



APPENDIX D.3

Alternatives Workshop #3

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January 24, 2020



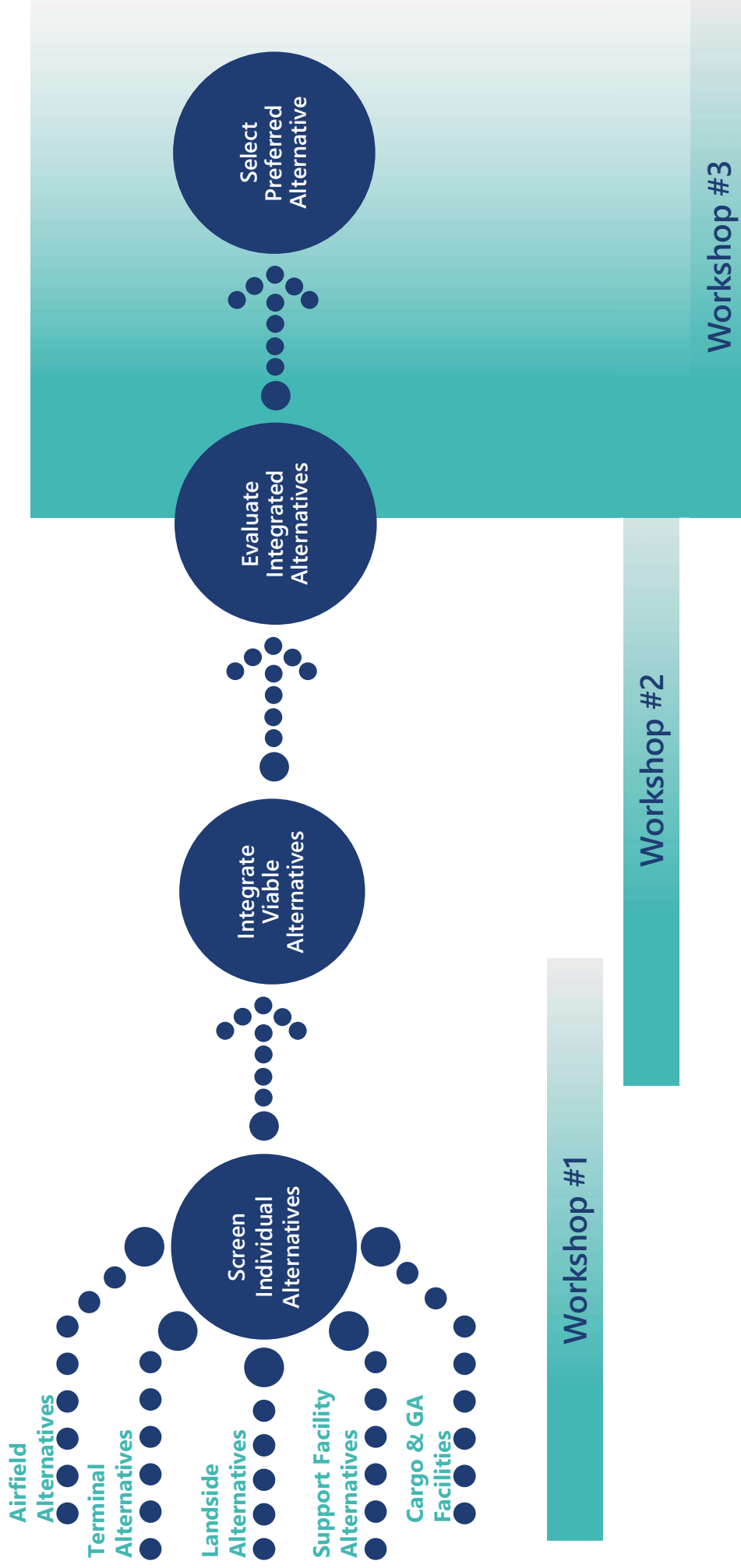
MASTER PLAN 2040



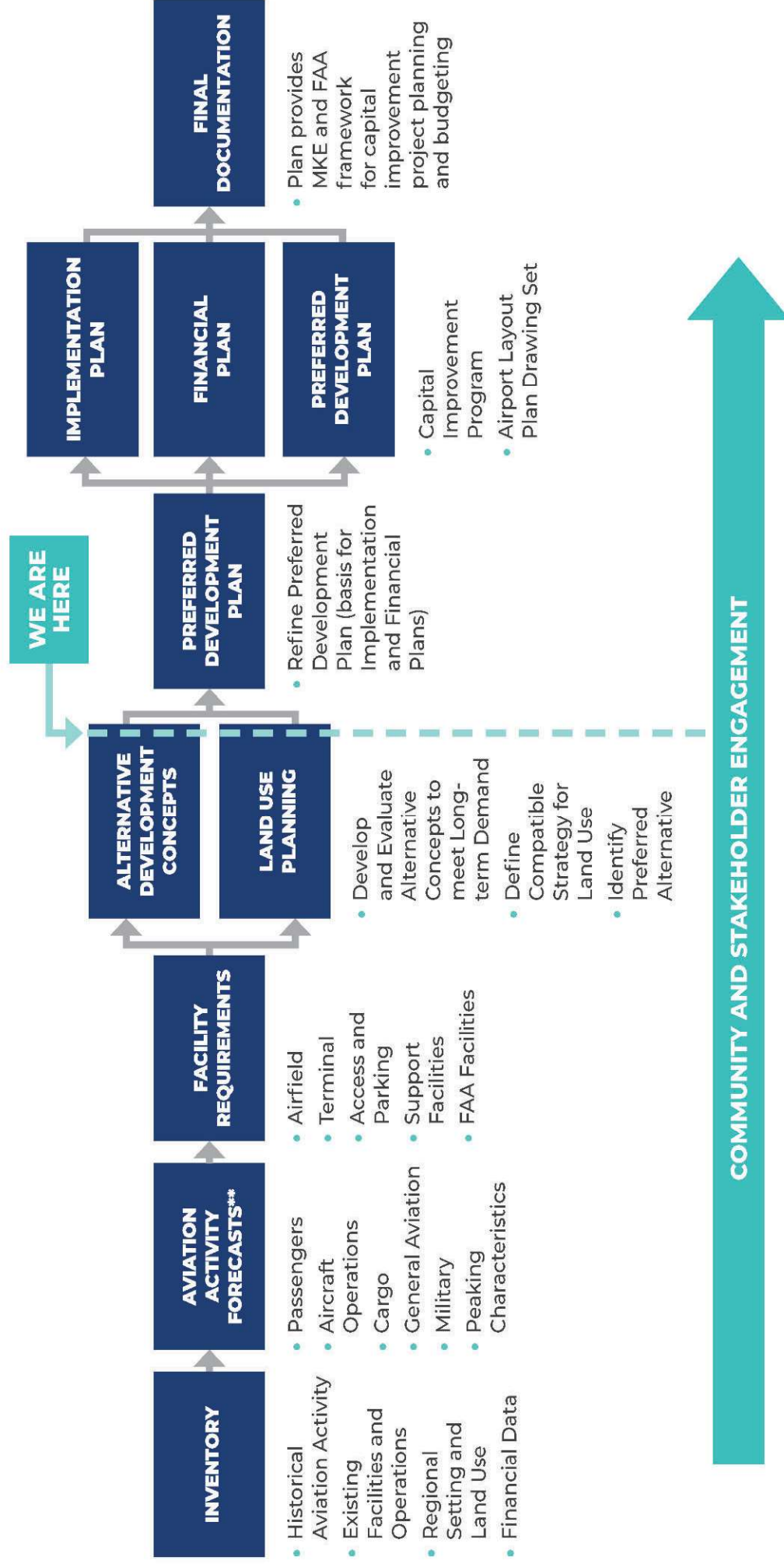
Workshop #3 Goals

- Review 6 revised integrated alternatives
- Reflect MKE priorities, preferences, and alignment with Goals
- Conduct working session to discuss screening criteria and application
- Receive specific feedback on potential benefits of utilizing component alternatives from another composite alternative to enhance another
- Gain consensus on up to 3 short-listed alternatives (6 -> 3)
- Review next steps

Alternatives Planning Process

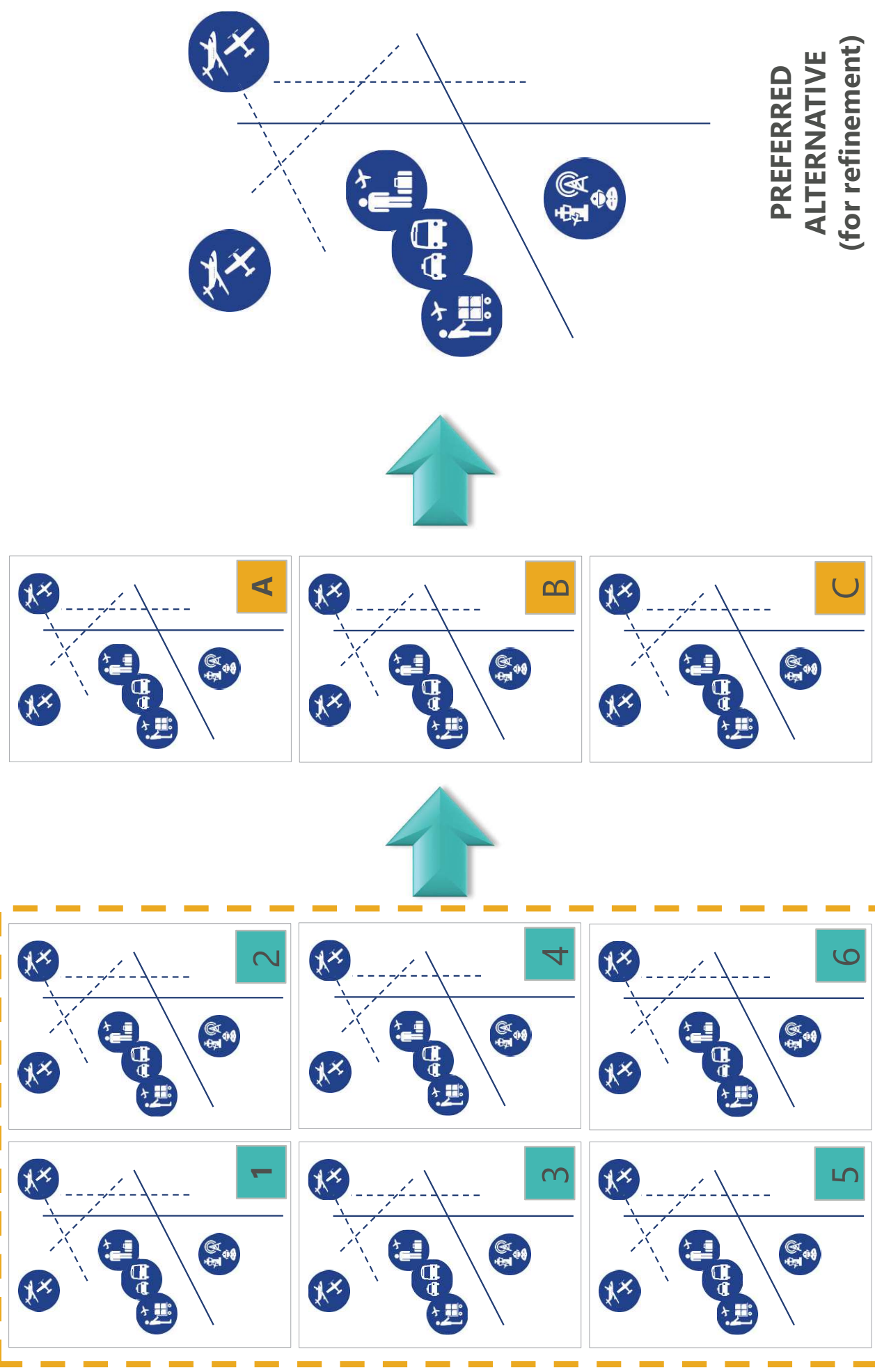


Master Plan Process



** Requires FAA Approval

Alternatives Analysis Process



Draft Master Plan Goals

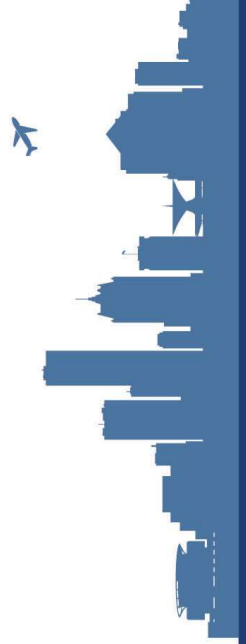
- Affirm a **future-focused airport** that supports aviation growth in a safe, efficient, and cost-effective manner through an organized and synergistic long-range development plan.
- Recognize opportunities to **enhance the sustainability, resiliency, and environmental sensitivity** with continued growth of MKE.
- Seek opportunities for **enhanced customer and passenger experience**.
- **Optimize infrastructure and resources** in an operationally, financially, and sustainable manner.
- Adopt **scalable development plans** that flexibly accommodate variations in demand and technology over the planning horizon.
- Protect **long range utility** of the Airport (post-2040).
- Recognize opportunities for enhanced **non-aeronautical revenue generation** in the utilization of MKE property and amplify the revenue-generating potential of Airport property.
- Define a long-range development plan that **reflects MKE's role in the community** and recognizes diversity in community stakeholder priorities.

Public and Stakeholder Involvement

- Technical and Stakeholder Advisory Groups (TAG/SAG)
 - Five meetings throughout Master Plan project
 - Fourth meeting held November 18, 2019 to gain feedback on integrated alternatives
 - Alternatives refined to acknowledge feedback received
- Public Involvement
 - Four meetings throughout Master Plan project
 - Third Public Open House held January 22, 2020
 - Feedback to be incorporated into final refinement of alternatives and carried forward to short-listing

The selection of the preferred alternative is the next step.

Screening of Alternatives



Screening Criteria



Flexibility: Ability of the concept to efficiently accommodate facility development that emerges differently than planned (timing, location, size, other) without adversely impacting dependent or adjacent facilities or conceptual development



Right Sizing: Effectiveness of the concept in optimizing long-term facility development, balancing capacity with forecast aeronautical demand



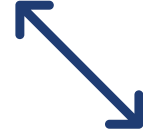
Relative Cost: Relative measure of comparative capital investment to implement the full concept (detailed cost estimates will be developed in subsequent evaluation steps)



Operational Efficiency: Measure of the relative efficiency of activity and operations (airfield, terminal, landside, and supporting facilities) if the concept is fully implemented



Implementation Complexity: Measure of the relative complexity of project and full-concept implementation considering project dependencies, required enabling projects, operational impacts during construction, and related considerations



Long-term Expandability: Ability of the concept to efficiently and effectively accommodate demand-driven development beyond the 2040 planning horizon, maintaining a balance among airfield, terminal, and landside facility capacities

Screening Criteria



Collateral Development Potential: Ability of the concept to accommodate non-aeronautical, revenue-generating development on Airport-owned land that is not required to satisfy aviation demand



Compatibility with Adjacent Land Uses: Relative measure of the compatibility of the concept with adjacent and proximate land uses in the vicinity of the Airport



Landside Wayfinding: Relative measure of the complexity of wayfinding for Airport users considering arrival, departure, circulation, recirculation, and access decision points



Facility Consolidation : Relative measure of the effectiveness of the concept in consolidating similar facilities and operations in organized areas of the Airport, considering airside and landside activities associated with various facilities

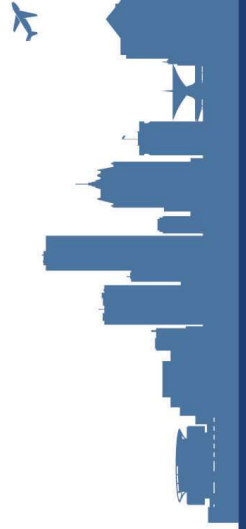


Sustainability: Relative measure of the environmental, social, operational, and economic aspects and enhancements associated with the long-term development of the concept (focus on meeting present needs without compromising the ability to meet future needs)

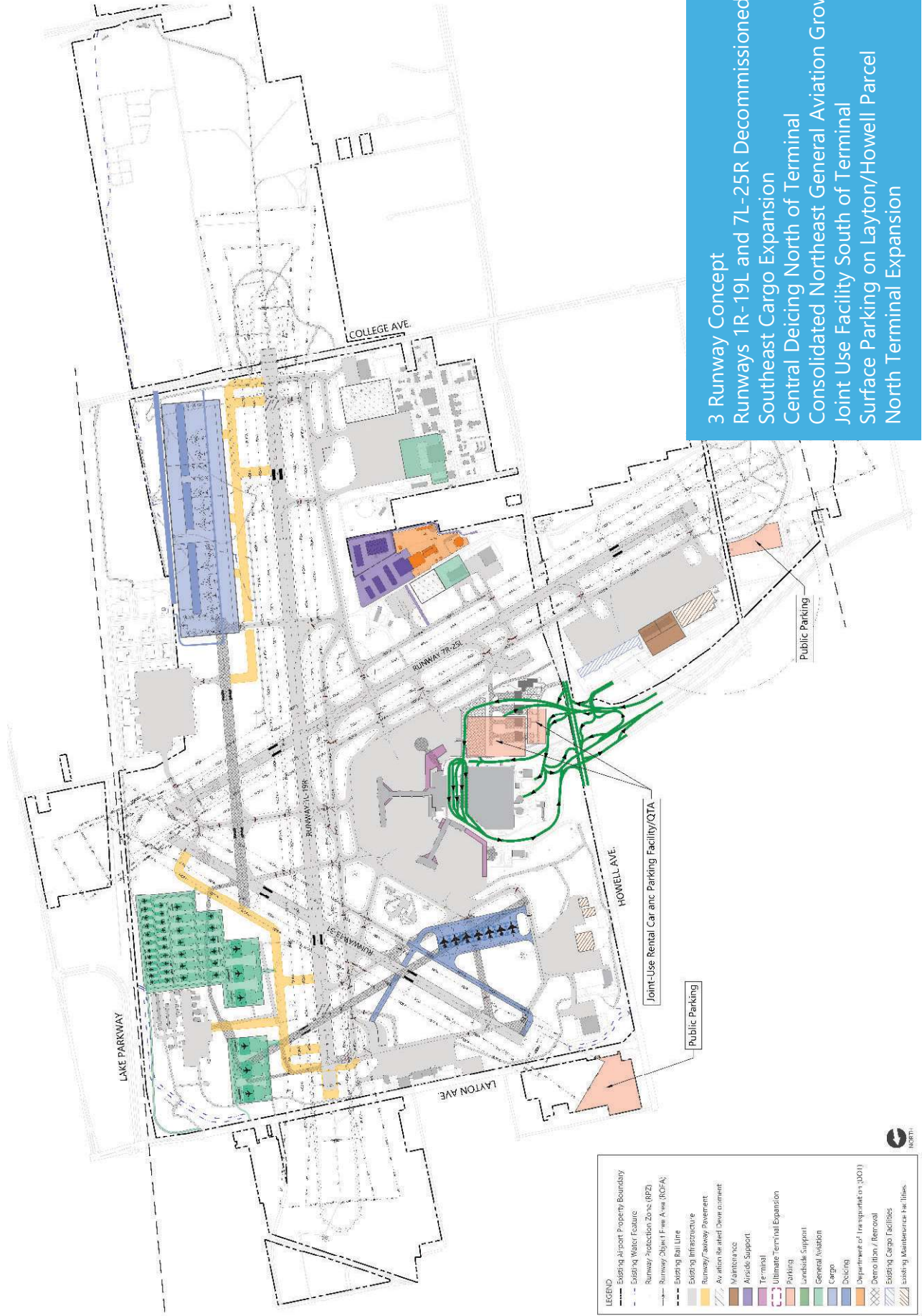


Land Acquisition Requirement: Relative measure of the amount of additional land required to accommodate concept development

Alternatives Review



Alternative 1

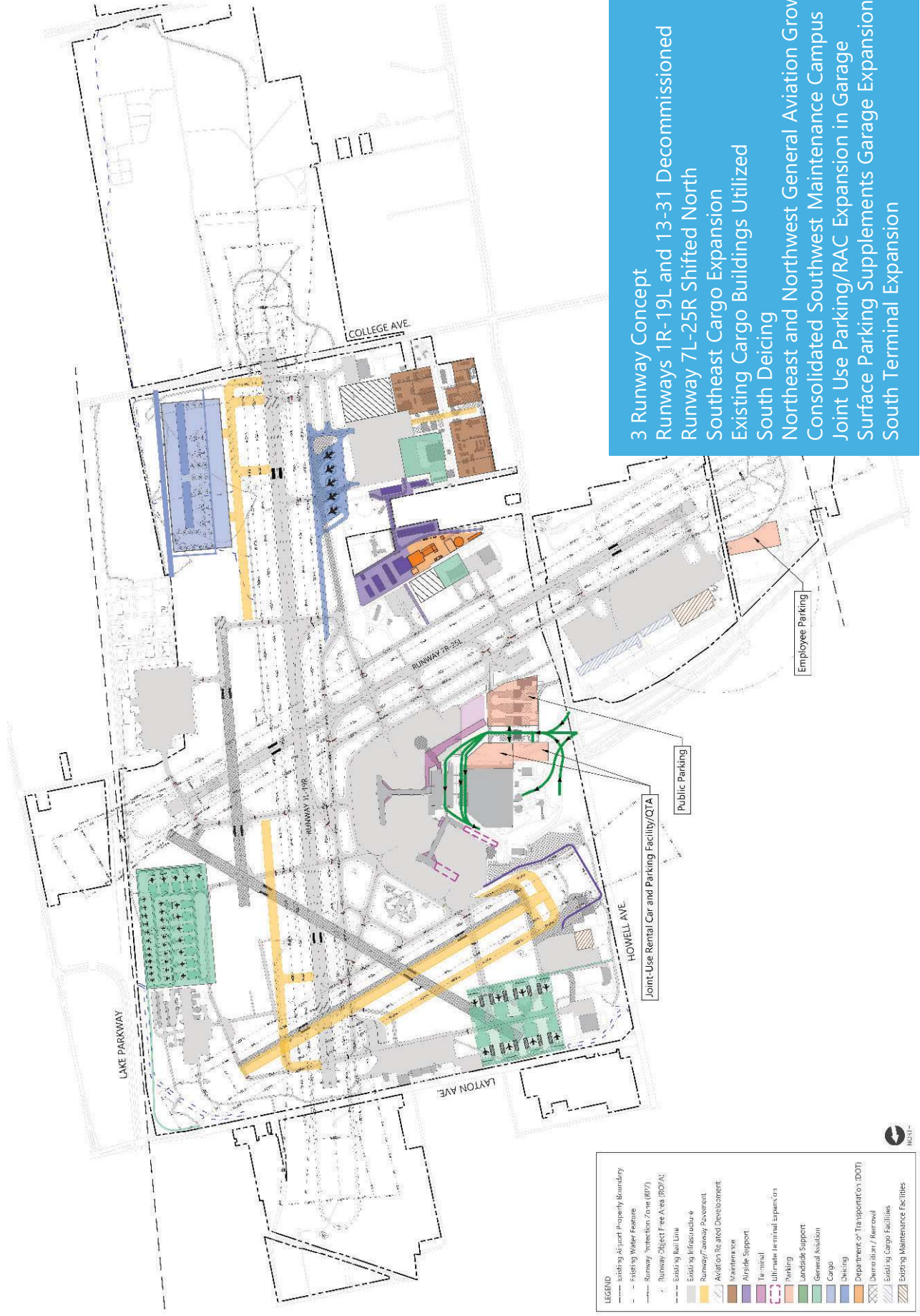


3 Runway Concept
 Runways 1R-19L and 7L-25R Decommissioned
 Southeast Cargo Expansion
 Central Deicing North of Terminal
 Consolidated Northeast General Aviation Growth
 Joint Use Facility South of Terminal
 Surface Parking on Layton/Howell Parcel
 North Terminal Expansion

LEGEND

- Existing Airport Property Boundary
- - - Existing Water Course
- Runway Protection Zone (RPZ)
- Runway Obstacle Free Area (ROFA)
- Existing Rail Line
- Existing Infrastructure
- Runway/Taxiway Pavement
- Aviation Related Development
- Maintenance
- Airside Support
- Terminal
- Ultimate Terminal Expansion
- Poling
- Unleaded Support
- General Aviation
- Cargo
- Deicing
- Department of Transportation (DOT)
- Demolition/Removal
- Existing Cargo Facilities
- Existing Maintenance Facilities

Alternative 2

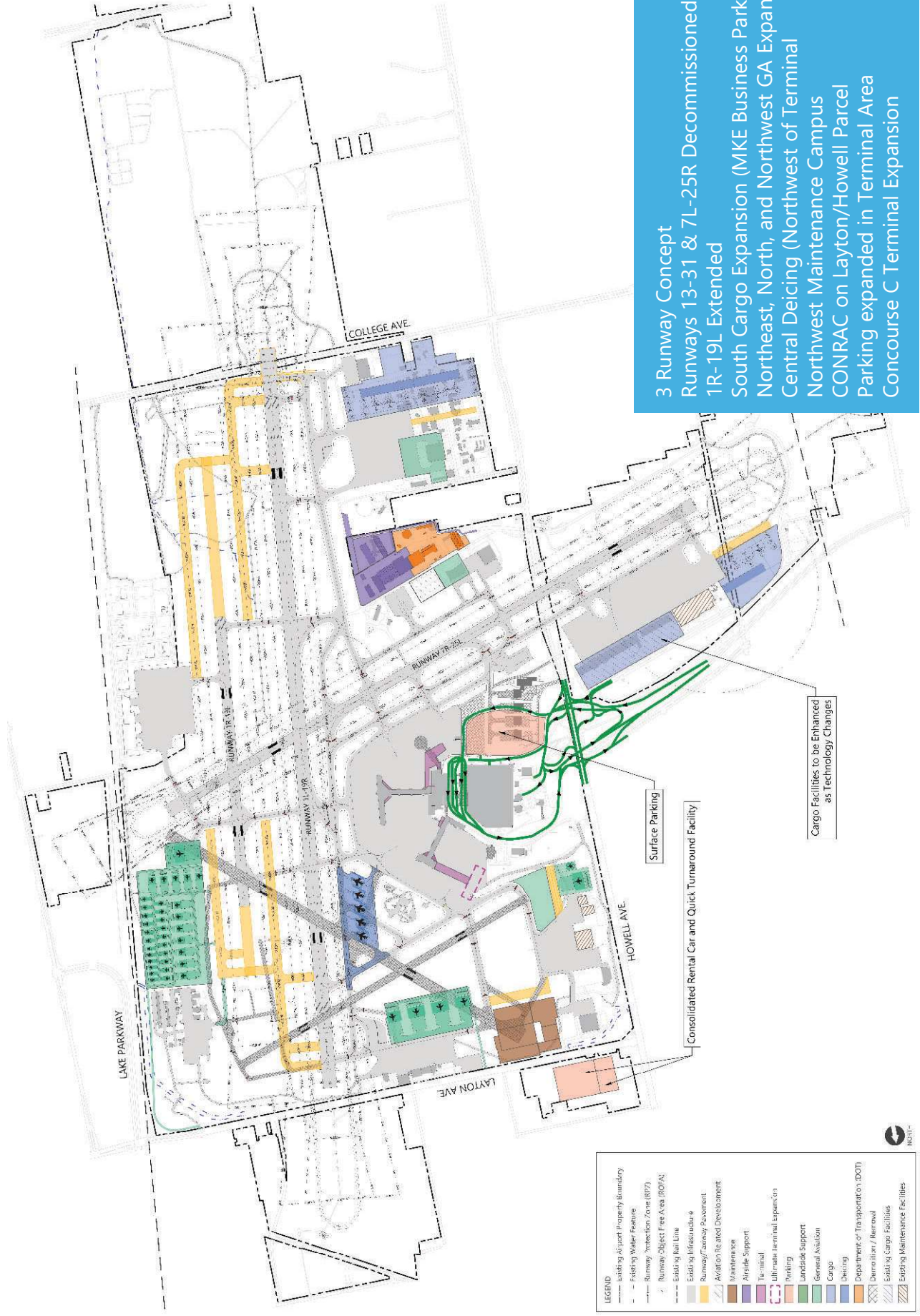


3 Runway Concept
 Runways 1R-19L and 13-31 Decommissioned
 Runway 7L-25R Shifted North
 Southeast Cargo Buildings Utilized
 Existing Cargo Buildings Utilized
 South Deicing
 Northeast and Northwest General Aviation Growth
 Consolidated Southwest Maintenance Campus
 Joint Use Parking/RAC Expansions in Garage
 Surface Parking Supplements Garage Expansion
 South Terminal Expansion

LEGEND

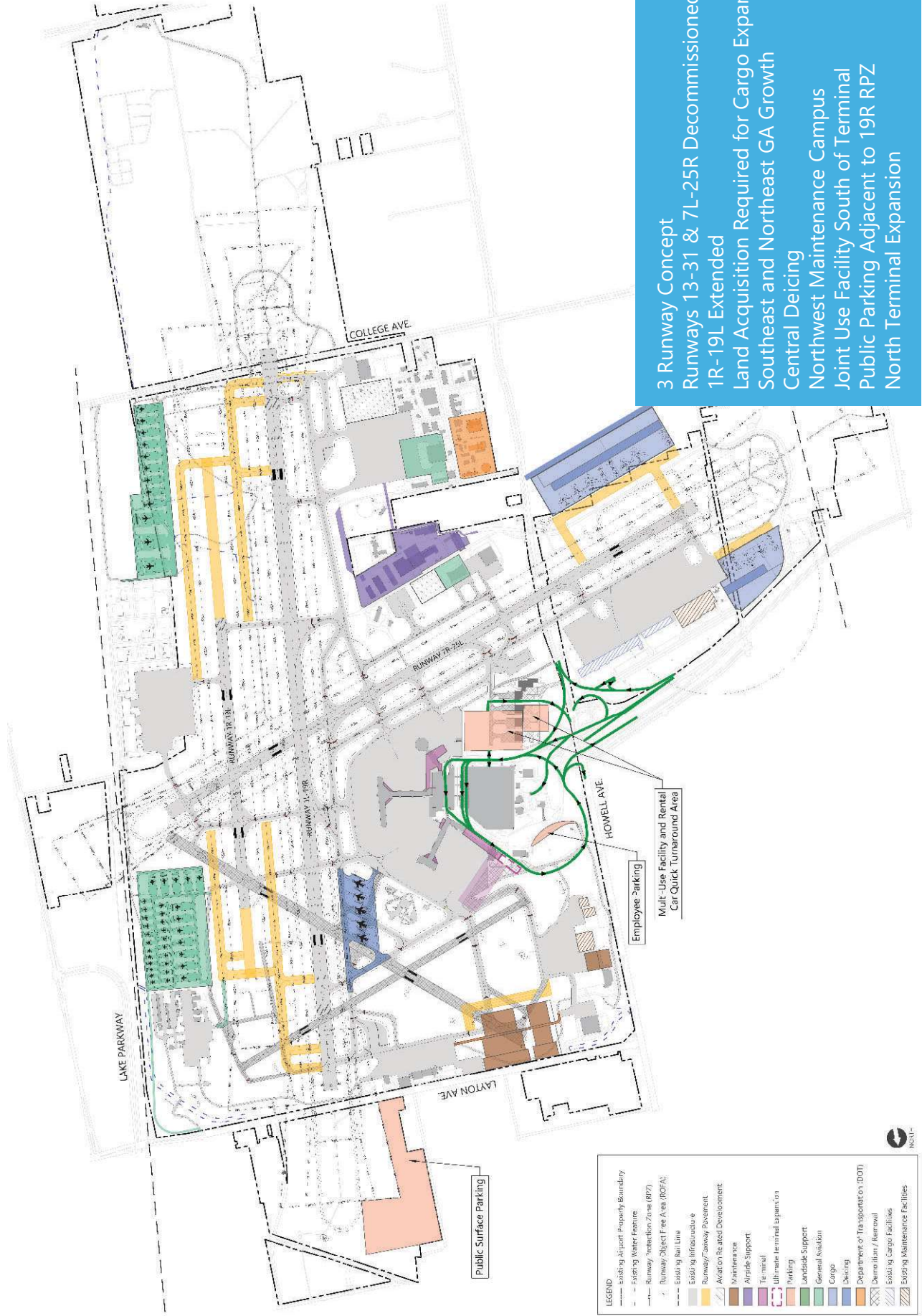
- Existing Airport Property Boundary
- - - Existing Water Feature
- Runway Protection Zone (RPZ)
- Runway Object Free Area (ROFA)
- Existing Rail Line
- Existing Infrastructure
- Runway/ Taxiway Pavement
- Aviation Related Development
- Maintenance
- Airside Support
- Terminal
- Ultimate Terminal Expansion
- Parking
- Landside Support
- General Aviation
- Cargo
- Deicing
- Department of Transportation (DOT)
- Demolition / Removal
- Existing Cargo Facilities
- Existing Maintenance Facilities

Alternative 3



3 Runway Concept
 Runways 13-31 & 7L-25R Decommissioned
 1R-19L Extended
 South Cargo Expansion (MKE Business Park)
 Northeast, North, and Northwest GA Expansion
 Central Deicing (Northwest of Terminal)
 Northwest Maintenance Campus
 CONRAC on Layton/Howell Parcel
 Parking expanded in Terminal Area
 Concourse C Terminal Expansion

Alternative 4



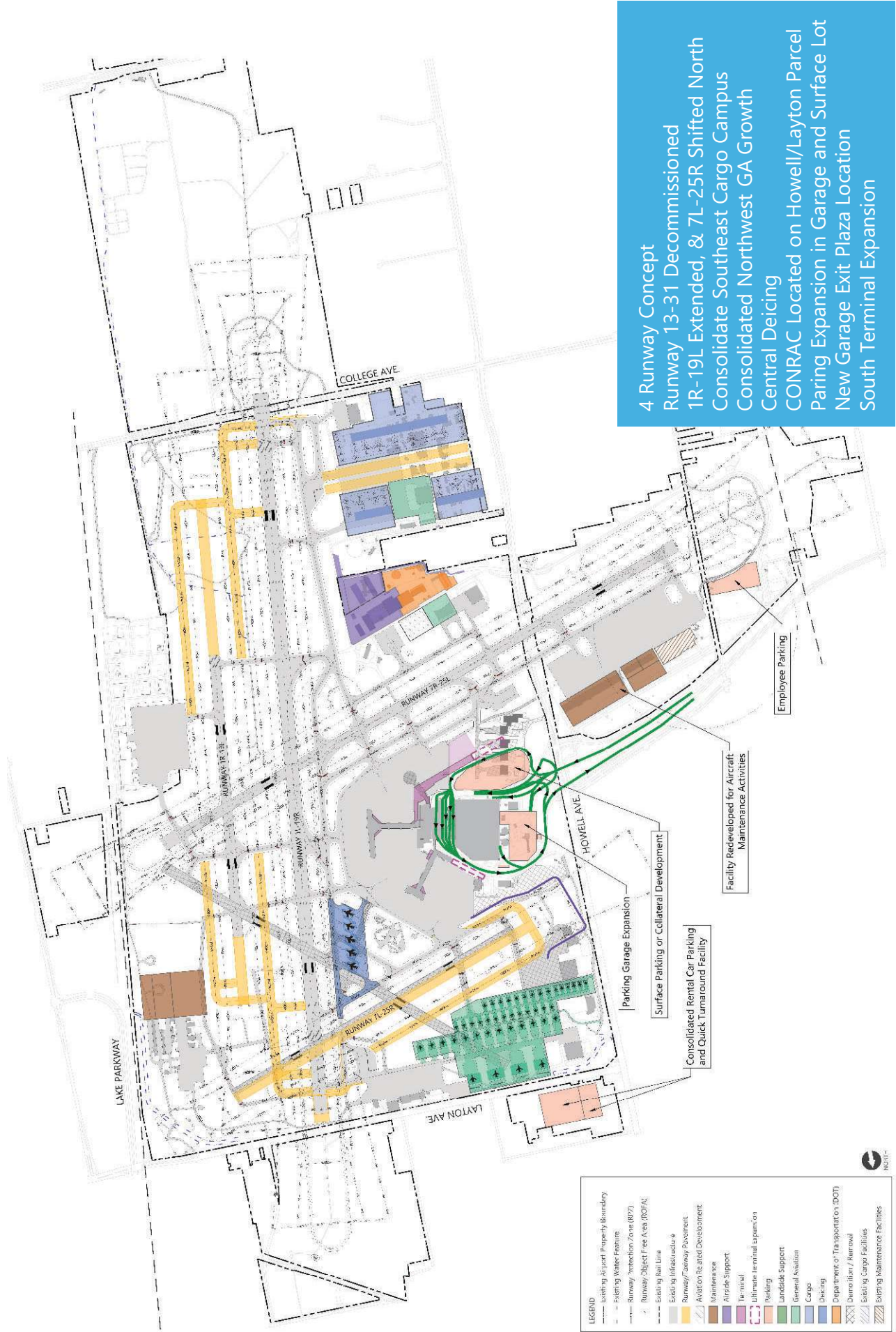
3 Runway Concept
 Runways 13-31 & 7L-25R Decommissioned
 1R-19L Extended
 Land Acquisition Required for Cargo Expansion
 Southeast and Northeast GA Growth
 Central Deicing
 Northwest Maintenance Campus
 Joint Use Facility South of Terminal
 Public Parking Adjacent to 19R RPZ
 North Terminal Expansion

LEGEND

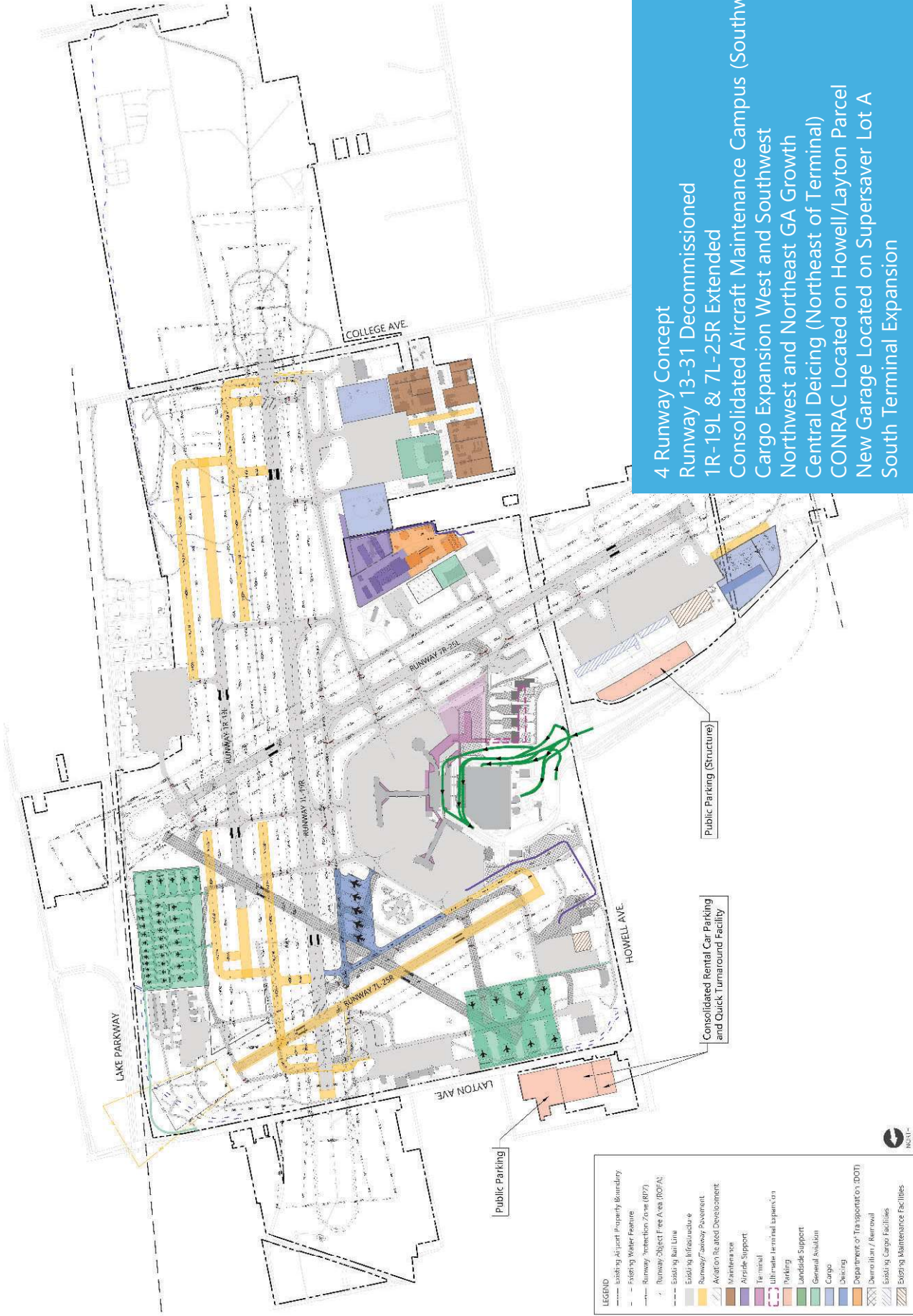
- Existing Airport Property Boundary
- Existing Water Feature
- Runway Protection Zone (RPZ)
- Runway Object Free Area (ROFA)
- Existing Taxi Line
- Existing Infrastructure
- Runway/ Taxiway Pavement
- Aviation Related Development
- Maintenance
- Airside Support
- Terminal
- Ultimate Terminal Expansion
- Parking
- Landscape Support
- General Aviation
- Cargo
- Deicing
- Department of Transportation (DOT)
- Demolition / Removal
- Existing Cargo Facilities
- Existing Maintenance Facilities



Alternative 5A



Alternative 5B



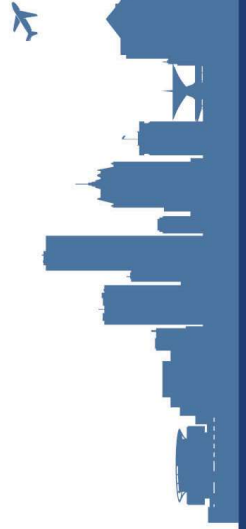
4 Runway Concept
 Runway 13-31 Decommissioned
 1R-19L & 7L-25R Extended
 Consolidated Aircraft Maintenance Campus (Southwest)
 Cargo Expansion West and Southwest
 Northwest and Northeast GA Growth
 Central Deicing (Northeast of Terminal)
 CONRAC Located on Howell/Layton Parcel
 New Garage Located on Supersaver Lot A
 South Terminal Expansion

LEGEND

- Existing Airport Property Boundary
- Existing Water Feature
- Runway Protection Zone (RPZ)
- Runway Object Free Area (ROFA)
- Existing Rail Line
- Existing Infrastructure
- Runway/ taxiway Pavement
- Aviation Related Development
- Maintenance
- Airside Support
- Terminal
- Ultimate Terminal Expansion
- Parking
- Landside Support
- General Aviation
- Cargo
- Deicing
- Department of Transportation (DOT)
- Demolition / Removal
- Existing Cargo Facilities
- Existing Maintenance Facilities



Working Session



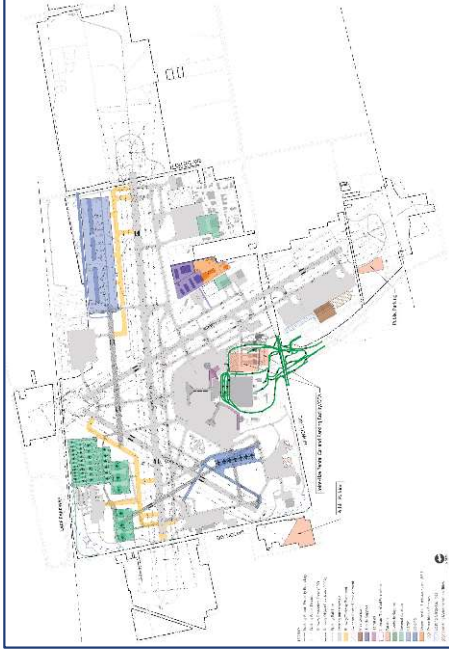
Screening Summary and Working Session

- Review drawings and provide feedback on current screening criteria
- Goal: Select three short-listed alternatives to carry forward to evaluation
- Evaluation will consider three short-list options and consist of quantitative and qualitative criteria
- ROM cost estimates generated for two of three alternatives

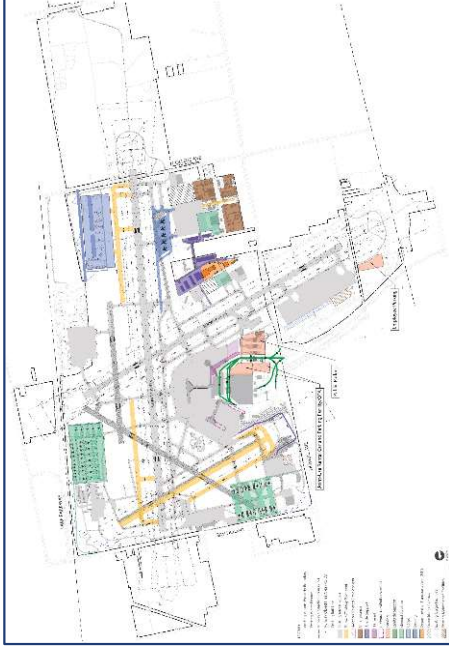
<u>Screening Criteria</u>	1	2	3	4	5A	5B
Flexibility						
Right-sizing						
Relative Construction Cost						
Operational Efficiency						
Implementation Complexity						
Long-term Expandability						
Collateral Development Potential						
Compatibility with Adjacent Land Uses						
Landside Roads and Wayfinding						
Facility Consolidation						
Sustainability/Environmental						
Requires Land Acquisition						

Integrated Alternatives

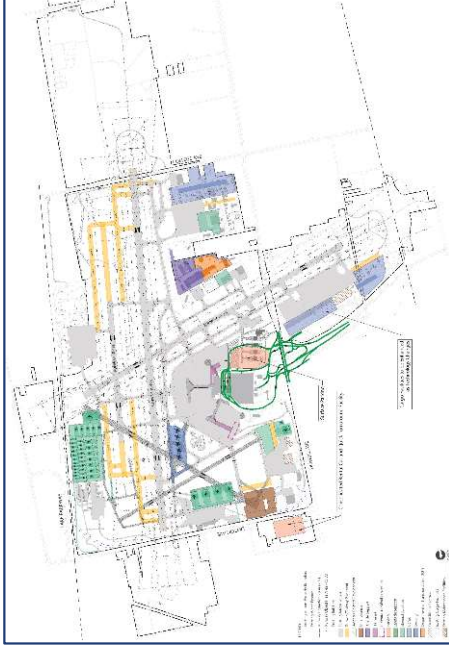
Alternative 1



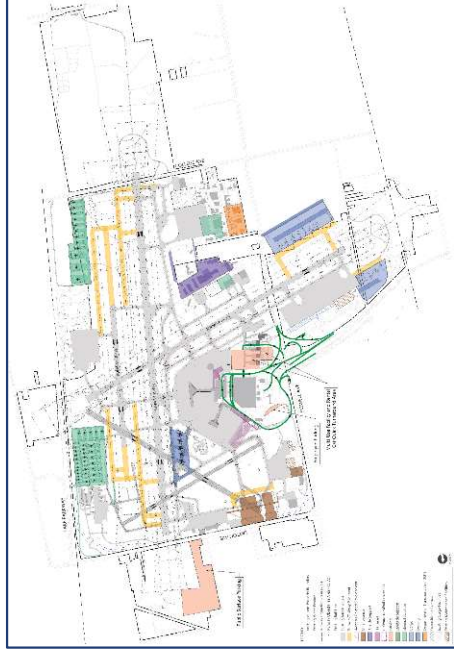
Alternative 2



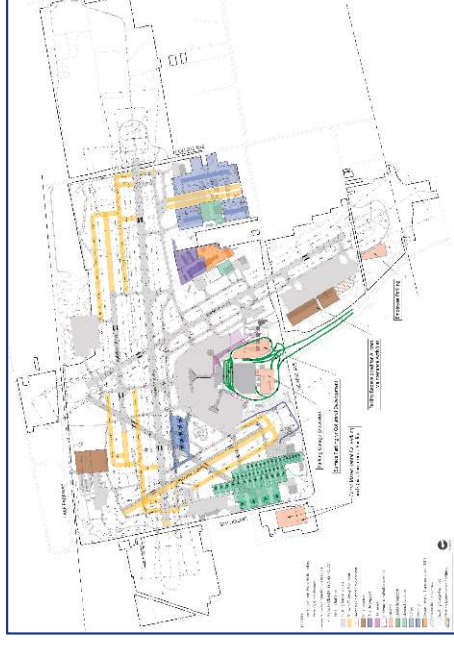
Alternative 3



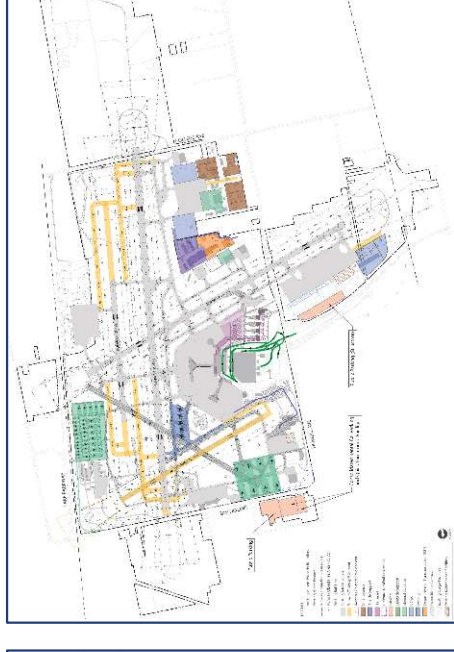
Alternative 4



Alternative 5A



Alternative 5B

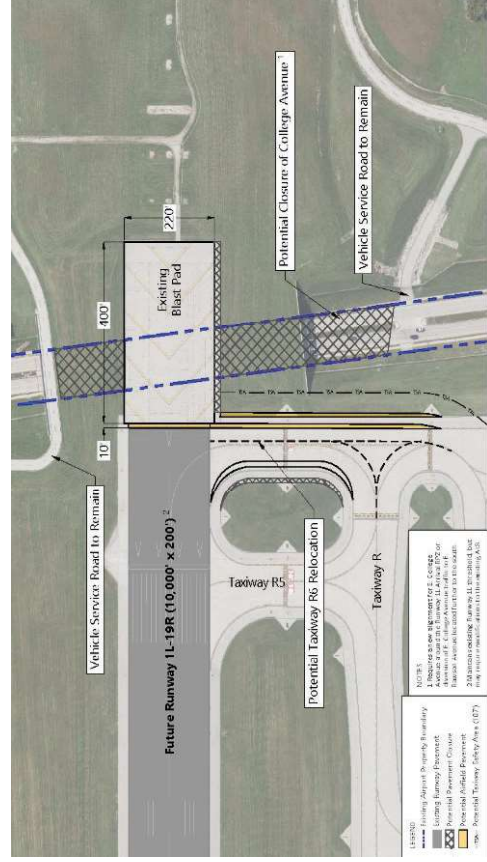
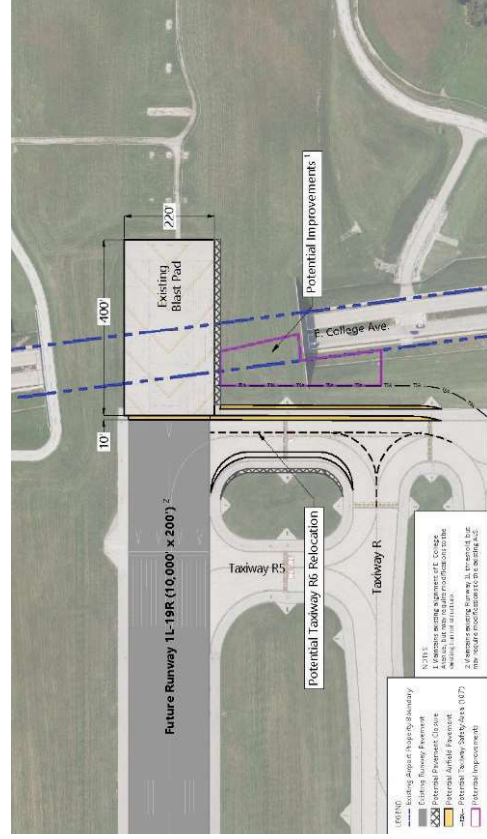


Runway 1L-19R 10 ft Extension Alternatives

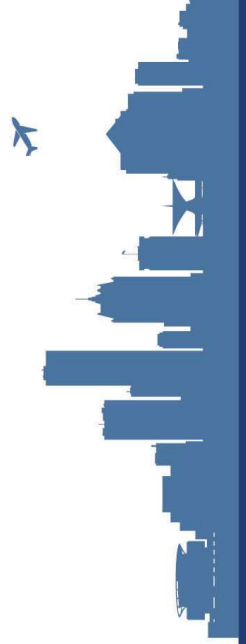
NORTH EXTENSION



SOUTH EXTENSION



Working Session



Next Steps

- Following this working session
 - Refine integrated alternatives with comments captured during Workshop #3
 - Prepare evaluation criteria and review with MKE Staff
 - Evaluate integrated alternatives and prepare matrix
 - Selection of a preferred alternative (appears on ALP)
- Master Plan Process
 - Public Open House #4
 - Prepare implementation plan
 - Draft Capital Improvement Program (CIP)
 - Prepare ALP and Narrative Report (FAA signs and approves ALP)
 - FAA ALP review period: up to 180 days
 - Finalize and submit Master Plan report