

## CHAPTER 7 – SCHEDULE OF IMPROVEMENTS

This Chapter provides a summary of facility improvements and estimated costs according to selected preferred alternative development scenarios identified in Chapter 6, Development and Evaluation of Alternatives. Also included are the reconstruction and/or replacement of facilities as they exceed their design life. These projects have been compiled into an overall schedule of improvements, which is organized by short-term (2022-2026), mid-term (2027-2031), and long-term (2032-2041) projects, in order to assist the airport in the development of its five-year Capital Improvement Program (CIP) according to FAA and MaineDOT requirements.

### 7.1 CONSIDERATIONS FOR INFLATION

The total cost of implementing a particular project is based upon current (2021) estimates of construction costs, the costs of engineering and design work, and minor construction items and contingencies. These preliminary estimates are based, in most cases, on unit prices common to airport and highway construction in Maine in 2021. The costs cited are estimates only and should not be construed as final or conclusive. It is important to consider that inflation will likely affect future CIP project costs. Project cost estimates should be updated at the time a project is ready to be implemented using current data in order to reflect accurate labor rates and material costs.

### 7.2 ENVIRONMENTAL PLANNING PROJECT COSTS

Costs associated with obtaining environmental permits are estimated using assumed scopes of work and from experience with similar types of projects and cannot be accurately estimated until a project scope of work is developed. Developing the scope of work is a process that takes place approximately one year prior to the start of a project in preparation for funding applications. The costs of these types of projects may vary greatly due to changes in the actual scope of the project and therefore have not been included in the estimates provided in this chapter.

### 7.3 FORECASTED VS. ACTUAL DEMAND

It is important to note that the recommended improvement schedule presented below is predicated in part on the forecasted demand outlined in Chapter 4, and that projects may not be eligible for funding until actual demand for facility improvements is present. It is common for Airport CIPs to be adjusted on a yearly basis to accommodate actual demand by either advancing projects when demand materializes earlier than originally anticipated or delaying projects when anticipated demand does not occur as expected.

## 7.4 PERIODIC ROUTINE MAINTENANCE

In addition to the capital improvements outlined in the following sections of this chapter, the Airport should monitor conditions of all facilities to schedule maintenance as needed. Maintenance activities include, but are not necessarily limited to, pavement maintenance activities (e.g., crack sealing and slurry sealing) and vegetation management (e.g., mowing, brush hogging, and tree removal in accordance with the Vegetation Management Plan). These activities are necessary to maintain a safe and functional airfield and are further described in the following paragraphs.

It is recommended that the Airport monitor pavement conditions and results of Pavement Management Reports, which are provided periodically by MaineDOT. The most recent Pavement Condition Report (PCR) at B19 was completed in 2018 and recommends work repair levels based on pavement condition index (PCI) ratings, which include the following:

- PCI above 70 (Satisfactory): preventative maintenance
- PCI between 60 and 70 (Fair): major rehabilitation
- PCI below 60 (Poor to Failed): reconstruction

According to the PCR, pavement generally deteriorates at a rate of between 1 and 3 PCI per year, and maintenance activities should be programmed as necessary to extend the useful life of airfield pavements.

Vegetation growth should be monitored and managed as follows, in accordance with the Airport's 2007 Vegetation Management Plan (VMP):

- Upland infield areas and grassed areas surrounding aprons: routine mowing from May to October
- Remaining upland airfield areas: brush hogging at least every two years as needed
- Airfield wetlands: selective hand pruning at least every two years as needed
- Off-airport easements: field survey every three to five years and selective clearing as needed

Additional details regarding the timing and methods for vegetation management are contained in the Airport's 2007 VMP and should be followed accordingly.

## 7.5 SHORT-TERM IMPROVEMENTS

The following projects are proposed for short-term development over the next 5-year period (2022-2026). The following descriptions are for planning purposes only and may require refinements and review prior to starting work on a particular project.

### 7.5.1 RECONSTRUCT WEST APRON

This project is for the reconstruction of the Airport's West Apron (i.e., GA Apron), including construction of a taxiway from the apron to Runway 06-24, midway between the existing stub taxiway and the Runway 06 end to accommodate future construction of a parallel taxiway. The West Apron with a PCI of 41 (poor) exceeded its useful life in 2007. This project includes:

- Full depth reconstruction including removal of existing pavement and base materials, subgrade preparation.
- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.
- Erosion control.
- Application of markings.

Apron reconstruction is eligible for AIP funding provided that it will be used for aircraft parking. The project cannot include pavement for auto parking, other non-aeronautical uses, or exclusive use areas (must be public use).

**Estimated project cost: \$900,000** (FAA Share \$810,000; State Share \$45,000; Local Share \$45,000)

### 7.5.2 CONSTRUCTION OF ABOVEGROUND FUEL FACILITY

This project is for the construction of an aboveground fuel facility in the terminal area, consisting of one 10,000-gallon storage tank, fueling apron, and associated taxiways. Installation of the aboveground facility should take place in advance of the decommissioning of the existing underground storage tank, which will expire in January of 2028. Project timing in conjunction with the reconstruction of the Main Apron (i.e., Terminal Apron) should be considered to avoid an interruption to the Airport's fuel revenue.

Per the FAA AIP Handbook, because the Airport already has a 100-LL fuel facility on site, this project is not eligible for AIP funding, as AIP funding can only be used to fund the initial construction of fuel facilities and cannot fund maintenance or repair.

**Estimated project cost: \$600,000** (FAA Share \$0.00; State Share \$0.00; Local Share \$600,000)

### 7.5.3 RECONSTRUCT MAIN APRON

This project is for the reconstruction of the Airport's Main Apron. The Main Apron (i.e., terminal apron) with a PCI of 42 (poor) exceeded its useful life in 1997. This project includes the removal and decommissioning of the underground fuel storage tank, which is scheduled to expire in 2028 and must be removed per MaineDEP regulations. This project will also include:

- Full depth reconstruction including removal of existing pavement and base materials, subgrade preparation.
- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.
- Erosion control.
- Application of markings.

Apron reconstruction is eligible for AIP funding provided that it will be used for aircraft parking. The project cannot include pavement for auto parking, other non-aeronautical uses, or exclusive use areas (must be public use).

**Estimated project cost: \$800,000** (FAA Share \$720,000; State Share \$40,000; Local Share \$40,000)

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#### 7.5.4 CONSTRUCT HANGARS ADJACENT TO EXISTING HANGAR COMPLEX

This project is for the construction of hangar units as needed in the area adjacent to the existing hangar complex. Based on current demand and discussions with Airport Management, it is assumed that hangars will be constructed by private developers and that the Airport will incur no costs associated with their construction. Box hangars and/or T-hangars can be constructed based on the needs of the developers at the time. It should be noted that coordination with Skydive Coastal Maine may be required to relocate the existing skydiving landing area to a different location on the airfield, as the proposed area for hangar construction may conflict with their existing operation.

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#### 7.5.4 TERMINAL BUILDING IMPROVEMENTS

This project is for the renovation of the Airport's terminal building to repair issues with the leaking roof and bring the public areas of the building (including but not limited to the entrance, hallways, and restrooms) into compliance with Americans with Disabilities Act (ADA) requirements.

According to the AIP handbook, terminal building modifications to meet federal mandates (e.g., ADA standards) are eligible for AIP funding, provided that modifications are being made to public use areas, such as public entrances, hallways, and restrooms. Additionally, certain terminal building rehabilitation projects, such as the replacement of a significant portion of a terminal roof, are eligible for AIP funding. Terminal building improvements are not eligible for discretionary funding, so the Airport would be limited to nonprimary entitlements (\$150,000 per year) for the terminal building improvements described above.

**Estimated project cost: \$300,000** (FAA Share \$270,000; State Share \$15,000; Local Share \$15,000)

## 7.6 MID-TERM IMPROVEMENTS

The following projects are proposed for mid-term development over the 5 to 10-year planning period (2027-2031). The following descriptions are for planning purposes only and may require refinements and review prior to starting work on a particular project.

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### 7.6.1 CONSTRUCT SRE BUILDING

This project is for the construction of a snow removal equipment building (estimated at 1,600 square feet) in accordance with FAA regulations for buildings for storage and maintenance of airport snow and ice control equipment and materials, with access driveway in the area behind the EAA hangar. This project will avoid occupying space suitable for hangar construction, and instead will construct the building outside of the fence.

SRE building construction is eligible for federal funding assistance; however, costs for the construction of SRE building space for personnel quarters, training space, or other non-equipment storage functions are not eligible.

**Estimated project cost: \$1,100,000** (FAA Share \$990,000; State Share \$55,000; Local Share \$55,000)

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### 7.6.2 ACQUISITION OF SNOW REMOVAL EQUIPMENT

This project is for the acquisition of a carrier vehicle and attachments to replace or supplement the Airport's existing equipment. The Airport is currently operating a 2004 John Deer loader, which is in good condition; however, it is recommended that acquisition of a replacement vehicle or a second carrier vehicle be programmed for later in the mid-term planning period. At the end of the mid-term period (2031), the existing loader will be 27 years old.

As outlined in Chapter 5, B19 is eligible to receive AIP funding for acquisition of SRE in accordance with FAA regulations for airport snow and ice control equipment

**Estimated project cost: \$350,000** (FAA Share \$315,000; State Share \$17,500; Local Share \$17,500)

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### 7.6.3 INSTALL WEATHER MONITORING CAMERAS

This project is for the installation of weather monitoring cameras at the Airport to provide pilots with real-time photos of weather conditions on the airfield. The Airport should consult with the FAA Weather Camera Office and MaineDOT in advance of the project to discuss ideal locations for weather camera locations, timing of installation, and maintenance requirements.

The installation of weather monitoring cameras is not AIP eligible; however, MaineDOT is currently exploring the feasibility of a statewide program, so additional funding assistance may be available for this project in the future.

**Estimated project cost: \$20,000** (FAA Share \$0.00; State Share \$0.00; Local Share \$20,000)

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#### 7.6.4 RECONSTRUCT HANGAR TAXILANE – HANGAR ROW 1

This project is for the reconstruction and reconfiguration of the Hangar Row 1 Taxilane . The taxilane will be reconfigured to accommodate future construction of a parallel taxiway by connecting Hangar Row 1 to the Main Apron at the standard 125-foot centerline separation. According to the Airport’s Pavement Condition Report, the Hangar Row 1 Taxilane has a PCI of 39 (very poor).Considering that this report was prepared in 2018, and it is estimated that pavements will deteriorate at a rate of between 1 to 3 points per year, it is reasonable to estimate that, conservatively, the taxilane will deteriorate as follows by the beginning of the mid-term planning period (2027):

- Hangar Row 1 Taxilane: PCI of 30 (very poor)

.This project will include:

- Full depth reconstruction including removal of existing pavement and base materials, subgrade preparation.
- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.
- Erosion control.
- Application of markings.

Taxilane reconstruction projects are eligible for AIP funding assistance.

**Estimated project cost: \$1,000,000** (FAA Share \$900,000; State Share \$100,000; Local Share \$100,000)

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#### 7.6.4 RECONSTRUCT HANGAR TAXILANE – HANGAR ROW 2

This project is for the reconstruction and reconfiguration of the Hangar Row 2 Taxilane. The taxilane will be reconfigured to accommodate future construction of a parallel taxiway by connecting Hangar Row 2 to the new Hangar Row 1 Taxilane at the standard 125-foot centerline separation. According to the Airport’s Pavement Condition Report, the Hangar Row 2 Taxilane has a PCI of 69 (fair).Considering that this report was prepared in 2018, and it is estimated that pavements will deteriorate at a rate of between 1 to 3 points per year, it is reasonable to estimate that, conservatively, the taxilane will deteriorate as follows by the beginning of the mid-term planning period (2027):

- Hangar Row 2 Taxilane: PCI of 60 (fair)

.This project will include:

- Full depth reconstruction including removal of existing pavement and base materials, subgrade preparation.
- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.

- Erosion control.
- Application of markings.

Taxilane reconstruction projects are eligible for AIP funding assistance.

**Estimated project cost: \$1,000,000** (FAA Share \$900,000; State Share \$100,000; Local Share \$100,000)

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#### 7.6.5 CONSTRUCT FULL PERIMETER FENCING AROUND AIRPORT PROPERTY

This project is for the construction of approximately 15,250 LF of perimeter fencing and associated access gates to fully enclose airport property. This will prevent large, bodied mammals (e.g., deer and domestic dogs) and trespassers from accessing the airfield and will enhance safety and security.

Fencing projects are eligible for AIP funding assistance.

**Estimated project cost: \$950,000** (FAA Share \$855,000; State Share \$47,500; Local Share \$47,500)

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## 7.7 LONG-TERM IMPROVEMENTS

The following projects are proposed for long-term development over the 5 to 10-year planning period (2022-2041). The following descriptions are for planning purposes only and may require refinements and review prior to starting work on a particular project.

### 7.7.1 COMPLETE PARTIAL PARALLEL TAXIWAY

This project is for the construction of the final portion of the partial parallel taxiway, connecting the hangar taxilanes with Runway 06-24, midway between the existing stub taxiway and the Runway 24 end. This project will enhance airfield safety by removing the non-compliant stub taxiway from Runway 06-24 to the Main Apron and eliminating direct runway-to-apron access and the direct line from vehicle gate to Runway 06-24. This project will include:

- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.
- Erosion control.
- Application of markings.

Taxiway construction projects are eligible for AIP funding assistance.

**Estimated project cost: \$700,000** (FAA Share \$630,000; State Share \$35,000; Local Share \$35,000)

### 7.7.2 CONSTRUCT RUNWAY 06 END EXTENSION AND RSA TO ACHIEVE 3,200 FEET

This project is for the construction of a 199-foot extension to the Runway 06 end, including a compliant Runway Safety Area (RSA), to achieve a total runway length of 3,200 feet. This project will include the following:

- Full-depth construction of an additional 199 feet of pavement on the Runway 06 end.
- Application of runway markings.
- Installation of runway lights.
- Construction of an additional 139 feet of RSA.

Runway construction projects are eligible for AIP funding assistance.

**Estimated project cost: \$515,000** (FAA Share \$463,500; State Share \$25,750; Local Share \$25,750)

### 7.7.3 APRON EXPANSION

This project is for the expansion of the Airport's aprons to accommodate additional tie-down spaces or hangar construction in the West Apron area as demand warrants. This project will also include:

- Full depth construction including removal of existing pavement and base materials, subgrade preparation.
- Placement of a gravel subbase, aggregate base layers, and bituminous concrete pavement.
- Erosion control.

- Application of markings.

Apron construction is eligible for AIP funding provided that it will be used for aircraft parking. The project cannot include pavement for auto parking, other non-aeronautical uses, or exclusive use areas (must be public use).

**Estimated project cost: \$600,000** (FAA Share \$540,000; State Share \$30,000; Local Share \$30,000)

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