
Chapter 2.0 Alternatives Considered

2.1 Introduction

As the lead federal agency, the Federal Aviation Administration (FAA) is responsible for complying with the policies and procedures of the National Environmental Policy Act of 1969 (NEPA); Department of Transportation (DOT) Order 5610.1D, *DOT's Procedures for Considering Environmental Impacts*, FAA Order 1050.1G, *Environmental Impacts: Policies and Procedures*; and other related environmental laws, regulations, and orders applicable to federal actions.

An environmental review process requires that reasonable alternatives for the proposed action be identified and evaluated, although there is no requirement for the inclusion of any specific number or range of alternatives. This also aids the FAA in fulfilling its additional duty to identify the agency's preferred alternative. For alternatives that were considered but eliminated from further study, an explanation of why such alternatives were eliminated from further consideration is required. Additionally, the environmental document must include an analysis of the No Action Alternative as a baseline against which to compare the impacts of the Proposed Action and any alternatives being considered.

FAA Order 1050.1G requires a discussion of alternatives that are reasonable and meet the purpose and need of the proposed action. The alternatives discussion should include:

- A list of alternatives considered, including the Proposed Action and the No Action alternatives.
- A concise statement explaining why any initial alternative considered was eliminated from further study because they were not considered reasonable or did not meet the purpose and need.
- A statement identifying a Preferred Alternative if one has been identified.

This chapter documents different options that may reasonably meet the purpose and need of the proposed project at the Gary/Chicago International Airport (GYG or Airport), as explained in **Chapter 1.0 Purpose and Need**.

Alternatives discussed in this chapter are taken from the Gary/Chicago International Airport Master Plan Update completed in 2022. The Master Plan Update analyzed two options for development of the air cargo logistics area and summarized the advantages and disadvantages of each. The Master Plan Update assumed integrator or freighter services would use GYG as a spoke in the carrier's system. As such, the Master Plan Update defined an initial cargo module of approximately 780 feet by 340 feet for identifying areas on the Airport with the potential to accommodate cargo. The depth of 780 feet allows for an apron, building, and landside truck and auto parking. The width of 340 feet accommodates two Airplane Design Group (ADG) IV aircraft, such as the B757, B767, or A300. The only area with adequate depth for this development was on the northwest side of the Airport. Therefore, the Master Plan Update did not provide alternatives for other site locations but rather offered two potential configurations at the current proposed

location. Both configurations were carried forward as the build alternatives for this Environmental Assessment (EA).

The following alternatives are presented and discussed in this chapter:

- No Action Alternative – No Development of an Air Cargo Logistics Area
- Build Alternatives:
 - Alternative 1 – Development of an Air Cargo Logistics Area Aligned with Chicago Avenue
 - Alternative 2 – Development of an Air Cargo Logistics Area Aligned with Taxiway A (Preferred Alternative)

2.2 No Action Alternative – No Development of an Air Cargo Logistics Area

The No Action Alternative assumes that GYY would remain in its current state and no action would be taken to construct the infrastructure or facilities to support dedicated cargo carrier operations at the Airport. As such, the No Action Alternative does not meet the project's purpose and need of developing an air cargo logistics area on the northwest side of the Airport with expansion capabilities that would allow the Airport to serve as an alternate or supplemental cargo option in the Greater Chicago Area and fulfill one of the Gary/Chicago International Airport Authority's (GCIAA) long-term planning goals for GYY.

Although the No Action Alternative does not meet the purpose and need of the proposed project, it is included to serve as a baseline of comparison to the environmental impacts associated with the other alternatives and is, therefore, retained for analysis and carried forward for review.

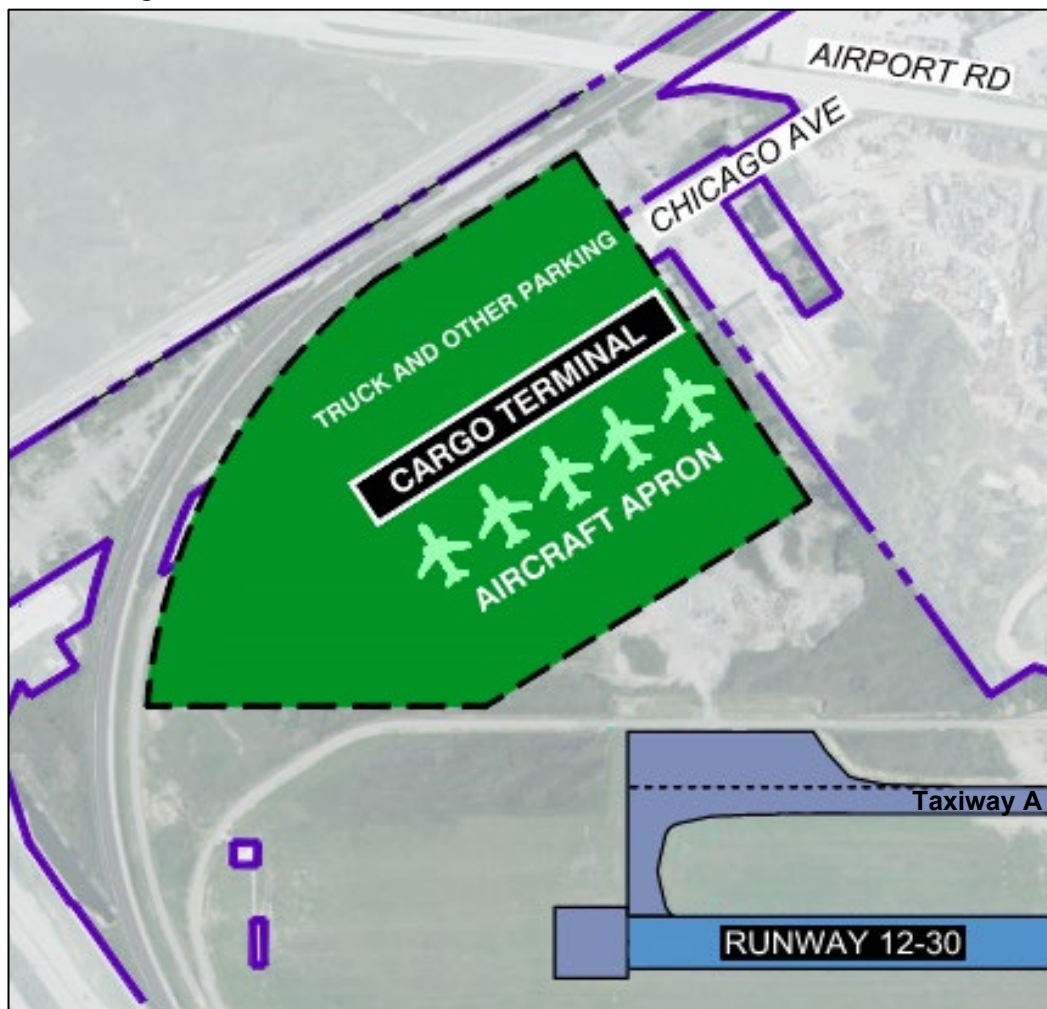
2.3 Alternative 1 – Development of an Air Cargo Logistics Area Aligned with Chicago Avenue

Under Alternative 1, the air cargo logistics area would be constructed north of the approach end of Runway 12 on the northwestern edge of Airport property. The site would be aligned with Chicago Avenue, which runs in an east-west direction (**Figure 2.0 Alternative 1 – Development of an Air Cargo Logistics Area Aligned with Chicago Avenue**). Expansion capabilities for additional air cargo development exist to the east of the site.

The primary advantage of Alternative 1 is that it offers more airside depth, which increases the space for parking and maneuvering of ADG IV aircraft. Another advantage is that no land acquisition or business relocations involving relocation assistance would be required. The GCIAA owns the property on both sides of the portion of Chicago Avenue located within the project site. Z-Force Transportation, a trucking company located on GCIAA property on the north side of Chicago Avenue, is a tenant of the GCIAA. The GCIAA would be required to honor the terms of its lease with Z-Force Transportation before proceeding with development on this portion of the project site.

The primary disadvantage of this alternative is the lack of space for landside development. Another disadvantage is the increased distance from Taxiway A, which would require the construction of a longer connector taxiway.

Figure 2.0 Alternative 1 – Development of an Air Cargo Logistics Area Aligned with Chicago Avenue



Source: Mead & Hunt, Inc., 2024

Potential environmental consequences of implementing Alternative 1 include wetlands, impacts to threatened and endangered species, and impacts to migratory birds. A qualified wetland biologist conducted a United States Army Corps of Engineers (USACE)-compliant wetland delineation within a 68-acre Project Study Area (PSA) in October – November 2022. The field delineation found 10 wetlands totaling 8.42 acres within the PSA.

Under this alternative, a jurisdictional determination for the delineated wetlands would be required from the Chicago District of the USACE and a permit under Section 404 of the Clean Water Act for any impacts from activities within jurisdictional wetland boundaries. In addition, the Indiana Department of Environmental Management (IDEM) would require a Section 401 Water Quality Certification.

Any impacts to non-jurisdictional wetlands that IDEM determines are non-exempt, referred to as non-exempt isolated wetlands, would require an Isolated Wetland Permit. Compensatory mitigation, including purchase of wetland credits from a wetland mitigation bank, purchase of mitigation credits from the Indiana

Department of Natural Resources' (IDNR) In-Lieu Fee Mitigation Program, or other action, would also be required for any impacts to jurisdictional or non-exempt isolated wetlands.

A review of the same 68-acre wetland delineation PSA was conducted by a qualified biologist in October 2023 to assess the potential presence of threatened and endangered species, protected species habitat, and migratory birds. All habitats within the PSA met threatened and endangered species habitat requirements for listed plants and animals and migratory birds of concern. Approximately 20 or more dead ash trees were also identified within the PSA. These trees are potential bat roost trees that are suitable for harboring the federally endangered Indiana Bat or Northern Long-eared Bat.

Potential habitat for federal and state listed threatened and endangered species and migratory birds is present. As a result, time of year restrictions, species-specific presence/absence surveys, and coordination with the IDNR and the U.S. Fish and Wildlife Service (USFWS) may be warranted if impacts are proposed to the habitats identified in the PSA. See **Chapter 3.0 Affected Environment** and **Chapter 4.0 Environmental Consequences** for information and maps of delineated wetlands, threatened and endangered species, migratory birds, and other environmental resources in the project area.

Advantages of this alternative:

- Meets the project's purpose and need
- Provides more airside depth for parking and maneuvering of ADG IV aircraft
- Requires no land acquisition or relocation assistance for any businesses

Disadvantages of this alternative:

- Lacks space for landside development
- Requires a longer connector taxiway to provide access between Taxiway A and a future cargo apron
- Potential impacts to wetlands, threatened and endangered species, and migratory birds

Although Alternative 1 meets the project's purpose and need, it is not considered a reasonable alternative because it provides insufficient space for landside development, including air cargo buildings, and truck and auto parking. Due to the alignment with Chicago Avenue, any future expansion of the air cargo apron to the east would further limit landside development. Alternative 1 is therefore removed from further consideration.

2.4 Alternative 2 – Development of an Air Cargo Logistics Area Aligned with Taxiway A (Preferred Alternative)

Alternative 2 proposes to develop the air cargo logistics area in the same location as Alternative 1 (in the northwest portion of the Airport). Under this alternative the development would be aligned with Taxiway A, as shown in **Figure 2.1 Alternative 2 – Development of an air Cargo Logistics Area Aligned with Taxiway A (Preferred Alternative)**. Like Alternative 1, land is available to the east of the site for future expansion of the air cargo logistics area.

Figure 2.1 Alternative 2 – Development of an Air Cargo Logistics Area Aligned with Taxiway A (Preferred Alternative)



Source: Mead & Hunt, Inc., 2024

Potential environmental consequences of implementing Alternative 2 are the same as Alternative 1. The field delineation described above found 10 wetlands totaling 8.42 acres within the 68-acre PSA. Prior to construction of this alternative, a jurisdictional determination and a Section 404 of the Clean Water Act permit would be required from the Chicago District of the USACE for impacts to any jurisdictional wetland boundaries. In addition, IDEM would also require a Section 401 Water Quality Certification.

Any impacts to non-jurisdictional wetlands that IDEM determines are non-exempt would require an Isolated Wetland Permit. Compensatory mitigation, including purchase of wetland credits from a wetland mitigation bank, purchase of mitigation credits from the IDNR In-Lieu Fee Mitigation Program, or other action, would also be required for impacts to jurisdictional or non-exempt isolated wetlands.

As previously stated, a qualified biologist reviewed the PSA in October 2023 to assess the potential presence of threatened and endangered species, migratory birds, and associated habitat. Project area habitat identified during the October assessment met threatened and endangered species requirements for

protected plants and animals and migratory birds of concern. The survey also found approximately 20 or more dead ash trees within the PSA that may provide roosting habitat for protected bat species.

Due to the presence of potential habitat for federal and state listed threatened and endangered species and migratory birds, time of year restrictions, species-specific presence/absence surveys, and coordination with the IDNR and the USFWS may be required if Alternative 2 impacts the habitats identified in the PSA. See **Chapter 3.0 Affected Environment and Chapter 4.0 Environmental Consequences** for information and maps of delineated wetlands, threatened and endangered species, migratory birds, and other environmental resources in the project area.

Alternative 2's primary advantage is that it offers more space for landside development. Additionally, the alignment of the site with Taxiway A would reduce the length of a connector taxiway needed for airside access. Also, like Alternative 1, no land acquisition or business relocations involving relocation assistance would be required. As previously explained, the GCIAA owns the property on both sides of the portion of Chicago Avenue located within the project site. Z-Force Transportation, a trucking company located on GCIAA property on the north side of Chicago Avenue, is a tenant of the GCIAA. The GCIAA would be required to honor the terms of its lease with Z-Force Transportation before proceeding with development on this portion of the project site.

This alternative's primary disadvantage is it would provide less airside depth than Alternative 1.

Advantages of this alternative:

- Meets the project's purpose and need
- Provides more space for landside development
- Requires a shorter connector taxiway to provide access between Taxiway A and a future cargo apron
- Requires no land acquisition or relocation assistance for any businesses

Disadvantages of this alternative:

- Provides less airside depth
- Potential impacts to wetlands, threatened and endangered species, and migratory birds

Alternative 2 is a reasonable alternative because it meets the project's purpose and need, provides more space for landside development, and requires a shorter connector taxiway for airside access. Although this alternative provides less airside depth than Alternative 1, sufficient space would still exist for parking and maneuvering of ADG IV aircraft.

2.5 Comparison of Alternatives

Table 2-0 Summary of Alternatives Comparison provides an overview of each build alternative. Categories of interest are presented for each build alternative and the No Action Alternative for comparison purposes. Only categories reasonably expected to be impacted by the project were included in the comparison table. For a detailed discussion of potential environmental impacts of the No Action Alternative and Preferred Alternative, see **Chapter 3.0 Affected Environment and Chapter 4.0 Environmental Consequences**.

2.6 Selection of the Preferred Alternative

After a thorough analysis of the advantages and disadvantages of each alternative, the alternative that best meets the project's purpose and need is Alternative 2, as shown in **Figure 2.1 Alternative 2 – Development of an Air Cargo Logistics Area Aligned with Taxiway A (Preferred Alternative)**.

Although both build alternatives meet the project's purpose and need, Alternative 2 provides more space for landside development, including air cargo buildings, and truck and auto parking, , which is a significant advantage over Alternative 1. Alternative 2 would also offer sufficient space for parking and maneuvering of ADG IV aircraft. Lastly, Alternative 2's alignment with Taxiway A would require construction of a shorter connector taxiway to provide access to the air cargo apron.

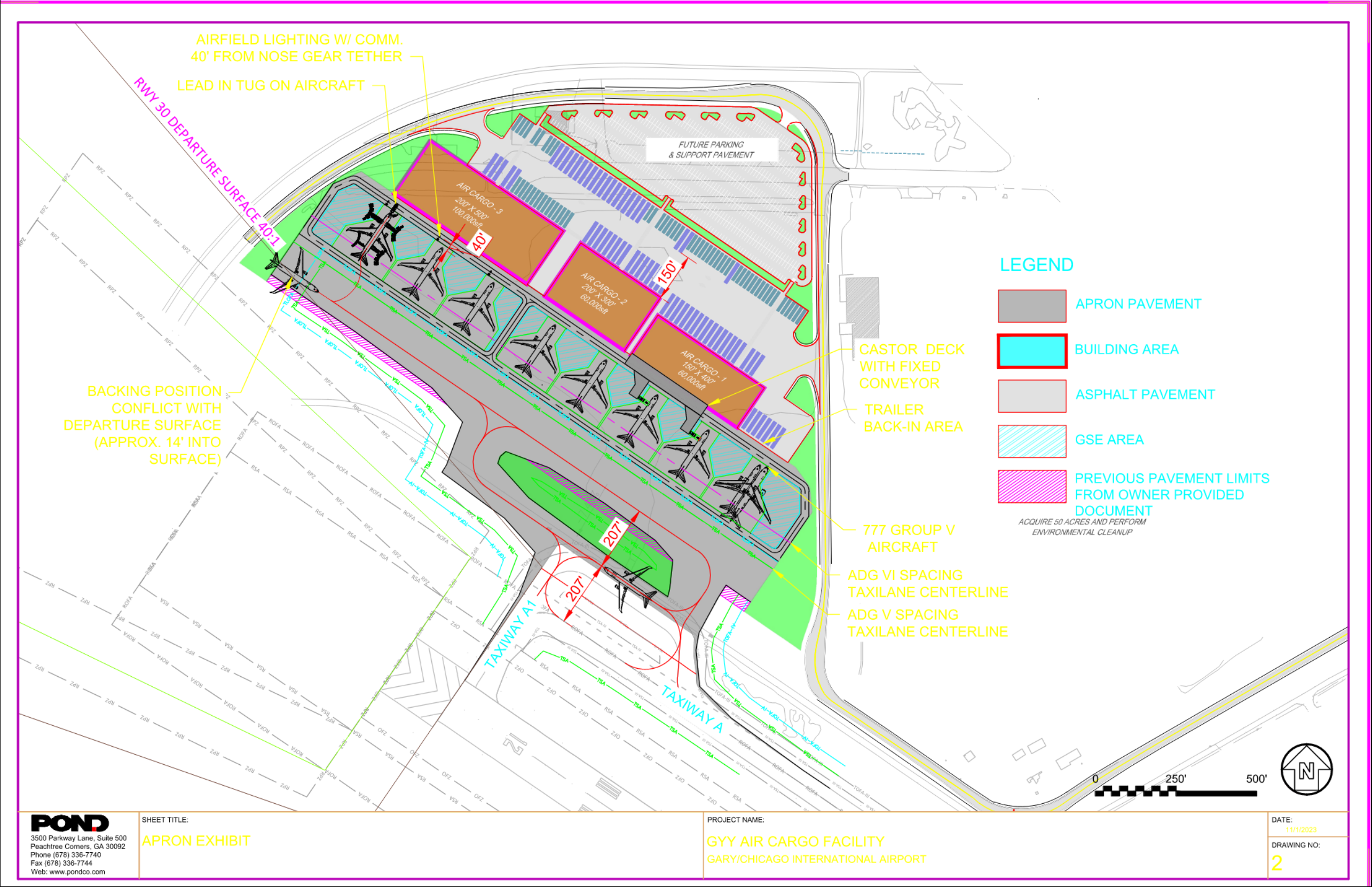
Alternative 1 would provide more airside depth for parking and maneuvering of ADG IV aircraft, but any future expansion to the east would result in an excess of airside space due to the site's alignment with Chicago Avenue. In addition, opportunities for landside development would continue to be limited. Construction of a longer connector taxiway would also be required to provide access between Taxiway A and the air cargo apron.

Both build alternatives would have potential impacts to wetlands, threatened and endangered species, and migratory birds, but these can be addressed through a combination of permits, compensatory mitigation requirements, time of year restrictions, and coordination with the IDNR and USFWS.

Alternative 2 is considered the most reasonable alternative based on the analysis presented above. As a result, Alternative 2 is carried forward in this EA for additional analysis, public comment, and agency review. A preliminary site layout plan for the Preferred Alternative, developed during a program definition study conducted following completion of the 2022 Master Plan Update, is provided in **Figure 2.2 Site Layout Plan**.

Table 2-0 Summary of Alternatives Comparison				
Category	Criteria	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
Meets Project Purpose and Need	Allows for Development of an Air Cargo Logistics Area with Future Expansion Capabilities, Fulfilling a Long-Term Planning Goal of the GCIAA	No	Yes	Yes
Site Suitability	Provides More Airside Depth	N/A	Yes	No
	Provides More Space for Landside Development	N/A	No	Yes
	Requires Longer Connector Taxiway	N/A	Yes	No
	Requires Land Acquisition or Business Relocations	No	No	No
Environmental Impacts	Potential Impacts to Wetlands	No	Yes	Yes
	Potential Impacts to Endangered, Threatened, and Rare Species	No	Yes	Yes
Green and red shading represent the highest (red) or lowest (green) intensity of impact when compared to the other build alternatives within a specific category.				
Source: Mead & Hunt, Inc.				

Figure 2.2 Site Layout Plan



Source: Pond & Company