the additional volume.

- 1C-3. South Detention Basin:** The South Detention Basin (existing Lake O'Hare) will be reconfigured to allow construction of Runway 10C-28C and adjacent taxiways and hold pads. Additionally, the increase in impervious area resulting from the airfield construction generates more storm water runoff and, therefore, storage demand. The reconfiguration of this storm water detention facility will increase its storage volume.
- 1C-4. Resthaven Cemetery:** The relocation of cargo facilities in the Southwest Cargo Area will require relocating this cemetery to an off-Airport location.
- 1C-5. Cargo Facilities Relocation:** Several cargo facilities in the northern half of this development area must be relocated before construction begins on the middle section of Runway 10C-28C. The South Cargo Area will be reconfigured during this phase to replace existing facilities displaced by airfield construction. The buildings to be relocated include the United Airlines Cargo Building, FedEx Metroplex, Air Cargo Simulation Building, South Airfield Lighting Electrical Vault, and Fueling Facility. These buildings will be relocated to land adjacent to the Southwest Cargo Area, on the west side.
- 1C-6. Bensenville Ditch:** The construction of Runway 10C-28C and Runway 10R-28L and relocation of the Southwest Cargo Area buildings will require relocation of Bensenville Ditch. The ditch will be rerouted from a point near the crossing of the Canadian Pacific Railroad, aligned between Runway 10R-28L and relocated Irving Park Road, joining the former channel near the Post Office Facility.
- 1C-7. Southwest Land Acquisition:** Continued land acquisition efforts in the south airfield focus on the southwest quadrant to allow clearing of the RPZ for Runway 10C-28C.
- 1C-8. Tunnel Extension and Related Infrastructure:** The construction of Runway 10C-28C will require an extension of the south service road tunnel to meet the Runway Safety Area requirements. Upgrading of the existing pump station and ventilation facilities will be necessary for the extended tunnel. In addition to the extension, a new service road tunnel will be constructed beneath the newly created taxiway running parallel to Taxiway M near the north end of the existing tunnel.
- 1C-9. Decommissioning of Runway 18-36:** The decommissioning of Runway 18-36 occurs upon completion and commissioning of Runway 10C-28C.
- 1C-10. Taxiway Modifications:** The construction of Runway 10C-28C will require additional aircraft queuing capabilities near the end of Runway 28R. To meet this need, the extension of existing Taxiway B is planned from A15 to the 28R hold pad (Future Taxiway N). In order to sustain a vehicular snow road and sufficient taxiway separation from the existing parallel Taxiways D and M, additional modification including the relocation of Taxiway M 100 feet south will be required.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water

lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing, and any navigational aids associated with the new runway construction.

Operational Impacts:

- Runway 14R-32L - Full and Nighttime Closures, approximate 2,450-foot Displaced or Relocated Threshold (runway length shortened to approximately 10,550 feet).
- Pending FAA review and acceptance, alternative construction phasing for the South Detention Pond may alter severity of operational impacts placed on Runway 14R-32L, possibly increasing the length of runway available.
- Runway 14R-32L Category I and Category II/III Interruption; full instrumentation will be restored to the shortened runway, if feasible.
- Full and nighttime closures of Taxiways B, D and M to accommodate construction of future Taxiway N.

Operational Assumptions:

- Category II/III capability is available on Runway 27L, Runway 27R and Runway 28R.
- A maximum runway length of 13,000 feet is available on Runway 14R-32L until construction progresses to the point of impacting this runway. At that point, a maximum runway length of 13,000 feet will be available on Runway 10L-28R (assuming completion of the facilitating railroad relocation).
- Runway 18-36 remains operational until the commissioning of Runway 10C-28C.

9.1.4 Phase 1 - West Satellite Concourse

Phase 1 West Satellite encompasses the construction of the West Satellite Concourse facility and associated taxiways. This satellite concourse is an independent project in terms of construction phasing. The following list identifies significant facilities that are associated with the concourse construction:

WS-1. Airport Surveillance Radar (ASR): The existing ASR must be relocated to enable the construction of the West Terminal Complex. Two ASR-9s will be constructed north and south of the future airfield, respectively.

WS-2. West Satellite Concourse: The West Satellite Concourse will be constructed during this phase. The terminal facilities will accommodate a mix of regional jet and/or larger aircraft and appropriate aircraft parking and maneuvering areas. Dual ADG VI taxilanes will be constructed to the west and Dual ADG IV taxilanes to the east of the concourse.

WS-3. Automated People Mover: The transfer of passengers and employees between the Terminal Core Area and the new West Satellite Concourse may require the construction of the Automated People Mover (APM). The APM will initiate at an underground station between Concourse E in Terminal 2 and Concourse B in Terminal 1 and will operate to a station in the West Satellite Concourse. Pedestrian tunnels will connect the APM station to these passenger areas. The APM Maintenance Yard and Storage area located to the west of the West Terminal Complex will be constructed with these two initial stations.

WS-4. Service Road Tunnel: A vehicle service road connecting the Terminal Core Area, the West Terminal Complex and the Northwest Maintenance Area will require the construction of a tunnel under Taxiway T and Runway 14R-32L. To protect the Runway Safety Area for Runway 14R-32L, the tunnel will be constructed longer than required for the future airfield when this runway is converted to a taxiway.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, and perimeter fencing.

Operational Impacts:

- Runway 14R-32L – Full and Nighttime closures to accommodate crossover taxiways north of Taxiway T2 and adjacent to Taxiway T5 and the construction of the service road tunnel.

Operational Assumptions:

- Category II/III capability is available on Runways 27R and 27L.
- Category II/III capability is available on Runways 14R and 14L except during closure of Runway 14R.
- Category II/III capability will be restored to Runway 28R upon completion of the runway extension construction, potentially at the original runway threshold.
- A maximum runway length of 13,000 feet is available on Runway 14R-32L except during closures, and on Runway 10L-22R upon commissioning of the runway extension.

9.2 Phase 2

Phase 2 consists of the construction of Runway 9R-27L (existing Runway 9L-27R) extension, north parallel Runway 9C-27C, south Runway 10R-28L, the remainder of the West Terminal Complex and the terminals associated with the World Gateway Program. Implementation of Phase 2 will begin with construction of the Runway 9R-27L extension, followed by Runway 9C-27C. Upon completion of the runway construction in the north airfield, the southernmost runway, 10R-28L, will be constructed to complete runway development for the OMP. Upon commissioning of Runway 9C-27C, existing Runway 14L-32R will be decommissioned. Similarly, upon commissioning of Runway 10R-28L, Runway 14R-32L will be decommissioned.

9.2.1 Phase 2 World Gateway Program

The World Gateway Program phase encompasses the construction of two new terminals, a concourse extension, and the reconfiguration of taxiways near the terminal area.

WG-1. Terminal 6: As originally planned, Terminal 6 will accommodate 18 aircraft (8 widebody gates) on 2,818 linear feet of gate frontage.

WG-2. Terminal 4: As originally planned, Terminal 4 will accommodate 13 aircraft on 2,900 linear feet of gate frontage. The terminal will be capable of accommodating international arrivals.

WG-3. Concourse K Extension: The extension to Concourse K will provide a net increase of five aircraft parking positions and extra space for holdrooms, concessions, circulation, and airline operations.

WG-4. ATS Realignment and Maintenance Facility: Construction of Terminal 6 will require the demolition of the existing ATS Maintenance Facility. This building will be relocated north of the long term parking facility where the ATS currently terminates. The ATS will also be realigned to service the new terminal rental car facility and the Metra Transfer Station.

WG-5. Parking Facilities: Increase in parking demand due to the new passenger facilities will warrant the expansion of parking facilities. A new parking facility will be constructed near new Terminal 6 and the Elevated Parking Structure in the main terminal area will be expanded.

WG-6. Taxiway Modifications: The construction of Terminal 6 will require an additional taxiway south of existing Terminal 5. This will provide Terminal 5 and 6 traffic the flexibility of moving east-west without interfering with traffic arriving or departing on existing Runways 27L and 22L. This involves the extension of existing Taxiway B from A15 to the 27L hold pad (Future Taxiway N). In order to sustain a vehicular snow road and sufficient taxiway separation from the existing parallel Taxiways D and M additional modification including the relocation of Taxiway M 100 feet south will be required.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, and perimeter fencing.

Operational Impacts:

- Full and nighttime closures of Taxiways B, D and M to accommodate construction of future Taxiway N.
- Taxiway A and Taxiway B - Nighttime Closures to accommodate the reconfiguration of taxiways near the end of Concourse K.

9.2.2 Phase 2A - Runway 9R-27L Extension

Phase 2A encompasses the construction of the Runway 9R-27L (existing Runway 9L-27R) extension and associated taxiways. This extension will provide a runway length of 11,260 feet. General improvements included in Phase 2A include:

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing, and any navigational aids associated with the new runway construction.

Operational Impacts:

- Runway 14R-32L - Full and Nighttime Closures.
- Runway 14R-32L – Category I and II/III interruptions (if instrument approaches are available at time of construction).

Operational Assumptions:

- Category II/III capability is available on Runways 9L-27R, 10C-28C, and 10L-28R.
- The future GS-RVR Building will be temporarily relocated to enable the use of Runway 14R-32L.

- A maximum runway length of 13,000 feet is available on Runway 10L-28R.

9.2.3 Phase 2B - Runway 9C-27C

Phase 2B will encompass the construction of Runway 9C-27C and the associated taxiways. During this phase of construction, several facilities must be relocated before completing construction of the runway. The completion and commissioning of Runway 9C-27C will allow the decommissioning of 14L-32R. The affected facilities for Phase 2B are listed below.

- 2B-1. Northwest Maintenance Area Facilities Relocation:** This phase of construction requires that several buildings be demolished and relocated, generally within the Northwest Maintenance Area. The ultimate layout of facilities within this area will be defined to fit within the reconfigured airfield. Additionally, the existing Scenic Hold Pad will be reconfigured consistent with the new runway construction. The buildings to be relocated include Dobbs Flight Kitchens, UAL Office and Medical Personnel Building, UAL Ground Equipment Maintenance Building, AAL Ground Equipment Maintenance Building, AAL Maintenance Hangar #2, ARFF Station #2, AAL Fire Pump House, UAL Hangar 5/5A, Ground Run-Up Enclosure, ComEd Distribution Building, and Sanitary Lift Station.
- 2B-2. Military/General Aviation Area Facilities:** Construction of the east end of Runway 9C-27C will require relocating existing facilities within the former military property, including the general aviation apron.
- 2B-3. Detention Basin:** The increase in impervious area from the construction of the Runway 9R-27L extension and Runway 9C-27C will require that the two existing basins south of Taxiway U be combined into a single 680 acre-feet basin.
- 2B-4. Employee Parking:** In addition to the relocated employee parking spaces provided in conjunction with the impacted/relocated buildings in the Northwest Maintenance Area, the plan provides for a consolidated employee parking lot on the northwest side of the Airport. Although timing for the development of this facility has not yet been defined, this consolidated facility provides for an opportunity for the ultimate relocation of all employee parking from within the Northwest Maintenance Area to an area outside of the Airport Operations Area.
- 2B-5. Service Road Tunnel:** The construction of the taxiway connecting the west ends of Runway 9L-27R and Runway 9C-27C will require a tunnel for the Northwest Maintenance Area service road.
- 2B-6. VORTAC Relocation:** The construction of the north parallel taxiway to Runway 10C-28C will require the relocation of the VORTAC.
- 2B-7. Decommissioning of Runway 14L-32R:** The decommissioning of Runway 14L-32R occurs upon completion and commissioning of Runway 9C-27C.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing, and any navigational aids associated with the new runway construction.

Operational Impacts:

- Runway 14R-32L - Full and Nighttime Closures, Potential Category I and Category II/III Interruptions (if instrument approaches are available at the end of construction), Displaced or Relocated Runway 14R Threshold
- Runway 14L-32R - Full and Nighttime Closures
- Runway 9L-27R - Nighttime Closures to accommodate demolition of north end of Runway 14L-32R
- Runway 4L-22R - Nighttime Closures to accommodate demolition of midsection of Runway 14L-32R
- Runway 9R-27L - Nighttime Closures to accommodate demolition of south end of Runway 14L-32R and associated taxiways

Operational Assumptions:

- Category II/III capability is available on Runways 9R-27L, 9L-27R, 10C-28C, and 10L-28R.
- A maximum runway length of 13,000 feet is available on Runway 10L-28R.
- Runway 14L-32R remains operational until the commissioning of Runway 9C-27C

9.2.4 Phase 2C - Runway 10R-28L

The final runway project of the OMP includes construction of the southernmost runway, Runway 10R-28L, and associated taxiways. Upon construction and commissioning of the runway, existing Runway 14R-32L will be decommissioned.

2C-1. Southwest Area Land Acquisition: Continued land acquisition efforts for the south airfield will focus on the southwest area of the Airport to allow clearing of the RPZ of Runway 10R-28L.

2C-2. Service Road Tunnels: The construction of Runway 10R-28L requires tunneling a service road connecting the Postal Facility to the Southwest Cargo Area. Additionally, a service road will be enclosed in a tunnel underneath the taxiway connecting the west end of Runway 10R-28L and the 10C pad.

2C-3. Irving Park Road Relocation: The construction of the Runway 10R-28L will require the relocation of Irving Park Road to the edge of Airport property.

2C-4. South Air Traffic Control Tower: The construction of Runway 10R-28L requires the construction of the south air traffic control tower.

2C-5 Decommissioning of Runway 14R-32L: The decommissioning of Runway 14R-32L occurs upon completion and commissioning of Runway 10R-28L.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, perimeter fencing, and any navigational aids associated with the new runway construction.

Operational Impacts:

- Various temporary taxiway closures to allow tie-in of new taxiway segments
- Runway 9C-27C and Runway 9R-27L - Nighttime closures to accommodate demolition of Runway 14R-32L and Taxiway T

Operational Assumptions:

- Category II/III capability is available on Runways 9L-27R, 9C-27C, 9R-27L, 10L-28R and 10C-28C.
- A maximum runway length of 13,000 feet is available on Runway 10L-28R.
- Runway 14R-32L remains operational until the commissioning of Runway 10R-28L

9.2.5 Phase 2 West Terminal

Phase 2 West Terminal encompasses construction of the main terminal and concourse in the West Terminal complex, including the West Terminal ground access and accompanying parking facilities. Construction of the roadways and West Terminal will follow commissioning of Runway 10R-28L and decommissioning of Runway 14R-32L.

WT-1. Main West Terminal: The remaining facility of the West Terminal complex will be constructed during this phase. The West Terminal will contain 15 gates and a Federal Inspection Station facility for international departures and arrivals.

WT-2. Parking Facilities: The parking facility for the West Terminal Complex will be constructed with the Main West Terminal. This facility will include a Short Term Parking Structure, commercial vehicle staging areas and associated roadways. Additionally, employee and long-term parking lots will be constructed directly south of the Main West Terminal during this phase.

WT-3. West Terminal Ground Access: Ground access to the West Terminal and the parking facilities will be constructed during this phase.

WT-4. Automated People Mover Station: A station serving the West Main Concourse will be constructed to provide passengers and employees access to the West Satellite Concourse and the Terminal Core Area.

Infrastructure Improvements: Anticipated infrastructure improvements include, but are not limited to, the relocation and expansion of utilities (e.g., storm water collection and detention, water lines, electrical, sanitary sewer system, etc.), vehicle service road segments, and perimeter fencing.

9.3 Operational/Commissioning Schedule

A preliminary commissioning schedule for each of the major components of the OMP has been developed based on the anticipated durations of the various phases and facility development needs. The following commissioning/operational dates for the various components are planned:

- Concourse K 2013
- WGP Terminal 4 2013
- WGP Terminal 6 2013
- New Runway 9L-27R 2007
- Runway 10L-28R Extension 2009
- New Runway 10C-28C 2009
- Runway 9R-27L Extension 2013
- New Runway 9C-27C 2013
- New Runway 10R-28R 2013
- West Satellite Concourse 2009
- West Terminal and Access 2013

The planned commissioning dates necessitate significant coordination of the phases of development defined in the prior sections. Further refinement of these dates will occur during the design development and construction planning process.

10. Additional Capabilities

Through the analysis and refinement of the O'Hare Modernization Program (OMP), the City has identified additional benefits beyond that of modernizing the airfield, which include opportunities for additional airport improvements and non-airport, regional transportation improvements. The following paragraphs discuss the major potential opportunities provided by the OMP.

10.1 Western By-Pass

For the past two decades, regional transportation planners have envisioned a highway connection between the existing tollways I-90 and I-294, commonly referred to as the "O'Hare Western By-Pass." Previous studies by the Illinois Department of Transportation (IDOT) and the Illinois State Toll Highway Authority (ISTHA) showed alignments for this roadway would significantly impact the communities adjacent to O'Hare. However, planning and refinement of the OMP has resulted in the determination that an approximate 300-foot wide corridor could be provided along the western edge of the new airfield to allow the by-pass to be built on Airport land, thus minimizing the impacts to adjacent communities. This corridor is shown on **Exhibit 38**. Although the IDOT and ISTHA have not completed design for this roadway or determined whether or when it would be built, the OMP would not preclude and in fact would facilitate its development.

10.2 Extension of the Chicago Transit Authority's Blue Line

The existing Blue Line provides service between downtown Chicago and O'Hare Airport. The service to O'Hare is currently the western-most point of the transit line. The modernization of O'Hare's airfield to an east-west configuration provides for an opportunity to expand the Blue Line west of the existing O'Hare station. As Exhibit 38 shows, the Blue Line can be extended through the existing terminal core to provide service to the new west terminal and possibly beyond. In addition to the extension of existing Blue Line service, opportunities now exist for proposed O'Hare Express to provide service to the west terminal facility.

10.3 Additional Commuter Transit Service

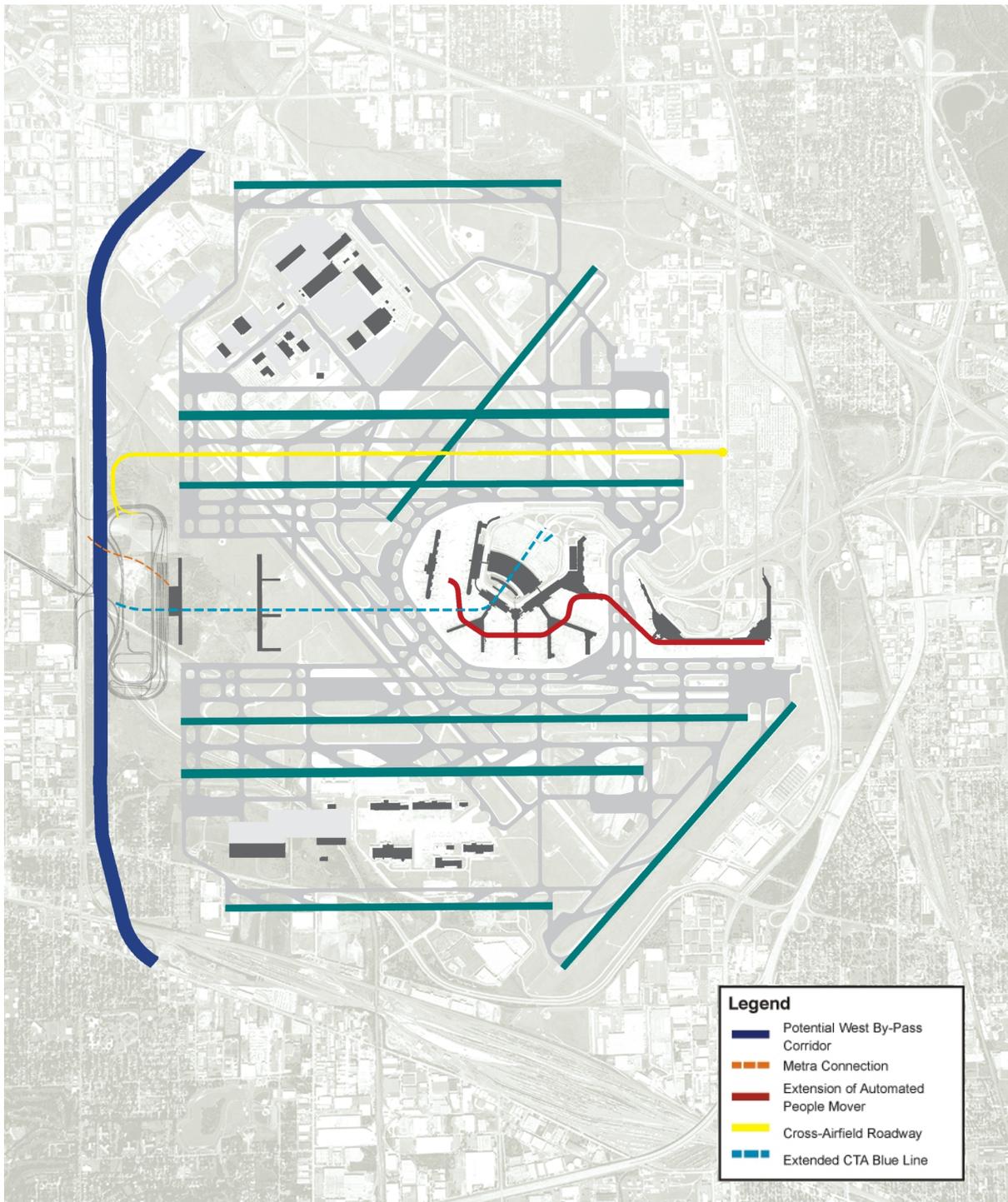
The development of a new west terminal facility provides the opportunity to increase and improve existing commuter transit services. Through the use of existing and possibly new rail lines, METRA service could be provided to the west terminal facility at O'Hare. A potential METRA connection to the west terminal is shown on Exhibit 38.

10.4 Extension of the New Automated People Mover System

The O'Hare Modernization Program provides for a secure people mover connection between the new west terminal and the existing terminal core. This system could be expanded to provide service to other Airport areas depending on future service requirements.

10.5 Cross-Airfield Roadway

In addition to the potential expansion of the Blue Line and the new people mover system, the new east-west runway configuration allows for the development of a roadway to provide a connection between the west terminal and the existing terminal core. While the OMP does not require such a roadway connection, and thus it is not included in the proposed development, the concept has attempted to maximize future capabilities of the Airport for the years beyond the horizon of the OMP. A potential roadway alignment is shown on Exhibit 38.



Source: Ricoondo & Associates, Inc.
Prepared by: Ricoondo & Associates, Inc.

Exhibit 38



Additional Capabilities

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11. Deviations From Standards

The OMP will correct several deviations from FAA standards that are currently present on the airfield. There are several instances where the existing airfield deviates from standards in accordance with historical FAA waivers. For all new and relocated runways, and all runways that are extended, all Runway Safety Areas and Object Free Areas are proposed to meet standards, even where they might not have previously. **Table 8** presents the disposition of the existing deviations.

Table 8

Deviations from Standards

Deviation	Resolution
Use of Taxiway A for B-747 operations with 131-foot separation between Taxiway A and parked aircraft at the concourse gates.	To remain in the Core Terminal Area. New terminal facilities will be planned to meet current design standards.
Runway 4R Safety Area (675 feet beyond runway end)	To remain
Runway 4L Safety Area (800 feet beyond runway end)	To remain
Runway 9L Safety Area (750 feet beyond runway end)	Runway end relocated and full Safety Area provided.
Runway 22R Safety Area (Runway localizer 720 feet beyond runway end, service road 627 feet beyond runway end)	Service road to be relocated. Localizer to remain.
Runway 22L Safety Area (500 feet beyond runway end)	To remain
Runway 27R Safety Area (750 feet beyond runway end)	Runway end relocated and full Safety Area provided.

Source: Ricondo & Associates, Inc.: and FAA.
Prepared by: Ricondo & Associates, Inc.