CEQ ID Number: EAXX-021-12-ARP-1769096488

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
RECORD OF DECISION

Location

Teterboro Airport (TEB)
Boroughs of Teterboro and Moonachie
New Jersey

Introduction

This Finding of No Significant Impact/Record of Decision (FONSI/ROD) sets out the Federal Aviation Administration's (FAA) consideration of environmental and other factors for Airport Layout Plan (ALP) approval for the proposed Signature Flight Support facility improvements at the Signature East and Signature South leaseholds at Teterboro Airport (TEB). This FONSI/ROD is based on the Final Environmental Assessment (EA) for the *Facilities Redevelopment Project at Teterboro Airport* prepared by Signature Aviation (Signature) for the Port Authority of New York and New Jersey (PANYNJ), dated August 2026, which is hereby incorporated by reference. The PANYNJ is the airport sponsor for TEB, which is a general aviation (GA) airport, and Signature is a tenant of the PANYNJ at TEB.

Background

The FAA must comply with the National Environmental Policy Act of 1969 (NEPA) before taking federal actions that allow for the implementation of the Proposed Action. The FAA supervised preparation of the Final EA in accordance with the NEPA requirements in FAA Order 1050.1G, FAA National Environmental Policy Act Implementing Procedures, U.S. Department of Transportation (DOT) Order 5610.1D, DOT's Procedures for Considering Environmental Impacts, and the guidance in FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions.

Project Description

The Proposed Action would include development of aircraft apron, hangars, and support facilities at TEB at the Signature East and Signature South sites, comprised of the following components:

- Proposed Signature East Facilities - The proposed development at the Signature East site would be southwest of the existing Signature East facilities and west of the Aviation Hall of Fame and Museum. Site development would include construction of the following new facilities:
    - 40,500-square-foot hangar structure with 36,000 square feet of hangar space and 4,500 square feet of fixed based operator (FBO) terminal facilities
    - 170,000-square-foot (3.9-acre) aircraft apron
    - 10,000-square-foot automobile parking lot

- Proposed Signature South Facilities - The proposed development at the Signature South site would be northeast of the existing Signature South facilities. Site development would include construction of the following new facilities:
    - 95,000-square-foot hangar structure including two 40,000-square-foot aircraft hangars (80,000 square feet of new hangar space) with 22,500 square feet of FBO terminal facilities, consisting of a one-story 7,500-square-foot terminal and a two-story terminal with a 7,500-square-foot footprint
    - 227,000-square-foot (5.2-acre) aircraft apron
    - 24,400-square-foot automobile parking lot (this reflects a reduction of approximately 4,300 square feet in response to agency comments and coordination)
    - 30-foot-wide access drive, approximately 700 feet in length, connecting the proposed parking area to the existing Signature South parking facility

Proposed Agency Actions

The FAA actions involved in the implementation of the Proposed Action include the following:

- Unconditional Approval of the TEB ALP depicting the Proposed Action, pursuant to 49 U.S.C. §40103(b) and §47107(a)(16), and determination of effects of each of the components comprising the Proposed Action as described above, in the Final EA, and all associated materials upon the safe and efficient utilization of navigable airspace pursuant to 14 C.F.R. Parts 77 and 157 and 49 U.S.C. §44718;

- Determination under 49 U.S.C. §40101(d)(1) and §47105(b)(3) that the proposed project meets applicable design and engineering standards set forth in FAA Advisory Circulars;

- Continued close coordination with the PANYNJ and appropriate FAA program offices, as required, for safety during construction (14 C.F.R. Part 77); and

- Approval of appropriate amendments to the TEB Airport Certification Manual (ACM), as required, pursuant to 49 U.S.C. §44706.

The Proposed Action requires an amendment to the TEB ALP to depict the Proposed Action. The FAA has approval authority over revisions to portions of an ALP that affect the safe and efficient operation of aircraft, the safety of people and property as a result of aircraft operations, and the value of prior federal investments, as established by the FAA Reauthorization Act of 2018 (Public Law 115-254) and preserved in the FAA Reauthorization Act of 2024 (Public Law 118-63). FAA reviewed the Proposed Action and confirmed the agency retains approval authority over the ALP amendment depicting the Proposed Action.

In addition to the FAA's approval, implementation of the Proposed Action also requires the approval/permitting from other Federal agencies, including the U.S. Army Corps of Engineers (USACE), and State agencies, including the New Jersey Department of Environmental Protection (NJDEP). The Final EA further describes such approvals. FAA has coordinated the environmental review of this Final EA with other Federal, State, and local agencies as required under NEPA and consistent with DOT Order 5610.1D, Procedures for Considering Environmental Impacts, and FAA Order 1050.1G, FAA National

Environmental Policy Act Implementing Procedures, including the USACE, U.S. Fish and Wildlife Service (USFWS), the U.S. Environmental Protection Agency (USEPA), NJDEP and the New Jersey Sports and Exposition Authority (NJSEA).

Purpose and Need

The purpose of the Proposed Action is to better accommodate both existing and forecasted demand at the TEB Signature East and Signature South leaseholds while enhancing the safety and efficiency of aircraft operations related to aircraft parking.

The Proposed Action is needed to address the following conditions resulting from inadequate facilities, as presented below and in greater detail in the Final EA:

- The existing demand for Signature facilities exceeds capacity, resulting in apron congestion and increased emissions from idling aircraft; the facilities shortfall is expected to increase as operations are forecast to increase and the percentage of large jet aircraft continues to grow at a faster rate than other aircraft classifications.
- The modern GA fleet has steadily increased in size (both wingspan and length) and is equipped with winglets, which reduces aircraft parking efficiency.
- Given the proximity of TEB to Manhattan, aircraft have used, and are expected to continue using, TEB even when space for parking aircraft at TEB is not available, which has resulted in unnecessary ferry flights. A ferry flight occurs when a pilot lands at TEB but cannot find a space to park the aircraft; the pilots have to drop passengers off, fly to another airport where they can park, then fly back to TEB to pick the passengers up.
- Congested apron and hangar facilities result in operational inefficiencies, increased congestion, damage to aircraft, and increased safety risks to Signature personnel, pilots, and passengers using Signature's aircraft parking aprons and hangars.

Alternatives

Consistent with FAA Order 1050.1G, the Final EA evaluated the No Action Alternative and a reasonable range of alternatives organized into six categories in addition to No Action. The following alternative categories were considered in this Final EA.

- Alternative 1: No Action Alternative
    - This alternative represents the option where no new construction would occur at Signature East or Signature South leaseholds. The No Action Alternative was retained, as required.
- Alternative 2: Use of Other Modes of Transportation
    - This alternative assumes that instead of flying to TEB, users would choose to use other modes of transportation, including commercial flights from nearby commercial service airports, automobiles, buses, passenger trains, ferries, and/or helicopters to provide transportation services to and from the New York and New Jersey metropolitan region instead of TEB.
- Alternative 3: Use of Other Existing Airports Alternatives

    - This alternative includes the use of another airport or airports to accommodate demand at TEB for GA operations served by Signature.
- Alternative 4: Use, Reconfiguration, or Expansion of Signature West Alternative
    - These alternatives include use, reconfiguration, or expansion of the existing Signature West leasehold at TEB.
- Alternative 5: Signature East Alternatives
    - These alternatives include development configurations at the Signature East leasehold to address the need for apron, hangar, and FBO terminal space.
- Alternative 6: Signature South Alternatives
    - These alternatives include development configurations at the Signature South leasehold to address the need for apron, hangar, and FBO terminal space.
- Alternative 7: Development of Other Sites at TEB Alternative
    - These alternatives include development of other sites at TEB outside the Signature leaseholds.

Each alternative category was evaluated against screening criteria to determine if it meets the project purpose and need and would be reasonable to construct and operate. Based on this screening evaluation, Alternative 5 (Configurations 2 through 5) and Alternative 6 (Configurations 2 through 7) were identified as fulfilling the project purpose and need and would be reasonable to construct and operate. The Proposed Action would require an increase of approximately 538,700 square feet of FBO facilities at TEB, including approximately 367,300 square feet of aircraft apron and approximately 119,500 square feet of new aircraft hangar space, to meet Signature's existing and forecast demand. To meet the project purpose and need, development at both the Signature East and Signature South sites would be needed to adequately fulfill the overall FBO facility and aircraft parking requirements. As such, all the configurations for both Signature East and Signature South were retained for a detailed evaluation of environmental impacts to determine the environmentally preferred configurations and/or combination of configurations needed to meet the facility requirements. **As a result of these analyses, the preferred alternative and Proposed Action is a combination of Alternative 5 Configuration 5 and Alternative 6 Configuration 6.**

Discussion

The Final EA assesses the effects of the proposed project on the human and natural environment and is made a part of this Finding and incorporated by reference. The following impact analysis provides highlights of the more thorough analysis presented in the Final EA.

Aviation Emissions and Air Quality

The Proposed Action would result in temporary emissions from the operation of construction equipment. Operationally, the Proposed Action would not increase aircraft operations and would reduce ferry flights, resulting in approximately 2.6 percent fewer total airport operations and approximately 3.4 percent fewer Signature operations compared to the No Action Alternative. As a result, operational emissions would decrease relative to the No Action Alternative.

TEB is located in Bergen County, New Jersey, which is currently designated by the USEPA as a serious nonattainment area for the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS) and a

severe nonattainment area for the 2008 8-hour ozone NAAQS, and is in attainment for all other criteria pollutants. Accordingly, the applicable General Conformity *de minimis* thresholds for the ozone precursors oxides of nitrogen (NOx) and volatile organic compounds (VOCs) were used for the air quality analysis. Air emissions analyses were performed for the construction phase of the Proposed Action.

Construction emissions were estimated using conservative assumptions, including the largest development footprints evaluated at both the Signature East and Signature South sites and completion of all construction within a single calendar year. Estimated construction emissions associated with the Proposed Action are below the applicable General Conformity *de minimis* thresholds established in 40 C.F.R. Part 93, §93.153. In addition, standard construction best management practices, including idling restrictions, diesel equipment monitoring, and designated truck routes, would further minimize temporary air quality impacts. Accordingly, a General Conformity determination is not required.

The operation of the Proposed Action would result in approximately 2.6 percent fewer total airport operations and approximately 3.4 percent fewer Signature operations compared to the No Action Alternative. Thus, operation of the Proposed Action would not create any new violation of the NAAQS, delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS. In accordance with FAA Order 1050.1G and FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions, no further analysis with respect to General Conformity is needed. Accordingly, the Proposed Action conforms to the New Jersey State Implementation Plan (SIP) and the CAA. Means and measures to reduce or minimize project-related emissions are also incorporated into the Proposed Action. Accordingly, no significant impacts to air quality are anticipated.

Biological Resources

Construction of the Proposed Action is expected to disturb up to approximately 22 acres through clearing, grading, wetland filling, and construction of hangars, apron pavement, and ancillary facilities. No additional habitat disturbance would occur during operation of the Proposed Action.

Two species proposed for federal listing, the tricolored bat (*Perimyotis subflavus*, proposed endangered) and monarch butterfly (*Danaus plexippus*, proposed threatened), have the potential to occur in the project area. The USFWS does not identify any critical habitat for protected species within the project area. USFWS determined that the Proposed Action is not likely to jeopardize the continued existence of the tricolored bat and monarch butterfly and that an Endangered Species Act (ESA) Section 7(a)(4) conference is not required. Conservation measures would include seasonal restrictions on tree clearing, pre-construction surveys when clearing cannot be avoided during sensitive periods, and additional USFWS coordination as necessary. Although suitable monarch butterfly habitat was not identified during the 2023 habitat assessment, a habitat survey would be conducted prior to vegetation clearing, with disturbance of suitable habitat avoided between May 1 and September 30 to the extent feasible and practicable.

The Proposed Action would not affect avian species protected under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act due to the developed nature of the project area, which primarily consists of maintained vegetation, disturbed habitat, and pavement. Neither Bald Eagles (*Haliaeetus leucocephalus*) nor their nests are present within the project area or within airport property.

To ensure no effects to protected avian species, vegetation removal will be avoided between March 1 and September 15, with pre-construction surveys conducted if work is required during this period. Additionally, although three state-listed species have been documented within one mile of the project area, NJDEP confirmed that suitable habitat for these species is absent within and adjacent to the project area.

Construction and operation of the Proposed Action would not disturb protected or special status species; result in loss, degradation, or fragmentation of habitats; or adversely affect any species' population. As such, the Proposed Action would not result in significant impacts to biological resources compared to the No Action Alternative.

Coastal Resources

The project area is outside tidally influenced areas, and construction-related effects would be localized and temporary within wetlands surrounded by previously disturbed and developed land. NJDEP confirmed on August 5, 2026, that the Proposed Action would involve work below the mean high-water line and that no coastal permit is required. The Proposed Action would be consistent with the enforceable policies of the New Jersey Coastal Management Program and applicable federal coastal consistency requirements. Additionally, no coastal barrier resource systems or coral reef ecosystems are present within or near the airport. Therefore, the Proposed Action would not result in coastal resource impacts during construction or operation.

Hazardous Materials, Solid Waste, and Pollution Prevention

Construction and operation of the Proposed Action would not interfere with ongoing remediation projects or require new remediation. No new fuel farms or above-ground fuel storage tanks are proposed, as the existing Signature East and Signature South facilities would serve the project. Solid and hazardous waste generated during construction and operation would not exceed local disposal capacity and would be managed in accordance with applicable federal, state, and local requirements, PANYNJ waste management standards, the Bergen County District Solid Waste Management Plan, the existing Signature Spill Prevention, Control, and Countermeasure (SPCC) plan, and the Airport Stormwater Management Program. Therefore, the Proposed Action would result in no significant impacts related to hazardous materials, solid waste, or pollution prevention.

Noise and Noise-Compatible Land Use

Construction of the Proposed Action or its action alternatives would result in temporary noise from construction equipment on airport property; however, nearby residences are separated from the Signature East and Signature South sites by wooded areas, wetlands, and existing airfield facilities. Construction would be limited to weekday business hours, vehicles would use designated truck routes, and activities would comply with N.J.A.C. 7:29. Operationally, the Proposed Action would reduce total Airport operations by approximately 2.6 percent and Signature Aviation operations by 3.4 percent compared to the No Action Alternative by reducing ferry flights. Traffic associated with approximately 30 new employees would also be below the New Jersey Department of Transportation's (NJDOT) threshold for a significant traffic impact. Therefore, the Proposed Action would not result in significant construction or operational noise impacts.

Water Resources – Wetlands, Surface Waters, Groundwater, and Floodplains

Wetlands

Construction of the Proposed Action would permanently impact approximately 10.9 acres of jurisdictional wetlands, consisting of approximately 6.79 acres of palustrine emergent wetlands and approximately 4.11 acres of palustrine forested and scrub-shrub wetlands. The Clean Water Act (CWA) Section 404(b)(1) alternatives analysis found no practicable alternative that would avoid wetland impacts while meeting the project Purpose and Need. While the configurations comprising the Proposed Action preferred alternative have avoided and minimized wetland impacts to the extent practicable, the project would still result in the filling of jurisdictional wetlands. Accordingly, a Section 404 individual permit from the USACE and a Section 401 Water Quality Certification (WQC) from the NJDEP under the CWA are needed. NJDEP issued the WQC for the Proposed Action on July 16, 2026. The USACE is currently evaluating the issuance of a Section 404 individual permit.

Construction of the Proposed Action will result in impacts to jurisdictional wetlands and would be mitigated and compensated for in accordance with CWA Section 404(b)(1), as administered by USACE, as well as Executive Order (EO) 11990, Protection of Wetlands, and DOT Order 5660.1A, Preservation of the Nation's Wetlands. Because FAA does not permit wetland mitigation in proximity to runways or aircraft movement areas, mitigation cannot occur on airport; therefore, the loss of jurisdictional wetlands would be compensated through off-site wetland mitigation as follows:

- Loss of 6.79 acres of palustrine emergent wetlands would be mitigated through the purchase of 6.56 credits at the Kane Wetland Mitigation Bank and 0.23 credits purchased at the MRI-3 (Evergreen) Mitigation Bank.
- Loss of 0.68 acres of palustrine scrub-shrub wetlands would be mitigated through the purchase of 0.68 credits at the MRI-3 (Evergreen) Mitigation Bank.
- Loss of 3.43 acres of palustrine forested wetlands is anticipated to be mitigated through the purchase of 3.43 credits at the pending Upper Penhorn Mitigation Bank.

GreenVest, LLC is an ecological restoration company that has made an application to the Meadowlands Interagency Mitigation Advisory Committee (MIMAC), consisting of the USACE, NJDEP, USEPA, USFWS, National Oceanic and Atmospheric Administration (NOAA), and the NJSEA, to establish the Upper Penhorn Mitigation Bank at the parcel of land known as the Guarini Tract within the Hackensack Meadowlands, NJ. The MIMAC review of this application is nearing completion. A portion of the Upper Penhorn Mitigation Bank would enhance 10.29 acres of degraded palustrine forested wetlands resulting in the availability of 3.43 credits for purchase based on the application of a 3:1 mitigation ratio (enhancement of 3 acres of degraded wetlands to compensate for the loss of 1 acre of wetlands). It is Signature's intent to purchase these credits to compensate for the loss of 3.43 acres of palustrine forested wetlands. However, should the pending Upper Penhorn Mitigation Bank not be formally approved prior to the issuance of a Section 404 permit, Signature has agreements in place with GreenVest, LLC to use a portion of the Guarini Tract as an independent mitigation site to enhance 10.29 acres of degraded palustrine forested wetlands as compensatory mitigation. While the preference is to keep the proposed Mitigation Bank parcel whole, GreenVest, LLC will secure the local, State, and Federal licenses, permits,

approvals, and consents required to perform independent compensatory mitigation at this site to support the Proposed Action.

Operation of the Proposed Action and its action alternatives would not substantially alter wetland hydrology or reduce the ability of wetlands in this area to retain floodwater and stormwater runoff. The project would comply with the water quantity and quality requirements of N.J.A.C. 7:8 and incorporate stormwater management features, including inlets, trench drains, and pervious pavement, to collect and convey runoff from impervious surfaces away from nearby wetlands. Therefore, the Proposed Action or its action alternatives would not result in significant impacts to wetlands.

Surface Waters

The Proposed Action will result in ground disturbance and the need for amendment to the TEB's existing New Jersey Pollutant Discharge Elimination System (NJPDES) General Permit for Stormwater Discharges Associated with Construction Activity. Soil erosion and sediment control measures will be implemented during construction to minimize sedimentation to surface waters, in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. All soil erosion control measures will be installed and necessary approvals obtained prior to the start of construction. Stormwater runoff quality would be temporarily affected due to increased sedimentation and siltation from ground disturbance, however, with implementation of the soil erosion and sediment control measures and adherence to State guidance and permits, these impacts would not result in significant effects to surface waters.

The Proposed Action would increase the amount of impervious surfaces within the project area but would not substantially modify existing drainage patterns. The Proposed Action would not result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. Stormwater discharges to existing drainage features would continue similar to existing conditions. There would be no increase in the post-development peak runoff rates for the 2-, 10-, and 100-year storm events when compared to the pre-development peak runoff rates. Project post-development peak runoff rates for the current and future/projected 2-, 10-, and 100-year storm events would be reduced to 50, 75, and 80 percent, respectively, of the project pre-development runoff rates. In addition, prior to discharging surface runoff to underground detention systems, the water will pass through CONTECH High Capacity (HC) Kraken Filter Vaults, a NJDEP certified below-grade manufactured treatment device as the required pretreatment measure. This device is approved for an 80 percent total suspended solids removal rate and has been sized for the peak flow to satisfy N.J.A.C. 7:8 performance standards. Therefore, there would be no significant surface water impacts during operation of the Proposed Action.

Groundwater

Construction and operation of the Proposed Action would not result in significant impacts to groundwater resources. A 2016 Groundwater Recharge Analysis identified zero inches of annual groundwater recharge within the project area; groundwater recharge requirements under N.J.A.C. 7:8-5.4 do not apply because the project is located within a high pollutant loading area. During construction, adherence to the site-specific Stormwater Pollution Prevention Plan (SWPPP) and implementation of best management practices (BMPs) would minimize pollutant discharges and protect groundwater resources. Operation

would not involve ground disturbance or groundwater use. Therefore, the construction and operation of the Proposed Action would not result in significant impacts to groundwater resources.

Floodplains

The Proposed Action would develop approximately 9.14 acres of the 100-year tidal floodplain of the Hackensack River, including approximately 0.42 acre at Signature East and 8.72 acres at Signature South. Consistent with Executive Order 11988 and DOT Order 5650.2, alternatives were reviewed and no practicable alternative avoiding floodplain construction exists given the airport's location. Development at both the Signature East and South sites will comply with the current New Jersey stormwater quality, quantity, and groundwater recharge design and performance standards (N.J.A.C. 7:8). Underground detention systems will be installed at both Signature East and Signature South that would reduce post-development peak runoff rates when compared to pre-development peak runoff rates for the current and future/projected 2-, 10-, and 100-year storm events by 50, 75, and 80 percent, respectively. Additionally, Signature has committed to replacing existing pavement with pervious pavement systems in areas not subject to aircraft loading or other operational constraints, where practicable. All practicable measures to minimize harm will be incorporated into the project design, including wet floodproofing of the new hangar facilities consistent with NJDEP requirements. Because the sites cannot accommodate surface infiltration measures without creating a wildlife attractant contrary to FAA Advisory Circular 150/5200-33C, a Green Infrastructure Hardship Exception is required under N.J.A.C. 7:8. Because the project area is a tidal floodplain, the flood storage displacement limits of N.J.A.C. 7:13-11.4 do not apply. NJDEP issued a Flood Hazard Area Verification and Flood Hazard Area Individual Permit for the Proposed Action on July 16, 2026. The Proposed Action would not result in a considerable probability of loss of human life; would not create a likelihood of future damage associated with floodplain encroachment that could be substantial in cost or extent, including interruption of service or loss of a vital transportation facility; and would not cause notable adverse impacts on natural or beneficial floodplain values. Accordingly, the Proposed Action would not constitute a significant floodplain encroachment and is not likely to result in significant adverse effects to floodplains during construction or operation of the Proposed Action.

Summary of All Impact Categories

The FAA identified and evaluated reasonably foreseeable environmental impacts of the Proposed Action in the Final EA, as required by FAA Orders 1050.1G and 5050.4B. Farmlands and Wild and Scenic Rivers were eliminated from detailed review because none exist in or near the project area.

To assist in reasoned decision-making, the Final EA also considers potential impacts from projects proposed at TEB by the Port Authority that may occur within a reasonable timeframe of five years. These future projects include rehabilitation of various taxiways and Hangar 1 ramp, installation of an aircraft run-up pad, airport perimeter fence hardening, and a runway 6 departure engineered material arresting system.

Of the environmental impact categories defined in FAA Order 1050.1G, the following resources are present within or near the project area but would not be significantly affected by the Proposed Action: historical, architectural, archaeological, and cultural resources; Section 4(f) and Section 6(f) resources; land use; natural resources and energy supply; socioeconomics and children's health and safety risks; and

visual effects and light emissions. Impacts in each of these categories would therefore be less than significant, and no detailed analysis is necessary. The analysis and results for each of these categories are summarized below.

Historical, Architectural, Archaeological, and Cultural Resources
Direct and Indirect Areas of Potential Effects (APEs) were established under 36 C.F.R. §800.4(a)(1). No properties listed, or eligible for listing, in the National Register of Historic Places were identified in the Direct and Indirect APEs. The Direct APE was found to have low to no sensitivity for historic archaeological resources. The FAA requested concurrence with a preliminary determination of No Historic Properties Affected on February 4, 2026, and the New Jersey State Historic Preservation Officer (NJSHPO) concurred on March 3, 2026, complying with Section 106 of the National Historic Preservation Act.

Department of Transportation Act Section 4(f) and Section 6(f) Resources
There are no publicly owned parks, recreation areas, or wildlife and waterfowl refuges within the project area. The Proposed Action would therefore result in no physical or constructive use of Section 4(f) resources and no conversion of Section 6(f) property.

Land Use
The Proposed Action would occur entirely within the existing airport property boundary on land zoned for aviation-related purposes, is consistent with existing land use designations and local comprehensive plans and would require no land acquisition or change in ownership. The Proposed Action would not alter surrounding land use patterns and would not generate noise, light, or traffic effects capable of creating land use incompatibilities.

Natural Resources and Energy Supply
Construction would require only limited, short-term use of fuel, aggregate, and typical construction products, which would not exceed regional supplies or deplete nonrenewable resources. Operational electricity demand for lighting and building operations would be minor and would not require substantial new capacity from local energy suppliers, and no project component would interfere with existing utility corridors or require energy-intensive systems.

Socioeconomics and Children's Health and Safety Risks
No residents or businesses would be relocated, no local traffic patterns would be disrupted, and access to community services would not be altered; construction employment effects would be short-term and minor. Construction would result in a slight, temporary increase in local traffic, and operation would add approximately 30 employee commutation trips. However, these additional trips would remain below the NJDOT threshold of significance. Additionally, to reduce wetland impacts, Signature has reduced the size of its on-site vehicle parking area and will be providing shuttles between off-site parking and the Signature South facilities. No schools, childcare facilities, or recreational areas are located within or near the project area, and the Proposed Action would introduce no new emissions sources, hazardous materials, or physical hazards that could pose environmental health or safety risks to children.

Visual Effects, Including Light Emissions

Construction activity would be temporary and confined within the airport boundary. The new facilities would be similar in scale, height, and appearance to existing airport structures and would introduce no visually inconsistent features. Night-time lighting would be consistent with existing airport lighting, with no glare, light spillover, or intrusion into residential or other sensitive land uses, and no light sources would be directed off airport property or skyward. Therefore, the Proposed Action would not have a significant visual effect during construction or operation.

Public Involvement/Agency Coordination

A Notice of Availability and Request for Comment was published on May 29, 2026, for a 31-day public review and comment period to provide agencies, stakeholders, and members of the public an opportunity to review and provide input on the Proposed Action. The Draft EA, including appendices, was made available electronically on the PANYNJ website (https://www.panynj.gov/studies-reports) and in hard copy at the Teterboro Airport Manager's Office and Bergen County Clerk's Office. The public comment period remained open until 5:00 PM on June 29, 2026, with comment submittal available through mail or email.

A Public Workshop was held on June 17, 2026, from 6:00 PM to 8:00 PM at the Holiday Inn in Hasbrouck Heights, New Jersey. The workshop provided members of the public with information about the Proposed Action and an opportunity to ask questions and submit comments regarding the project.

A total of 178 comment submissions were received on the Draft EA. All comments received during the public review period were considered in the preparation of the Final EA. Based on this input, as well as new or updated information that became available following publication of the Draft EA, the Final EA was revised as appropriate. Appendices P and Q in the Final EA document the overall public involvement process and record and contain a summary of the public comments received and the FAA's responses.

Mitigation Measures

1. Construction contract specifications developed for the projects shall contain the provisions of FAA Advisory Circular (AC) 150/5370-10H, Standard Specifications for Construction of Airports, Item C-102, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control; and AC 150/5320-5D, Airport Drainage Design.

2. All required regulatory permits shall be obtained prior to construction of the Proposed Action, including a Section 404 individual permit from the USACE (not yet issued as of the date of this FONSI/ROD; the FAA will monitor the status of this approval), a Section 401 Water Quality Certification (WQC) from the NJDEP (issued July 16, 2026), a Flood Hazard Area Verification and Flood Hazard Area Individual Permit from the NJDEP (issued July 16, 2026), and amendment to the existing NJPDES General Permit for Stormwater Discharges Associated with Construction Activity, when applicable.

3. Filling of approximately 10.9 acres of jurisdictional wetlands shall be compensated in accordance with Section 404(b)(1) of the CWA, Executive Order 11990, Protection of Wetlands, and DOT Order 5660.1A, Preservation of the Nation's Wetlands. Compensatory mitigation shall include:

    a. 6.79 acres of palustrine emergent wetland impacts mitigated through 6.56 credits purchased at the Kane Wetland Mitigation Bank and 0.23 credits at the MRI-3 (Evergreen) Mitigation Bank;
    b. 0.68 acre of palustrine scrub-shrub wetland impacts mitigated through 0.68 credits at the MRI-3 (Evergreen) Mitigation Bank; and
    c. 3.43 acres of palustrine forested wetland impacts mitigated through 3.43 credits at the pending Upper Penhorn Creek Mitigation Bank (Guarini Tract) or independent mitigation at this same location.

4. Tree clearing shall be avoided during the tricolored bat pup season (May 15 through July 31) where suitable roosting habitat is present; if clearing is required during this period, additional coordination with the USFWS shall be conducted. Removal of suitable roost trees shall be avoided, to the extent feasible, between April 1 and September 30, and pre-construction surveys shall be conducted to determine bat use before any clearing during that period. A habitat survey shall be conducted prior to vegetation clearing to identify suitable monarch butterfly habitat; disturbance of suitable habitat shall be avoided between May 1 and September 30 to the extent feasible and practicable, and the survey plan shall be coordinated with the USFWS before implementation. Vegetation removal shall be avoided during the migratory bird nesting season (generally March 1 through September 15); if work must occur during this period, pre-construction nesting bird surveys shall be conducted within five days before construction and work shall avoid active nests, eggs, and chicks.

5. Impacts to approximately 9.14 acres of the 100-year tidal floodplain of the Hackensack River (approximately 0.42 acre at Signature East and 8.72 acres at Signature South) shall be mitigated through implementation of the Proposed Action in accordance with the Flood Hazard Area Verification and Flood Hazard Area Individual Permit issued by NJDEP issued on July 16, 2026. Impacts associated with the increase in impervious surface shall be mitigated through compliance with the New Jersey stormwater quality, quantity, and groundwater recharge design and performance standards (N.J.A.C. 7:8), including pervious pavement and underground detention systems at both the Signature East and Signature South sites.

FEDERAL AGENCY FINDINGS

In accordance with all applicable laws, the FAA makes the following findings for the Proposed Action based on all appropriate information and analyses contained in the Final EA:

A. <u>The Proposed Action is reasonably consistent with existing plans of public agencies for development of areas surrounding the airport (49 U.S.C. § 47106(a)(1)).</u> The FAA is satisfied that the Proposed Action is consistent with plans (existing at the time the Proposed Action is approved) of public agencies for development of areas surrounding the airport. The project

development will take place on airport property for the purposes of supporting aeronautical activities.

B. **The interests of the communities in or near where the Proposed Action may be located were given fair consideration. (49 U.S.C. § 47106(b)(2)).** The FAA is satisfied that the interests of the communities in or near where the Proposed Action will be located were given fair consideration as demonstrated by the Final EA, including Appendices P and Q, which include the comments received and the FAA's responses.

C. **The FAA is satisfied that consistent with 49 U.S.C. § 47107(a)(10), the airport sponsor has, and will continue to take all necessary actions, including the adoption of zoning laws, to ensure the land uses in the airport vicinity are compatible with airport operations.** The Proposed Action will not result in changes to zoning or land use in the vicinity of the airport.

D. **The FAA has given this Proposed Action independent and objective evaluation.** The FAA's review and ultimate decision-making process included the FAA's rigorous exploration and objective evaluation of reasonable alternatives and probable environmental consequences, regulatory agency consultations, as required, and public involvement. FAA furnished guidance and participated in the preparation of the Final EA by providing input, advice, and expertise throughout the planning and technical analyses, along with administrative direction and legal review. FAA has independently evaluated the Final EA and takes responsibility for its scope and content.

E. **The FAA finds that Executive Order 11988, which directs federal agencies to reduce the risk of flood loss, minimize the impacts of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains, has been followed and, as required, complied with appropriately.** The FAA is satisfied that the Proposed Action would not be a significant encroachment on floodplains and that implementation of the Proposed Action would comply with all the requirements of EO 11988. Specifically, the Proposed Action would develop approximately 9.14 acres of the 100-year tidal floodplain of the Hackensack River, and there is no feasible and prudent alternative that avoids the floodplain. The installation of underground detention systems in accordance with NJDEP permit requirements will reduce the impacts of peak post-development runoff rates below peak pre-development rates for current and future/projected 2-, 10-, and 100-year storm events. A significant encroachment on the floodplain would not occur because: the probability of loss of human life is low; the Proposed Action would be designed to minimize future extensive damage or costs; there would be no notable adverse impacts on the floodplain's natural and beneficial features; and there would be no interruption of service or loss of vital transportation facility. The appropriate and currently valid Flood Insurance Rate Maps (FIRMs) were consulted and are included in the Final EA. The Proposed Action would also conform with DOT Order 5650.2, Floodplain Management and Protection.

F. **The Proposed Action will conform to the SIP in accordance with Section 176 of the CAA and its amendments (42 U.S.C. § 7506(c)).** The Proposed Action conforms to the New Jersey SIP and complies with the Clean Air Act Section 176(c)(1). The Proposed Action would not: cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. Specifically, the Proposed Action's total construction emissions, based on specific emissions calculations, are below the *de minimis* thresholds established by the General Conformity Rule (40 C.F.R. Parts 51 and 93) and therefore, would conform to the SIP. Additionally, the Proposed Action would result in a decrease of total airport operations by approximately 2.6 percent and a decrease in Signature operations by approximately 3.4 percent when compared to the No Action Alternative. According to FAA Order 1050.1G, no mitigation is necessary and further analysis is not required to comply with the CAA or NEPA. Although the Proposed Action is taking place in a nonattainment area, the FAA determined that project emissions would be below *de minimis* thresholds under General Conformity requirements. Therefore, a Conformity Determination is unnecessary and significant adverse impacts to air quality would be unlikely. The requirements of the General Conformity Rule have been met as discussed in the Final EA.

G. **The Proposed Action conforms to the Avoidance, Minimization and/or Compensation of Harm to Wetlands in Accordance with EO 11990, the Clean Water Act, and DOT Order 5660.1A.** The Proposed Action would permanently impact approximately 10.9 acres of jurisdictional wetlands, consisting of approximately 6.79 acres of palustrine emergent wetlands and approximately 4.11 acres of palustrine forested and scrub-shrub wetlands. The Clean Water Act (CWA) Section 404(b)(1) alternatives analysis found no practicable alternative that would avoid wetland impacts while meeting the Purpose and Need, and the configurations comprising the Proposed Action minimize wetland impacts. To offset unavoidable permanent impacts to wetlands, mitigation in the form of purchase of wetland credits at an approved mitigation bank or compensatory mitigation will be performed, as required, under the USACE Section 404 permit approval process. Therefore, the Proposed Action complies with EO 11990 and DOT Order 5660.1A. The Proposed Action's mitigation plan includes all practicable measures to minimize harm to wetlands. The FAA is satisfied that wetlands impacts resulting from the Proposed Action can be mitigated.

H. **The Proposed Action is consistent with the New Jersey Coastal Zone Management Program in accordance with the Coastal Zone Management Act (CZMA), as amended (16 U.S.C. §§ 1451-1464).** TEB is located within the New Jersey Meadowlands District, which lies within New Jersey's designated coastal zone. In the Meadowlands, NJDEP only regulates work below the mean high-water line under the CZMA regulations, and the Proposed Action would not involve any work below the mean high-water line; the project is therefore consistent with New Jersey's Coastal Zone Management Program. There would be no significant adverse impacts to coastal resources as a result of the Proposed Action.

I. **Historic properties would not be adversely affected by the Proposed Action (Section 106 of the National Historic Preservation Act (NHPA) regulations (36 CFR Part 800)).** The FAA has determined, and the NJSHPO has concurred, that the Proposed Action will not result in an adverse effect to historic properties identified within the APE.

J. **The Proposed Action includes all practicable measures to minimize harm to listed species as much as such harm may result from implementation of the project (Endangered Species Act, 16 U.S.C. §§ 1531-1544) and to protected avian species (Migratory Bird Treaty Act, 16 U.S.C. § 703-712, Bald and Golden Eagle Protection Act, 16 U.S.C. § 668-668d).** The FAA has determined, and the USFWS has concurred, that the Proposed Action is not likely to jeopardize the continued existence of the tricolored bat and monarch butterfly and that a Section 7(a)(4) conference is not required. Conservation measures to reduce the potential for harm include seasonal restrictions on tree clearing, pre-construction surveys when clearing cannot be avoided during sensitive periods, and additional USFWS coordination as necessary.

DECISION AND ORDER

The FAA recognizes its responsibilities under NEPA and FAA's own directives and guidance. Recognizing these responsibilities, I have carefully considered the FAA's goals and objectives in relation to the various aspects of the *Facilities Redevelopment Project at Teterboro Airport* as discussed in the Final EA. I have used the environmental process to make a more informed decision. This review included the purposes and needs to be served by this Proposed Action and alternative means to achieve them, the environmental impacts of these alternatives, and the conditions necessary to preserve and enhance the human environment. This decision is based on a comparative examination of environmental impacts, operational factors, and economic factors for each of the alternatives. The Final EA provides a fair and full discussion of the impacts of the Proposed Action. The NEPA process included appropriate planning and design for avoidance and minimization of impacts, as required by NEPA, other special purpose environmental laws, and appropriate FAA environmental directives and guidance.

The FAA has determined that environmental and other relevant concerns presented by interested agencies and the general public have been addressed in the Final EA. The FAA believes that with respect to the Proposed Action, there are no outstanding environmental issues within FAA jurisdiction to be studied. Further, it is the determination of the FAA that, with respect to the Proposed Action, the requirements of NEPA and all other applicable federal environmental requirements and Executive Orders have been met. In making this determination, the FAA must decide whether to approve the federal actions within its authority necessary for Project implementation. FAA approval signifies that applicable federal requirements relating to airport development planning have been met and permits the airport sponsor to proceed with development. Not approving these actions would prevent the sponsor from proceeding with the airport development.

This decision does not constitute a commitment of funds under the Airport Improvement Program (AIP); however, it does fulfill the environmental prerequisites for future AIP funding determinations associated with any AIP-eligible project components (49 U.S.C. § 47107).

After careful and thorough consideration of the facts contained herein and subsequent to my review of the Final EA and all of its related materials, the undersigned finds that the proposed Federal Action is consistent with existing national environmental policies and objectives of Section 101(a) of NEPA and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA. As a result, the FAA will not prepare an Environmental Impact Statement.

Accordingly, pursuant to the authority delegated to me by the Administrator of the FAA, I find that the actions summarized in this FONSI/ROD are reasonably supported and approved. I hereby direct that action be taken together with the necessary related and collateral actions, to carry out the agency actions noted above. Specifically:

1. Unconditional Approval of the portion of the TEB ALP depicting the Proposed Action, pursuant to 49 U.S.C. §40103(b) and §47107(a)(16), and determination of effects of each of the components comprising the Proposed Action as described above, in the Final EA, and all associated materials upon the safe and efficient utilization of navigable airspace pursuant to 14 C.F.R. Parts 77 and 157 and 49 U.S.C. §44718;

2. Determination under 49 U.S.C. §40101(d)(1) and §47105(b)(3) that the proposed project meets applicable design and engineering standards set forth in FAA Advisory Circulars;

3. Continued close coordination with the PANYNJ and appropriate FAA program offices, as required, for safety during construction (14 C.F.R. Part 77); and

4. Approval of appropriate amendments to the TEB Airport Certification Manual (ACM), as required, pursuant to 49 U.S.C. §44706.

DAVID A FISH Digitally signed by DAVID A FISH Date: 2026.09.30 15:51:14 -04'00'

Approved:_____ Date:_____

Director, Airports Division
Federal Aviation Administration
Eastern Region

Right of Appeal

This FONSI/ROD constitutes a final agency action and a final order taken pursuant to 49 U.S.C. §§ 40101 et seq. and constitutes a final order of the FAA Administrator which is subject to exclusive judicial review by the Courts of Appeals of the United States in accordance with the provisions of 49 U.S.C. § 46110. Any party having substantial interest in this order may apply for a review of the decision by filing a petition for review in the appropriate United States Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110.

RICONDO®

September 2026

Teterboro Airport

Facilities Redevelopment Project
Final Environmental Assessment

CEQ ID Number: EAXX-021-12-ARP-1769096488

Prepared for:

Signature Aviation

Prepared by:

RICONDO

This Environmental Assessment becomes a Federal document when evaluated, signed and dated by the Responsible FAA official.

MARIE C JENET

Digitally signed by MARIE C JENET
Date: 2026.09.30 14:32:25 -04'00'

Responsible FAA Official **Date**

Ricondo & Associates, Inc. (Ricondo) prepared this document for the stated purposes as expressly set forth herein and for the sole use of Signature Aviation and its intended recipients. The techniques and methodologies used in preparing this document are consistent with industry practices at the time of preparation and this Report should be read in its entirety for an understanding of the analysis, assumptions, and opinions presented. Ricondo & Associates, Inc. is not registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934 and does not provide financial advisory services within the meaning of such act.

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1. INTRODUCTION

Teterboro Airport (TEB or Airport) is located in the Boroughs of Teterboro and Moonachie, Bergen County, New Jersey. The Airport is owned by the Port Authority of New York and New Jersey (Port Authority),[1] who contracts the operations and maintenance functions of TEB to Avports. The Port Authority currently leases out space to operators that support general aviation (GA) activity at TEB, one of which is Signature Flight Support (Signature). Signature initiated the development of this Environmental Assessment (EA), under sponsorship of the Port Authority, to evaluate the potential environmental effects of Signature's proposal to provide additional apron, hangar, and supporting space to address inadequate facilities at two of Signature's TEB facilities—Signature East and Signature South (Proposed Action).

1.1 REQUESTED FEDERAL ACTIONS AND LEVEL OF ENVIRONMENTAL REVIEW

The Port Authority, as owner and operator of the Airport, is requesting that the FAA provide unconditional approval of the portion of the Airport Layout Plan (ALP) depicting the Proposed Action pursuant to 49 U.S.C. §§ 40103(b) and 47107(a)(16), which is a major federal action.

The Proposed Action requires an update to the TEB Airport Layout Plan[2] (ALP) to depict the Proposed Action. The FAA has approval authority over revisions to portions of an ALP that affect the safe and efficient operation of aircraft, the safety of people and property as a result of aircraft operations, and the value of prior federal investments, as established by the FAA Reauthorization Act of 2018 (Public Law 115-254) and preserved in the FAA Reauthorization Act of 2024 (Public Law 118-63). FAA reviewed the Proposed Action and confirmed the agency retains approval authority over the ALP update depicting the Proposed Action.

The FAA is required to review its actions, such as approving the ALP update required for the Proposed Action, under the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] §§ 4321-4370). This EA is prepared in accordance with NEPA, following published guidance in DOT Order 5610.1D, *Procedures for Considering Environmental Impacts*,[3] FAA Order 1050.1G, *FAA National Environmental Policy Act Implementing Procedures*,[4] FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*,[5] and their respective desk references.[6,7] The Draft EA was made available to the public for review and comment for a 31-day period (see **Appendix P**). Additional information regarding the public involvement process, including the comments received and responses to those comments, is provided in **Appendix Q**. All comments submitted during the public review period were considered in the preparation of this Final EA. As a result, the Final EA has been updated based on comments received on the Draft EA, as well as new or updated information that became available after publication of the Draft EA. Following its review of the Final EA, the FAA will make a decision to either prepare an Environmental Impact Statement (EIS) or issue a Finding of No Significant Impact (FONSI).

In addition to the FAA's approval, the Proposed Action also requires the approval of other Federal agencies, including the U.S. Army Corps of Engineers (USACE), as well as State agencies, including the New Jersey Department of Environmental Protection (NJDEP), for implementation. The EA further describes such approvals. FAA has coordinated the environmental review of this EA with other Federal, State, and local agencies as required under NEPA and consistent with DOT Order 5610.1D and FAA Order 1050.1G, including the U.S. Fish and Wildlife Service (USFWS), the U.S. Environmental Protection Agency (USEPA), and the New Jersey Sports and Exposition Authority (NJSEA).

1.2 BACKGROUND

New York City is an international business center that plays a pivotal role in global commerce and finance. Its location, robust infrastructure, and concentration of multinational corporations create a high demand for efficient and timely corporate aviation access. TEB, located approximately 8 miles northwest of Midtown Manhattan,[8] provides the most convenient corporate access to the City's core business districts by virtue of its ground transportation connectivity and its

close proximity. These factors are highly valued by aircraft operators and passengers, which is reflected in TEB's ranking as first in jet aircraft operations among US airports without scheduled airline service.

The Airport is classified by FAA as a national public use, reliever airport (non-primary). Reliever airports are designated to relieve air traffic and congestion at commercial service airports as well as to provide more GA access. TEB operates as a GA airport used by private aviation, corporate businesses, and air taxi services, and does not have scheduled airline service: its primary function is to provide facilities for non-scheduled, GA aircraft desiring access to the New York and New Jersey metropolitan area as an alternative to operating at the Port Authority's busy commercial airports, which include Newark Liberty International Airport (EWR) in New Jersey, as well as John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA) in New York.[9] **Exhibit 1-1** shows the regional setting of the Airport and proximity to Manhattan as well as Airport facilities.

1.2.1 AIRPORT FACILITIES

TEB is the oldest operating airport in the New York and New Jersey metropolitan area. The Airport is approximately 827 acres and comprises a variety of aeronautical and non-aeronautical facilities. The Airport has two runways, along with GA facilities (terminals, aprons, and hangars), and typical aviation support facilities.

To accommodate GA activity at TEB, the Port Authority leases space to three companies referred to as Fixed Based Operators[10] (FBOs): Atlantic Aviation, Jet Aviation, and Signature. Signature owns and operates three FBO facilities at TEB: Signature East, Signature South, and Signature West (see Exhibit 1-1). Existing facilities at Signature East and Signature South that can be used for aircraft parking, terminal facilities, and automobile parking are summarized in **Table 1-1**; these two FBOs are the subject of this EA. Existing facilities at Signature West can also be used for aircraft parking, terminal facilities, and automobile parking on the west side of the Airport but this FBO is not the subject of this EA.

TABLE 1-1 EXISTING USABLE AREA FOR SIGNATURE EAST AND SIGNATURE SOUTH FACILITIES

FUNCTIONAL AREA	EXISTING AREA [1] (SQ FT)		
	SIGNATURE EAST	SIGNATURE SOUTH [2]	TOTAL
Usable Apron for Aircraft Parking [3]	192,500	340,300	532,800
Aircraft Hangars	84,500	131,000	215,500
FBO Terminal [4]	6,400	16,000	22,400
Automobile Parking	71,600	76,400	148,000
Total Usable Area [5]	**355,000**	**563,700**	**918,700**

NOTES: FBO – Fixed Based Operator SQ FT – Square Feet

1 Area calculations were rounded to the nearest hundred.

2 Signature South facilities also include 16,000 SQ FT of area for fueling; however, fueling facility needs were not included in this analysis.

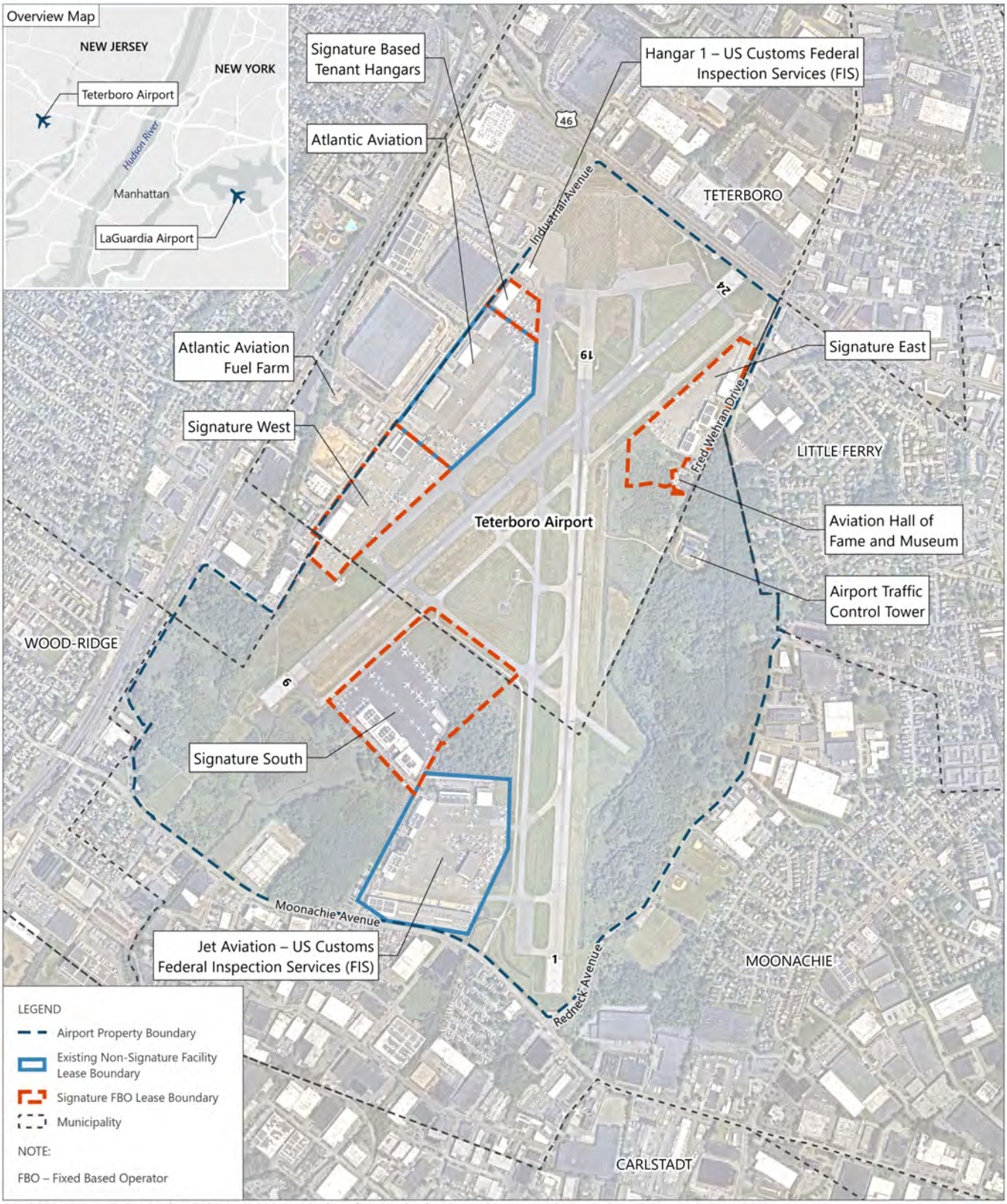
3 The calculation of useable apron area is limited to area usable for and supporting aircraft parking; areas for aircraft circulation between the airfield and parking positions on the apron or in hangars are tracked separately.

4 FBO terminal area reflects only the dedicated terminal area operated by Signature.

5 The total usable area excludes apron area supporting circulation, which is a function of apron and hangar layout.

SOURCE: Ricondo & Associates, Inc., May 2025, area takeoff estimates in Nearmap, July 2022.

Signature serves private aviation tenants operating aircraft based[11] at TEB as well as transient operations, which are flights operated by aircraft based at other airports. Signature private aviation tenants include two fractional ownership companies,[12] FlexJet and NetJets, operating at Signature East and South facilities, respectively.



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (existing Airport elements).

EXHIBIT 1-1

REGIONAL AIRPORT SETTING AND SITE MAP

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch1-2_2026_0724.aprx Layout: TEB_EA_Exh1-1_TeterboroAirportSiteMap_2026_0820

1.2.2 AIRPORT OPERATIONS

Aviation activity is influenced by numerous factors, including national, regional, and local socioeconomic conditions, technology shifts, and local industries and commerce. However, the extent of influence varies from airport to airport. Global events such as pandemics, terrorism, natural disasters, fuel price changes, severe weather events, and political instability can significantly influence aviation activity at an airport. Similarly, local events can affect the activity at a general aviation airport. These include localized events external to the industry but can include changes and competition within the aviation industry as well. Some of the factors that influence aviation activity at TEB are discussed in Section 3 of **Appendix A**, which provides the FAA-approved forecast of aviation activity through the year 2044 for TEB as well as forecast activity specific to Signature facilities. Aviation forecasts based on local socioeconomic factors and historical trends are used to identify the number and type of aircraft operations anticipated to occur at an airport, typically over a 20-year period. This information is used to identify whether existing airport facilities can accommodate the forecast activity or whether additional facilities need to be considered.

A summary of existing aviation activity as well as the forecast of future activity at TEB is provided below:

- Operations[13] are forecast to increase at TEB and specifically those accommodated at Signature facilities:
  - Total TEB operations are forecast to grow from approximately 172,500 operations in 2024 to 260,900 operations in 2044, representing a compound annual growth rate (CAGR)[14] of 2.1 percent.
  - Total Signature operations are forecast to grow from 127,200 operations in 2024 to 197,600 operations in 2044, representing a CAGR of 2.2 percent.
- The GA fleet at TEB and specifically at Signature facilities has been evolving and is forecast to continue evolving to larger aircraft,[15] including Airplane Design Group (ADG)[16] III aircraft, which is the critical aircraft[17] group for the Airport.

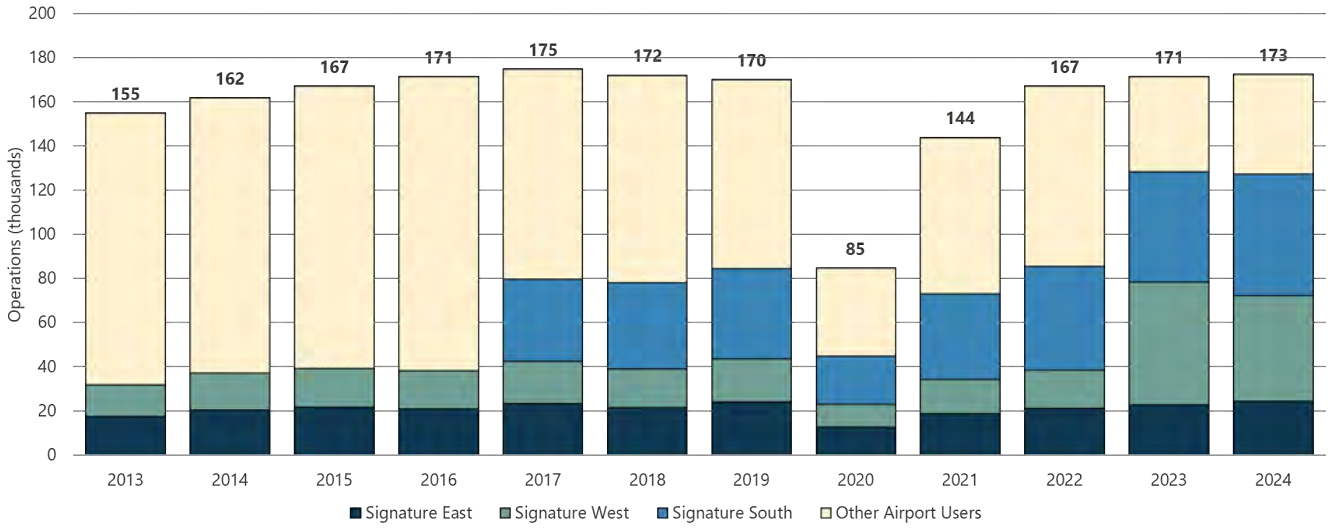
The growth rate for aircraft operations was based on FAA's year-over-year growth rates established in the FAA 2024 *Terminal Area Forecast*[18] and applied to actual total operations for TEB in 2024 (see Appendix A for more details).

1.2.2.1 EXISTING AVIATION ACTIVITY

TEB serves as the region's primary airport for non-commercial aviation activity. From 2021–2024 TEB ranked first in jet aircraft operations among US airports without scheduled airline service.[19] The Airport's primary function is to provide facilities for non-scheduled, GA aircraft desiring access to the New York and New Jersey metropolitan area as an alternative to operating at the Port Authority's commercial airports. As a public-use airport, it is open to all aircraft operating below 100,000 pounds that can safely operate on the existing runway system.

Since 2013 (with the exception of 2020 to 2021), the Airport has accommodated between 155,000 and 175,000 operations annually (see **Exhibit 1-2**). In 2020, the Airport experienced a sharp decrease in air travel at the onset of the COVID-19 pandemic, steadily recovered over the course of 2021, and reached 167,137 operations in 2022, which was approximately 98.2 percent of 2019 total operations. The recovery of activity at TEB has been consistent with historical patterns at TEB and on a broader national level, where aviation demand and activity levels recover following a disrupting event. As a result, total airport operations at TEB exceeded pre-pandemic (2019) levels in both 2023 and 2024. Exhibit 1-2 also depicts Signature operations, by Signature facility, illustrating the increase in operations accommodated by Signature, from 31,760 operations in 2013 to 127,242 operations in 2024; this growth includes Signature's acquisition of the Signature South facility in 2017 and Meridian facility in 2023 (which is now Signature West). Additionally, since 2022, total Signature operations have exceeded Signature's 2019 operations (84,554).

EXHIBIT 1-2 HISTORICAL AIRPORT OPERATIONS



SOURCE: Ricondo & Associates, Inc., May 2025, based on Port Authority of New York and New Jersey, *Airport Traffic Dashboard*, April 2025; US Department of Transportation, Federal Aviation Administration, Operations Network (OPSNET), April 2025; and Signature Flight Support, Operations Data with Aircraft Registration, 2025.

1.2.2.2 AVIATION ACTIVITY FORECAST

Table 1-2 presents the future forecast of aviation activity for the Airport and for Signature facilities through 2044. Total Signature operations are forecast to increase from 127,242 in 2024 to 197,633 in 2044, which represents a 2.2 percent CAGR compared to a forecast 2.1 percent CAGR for total TEB operations. Signature's share of total TEB operations is forecast to increase from 73.8 percent in 2024 to 75.8 percent in 2044.

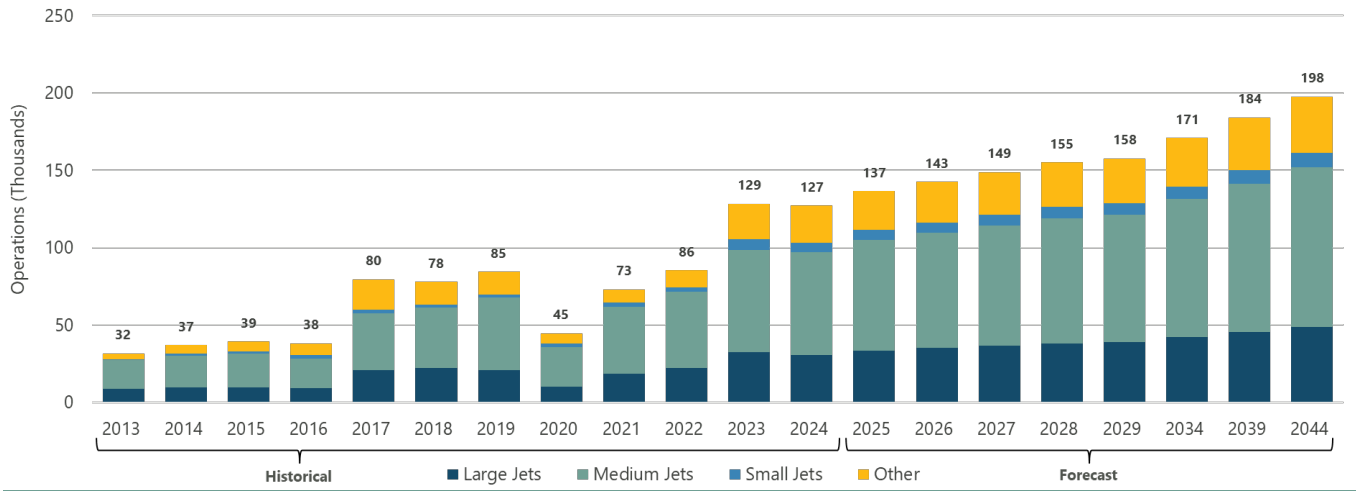
TABLE 1-2 AVIATION ACTIVITY FORECAST—TOTAL AIRPORT AND SIGNATURE OPERATIONS

		SIGNATURE				
YEAR	TOTAL AIRPORT	EAST	WEST	SOUTH	TOTAL	SIGNATURE SHARE OF AIRPORT TOTAL
Historical						
2024	172,499	24,374	47,876	54,992	127,242	73.8%
Forecast						
2025	180,277	26,158	51,380	59,017	136,555	75.7%
2026	188,350	27,331	53,685	61,664	142,680	75.8%
2027	196,574	28,525	56,029	64,356	148,910	75.8%
2028	204,831	29,723	58,382	67,060	155,165	75.8%
2029	208,306	30,227	59,373	68,198	157,797	75.8%
2034	225,742	32,757	64,342	73,906	171,005	75.8%
2039	243,269	35,301	69,338	79,644	184,283	75.8%
2044	260,892	37,858	74,361	85,414	197,633	75.8%
Compound Annual Growth Rate						
2024 – 2029	3.8%	4.4%	4.4%	4.4%	4.4%	--
2024 – 2044	2.1%	2.2%	2.2%	2.2%	2.2%	--

SOURCE: Ricondo & Associates, Inc., *Teterboro Airport Updated Aviation Activity Forecasts*, June 2025 (see Appendix A).

Appendix A provides additional information on forecast activity for the East, West, and South Signature facilities. In addition to the forecast of total operations, the aviation activity forecast also evaluated trends in the aircraft fleet accommodated at Signature facilities. Jet aircraft were categorized by weight into large, medium, and small jet and other aircraft classifications, consistent with categorization used in the *Title 14 CFR Part 150, Teterboro Airport Final Noise Exposure Map Report* published in May 2017. Jet aircraft, particularly large and medium jets, have historically represented the majority of Signature operations at TEB, and are forecast to grow at CAGRs of 2.3 percent and 2.2 percent, respectively. **Exhibit 1-3** presents Signature's historical and forecast fleet mix. Both small jets and other aircraft are forecast to grow at CAGRs of 2.1 percent, representing slower growth rates than those for large and medium jets.

EXHIBIT 1-3 SIGNATURE OPERATIONS FLEET MIX – HISTORICAL AND FORECAST



SOURCES: Ricondo & Associates, Inc., May 2025, based on US Department of Transportation, Federal Aviation Administration, Aircraft Registration Database, 2025; US Department of Transportation, Federal Aviation Administration, *2024 Terminal Area Forecast*, January 2025; Signature Flight Support, Operations Data with Aircraft Registration and Flight Operations Data, 2025.

1.3 DOCUMENT REQUIREMENTS AND ORGANIZATION

The format and content of this EA conforms to the requirements of Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA, Title 42 U.S.C. 4321-4370). The content of each section of this EA is summarized below.

- Section 1—Introduction, provides a brief description of TEB, existing and forecast levels of aviation activity at TEB.
- Section 2—Purpose and Need, provides a description of the purpose for the Proposed Action and why it is needed, a description of the Proposed Action, timeframes associated with the Proposed Action, as well as requested federal actions.
- Section 3—Alternatives, provides an overview of the identification and screening of alternatives considered as part of the environmental evaluation process.
- Section 4—Affected Environment, Environmental Consequences, and Mitigation describes existing environmental conditions within the project site study area and discusses and compares the environmental impacts associated with the No Action Alternative, Proposed Action, and feasible alternatives.

The Appendices contain various reference materials, including technical information, and records of public involvement and coordination activities. Endnotes are included in **Appendix N**.

2. PURPOSE AND NEED

Pursuant to NEPA and FAA Order 1050.1G, an EA must include a description of the purpose of a proposed action and why it is needed. Identification of the purpose and need for a proposed action provides the rationale and forms the foundation for identification of reasonable alternatives that can meet the purpose for the action and, therefore, address the need or problem. The Purpose and Need ("Purpose and Need") section defines the purpose of and the need for the Proposed Action, where "Need" is defined as the problem at the Airport, and "Purpose" is defined as what the project Sponsor is trying to achieve with the Proposed Action; describes the Proposed Action; and defines the estimated timeframe for Proposed Action construction and initiation of operations.

2.1 PURPOSE OF THE PROPOSED ACTION

The purpose of the Proposed Action is to better accommodate both existing and forecasted demand at TEB Signature East and Signature South leaseholds while enhancing the safety and efficiency of aircraft operations related to aircraft parking.

2.2 NEED FOR THE PROPOSED ACTION

The Proposed Action is needed to address the following issues that result from inadequate Signature East and Signature South facilities at TEB. The following sections provide additional discussion of each of these issues.

- The existing demand for Signature facilities exceeds capacity, resulting in apron congestion and increased emissions from idling aircraft; the facilities shortfall is expected to increase as operations are forecast to increase and the percentage of large jet aircraft continues to grow at a faster rate than other aircraft classifications (see Section 2.2.1).
- The modern GA fleet has steadily increased in size (both wingspan and length) and is equipped with winglets, which reduces aircraft parking efficiency (see Section 2.2.2).
- Given the proximity of TEB to Manhattan, aircraft have used, and are expected to continue using, TEB even when space for parking aircraft at TEB is not available, which has resulted in unnecessary ferry flights. A ferry flight occurs when a pilot lands at TEB but cannot find a space to park the aircraft; the pilots have to drop passengers off, fly to another airport where they can park, then fly back to pick the passengers up (see Section 2.2.3).
- Congested apron and hangar facilities result in operational inefficiencies, increased congestion, damage to aircraft, and increased safety risks to Signature personnel, pilots, and passengers using Signature's aircraft parking aprons and hangars (see Section 2.2.4).

2.2.1 DEFICIENT APRON AND HANGAR SPACE

Existing apron and hangar space at Signature East and South facilities is deficient, resulting in congestion at the apron and hangar facilities and contributing to operational inefficiencies and safety concerns. As identified in Section 1.2.2.2, the forecast increase in future aircraft operations at Signature facilities compounds the existing space challenges, as total TEB operations are forecast to grow from approximately 172,500 operations in 2024 to 260,900 operations in 2044, and total Signature operations are forecast to grow from approximately 127,200 operations in 2024 to 197,600 operations in 2044. Additionally, as shown on Exhibit 1-3, the aircraft fleet mix is projected to continue to shift to a higher share of large and medium jets through the forecast period.

Appendix B presents the results of an analysis of facility requirements for Signature East and Signature South facilities, based on the forecast of Signature activity; operational assumptions for Signature based aircraft, tenant aircraft, and itinerant[20] aircraft operations; and industry space standards for aircraft parking on aprons and in hangars, FBO terminal facilities, and associated automobile parking.

Facility requirements provide an estimate of typical minimum space needed to efficiently accommodate forecast demand by facility component based on standard planning metrics.[21, 22] If the analysis shows surplus area available in future years to accommodate forecast demand, it is assumed that the size of existing facilities is sufficient through the planning period. If the results of a facility requirements analysis identify a deficit in existing space available to accommodate future demand, it indicates the need for additional space to accommodate future demand (although relatively minor space deficits may be tolerated or addressed through reconfiguration without facility expansion). The requirements identify general needs, and may be higher, in some cases, than what is feasible to construct given site limitations. In other cases, the facility requirements may differ from what is proposed for construction due to site condition and configuration issues as well as the configuration of facility components to meet functional needs. Actual hangar bay space, apron pavement dimensions needed for aircraft maneuvering, and terminal building program elements are influenced by topography, site constraints, and other conditions that may not exactly translate to planning-level facility requirements.

The facility requirements analysis for Signature East and South facilities (see **Table 2-1**) demonstrated facility deficiencies for most facility components under existing conditions (2024).[23] Over the planning period, the deficiencies increase, and by 2029, the total usable area available for each facility component at Signature East and South is projected to be deficient. Existing Signature East facilities provide approximately 355,000 square feet of total usable area, which would only meet about 59 percent of the forecast facility needs for 2044. Existing Signature South facilities provide approximately 563,700 square feet of total usable area, which would only meet about 60 percent of the forecast facility needs for 2044. As noted above, it is assumed that the actual development footprints may differ from the identified facility requirements given site conditions and functional layout capabilities and needs; however, this analysis serves to identify the overall need for approximately 242,600 square feet of additional facilities at Signature East and approximately 357,700 square feet of additional facilities at Signature South.

TABLE 2-1 SIGNATURE EAST AND SOUTH FACILITIES—SURPLUS/(DEFICIT) BY COMPONENT

FACILITY COMPONENT	EXISTING AREA (SQ FT)	AREA SURPLUS / (DEFICIT) (SQ FT)				TOTAL 2044 AREA REQUIREMENT (SQ FT)
		2024	2029	2034	2044	
Signature East						
Usable Apron for Aircraft Parking[1]	192,500	(34,400)	(104,300)	(124,800)	(187,600)	380,100
Aircraft Hangars[2]	84,500	(8,500)	(17,000)	(29,100)	(35,100)	119,600
FBO Terminal	6,400	(900)	(2,400)	(3,000)	(4,300)	10,700
Automobile Parking	71,600	3,300	(3,700)	(9,600)	(15,600)	87,200
Total[3]	**355,000**	**(43,800)**	**(127,400)**	**(166,500)**	**(242,600)**	**597,600**
Signature South						
Usable Apron for Aircraft Parking[1]	340,300	(4,700)	(95,100)	(145,800)	(211,000)	551,300
Aircraft Hangars[2]	131,000	(15,100)	(47,700)	(53,700)	(86,300)	217,300
FBO Terminal	16,000	1,000	(2,300)	(3,700)	(6,600)	22,600
Automobile Parking	76,400	(10,400)	(30,000)	(35,600)	(53,800)	130,200
Total[3]	**563,700**	**(30,200)**	**(175,100)**	**(238,800)**	**(357,700)**	**921,400**
Total Surplus/(Deficiency)	--	**(74,000)**	**(302,500)**	**(405,300)**	**(600,300)**	--
Total Area	**918,700**	--	--	--	--	**1,519,000**

NOTES: -- Not Applicable SQ FT – Square Feet
1 Usable apron for aircraft parking (excludes taxilanes to provide access to hangars and aircraft parking positions).
2 Includes hangar space for based aircraft and tenant aircraft.
3 Surplus is not included in total deficit.
SOURCE: Ricondo & Associates, Inc., May 2025.

The apron and hangar facility deficiencies reflect the fleet mix trend that demonstrates a continuing evolution toward larger jet aircraft, as reflected in the higher growth rates of 2.2 to 2.3 percent CAGRs for large and medium jets, compared to the 2.1 percent CAGR for small jets and other aircraft (see Section 1.2.2.2). The footprint of larger aircraft requires more apron and hangar space for parking and maneuvering than that required for smaller aircraft. Therefore, the existing Signature East and Signature South apron and hangar facilities are physically able to accommodate fewer parked aircraft today than in the past, and this trend is forecast to continue as the aircraft fleet evolves towards larger aircraft. As demand for space required to park aircraft increases with larger aircraft, a wider area is also required to taxi aircraft with larger wingspans on the apron, further reducing the area available for aircraft parking within the fixed apron space. The increased footprint needs of larger aircraft are accounted for in the facility requirements presented in Table 2-1.

2.2.2 MODERN JET FLEET WINGLETS REDUCE AIRCRAFT PARKING EFFICIENCY

Evolving aircraft designs, with an emphasis on fuel efficiency, have led to the addition of vertical "winglets" at the ends of aircraft wings (see **Exhibit 2-1**) that improve operational performance through improved aerodynamics. Most medium and large jet aircraft using Signature facilities at TEB are equipped with winglets. The winglets, however, prevent overlapping the wings of parked aircraft. Before the addition of winglets, Signature was able to park aircraft with straight wings closely together by overlapping wings; thus, the addition of winglets increases the area required to park the same number of aircraft without winglets.

Exhibit 2-1 Jets with Winglets Parked at Signature South



SOURCE: Signature Flight Support, 2025.

2.2.3 UNNECESSARY FERRY FLIGHTS

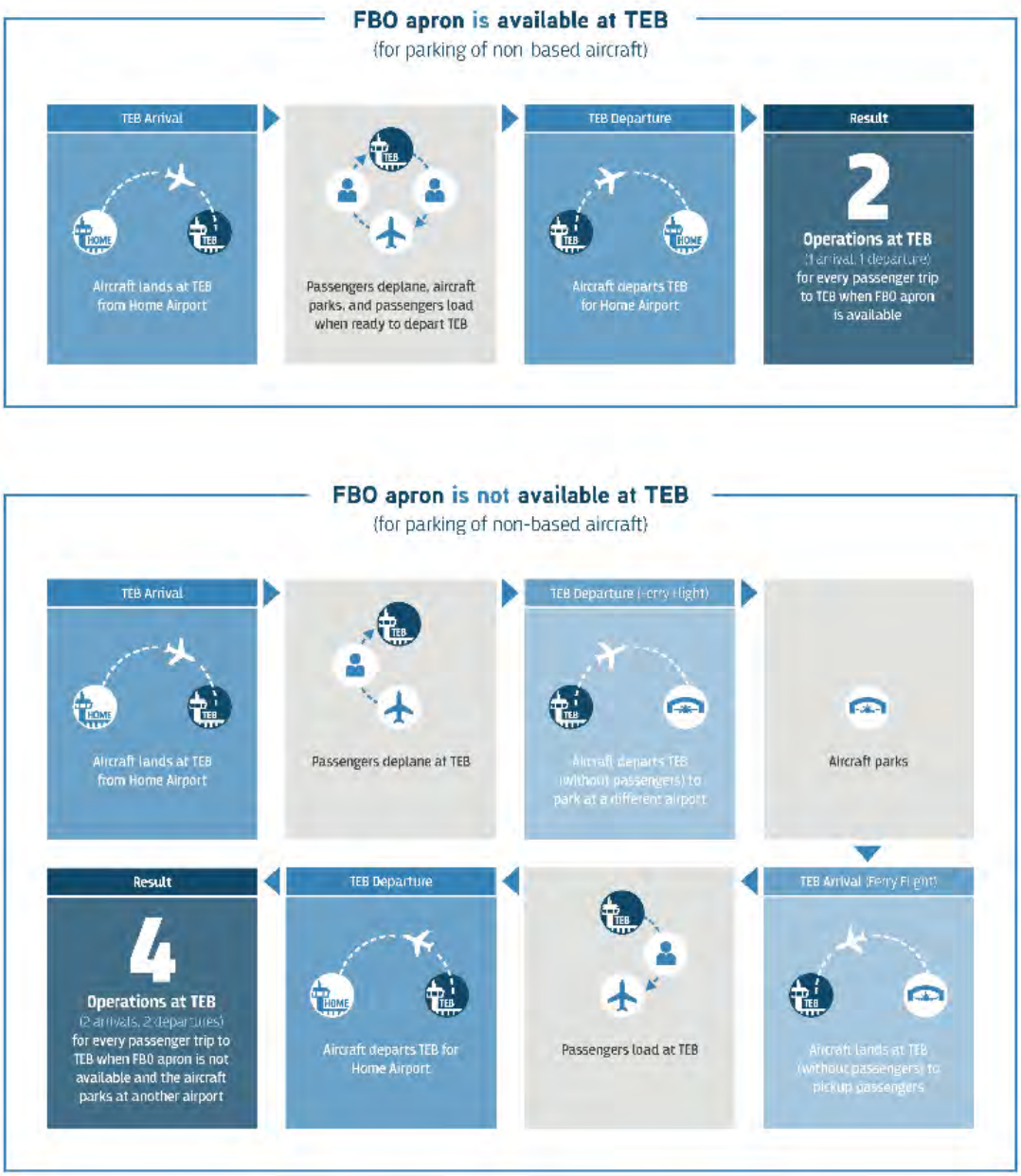
The lack of adequate aircraft parking area on aprons and in hangars at TEB has caused an increase in aircraft operations at TEB and in the complex New York metropolitan airspace. TEB has proved to be an attractive alternative to EWR, JFK, and LGA (which primarily serve commercial airlines), as well as other regional airports, given its proximity to Manhattan, despite the lack of adequate apron facilities, as well as airfield and FBO facility congestion. Pilots continue to file flight plans to TEB and are expected to continue to use TEB even when space for parking aircraft is not available. As a federally obligated public-use airport, the Port Authority must make TEB available for public use on reasonable terms and without unjust discrimination, to all types, kinds, and classes of aeronautical uses to comply with federal Grant Assurance 22.[24] Under federal law, neither the Port Authority nor Signature can limit or restrict use of TEB or force aircraft and pilots to use other airports.[25]

Appendix A includes a comparative analysis of the average maximum aircraft parking capacity at Signature East and Signature South (based on recommended aircraft spacing) and the average number of parked aircraft at each facility in 2024 (see Appendix A Exhibits 3 and 5).[26] The number of aircraft at Signature facilities exceeded the estimated capacity on 113 days at Signature East and 236 days at Signature South. Aircraft parking at Signature's TEB facilities frequently operates near or above capacity during peak periods, resulting in congestion that limits space for safe and efficient aircraft movements and parking. To accommodate demand during these exceedances, Signature must rely on temporary measures, including denser aircraft parking, overlapping wings where able, and repositioning aircraft to another airport for parking, referred to as "ferry flights."

A ferry flight occurs when a pilot lands at TEB but cannot find a space to park the aircraft; the pilots have to drop passengers off, fly to another airport where they can park, then fly back to pick the passengers up. Ferry flights result in two additional aircraft operations at TEB—one departure and one arrival—to reposition the aircraft for parking

elsewhere, as illustrated on **Exhibit 2-2**. Section 2.7 of Appendix A identifies ferry flights that occurred at Signature facilities in 2024, based on jet aircraft remaining at TEB for less than 4 hours and departing to and arriving from airports within 100 miles of TEB that have available aircraft parking capacity and runways capable of accommodating jet aircraft operations. Based on this analysis, there were approximately 11.8 ferry flight operations per day in 2024, or 4,333 annual operations that occurred due to lack of available apron space at Signature facilities.

EXHIBIT 2-2 FERRY FLIGHT OPERATIONS



SOURCE: Ricondo & Associates, Inc., June 2023.

Ferry flight operations result in cost and logistical complications as well as contribute to the aircraft noise environment and emissions associated with TEB aircraft operations. Ferry flights also contribute to airspace congestion, affecting operations at commercial service airports in the New York and New Jersey metropolitan area.

2.2.4 SAFETY, OPERATIONAL INEFFICIENCIES, AND CONGESTION

When Signature's aprons and hangars are congested, aircraft operations at its aprons and hangars become less efficient and operational safety risks increase. Congestion stems from both the number of and size of aircraft on the apron. As noted in Section 1.2.2, the modern GA fleet at TEB and specifically at Signature facilities has steadily increased in size (both wingspan and length). To fit the same number of aircraft on the apron, the aircraft are being parked closer together, with less clearances than typically recommended. To accommodate peak demand for aircraft parking, including the need to accommodate larger aircraft, Signature modified its typical safety standards for the minimum separation between parked aircraft from 3 feet to 2 feet at its TEB facilities to allow aircraft to park closer together than would occur under Signature's typical spacing requirements. Although Signature modified its typical parking standards for their facilities at TEB, all apron operations are in compliance with FAA and Port Authority regulations and guidance concerning aircraft movements and aircraft parking.

The increased wingspan of the modern GA fleet has also required wider taxilane clearances on the apron, resulting in less available space to park aircraft. As discussed in **Appendix C**, both Signature East and Signature South can accommodate approximately 29 percent fewer aircraft due to the increase in the average size of aircraft over the last 20 years. However, demand for aircraft parking at both facilities has not decreased, meaning both facilities are attempting to accommodate the same number of aircraft, which are anywhere from 2 to 4 times larger, in the same space. Maneuvering an aircraft while monitoring for obstacles in this closely parked environment is complex and can influence safety margins by taking more time, training, and concentration than maneuvering during open, less congested conditions, which ultimately increases (and requires Signature to employ extraordinary measures to manage) risk. To park an aircraft at a congested apron or hangar position, Signature personnel, referred to as wing walkers,[27] accompany the aircraft; the wing walkers provide assurance to the tow tractor driver parking the aircraft that proper wing clearance is maintained between the aircraft and other parked aircraft or obstacles.

Due to the constraints on the apron, larger aircraft typically need to park farther from the FBO terminal, requiring passengers and pilots to walk longer distances across an active apron, or requiring additional FBO vehicles for transport. Both scenarios heighten safety risks due to increased exposure to active aircraft operations. Furthermore, larger aircraft have reduced sightlines, necessitating more personnel to direct them safely, which further contributes to congestion. Larger aircraft also often require more repositioning of other aircraft on the apron, introducing additional personnel and vehicles to the active apron, which increases the risk of collisions and operational inefficiencies.

Congestion on the apron may also result in aircraft that are moving slowly to avoid obstacles and/or are waiting for wing-walker assistance to block other aircraft trying to park or depart. Even though it is discouraged, a pilot may elect to taxi their aircraft on the Signature apron without guidance from wing walkers with potentially damaging results. Backups and blocking of other aircraft while waiting can extend beyond Signature apron facilities to the TEB taxiway system. The slower pace of maneuvering an aircraft during peak periods of congestion can result in gridlock conditions. To avoid or relieve gridlock conditions, Signature must close its aprons and turn away flights. Although pilot and aircraft operator reservations indicate when peak periods will occur, gridlock conditions that necessitate closing an apron result from a convergence of conditions that are difficult to predict. For example, unfavorable weather conditions at a destination airport, mechanical issues, or an incident on the roadways leading to the Airport can delay a planned aircraft departure, which takes up an apron parking space that otherwise would have been available for an arriving aircraft. Additionally, tightly spaced aircraft parking can result in parked aircraft being blocked in, which requires the need to reposition the obstructing aircraft before normal operations can resume. While Signature makes its best effort to sequence and store aircraft based on their departure time, the unscheduled nature and complexity of passenger schedules in general aviation inherently offers little margin for error. These unanticipated aircraft movements in turn contribute to gridlock and offer little recourse for Signature to proactively manage these irregular operations. As further documented in Appendix A (see Appendix A Exhibits 3 and 5), congested conditions at both FBO facilities exceed the weighted average maximum capacity

of the aircraft parking apron on a regular basis, and a variety of conditions can push an apron from manageable congestion to gridlock.

Once an apron is in gridlock condition, the apron may need to be closed. The Signature FBO facilities at TEB have experienced increasing levels of congestion and gridlock over the last 10 years primarily due to the increase in size of aircraft using Signature facilities and the increased number of aircraft with winglets, requiring Signature to close the apron a total of 375 times during the 2014–2024 time period.[28] In 2024, Signature closed their ramps due to gridlock a total of approximately 180 hours over 59 separate closures, with the longest closure lasting over 15 hours. Closing an apron can result in ferry flights, which are discussed in Section 2.2.3. Ferry flights not only increase the number of operations on the airport's runway, they increase use of the airfield taxiways and contribute to airfield congestion. Congestion on the airfield worsens conditions on a closed Signature apron by limiting the ability of aircraft to exit the apron.

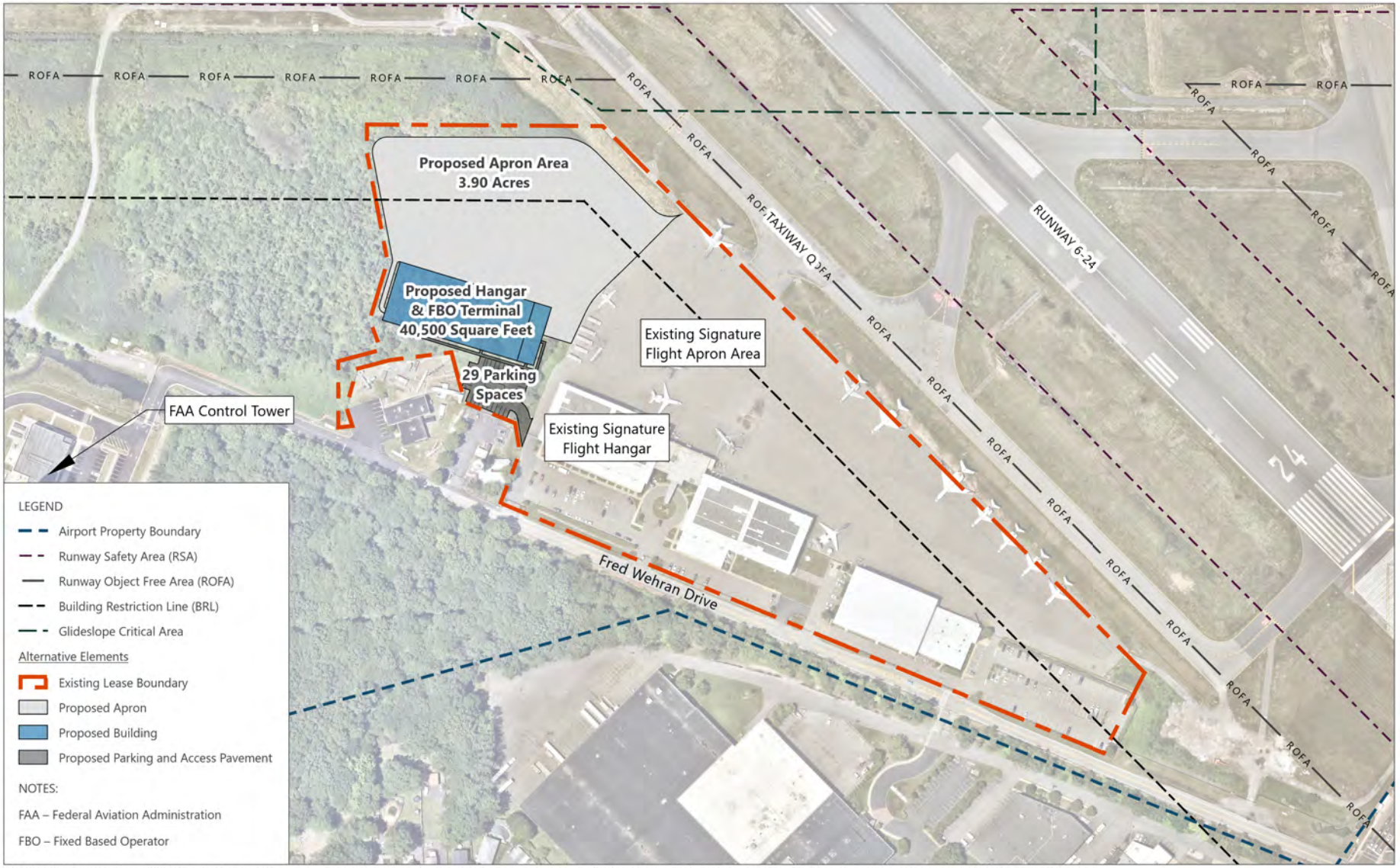
Congested conditions, including gridlock at the extreme, increase the operational safety risks of operating the Signature aprons and hangars. During gridlock and apron closure, pilots have attempted to park or taxi aircraft at Signature facilities on their own volition, circumventing Signature's standard safety practices, which require multiple wing walkers per aircraft, in turn resulting in poor consequences—a May 2024 incident in which a departing aircraft contacted another parked aircraft resulted in an estimated $3 million worth of damage to both aircraft. Whether maneuvering alone or with assistance, such as wing walkers, the increased number of obstacles on a congested apron make it difficult for pilots and Signature personnel to see and avoid people and other objects on the apron. As congestion conditions have increased, Signature has experienced an increasing number of incidents at its facilities resulting in damage to aircraft, hangars, and/or facilities. Over the last 6 years, 15 instances of damage to aircraft and/or facilities directly related to the congested apron were recorded at Signature East and Signature South.

The peak periods of congestion at Signature apron and hangar facilities require additional Signature labor to manage and monitor, which reduces staff efficiency. Congestion also results in aircraft operational delays, which, in turn, result in increased air emissions as aircraft wait to park (running their engines or auxiliary power units) or depart. Congested conditions also introduce additional obstacles that increase operational safety risks for aircraft, pilots, Signature personnel, and passengers using Signature facilities.

2.3 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action would include development of aircraft apron, hangars, and support facilities at the Signature East and Signature South sites.

- **Proposed Signature East Facilities**. The proposed development at the Signature East site would be southwest of the existing Signature East facilities and west of the Aviation Hall of Fame and Museum. As shown on **Exhibit 2-3**, site development would include construction of the following new facilities:
  - 40,500-square-foot hangar structure with 36,000 square feet of hangar space and 4,500 square feet of FBO terminal facilities;
  - 170,000-square-foot (3.9-acre) aircraft apron; and
  - 10,000-square-foot automobile parking lot.



SOURCES: Nearmap, June 2024 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (existing Airport elements); Signature Flight Support Corporation, October 2025 (alternative elements); Signature Flight Support Corporation, December 2025 (existing lease boundary).

EXHIBIT 2-3

PROPOSED SIGNATURE EAST SITE PLAN

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch1-2_2026_0724.aprx Layout: TEB_EA_Exh2-3_ProposedSignatureEastSitePlan_2026_0820

- **Proposed Signature South Facilities**. The proposed development at the Signature South site would be northeast of the existing Signature South facilities. In response to agency comments and coordination and due to site topography, the overall footprint of the Proposed Signature South facilities was reduced by approximately 38,500 square feet, from approximately 350,700 square feet to approximately 312,200 square feet. The reduction included approximately 4,300 square feet from the automobile parking lot, approximately 4,500 square feet from the aircraft hangar and FBO terminal combined, and approximately 29,700 square feet from the aircraft apron. As shown on the updated **Exhibit 2-4**, site development would include construction of the following new facilities:
  - 90,500-square-foot hangar structure including one 40,400-square-foot aircraft hangar and one 43,100-square-foot aircraft hangar (83,500 square feet of new hangar space) with 14,000 square feet of FBO terminal facilities, consisting of a single, two-story terminal with a 7,000-square-foot footprint;
  - 197,300-square-foot (4.5-acre) aircraft apron;
  - 24,400-square-foot automobile parking lot; and
  - 30-foot-wide access drive, approximately 700 feet in length, connecting the proposed parking area to the existing Signature South parking facility.

2.4 GENERAL IMPLEMENTATION TIMEFRAME OF THE PROPOSED ACTION

Construction of the Proposed Action is anticipated to take approximately two years, once all environmental approvals and permits have been obtained.

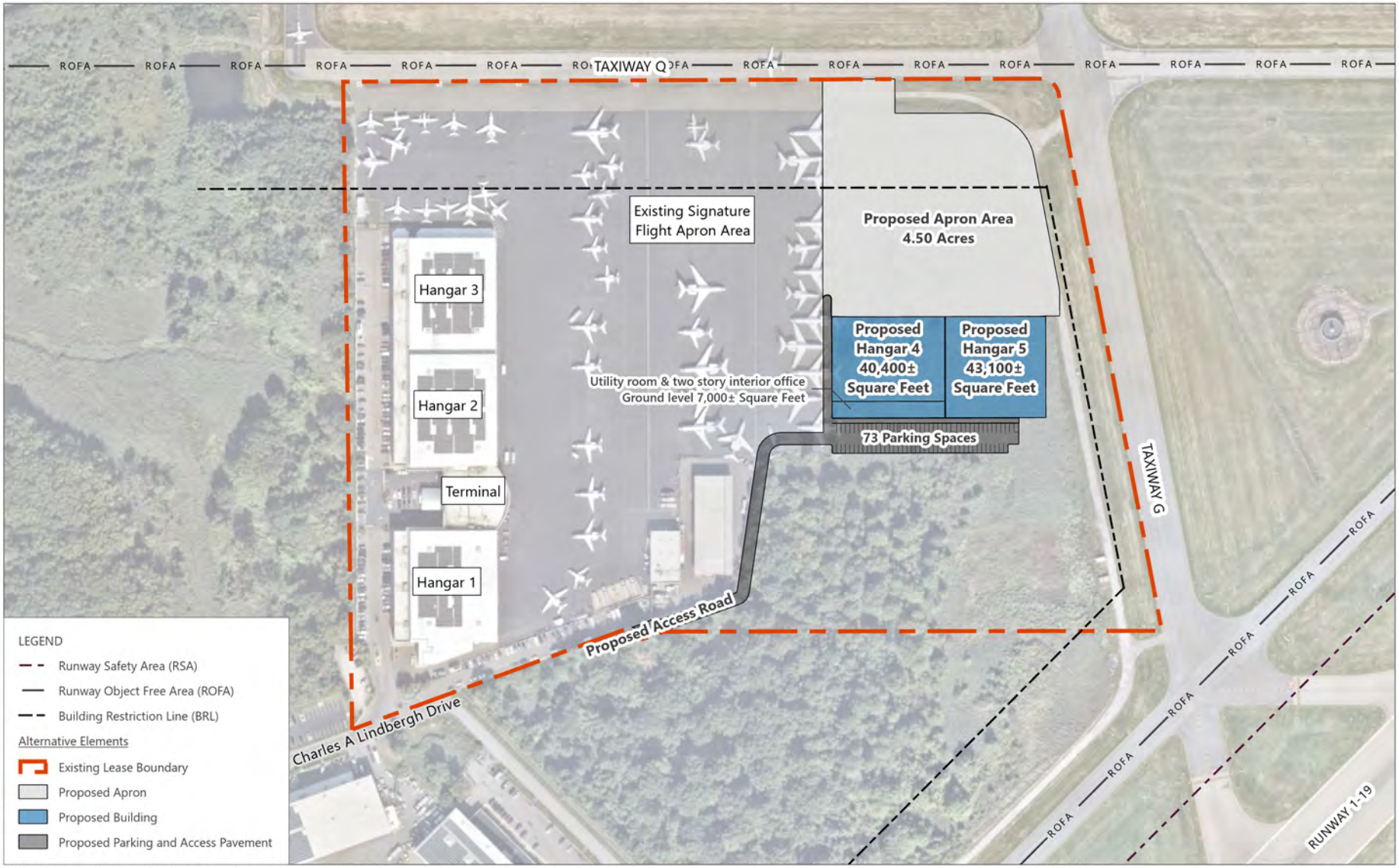
3. ALTERNATIVES

The Alternatives section summarizes the process used to identify, compare, and screen a reasonable range of alternatives to the Proposed Action to determine whether alternatives exist that would reasonably satisfy the purpose of and the need for the Proposed Action. Consistent with FAA Order 1050.1G, the alternatives analysis must:

- evaluate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination;
- discuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits;
- include the no action alternative;
- identify the agency's preferred alternative or alternatives, if more than one exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference;
- include appropriate mitigation measures not already included in the proposed action or alternative; and
- limit their consideration to a reasonable number of alternatives.

FAA Order 1050.1G[29] requires a thorough and objective assessment of the Proposed Action, the No Action Alternative, and alternatives to be considered to the degree commensurate with the nature of the Proposed Action and agency experience with the environmental issues involved. The alternatives analysis presented in this section is consistent with the requirements of FAA Order 1050.1G.

The process followed to identify alternatives and the screening process used to determine which alternatives would reasonably satisfy the purpose of and need for the Proposed Action are described in this section. Those alternatives that satisfy the purpose and need for the Proposed Action were next evaluated based on reasonableness to construct and operate. Alternatives that satisfied those criteria were then carried forward for analysis of environmental consequences.



SOURCES: Nearmap, June 2024 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (existing Airport elements); Langan, September 2026 (alternative elements); Signature Flight Support Corporation, December 2025 (existing lease boundary).

EXHIBIT 2-4

PROPOSED SIGNATURE SOUTH SITE PLAN

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch1-2_2026_0914.aprx Layout: TEB_EA_Exh2-4_ProposedSignatureSouthSitePlan_2026_0918

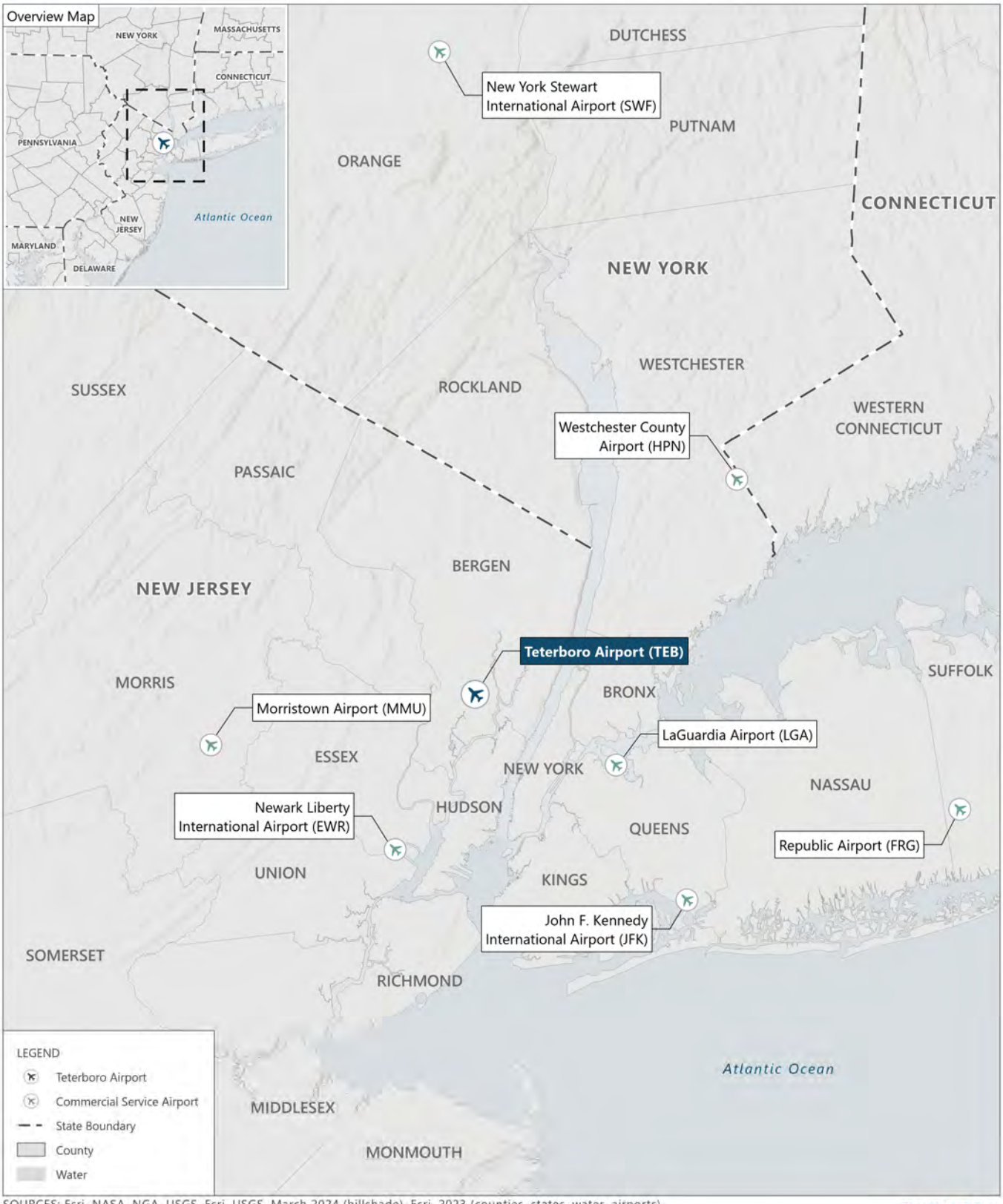
3.1 IDENTIFICATION AND DESCRIPTION OF ALTERNATIVES

This section provides a brief description of potential alternatives. To assist with understanding the range of alternatives, this alternatives analysis considered and evaluated six main categories of alternatives in addition to the No Action Alternative. These categories include: (1) No Action Alternative; (2) Use of Other Modes of Transportation; (3) Use of Other Existing Airports Alternatives; (4) Use, Reconfiguration, or Expansion of Signature West Alternative; (5) Signature East Alternatives; (6) Signature South Alternatives; and (7) Development of Other Sites at TEB Alternative. The Port Authority and Signature have conducted extensive agency coordination with a number of federal and state agencies as part of the environmental process. Some of the alternatives, notably Use of Other Modes of Transportation and Use of Other Existing Airports, have been repeatedly mentioned by these agencies as alternatives that should be considered during the NEPA process. **Table 3-1** identifies the potential alternatives categories identified for this analysis. Detailed descriptions of each alternative are included in **Appendix D**.

TABLE 3-1 IDENTIFICATION AND DESCRIPTION OF ALTERNATIVES

ALTERNATIVE CATEGORIES	DESCRIPTION	SUMMARY	TEB DEVELOPMENT?	EXHIBIT #
Alternative 1: No Action Alternative	No Action Alternative	No further development or expansion of any existing FBO facility at TEB.	No	NA
Alternative 2: Use of Other Modes of Transportation	Use of Other Modes of Transportation	This alternative assumes that instead of flying to TEB, users would choose to use other modes of transportation, including commercial flights from nearby commercial service airports, automobiles, buses, passenger trains, ferries, and/or helicopters to provide transportation services to and from the New York and New Jersey metropolitan region instead of TEB.	No	NA
Alternative 3: Use of Other Existing Airports Alternatives	Use of John F. Kennedy Airport (JFK); Newark Liberty International Airport (EWR); New York Stewart Airport (SWF); LaGuardia Airport (LGA); Republic Airport (FRG); Westchester County Airport (HPN); or Morristown Municipal Airport (MMU)	The use of another airport or airports to accommodate demand at TEB for general aviation operations served by Signature.	No	**Exhibit 3-1**
Alternative 4: Use, Reconfiguration, or Expansion of Signature West	Use, Reconfiguration, or Expansion of Signature West	▪ Modify and/or reconfigure the existing apron and FBO hangars within the existing lease limit ▪ Expand the site and increase the existing leasehold	Yes	**Exhibit 3-2**
Alternative 5: Signature East Alternatives	See configuration options in **Table 3-2**		Yes	**Exhibit 3-3**
Alternative 6: Signature South Alternatives	See configuration options in **Table 3-3**		Yes	**Exhibit 3-4** **Exhibit 3-5**
Alternative 7: Development of Other Sites at TEB	▪ Development of Site 1 at TEB ▪ Development of Site 2 at TEB	Develop a new FBO site within an area of TEB that is outside of existing Airport infrastructure and associated FAA safety areas	Yes	**Exhibit 3-6**

NOTE: NA – Not Applicable TEB – Teterboro Airport FBO – Fixed Based Operator
SOURCE: Ricondo & Associates, Inc., January 2025.

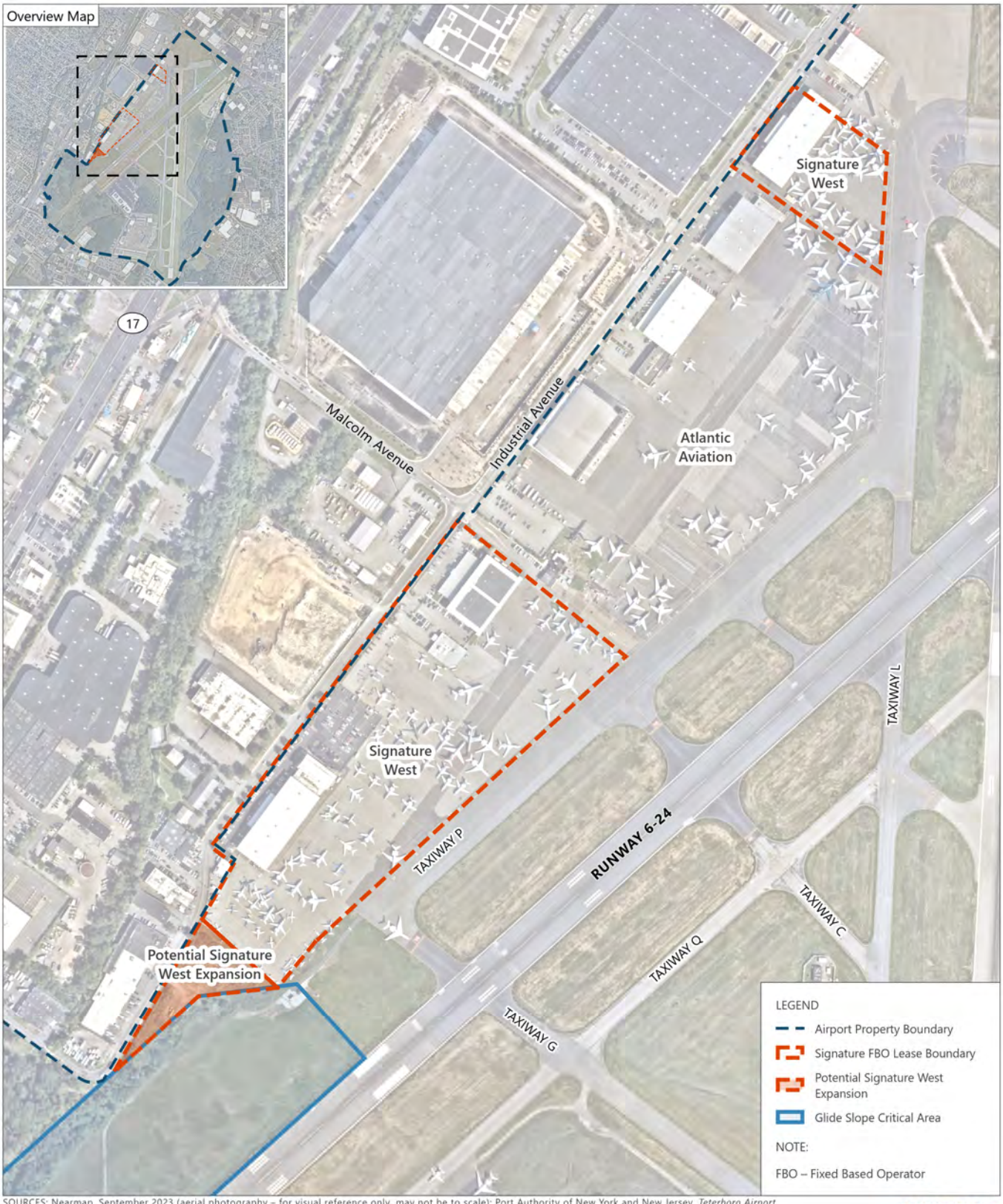


SOURCES: Esri, NASA, NGA, USGS, Esri, USGS, March 2024 (hillshade), Esri, 2023 (counties, states, water, airports).

EXHIBIT 3-1

ALTERNATIVE 3 USE OF OTHER EXISTING AIRPORTS ALTERNATIVE

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-1_Alternative3_2026_0820



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary, glide slope critical area); Ricondo & Associates, Inc., December 2024 (fixed based operator boundaries).

EXHIBIT 3-2

ALTERNATIVE 4 USE, RECONFIGURATION, OR EXPANSION OF SIGNATURE WEST

NORTH 0 500 ft

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-2_Alternative4_2026_0820

TABLE 3-2 SIGNATURE EAST SITE CONFIGURATIONS

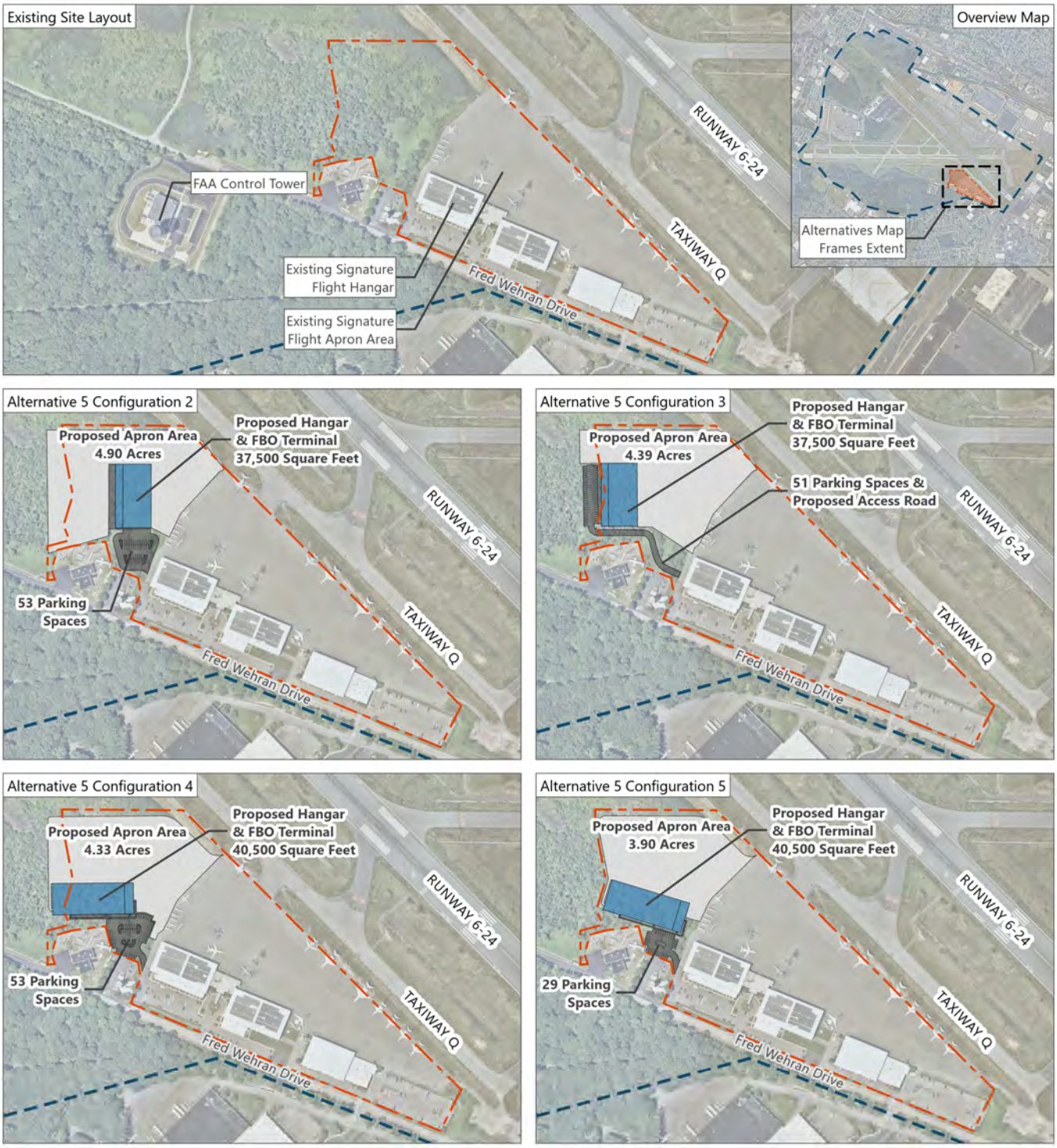
ALTERNATIVE 5 CONFIGURATION #	APPROXIMATE AREA (SQUARE FEET)				NUMBER OF ADDITIONAL HANGARS	AUTOMOBILE PARKING EXPANSION
	AIRCRAFT APRON EXPANSION	AIRCRAFT HANGAR EXPANSION	FBO TERMINAL EXPANSION	TOTAL		
Configuration 1 (Reconfiguration)[1]	0	0	0	0	0	0
Configuration 2	213,600	33,000	4,500	251,100	1	53 spaces
Configuration 3	191,400	33,000	4,500	228,900	1	51 spaces
Configuration 4	188,500	36,000	4,500	229,000	1	53 spaces
Configuration 5 (Proposed Action)	170,000	36,000	4,500	210,500	1	29 spaces

NOTE:
1 Configuration 1 encompasses reconfiguration of the existing Signature East site. No expansion of the site is proposed under this configuration.
SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, May 2024; Ricondo & Associates, December 2025.

TABLE 3-3 SIGNATURE SOUTH SITE CONFIGURATIONS

ALTERNATIVE 6 CONFIGURATION #	APPROXIMATE AREA (SQUARE FEET)				NUMBER OF ADDITIONAL HANGARS	AUTOMOBILE PARKING EXPANSION
	AIRCRAFT APRON EXPANSION	AIRCRAFT HANGAR EXPANSION	FBO TERMINAL EXPANSION[1]	TOTAL		
Configuration 1 (Reconfiguration)[2]	0	0	0	0	0	0
Configuration 2	430,600	80,000	15,000	525,600	2	100 spaces
Configuration 3	378,100	80,000	15,000	473,100	2	108 spaces
Configuration 4	339,600	80,000	15,000	434,600	2	78 spaces
Configuration 5	267,400	80,000	15,000	362,400	2	84 spaces
Configuration 6 (Proposed Action)	197,300	83,500	7,000	287,800	2	73 spaces
Configuration 7	240,500	80,000	15,000	335,500	2	85 spaces

NOTES:
1 The FBO terminal facility for all Signature South alternatives, except Configuration 6, is comprised of a connected 1-story facility with a footprint of 7,500 square feet and a 2-story facility with a footprint of 7,500 square feet. Therefore, although the overall footprint of the FBO terminal is 15,000 square feet, there is 22,500 square feet of FBO terminal floor space for these alternatives. Configuration 6 is comprised of a single, two-story terminal facility with a footprint of 7,000 square feet and 14,000 square feet of terminal floor space.
2 Configuration 1 encompasses reconfiguration of the existing Signature South site. No expansion of the site is proposed under this configuration.
SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, May 2024; Ricondo & Associates, Inc., September 2026.

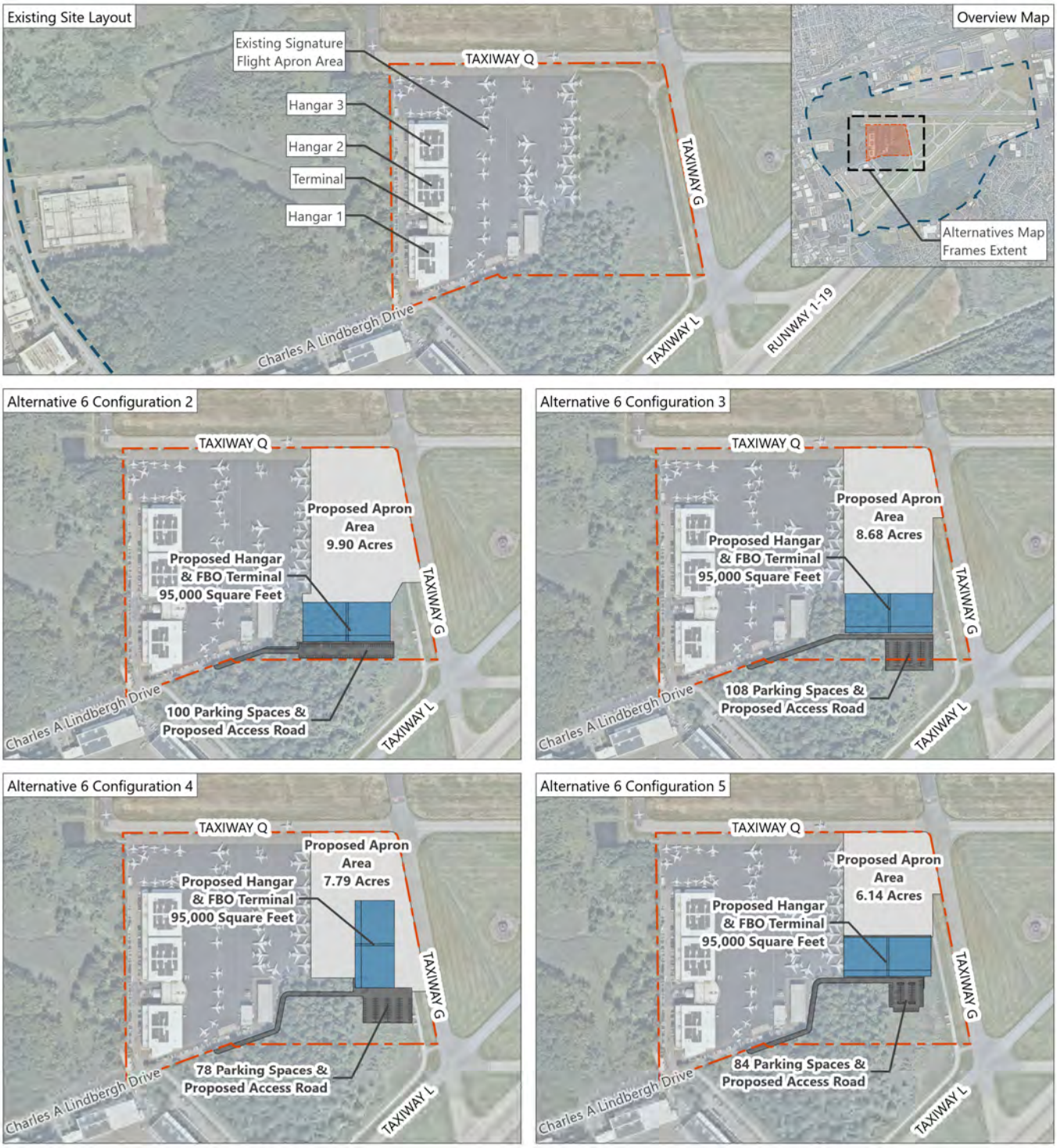


SOURCES: Nearmap, June 2024 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); Signature Flight Support Corporation, August 2020 (alternative elements); Signature Flight Support Corporation, December 2025 (existing lease boundary).

EXHIBIT 3-3

ALTERNATIVE 5 CONFIGURATIONS

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-3_Alternative5Configurations_2026_0820

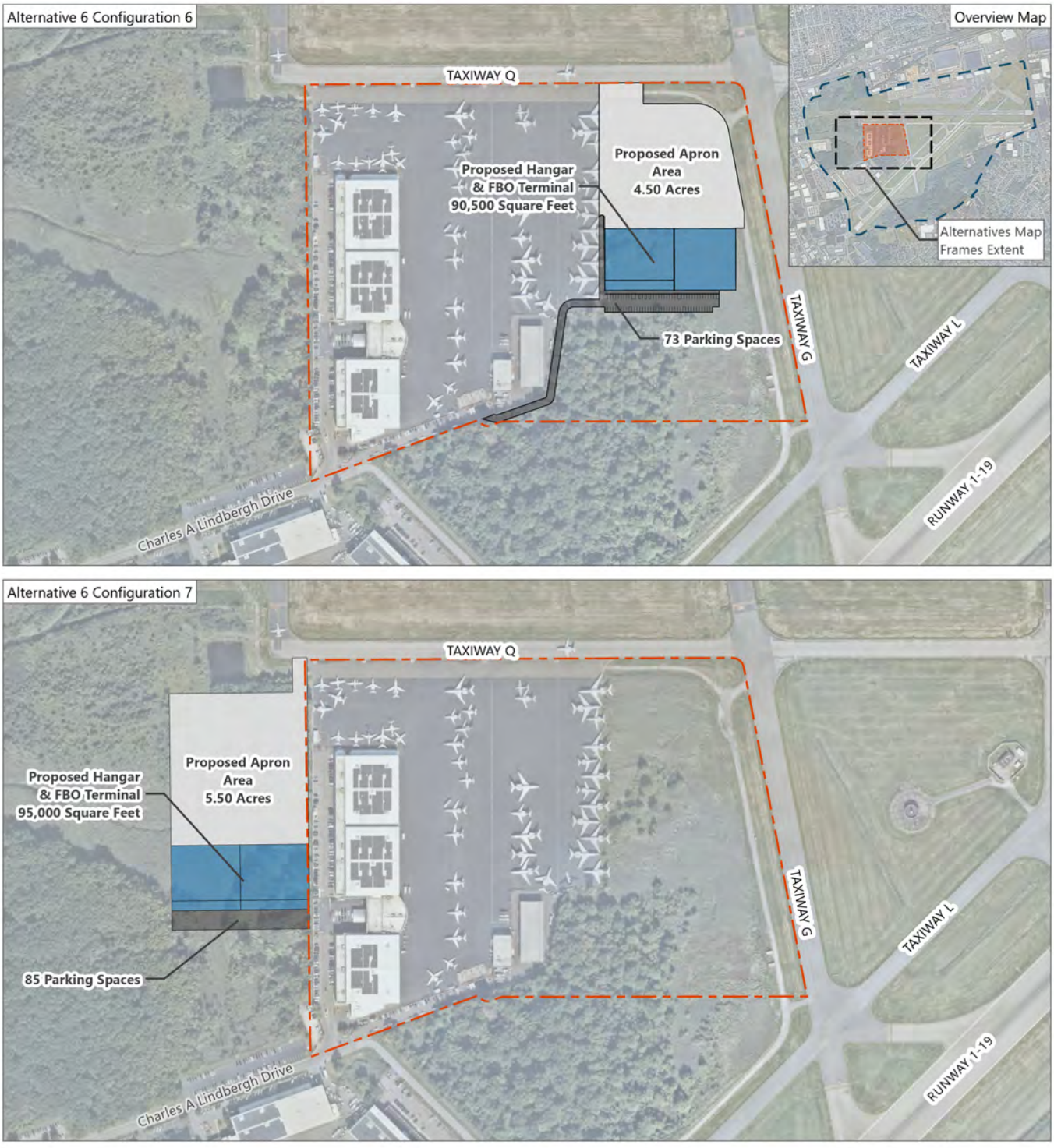


SOURCES: Nearmap, June 2024 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); Signature Flight Support Corporation, August 2020 (alternative elements); Signature Flight Support Corporation, December 2025 (existing lease boundary).

EXHIBIT 3-4

ALTERNATIVE 6 CONFIGURATIONS

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-4_Alternative6Configurations_2026_0820

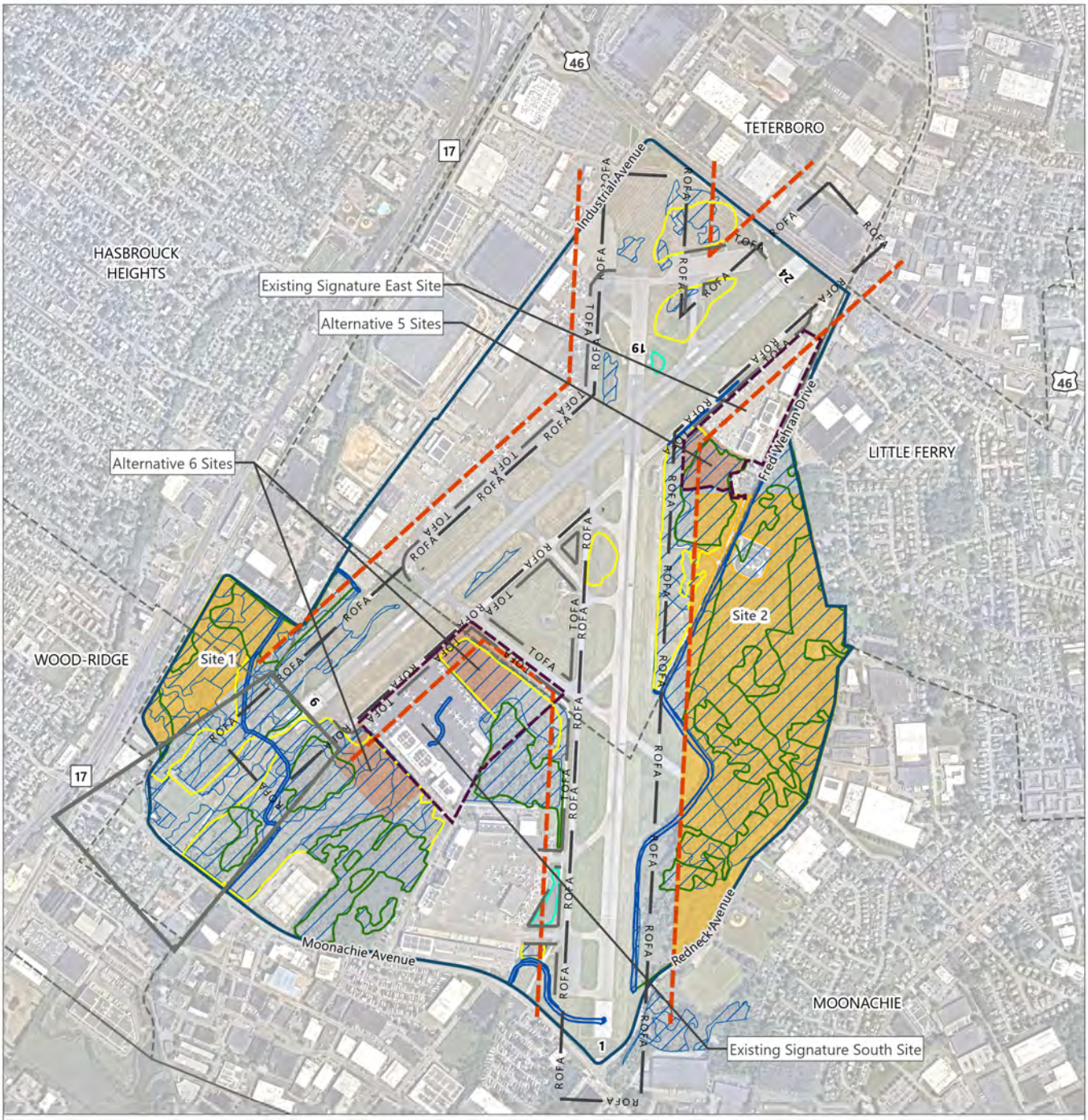


SOURCES: Nearmap, June 2024 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); Langan, September 2026 (alternative elements); Signature Flight Support Corporation, December 2025 (existing lease boundary).

EXHIBIT 3-5

ALTERNATIVE 6 CONFIGURATIONS (CONTINUED)

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-5_Alternative6ConfigurationsContinued_2026_0918



LEGEND

- Airport Property Boundary
- Existing Lease Boundary
- Proposed Alternative Site
- Runway Protection Zone
- Building Restriction Line (BRL)
- Runway Object Free Area (ROFA)
- Taxiway Object Free Area (TOFA)
- Potential Developable Areas
- Wetlands [1]
- Freshwater Emergent Wetland [2]
- Freshwater Forested/Shrub Wetland [2]
- Freshwater Pond [2]
- Riverine [2]
- Municipality

NOTES:

1 Wetlands derived from New Jersey Department of Environmental Protection, 2012.

2 Wetlands derived from US Fish and Wildlife Service, 2023.

SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); US Fish and Wildlife Service, 2023 (wetlands); New Jersey Department of Environmental Protection, 2012 (wetlands); Ricondo & Associates, Inc., December 2024 (developable areas, safety areas).

NORTH 0 1,500 ft

EXHIBIT 3-6

ALTERNATIVE 7 DEVELOPMENT OF OTHER SITES AT TEB ALTERNATIVE

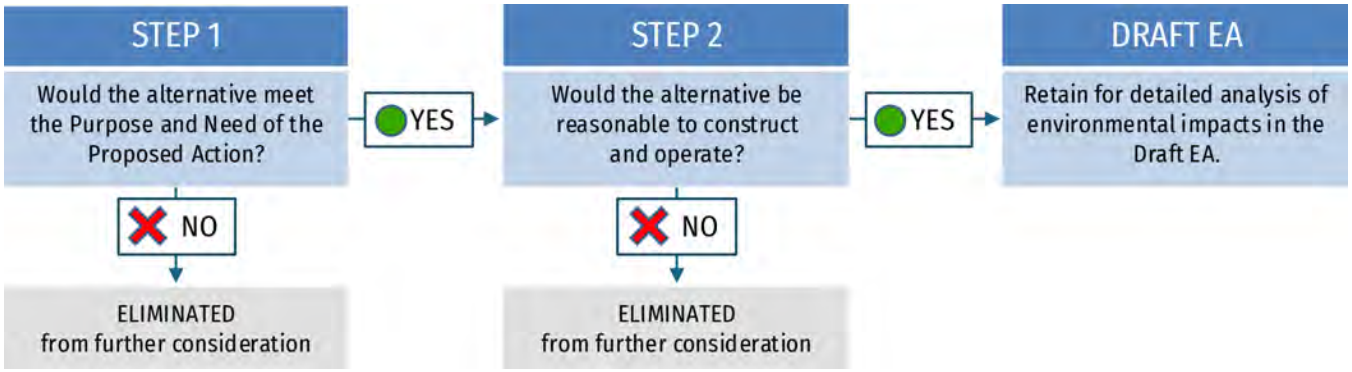
Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch3_2026_0714.aprx Layout: TEB_EA_Exh3-6_PotentialDevelopableLand_2026_0820

3.2 ALTERNATIVES SCREENING PROCESS AND CRITERIA

This section outlines the screening process and associated criteria used to identify feasible alternatives for detailed environmental analysis. For this EA, a two-step screening process was established to evaluate the list of potential alternatives to determine which of them are reasonable and should be carried forward for detailed environmental impact analysis. In order for an alternative to be reasonable, it must meet the purpose and need of the proposed action (Step 1) and must be practical or feasible from the technical and economic standpoint and using common sense (Step 2). An alternative may still be reasonable even if it is outside the legal jurisdiction of the FAA or if there is a conflict with existing law.

Alternatives that met all elements of the criteria for determining whether the alternative is reasonable to construct and operate were retained for a detailed evaluation of environmental impacts. Alternatives that would not be reasonable to construct and operate were eliminated from further consideration. However, as required by NEPA, the No Action Alternative was also retained for detailed analysis. **Exhibit 3-7** conceptually portrays the screening process.

EXHIBIT 3-7 ALTERNATIVES SCREENING PROCESS



SOURCE: Ricondo & Associates, Inc., May 2024.

3.3 SCREENING STEP 1: WOULD THE ALTERNATIVE MEET THE PURPOSE AND NEED OF THE PROPOSED ACTION?

This section identifies the Step 1 screening criterion and evaluates each alternative against the criterion. The following question was developed to determine whether the alternative would meet the Purpose and Need of the Proposed Action and should be advanced to Step 2 of the screening process.

- Does the alternative provide adequate facilities to meet the needs of the aircraft fleet currently operating and forecast to operate at Signature facilities by allowing for a configuration of facilities that would reduce operational inefficiencies, safety risks, and ferry flights due to congestion?
  - *Adequate FBO Facilities, Apron and Hangar Space*: This criterion evaluates if an alternative would generally meet the 2044 area requirement for apron space,[30] hangar space, FBO terminal, and automobile parking as identified in **Table 3-4**. The total overall facilities requirement for both Signature East and Signature South is approximately 600,300 square feet (see Section 2.2.1); however, based on the existing constraints at the Airport, development of one or more sites may be required to meet all facility requirements. To meet this criterion, an alternative would need to provide new facilities or expand existing aircraft parking facilities by approximately 222,700 additional square feet to meet the identified existing and future demand for Signature East facilities and approximately 297,300 additional square feet to meet the identified existing and future demand for Signature South facilities.[31] Additionally, adequate aircraft parking facilities allows for accommodation of the existing and forecast aircraft

fleet mix consisting of larger jets and aircraft with winglets, allows for efficient apron operations, creates expanded safety margins for pilots and FBO staff, and reduces ferry flights. Therefore, this criterion assesses whether each alternative can accommodate these facility requirements and meet the Purpose and Need for the project.

TABLE 3-4 FACILITY REQUIREMENTS

FACILITY COMPONENT	EXISTING AREA (SQ FT)	TOTAL 2044 AREA REQUIREMENT (SQ FT)	ADDITIONAL AREA REQUIRED (SQ FT)
Signature East			
Aircraft Parking	277,000	499,700	222,700
Apron for Aircraft Parking [1]	192,500	380,100	187,600
Aircraft Hangars [2]	84,500	119,600	35,100
FBO Terminal	6,400	10,700	4,300
Automobile Parking	71,600	87,200	15,600
Total	**355,000**	**597,600**	**242,600**
Signature South			
Aircraft Parking	471,300	768,600	297,300
Apron for Aircraft Parking [1]	340,300	551,300	211,000
Aircraft Hangars [2]	131,000	217,300	86,300
FBO Terminal	16,000	22,600	6,600
Automobile Parking	76,400	130,200	53,800
Total	**563,700**	**921,400**	**357,700**

NOTES: SQ FT – Square Feet

1 Usable apron for aircraft parking (excludes taxilanes to provide access to hangars). However, for purposes of the alternative screening analysis, only the total apron space was used for comparison to area requirements.

2 Includes hangar space for based aircraft and tenant aircraft.

SOURCE: Ricondo & Associates, Inc., June 2025.

3.3.1 NO ACTION ALTERNATIVE

The No Action Alternative would not expand or further develop the existing Signature FBO facilities at TEB and therefore would not provide additional or adequate FBO facilities for Signature to accommodate existing and forecast demand at their FBO facilities. The No Action Alternative would not provide additional Signature FBO apron or hangar space, terminal facilities, or automobile parking, and existing overall facility and aircraft parking deficits would be exacerbated under future conditions considering the forecast increase in operations and the fleet mix evolution toward larger jet aircraft at Signature facilities. Further, it is not anticipated that under the No Action Alternative, general aviation traffic from congested Signature facilities could be accommodated at the other FBOs at TEB. Under existing conditions, pilots have the option of using other FBO facilities when Signature facilities are full; however, based on the number of ferry flights and number of times annually Signature is operating under congested conditions, all of the existing FBOs at TEB are experiencing congested conditions during peak periods which often spills over onto active taxiways. Without the proposed improvements to aircraft apron space, hangars, and supporting facilities, Signature would continue to experience operational inefficiencies and safety risks at their existing facilities, as well as overall Signature-related ferry flights at TEB. Therefore, the No Action Alternative would not meet the needs of the existing and forecast aircraft fleet.

Advance to Step 2?

Overall, the No Action Alternative does not meet the Purpose and Need of the Proposed Action. However, the No Action Alternative must be carried forward in the assessment of environmental impacts as required by NEPA. The No Action

Alternative will serve as the basis for comparison of the impacts of the other alternatives that are carried forward for detailed analysis.

3.3.2 ALTERNATIVE 2: USE OF OTHER MODES OF TRANSPORTATION ALTERNATIVE

Alternative 2 would not expand or further develop the existing Signature FBO facilities at TEB. Rather, Alternative 2 would shift a portion of general aviation demand served by Signature at TEB to the use of other modes of transportation, including commercial flights from nearby commercial service airports (that is, LGA, JFK, and/or EWR), automobiles, buses, passenger trains, ferries, and/or helicopters to provide transportation services to and from the New York and New Jersey metropolitan region instead of Signature facilities at TEB. Specifically, this alternative assumes a partial shifting of a portion of Signature-related aviation aircraft operations to one or more other modes of transportation.

While other modes of transportation play a role in the overall transportation network for the New York and New Jersey metropolitan area, TEB provides the most efficient general aviation access to midtown Manhattan. Customers today already have the option to use other modes of transportation but instead choose to fly in and out of TEB when traveling to Manhattan, even when Signature facilities are full.

In 2024, Signature accommodated approximately 127,200 operations at TEB. Flight data from Signature indicates 1,651 origin and destination (O&D) airports for these operations. The top 15 O&D airports, as shown on **Table 3-5**, only comprise approximately 24 percent of operations while the top 50 O&D airports comprise approximately 43 percent of operations. Therefore, operations at the remaining 1,601 O&D airports make up the remaining 57 percent of operations. The weighted average distance from TEB for the top 15 airports, not including ferry flights, is approximately 600 nautical miles. While some locations, such as Boston Logan International Airport and Washington Dulles International Airport, may be feasibly accessible by automobile, bus, or passenger rail, these options are not as convenient or efficient as private aviation. There are numerous O&D airports, such as Miami International Airport and Van Nuys Airport where this is not feasible due to the distance from the New York City metropolitan region.

In terms of commercial aviation, it is unlikely that passengers traveling to TEB would use commercial flights as a replacement for a private flight. As discussed in Section 1.2, New York City's role as a global business hub creates a high demand for efficient and timely corporate aviation access, particularly for travelers who value flexibility and proximity to the City's core business districts. In contrast, commercial airlines operate on fixed schedules and serve only 11 percent of US airports, unlike private aviation which can serve nearly all airports.[32] Furthermore, commercial flights often require connections to reach smaller or less trafficked airports, adding travel time and inconvenience compared to direct private flights. Private flights also allow for customized departure times and streamlined boarding processes, saving time compared to navigating commercial airline schedules and security screening lines. These elements of flexibility, convenience, and efficiency offered by private aviation are indispensable for business professionals and cannot be readily substituted by commercial airlines and scheduled flights.

Air taxi operations, including those conducted by helicopters from airports to heliports, are in limited service at area airports. Air taxi services are designed to complement, rather than replace, private or commercial aviation, primarily facilitating connections for commercial airline passengers to their final destinations (which are often in Manhattan). As helicopters serve a different clientele and are limited to a significantly lower passenger throughput, they do not represent a feasible alternative to traditional aviation.

While some Signature customers may choose to use other modes of transportation, including commercial flights, automobiles, buses, passenger trains, ferries, or helicopters, these alternatives are unlikely to accommodate enough demand to make a meaningful difference in overall operations at Signature facilities at TEB. While shifting a portion of Signature-related aviation activity to other modes of transportation could slightly reduce the number of aircraft operating at Signature facilities, it would not be substantial enough to allow for the existing facilities to accommodate the existing and forecast fleet without physical expansion. That is, the potential decrease in operations would not be sufficient to close

the gap in parking space required to accommodate the existing or forecast aircraft fleet mix, especially considering the evolution towards larger jets and aircraft equipped with winglets, both of which require additional apron and hangar space to maneuver and park safely. Without expansion or development of additional FBO facilities, Alternative 2 would maintain the existing configuration of Signature facilities at TEB, which does not adequately accommodate the larger jet wingspans or the need for expanded clearances, resulting in continued operational inefficiencies, safety risks, and ferry flights due to congestion.

TABLE 3-5 TOP ORIGIN AND DESTINATION AIRPORTS FOR TEB SIGNATURE OPERATIONS (2024)

AIRPORT	AIRPORT CODE	DISTANCE FROM TEB (NM)	2024 OPERATIONS	PERCENT OF TOTAL SIGNATURE OPERATIONS AT TEB
Washington Dulles International Airport	IAD	194	3,541	2.8%
President Donald J. Trump International Airport	DJT	902	3,521	2.8%
Laurence G. Hanscom Field	BED	158	3,201	2.5%
Westchester County Airport [1]	HPN	21	3,050	2.4%
Boston Logan International Airport	BOS	164	2,698	2.1%
Miami-Opa Locka Executive Airport	OPF	948	2,584	2.0%
Chicago Midway Airport	MDW	619	1,757	1.4%
Nantucket Memorial Airport	ACK	183	1,736	1.4%
Miami International Airport	MIA	955	1,464	1.2%
Van Nuys Airport	VNY	2,128	1,368	1.1%
Republic Airport [1]	FRG	30	1,185	0.9%
Chicago Executive Airport	PWK	628	1,154	0.9%
Lester B. Pearson International Airport	YYZ	300	1,149	0.9%
Dallas Love Field	DAL	1,191	1,117	0.9%
Philadelphia International Airport	PHL	80	1,105	0.9%
TOTAL			**30,630**	**24.1%**

NOTE:

1 Operations to and from Westchester County Airport and Republic Airport are assumed to be primarily ferry flights.

SOURCE: Signature 2024 Flight Operations Data, May 2025.

Additionally, there is no mechanism to force customers to use other modes of transportation or to relocate aircraft operations from TEB. Due to federal grant obligations and federal law (see Section 3.3.3), the Port Authority, as owner and operator of TEB, does not have the authority to restrict aircraft operations or force customers to use other modes of transportation. Therefore, without a significant shift in demand and without providing additional FBO infrastructure, Alternative 2 would not provide additional or adequate FBO facilities to accommodate existing and forecast demand. Furthermore, it is anticipated that deficits at Signature FBO facilities would be exacerbated under future conditions considering the forecast increase in operations and the fleet mix evolution towards larger jet aircraft.

Advance to Step 2?

Alternative 2 would not expand or further develop the existing Signature FBO facilities at TEB. Rather, this alternative would shift a portion of general aviation demand served by Signature at TEB to the use of other modes of transportation, including commercial flights from nearby commercial service airports (that is, LGA, JFK, and/or EWR), automobiles, buses, passenger trains, ferries, and/or helicopters to provide transportation services to and from the New York and New Jersey metropolitan region instead of Signature facilities at TEB. Considering the large breadth of O&D airports with operations

to and from TEB and the distance of these airports to the New York City metropolitan region, alternative modes of transportation are not as flexible, convenient, or efficient as private aviation, and for many locations it is not practical or feasible. Furthermore, due to federal grant obligations and federal law (see Section 3.3.3), the Port Authority, as owner and operator of TEB, does not have the authority to restrict aircraft operations or force customers to use other modes of transportation. The FAA also does not have the authority to require aircraft pilots and passengers to use other modes of transportation.

While shifting a portion of Signature-related aviation activity to other modes of transportation could slightly reduce the number of aircraft operating at Signature facilities, it would not be substantial enough to allow for the existing facilities to accommodate the existing and forecast fleet without physical expansion. That is, the potential decrease in operations would not be sufficient to close the gap in parking space required to accommodate the existing or forecast aircraft fleet mix, especially considering the evolution towards larger jets and aircraft equipped with winglets, both of which require additional apron and hangar space to maneuver and park safely. Therefore, without expansion or development of additional FBO facilities, Alternative 2 would maintain the existing configuration of Signature facilities at TEB, which is not able to accommodate the existing and forecast demand at Signature's FBO facilities. As such, Alternative 2, Use of Other Modes of Transportation, would not meet the Purpose and Need of the Proposed Action and was eliminated from further consideration.

3.3.3 ALTERNATIVE 3: USE OF OTHER EXISTING AIRPORTS ALTERNATIVE

Alternative 3 would not expand or further develop the existing Signature FBO facilities at TEB. Rather, Alternative 3 would utilize other commercial service or general aviation airports, as shown on Exhibit 3-1, to supplement general aviation demand served by Signature at TEB. Specifically, this alternative assumes a partial shifting of Signature-related aviation aircraft operations to one or more of the other airports in the New York metropolitan region. Existing commercial service and GA airports in the region include JFK, EWR, SWF, LGA, FRG, HPN, and MMU. However, due to federal grant obligations and federal law, the Port Authority does not have the authority to restrict aircraft operations or force pilots to operate at other airports. Additionally, TEB is classified as a national public use, reliever airport (non-primary) to other commercial service airports in the New York metropolitan region (see Exhibit 3-1). Reliever airports are designated to relieve air traffic and congestion at commercial service airports as well as to provide more general aviation access. Therefore, use of a commercial service airport instead of TEB for general aviation traffic is counter to the purpose of TEB's operation.

New York City is an international business center that plays a pivotal role in global commerce and finance. Midtown Manhattan is generally considered the epicenter of New York City due to its concentration of global commerce and finance activities. Its location, robust infrastructure, and concentration of multinational corporations create a high demand for efficient and timely corporate aviation access. TEB is the closest general aviation airport to Manhattan that provides corporate aviation access; because it does not have scheduled airline service and its primary function is to provide facilities for non-scheduled aircraft operations, it is the first choice for users of general aviation aircraft desiring access to Manhattan and the greater New York and New Jersey metropolitan area as an alternative to operating at the Port Authority's commercial airports (EWR, JFK, LGA, and SWF). Both LGA and JFK are slot-controlled, which requires advanced approval for aircraft to operate at these airports during specific hours, restricting the number of aircraft utilizing these airports during substantial portions of the day. While JFK, LGA, and EWR support limited private aviation flights, they currently operate close to general aviation aircraft capacity limits and would quickly reach their general aviation parking, runway, and airspace capacities if attempting to absorb private aviation flights to the region. Further, these airports would not be able to provide any additional aircraft hangar and apron space.

The highest and best use of these airports (that is, JFK, LGA, and EWR), with extensive airside, terminal, and transportation infrastructure, has traditionally been to serve commercial airlines and their passengers, which number in the hundreds of thousands per day. In order to provide the aviation system for the New York and New Jersey metropolitan area with

sufficient safety, scheduling, and capacity margins for the benefit of all New York City area travelers, it is essential to consider TEB as an integral tool in ensuring the area's airspace is adaptable, resilient, and reliable.

Other general aviation airports in the New York Metropolitan Area include SWF, Republic Airport (FRG), Morristown Municipal Airport (MMU), and Westchester County Airport (HPN):

- SWF, located in Newburgh, New York, approximately **70 miles north by road from Midtown Manhattan**, is also operated by the Port Authority. However, due to its distance and heavy traffic of the surface road network between the two locations (with **road travel exceeding two hours**), it is not a reasonable alternative for access to Midtown Manhattan.
- Republic Airport **(FRG**), located in Farmingdale, New York, approximately **30 miles east of Midtown Manhattan** is a primary alternative for GA traffic in the region, though its location is farther from Midtown Manhattan than TEB and represents a **one- to two-hour drive**.
- Morristown Municipal Airport **(MMU)** located in Morristown, New Jersey, is located approximately **30 miles west of TEB and 32 miles by road from Midtown Manhattan** and represents a **one- to one-and-a-half-hour drive.**
- Westchester County Airport **(HPN)** located in White Plains, New York is approximately **35 miles northeast** by road from Midtown Manhattan and represents a **one- to one-and-a-half-hour drive**.

Signature operates FBO facilities at most of these airports, often at lower costs than at TEB. However, the potential cost savings at these airports typically do not outweigh TEB's prime location, located only 12 miles by road (approximately a half-hour to one hour drive), and convenient access to Midtown Manhattan, which is reflected in TEB's ranking as first in jet aircraft operations among US airports without scheduled airline service. Although some users may occasionally opt for these other airports as an alternative to TEB, the continued demand and increasing frequency of congested conditions at Signature's TEB facilities demonstrate that they will not satisfy the demand for access to TEB; if parking space is not available, the passengers will continue to deplane at TEB and the pilots will be forced to fly to another airport and then return to pick their passengers up, resulting in additional ferry flights.

While other airports play a role in the aviation system for the New York and New Jersey metropolitan area, TEB is the closest general aviation airport to Midtown Manhattan. As such, it is the airport that pilots and their passengers choose to fly in and out of when traveling to Manhattan. Even if pilots were able to park their aircraft at one of the nearby commercial service or general aviation airports, this alternative would not reduce ferry flights as TEB is the location that passengers choose to travel to and from. As a publicly owned airport that receives grants from the FAA through the Airport Improvement Program, the Port Authority must comply with grant assurances. Grant Assurance 22 (Economic Nondiscrimination) requires airport operators to "make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activity."[33] This means that although the Port Authority operates and maintains the Airport, it cannot discriminate or regulate aircraft operations occurring at the Airport beyond ensuring the safe and efficient operation of the Airport. That is, as long as TEB is operated as a public airport, under federal guidelines it is prohibited from turning aircraft away to other area airports and is obligated to accommodate and allow access to any aircraft wishing to use the Airport, while maintaining a safe operating environment. The FAA does not have the authority to require aircraft pilots and passengers to use other airports, unless for safety-related reasons.

Advance to Step 2?

Alternative 3 would not expand or further develop the existing Signature FBO facilities at TEB. Rather, this alternative would shift a portion of general aviation demand served by Signature at TEB to other nearby commercial service or general aviation airports. However, TEB is the closest general aviation airport to Manhattan and is the first choice for general aviation pilots desiring access to the New York and New Jersey metropolitan area as an alternative to operating at the

Port Authority's commercial airports. As such, it is the airport that pilots and their passengers choose to fly in and out of when traveling to Manhattan. Even if pilots were able to park their aircraft at one of the nearby commercial service or general aviation airports, this alternative would not reduce ferry flights as TEB is the location that passengers choose to travel to and from. Furthermore, due to federal grant obligations and federal law, the Port Authority does not have the authority to restrict aircraft operations or force pilots to operate at other airports.

While shifting a portion of Signature-related aviation activity to other airports in the New York metropolitan region could theoretically reduce the number of aircraft operating at Signature facilities, it is not anticipated to be meaningful given that pilots have the option to use these airports now and choose not to. Therefore, it is not anticipated that any potential shift in operations to other airports would be sufficient to close the gap in parking space required to accommodate the existing or forecast aircraft fleet mix, especially considering the evolution towards larger jets and aircraft equipped with winglets, both of which require additional apron and hangar space to maneuver and park safely. Therefore, without expansion or development of additional FBO facilities, Alternative 3 would maintain the existing configuration of Signature facilities at TEB, which is not able to accommodate the existing and forecast demand at Signature's FBO facilities. As such, Alternative 3, Use of Other Existing Airports, would not meet the Purpose and Need of the Proposed Action and was eliminated from further consideration.

3.3.4 ALTERNATIVE 4: USE, RECONFIGURATION, OR EXPANSION OF SIGNATURE WEST ALTERNATIVE

Alternative 4 considers various options for use of Signature West, including whether Signature could modify and/or reconfigure the existing apron and FBO hangars within the existing lease limit to create a more efficient layout for aircraft parking. While a reconfiguration of existing facilities could improve the layout of Signature West, it is not anticipated that this option would provide a notable increase in aircraft parking that would be commensurate with facility requirements as identified in Section 2.2.1. This alternative also considered expansion of the Signature West facilities; however, the areas adjacent to the site are mostly developed with airfield facilities and off-Airport infrastructure with only a limited area for expansion to the south of the existing leasehold. Site constraints in this area are the Runway Object Free Area and Berrys Creek (along with its tributaries), as well as the critical area for the Runway 6-24 glide slope antenna. In consideration of the glide slope critical area, it is anticipated that only approximately 74,000 square feet of pavement could be developed in this area. While the approximately 74,000 square feet of pavement could support some aircraft parking, it does not provide sufficient area to support aircraft circulation via a taxilane and is substantially less than the 520,000 square feet of facility space projected to be needed for aircraft parking in 2044. Therefore, the development of this site would not meet the facility requirements identified in Table 3-4. Even if coupled with another site, it is not anticipated that expansion of Signature West would meaningfully contribute to providing the 2044 overall facilities requirements. Furthermore, during times when Signature East and Signature South facilities are in gridlock, Signature West is also operating at full capacity and would not be able to provide aircraft parking space to accommodate additional general aviation activity intended for Signature East and Signature South. Without increasing aircraft apron space, hangars, and supporting facilities at TEB, Signature would continue to experience operational inefficiencies, safety risks, and ferry flights due to congestion at existing Signature South and Signature East facilities. Therefore, Alternative 4 would not meet the needs of the existing and forecast aircraft fleet.

Alternative 4 also considers shifting of general aviation aircraft operations from Signature South and Signature East to Signature West. Pilots have the option of using any Signature facilities at the Airport; however, based on the number of ferry flights and number of times annually Signature is operating under congested conditions, all of the existing FBOs, including Signature West, are experiencing congested conditions during peak periods. Therefore, shifting GA operations to Signature West at TEB is not a feasible alternative. Under Alternative 4, insufficient facilities to accommodate the existing and future demand at Signature's FBO facilities would remain.

Advance to Step 2?

Alternative 4, Use, Reconfiguration, or Expansion of Signature West, would not provide adequate FBO facilities, including aircraft parking space, to accommodate existing and forecast needs as reconfiguration of Signature West would not notably improve the efficiency or layout of the existing facilities and there is little room to expand Signature West. Therefore, under Alternative 4, the current configuration of facilities would remain and there would be no reduction in operational inefficiencies, safety risks, and ferry flights due to congestion. Additionally, Signature West is also at full capacity when the Signature East and Signature South facilities are in gridlock conditions. Therefore, Alternative 4, Use, Reconfiguration, or Expansion of Signature West, would not meet the Purpose and Need of the Proposed Action and was eliminated from further consideration.

3.3.5 ALTERNATIVE 5: SIGNATURE EAST ALTERNATIVES

As discussed in Section 2.2.1, facility requirements are estimates of typical minimum space needed to adequately accommodate existing and future demand based on standard metrics. Analysis of forecast facility needs indicates that if surplus area is available in future years, it can be assumed the size of existing facilities is sufficient through the planning period; if there is a deficit in area in future years it is assumed that there is insufficient space to accommodate future demand. However, relatively small deficits in available space should be tolerated or addressed through reconfiguration without further expansion as future facility needs are based on general needs, which can fluctuate based on a multitude of external and internal factors through the forecast period. For purposes of this analysis, it was assumed that alternatives that would provide facilities within ten percent of the total 2044 facility requirements, measured in square feet, would adequately accommodate the total future Signature FBO facility requirements for the Purpose and Need of the Proposed Action.

With the exception of Alternative 5 Configuration 1, which considers reconfiguration of the existing Signature East facility, all of the Signature East expansion options (Configurations 2 through 5) would provide adequate space to expand existing FBO facilities at Signature East consistent with the facilities requirements identified in Section 2.2.1. A summary of proposed total square footage for additional FBO facilities for each Alternative 5 configuration option compared to the 2044 requirement is provided in **Table 3-6**. It is anticipated that Configurations 2, 3, 4 and 5 would all adequately fulfill the 2044 FBO facility area requirement to accommodate existing and future demand at Signature East.

Similarly, with the exception of Alternative 5 Configuration 1, all of the Signature East expansion options (Configurations 2 through 5) would provide adequate space to expand the existing aircraft apron and hangar facilities to meet existing and future demand for aircraft parking at Signature East, considering the larger aircraft and increase in the number of aircraft with winglets. A summary of proposed additional aircraft parking square footage for each Alternative 5 configuration option compared to the 2044 requirement is provided in **Table 3-7**. As noted above, for purposes of this analysis, it was assumed that configurations providing facilities within ten percent of the 2044 aircraft parking requirement, measured in square feet, would adequately accommodate the aircraft parking requirements for the Purpose and Need of the Proposed Action. Therefore, it is anticipated that Configurations 2, 3, 4, and 5 would all adequately fulfill the 2044 aircraft parking requirement to accommodate existing and future demand at Signature East.

Advance to Step 2?

Alternative 5 Configuration 1 would not provide adequate FBO facilities, including aircraft parking, and is unlikely to reduce operational inefficiencies, safety risks, and ferry flights due to congestion. Therefore, Alternative 5 Configuration 1 would not meet the Purpose and Need of the Proposed Action and was eliminated from further consideration. However, all of the Signature East expansion options (Configurations 2 through 5) would provide adequate space to expand FBO facilities, including aircraft apron and hangar space, to accommodate existing and future demand at Signature East. As Configurations 2 through 5 all include the expansion of existing facilities and thus provide space to accommodate existing and future aircraft parking needs, all four options would allow for a configuration of facilities that would reduce

operational inefficiencies, safety risks, and ferry flights due to congestion. Therefore, Alternative 5 Configurations 2, 3, 4, and 5 would meet the Purpose and Need of the Proposed Action and were retained for further evaluation under Step 2.

TABLE 3-6 ADDITIONAL FACILITIES AREA AT SIGNATURE EAST CONFIGURATIONS

ALTERNATIVE 5 CONFIGURATION #	ADDITIONAL TOTAL FACILITIES AREA (SQUARE FEET)	2044 TOTAL FACILITIES REQUIREMENT[1] DEFICIT (SQUARE FEET)	WITHIN 10 PERCENT TOLERANCE OF THE MINIMUM TOTAL FACILITIES REQUIREMENT? [1]
Configuration 1	0	242,600	No
Configuration 2	275,700	242,600	Yes
Configuration 3	242,700	242,600	Yes
Configuration 4	253,300	242,600	Yes
Configuration 5	220,500	242,600	Yes

NOTE:
1 As discussed in Section 2, facility requirements are based on general space needs, which may be higher or lower depending on site limitations, configuration issues, and configuration of facility components to meet current and forecast demand. Thus, facility requirements identified during analysis may differ from what is proposed for construction and not the final development numbers. As such, this criterion evaluated whether an alternative would generally meet the minimum space requirements (within 10 percent).

SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, *Signature Flight Support Facility Requirements Analysis*, January 2024; Signature Flight Support Corporation, May 2024; Ricondo & Associates, Inc., June 2025.

TABLE 3-7 ADDITIONAL AIRCRAFT PARKING AT SIGNATURE EAST CONFIGURATIONS

ALTERNATIVE 5 CONFIGURATION #	ADDITIONAL AIRCRAFT PARKING (SQUARE FEET)			2044 AIRCRAFT PARKING REQUIREMENT[1] DEFICIT (SQUARE FEET)			WITHIN 10 PERCENT TOLERANCE OF THE MINIMUM TOTAL AIRCRAFT PARKING REQUIREMENT? [2]
	APRON PAVEMENT	AIRCRAFT HANGARS	TOTAL	APRON PAVEMENT	AIRCRAFT HANGARS	TOTAL	
Configuration 1	0	0	0	187,600	35,100	222,700	No
Configuration 2	213,600	33,000	246,600	187,600	35,100	222,700	Yes
Configuration 3	191,400	33,000	224,400	187,600	35,100	222,700	Yes
Configuration 4	188,500	36,000	224,500	187,600	35,100	222,700	Yes
Configuration 5	170,000	36,000	206,000	187,600	35,100	222,700	Yes

NOTE:
1 As discussed in Section 2, facility requirements are based on general space needs, which may be higher or lower depending on site limitations, configuration issues, and configuration of facility components to meet current and forecast demand. Thus, facility requirements identified during analysis may differ from what is proposed for construction and not the final development numbers. As such, this criterion evaluated whether an alternative would generally meet the minimum space requirements (within 10 percent).

SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, *Signature Flight Support Facility Requirements Analysis*, January 2024; Signature Flight Support Corporation, May 2024; Ricondo & Associates, Inc., June 2025.

3.3.6 ALTERNATIVE 6: SIGNATURE SOUTH ALTERNATIVES

With the exception of Alternative 6 Configuration 1, which considers reconfiguration of the existing Signature South facility, all of the Signature South expansion options (Configurations 2 through 7) would provide adequate space to expand existing FBO facilities at Signature South consistent with the facilities requirements identified in Section 2.2.1.[34] In response to agency comments and coordination and due to site topography, the overall footprint of the Alternative 6 Configuration 6 was reduced from approximately 350,700 square feet to approximately 312,200 square feet. The reduction included approximately 4,300 square feet from the automobile parking lot, approximately 4,500 square feet from the

aircraft hangar and FBO terminal combined, and approximately 29,700 square feet from the aircraft apron. Shuttles will transport employees and customers between off-site parking and Signature South, as needed, for Configuration 6. A summary of proposed total square footage for additional Signature FBO facilities for each Alternative 6 configuration option compared to the 2044 requirement is provided in an updated **Table 3-8**. As noted above, for purposes of this analysis, it was assumed that alternatives that would provide facilities within ten percent of the 2044 requirement, measured in square feet, would adequately accommodate the total future Signature FBO facility requirements for the Purpose and Need of the Proposed Action. Therefore, it is anticipated that Configurations 2, 3, 4, 5, 6, and 7 would all fulfill the 2044 FBO facility requirements to accommodate existing and future demand at Signature South.

TABLE 3-8 ADDITIONAL FACILITIES AREA AT SIGNATURE SOUTH CONFIGURATIONS

ALTERNATIVE 6 CONFIGURATION #	ADDITIONAL TOTAL FACILITIES AREA (SQUARE FEET)	2044 TOTAL FACILITIES REQUIREMENT[1] DEFICIT (SQUARE FEET)	WITHIN 10 PERCENT TOLERANCE OF THE MINIMUM TOTAL FACILITIES REQUIREMENT? [1]
Configuration 1	0	357,700	No
Configuration 2	565,200	357,700	Yes
Configuration 3	515,500	357,700	Yes
Configuration 4	472,100	357,700	Yes
Configuration 5	394,100	357,700	Yes
Configuration 6	322,200	357,700	Yes[2]
Configuration 7	365,500	357,700	Yes

NOTE:

1 As discussed in Section 2, facility requirements are based on general space needs, which may be higher or lower depending on site limitations, configuration issues, and configuration of facility components to meet current and forecast demand. Thus, facility requirements identified during analysis may differ from what is proposed for construction and not the final development numbers. As such, this criterion evaluated whether an alternative would generally meet the minimum space requirements (within 10 percent).

2 Includes off-site vehicle parking.

SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, *Signature Flight Support Facility Requirements Analysis*, January 2024; Signature Flight Support Corporation, May 2024; Ricondo & Associates, September 2026.

Similarly, with the exception of Alternative 6 Configuration 1, which considers reconfiguration of the existing Signature South facility, all of the Signature South expansion options (Configurations 2 through 7) would expand the existing aircraft apron and hangar facilities to meet existing and future demand for aircraft parking at Signature South, considering the larger aircraft and increase in the number of aircraft with winglets. A summary of proposed additional aircraft parking square footage for each Alternative 6 configuration option compared to the 2044 requirement is provided in **Table 3-9**. As noted above, this analysis assumes that configurations providing facilities within ten percent of the 2044 requirement, measured in square feet, would adequately accommodate the aircraft parking requirements for the Purpose and Need of the Proposed Action. Therefore, it is anticipated that Configurations 2, 3, 4, 5, 6, and 7 would all adequately fulfill the 2044 aircraft parking requirements to accommodate existing and future demand at Signature South.

Advance to Step 2?

Alternative 6 Configuration 1 would not provide adequate FBO facilities, including aircraft parking, and is unlikely to reduce operational inefficiencies, safety risks, and ferry flights due to congestion. Therefore, Alternative 6 Configuration 1 would not meet the Purpose and Need of the Proposed Action and was eliminated from further consideration. However, all of the Signature South expansion options (Configurations 2 through 7) would provide adequate space to expand FBO facilities, including aircraft apron and hangar space, to accommodate Signature South's existing and future demand. As Configurations 2 through 7 all expand existing facilities and thus provide space to accommodate existing and future

aircraft parking needs, all six options would allow for a configuration of facilities that would reduce operational inefficiencies, safety risks, and ferry flights due to congestion. Therefore, Configurations 2, 3, 4, 5, 6, and 7 would meet the Purpose and Need of the Proposed Action and were retained for further evaluation under Step 2.

TABLE 3-9 ADDITIONAL AIRCRAFT PARKING AT SIGNATURE SOUTH CONFIGURATIONS

ALTERNATIVE 6 CONFIGURATION #	ADDITIONAL AIRCRAFT PARKING (SQUARE FEET)			2044 AIRCRAFT PARKING REQUIREMENT[1] DEFICIT (SQUARE FEET)			WITHIN 10 PERCENT TOLERANCE OF THE MINIMUM TOTAL AIRCRAFT PARKING REQUIREMENT?
	APRON PAVEMENT	AIRCRAFT HANGARS	TOTAL	APRON PAVEMENT	AIRCRAFT HANGARS	TOTAL	
Configuration 1	0	0	0	211,000	86,300	297,300	No
Configuration 2	430,600	80,000	510,600	211,000	86,300	297,300	Yes
Configuration 3	378,100	80,000	458,100	211,000	86,300	297,300	Yes
Configuration 4	339,600	80,000	419,600	211,000	86,300	297,300	Yes
Configuration 5	267,400	80,000	347,400	211,000	86,300	297,300	Yes
Configuration 6	197,300	83,500	280,800	211,000	86,300	297,300	Yes
Configuration 7	240,500	80,000	320,500	211,000	86,300	297,300	Yes

NOTES:

1 As discussed in Section 2, facility requirements are based on general space needs, which may be higher or lower depending on site limitations, configuration issues, and configuration of facility components to meet current and forecast demand. Thus, facility requirements identified during analysis may differ from what is proposed for construction and not the final development numbers. As such, this criterion evaluated whether an alternative would generally meet the minimum space requirements (within 10 percent).

SOURCE: Signature Flight Support Corporation, August 2020; Signature Flight Support Corporation, *Signature Flight Support Facility Requirements Analysis*, January 2024; Signature Flight Support Corporation, May 2024; Ricondo & Associates, September 2026.

3.3.7 ALTERNATIVE 7: DEVELOPMENT OF OTHER SITES AT TEB ALTERNATIVE

Alternative 7 considers development of other sites at TEB to accommodate the existing demand for Signature facilities. As discussed further in Appendix D, Alternative 7 considers development of other areas at TEB that are outside of existing Airport infrastructure and associated FAA safety areas (see Exhibit 3-6). Although no specific layout has been developed for either Site 1 or Site 2, it is anticipated one or more sites within the potential developable area could be developed to accommodate the full 600,300-square-foot area requirement identified in Section 2.2.1 to accommodate Signature East and Signature South's existing and future demand. Furthermore, it is anticipated that one or more sites within the potential developable area could accommodate adequate aircraft parking to meet the needs of Signature's existing and forecast aircraft fleet thereby providing a configuration of facilities that would reduce operational inefficiencies, safety risks, and ferry flights due to congestion.

Advance to Step 2?

While no specific site or layout has been developed, it is anticipated that Development of Other Sites at TEB would provide adequate space to expand Signature's FBO facilities, including aircraft apron and hangar space, to accommodate Signature East and Signature South's existing and future demand. It is also anticipated that this alternative would allow for a configuration of facilities that would reduce operational inefficiencies, safety risks, and ferry flights due to congestion. Therefore, Alternative 7 would meet the Purpose and Need of the Proposed Action and was retained for further evaluation under Step 2.

3.4 SCREENING STEP 2: WOULD THE ALTERNATIVE BE REASONABLE TO CONSTRUCT AND OPERATE?

This section identifies the Step 2 screening criteria and evaluates each alternative against the criteria. The following questions were developed to determine whether the alternative would be reasonable to construct and operate. If the alternative met the Step 2 screening criteria, it was retained for detailed analysis of its potential environmental effects in the EA.

- Could the alternative be implemented without major modifications[35] to airfield infrastructure?
  - *Taxiway Connectivity*: This criterion evaluates if an alternative would be accessible to aircraft via existing airfield pavement. An alternative was not considered reasonable if it required construction of a new taxiway as this would significantly increase the cost, schedule, and scope of the overall project.
  - *Utility Infrastructure*: This criterion evaluates if an alternative would be accessible to existing utility infrastructure. An alternative was not considered reasonable if it required bringing new utilities to the site as this would significantly increase the cost, schedule, and scope of the overall project.
- Is the alternative reasonable to construct[36] given site constraints/considerations?
  - *Site Topography:* This criterion evaluates if the alternative can be constructed within the physical topography of the site. An alternative was not considered reasonable if significant grading or excavation, defined as disturbance of more than 10 acres, would be required as this would significantly increase the cost, schedule, and scope of the overall project. This criterion also evaluates if any structures are present and the extent of any required demolition.
- Is the alternative reasonable to operate given existing airfield operations?
  - *Minimize Runway Crossings*: This criterion evaluates if the alternative minimizes the need for aircraft to cross active runways. An alternative was not considered reasonable if it required frequent or unnecessary runway crossings that could disrupt airfield operations or increase safety risks.

3.4.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no construction activities would occur at Signature South or Signature East, and the Airport would continue to operate under existing conditions. No major modifications to airfield infrastructure would be required, and site constraints would not be applicable.

Retain for detailed evaluation?

The No Action Alternative will be carried forward in the assessment of environmental impacts as required by NEPA, and will serve as the basis for comparison of the impacts of the other alternatives that are carried forward for detailed analysis.

3.4.2 ALTERNATIVE 5: SIGNATURE EAST EXPANSION ALTERNATIVES

All of the Signature East expansion options (Configurations 2 through 5) have been developed specifically to integrate with the existing Signature East site and existing airfield operations. None of the configurations would require modifications to the Airport's taxiway system or frequent runway crossings, and all would connect directly to existing utilities. In addition, the Signature East site and potential expansion areas are generally flat and devoid of major topographic elements and existing structures, allowing any of the site configurations under Alternative 5 to be constructed without significant grading, excavation, or demolition. Therefore, the expansion configurations under Alternative 5 are considered reasonable to construct and operate without major modifications to airfield infrastructure or disruption to airfield operations.

Retain for detailed evaluation?

Any of the expansion options under Alternative 5 could be implemented without major modifications to airfield infrastructure, would be reasonable to construct given the site constraints and considerations, and would be reasonable to operate given existing airfield operations. As such, Alternative 5, Configurations 2, 3, 4, and 5 were retained for detailed evaluation in the EA.

3.4.3 ALTERNATIVE 6: SIGNATURE SOUTH EXPANSION ALTERNATIVES

All of the Signature South expansion options (Configurations 2 through 7) have been developed specifically to integrate with the existing Signature South site and existing airfield operations. None of the configurations would require modifications to the Airport's taxiway system or frequent runway crossings, and all would connect to existing utilities.

In addition, the Signature South site and potential expansion areas are generally flat and devoid of major topographic elements and existing structures, allowing any of the site configurations under Alternative 6 to be constructed without significant grading, excavation, or demolition. Therefore, the expansion configurations under Alternative 6 are considered reasonable to construct and operate without major modifications to airfield infrastructure or disruption to airfield operations.

Retain for detailed evaluation?

Any of the expansion options under Alternative 6 could be implemented without major modifications to airfield infrastructure, would be reasonable to construct given the site constraints and considerations, and would be reasonable to operate given existing airfield operations. As such, Alternative 6, Configurations 2, 3, 4, 5, 6, and 7 were retained for detailed evaluation in the EA.

3.4.4 ALTERNATIVE 7: DEVELOPMENT OF OTHER SITES AT TEB ALTERNATIVE

3.4.4.1 ALTERNATIVE 7 SITE 1

Site 1, the area located to the west of the Runway 6 end, is in close proximity to existing general aviation infrastructure, which could allow for extension of existing utilities. However, this site is not accessible via an existing taxiway. In order to develop this site, a significant extension of Taxiway P would be required to provide airfield access, which would also impact the existing glide slope antenna[37] for Runway 6. Therefore, Site 1 could not be implemented without major modifications to airfield infrastructure.

Site 1 is generally devoid of existing structures, is generally flat, and would not require significant grading, excavation, or demolition. However, Berrys Creek, a tributary of the Hackensack River, bisects the site and would need to be rerouted if this area were developed. Although no specific site or layout has been developed under this alternative, the additional site work that may be required to reroute this water feature could be challenging. However, it is not anticipated that construction in this area would be considered unreasonable.

Development of Site 1 would operationally function similar to other FBO facilities on the west side of the Airport. Consistent with existing aircraft operations in this vicinity, including at Signature West, this site would not require frequent or unnecessary runway crossings that could disrupt airfield operations or increase safety risks.

Retain for detailed evaluation?

Development of Site 1, the area to the west of the Runway 6 end, would require additional site work to reroute Berrys Creek and its tributaries in this area, which could be challenging but not unreasonable. Furthermore, an FBO at this location would operate similar to other FBOs on the west side of the Airport and would not be considered unreasonable to operate given existing airfield operations. However, development of this area would require a significant extension of

Taxiway P to provide airfield access, which would also impact the existing glide slope antenna for Runway 6. Therefore, development of this area could not be implemented without major modifications to airfield infrastructure.

As this potential area for development would not pass all the criteria for Step 2 evaluation, Alternative 7, Development of Other Sites at TEB Alternative, Site 1 was eliminated from further consideration.

3.4.4.2 ALTERNATIVE 7 SITE 2

Site 2, the undeveloped area located on the east side of the Airport, may be accessible via existing Taxiway G. However, airfield connectivity would be dependent on a specific site location. It is also anticipated that new utilities would need to be brought to the site given the remoteness of the Airport in this area. Therefore, Site 2 could not be implemented without major modifications to airfield infrastructure.

Site 2 is generally devoid of existing structures, is generally flat, and would not require significant grading, excavation, or demolition. However, there is a culvert present at the site associated with Riser Ditch that would need to be rerouted if this area were developed. Although no specific site or layout has been developed under this alternative, the additional site work that may be required to reroute this water feature could be challenging. However, it is not anticipated that construction of this area would be considered unreasonable.

Site 2, located on the east side of the Airport, would only be accessible to the existing airfield via Taxiway G. Use of this taxiway would require frequent and unnecessary crossings of Runway 1-19 that could disrupt airfield operations and increase safety risks. Therefore, Site 2 could not be implemented without impacting airfield operations and potentially increasing safety risks.

Retain for detailed evaluation?

Although no specific site or layout has been identified, development of the area on the east side of the Airport, generally referred to as Site 2, could require additional site work to reroute the Riser Ditch culvert in this area, which could be challenging but not unreasonable. Although airfield connectivity would be dependent on a specific site location, this area would only be accessible to the existing airfield via construction of a new taxiway or via Taxiway G, either of which would require frequent and unnecessary crossings of Runway 1-19 that could impact airfield operations and potentially increase safety risks. Lastly, it is also anticipated that new utilities would need to be brought to the site given the remoteness in this area. Therefore, as this potential area for development would not pass all the criteria for Step 2 evaluation, Alternative 7, Development of Other Sites at TEB Alternative, Site 2 was eliminated from further consideration.

3.5 ALTERNATIVES SCREENING PROCESS RESULTS SUMMARY

Based on the evaluation of the screening criteria, Alternative 5 (Configurations 2 through 5) and Alternative 6 (Configurations 2 through 7) were identified as fulfilling the Purpose and Need of the Proposed Action and would be reasonable to construct and operate. As discussed in Section 2.2.1, the Proposed Action would require an increase of approximately 600,300 square feet of FBO facilities at TEB, including approximately 520,000 square feet of aircraft parking facilities (including apron and hangar space), to meet Signature's existing and forecast demand. To meet the Purpose and Need of the Proposed Action, development at both the Signature East and Signature South sites would be needed in order to adequately fulfill the overall FBO facility and aircraft parking requirements. As such, all of the expansion configurations for both Signature East and Signature South have been retained for a detailed evaluation of environmental impacts to determine the environmentally preferred configurations and/or combination of configurations needed to meet the facility requirements identified in Table 3-4.

3.6 PROPOSED ACTION

The Proposed Action has been identified as Alternative 5 Configuration 5 and Alternative 6 Configuration 6. As discussed in Section 3.5, development at both the Signature East and Signature South sites would be needed in order to adequately

fulfill the required FBO facilities. Results of this alternatives analysis indicate that implementation of both Alternative 5 Configuration 5 and Alternative 6 Configuration 6 would adequately meet the Purpose and Need of the Proposed Action and would be reasonable to construct and operate.

4. AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

This section presents the existing conditions and the environmental consequences of implementing the Proposed Action or other viable action alternatives and the No Action Alternative for the environmental impact categories identified in FAA Order 1050.1G. The affected environment describes and documents the geographic areas potentially affected by the Proposed Action or other action alternatives; the applicable Federal, state, and local regulations pertinent to the environmental subject matter; environmental resources that would not be affected by the Proposed Action or other action alternatives; the methodologies used to establish existing conditions; and existing conditions for potentially affected resources. The environmental consequences describe the methodologies and significance thresholds used to evaluate impacts; identifies impacts for construction and operation of the Proposed Action and other action alternatives compared to the No Action Alternative; and identifies any mitigation, avoidance, and minimization measures.

The environmental consequences evaluation includes consideration of reasonably foreseeable impacts that may result from the Proposed Action, the No Action Alternative, or other reasonable alternatives (Alternative 5, Configurations 2 through 4, and Alternative 6, Configurations 2 through 5 and Configuration 7). The analysis considers the type and degree of the effects, including, as appropriate: (i) both short- and long-term effects; (ii) both beneficial and adverse effects; (iii) effects on public health and safety; (iv) economic effects; and (v) effects on the quality of life of the American people.

As discussed in DOT Order 5610.1D, Sections 10(c)(2) and 10(c)(3), and to support reasoned decision-making, the environmental analysis presented in this EA considers potential impacts from projects proposed at TEB by the Port Authority that may occur within a reasonable timeframe of five years. The analysis does not assess projects outside TEB property or beyond five years because environmental effects from such projects do not share a reasonably close causal relationship to the Proposed Action, and any effects from these projects would be speculative. The scope also does not include projects proposed or initiated by parties other than the Port Authority or Signature, as the implementation of these projects is uncertain and dependent on variable economic factors that are difficult to predict. As a result, the timing and likelihood of these projects are estimated, making any associated analysis of environmental effects speculative. Therefore, the Port Authority has identified four potential projects that are likely to occur at the Airport within the next five years (herein collectively referred to as "Future Projects") for consideration in this EA. These Future Projects include:

- Rehabilitation of Various Taxiways (Q, C, & A) and Hangar 1 Ramp[38]
- Installation of Aircraft Run-up Pad[39]
- Airport Perimeter Fence (or Fence Hardening)[40]
- Runway 6 Departure EMAS[41]

4.1 STUDY PARAMETERS

4.1.1 STUDY AREAS

Two study areas were delineated for the purpose of assessing the potential direct and indirect effects of the Proposed Action, other reasonable alternatives, and the No Action Alternative on environmental resource categories as defined by FAA Order 1050.1G. The Direct Study Area identifies the three non-contiguous areas that may be physically disturbed with the development of the Proposed Action and other action alternatives. The General Study Area includes the areas



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary, general study area); Langan Engineering & Environmental, August 2025 (indirect areas of potential effects); New Jersey Department of Environmental Protection, January 2025 (historic properties); Ricondo & Associates, Inc., July 2025 (direct areas of potential effects, direct study area).

NORTH 0 1,500 ft

EXHIBIT 4-1

STUDY AREA AND AREA OF POTENTIAL EFFECTS

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-1_StudyAreasWithAPE_2026_0820

surrounding the Direct Study Area that are not physically disturbed but account for resources that may be affected by the Proposed Action or other action alternatives when compared to the No Action Alternative. Both study areas are shown on **Exhibit 4-1** and are further defined below.The Direct Study Area encompasses three areas: one area that comprises the four potential configuration options at Signature East (the Signature East Direct Study Area) and two non-contiguous areas that comprise the six potential configuration options at Signature South (the Signature South Direct Study Area).

- The General Study Area, for most resource categories, was defined as the Airport boundary, as the Proposed Action, or its action alternatives, would occur entirely on Airport property. However, for air quality, historic resources, and noise, the General Study Area was broadened to account for potential effects off Airport. The study area for Aviation Emissions and Air Quality considers the region (Bergen County); Historic, Architectural, Archaeological, and Cultural Resources evaluates the potential for direct or indirect effects on historic resources within two separate Areas of Potential Effects (APEs), as shown on Exhibit 4-1 (see also Section 4.2); and Noise and Noise-Compatible Land Use considers noise in the context of the most recent noise contours for the Airport developed as part of the 2017 Final Noise Exposure Map Report and 2022 Final Noise Compatibility Program for Teterboro Airport prepared under 14 CFR Part 150.[42,43]

4.1.2 STUDY YEARS

Ground disturbance and temporary effects associated with construction of the Proposed Action are anticipated to occur for up to 2 years, beginning as soon as necessary permits have been obtained. The Proposed Action is anticipated to be fully operational in 2028. This EA also considers potential operational impacts of the Proposed Action and its viable action alternatives through 2044, consistent with the forecast planning horizon.

4.2 ENVIRONMENTAL RESOURCES NOT AFFECTED

Of the environmental impact categories defined in FAA Order 1050.1G, the following resources have been eliminated from further consideration as they do not exist within or near the General Study Area.

- **Farmlands.** Based on a review of United States Department of Agriculture (USDA) Global Croplands Data, there is no prime or unique farmland located in or nearby the General Study Area.[44] The nearest farmland resource is located over 30 miles southwest of the General Study Area in Harding Township, New Jersey.
- **Water Resources - Wild and Scenic Rivers.** There are no designated Wild and Scenic Rivers on Airport property. According to the United States National Park Service (NPS) Nationwide Rivers Inventory, the nearest Wild and Scenic River is Musconetcong River, located approximately 38 miles west of the General Study Area.

Of the environmental impact categories defined in FAA Order 1050.1G, the following resources are present within or near the General Study Area but are not expected to be significantly affected by the Proposed Action or its action alternatives. These resources have been evaluated and are discussed briefly below to document the basis for concluding that no significant impacts would occur, and therefore, no detailed analysis is warranted.

- **Historical, Architectural, Archaeological, and Cultural Resources**. Implementation of the Proposed Action or its alternatives would have no significant impact on any historical, architectural, archaeological or cultural resources listed or eligible for listing in the National Register of Historic Places (NRHP). As required by 36 CFR 800.4(a)(1), a Direct APE and an Indirect APE were established for the Proposed Action, as shown on Exhibit 4-1. In June 2024, a Phase I Cultural Resource Assessment (Phase IA Assessment) was conducted, which included review of the New Jersey Historic Preservation Office (NJHPO) LUCY database to identify previously recorded historic properties within the Direct and Indirect APEs. The Phase IA Assessment also included an architectural review of existing buildings and structures over 50 years old within the Indirect APE. No NRHP-listed or eligible properties were identified within the Direct APE or Indirect APE. The Phase IA Assessment also concluded that the Direct APE has low to no sensitivity for

historic archaeological resources. On February 4, 2026, the FAA requested concurrence from the New Jersey SHPO with FAA's preliminary determination of No Historic Properties Affected by the proposed undertaking. On March 3, 2026, the SHPO concurred with the FAA's determination that there will be No Historic Properties Affected by the proposed undertaking (see **Appendix E**). No historical, architectural, archaeological, or cultural resources would be adversely affected by the construction or operation of the Proposed Action or its action alternatives, and therefore impacts would be less than significant.

- **US Department of Transportation (USDOT) Act, Section 4(f).** Provisions of Section 4(f) are applicable to publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, and significant historic properties, both publicly and privately owned, that are listed in or eligible for listing in the NRHP. Section 6(f) of the Land and Water Conservation Fund (LWCF) Act prohibits the conversion of property acquired or developed with LWCF grant money to non-recreational purposes without approval from the National Park Service (NPS). Any parks or other sites that have been acquired via LWCF grants are designated as Section 6(f) resources. There are no Section 4(f) or Section 6(f) resources classified as publicly owned parks, recreation areas, or wildlife and/or waterfowl refuges within the General Study Area. The nearest Section 6(f) resource, Wood-Ridge Park and Playground, is located approximately 1 mile to the west of the General Study Area. Section 4(f) resources within the General Study Area are limited to historic resources, which include the Teterboro Airport Tower and Hangar, and Atlantic Aircraft Factory. However, both resources are outside of the Direct and Indirect APEs. Therefore, the Proposed Action or its alternatives would not result in a physical or constructive use of Section 4(f) resources.
- **Land Use**. The Proposed Action and its action alternatives are consistent with existing land use designations and local comprehensive plans. The Proposed Action would be located entirely within the existing airport property boundary and involves land zoned for aviation-related purposes. No land acquisition or changes in land ownership are proposed, and the project would not alter land use patterns in the surrounding community. The Proposed Action would not cause adverse indirect effects such as noise, light, or traffic that could result in land use incompatibilities.[45] There are no nearby land uses that would be newly introduced to airport-related activities or affected in a way that conflicts with applicable local zoning or land use plans. Therefore, the Proposed Action would not result in a significant impact on land use.
- **Natural Resources and Energy Supply**. Implementation of the Proposed Action or its action alternatives would not result in the significant consumption of natural resources such as water, timber, or minerals. Construction would require a limited, short-term use of materials such as fuel, aggregate, and construction products typical of aviation infrastructure development. These demands are not expected to exceed regional supplies or result in long-term depletion of any nonrenewable resources. Electricity demands associated with the Proposed Action or its action alternatives (e.g., lighting, building operations, etc.) would be minor and would not require substantial new capacity from local energy suppliers. No significant increases in energy consumption are anticipated during construction or operation. The project includes no components that would interfere with existing utility corridors or require energy-intensive systems. Accordingly, the Proposed Action would not cause a significant impact related to natural resources or energy supply.
- **Socioeconomics and Children's Health and Safety Risks**. Implementation of the Proposed Action or its action alternatives would not involve the relocation of residents or businesses, disrupt local traffic patterns, or alter access to community services. Employment opportunities during construction would be short-term and relatively minor, with no measurable effects on regional employment or income levels. The Proposed Action would not create conditions that would adversely affect human health or safety. Furthermore, the project would not result in environmental health or safety risks that may disproportionately affect children. No schools, childcare facilities, or recreational areas are located within the Direct or General Study Areas, and no new emissions sources, hazardous materials, or physical hazards that could pose risks to children are proposed. During construction of the Proposed

Action or its action alternatives, there would be a slight increase in local traffic volumes resulting from construction employee vehicles and material trips. However, this is limited only to the active construction period and would be temporary in nature. Upon implementation of the Proposed Action or its action alternatives, existing air traffic patterns would remain unchanged and no additional traffic would be generated, as the Proposed Action would not increase aircraft operations or aircraft types and would reduce ferry flights (see Section 4.3.3.4). Further, while approximately 30 new employees are expected to travel to and from the Proposed Action facilities, land uses that generate fewer than 100 peak-hour trips are classified as having an insignificant traffic impact by the New Jersey Department of Transportation (NJDOT) in its State Highway Access Management Code (N.J.A.C. 16:47). Based on these considerations, the Proposed Action would not result in significant socioeconomic effects or environmental health and safety risks to children.

- **Visual Effects.** Implementation of the Proposed Action or its action alternatives would not substantially alter the visual character of the Airport or surrounding area. Construction activities would be temporary and confined to areas within the Airport boundary. New facilities would be similar in scale, height, and appearance to existing structures and would not introduce visually inconsistent features into the landscape. Nighttime lighting associated with the project would be consistent with existing airport lighting and would not create glare, light spillover, or visual intrusion into residential or sensitive land uses. No light sources would be directed off-Airport or toward the sky in a way that could affect visual receptors or aviation safety. As such, the Proposed Action would not cause significant visual effects or light emissions.

4.3 AVIATION EMISSIONS AND AIR QUALITY

This section sets forth the regulatory setting, existing conditions, and environmental consequences of project implementation on air quality within the Bergen County, New Jersey region. Additional documentation of air quality standards, requirements, existing conditions, and analysis methodology are discussed in more detail in **Appendix F**.

4.3.1 REGULATORY SETTING

Air quality is regulated at the Federal level by the Clean Air Act (CAA), which is administered by the US Environmental Protection Agency (USEPA) in coordination with state and local governments. The CAA of 1970, 42 USC § 7401, *et seq*., as amended, gives the USEPA authority to specify National Ambient Air Quality Standards (NAAQS) that apply throughout the United States and its territories. The USEPA has established primary and secondary NAAQS for six air contaminants referred to as criteria pollutants. These contaminants are carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), lead (Pb), sulfur dioxide (SO_2), and particulate matter (PM).[46] O_3 is a secondary pollutant, meaning that it is formed from reactions of "precursor" compounds under certain conditions; therefore, O_3 is addressed through analysis of its precursors—volatile organic compounds (VOCs) and oxides of nitrogen (NO_X). The NAAQS are categorized into primary and secondary standards. Primary standards are intended to protect the human health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards are environmental-based and intended to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. In areas that do not meet the NAAQS, Federal conformity rules (40 CFR 93) apply. **Table 4-1** presents the NAAQS that are currently in effect for criteria air pollutants.

The USEPA requires that states identify those areas where the NAAQS are not being met for specific air pollutants. Air quality regions that meet the NAAQS for a criteria pollutant are designated as being in attainment. Air quality regions that do not meet the NAAQS for one or more criteria pollutants are designated by the USEPA as nonattainment areas. Nonattainment designations under the CAA for O_3 are categorized into levels of severity—marginal, moderate, serious, severe, or extreme—based on the level of concentrations above the standard, which is also used to set the required attainment date. CO and PM_{10} nonattainment areas are categorized as moderate or serious.

TABLE 4-1 NATIONAL AMBIENT AIR QUALITY STANDARDS

AIR POLLUTANT	PRIMARY/SECONDARY STANDARD	AVERAGING TIME	LEVEL	FORM
Carbon Monoxide (CO)	Primary	1-hour	35 ppm	Not to be exceeded more than once per year
		8-hour	9 ppm	
Nitrogen Dioxide (NO_2)	Primary	1-hour	0.100 ppm	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and Secondary	Annual	0.053 ppm	Annual Mean
Coarse Particulate Matter (PM_{10})	Primary and Secondary	24-hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Fine Particulate Matter ($PM_{2.5}$)	Primary	Annual	9.0 µg/m^3	Annual mean, averaged over 3 years
	Secondary	Annual	15.0 µg/m^3	Annual mean, averaged over 3 years
	Primary and Secondary	24-hour	35 µg/m^3	98th percentile, averaged over 3 years
Ozone (O_3)	Primary and Secondary	8-hour	0.070 ppm (2015 standard)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
			0.075 ppm (2008 standard)	
Sulfur Dioxide (SO_2)	Primary	1-hour	0.075 ppm	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year
Lead (Pb)	Primary and Secondary	Calendar Quarter	0.15 µg/m^3	Not to be exceeded

NOTES: ppm – Parts per Million µg/m3 – Micrograms per Cubic Meter
SOURCE: US Environmental Protection Agency, *NAAQS Table*, www.epa.gov/criteria-air-pollutants/naaqs-table (accessed December 11, 2025).

4.3.2 AFFECTED ENVIRONMENT

The Airport is located entirely within Bergen County, which is designated by the USEPA as a serious nonattainment area for the 2015 8-hour O_3 standard,[47] and severe nonattainment area[48] for the 2008 8-hour O_3 standard.[49] On July 25, 2024, the USEPA reclassified the New York-Northern New Jersey-Long Island, NY-NJ-CT area from moderate nonattainment to serious nonattainment for the 2015 8-hour O_3 standard. Bergen County is in attainment for all other criteria pollutants.[50]

The sources of air emissions associated with TEB and Signature are typical of sources associated with most general aviation service airports and carriers. Typical sources include aircraft during the taxiing/landing/takeoff cycles, ground support equipment, auxiliary power units, airport-related motor vehicles (from passengers, employees, shuttle vans, fleet vehicles, buses, etc.) within the airport roadway network, and stationary sources (e.g., boilers and generators).

4.3.3 ENVIRONMENTAL CONSEQUENCES

4.3.3.1 METHODOLOGY

Construction and operational emissions were evaluated both qualitatively and quantitatively to assess potential air quality impacts associated with the Proposed Action, other reasonable alternatives, and the No Action Alternative. Emissions inventories were prepared consistent with FAA-approved methodologies and using industry-standard software and models. The resulting inventories were compared against General Conformity *de minimis* thresholds to determine whether further conformity evaluation would be required under the Clean Air Act.

- **Construction emissions** were conservatively estimated using the largest potential development footprint for both Signature East and Signature South sites (Alternative 5 Configuration 2 and Alternative 6 Configuration 2,

respectively) and assuming all construction would be completed within one calendar year. The analysis included exhaust emissions from construction equipment, fugitive dust from earthmoving and material handling, and vehicle emissions from worker commutes and material deliveries. Activity data such as equipment type, horsepower, load factor, and duration were developed based on representative construction schedules and applied to emission factors from the USEPA's Motor Vehicle Emissions Simulator Version 5.0 (MOVES5.0).

- **Operational emissions** were assessed qualitatively, focusing on the incremental difference in aircraft operations between the action alternatives and the No Action Alternative.[51] Implementation of the Proposed Action, or other viable action alternatives, would not result in an increase in the number of passengers, aircraft operations, or ferry flights accommodated at TEB when compared to the No Action Alternative. Without implementation of the Proposed Action, forecast ferry flights and operational inefficiencies would continue to increase under the No Action Alternative. Therefore, the operational emissions assessment focuses on the difference in aircraft emissions from ferry flights and related aircraft movements between the alternatives.

Additional information regarding technical assumptions, methodologies, databases, and models used to conduct the air quality impact analysis is documented in **Appendix F**.

4.3.3.2 SIGNIFICANCE THRESHOLDS

Per FAA Order 1050.1G, a significant impact to air quality would occur if pollutant concentrations were to exceed one or more of the NAAQS, as established by the USEPA under the CAA, for any of the time periods analyzed, or to increase the frequency or severity of any existing violations. Additionally, the USEPA promulgated the General Conformity Rule in 1993 to implement the conformity provision of Title I, 176(c)(1) of the *CAA Amendments of 1990*. The General Conformity Rule is designed to ensure that air pollutant emissions associated with Federal actions do not prevent achievement of state and Federal air quality goals. A conformity determination is required if the total direct and indirect pollutant emissions resulting from a project are above the *de minimis* emissions threshold levels specified in the conformity regulations.[52] The *de minimis* thresholds represent emissions quantities of a NAAQS-regulated pollutant or its applicable precursors over which a proposed action in a nonattainment or maintenance area may cause or contribute to a new or continued violation of the NAAQS. A conformity determination is not required if the differences in emissions between the Proposed Action and its action alternatives and the No Action Alternative are below the applicable *de minimis* emission threshold levels. Federal *de minimis* emissions thresholds for attainment and nonattainment areas relevant to Bergen County are listed in **Table 4-2**.

TABLE 4-2 GENERAL CONFORMITY *DE MINIMIS* POLLUTANT EMISSIONS THRESHOLDS

POLLUTANT			
Carbon Monoxide (CO)	Attainment	CO	100
Nitrogen Dioxide (NO_2)	Attainment	NO_2	100
Ozone (O_3)	Nonattainment (Severe 15) – 2008	Nitrogen Oxides (NO_X)	25
	Nonattainment (Serious) – 2015 [1]	Volatile Organic Compounds (VOC)	25
Coarse Particulate Matter (PM_{10})	Attainment	PM_{10}	100
Fine Particulate Matter ($PM_{2.5}$)	Attainment	$PM_{2.5}$	100
Lead (Pb)	Attainment	Pb	25
Sulfur Dioxide (SO_2)	Attainment	SO_2	100

NOTE:

1 The threshold for NO_x and VOCs for the 2015 ozone standard is 50 tons per year; because the region is in severe nonattainment for the 2008 ozone standard, the stricter threshold of 25 tons per year is used to determine conformity.

SOURCE: US Environmental Protection Agency, General Conformity *De Minimis* Tables, https://www.epa.gov/general-conformity/de-minimis-tables (accessed October 2, 2025).

4.3.3.3 CONSTRUCTION IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action, or its action alternatives, would occur. Therefore, no emissions inventory is required for the No Action Alternative and construction-related air quality impacts are not anticipated.

Proposed Action and Other Action Alternative Configurations

Construction of the Proposed Action, or its action alternatives, would result in short-term changes in air emissions from construction-related activities. For purposes of this analysis, construction emissions were conservatively estimated using the largest potential development footprint for both Signature East and Signature South sites (Alternative 5 Configuration 2 and Alternative 6 Configuration 2, respectively) and assumed that construction of both facilities would occur in one calendar year. As shown in **Table 4-3**, the combined emissions for development of both Signature East and Signature South are well below *de minimis* thresholds for the largest configuration options. As such, it is anticipated that construction of the Proposed Action, which has smaller developmental footprints for both Signature East and Signature South sites,[53] would also not exceed the *de minimis* thresholds, and therefore does not require a general conformity determination and would not result in exceedances of the NAAQS established to protect public health. Signature and the Port Authority would also comply with applicable state regulations[54] to minimize air quality impacts during construction, which may include limiting equipment idling and regularly inspecting and monitoring diesel vehicles and equipment. Additionally, all on-road diesel-fueled construction vehicles would use designated truck routes. Therefore, construction of the Proposed Action or its action alternatives would not have an adverse effect on air quality. Further, when considered in conjunction with the Future Projects, construction emissions from the Proposed Action or its alternatives are not anticipated to result in an adverse effect on air quality.

TABLE 4-3 CONSTRUCTION EMISSIONS SUMMARY AND COMPARISON TO *DE MINIMIS* THRESHOLDS

CONFIGURATION	ESTIMATED TOTAL ANNUAL CRITERIA POLLUTANT[1] EMISSIONS (TONS PER YEAR)					
	CO	VOC[2]	NO_X	SO_X[3]	PM_{10}	$PM_{2.5}$
Signature East (Alternative 5 Configuration 2)	2.56	0.09	0.90	0.01	0.57	0.06
Signature South (Alternative 6 Configuration 2)	4.08	0.17	1.85	0.02	1.07	0.12
Total Emissions	6.65	0.26	2.75	0.03	1.64	0.18
de minimis threshold	100	25	25	100	100	100
Above *de minimis*?	**No**	**No**	**No**	**No**	**No**	**No**

NOTES: CO – Carbon Monoxide; NO_X – Nitrogen Oxides; $PM_{2.5}$ – Fine Particulate Matter; PM_{10} – Coarse Particulate Matter; SO_X – Sulfur Oxides; VOC – Volatile Organic Compound
Totals may not add due to rounding.
1 Although Pb is a criteria air pollutant, it was not evaluated in the analysis because construction would not affect Pb emissions.
2 Following standard industry practice, ozone was evaluated by evaluating emissions of its precursors, VOC and NO_X.
3 For purposes of this analysis, it was assumed that estimates of SO_X emissions are equal to calculated emissions of SO_2.
SOURCE: Ricondo & Associates, Inc., October 2025.

4.3.3.4 OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, no new facilities would be developed at the Signature East or Signature South sites and existing operational constraints, including limited apron space and insufficient aircraft parking, would persist. As overall aircraft activity at TEB increases consistent with forecast growth, aircraft parking deficits would be exacerbated under future conditions considering the forecast increase in operations and the fleet mix evolution toward larger jet aircraft at Signature facilities. Consequently, under the No Action Alternative, ferry flights at TEB are expected to increase to accommodate demand. Based on the data in Appendix A, ferry flight operations under the No Action Alternative are forecast to increase from 4,333 operations in 2024 to 6,730 operations in 2044.[55] Due to the nature of ferry flights, specific aircraft types for these operations are unpredictable. Therefore, the aircraft emissions associated with these operations cannot be quantified at this time. However, as compared to the Proposed Action, the No Action Alternative would result in higher emissions due to the forecast increase in ferry flights and due to continued congestion and operational inefficiencies, including increased emissions from aircraft taxiing, idling, and repositioning.

Proposed Action and Other Action Alternative Configurations

When comparing the Proposed Action or its action alternatives to the No Action Alternative, new facilities at the Signature East and Signature South sites would provide additional aircraft parking that would alleviate the need for ferry flights. Based on the projected ferry flight analysis and aviation activity forecast (see Appendix A), the Proposed Action would result in approximately 2.6 percent fewer total Airport operations and 3.4 percent fewer Signature Aviation operations compared to the No Action Alternative. Accordingly, the Proposed Action, or its action alternatives, would reduce emissions associated with ferry flights relative to the No Action Alternative. The Proposed Action and its action alternatives would also improve aircraft parking availability, reducing congestion and associated emissions from aircraft taxiing, idling, and repositioning compared to the No Action Alternative. Although the new terminal facilities may result in minor increases in emissions from stationary sources (for example, space heaters, water heaters, or emergency generators), these sources are not anticipated to produce emissions of a magnitude that would offset the reductions in aircraft emissions. Vehicular emissions associated with employee and customer trips would remain consistent with the No Action Alternative, except there would be an increase in shuttle trips between off-site parking and Signature South. However, the increase in vehicular emissions associated with additional shuttle trips is not expected to offset the reductions in aircraft emissions. Further, the operational emissions associated with the Proposed Action or its alternatives are not anticipated to result in significant air quality impacts when considered in conjunction with the Future Projects. Therefore, emissions associated with the Proposed Action, or its action alternatives, would be below *de minimis* thresholds and not result in significant impacts.

4.4 BIOLOGICAL RESOURCES

This section sets forth the regulatory setting, existing conditions, and environmental consequences of project implementation on biological resources (vegetation, wildlife, special status species, and protected habitat) in the Direct Study Area.

4.4.1 REGULATORY SETTING

Federal laws on biological resources with potential applicability to the Proposed Action and other action alternatives are listed in **Appendix G**, some of which grant individual states the authority to create their own related policies and/or regulations, which are also listed in Appendix G. Federal and state agencies that have regulatory authority over biological resources in the Direct Study Area include the US Fish and Wildlife Service (USFWS) and the New Jersey Department of Environmental Protection (NJDEP).

4.4.2 AFFECTED ENVIRONMENT

4.4.2.1 VEGETATION

A Habitat Assessment of the Direct Study Area was conducted in 2023 and identified various types of wetlands, mowed turf, and grass areas that support several habitat types. Additional details as to the types and extent of the wetlands for the Direct Study Area are provided in Section 4.8.2.1. The nonvegetative portions of the Direct Study Area include previously disturbed Airport areas. A small, mature hardwood woodlot habitat is also located directly adjacent to the Signature South Direct Study Area.

4.4.2.2 FEDERALLY LISTED SPECIES AND HABITAT

The USFWS Information for Planning and Consultation (IPaC) Resource System was used to assess the potential presence of Federally endangered or threatened species within or around the Direct Study Area. The IPaC System indicates the potential presence of two Federally listed endangered, threatened, or candidate species in the Direct Study Area (see **Appendix H**). The listed species are shown in **Table 4-4**.

TABLE 4-4 FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES

SPECIES NAME	FEDERAL STATUS	HABITAT DESCRIPTION/ CHARACTERISTICS	HABITAT PRESENT IN DIRECT STUDY AREA
Tricolored Bat (*Perimyotis subflavus*)[1]	Proposed Endangered	Forested habitats with live or recently dead deciduous hardwood trees or in caves during the winter.[2]	No
Monarch Butterfly (*Danaus plexippus*)	Proposed Threatened	Open areas with flowering plants for feeding and milkweed for breeding.[3]	No

NOTES:
1 The 2023 Habitat Assessment included a Phase I survey to evaluate the presence or potential for suitable habitat for the tricolored bat. The survey concluded that no such habitat exists within the surveyed portions of the Direct Study Area. This survey is available in Appendix H.
2 US Department of the Interior, Fish and Wildlife Service, Tricolored bat (*Perimyotis subflavus*), https://ecos.fws.gov/ecp/species/10515#conservationPlans (accessed December 17, 2025).
3 US Department of Agriculture, US Forest Service, Habitat Needs, https://www.fs.usda.gov/wildflowers/pollinators/Monarch_Butterfly/habitat/index.shtml (accessed December 17, 2025).
SOURCE: US Department of the Interior, Fish and Wildlife Service, Information for Planning and Consultation, February 2026.

4.4.2.3 STATE LISTED SPECIES AND HABITAT

Via a letter provided on June 9, 2023, the New Jersey Department of Environmental Protection Office of Natural Lands Management identified occurrences of rare species or wildlife habitat in the Direct Study Area, as summarized in **Table 4-5**.[56] The NJDEP NJ-GeoWeb database[57] was also reviewed for documented wildlife locations to delineate imperiled and special concern species habitat.

4.4.2.4 ESSENTIAL FISH HABITAT

The potential presence of Essential Fish Habitat (EFH) in the Direct Study Area was assessed using the National Oceanic and Atmospheric Administration (NOAA) EFH Mapper. The EFH Mapper did not identify any Habitat Areas of Particular Concern (HAPC) or EFH Areas Protected from Fishing within the Direct Study Area. However, the EFH Mapper indicated EFH in the aquatic portion of the Direct Study Area. It should be noted that the NOAA EFH Mapper is not definitive for particular locations; location specific EFH evaluations must be performed by a regional expert. Via a letter provided on November 7, 2022, NOAA indicated that the project area does not include aquatic resources under the jurisdiction of National Marine Fisheries Service, and therefore, no consultation with NOAA is required.

TABLE 4-5 STATE LISTED SPECIES OR HABITAT IN THE DIRECT STUDY AREA OR GENERAL STUDY AREA

SPECIES NAME	STATE STATUS	HABITAT DESCRIPTION/ CHARACTERISTICS	SITE OF OBSERVANCE
Glossy Ibis (*Plegadis falcinellus*)[1,2]	Special Concern	Nest in saltmarsh and occasionally in freshwater wetland areas.	Direct Study Area
Snowy Egret (*Egretta thula*)[1,2]	Special Concern	Nest in saltmarsh and occasionally in freshwater wetland areas.	Direct Study Area
Bald Eagle (*Haliaeetus leucocephalus*)[2]	Special Concern	Nest in large trees near water.	General Study Area
Yellow-crowned Night-heron (*Nyctanassa violacea*)[1,2]	State Threatened	Nest in saltmarsh and occasionally in freshwater wetland areas.	Direct Study Area
Upland Sandpiper (*Bartramia longicauda*)[2]	State Endangered	Nest in grasslands—especially dry, short grasses, native prairie, or grazed areas.	General Study Area
Least Tern (*Sternula antillarum*)[2]	State Endangered	Nest in open, sandy, or gravelly areas near water.	General Study Area

NOTES:
1 As indicated in the June 9, 2023, New Jersey Department of Environmental Protection Office of Natural Lands Management letter.
2 New Jersey Department of Environmental Protection, Bureau of GIS, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d (accessed December 17, 2025).
SOURCE: Robert J. Cartica, Administrator, State of New Jersey Office of Natural Lands Management, "First Aviation Services Expansion – Signature South," letter to Emily Bjorhus, June 9, 2023; New Jersey Department of Environmental Protection, "Birds," https://dep.nj.gov/njfw/wildlife/birds/ (accessed December 17, 2025); New Jersey Department of Environmental Protection, Bureau of GIS, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d (accessed December 17, 2025).

4.4.3 ENVIRONMENTAL CONSEQUENCES

4.4.3.1 METHODOLOGY

The information gathered during the inventory of biological resources (see Section 4.4.2), and through consultation with the NJDEP, regarding the occurrence of plant and animal species and associated habitat was used to determine whether any fish, wildlife, or plant species and their associated habitats exist within the Direct Study Area. The locations and extents of the Proposed Action components and construction activities were compared to the suitable habitat for species of concern to assess potential impacts to biological resources, including vegetation, wildlife, and associated habitat.

4.4.3.2 SIGNIFICANCE THRESHOLDS

As identified in FAA Order 1050.1G, a significant impact to biological resources would occur when the USFWS or the NMFS determines that the action would be likely to jeopardize the continued existence of a Federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat. The FAA has not established a significance threshold for non-listed species. However, per FAA Order 1050.1G, the FAA has identified factors to consider in evaluating the context and intensity of potential environmental impacts for biological resources. These factors include whether an action would have the potential for:

- a long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport);
- adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or populations; or
- adverse impacts on a species' reproductive success rates, natural mortality rates, nonnatural mortality (e.g., road kills and hunting), or ability to sustain minimum population levels required for population maintenance.

4.4.3.3 CONSTRUCTION IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action, or its action alternatives, would occur. Therefore, no species or habitat, protected or otherwise, would be adversely affected, lost, or relocated. Impacts to fish, wildlife, or plants and their associated habitats would not occur under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

Construction of the Proposed Action or its action alternatives would result in up to approximately 22 acres of disturbance. Construction of the largest configuration for Signature East (Alternative 5 Configuration 2) would result in disturbance of approximately 7.4 acres, while the Proposed Action (Alternative 5 Configuration 5) would disturb approximately 5.8 acres. Similarly, construction of the largest configuration for Signature South (Alternative 6 Configuration 2) would result in disturbance of approximately 15 acres, while the Proposed Action (Alternative 6 Configuration 6) would disturb approximately 9.6 acres.

Construction activities include site preparation activities, such as clearing and grading, filling of wetlands (see Section 4.8), and construction of the hangars, apron pavement, and ancillary facilities. As discussed in Section 4.4.2.2, two federally listed or proposed species, the tricolored bat and the monarch butterfly, have the potential to occur in the Direct Study Area. The USFWS does not identify any critical habitat for protected species within the Direct Study Area. While suitable tricolored bat habitat is present in the Direct Study Area, the USFWS has indicated in their June 27, 2024, coordination letter that these areas do not appear to be preferred tricolored bat habitat (see **Appendix H**). In the same letter, the USFWS has indicated that the Proposed Action is not likely to jeopardize the continued existence of the tricolored bat and ESA Section 7(a)(4) conference is not required.

To ensure the Proposed Action would not likely adversely affect the tricolored bat, conservation measures recommended by the USFWS for the tricolored bat would be implemented.[58] Conservation measures would include, at a minimum, avoiding any cutting or other means of knocking down, bringing down, or trimming of trees that contain suitable/potential tricolored bat roosting substrate during the pup season from May 15 to July 31. If tree clearing is required during pup season, additional coordination with the USFWS will be performed to evaluate potential effects. To avoid potential effects to other bat species, removal of suitable roost trees including snags (dead trees), shagbark hickories (*Carya ovata*), other trees with shaggy or exfoliating bark, and trees of any species over 3 inches diameter at breast height (dbh) will be avoided to the extent feasible between April 1 and September 30. If tree clearing is required during this timeframe, a pre-construction survey will be conducted to check for usage before removal.

While the 2023 habitat assessment did not identify suitable habitat for the monarch butterfly due to the absence of host plants in the Direct Study Area, Signature and the Port Authority would conduct a habitat survey prior to clearing of any vegetation to identify whether suitable monarch butterfly habitat would be affected and avoid disturbance of any suitable monarch butterfly habitat between May 1 and September 30, to the extent feasible and practicable. Signature and the Port Authority will coordinate the survey plan with USFWS prior to implementation. With the implementation of recommended conservation measures, the Proposed Action or its action alternatives would not be likely to adversely affect these species.

As discussed in Section 4.4.2.3, three state-listed species, the glossy ibis, snowy egret, and yellow-crowned night-heron, have been documented within the Direct Study Area, General Study Area, and one mile of the Direct Study Area. However, due to the disturbed nature of the Airport, the Direct Study Area does not provide suitable habitat to support foraging, breeding, or nesting for these species. Recent site surveys (see Appendix H) confirmed that habitat suitable for these species is absent within and adjacent to the Direct Study Area. As a result, neither the Proposed Action nor its action alternatives would have significant impacts on these species.

The Proposed Action and its alternatives would not affect avian species protected under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act due to the developed nature of the Direct Study Area, which primarily consists of maintained vegetation, disturbed habitat, and pavement. Trees and vegetated areas are routinely trimmed or mowed in accordance with the Airport's Wildlife Hazard Management Plan to minimize wildlife attractants. There are no Bald Eagles (*Haliaeetus leucocephalus*) or their nests present within the Direct Study Area or within Airport property.[59] To ensure no effects to protected avian species, Signature and the Port Authority will avoid vegetation removal activities when nests, eggs, and chicks may be present, generally March 1 through September 15 depending on species. If work must occur during this period, Signature will conduct a pre-construction survey within five days prior to construction and will avoid harmful work if any nests, eggs, or chicks are present. Signature will also give any native migratory birds present the opportunity to leave before work begins.

Overall, construction associated with the Proposed Action, or its action alternatives would be confined to the Direct Study Area and temporary in nature. Although some vegetated and wetland areas would be filled (see Section 4.8.3), these areas have been previously disturbed and do not contain preferred habitat for the tricolored bat or suitable habitat for the monarch butterfly. The USFWS also does not identify any critical habitat for protected species within the Direct Study Area. Further, the Proposed Action or its alternatives are not anticipated to result in significant impacts to biological resources during construction when considered in conjunction with the Future Projects, because these projects are located in upland areas that are previously developed or disturbed and without protected species habitat. Accordingly, construction of the Proposed Action or the other action alternative configurations would not result in significant impacts on biological resources.

4.4.3.4 OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, operations would not change beyond anticipated increases in aviation activity over time. None of the improvements associated with the Proposed Action or its action alternatives would occur under the No Action Alternative, and the nature of operations at the Airport would continue as under existing conditions. Therefore, no significant impacts related to biological resources would occur under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

The Proposed Action or its action alternatives would accommodate existing and forecast aircraft activity. No additional disturbance of habitat would occur during operation of the Proposed Action or its action alternatives. Operation of the Proposed Action or its action alternatives would not disturb protected or special status species; result in loss, degradation, or fragmentation of habitats; or adversely affect any species' population. Further, operation of the Future Projects is not anticipated to impact protected species. As such, the operation of the Proposed Action or its action alternatives would not result in significant impacts to biological resources compared to the No Action Alternative.

4.5 COASTAL RESOURCES

This section sets forth the regulatory setting, existing conditions, and environmental consequences of project implementation on coastal resources in the General Study Area.

4.5.1 REGULATORY SETTING

The Coastal Zone Management Act (CZMA) of 1972, 16 U.S.C. §§ 1451-1466, is the Federal law that provides for the management of US coastal resources. If a proposed action or its viable action alternative(s) has the potential for impacts within a coastal zone, the Federal agency must initiate consultation with the relevant state agency to ensure that the proposed action and viable action alternative(s) are consistent with the state's coastal zone management program.

The National Coastal Zone Management Program (NCZMP) includes the New Jersey Coastal Management Program (NJCMP) which is authorized by the CZMA to manage coastal resources in the State of New Jersey. The NJCMP is comprised of various offices within the NJDEP that support coastal resources and ecosystems; the Wetlands Act of 1970 authorizes the NJDEP to regulate activities on coastal wetlands that have been delineated and mapped by the NJDEP. Enforceable statutes under the CZMA are identified in Appendix G.

Pursuant to a 2005 Memorandum of Agreement (MOA) between the NJDEP and the NJSEA, projects in the Hackensack Meadowlands District typically receive concurrence with the NJCMP through the issuance of a zoning certificate from the NJSEA (see **Appendix I**). However, Section 19:4-5.66 of the Hackensack Meadowlands District zoning regulations specifies that any land acquired by the Port Authority and subject to NJSEA's jurisdiction, per N.J.S.A. 32:1-1 et seq., is exempt from these regulations. The Airport is owned and operated by the Port Authority and, therefore, is exempt from NJSEA regulations. Consequently, under the MOA, the NJDEP is responsible for conducting the coastal consistency determination review of the Proposed Action and its action alternatives. However, within the Hackensack Meadowlands District, NJDEP's regulatory authority under the CZMA rules is limited to activities occurring below the mean high water line.

4.5.2 AFFECTED ENVIRONMENT

Pursuant to the CZMA, a proposed action must be consistent with the state's coastal zone management program. New Jersey's coastal zone boundary includes coastal areas defined in the CAFRA, the New Jersey Meadowlands District (limits defined by N.J.S.A. 13:17-4), and the tidal limits of all coastal waters.[60] The Airport, including the Direct Study Area, is located in the coastal zone boundary of the Meadowlands District. The NJDEP is responsible for providing the coastal consistency determination review for the Proposed Action and its action alternatives if activities occur below the mean high water line. Permits are also reviewed under the CAFRA, N.J.S.A. 13:19-1 et seq. (CAFRA permits), the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq. (coastal wetlands permits), and the Waterfront Development Law, N.J.S.A. 12:5-3 (waterfront development permits).[61]

4.5.3 ENVIRONMENTAL CONSEQUENCES

4.5.3.1 METHODOLOGY

The CZMA requires the effective management, beneficial use, protection, and development of the coastal zone, and requires the preparation of coastal consistency determinations for proposed developments within the coastal zone to ensure consistency with the policies of the state's approved Coastal Zone Management Program, as administered by NJDEP. Three categories of federal projects are subject to federal coastal consistency reviews: (1) Federal agency activities, (2) Federal licenses, permits, and other regulatory approvals, and (3) Federal financial assistance to state and local governments. Because the Proposed Action, or its action alternatives, requires federal approvals from the FAA and USACE, a coastal consistency determination through NJDEP is required to ensure that the development is consistent with the enforceable policies established under the NJCMP.

As discussed in Section 4.5.2, the Direct Study Area is located within the New Jersey Meadowlands District, which lies within New Jersey's designated coastal zone. Projects within this District typically obtain federal coastal consistency through New Jersey's enforceable policies via issuance of a zoning certificate by the NJSEA, as outlined in the 2005 MOA between NJDEP and NJSEA. However, as previously noted, lands acquired by the Port Authority, including the Airport, are exempt from NJSEA project review. In accordance with the 2005 MOA, NJDEP retains authority to conduct the federal consistency determination review for projects on Port Authority lands. NJDEP confirmed via email dated August 5, 2026, that neither the Proposed Action nor its action alternatives proposes work below the mean high water line; thus, no coastal permit is required under the New Jersey Coastal Zone Management rules, and the Proposed Action and its action alternatives are presumed consistent with the NJCMP (see **Appendix L**).

4.5.3.2 SIGNIFICANCE THRESHOLDS

The FAA has not established a significance threshold for coastal resources; however, the FAA has identified factors to consider when evaluating the context and intensity of potential environmental impacts on coastal resources. These factors include situations in which the proposed action or alternative(s) would have the potential to be inconsistent with the relevant state coastal zone management plan(s); cause an unacceptable risk to human safety or property; or cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.[62,63]

4.5.3.3 CONSTRUCTION AND OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action, or its action alternatives, would occur, and operations would not change beyond anticipated increases in aviation activity over time. Therefore, no significant impacts related to coastal resources would occur under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

The Direct Study Area is located outside of tidally influenced areas; therefore, potential coastal impacts would be limited in both context and intensity. Construction would occur within wetlands surrounded by previously disturbed and developed land, with the use of mechanized equipment confined to the Direct Study Area. Accordingly, construction-related effects would be localized and temporary. Construction of the Proposed Action, or its action alternatives, would be consistent with the enforceable policies of the New Jersey Meadowlands District under the NJCMP and would meet applicable federal coastal consistency requirements. The Proposed Action would not affect coastal resources, as no coastal barrier resource systems or coral reef ecosystems are present within or near the Airport; therefore, no impacts to either would occur. Potential flood control impacts associated with construction are discussed in Section 4.8.3.

Operation of the Proposed Action, or its action alternatives, would be consistent with existing Airport operations and would comply with the New Jersey Meadowlands District regulations. Accordingly, no significant operational impacts on coastal resources are anticipated, and operations would remain consistent with the enforceable policies of the New Jersey Meadowlands District under the NJCMP. NJDEP has confirmed that the Proposed Action meets the federal consistency requirements for the NJCMP. The Future Projects would also be implemented consistent with the enforceable policies of the New Jersey Meadowlands District under the NJCMP. Therefore, the Proposed Action or its alternatives would not impact coastal resources during construction or operation when considered in conjunction with the Future Projects included in this EA.

4.6 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

This section sets forth the existing conditions and environmental consequences of project implementation on hazardous materials, solid waste, and pollution prevention in the General Study Area.

4.6.1 REGULATORY SETTING

Several Federal and state agencies have regulatory authority over hazardous materials, solid waste, and pollution prevention within the General Study Area: the US Department of Transportation (USDOT), the USEPA, the US Department of Labor Occupational Safety and Health Administration (OSHA), and the NJDEP. Federal laws on hazardous materials, solid waste, and pollution prevention with potential applicability[64] to the Proposed Action and its action alternatives are listed in Appendix G.

Pursuant to delegation from the USEPA, at the state level, NJDEP is primarily responsible for ensuring Federal hazardous materials regulations are enforced and upheld, as well as administering the industrial stormwater permitting program

(see Section 4.6.2.3). Federal regulations have been incorporated into state-level regulations, which are meant to ensure proper enforcement of Federal regulations. State laws and regulations with potential applicability to the Proposed Action are also listed in Appendix G.

4.6.2 AFFECTED ENVIRONMENT

4.6.2.1 HAZARDOUS MATERIALS

The types, characteristics, and occurrences of hazardous materials and other regulated substances at the Airport are typical of small metropolitan airports that offer general aviation services. The substances that are used in large quantities at the Airport that are classifiable as hazardous materials include aviation and motor vehicle (diesel) fuels. Other, smaller amounts of petroleum products (for example, lubricants and solvents), waste materials (for example, used oils, filters, cleaning residues, and spent batteries), and chemicals (for example, herbicides, fertilizers, paints, firefighting foam, and deicing fluids) are stored in various locations throughout TEB. The Port Authority makes every reasonable effort, through routine inspections and regular communication, to ensure that tenants are aware of and comply with the appropriate Spill Prevention Control and Countermeasures (SPCC) regulations, as applicable.

In 2016, a Phase 1 Environmental Site Assessment (Phase 1 ESA) was conducted to evaluate the presence of existing or potential environmental conditions within the General Study Area. The Phase 1 ESA included general reconnaissance; interviews with key personnel; a review of historical resources; and a review of regulatory agency records and regulatory database reports provided by third-party vendors.[65] Within the General Study Area, the Phase 1 ESA identified two sites on the State Hazardous Waste Sites (SHWS) database: the Jet Aviation Tarmac (NJDEP Program Interest [PI] Number 590869) and Civilian One Jets (NJDEP PI Number 558658). The Phase 1 ESA also identified one Leaking Underground Storage Tank (LUST) Site from an unnamed occupant of 113 Charles A. Lindbergh Drive (Spill Number 11-07-14-0923-14).

In September 2020, a memorandum was prepared to determine if any changes had occurred within the General Study Area in the years since the 2016 Phase 1 ESA was completed. Based on new database searches, the 2020 memorandum reported that no new spills or incidents since 2016 pose an environmental impact risk within the General Study Area. The two SHWS sites identified in the 2016 Phase 1 ESA are no longer active and have been marked as closed.[66] In October 2023, an updated memorandum was compiled which also reported no impact risk to the General Study Area.[67]

Data from the USEPA's RCRAInfo Search identified 30 generators of hazardous waste within the General Study Area.[68,69] However, no SHWS or generators of hazardous waste are located within the Direct Study Area.

4.6.2.2 SOLID WASTE

Solid waste at the Airport includes residual trash or garbage generated by tenants, passengers, and staff. The types and quantity of solid waste generated at TEB include materials typical of construction projects and operations at airports, including, but not limited to, demolition waste and debris, Airport facilities operations waste, and passenger operations waste. Waste from the Airport is transferred to one of the five transfer stations in Bergen County and surrounding areas, based on space availability and the type and quantity of waste generated, determined on a case-by-case basis.[70] Waste at each transfer station is sorted and consolidated before being transported to one of the Bergen County Utilities Authority–designated disposal facilities.[71] According to the most recent Bergen County District Solid Waste Management Plan, as amended, Bergen County is anticipated to have an in-county disposal capacity of approximately 1,400,000 tons per year for the next 10 years.[72]

4.6.2.3 POLLUTION PREVENTION

Pollution prevention measures are required by Federal, state, and local statutes and regulations. The NPDES is a Federal program established under the Clean Water Act to regulate the discharge of pollutants from point sources into US waters. In New Jersey, this program is implemented at the state level through the NJPDES, which is administered by the NJDEP

under authority delegated by the USEPA. While the NPDES sets the national regulatory framework, the NJPDES serves as the state-specific mechanism for permitting and enforcement, ensuring compliance with both Federal and state water quality standards. The Airport operates under NJPDES permit No. NJG190152, which requires the development and implementation of a Stormwater Management Plan (SWMP). The SWMP addresses the prevention of pollutants in stormwater discharges that are associated with activities classified as industrial and occur at the Airport, such as maintenance and fuel storage. Within the General Study Area, Airport service vehicle operations and maintenance activities have the potential to contribute pollutants to stormwater runoff. Any construction activity involving land disturbance greater than 1 acre would be required to develop a project-specific Stormwater Pollution Prevention Plan (SWPPP). Furthermore, the Port Authority's Best Management Practices (BMPs) require that facilities with chemical bulk storage areas and/or petroleum comply with all Federal and state regulations. Signature Aviation has an SPCC Plan for facilities at TEB that includes requirements for reporting unintended release and spill prevention and clean up measures.[73] Facilities at the Airport are also currently managed in accordance with FAA AC 150/5210-22, Section 139.321,[74] which requires protecting persons and property during the storing, dispensing, and handling of fuel and other hazardous substances and materials.

4.6.3 ENVIRONMENTAL CONSEQUENCES

4.6.3.1 METHODOLOGY

The Proposed Action, its action alternatives, and the No Action Alternative were evaluated for the potential to result in impacts associated with the generation, use, and/or disposal of hazardous materials and municipal solid waste. Measures to prevent pollution were also identified.

To analyze the potential impact of hazardous materials, existing conditions and proposed uses within the General Study Area were evaluated. On-Airport hazardous waste sites, including findings from the Phase I ESA, were compared to development areas associated with the Proposed Action to identify the potential to encounter contaminated soil or hazardous materials during proposed construction activities. Operational activities involving the use, storage, and handling of chemicals were also reviewed to assess spill or release potential. The evaluation also considers safeguards and pollution prevention measures (see Section 4.8.3) to avoid or minimize contamination and other environmental impacts during construction and operation of the Proposed Action.

The Proposed Action, its action alternatives, and the No Action Alternative were also evaluated for the potential to generate solid waste during both construction and operation. Construction-related solid waste, including demolition debris, was assessed based on the type and extent of construction activities anticipated under the Proposed Action. The operational solid waste analysis focused on potential changes associated with aircraft activity and stationary sources. The analysis considered the quantity and type of solid waste that would be generated, transported, and disposed of as a result of implementation of the Proposed Action, its action alternatives, or the No Action Alternative. Solid waste generated under implementation of the Proposed Action, and its action alternatives, is compared to regional disposal capacity and is also assessed comparatively to the No Action Alternative.

4.6.3.2 SIGNIFICANCE THRESHOLDS

The FAA has not established significance thresholds for hazardous materials, solid waste, or pollution prevention. However, FAA Order 1050.1G identifies factors to consider when evaluating the context and intensity of potential environmental impacts for hazardous materials, solid waste, or pollution prevention. To identify the potential for impacts, the Proposed Action, its action alternatives, and the No Action Alternative were reviewed to determine whether any would:

- violate applicable Federal, State, Tribal, or local laws and regulations regarding hazardous materials and solid waste management;
- involve a contaminated site (including, but not limited to, a site listed on the NPL);[75]

- produce an appreciably different quantity or type of hazardous waste;
- generate an appreciably different quantity or type of solid waste;
- use a different method of waste collection, treatment, storage, or disposal that, as an action, would adversely impact the site, surroundings, or affected community, and/or would exceed extant state, Tribal, or local capacity; or
- adversely affect human health and the environment (through activities described in the action and their fidelity with Federal, state, Tribal, or local laws or regulations regarding hazardous materials and/or solid waste management).

4.6.3.3 CONSTRUCTION IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action, or its action alternatives, would occur. Therefore, the No Action Alternative would not result in a construction-related impact involving pollution, hazardous materials, or solid waste.

Proposed Action and Other Action Alternative Configurations

Construction of the Proposed Action, or its action alternatives, would not interfere with any ongoing remediation projects in the Direct Study Area; additionally, remediation work is not expected to be necessary for the construction of the Proposed Action. Construction would include the use of various hazardous materials (i.e., fuel, waste oil, solvents, paint, and other hydrocarbon-based products) in quantities that are typical in the construction industry. All hazardous materials utilized during the construction process would be stored, labeled, and disposed of in accordance with Federal, State, and local regulations, including the PANYNJ *Airport Solid Waste Management and Recycling Standards and Guidelines*[76] and the *Bergen County District Solid Waste Management Plan.*[77]

There are thirty RCRA facilities in the General Study Area; however, no facilities are present within or adjacent to the Direct Study Area. Additionally, the Phase 1 ESA indicated that no hazardous materials, substances, or environmental conditions of concern were present within the Direct Study Area. Therefore, the potential to encounter hazardous materials during construction of the Proposed Action, or its action alternatives, is unlikely.

Construction of the Proposed Action, or its action alternatives, would not produce an appreciably different quantity or type of solid waste that would exceed local capacity. Solid waste generated during construction resulting from excavation, clearing, and grading would be disposed of in accordance with all applicable Federal, State, and local laws and regulations. Adherence to the project-specific SWPPP and implementation of USEPA minimum control measures (MCMs) and standard BMPs during construction would ensure discharges of pollutants to a receiving water body by surface water runoff would be minimized and not be expected to exceed applicable water quality standards or contaminate the public drinking water supply. Construction of the Proposed Action, or its action alternatives, is not anticipated to have significant impacts to hazardous materials, solid waste, and pollution prevention in comparison with the No Action Alternative.

4.6.3.4 OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, Airport operations would be consistent with existing conditions. The No Action Alternative would not affect the types or quantities of hazardous materials currently used or solid waste currently generated at the Airport beyond that associated with anticipated increases in aviation activity. The Airport would continue implementation of all applicable pollution prevention measures required by federal, state, and local regulations, including the USEPA's MCMs. The current SWMP manages stormwater discharge associated with existing Airport-specific industrial activities, such as fuel storage and maintenance. Therefore, operations under the No Action Alternative would not result in a significant impact involving pollution, hazardous materials, or solid waste.

Proposed Action and Other Action Alternative Configurations

The Proposed Action, or its action alternatives, would not appreciably affect the types or quantities of hazardous materials and solid waste currently used at the Airport beyond those associated with estimated increases in future aviation activity. Solid and hazardous waste from these additional operations would continue to be recycled, managed, and disposed of in the same manner as under the No Action Alternative in accordance with applicable federal, state, and local requirements and existing pollution prevention systems and management procedures. Consistent with existing operations, Signature would continue to hire private waste management contractors to dispose of solid waste and recyclables generated from operations. Signature's recyclables would be recycled in accordance with PANYNJ's Sustainable Design Guidelines. The existing transfer stations and Bergen County Utilities Authority disposal facilities within the vicinity of the Airport have the capacity to accommodate additional waste from operations of the Proposed Action (see Section 4.6.2.2). As such, operation of the Proposed Action, or its action alternatives, is not anticipated to have significant impacts to operations-related hazardous materials or solid waste in comparison with the No Action Alternative.

Neither the Proposed Action nor its action alternatives would include a fuel farm or new above ground fuel storage tanks. The Proposed Signature South facility would use the existing Signature South fuel farm located immediately adjacent to the Signature South Direct Study Area. The Proposed Signature East facility would use the existing Signature East fuel farm located on Malcolm Avenue. Deicing activities would occur on the apron, consistent with existing deicing activities at both Signature East and Signature South. Operation of the Proposed Action or its action alternatives would follow the existing Signature Flight Support SPCC Plan. As such, no significant impacts from hazardous materials or solid waste, or related to pollution prevention are anticipated as a result of the Proposed Action or its action alternatives when compared to the No Action Alternative. Further, the Future Projects included in this EA would be implemented in accordance with all applicable federal, state, and local laws and regulations governing hazardous materials. Therefore, the Proposed Action or its action alternatives would not result in impacts related to hazardous materials, solid waste, or pollution prevention when considered in conjunction with the Future Projects included in this EA.

4.7 NOISE AND NOISE-COMPATIBLE LAND USE

This section sets forth the existing conditions and environmental consequences of project implementation on noise and noise-compatible land use. Noise levels are measured using a variety of scientific metrics. Through extensive research into the characteristics of noise and human response to that noise, standard noise descriptors have been developed for noise exposure analyses. Noise descriptors referenced in this EA are described below. All noise levels provided in this analysis are for outdoor conditions, unless otherwise stated specifically to be interior noise levels.

- **A-Weighted Sound Pressure Level (dBA).** The decibel (dB) is a unit used to describe sound pressure level. A-weighting filters out very low- and very high-frequency sounds outside the range of human hearing, so measured levels approximate the ear's sensitivity to different frequencies.
- **Day-Night Average Sound Level (DNL).** DNL is a 24-hour average of hourly sound levels, expressed in dBA, with a 10 dBA penalty applied to nighttime events (10:00 p.m. to 7:00 a.m.) to reflect heightened sensitivity during those hours. Introduced by USEPA in 1976, DNL has been adopted by the FAA under 14 CFR Part 150, Airport Noise Compatibility Planning, and by various federal agencies as the standard metric for cumulative community noise exposure. DNL is based on annual-average daily operations, so noise exposure on a particular day near an airport may be higher or lower than the annual average.[78]

4.7.1 REGULATORY SETTING

The analysis of the local development of airport plans, noise compatibility policies, and the development of plans are regulated by FAA laws and regulations, including the Aviation Safety and Noise Abatement Act of 1979 (Title 49 U.S.C. 47501 et seq.), and the Airport and Airway Improvement Act of 1982 (49 U.S.C. 47101 et seq.). FAA Order 1050.1G provides

the FAA's policies and procedures to ensure agency compliance with NEPA. Appendix C of FAA Order 1050.1G contains the FAA requirements for Noise and Noise-Compatible Land Use.

4.7.2 AFFECTED ENVIRONMENT

The noise setting within the General Study Area is dominated by transportation facilities. Areas at and around the Airport are influenced by aircraft operations (takeoffs and landings) and roadway noise from vehicles traveling on Route 46 (to the north) and Route 17 (to the west). The most recent noise contours for the Airport were developed as part of the 2017 Final Noise Exposure Map Report for Teterboro Airport prepared under 14 CFR Part 150, which analyzed existing operations in 2016 and forecast operations for 2021 (see **Exhibit 4-2**).[79] As shown, the DNL 65 dBA contour extends off Airport property into various commercial land use areas north and south of TEB, as well as limited residential areas to the southwest and southeast. As noted in the Part 150 Study, approximately 196 dwelling units and 4 noise-sensitive sites are within the 65 dBA contour. However, no noise-sensitive areas are within the General Study Area, and land use within the General Study Area is compatible with this level of noise exposure.

4.7.3 ENVIRONMENTAL CONSEQUENCES

4.7.3.1 METHODOLOGY

A detailed aircraft noise analysis may be necessary when development actions may change the cumulative noise exposure of individuals to aircraft noise in areas surrounding an airport. Airport development may change the cumulative noise environment through actions that change runway configuration, or otherwise affect the number of aircraft operations, aircraft movement, aircraft types using the airport, or aircraft departure and arrival tracks and profiles. The Proposed Action or its action alternatives would not cause an increase in the number of aircraft operations, or change the type of aircraft activity or air traffic routes as compared to the No Action Alternative. As such, a detailed aircraft noise analysis is not necessary for a comparison of the Proposed Action or its action alternatives to the No Action Alternative.

4.7.3.2 SIGNIFICANCE THRESHOLDS

In accordance with FAA Order 1050.1G, a proposed action would be considered to have a significant impact regarding aviation noise, when compared to the no action alternative for the same timeframe, if it would:

- cause noise-sensitive areas exposed to noise at or above the DNL 65 dBA to experience an increase of at least DNL 1.5 dBA, or
- cause an increase of DNL 1.5 dBA that introduces new noise-sensitive areas to DNL 65 dBA or more.

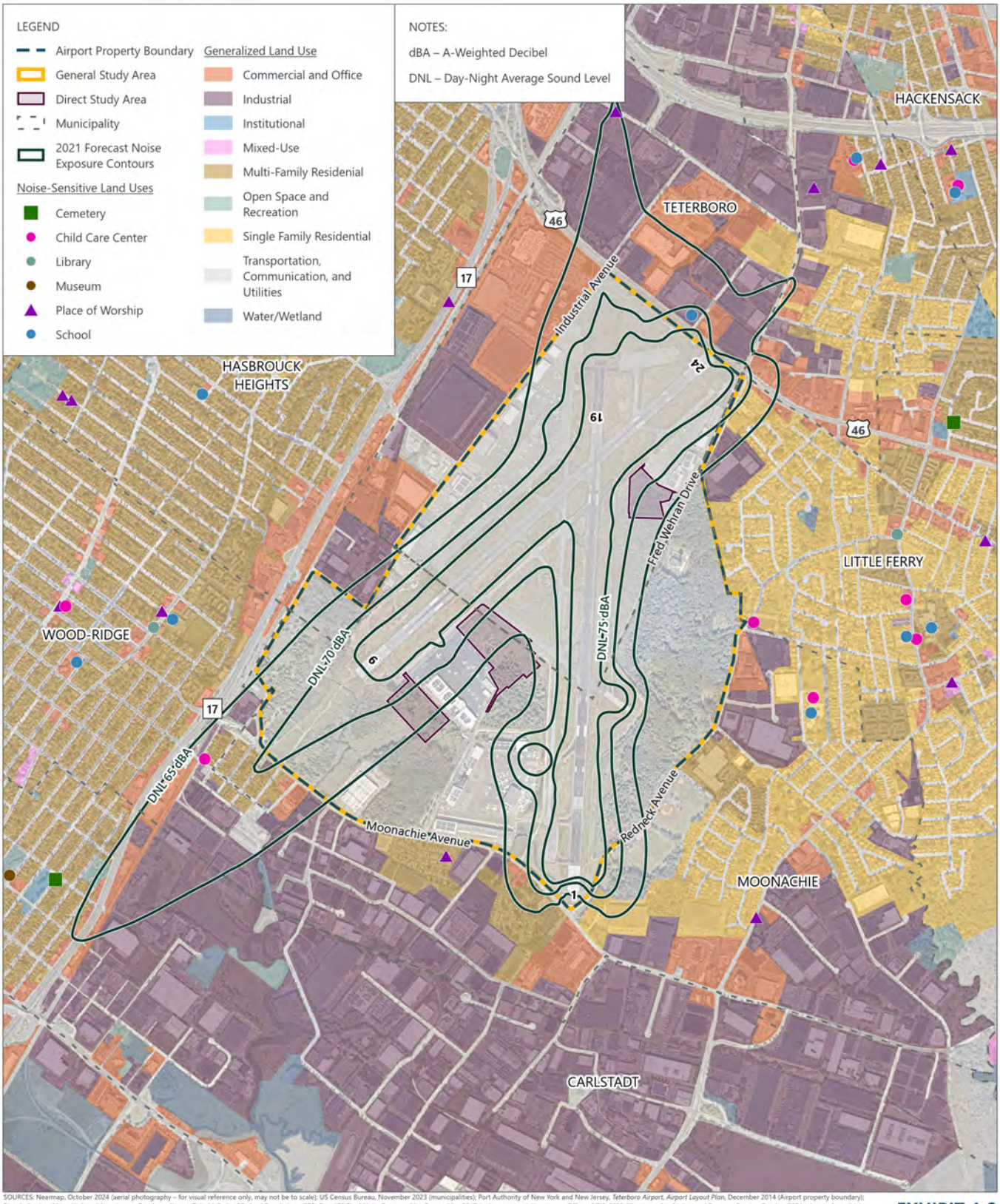
4.7.3.3 CONSTRUCTION IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action or its action alternatives would occur. Therefore, there would be no significant construction-related noise or noise-compatible land use impacts under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

Construction of the Proposed Action or its action alternatives would result in temporary increases in ambient noise levels due to the operation of construction equipment. The nearest residential properties are located approximately 700 feet east of the Signature East Direct Study Area and approximately 1,200 feet south of the Signature South Direct Study Area, both separated from the sites by densely wooded areas. Because construction activities would occur entirely on Airport property and noise-sensitive land uses are further separated by existing airfield facilities, wetlands, and wooded areas, no significant construction noise impacts are anticipated. Furthermore, temporary construction noise levels are not expected to exceed existing ambient noise levels generated by surrounding roadways, including Routes 46 and 17.



SOURCES: Nearmap, October 2024 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); Port Authority of New York and New Jersey, *Teterboro Airport, Title 14 Code of Federal Regulations (CFR) Part 150 Final Noise Exposure Map Report*, May 2017 (noise contours); New Jersey Office of GIS, 2023 (libraries, schools); Internal Revenue Service, October 2024 (places of worship); US Census Bureau, 2024 (cemeteries); New Jersey Department of Environmental Protection, December, 2024 (land use); New Jersey Office of GIS, July 2025 (child care centers); Ricondo & Associates, Inc., July 2025 (study areas, museums).

EXHIBIT 4-2

NORTH 0 2,000 ft

TEB PART 150 STUDY 2021 NOISE CONTOURS

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-2_NoiseContours_2026_0820

All on-road vehicles traveling to and from the construction site would use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors. Construction hours would also be limited to regular business hours, Monday through Friday from 7 a.m. to 5 p.m. Although no significant increase in noise levels is anticipated, all construction activities would comply with the noise control regulations outlined in N.J.A.C. 7:29. Similarly, the Future Projects included in this EA would implement comparable control measures to minimize potential construction noise. These projects are also not anticipated to occur at the same time or in the same location as the Proposed Action. Therefore, neither the Proposed Action nor its action alternatives would result in significant construction noise impacts when considered in conjunction with the Future Projects.

4.7.3.4 OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, no new facilities would be developed at the Signature East or Signature South sites and existing operational constraints, including limited apron space and insufficient aircraft parking, would persist. As overall aircraft activity at TEB increases consistent with forecast growth, aircraft parking deficits would be exacerbated under future conditions. Therefore, as discussed in Section 4.3.3.4, ferry flight operations under the No Action Alternative are forecast to increase from 4,333 operations in 2024 to 6,730 operations in 2044. The increase in ferry flight operations would contribute to increases in aircraft noise as compared to the Proposed Action.

Proposed Action and Other Action Alternative Configurations

Under the Proposed Action, or its action alternatives, new facilities at the Signature East and Signature South sites would provide additional aircraft parking that would alleviate the need for ferry flights. As discussed in Section 4.3.3.4, the Proposed Action would result in approximately 2.6 percent fewer total Airport operations and 3.4 percent fewer Signature Aviation operations compared to the No Action Alternative. Accordingly, the Proposed Action, or its action alternatives, would reduce ferry flights and associated noise impacts compared to the No Action Alternative. When compared to the No Action Alternative, approximately 30 new employees would be anticipated to travel to and from the facilities under the Proposed Action and its action alternatives. However, land uses that generate fewer than 100 peak-hour trips are classified as having an insignificant traffic impact by the NJDOT under its State Highway Access Management Code (N.J.A.C. 16:47). Therefore, the Proposed Action would not cause noise-sensitive areas exposed to noise at or above the DNL 65 dBA to experience an increase of at least DNL 1.5 dBA, or cause an increase of DNL 1.5 dBA that introduces new noise-sensitive areas to DNL 65 dBA or more. Impacts to noise would be less than significant. The Future Projects considered in this EA would not change the frequency or type of aircraft, or the landing and takeoff patterns of aircraft operating at the Airport. While the Port Authority is proposing a run-up pad in the next five years, this measure is being introduced to reduce noise impacts to surrounding noise-sensitive land uses. Therefore, neither the Proposed Action nor its action alternatives would result in operational noise impacts when considered in conjunction with the Future Projects included in this EA.

4.8 WATER RESOURCES

This section sets forth the existing conditions and environmental consequences of project implementation on water resources (wetlands, floodplains, surface waters, and groundwater) in the General Study Area. Each type of water resource has unique characteristics and functions important to the natural and social environment of a community. Although these resources are identified as separate components in this EA, they naturally integrate to create a single working watershed.

4.8.1 REGULATORY SETTING

Several Federal and state agencies have regulatory authority over water resources in the General Study Area, including the Federal Emergency Management Agency (FEMA), USACE, USDOT, USEPA, USFWS, and the NJDEP. Federal and State laws, Executive Orders, and DOT Orders on water resources with potential applicability to the Proposed Action are discussed in Appendix G.

4.8.2 AFFECTED ENVIRONMENT

4.8.2.1 WETLANDS

The affected environment for wetlands in the General Study Area was assessed through field reconnaissance as well as through the review of online data sources. The majority of the Airport that is undeveloped is composed of *Phragmites*-dominated wetlands and forested wetlands. **Table 4-6** provides wetland acreages by type according to the USFWS and the NJDEP, which are shown on **Exhibits 4-3** and **4-4**, respectively.

TABLE 4-6 USFWS AND NJDEP WETLANDS PRESENT WITHIN THE GENERAL STUDY AREA

	FRESHWATER FORESTED WETLAND/SHRUB (ACRES)[1]		FRESHWATER EMERGENT WETLAND (ACRES)[2]		MANAGED WETLAND IN MAINTAINED LAWN GREENSPACE (ACRES)		TOTAL (ACRES)	
	USFWS	NJDEP	USFWS	NJDEP	USFWS[3]	NJDEP	USFWS	NJDEP
General Study Area							293.42	276.18
Direct Study Area								
Signature East Direct Study Area	4.92	4.87	1.29	1.20	-	0.36	6.21	6.43
Signature South Direct Study Area	2.40	3.44	9.36	9.65	-	0	11.76	13.09

NOTES: USFWS – US Fish and Wildlife Service NJDEP – New Jersey Department of Environmental Protection
1 Includes NJDEP wetland categories "deciduous wooded wetlands" and "deciduous scrub/shrub wetlands"
2 Includes NJDEP wetland categories "*Phragmites* dominated interior wetlands" and "herbaceous wetlands."
3 USFWS wetland categories do not include any category similar to "managed wetland in maintained lawn greenspace."
SOURCES: New Jersey Department of Environmental Protection, NJDEP Bureau of GIS, Wetlands of New Jersey (from Land Use/Land Cover 2012 Update), 2012; US Fish and Wildlife Service, National Wetlands Inventory, accessed December 17, 2025.

Princeton Hydro performed a wetland delineation for the Direct Study Area that was provided to the USACE in June 2024. Subsequently, the USACE determined the proposed delineation contained jurisdictional waters of the United States (see **Appendix J**). Jurisdictional wetlands within the Direct Study Area[80] are shown on **Exhibit 4-5**. There are approximately 18 acres of jurisdictional wetland resources identified within the Direct Study Area, as summarized in **Table 4-7**.

The wetlands within the Direct Study Area have been degraded[81] over time due to their occurrence in a highly developed airport landscape. These wetlands, along with the Airport, are drained by ditches that convey water to the East Riser Ditch or to offsite tide gates that ultimately discharge to the tidal portion of Berrys Creek. Non-forested wetland areas are largely dominated by non-native invasive species such as common reed (*Phragmites australis*), which is not rare in the New Jersey Meadowlands. Although forested wetlands are present, those at the proposed Signature East site are relatively young compared to the more mature forest at nearby Teterboro Woods,[82] and many taller trees have been topped to maintain line of sight from the FAA air traffic control tower and to avoid penetration of critical air navigation surfaces associated with TEB runways. Forested wetlands at the proposed Signature South site are isolated and surrounded by an emergent wetland matrix dominated by *Phragmites*. Forested wetlands in the Direct Study Area at Signature East and Signature South are also fragmented patches surrounded by Airport development, including airfield infrastructure, roadways, and other aeronautical facilities, and this surrounding environment regularly generates noise that generally limits use of the wetlands by migratory birds and other wildlife.



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); US Fish and Wildlife Service, 2023 (wetlands); Ricondo & Associates, Inc., July 2025 (study areas).

NORTH 0 1,500 ft

EXHIBIT 4-3

USFWS WETLANDS IN THE GENERAL STUDY AREA

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-3_Wetlands_USFWS_2026_0925



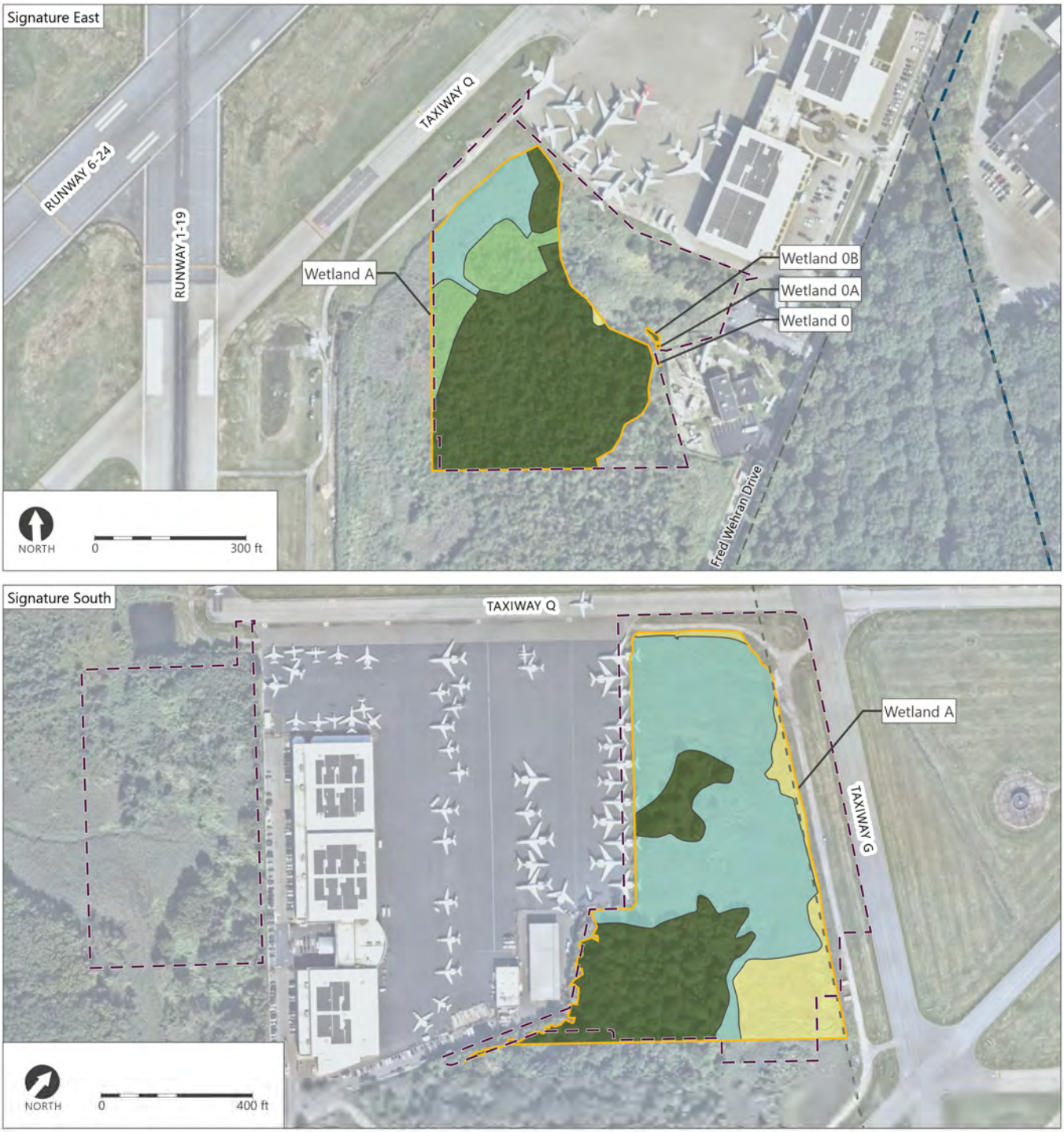
SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); New Jersey Department of Environmental Protection, 2012 (wetlands); Ricondo & Associates, Inc., July 2025 (study areas).

NORTH 0 1,500 ft

EXHIBIT 4-4

NJDEP WETLANDS IN THE GENERAL STUDY AREA

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-4_Wetlands_NJDEP_2026_0820



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); US Census Bureau, November 2023 (municipalities); Princeton Hydro, November 2024 (wetlands); Ricondo & Associates, Inc., July 2025 (study areas).

EXHIBIT 4-5

JURISDICTIONAL WETLANDS IN THE DIRECT STUDY AREA

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-5_Wetlands_USACE_JD_2026_0925

TABLE 4-7 USACE DELINEATED WETLANDS

WETLAND	WETLAND CLASSIFICATION	USACE CLASSIFICATION	ACRES
Signature East Direct Study Area			
Wetland A	Palustrine Forested Wetland	PFO1E[1]	3.18
Wetland A	Palustrine Scrub-Shrub	PSS1E[2]	1.17
Wetland A	Palustrine Emergent *(Phragmites australis)* Wetland	PEM5E[3]	0.95
Wetland A	Palustrine Emergent Persistent Wetland	PEM1E[4]	0.01
Wetland A	Palustrine Emergent Persistent Wetland (Maintained Lawn)	PEM1E[4]	0.03
Wetland 0	Palustrine Forested Wetland	PFO1E[5]	0.01
Wetland 0A	Palustrine Forested Wetland	PFO1E[5]	0.01
Wetland 0B	Palustrine Forested Wetland	PFO1E[5]	0.01
Signature South Direct Study Area			
Wetland A	Palustrine Emergent Persistent Wetland (Maintained Lawn)	PEM1Jd[6]	1.83
Wetland A	Palustrine Emergent (*Phragmites australis)* Wetland	PEM5Jd[7]	6.79
Wetland A	Palustrine Forested Wetland	PFO1J[8]	3.93
	Total		**17.92**

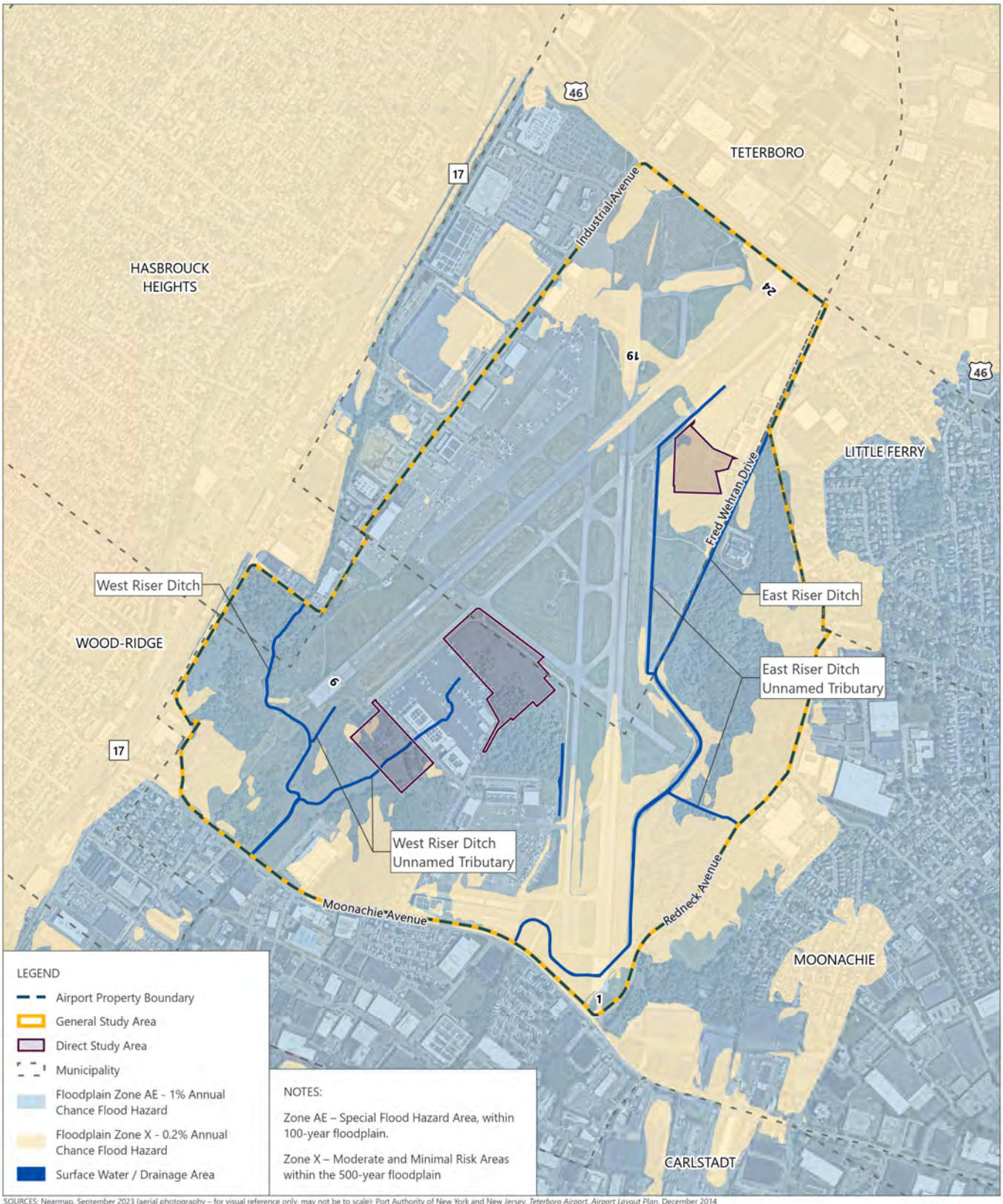
NOTES: USACE – US Army Corps of Engineers
1 PFO1E – Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated
2 PSS1E – Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded/Saturated
3 PEM5E – Palustrine, Emergent, *Phragmites australis*, Seasonally Flooded/Saturated
4 PEM1E – Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated
5 PFO1E – Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated
6 PEM1Jd – Palustrine, Emergent, Persistent, Intermittently Flooded, Partially Drained/Ditched
7 PEM5Jd – Palustrine, Emergent, *Phragmites australis*, Intermittently Flooded, Partially Drained/Ditched
8 PFO1J – Palustrine, Forested, Broad-Leaved Deciduous, Intermittently Flooded
SOURCES: US Army Corps of Engineers, *Approved Jurisdictional Determination Request NAN-2024-00049-EMI,* June 11, 2024; US Army Corps of Engineers, *Approved Jurisdictional Determination Request, NAN-2024-00175-EMI,* June 11, 2024.

4.8.2.2 FLOODPLAINS

Floodplains are relatively flat or low land areas adjoining a river, stream or watercourse which is subject to a partial or complete inundation and any area subject to the unusual and rapid accumulation of runoff of surface waters from any source. Floodplains are recognized for their natural and beneficial functions, including flood and erosion control, water quality maintenance, groundwater recharge, and biological diversity, as well as open space and recreational opportunities. FEMA developed Flood Insurance Rate Maps (FIRM) to identify floodplains within and around the Airport (see **Exhibit 4-6**). As shown in Exhibit 4-6, the majority of the General Study Area, including the Direct Study Area, lies within the FEMA 100-year tidal floodplain of the Hackensack River.

4.8.2.3 SURFACE WATERS

The Airport is located in the NJDEP Watershed Management Area 5 (HUC ID 02030103180 Hackensack River [below/incl Hirschfeld Brook]) and the Berrys Creek (above Paterson Ave) sub-watershed.[83] Surface waters present within the General Study Area include West Riser Ditch, West Riser Ditch Unnamed Tributary, East Riser Ditch, and East Riser Ditch Unnamed Tributary (see Exhibit 4-6). The West Riser Ditch Unnamed Tributary runs through the southern portion of the Signature South Direct Study Area. The East Riser Ditch and East Riser Ditch Unnamed Tributary are adjacent to the east, west, and north of the Signature East Direct Study Area. All surface waters at the Airport have been isolated from the daily tides by downstream, off-Airport tide gates.[84] Riser Ditch and a tributary of Berrys Creek provide drainage for the project area into the Hackensack River, which flows into Newark Bay. From Newark Bay, waters flow to the Raritan Bay, which drains into the Atlantic Ocean. The Hackensack River, upstream of the Airport and outside of the General Study Area, supplies surface water to several reservoirs that are used to provide public drinking water to the area.[85]



SOURCES: Nearmap, September 2023 (aerial photography – for visual reference only, may not be to scale); Port Authority of New York and New Jersey, *Teterboro Airport, Airport Layout Plan*, December 2014 (Airport property boundary); Federal Emergency Management Agency, National Flood Hazard Layer, 2024 (floodplains); USGS, 2022 (water); Ricondo & Associates, Inc., July 2025 (study areas).

EXHIBIT 4-6

FLOODPLAINS WITHIN THE GENERAL STUDY AREA

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-6_Floodplains_2026_0820

The NJDEP Surface Water Quality Standards classify all on-Airport waters as FW2-NT/SE2 (freshwater, non-trout, saline estuary). On-Airport waters are not suitable for trout but may be suitable for other fish species. As discussed in Section 4.6.2.3, the Airport complies with all requirements per the CWA and all applicable BMPs per the SWPPP.

4.8.2.4 GROUNDWATER

Teterboro Airport is located within the Berrys Creek sub-watershed, as part of the larger Hackensack, Hudson, Pascack Watershed Management Area. The Airport's groundwater resources are part of the New Brunswick Aquifer, which is composed of sandstone, siltstone, and shale of the Passaic formation. The Airport has a shallow unconfined aquifer that is at or close to the ground surface as confirmed as part of previous wetland delineations conducted at the Airport (see Section 4.8.2.1). The New Brunswick Aquifer provides potable water to various communities in Bergen County; however, there are no mapped community water supply wells with designated wellhead protection areas located within the Airport property or the General Study Area.[86]

According to the USDA Web Soil Survey, the Direct Study Area is composed of three soil types: approximately 39 percent is composed of Westbrook, Ipswich, and Sandyhook soils with a 0 percent to 2 percent slope which are very frequently flooded; 45 percent is composed of udorthents soil with 0 percent to 8 percent slopes and wet substratum; and 16 percent is udorthents urban land complex soil with wet substratum. Udorthents soil is composed of disturbed, cut, or fill soils which have been modified by recent human activity. Each of these soils are considered hydric with low potential for erosion and no significant limitations for development. Based on the New Jersey Stormwater Best Management Practices Manual,[87] for any land segment that contains hydric soils, the existing annual groundwater recharge through this material is estimated to be zero.

4.8.3 ENVIRONMENTAL CONSEQUENCES

4.8.3.1 METHODOLOGY

Federal, state, and local statutes regulating water resources were reviewed for the analysis of potential impacts. The applicable statutes establish water quality standards, control discharges, and pollution sources, protect drinking water systems, and protect aquifers and other sensitive ecological areas.

Impacts on wetlands and other aquatic resources were evaluated by identifying components of the Proposed Action that would be constructed directly within or adjacent to delineated wetland areas, as well as by assessing changes in impervious surface area that could increase erosion or stormwater runoff affecting wetlands and waters of the United States. The assessment of floodplain impacts considered potential encroachments into FEMA-designated floodplains associated with the construction and operation of the Proposed Action, or its action alternatives, as compared to the No Action Alternative.

The groundwater analysis considered potential changes in groundwater recharge and water quality conditions associated with construction and operation of the Proposed Action or its action alternatives compared to the No Action Alternative. Documents and development standards previously prepared by Bergen County, PANYNJ, and Signature Aviation were used to assess whether the Proposed Action, its action alternatives, or the No Action Alternative would have potential impacts on existing surface water and groundwater resources and water quality.

4.8.3.2 SIGNIFICANCE THRESHOLDS

FAA Order 1050.1G outlines specific considerations for potential impacts to wetlands, floodplains, surface waters, and groundwater. A significant impact to wetlands would occur if a Proposed Action were to:

- adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;

- substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;
- substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety, or welfare;
- adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands;
- promote development of secondary activities or services that would cause the circumstances listed above to occur; or
- be inconsistent with applicable state wetland strategies.

A significant impact to a floodplain would occur if "the action would cause notable adverse impacts on natural and beneficial floodplain values." DOT Order 5650.2, *Floodplain Management and Protection,* defines significant encroachment into the floodplain as an encroachment that results in one or more of the following impacts:

- considerable probability of loss of human life;
- likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility; or
- notable adverse impacts on natural and beneficial floodplain values.

A significant impact determination to surface waters or groundwater would occur if a Proposed Action would cause a violation of water quality standards established by federal, state, local, or tribal regulatory agencies or contaminate public drinking water supplies, including aquifers used by the public, and adversely affect public health.

4.8.3.3 CONSTRUCTION IMPACTS

No Action Alternative

Under the No Action Alternative, no construction activities associated with the Proposed Action or its action alternatives would occur and wetlands, floodplains, surface waters, and groundwater resources would remain under current conditions. Therefore, no significant impacts to wetlands, floodplains, surface waters, and groundwater resources would occur under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

Wetlands

Construction of the Proposed Action or its action alternatives would require draining and filling wetlands to accommodate grading, paving, and related development. An analysis of alternatives to avoid, minimize, and compensate for impacts to wetlands was completed in accordance with Section 404(b)(1) Guidelines of the Clean Water Act, and consistent with Executive Order (EO) 11990, *Protection of Wetlands*, and DOT Order 5660.1A, *Preservation of the Nation's Wetlands*. However, no avoidance alternatives were identified that met the project's purpose and need (see **Appendix K**). **Table 4-8** summarizes the areas of wetlands that would be impacted by the construction of the Proposed Action and its action alternatives. As shown, the Proposed Action configuration for both Signature East and Signature South would impact wetlands; however, the Proposed Action for both Signature East and Signature South would minimize impacts on wetland resources relative to the other action alternative configurations. Additional information regarding wetland impact minimization is included in Appendix K.

TABLE 4-8 WETLAND IMPACTS

	FRESHWATER FORESTED /SHRUB WETLAND (ACRES)			FRESHWATER EMERGENT WETLAND (ACRES)			MANAGED WETLAND IN MAINTAINED LAWN GREENSPACE (ACRES)			TOTAL (ACRES)		
	USFWS[1]	NJDEP[2]	USACE[3]	USFWS[4]	NJDEP[5]	USACE[6]	USFWS[7]	NJDEP[8]	USACE[9]	USFWS	NJDEP	USACE
Alternative 5 (Signature East)												
Configuration 2	5.03	5.00	3.85	1.29	1.18	0.59	0.00	0.38	0.01	6.32	6.55	4.45
Configuration 3	4.85	4.70	3.85	1.29	1.18	0.59	0.00	0.38	0.01	6.14	6.26	4.45
Configuration 4	4.92	4.77	3.78	1.03	1.11	0.58	0.00	0.16	0.01	5.96	6.04	4.37
Configuration 5 (Proposed Action)	**3.98**	**3.90**	**3.22**	**1.26**	**1.16**	**0.59**	**0.00**	**0.35**	**0.01**	**5.24**	**5.41**	**3.82**
Alternative 6 (Signature South)												
Configuration 2	2.12	2.83	3.40	8.63	8.68	6.68	0.00	0.00	1.30	10.75	11.50	11.38
Configuration 3	1.45	1.97	2.58	9.20	9.36	6.71	0.00	0.00	1.57	10.65	11.33	10.85
Configuration 4	0.64	1.14	1.58	7.68	8.19	6.48	0.00	0.00	1.20	8.32	9.33	9.27
Configuration 5	0.42	0.83	1.22	7.47	8.03	6.65	0.00	0.00	0.78	7.89	8.85	8.66
Configuration 6 (Proposed Action)	**0.28**	**0.45**	**0.89**	**6.22**	**6.81**	**5.78**	**0.00**	**0.00**	**0.41**	**6.50**	**7.26**	**7.08**
Configuration 7[10]	0.67	6.16	NA	7.81	3.00	NA	0.00	0.00	NA	8.48	9.16	NA
Total Wetlands Requiring Compensatory Mitigation under the Proposed Action												
	--	--	4.11	--	--	6.37	--	--	0.42	--	--	10.90

NOTES: Totals may not add due to rounding.

1 Includes USFWS wetland categories: "freshwater forested / shrub wetland"

2 Includes NJDEP wetland categories: "deciduous scrub / shrub" and "deciduous wooded wetlands"

3 Includes USACE wetland categories: "palustrine forested wetland" and "palustrine scrub-shrub"

4 Includes USFWS wetland categories: "freshwater emergent wetland"

5 Includes NJDEP wetland categories: "herbaceous wetlands" and "Phragmites dominant wetlands"

6 Includes USACE wetland categories: "palustrine emergent Phragmites australis wetland"

7 The USFWS wetlands did not include a wetland category comparable to managed wetland in maintained lawn greenspace.

8 Includes NJDEP wetland categories: "managed wetland in maintained lawn greenspace"

9 Includes USACE wetland categories: "palustrine emergent persistent wetland"

10 NA or "Not Applicable" - an USACE delineation of wetland resources was not performed for Alternative 6 Configuration 7, which proposes to expand the Signature South boundary approximately 8.4 acres to the southwest.

SOURCES: Port Authority of New York and New Jersey, Teterboro Airport, Airport Layout Plan, December 2014; New Jersey Department of Environmental Protection, NJDEP Bureau of GIS, Wetlands of New Jersey (from Land Use/Land Cover 2012 Update), 2012, https://gisdata-njdep.opendata.arcgis.com/datasets/5a29ffe1eda24da5bd8e2a2297b90e24/explore; US Army Corps of Engineers, Approved Jurisdictional Determination Request NAN-2024-00049-EMI by Signature Flight Support LLC – Signature South Expansion Project, June 11, 2024; US Army Corps of Engineers, Approved Jurisdictional Determination Request, NAN-2024-00175-EMI By Signature Flight Support, LLC – Signature East Expansion Project, June 11, 2024. Ricondo & Associates, Inc., July 2026.

As identified in Table 4-8, construction of the Signature South and Signature East Facilities would require filling scrub-shrub, forested, and emergent wetlands. Although Table 4-8 includes wetland areas delineated by the USFWS, NJDEP, and USACE, only wetlands determined to be jurisdictional under Section 404 of the Clean Water Act (that is, USACE wetlands) would require compensatory mitigation. Specifically, the Proposed Action, including development at both Signature East and Signature South, would require mitigation of 6.79 acres of PEM wetland impacts (6.37 acres of freshwater emergent and 0.42 acres of managed wetland in maintained lawn) and 4.11 acres of PFO/PSS wetland impacts (3.43 acres of palustrine forested and 0.68 acres of palustrine scrub / shrub wetlands). Accordingly, filling of jurisdictional wetlands would require a Section 404 permit from the USACE and a Section 401 Water Quality Certification (WQC) from

the NJDEP. The NJDEP issued the WQC for the Proposed Action on July 16, 2026 (**Appendix R**). Appendix K includes an analysis of alternatives to avoid, minimize, and compensate for impacts to wetlands in accordance with Section 404(b)(1) Guidelines of the Clean Water Act, and consistent with the EO 11990 and DOT Order 5660.1A. As detailed in the analysis, no practicable alternative exists that would avoid impacts to jurisdictional wetlands while also meeting the project's purpose and need.

Off-site wetlands mitigation would be performed to compensate for the on-site jurisdictional wetland impacts, as there are no suitable sites on Airport property, nor would FAA allow wetland mitigation to occur within close proximity to TEB runways or aircraft movement areas.[88] Signature and the Port Authority have identified the following potential mitigation, as detailed in **Table 4-9** and shown on **Exhibit 4-7**:

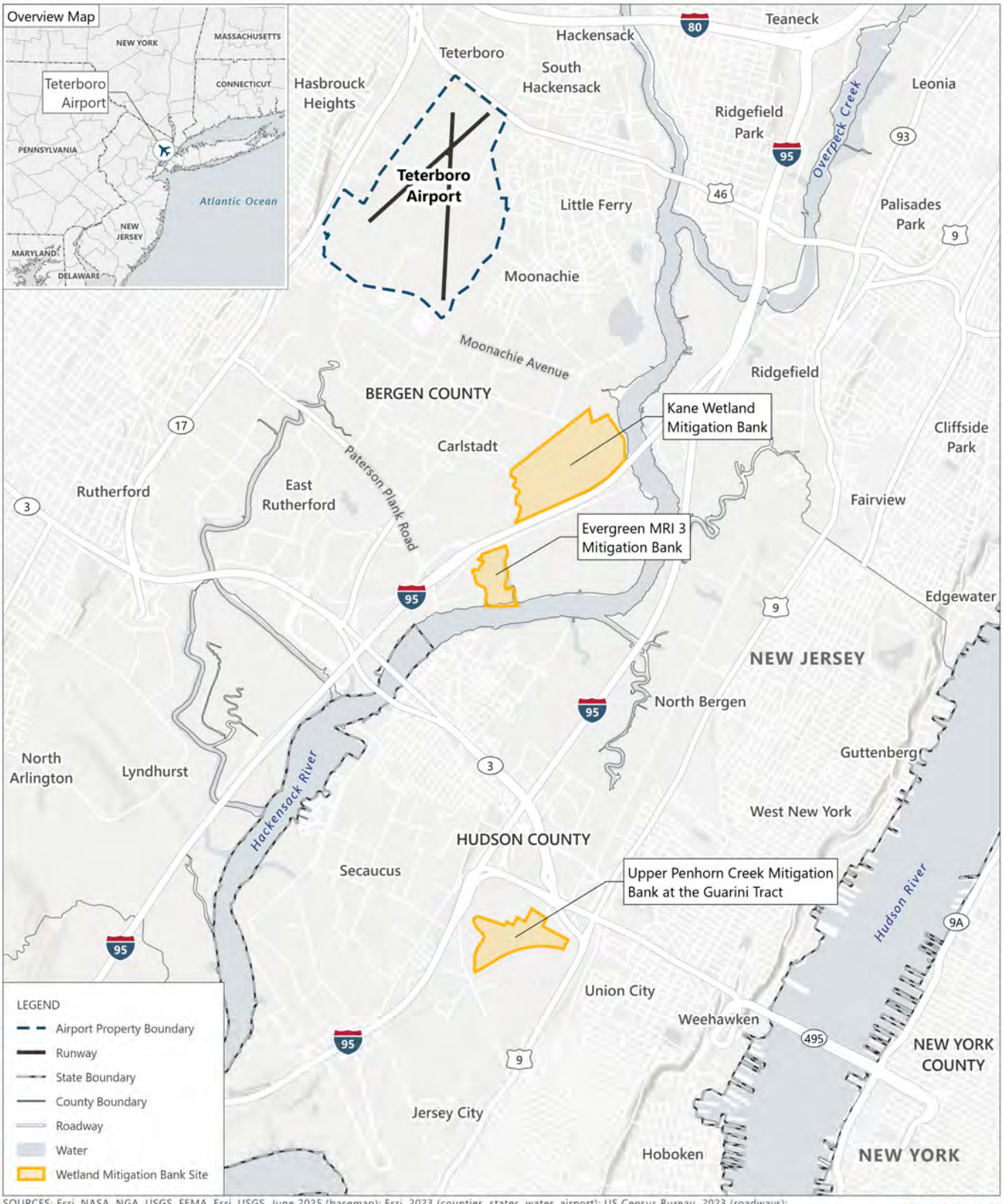
- 6.79 acres of PEM wetland impacts would be mitigated through the use of 6.56 credits purchased at the Kane Wetland Mitigation Bank and 0.23 credits purchased at the MRI-3 (Evergreen) Mitigation Bank.
- 0.68 acres of palustrine scrub-shrub wetland impacts would be mitigated through the purchase of 0.68 credits at the MRI-3 (Evergreen) Mitigation Bank.
- 3.43 acres of palustrine forested wetland impacts would be mitigated through the purchase of 3.43 credits at the Upper Penhorn Creek Mitigation Bank.[89] If the Upper Penhorn Creek Mitigation Bank is not formally approved prior to receipt of a Section 404 permit, Signature has agreements in place with GreenVest to use the Guarini Tract as a "turnkey" mitigation site that would enhance 10.29 acres of degraded palustrine forested wetlands within the limits of the proposed mitigation bank. GreenVest will secure the local, State, and Federal licenses, permits, approvals, and consents required to perform compensatory mitigation at this site.

TABLE 4-9 WETLAND MITIGATION

	FRESHWATER FORESTED /SHRUB WETLAND (CREDITS)	FRESHWATER EMERGENT WETLAND (CREDITS)	MANAGED WETLAND IN MAINTAINED LAWN GREENSPACE (CREDITS)	TOTAL (CREDITS)
Kane Wetland Mitigation Bank	0.00	6.14	0.42	6.56
MRI-3 (Evergreen) Mitigation Bank	0.68*	0.23	0.00	0.91
Upper Penhorn Creek Mitigation Bank/ GreenVest F Guarini Tract	3.43†	0.00	0.00	3.43
Total	4.11	6.37	0.42	10.90

NOTES: * Includes credits for impacts to "palustrine scrub-shrub" wetlands † Includes credits for impacts to "palustrine forested wetland"
SOURCES: Port Authority of New York and New Jersey, Teterboro Airport, Airport Layout Plan, December 2014; US Army Corps of Engineers, Approved Jurisdictional Determination Request NAN-2024-00049-EMI by Signature Flight Support LLC – Signature South Expansion Project, June 11, 2024; US Army Corps of Engineers, Approved Jurisdictional Determination Request, NAN-2024-00175-EMI By Signature Flight Support, LLC – Signature East Expansion Project, June 11, 2024. Ricondo & Associates, Inc., July 2026.

The Proposed Action would not result in an exceedance of the significance thresholds identified in FAA Order 1050.1G for wetlands. Therefore, the Proposed Action would not result in significant wetland impacts. Impacts to wetlands as a result of the Proposed Action would be mitigated and compensated for in accordance with the CWA Section 404(b)(1) as administered by the USACE, as well as in accordance with Executive Order 11990, *Protection of Wetlands*, and US DOT Order 5660.1A, *Preservation of the Nation's Wetlands*. Two of the Future Projects may result in minor impacts to wetlands. This may occur for the perimeter fence project, if the perimeter fence needs to be erected in wetlands, and for the aircraft run-up pad, which may impact wetlands along the taxiways. Both projects would be required to obtain separate approvals and need to mitigate any impacts to existing wetlands. Therefore, there would be no significant wetland impacts during construction of the Proposed Action or its alternatives when considered in conjunction with the Future Projects.



SOURCES: Esri, NASA, NGA, USGS, FEMA, Esri, USGS, June 2025 (basemap); Esri, 2023 (counties, states, water, airport); US Census Bureau, 2023 (roadways); New Jersey Department of Environmental Protection, Bureau of GIS, July 2018 (Kane and MRI Phase 3 mitigation banks); Ricondo & Associates, Inc., April 2024 (GreenVest F Guarini tract mitigation site).

EXHIBIT 4-7

POTENTIAL WETLAND MITIGATION SITES

Project: P:\GIS\Projects\TEB\APRX\TEB_FacilitiesRedevEA_Ch4_2026_0714.aprx Layout: TEB_EA_Exh4-7_PotentialWetlandMitigationSites_2026_0825

Floodplains

The majority of the General Study Area including portions of the Direct Study Area are located within flood Zone AE, which represents Special Flood Hazard Areas associated with 100-year floodplains, or a 1.0 percent annual chance of a flood hazard. Construction of the Proposed Action represents a floodplain encroachment, as the Proposed Action would occur within the 100-year floodplain associated with the Hackensack River, and would require a Flood Hazard Area Verification and Flood Hazard Area Individual permit from NJDEP. Accordingly, NJDEP issued a Flood Hazard Area Verification and Flood Hazard Area Individual permit for the Proposed Action on July 16, 2026 (see Appendix R). Alternatives to the Proposed Action were reviewed to determine whether a practicable alternative exists that would avoid construction within the floodplain, consistent with EO 11988, *Floodplain Management*, and DOT Order 5650.2, *Floodplain Management and Protection*. Given the location of the Airport, no practicable alternatives were identified that would avoid construction within the floodplain (see Appendix D).

The Direct Study Area and FEMA flood zones are illustrated in Exhibit 4-6. As shown in Exhibit 4-6, the majority of the Signature South Direct Study Area and portions of the Signature East Direct Study Area are located within the 100-year floodplain. Therefore, all configurations for Alternatives 5 and 6 would impact 100-year floodplains. **Table 4-10** summarizes the development for each action alternative within the 100-year floodplain and the area of new impervious surfaces within the flood zones.

TABLE 4-10 ACTION ALTERNATIVES WITHIN FLOOD ZONES

ACTION ALTERNATIVES	100-YEAR FLOODPLAIN	
	TOTAL DEVELOPMENT AREA (ACRES)	NEW IMPERVIOUS AREA (ACRES)
Alternative 5 (Signature East)		
Configuration 2	0.37	0.37
Configuration 3	0.37	0.37
Configuration 4	0.22	0.22
Configuration 5 (Proposed Action)	**0.42**	**0.42**
Alternative 6 (Signature South)		
Configuration 2	14.77	13.46
Configuration 3	14.00	12.45
Configuration 4	12.86	11.73
Configuration 5	10.32	9.87
Configuration 6 (Proposed Action)	**7.72**	**7.33**
Configuration 7	7.63	7.63

SOURCE: Ricondo & Associates, Inc. September 2026.

Construction of the Proposed Action or its action alternatives would include up to approximately 11,400 cubic yards of fill for the Signature East alternatives and up to approximately 71,500 cubic yards of fill for the Signature South alternatives. In accordance with EO 11988 and DOT Order 5650.2, all measures to minimize harm to floodplains have been incorporated into the project design. Both the Signature East and Signature South sites have been designed to comply with the current state stormwater quality, quantity, and recharge design and performance standards (N.J.A.C. 7:8). However, due to FAA Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports,* and existing site constraints, as documented in Appendix L, the project is unable to fully meet the green infrastructure standards of N.J.A.C. 7:8 and will require a Green Infrastructure Hardship Exception. However, Signature has agreed to implement additional green infrastructure measures within the existing leasehold areas outside the limits of the Proposed Action. This effort includes

replacing existing pavement surfaces with pervious pavement systems in areas that are not subject to aircraft loading or other operational constraints (see Appendix L).

Under existing conditions, the Signature East site is completely inundated by tidal flood waters during the 100-year storm event. During 100-year and storm surge events, the East and West Riser ditches are designed to backflow into Airport property with large volumes of brackish water. At the Signature East site, the stormwater management facilities will include a pervious pavement system on one portion of the site, and an underground detention basin to attenuate stormwater flows. At the Signature South site, three Stormtrap underground detention systems and four areas of pervious pavement would be installed to meet the stormwater quantity requirements. At both sites, there would be no increase in the post-development peak runoff rates for the 2-, 10-, and 100-year storm events when compared to the pre-development peak runoff rates, and post-development peak runoff rates for the current and future/projected 2-, 10-, and 100-year storm events would be reduced to 50, 75, and 80 percent, respectively, of the pre-development runoff rates (see Appendix M).

Further information on stormwater management strategies, including the pervious pavement system and underground detention basin, are included in **Appendix M**. With these design measures incorporated, the proposed additional impervious surfaces on the Signature East and Signature South sites would have no impact on flooding in the surrounding communities. Therefore, construction of the Proposed Action or its action alternatives would not constitute a significant floodplain encroachment because neither the Proposed Action nor its action alternatives would cause notable adverse impacts on the natural and beneficial values of the floodplain, loss of human life, and/or encroachment-related damage substantial in cost or extent.

When the Proposed Action or its alternatives are considered in conjunction with the Future Projects, no significant impacts to floodplains are anticipated, as most projects would be located in areas with existing development. The proposed aircraft run-up pad is the only Future Project, within the next five years, that may result in an increase in impervious surface. However, this project would be implemented in accordance with the design and performance standards of N.J.A.C. 7:8, which would minimize impacts to floodplains. Therefore, there would be no significant floodplain impacts during construction of the Proposed Action or its alternatives when evaluated in conjunction with the Future Projects.

Fill activities within the Direct Study Area are not subject to the flood storage displacement limits established under the NJDEP's Flood Hazard Area Control Act Rules, as the Direct Study Area is located within a tidal floodplain (N.J.A.C. 7:13-11.4). Consistent with NJDEP requirements, new hangar facilities would incorporate wet floodproofing measures.

Surface Waters

Given the extent of ground disturbance anticipated prior to construction, the Airport would be required to obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity. Soil erosion and sediment control measures will be implemented during construction to minimize the potential migration of sediments to the greatest extent practicable, in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. Silt fences, stabilized construction entrances, a temporary stockpile, temporary construction fences, wetland protection fences and inlet filters are proposed to be implemented. All soil erosion control measures will be installed and necessary approvals obtained prior to the start of construction. Stormwater runoff quality would be temporarily affected due to increased sedimentation and siltation from ground disturbance associated with construction activities. However, with implementation of the soil erosion and sediment control measures and adherence to State guidance and permits, these impacts would not result in significant effects to surface waters in the vicinity of the Airport. Further, the Future Projects would implement similar soil erosion and sediment control measures and adhere to State guidance and permits. As a result, the Proposed Action or its alternatives are not anticipated to result in significant surface water impacts during construction when considered in conjunction with the Future Projects.

Groundwater

Adherence to the site-specific SWPPP and implementation of standard BMPs during construction would minimize pollutant discharges to receiving waters from surface runoff and ensure that such discharges do not exceed applicable water quality standards or contaminate public drinking water supplies. In 2016, an Annual Groundwater Recharge Analysis was conducted using the New Jersey Groundwater Recharge Spreadsheet, which identified zero inches of annual recharge for the Direct Study Area. Furthermore, pursuant to N.J.A.C. 7:8-5.4, groundwater recharge requirements do not apply to stormwater from areas of high pollutant loading, such as industrial and commercial sites where solvents or petroleum products are loaded, unloaded, stored, or applied. Therefore, no groundwater recharge measures are required, and construction of the Proposed Action or its action alternatives would not result in significant impacts to groundwater when compared to the No Action Alternative. Further, when considered in conjunction with the Future Projects, construction of the Proposed Action or its alternatives are not anticipated to result in significant impacts to groundwater.

4.8.3.4 OPERATIONAL IMPACTS

No Action Alternative

Under the No Action Alternative, operations would not change beyond anticipated increases in aviation activity over time. None of the improvements included in the Proposed Action or its action alternatives would occur under the No Action Alternative, and the nature of operations at the Airport would continue as under existing conditions. Signature Aviation would continue to comply with all local, state, and federal regulations, as well as the existing Airport SWPPP. No significant impacts related to surface water or groundwater resources would occur under the No Action Alternative.

Proposed Action and Other Action Alternative Configurations

Wetlands

As summarized in Table 4-8 and discussed in Section 4.8.3.3, the Proposed Action or its action alternatives would result in the fill of existing wetlands. Off-site wetlands mitigation would be performed to compensate for the on-site wetland impacts and mitigate impacts to wetlands. However, operation of the Proposed Action or its action alternatives would be consistent with current Airport operations. The Proposed Action or its action alternatives would not adversely affect the function of any wetland to protect the quality or quantity of municipal water supplies, including surface waters, sole-source aquifers, or other groundwater resources. The Proposed Action or its action alternatives would not substantially alter the hydrology necessary to sustain the affected wetland system or any connected wetlands, nor would it reduce the wetlands' ability to retain floodwaters or storm runoff in a manner that could threaten public health, safety, or welfare.

The Proposed Action and its alternatives are designed to meet the water quantity and quality requirements of N.J.A.C. 7:8. This includes incorporating stormwater management features that effectively collect and convey runoff from proposed impervious surfaces away from nearby wetlands through a series of inlets, trench drains, and pervious pavement sections. The collected runoff is then treated before being discharged into existing conveyance channels that are regularly maintained by Airport staff. As discussed in Section 4.4.3, due to the developed nature of the Direct Study Area, which primarily consists of maintained vegetation, disturbed habitat, and pavement, and because operation of the Proposed Action or its action alternatives would not disturb protected or special status species; result in loss, degradation, or fragmentation of habitats; or adversely affect any species' population, the Proposed Action or its action alternatives would not adversely affect the maintenance of existing natural wetland systems at the Airport that support wildlife and fish habitat or economically important timber, food, or fiber resources within or adjacent to wetlands. Additionally, the Proposed Action or its action alternatives would not promote development of secondary activities or services that could lead to such impacts. Therefore, the operation of the Proposed Action or its action alternatives would not result in a significant impact to wetlands.

The Future Projects are not anticipated to result in direct impacts to wetlands, as these projects are located in upland areas that are previously developed or disturbed. The proposed aircraft run-up pad is the only Future Project that may result in an increase in impervious surface. However, this project would be implemented in accordance with the design and performance standards of N.J.A.C. 7:8 to minimize potential impacts from stormwater. Therefore, there would be no significant wetland impacts during operation of the Proposed Action or its alternatives when evaluated in conjunction with the Future Projects.

Floodplains

Under the Proposed Action or its action alternatives, the proposed facilities would be designed, constructed, and managed to remain "reasonably safe from flooding" in accordance with FEMA guidance; therefore, operation of the Proposed Action or its action alternatives would be consistent with existing conditions. The Proposed Action has been designed to conform with FEMA regulations and applicable state and local floodplain regulations. The Proposed Action, or its action alternatives, would not result in a considerable probability of loss of human life; would not create a likelihood of future damage associated with floodplain encroachment that could be substantial in cost or extent, including interruption of service or loss of a vital transportation facility; and would not cause notable adverse impacts on natural or beneficial floodplain values. Therefore, the operation of the Proposed Action or its action alternatives would not result in a significant impact to floodplains.

The Future Projects are also anticipated to be designed in conformance with FEMA regulations as well as applicable state and local floodplain management requirements. As a result, the Proposed Action or its alternatives are not anticipated to result in significant floodplain impacts during operation when considered in conjunction with the Future Projects.

Surface Waters

The Proposed Action or its action alternatives would increase the amount of impervious surfaces within the Direct Study Area but would not substantially modify existing drainage patterns. The Proposed Action or its action alternatives would not result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow. Stormwater discharges to existing drainage features would continue similar to existing conditions. There would be no increase in the post-development peak runoff rates for the 2-, 10-, and 100-year storm events when compared to the pre-development peak runoff rates and post-development peak runoff rates for the current and future/projected 2-, 10-, and 100-year storm events would be reduced to 50, 75, and 80 percent, respectively, of the pre-development runoff rates (see Appendix M). Therefore, the Proposed Action or its action alternatives would not cause a substantial change in the current or direction of water flow and would minimally impact the movement of surface water.

The Proposed Action or its action alternatives would be considered a major development, as defined by N.J.A.C., which requires projects that result in a net increase of one-quarter acre or more of impervious surface to implement water quality measures. Thus, a stormwater management system is required to treat runoff at a total suspended solids (TSS) removal rate of 80 percent. The stormwater design complies with the stormwater quality requirements by incorporating NJDEP approved manufacturing treatment devices and areas of pervious pavement, which will treat the stormwater runoff at 80 percent TSS removal according to N.J.A.C. 7:8-5.5(b). All pervious pavement systems have been designed with a liner and underdrain and comply with the maximum contributory area of 3:1 ratio and maximum drainage time of 72 hours. They also comply with the maximum 1-foot depth into groundwater. See Appendix M for more information on stormwater management strategies. As detailed in Appendix L, Signature will also implement additional pervious pavement within the existing leasehold areas outside the limits of the Proposed Action in locations that are not subject to aircraft loading or other operational constraints.

Prior to discharging surface runoff to the underground systems, the water will pass through CONTECH High Capacity (HC) Kraken Filter Vaults, a NJDEP certified below-grade manufactured treatment device (MTD) as the required pretreatment measure. This device is approved for an 80 percent TSS removal rate and has been sized for the peak flow generated by the NJDEP water quality storm.

The Proposed Action or its action alternatives would not cause substantial alteration of the existing drainage pattern of the Direct Study Area in a manner which would result in substantial erosion or siltation on- or off-site. As such, any increases in stormwater peak flow rates or changes in the drainage infrastructure would not result in substantial erosion or siltation. Furthermore, adherence to permit-related operational measures for discharges and adequate stormwater drainage systems would further reduce any risk that applicable water quality standards would be violated or a public drinking water supply would be contaminated. Similarly, because the Proposed Action or its action alternatives would adhere to applicable permit conditions and SWPPP measures, they would not interfere with compliance with water quality standards.

Construction of Alternative 6 Configuration 7 would impact the West Riser Ditch Unnamed Tributary (shown on Exhibit 4-6). Additionally, the East Riser Ditch Unnamed Tributary is located to the west and north of the Signature East Direct Study Area. At its closest, the Signature East Direct Study Area is approximately 85 feet north of the East Riser Ditch Unnamed Tributary. Construction and operation of the Proposed Action and its action alternatives would incorporate BMPs to reduce potential pollutants from entering any surface water or drainage system.

The Future Projects are not anticipated to result in operational impacts to surface waters. When applicable, the Future Projects would be designed in accordance with state requirements (N.J.A.C. 7:8) to minimize potential impacts to surface waters. Therefore, there would be no significant surface water impacts during operation of the Proposed Action or its alternatives when evaluated in conjunction with the Future Projects.

Groundwater

Impacts to groundwater resources from operations are not anticipated as there would be no ground disturbance associated with the operation of the Proposed Action or its action alternatives. Additionally, the soil beneath and surrounding the Direct Study Area is comprised mostly of marshland material (silts, clays, and peats),[90] and based on the New Jersey Stormwater Best Management Practices Manual,[91] the existing annual groundwater recharge through this material is estimated to be zero. Operation of the Proposed Action would not require the use of groundwater and would not utilize groundwater supplies. Thus, implementation of the Proposed Action or its action alternatives would not affect groundwater resources or recharge. Further, when considered in conjunction with the Future Projects, operation of the Proposed Action or its alternatives are not anticipated to result in significant impacts to groundwater.