

6. Implementation Plan

The preceding chapters have identified the projects necessary for the Wilkes-Barre/Scranton International Airport (AVP or Airport) to accommodate the forecast level of demand throughout a 20-year planning period, as well as provide for substantive economic development opportunities in the future.

This chapter provides guidance relevant to the implementation of the airport development and master plan objectives by presenting a realistic capital improvement program and order of magnitude unit-based cost estimates for each project. The proposed development actions detailed in this chapter are derived from the preferred airport development alternatives presented in Chapter 5, as well as through the airports existing capital improvement program. The project phasing plan prescribes a plausible phasing schedule for implementing the proposed improvements over the twenty-year planning period. The subsequent chapter will present the Airport's capital improvement program and detail the potential funding mechanisms and costs for implementing those projects.

6.1. THE IMPLEMENTAION PROCESS

In general, each project implemented by the Airport must follow specific steps to be properly realized. For complex projects requiring federal discretionary funding, such as major airfield modifications, these steps may take up to five years prior to the issuance of an AIP grant for construction. Less complex projects using entitlements such as pavement rehabilitation will require less lead times, typically no less than two to three years prior to grant issuance. This long lead time is needed to ensure that funding, environmental documentation, design and ultimately construction are properly coordinated. Common steps in project implementation include:

Professional Services – Select a qualified consultant for the project planning, survey, design, construction administration, and/or environmental reviews for the project.

Five Years Prior to Construction – Update the capital improvement program to identify the project scope, eligibility, justification and funding. Close coordination with FAA is required.

Four Years Prior to Construction – Assure the project is identified on the Airport Layout Plan, complete necessary airport planning studies and collect supporting documentation to demonstrate the project is justified for AIP funding, and is compatible with the Airport Layout Plan.

Three Years Prior to Construction – Initiate any aeronautical surveys, navigational aid agreements (reimbursable agreements) or special FAA coordination for flight procedures which may be necessary prior to construction. Solidify project funding plan and final justification with FAA.

Two Years Prior to Construction – Complete required NEPA environmental documentation and analysis for the proposed action. Prepare 30 percent project design, refine cost estimates and prepare benefit/cost analysis as necessary. Acquire land for project and initiate airspace studies.

One Year Prior to Construction – Obtain environmental clearance and permits for the proposed action. Prepare detailed project plans and specifications including design report, airspace studies, Safety Management Systems (SMS) and construction safety/phasing plan. Finalize project schedule.

Year of Construction – Complete final design. Solicit bid proposals from companies engaged in the project construction. Prepare grant application and accept Federal grant. Issue notice to proceed and monitor construction. Maintain FAA grant compliance and payments.

After Construction – Submit final report and close out the AIP grant.

6.2. PROJECT PHASING AND COST ESTIMATION

This section of the master plan report seeks to establish a tentative schedule for the various projects required to fulfill the future development goals as expressed in previous chapters and depicted on the ALP documents. This year-by-year implementation plan provides guidance for continued maintenance, upgrade, and expansion of facilities, as consistent with the Airport facility requirements, pavement conditions and long-term strategic vision of the Airport.

The implementation plan documents the schedule of projects and estimation of probable costs across the 20-year development program. These costs generally are broken-down by the short-term (0-5 year), intermediate (6-10 year) and long-term (11-20 year) development needs. The implementation plan considers the demand-driven need for facilities based on information developed in the Facility Requirements and Alternatives chapters of this document to provide the Airport and FAA with the information needed to integrate the Master Plan's recommendations with their regular airport activities.

6.2.1. Project Identification

Projects identified in the Airport's development plan are a response to identified facility or user needs and programed based on a reasonable expectation of when demand warrants and funding becomes available. The identification of projects is largely determined through recommendations resulting from Master Plan findings, in which the assignments of project priorities, phasing and estimated costs were consulted with Airport staff. The following sources of project improvements have been reviewed for incorporation into the 20-year Airport Development Plan:

- Existing Airport Capital Improvement Program (ACIP) FY 2016 to FY 2023 (Dated February 21, 2017)
- Airport Operating and Maintenance Improvement Needs
- Airport Master Plan Recommendations

The following describes the two airport development phasing and funding schedules, in which each includes a year-by-year schedule of annual projects, project description, probable costs estimates, and anticipated funding break-down:

Master Plan Airport Development Plan: The Airport Development Plan is a 20-year improvement schedule, including both eligible and non-eligible projects allowable under the federal (FAA) and state (PennDOT) funding programs. This plan focuses on the capital projects necessary to implement the full project recommendations of the Airport Master Plan, as opposed to routine operating and preventative maintenance projects.

FAA Airport Capital Improvement Program (ACIP): The Airport Capital Improvement Program (ACIP) is an eight to 10-year improvement schedule, including only eligible projects allowable under the federal and state grant programs. The ACIP is submitted by the Airport each year to FAA for federal and state programming consideration. The ACIP is less inclusive of a project program than the Master Plan Airport Development Plan. In addition, the ACIP separately accounts for the project preplanning, design and construction, as a reasonable implementation sequence necessary to fund and build multi-year projects. It should be noted that all the Airport's FAA ACIP projects have been included in the Airport Development Plan for the Master Plan.

6.2.2. Project Phasing Periods

Projects are phased to facilitate systematic development over the course of the next 20-years. Projects appearing in the first phase are of greater importance to the Airport and have the least tolerance for delay. Additionally, some projects included in an early phase may be a prerequisite for other planned improvements in a later phase. The development phasing for AVP has been divided into four distinct phases as follows:

- Phase I: (0 to 5 years), 2017-2021
- Phase II: (6 to 10 years), 2022-2026
- Phase III: (11 to 20 years), 2027-2036
- Phase IV: Beyond 2036 or as demand materializes.

The phasing of individual projects should undergo periodic review to determine the need for changes based upon variations in forecast demand, available funding, economic conditions, and/or other factors that may reasonably influence airport development. Additionally, other projects not foreseen in this report may be identified in the future and would, therefore, likely necessitate changes in the phasing of projects and the overall CIP. Further, the projects and overall development identified in the CIP, though tied to a time table, will only occur once the triggering demand and/or need is realized.

6.2.3. Critical Capital Improvement Projects

A list of capital improvement projects has been assembled using the documentation previously presented regarding anticipated facility demands and preliminary engineering analysis focusing on facility and equipment rehabilitation needs. This phasing plan focuses on the substantive facility

improvements addressed in this master plan. As such, typical budgeted airport expenses such as regular maintenance activities, small pavement rehabilitations or sealing have not been included.

Table 6-1 presents this information along with planning level order of magnitude cost estimates for each identified project. Cost estimates for individual projects, based on current 2017 costs, have been prepared for the improvement projects identified over the planning period. These estimates are intended to be used for planning purposes only and should not be construed as construction cost estimates, which can only be compiled following the preparation of detailed engineering design documents. However, the cost estimates presented in this document allow for an understanding of the plausible cost for each development action and inform future decision making. To accompany Table 6-1, **Figure 6-1** to **Figure 6-4** graphically illustrates each individual project by phase and detailed cost estimates are provided in **Appendix E**.

Table 6-1: Project Phasing and Cost Estimates

| Description | Year | Project Cost |
|--|------|---------------------|
| Phase I: (2017 – 2021) | | |
| Rehabilitate Taxiways B & D - West/Construct/Phase II | 2017 | \$5,200,000 |
| GA Hangar Development – West Side | 2017 | \$7,600,000 |
| Rehabilitate Taxiways B & D - West/Construct/Phase III | 2018 | \$5,200,000 |
| Rehabilitate RW 10/28 & TW D East - Design | 2019 | \$418,500 |
| Taxiway B Southerly Extension – Enviro./Prelim Design/ Phase I | 2019 | \$415,750 |
| Rehabilitate RW 10/28 & TW D East - Design | 2019 | \$562,500 |
| Rehabilitate Access Road (Terminal Drive) | 2019 | \$625,000 |
| Rehabilitate RW 10/28 & TW D East - Design | 2020 | \$3,925,000 |
| Taxiway B Southerly Extension - Final Design Phase II | 2020 | \$998,000 |
| Taxiway B Southerly Extension – Construct Phase III | 2021 | \$5,750,000 |
| Total Phase I | | \$30,694,750 |

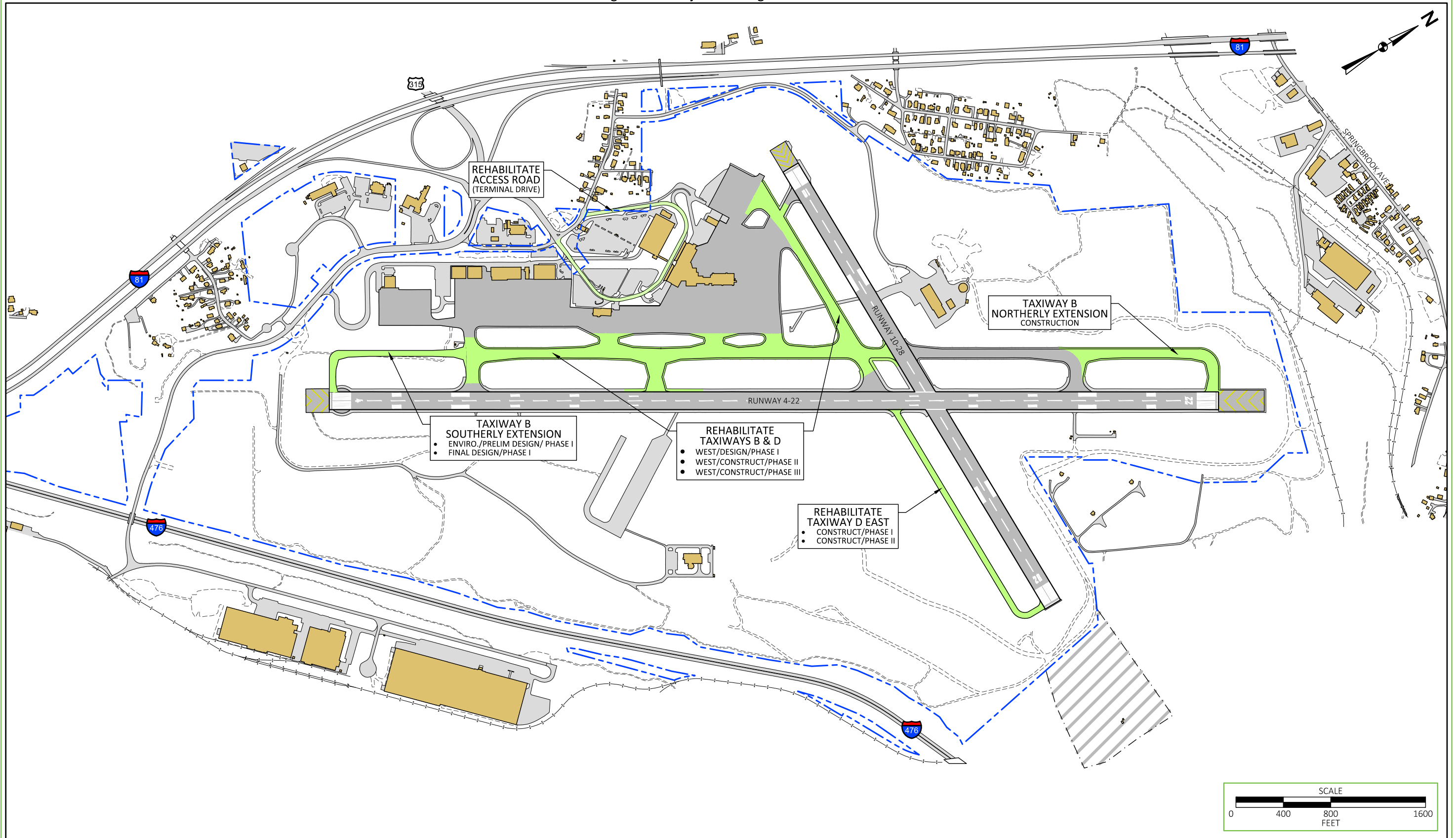
| Description | Year | Project Cost |
|---|---------|--------------|
| Phase II: (2022 – 2026) | | |
| Taxiway B Southerly Extension – Construct Phase IV | 2022 | \$3,850,000 |
| Taxiway A Relocation to Extended Taxiway B – Design/Phase I | 2022 | \$150,000 |
| Taxiway A Relocation to Extended Taxiway B - Construct | 2023 | \$550,000 |
| East Side Ramp Taxiway and Access Road – Environmental | 2023 | \$105,300 |
| East Side Ramp Taxiway and Access Road – Prelim Design | 2023 | \$95,000 |
| East Side Ramp Taxiway and Access Road – Final Design | 2023 | \$221,100 |
| East Side Ramp Taxiway and Access Road – Utilities | 2023 | \$845,000 |
| Terminal Loop Road Reconfiguration | 2023-24 | \$360,000 |
| Second Parking Garage - Design | 2023-24 | \$2,298,425 |
| East Side Ramp Taxiway and Access Road – Construction | 2024 | \$2,425,000 |
| Taxiway E Improvement (Demo & Fillet) – Design & Construct | 2024 | \$280,000 |
| Second Parking Garage - Construct | 2025-26 | \$30,166,828 |

| Total Phase II | | \$41,346,653 |
|---|-------|---------------------|
| Description | Year | Project Cost |
| Phase III: (2027 – 2036) | | |
| RPZ Property Acquisition – Fee and Easement/Phase I | 2027 | \$1,100,000 |
| Maintenance Facility Expansion | 2027 | \$1,800,000 |
| PAPI Installation Runway 22 – Equipment and Installation | 2028 | \$210,000 |
| PAPI Installation Runway 10 – Equipment and Installation | 2028 | \$100,000 |
| RPZ Property Acquisition – Fee and Easement/Phase II | 2029 | \$1,100,000 |
| Terminal Concourse Expansion (4,750sf) | 2031 | \$1,800,000 |
| Development Area 1 Access Road – Offsite Work (Roadway & Utilities) | 2032 | \$2,500,000 |
| RPZ Property Acquisition – Fee and Easement/Phase III | 2032 | \$1,100,000 |
| RPZ Property Acquisition – Fee and Easement/Phase IV | 2031 | \$1,100,000 |
| GA Hangar Development – East Side | 2033 | \$18,300,000 |
| General Aviation Terminal Expansion (1,500sf) | <2036 | \$610,000 |
| General Aviation Parking Expansion | <2036 | \$180,000 |
| Airport Fuel Farm Expansion | <2036 | \$150,000 |
| Total Phase III | | \$30,050,000 |
| Description | Year | Project Cost |
| Phase IV: Scenario Driven | | |
| Scenario-Driven Terminal Expansion | >2036 | \$17,100,000 |
| Total Phase IV | | \$17,100,000 |

Source: Wilkes-Barre/Scranton International Airport's Airport Capital Improvement Program 02/21/17; Borton-Lawson, September 2017; and McFarland Johnson, 2017.

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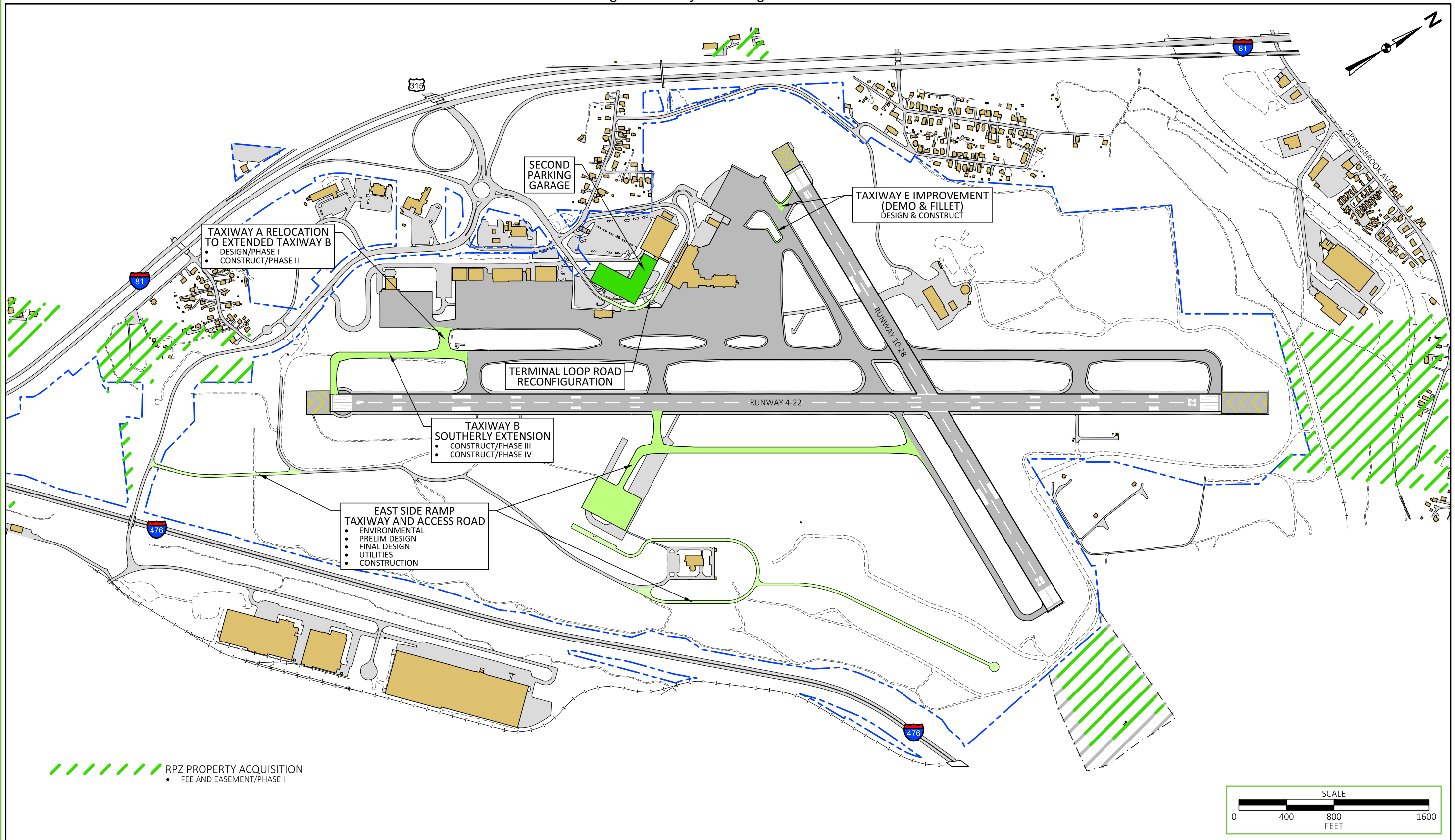
Figure 6-1: Project Phasing Plan – Phase I



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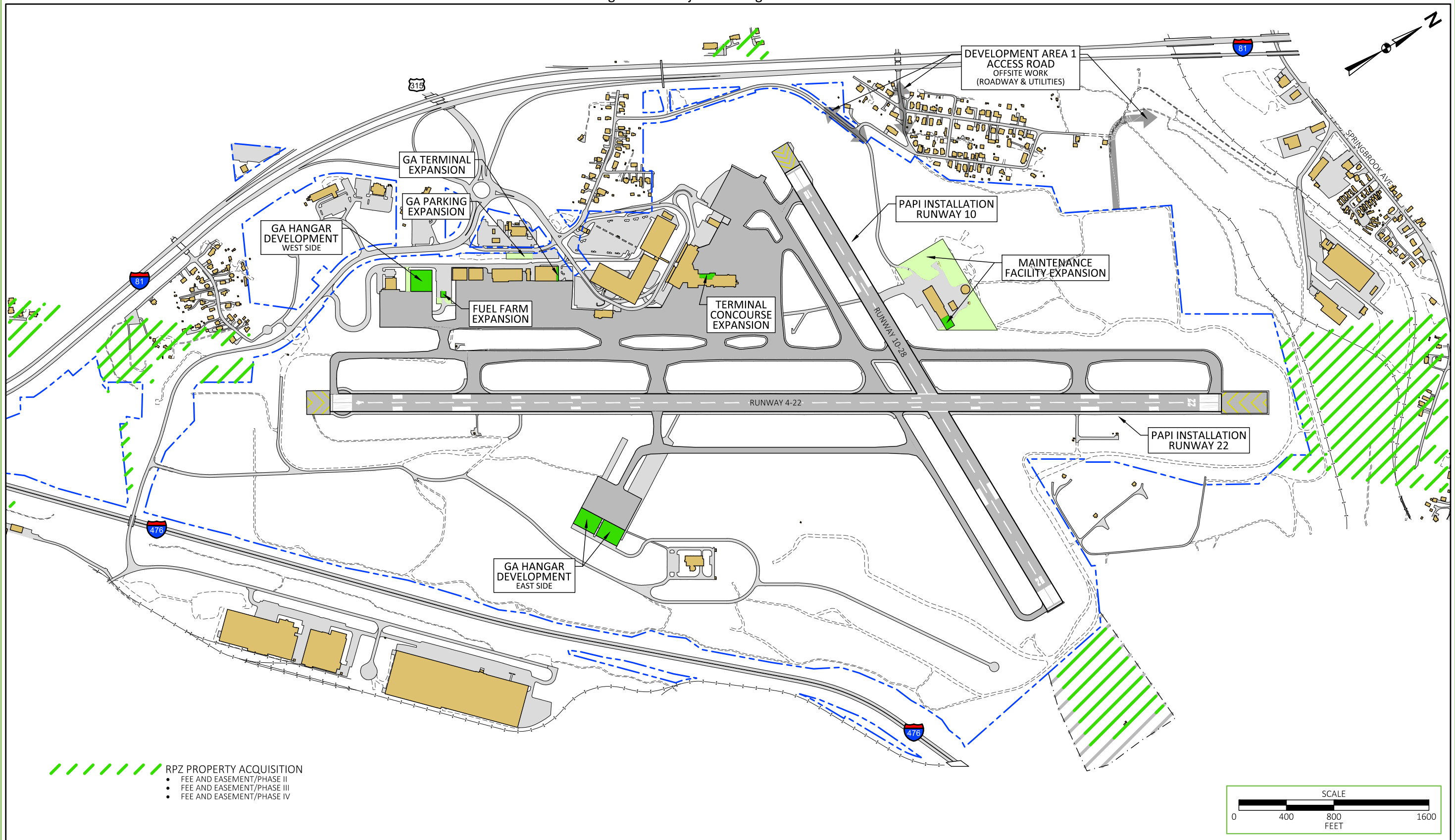
Figure 6-2: Project Phasing Plan – Phase II



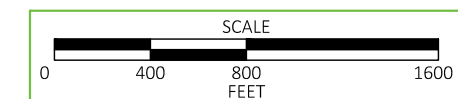
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Figure 6-3: Project Phasing Plan – Phase III



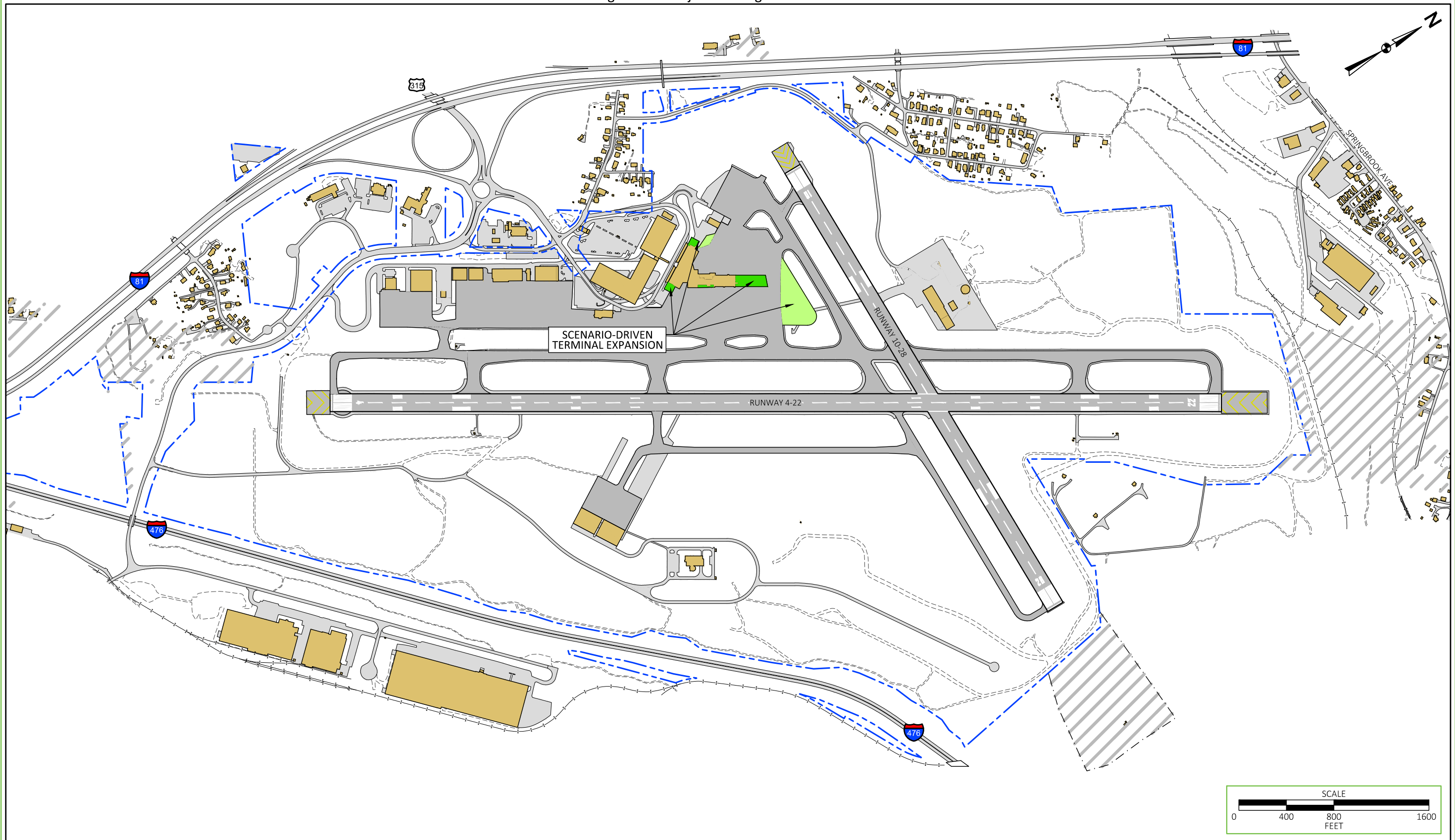
//// RPZ PROPERTY ACQUISITION
 • FEE AND EASEMENT/PHASE II
 • FEE AND EASEMENT/PHASE III
 • FEE AND EASEMENT/PHASE IV



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Figure 6-4: Project Phasing Plan – Phase IV



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