FLORIDA DEPARTMENT OF TRANSPORTATION | **AVIATION OFFICE**

2022

Statewide Airfield Pavement Management Program

Airport Pavement Evaluation Report

MTH - The Florida Keys

Marathon International Airport | *District 6*

FDOT AVIATION

Florida Department of Transportation

Statewide Airfield Pavement Management Program

Airport Pavement Evaluation Report

Prepared by:

FDOT Aviation Office
605 Suwannee Street
Tallahassee, Florida 32399-0450

Website: FDOT Aviation Office

Interactive Web Application: FDOT SAPMP Interactive Web Application

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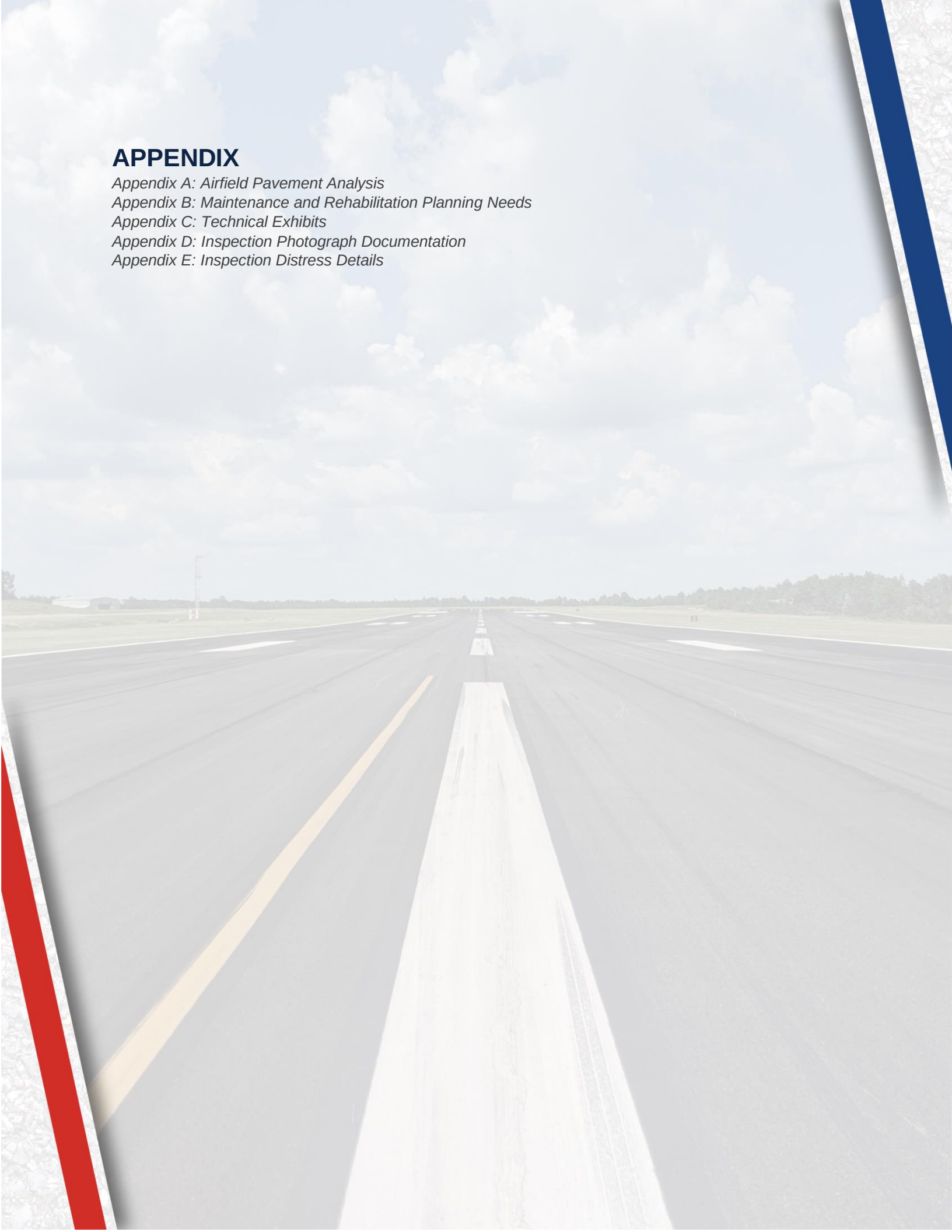

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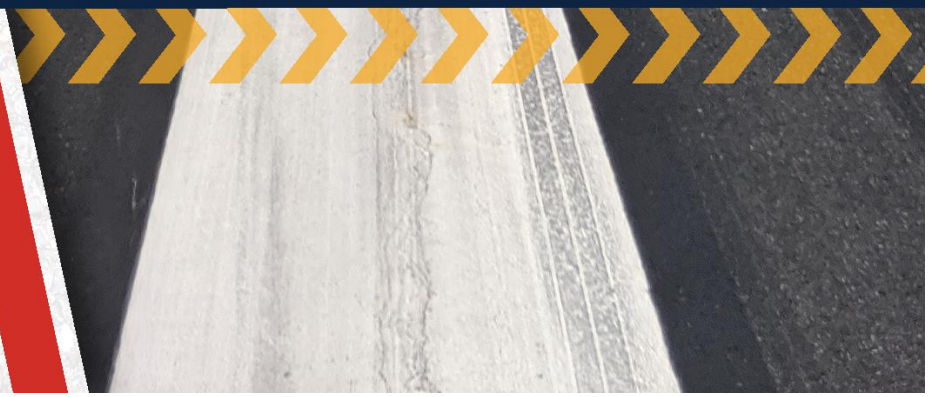


Executive Summary

Program Background

The FDOT Aviation Office (AO) has a mission to provide a safe and secure air transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. As part of ongoing efforts in fulfilling this mission, the Aviation Office is executing a System Update to the Statewide Airfield Pavement Management Program (SAPMP). The scope of the SAPMP encompasses 95 public-use airport facilities distributed throughout the seven (7) participating FDOT Districts. The Florida Keys Marathon International Airport's System Update results are presented in this report and can be utilized by FDOT and the Federal Aviation Administration (FAA) to identify, prioritize, and schedule pavement maintenance, repair, and major rehabilitation projects.

Pavement condition was assessed utilizing the pavement condition index (PCI) methodology as defined in FAA Advisory Circular 150/5380-7B "Airport Pavement Management Program (PMP)" using the procedures documented in ASTM D5340-20 **"**Standard Test Method for Airport Pavement Condition Index Surveys".

The PCI methodology provides a means for systematically assessing pavement condition and provides an indication of the degree of maintenance, repair, rehabilitation, or reconstruction efforts required to sustain functional pavement conditions. Pavement deterioration, in accordance with ASTM D5340-20, is characterized in terms of distinct distress types, distress severity levels, and quantity of distress. This information is utilized to calculate a PCI value ranging from 0 to 100, which provides an indication of the overall condition of the pavement, with "100" indicating a pavement in new condition and "0" indicating a failed pavement section. This is graphically depicted in **Figure E.1**.

Figure E.1: PCI Rating

Color	Range	Condition Rating
	86-100	Good
	71-85	Satisfactory
	56-70	Fair
	41-55	Poor
	26-40	Very Poor
	11-25	Serious
	0-10	Failed

Current Pavement Conditions

In October 2022, approximately 1.7 million square feet of pavement was assessed as part of the airside pavement network PCI survey at The Florida Keys Marathon International Airport (MTH). In general, airfield pavements at MTH are in Poor condition with an area-weighted PCI of 54. The area-weighted average PCI values of the runways, taxiways, and aprons are 48, 57, and 56, respectively. **Figure E.2** and **Table E.1** summarize the current PCI values for MTH.

Figure E.2: Current Condition Summary – Branch-Level

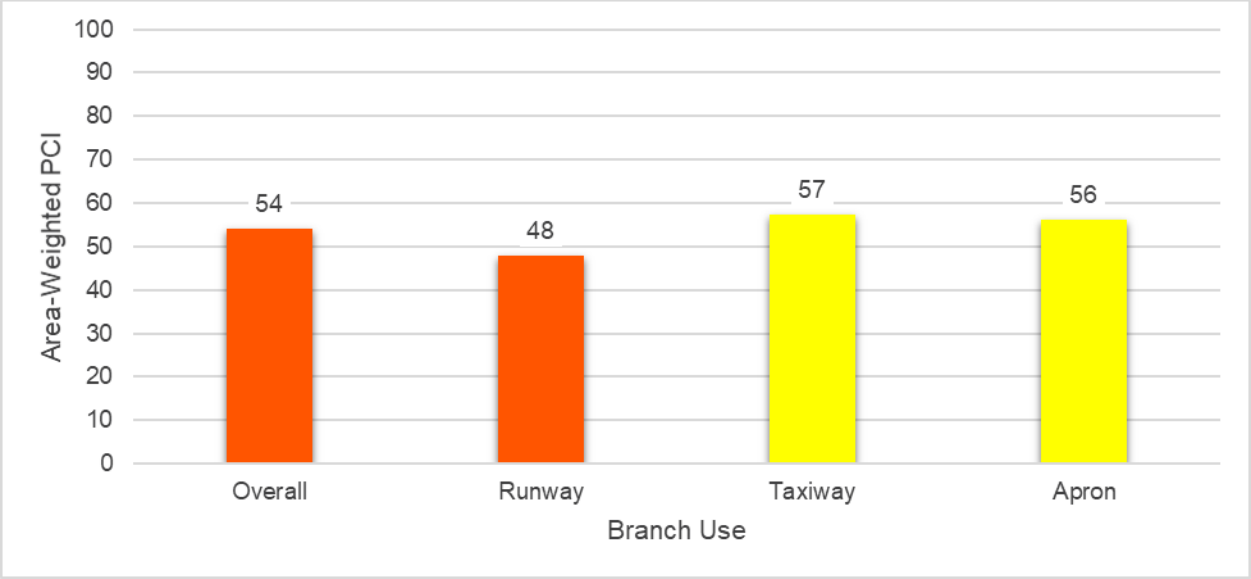


Table E.1: Pavement Condition Index Summary (Current PCI Survey) – Section Level

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	PCI	Condition Rating
MTH	RW 7-25	Runway	6105	500,800	48	Poor
MTH	TW A	Taxiway	105	252,086	54	Poor
MTH	TW A	Taxiway	115	50,654	61	Fair
MTH	TW A6	Taxiway	160	18,521	56	Fair
MTH	TW B	Taxiway	151	10,353	50	Poor
MTH	TW C	Taxiway	205	6,247	54	Poor
MTH	TW C	Taxiway	210	3,873	49	Poor
MTH	TW D	Taxiway	305	9,290	48	Poor
MTH	TW D	Taxiway	310	7,468	66	Fair
MTH	TW E	Taxiway	152	5,537	71	Satisfactory
MTH	TW E	Taxiway	155	5,103	56	Fair
MTH	TW E	Taxiway	405	39,035	77	Satisfactory
MTH	AP E	Apron	4505	32,298	69	Fair
MTH	AP E	Apron	4510	28,781	45	Poor
MTH	AP E	Apron	4515	32,261	94	Good
MTH	AP FLGHT C	Apron	4105	276,751	55	Poor
MTH	AP FLGHT C	Apron	4110	4,112	16	Serious

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	PCI	Condition Rating
MTH	AP FLGHT C	Apron	4115	22,974	71	Satisfactory
MTH	AP FLGHT C	Apron	4125	14,266	76	Satisfactory
MTH	AP FLGHT C	Apron	4130	8,280	83	Satisfactory
MTH	AP JET CTR	Apron	4305	108,317	38	Very Poor
MTH	AP JET CTR	Apron	4308	3,269	70	Fair
MTH	AP JET CTR	Apron	4315	60,631	51	Poor
MTH	AP JET CTR	Apron	4320	3,223	27	Very Poor
MTH	AP JET CTR	Apron	4325	5,039	21	Serious
MTH	AP JET CTR	Apron	4330	4,858	100	Good
MTH	AP TERM	Apron	4205	27,943	57	Fair
MTH	AP TERM	Apron	4210	10,440	55	Poor
MTH	AP TERM	Apron	4220	87,363	58	Fair
MTH	AP T-HANG	Apron	4405	34,309	68	Fair

Forecasted Pavement Conditions

Table E.2 provides section-level details for PCI forecasts. Pavement condition forecasts should be used for planning purposes only, as the actual condition of sections is subject to sensitivities in changes of traffic and maintenance frequency.

The estimation of forecasted PCI values gives no assurance of future pavement conditions as PCI values represent an engineering estimation to be used as a planning tool. Forecasted PCI data should not be the sole metric for determining the year in which a project should be planned. Design-level planning should be undertaken by the responsible engineer prior to the development of airfield design plans.

Table E.2: Forecasted PCI Values 2023-2032 – Section-Level

Network ID	Branch ID	Section ID	Current PCI	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MTH	RW 7-25	6105	48	47	45	43	41	39	37	35	33	31	29
MTH	TW A	105	54	53	51	49	48	46	44	41	39	37	34
MTH	TW A	115	61	60	60	59	58	58	57	57	56	56	55
MTH	TW A6	160	56	55	53	51	49	47	45	43	41	39	37
MTH	TW B	151	50	49	47	45	43	40	38	36	33	30	28
MTH	TW C	205	54	53	51	49	48	46	44	41	39	37	34
MTH	TW C	210	49	48	46	44	41	39	37	34	31	29	26
MTH	TW D	305	48	47	45	42	40	38	35	33	30	27	25
MTH	TW D	310	66	65	64	63	61	60	59	57	56	54	53
MTH	TW E	152	71	70	69	68	66	65	64	63	61	60	59
MTH	TW E	155	56	55	53	52	50	48	46	44	42	40	37
MTH	TW E	405	77	76	74	73	72	70	69	68	67	66	65
MTH	AP E	4505	69	68	66	65	64	62	61	60	59	58	57
MTH	AP E	4510	45	45	44	44	43	43	42	42	41	41	41
MTH	AP E	4515	94	92	90	88	86	84	82	80	78	76	74
MTH	AP FLGHT C	4105	55	54	53	53	52	51	50	49	49	48	47
MTH	AP FLGHT C	4110	16	15	14	13	12	11	11	10	9	8	7

Network ID	Branch ID	Section ID	Current PCI	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MTH	AP FLGHT C	4115	71	70	68	67	65	64	63	62	60	59	58
MTH	AP FLGHT C	4125	76	75	73	71	70	68	67	65	64	63	62
MTH	AP FLGHT C	4130	83	82	81	80	79	78	78	77	76	75	74
MTH	AP JET CTR	4305	38	38	37	37	36	36	36	35	35	34	34
MTH	AP JET CTR	4308	70	69	68	67	66	65	65	64	63	62	61
MTH	AP JET CTR	4315	51	50	50	49	48	48	47	46	46	45	45
MTH	AP JET CTR	4320	27	26	26	25	24	23	23	22	21	20	19
MTH	AP JET CTR	4325	21	20	19	18	17	16	16	15	14	13	12
MTH	AP JET CTR	4330	100	97	96	95	94	93	92	91	90	89	88
MTH	AP TERM	4205	57	56	54	52	50	48	46	44	42	40	38
MTH	AP TERM	4210	55	54	53	53	52	51	50	49	49	48	47
MTH	AP TERM	4220	58	57	56	55	54	53	53	52	51	50	49
MTH	AP T-HANG	4405	68	67	66	64	63	62	60	59	58	57	56

Major Rehabilitation Planning 2023-2032

Localized maintenance and repair policies identified within this report are categorized as preventive or stopgap based on FDOT SAPMP and FAA maintenance policies and recommendations. Major rehabilitation is identified within the FDOT SAPMP as a major construction activity that results in a reset of a pavement section's PCI to a value of 100. Major rehabilitation activities can include mill and Asphalt Concrete (AC) overlay, Portland cement concrete (PCC) pavement repair and slab replacement, and full-depth reconstruction. It is recommended that the Airport use this report as a planning tool for future project development and prioritization. Localized maintenance, repair, and major rehabilitation recommendations should be considered as planning-level only. Final localized maintenance, repair, and major rehabilitation recommendations are subject to change based on Airport prioritization and further design-level evaluations.

Due to FAA Order 5100.38D Change 1 Airport Improvement Program (AIP) Handbook (February 26, 2019), a substantial update to the FDOT SAPMP policy on identifying major rehabilitation work has been incorporated in this System Update. In previous System Updates, major rehabilitation had been identified for pavement sections below a PCI Value of 65; however, based on the thresholds identified by the FAA in the AIP Handbook, major rehabilitation will now be identified for pavement sections below a PCI value of 70.

The results of the maintenance, repair, and major rehabilitation analysis identified approximately $23.83M in major rehabilitation needs for the 10-year forecast period. Year 1 major needs are $23.17M and localized maintenance needs for Year 1 are $0.05M.

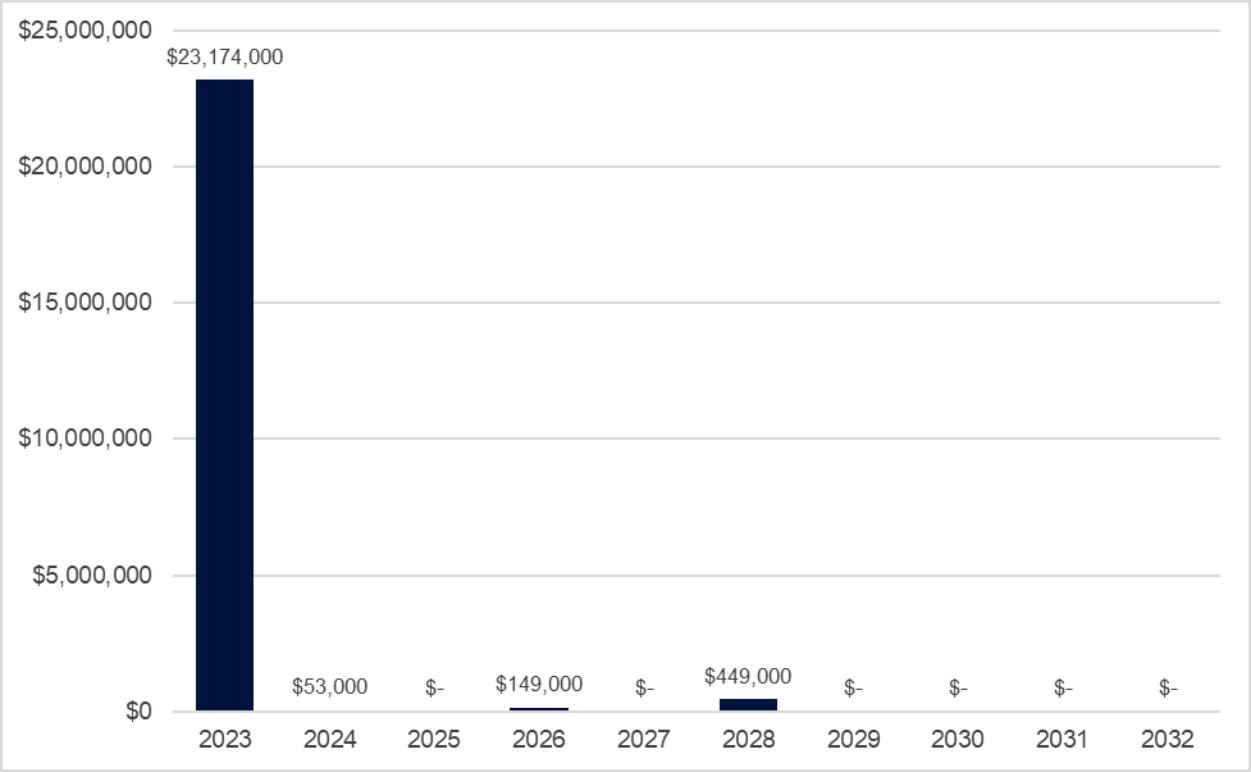
Table E.3: Major Rehabilitation Planning 2023-2032

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2023	**MTH**	RW 7-25	6105	AAC	500,800	47	AC Reconstruction	$ 8,013,000
2023	**MTH**	TW A	105	AAC	252,086	53	AC Reconstruction	$ 4,034,000
2023	**MTH**	TW A	115	AC	50,654	60	AC Rehabilitation	$ 456,000
2023	**MTH**	TW A6	160	AAC	18,521	55	AC Reconstruction	$ 219,000
2023	**MTH**	TW B	151	AAC	10,353	49	AC Reconstruction	$ 166,000
2023	**MTH**	TW C	205	AAC	6,247	53	AC Reconstruction	$ 100,000
2023	**MTH**	TW C	210	AAC	3,873	48	AC Reconstruction	$ 62,000
2023	**MTH**	TW D	305	AAC	9,290	47	AC Reconstruction	$ 149,000
2023	**MTH**	TW D	310	AAC	7,468	65	AC Rehabilitation	$ 68,000
2023	**MTH**	TW E	155	AAC	5,103	55	AC Reconstruction	$ 49,000
2023	**MTH**	AP E	4505	AC	32,298	68	AC Rehabilitation	$ 291,000
2023	**MTH**	AP E	4510	AC	28,781	45	AC Reconstruction	$ 461,000
2023	**MTH**	AP FLGHT C	4105	AC	276,751	54	AC Reconstruction	$ 3,809,000
2023	**MTH**	AP FLGHT C	4110	PCC	4,112	15	PCC Reconstruction	$ 120,000
2023	**MTH**	AP FLGHT C	4115	AC	22,974	70	AC Rehabilitation	$ 207,000
2023	**MTH**	AP JET CTR	4305	AC	108,317	38	AC Reconstruction	$ 1,734,000
2023	**MTH**	AP JET CTR	4308	PCC	3,269	69	PCC Rehabilitation	$ 50,000
2023	**MTH**	AP JET CTR	4315	AC	60,631	50	AC Reconstruction	$ 971,000
2023	**MTH**	AP JET CTR	4320	AC	3,223	26	AC Reconstruction	$ 52,000

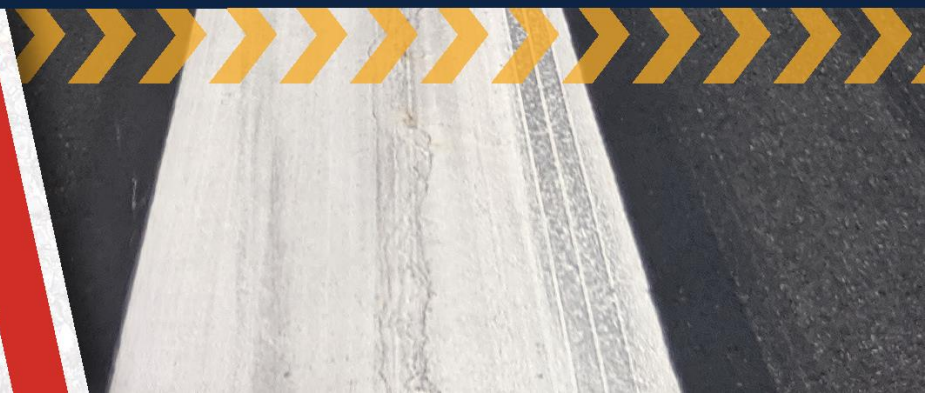
Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2023	**MTH**	AP JET CTR	4325	PCC	5,039	20	PCC Reconstruction	$ 147,000
2023	**MTH**	AP TERM	4205	AAC	27,943	56	AC Rehabilitation	$ 252,000
2023	**MTH**	AP TERM	4210	AC	10,440	54	AC Reconstruction	$ 144,000
2023	**MTH**	AP TERM	4220	PCC	87,363	57	PCC Rehabilitation	$ 1,311,000
2023	**MTH**	AP T-HANG	4405	AC	34,309	67	AC Rehabilitation	$ 309,000
2024	**MTH**	TW E	152	AAC	5,537	69	AC Rehabilitation	$ 53,000
2026	**MTH**	AP FLGHT C	4125	AC	14,266	70	AC Rehabilitation	$ 149,000
2028	**MTH**	TW E	405	AC	39,035	69	AC Rehabilitation	$ 449,000

**All planning cost values have been rounded up to the nearest thousand dollars.*

Figure E.3: 10-Year Major Rehabilitation Needs by Program Year



Chapter 1: Introduction



Chapter 1 – Introduction

The State of Florida has 128 public airports, 100 of which are recognized as part of the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS). These public-use airports are vital to Florida's economy as well as the economy of the United States. The Florida Airport System (FAS) provides opportunities for the State to capitalize on an increasingly global marketplace. Florida's system of commercial service and general aviation airports are important to businesses throughout the State as air travel is essential to tourism, Florida's most prominent industry.

1.1 Background

In 1992, the Florida Department of Transportation (FDOT) established the Statewide Airfield Pavement Management Program (SAPMP) to provide program managers, District Aviation Offices, and Airport operators with a system to proactively manage airfield pavement infrastructure within the FAS. The SAPMP includes network-level Pavement Condition Index (PCI) surveys for Airport facilities that are categorized as General Aviation (GA), Reliever (RL), and Primary/Commercial (PR). Currently, the SAPMP includes 95 participating public-use airports with pavement facilities and provides its users with comprehensive data to better manage their pavement assets.

There are millions of square feet of pavement infrastructure at airports across a network of runways, taxiways, aprons, and other areas. This pavement infrastructure is vital to the support and safety of aircraft operations. Timely maintenance, repair, and major rehabilitation of pavement infrastructure allows the Airport to operate safely, efficiently, and economically without excessive down time.

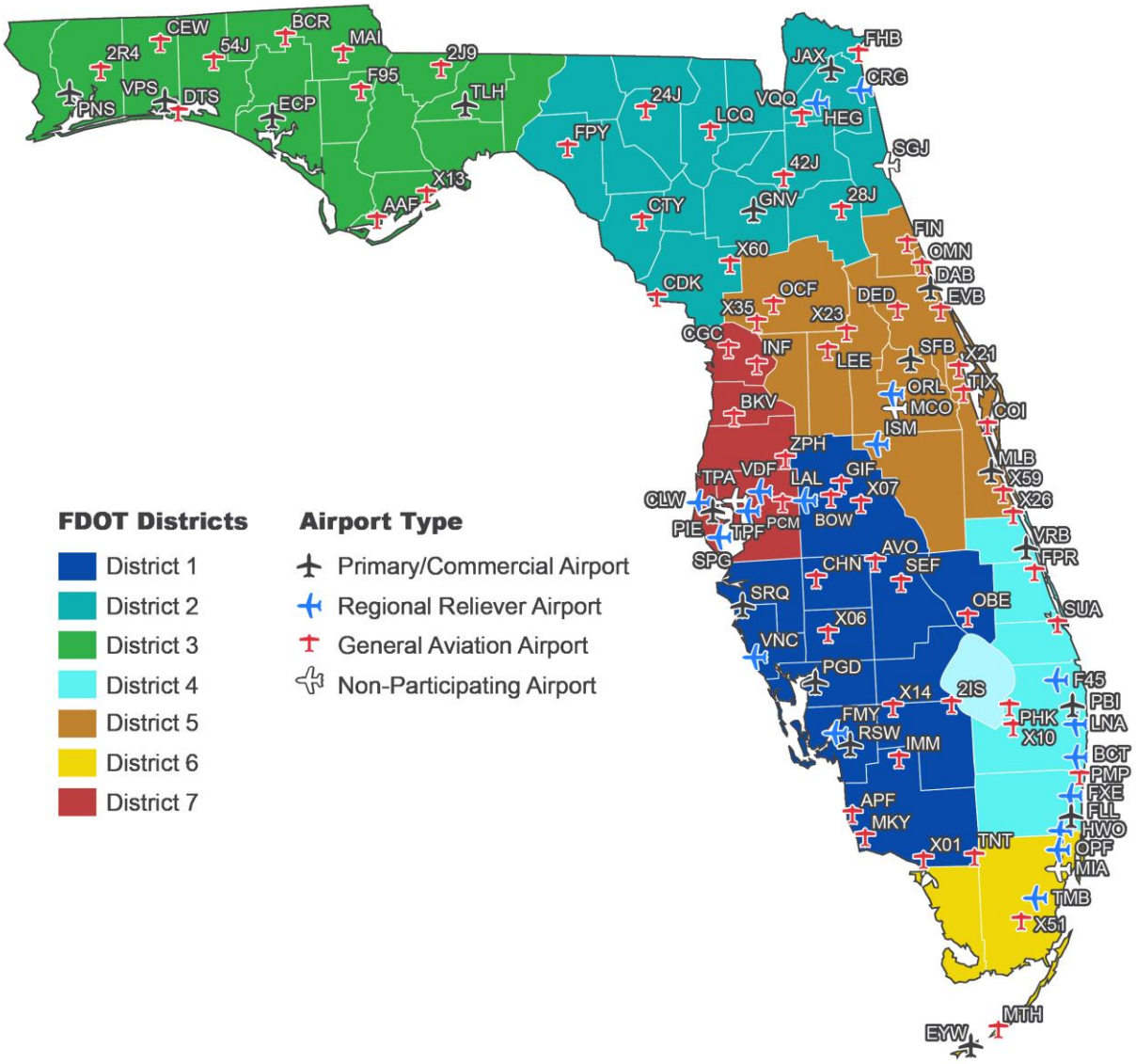
Airports participating in the Airport Improvement Program (AIP) Grant Program are required by the FAA to develop and implement a pavement maintenance program in order to be eligible for funding, per FAA Advisory Circulars 150/5380-6C "Guidelines and Procedures for Maintenance of Airport Pavements" and 150/5380-7B "Airport Pavement Management Program (PMP)". The AIP program requires detailed assessments of airfield pavements at least once a year for a pavement management program. The frequency of the detailed inspections may be extended to every three years if the pavement is assessed according to the PCI survey procedure described in ASTM D5340-20 "Standard Test Method for Airport Pavement Condition Index Surveys".

In general, adherence to the FAA Advisory Circulars is mandatory for projects funded with federal grant monies through the AIP program and with revenue from the Passenger Facilities Charges (PFC) Program. Further information is detailed in FAA Grant Assurance No. 11 "Pavement Maintenance," No. 34 "Policies, Standards, and Specifications," and PFC Assurance No. 9 "Standards and Specifications." The FDOT performs the SAPMP System Updates for the benefit of participating public-use and publicly-owned airports through the Aviation Office (AO).

The SAPMP addresses the requirements of maintaining an effective pavement management program for participating airports at the network level. Network-level management of pavement assets provides insight for short-term and long-term budget needs, understanding of the overall condition of the network (current and future), and knowledge of the pavement facilities that are

under consideration for projects. A network-level evaluation can support the identification of maintenance, repair, and major rehabilitation needs and budgetary planning-level opinions of probable construction costs.

Figure 1.1: Florida Aviation System (Facilities with Pavement) and FDOT Districts



1.2 Stakeholders

The SAPMP is performed for the benefit of the stakeholders. The table below outlines the primary stakeholders of the FDOT SAPMP and their role in the program.

Table 1.2: FDOT SAPMP Stakeholders

Role	Description
FAA Orlando Airports District Office (Orlando ADO)	Key Stakeholder: local ADO Program Manager personnel that oversees the grant administration of AIP grant with Planning Agency Sponsor (Florida Department of Transportation).
Florida Department of Transportation (FDOT)	Key Stakeholder: the FDOT is the "Sponsor" for the AIP grant agreement. Specifically, the Aviation Office (AO) provides development and operations support for the Florida Airport System.
FDOT District Offices	The seven (7) FDOT District Offices, specifically the Aviation representatives, provide essential support to the SAPMP System Update and the AO Program Manager (AO-PM). Each District supports the SAPMP's ongoing efforts by providing local construction cost information throughout the State, which is used as the basis of development for maintenance, repair, and major rehabilitation opinions of probable construction costs for planning purposes.
Participating Public-Use and Publicly-Owned Airports	The airports are the end-user and primary beneficiary of the SAPMP. The SAPMP provides a specific Airport Pavement Evaluation Report that meets the requirements of the FAA AC 150/5380-7B. Individual participating airports are provided a final Airport Pavement Evaluation Report by the Consultant that is specific to each airport's airfield PCI assessment.
Aviation Office Program Manager (AO-PM)	FDOT AO Airport Engineering Manager: oversees and manages the overall Program System Update.

1.3 General Scope of Work

The SAPMP is limited to performing tasks in adherence to the key elements of an effective pavement management program on a statewide level. The primary tasks undertaken to update the FDOT SAPMP include, but are not limited to:

- Research and evaluation of existing record documentation;
- Establishment of a pavement system inventory;
- Development of a pavement network definition map and supplemental GIS model;
- Functional pavement evaluations via the PCI assessment method;
- Customization of PAVER™ software including prioritization, policies, and performance models;
- Analysis of condition data; and
- Maintenance, repair, and rehabilitation planning.

1.4 FDOT SAPMP Objectives

The SAPMP enables the FDOT AO and FAA to monitor pavement conditions at airports in the Florida Airport System. The SAPMP provides objective condition information needed to make informed decisions regarding the significant capital investment that the public-use airport pavement infrastructure represents.

Airport staff are responsible for making decisions regarding the timing and type of maintenance and rehabilitation activities that should be completed in order to maintain an acceptable operational condition and adequate load-carrying capacity. Utilizing the SAPMP will help Airport staff better understand the relative condition of their pavement facilities and when those facilities should be rehabilitated. The data collected from the SAPMP can be used for project programming for the next 10 years. This report summarizes the data collection, analysis, program update, and implementation of the FDOT SAPMP.

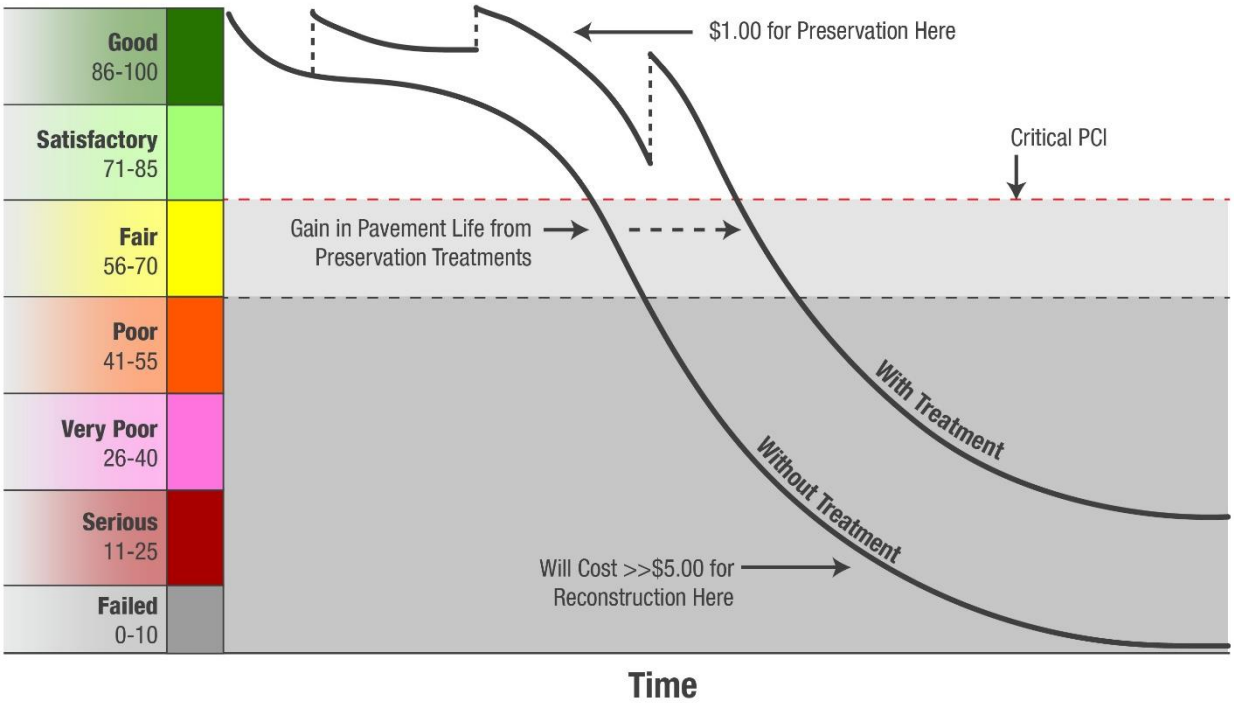
A comprehensive SAPMP provides information that assists with the project programming process. The primary objectives of the FDOT SAPMP consist of the following:

- Assist airports in meeting the requirements of Public Law 103-305;
- Assist airports in complying with FAA Grant Assurances 11 and 19;
- Provide airports with functional pavement condition in accordance with ASTM D5340-20 (current) and with the FAA AC 150/5380-7B (current) based on visual assessment efforts;
- Provide airports with planning-level guidance on maintenance, repair, and rehabilitation in accordance with the FAA AC 150/5380-6C (current) based on pavement conditions and distress data in terms of type, severity, and extent; and
- Provide airports, FDOT Districts, FDOT AO, and the FAA Airports District Office with long-term, planning-level forecasts of pavement performance and rehabilitation budgetary needs (e.g., maintenance, repair, and major reconstruction) through reports.

From a pavement management perspective, one of the most valuable aspects of the PCI methodology is the ability to save money by effectively prioritizing the rehabilitation of pavement assets before they reach critical condition. Critical PCI values are assigned to deterioration models for pavement assets based on their respective use and rank. The concept of critical PCI will be further discussed in **Chapter 5**, but it is used as a benchmark to help identify pavement assets that should receive rehabilitation. In doing so, the PCI methodology can help create a proactive maintenance and rehabilitation (M&R) strategy to effectively address pavement projects before the cost of these projects increases significantly.

With M&R costs escalating over time, the consequences of inadequate maintenance practices can result in an inefficient allocation of funding. If maintenance is conducted before a significant decline in pavement condition occurs, substantial repair and/or rehabilitation costs may be avoided or delayed. **Figure 1.4** illustrates how the cost of pavement repairs can significantly increase if M&R activities are delayed.

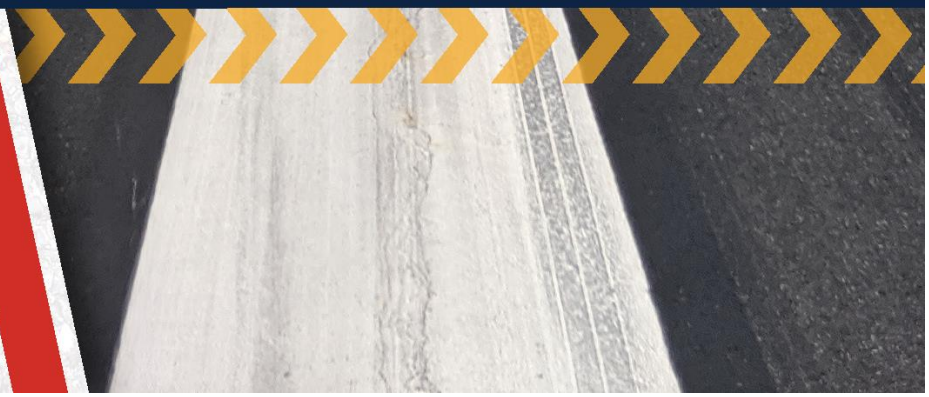
Figure 1.4: Pavement Life and the Effect of Treatments



FAA Eligibilty Thresholds: ☐ **>70:** Routine Maintenance ☐ **55-70:** Rehabilitation Eligible ☐ **<55:** Reconstruction Eligible

**Figure is for conceptual purposes only – unit costs are not specific to airfield pavements*

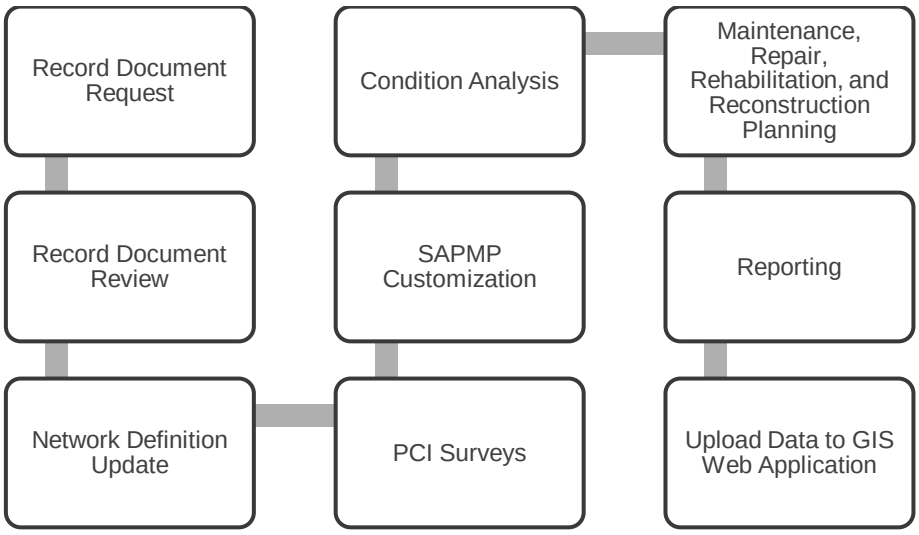
Chapter 2: Methodology



Chapter 2 – Methodology

An effective pavement management program incorporates both the regular collection of pavement condition information and communication of information to appropriate sponsors. This chapter of the report defines the specific methods utilized as part of the SAPMP System Update to meet the requirements of an effective pavement management system as defined by the FAA AC 150/5380-7B. **Figure 2** summarizes the overall process for the FDOT SAPMP.

Figure 2: FDOT SAPMP General Process



2.1 Airfield Pavement Database

This SAPMP utilizes PAVER™ 7.0 software as its airfield pavement database. The PAVER™ software application was developed by the U.S. Army Construction Engineering Research Laboratory and sponsored by the FAA, Federal Highway Administration, U.S. Army, U.S. Air Force, and U.S. Navy to meet the objectives of an effective pavement management system. The PAVER™ database includes a network-level inventory of the participating airport's eligible airfield pavement facilities. PAVER™ can achieve the following pavement management objectives:

- Create a manageable inventory system;
- Analyze the current condition of pavements in accordance with ASTM D5340-20;
- Develop pavement performance models to forecast conditions; and
- Generate maintenance, repair, and major rehabilitation recommendations based on budgetary scenarios.

PAVER™ inventory management is based on a tiered organizational structure consisting of networks, branches, sections, and samples, with the sample being the smallest unit of management. Critical elements of an effective pavement management program are maintained within the network-level PAVER™ database and typically consist of pavement inventory

characteristics, pavement structure, work history, historic condition records, and analytical customization.

2.2 Airfield Pavement Record Keeping (Historical Records Research)

In accordance with the FAA AC 150/5380-7B, it is a best practice that airports maintain records of all airfield construction and maintenance (routine, emergency, and proactive) related to the pavement facilities. These records should consist of:

- Location and limits of work;
- Types and severities of repaired distresses;
- Work type and cost; and
- Supporting documents (e.g., contract documents, construction drawings, specifications, bid tabulations, repair products, and photograph records).

As part of the SAPMP, participating airport's staff was asked to provide documentation regarding the historical work performed at the Airport, including construction drawings and bid tabulations. This information is used to identify location, limits, type of work, pavement cross-sections, and representative material costs.

Updated historical data collected during this task was entered into the PAVER™ database. This database includes the following fields for historical information:

- Date of last construction/rehabilitation
- Work type performed
- Comments for documenting pavement cross-section
- Pavement surface type
- Section area (limits of work)

The SAPMP PAVER™ database accuracy is limited to the record documentation provided by the participating airports. Airport Sponsors should rely on this information as a planning tool and defer to final as-built plans, record drawings, and/or engineer's construction report for pavement construction records.

2.3 Airfield Pavement Structure

A pavement is a prepared surface designed to provide a continuous, smooth ride at a certain speed and to support an estimated amount of traffic for a certain number of years. A pavement structure is composed of constructed layers consisting of subgrade, subbase, base, structural, and surface courses. For the FDOT SAPMP, two (2) predominant pavement types are classified for evaluation and analysis: Asphalt Concrete (AC) and Portland cement concrete (PCC). Composite Structures, known as Whitetopping Pavements consisting of PCC on AC, are also present at limited airports in Florida and are evaluated separately.

2.3.1 Asphalt Concrete

Asphalt concrete is a pavement comprised of aggregate mixture with an asphalt cement binder. The FDOT SAPMP categorizes three (3) Asphalt Concrete surface types: Asphalt Concrete (AC), Asphalt Concrete overlaid on Asphalt Concrete (AAC), and Asphalt Concrete overlaid on Portland cement concrete (APC).

Asphalt Concrete (AC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on engineered base course material that is layered on subbase and subgrade soil material.

Asphalt Concrete Overlaid on Asphalt Concrete (AAC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on an existing flexible AC pavement section. Airfield pavement sections are considered to be AAC when a pavement rehabilitation includes a pavement milling and resurfacing operation or a direct overlay of Asphalt Concrete without surface preparation.

Asphalt Concrete Overlaid on Portland Cement Concrete (APC)

A flexible pavement section consisting of aggregate mixture with asphalt cement binder layered on an existing PCC pavement section. This unique pavement composition may result in distinct pavement distress manifestations known as reflective joint cracking.

2.3.2 Portland Cement Concrete

Portland cement concrete is a pavement comprised of aggregate mixture with a Portland cement binder. The FDOT SAPMP categorizes Portland cement concrete (PCC) as the primary rigid pavement section.

Portland Cement Concrete (PCC)

A rigid pavement section composed of Portland cement concrete placed on a granular or treated base course that is supported on a compacted subgrade. The concrete surface provides a texture of nonskid qualities, prevents the infiltration of surface water into the subgrade, and provides structural support for airplane loading. Rigid pavement construction requires the layout of appropriately designed joints. Concrete overlays built in accordance with the FAA Advisory Circular 150/5320-6F “Airport Pavement Design and Evaluation” are recognized as PCC pavement.

2.3.3 Composite Structure – Whitetopping Pavement

Whitetopping pavement is a composite pavement comprised of relatively thin PCC overlaid on an existing AC pavement structure. There are three (3) types of Whitetopping Pavements: Conventional (WT), Thin (TWT), and Ultra-Thin (UWT).

Conventional Whitetopping (WT)

A composite pavement structure consisting of a modified PCC overlaid on an existing AC pavement section. The modified PCC layer is typically greater than 6 inches in thickness.

Thin Whitetopping (TWT)
A composite pavement structure consisting of modified PCC overlaid on an existing AC pavement section. The modified PCC layer is typically between 4 and 6 inches in thickness.

Ultra-Thin Whitetopping (UWT)
A composite pavement structure consisting of a modified PCC overlaid on an existing AC pavement section. The modified PCC layer is typically between 2 and 4 inches in thickness.

2.4 Airfield Pavement Traffic

A pavement section is typically designed to meet the needs of the user (airlines, air cargo, general aviation, and/or military) in providing a safe, smooth, operational surface. Pavement deterioration generally occurs gradually from aircraft loading and environmental conditions.

This System Update does not involve a study or analysis of MTH's aircraft fleet mix or traffic operations. However, it is strongly recommended that the Airport incorporate the requirements of the FAA AC 150/5320-6F when developing design-level rehabilitation activities; this AC provides guidance on incorporation of aircraft traffic fleet mix data.

2.5 Pavement Management Program Network Definition Terminology

To facilitate an effective pavement management program, a pavement network must be established and subdivided into smaller, manageable working units. Sectioning of the pavement network was established in a prior System Update and was revised during this SAPMP to account for work that has been performed on the airfield since the previous Update. Information from historic records is used to help define the limits of the smaller working units. A critical input for a pavement inventory and network definition is the date of last major construction or rehabilitation, as this type of work will reset the section PCI to a value of 100.

The following sections define the common terms used in pavement management systems and cover their application for this SAPMP System Update.

2.5.1 Pavement Network Identification

Establishing the pavement network is the first step in organizing pavements into a structure for pavement management. The network is the starting point of the hierarchy of pavement management organization. A network typically consists of one or more pavement *branches*, which have one or more pavement *sections*. For example, a network can be all the pavements within an Airport's airfield or all the pavements in a statewide program. For the FDOT SAPMP, a network represents an individual Airport's airfield pavement facilities maintained by the Airport.

2.5.2 Pavement Branch Identification

A pavement branch, also known as a facility, is a logical unit of generally identifiable pavement within a network that has a distinct functional classification. For example, within an airfield, each runway, taxiway, or apron is considered a branch. Each branch contains at least one section but may contain more if pavement feature characteristics are distinct throughout the branch.

2.5.3 Pavement Section Identification

A pavement section, or feature, is a subdivision of a branch and has consistent characteristics throughout its length or area. These characteristics include structural composition (pavement layer material type and thickness), construction history, age, traffic type, traffic frequency, and pavement condition. A section is the basic management unit of a pavement network and is the level at which maintenance, repair, or major rehabilitation treatments are considered.

2.5.4 Pavement Sample Unit Identification

A pavement sample unit is an arbitrarily defined subdivision of a pavement section that has a standard size range of 20 contiguous slabs (±8 slabs) for PCC pavement and 5,000 contiguous square feet (±2,000 SF) for AC. A sample unit is the smallest subdivision of a pavement network and is analyzed during field assessments to establish condition ratings.

2.5.5 Terminology Summary

Below is a summary table, **Table 2.5.5**, with definitions and examples of common SAPMP terminology.

Table 2.5.5: SAPMP Terminology

SAPMP Terminology	Common Definition	Airport Example
Network	Totality of pavement assets maintained by the Airport.	"Tallahassee International Airport – Airfield Pavements"
Branch Name	Commonly defined asset name as established by Airport and by use.	"Runway 18-36"
Branch ID	Codified shorthand name for commonly defined asset established for database identification.	"RW 18-36" RW, Branch Use, "Runway" "Runway 18-36", Runway Facility
Section ID	Codified identification for pavement asset that is distinct by pavement composition, work history, aircraft loading, or condition.	"6105"
Sample Unit	A numeric identification of an area of pavement (5,000 ± 2,000 SF of AC or 20 ± 8 slabs of PCC) that has been inspected in accordance with ASTM D5340-20.	"300"

2.6 Airfield PCI Survey Methodology

In adherence to the FAA AC 150/5380-7B, the FDOT SAPMP utilizes the PCI survey method to collect pavement distress data and analyze the condition. The PCI survey procedure is a visual statistical sampling of pavements for recording primary distress types (e.g., cracking and deformation), associated severities, and quantities as defined by the ASTM D5340-20. This effort is the primary means of obtaining and recording pavement distress data. The PCI survey consists primarily of visual assessments of pavement surfaces for signs of distress and deterioration resulting from loading (aircraft) and environmental influences.

Overall, a visual pavement condition survey provides an indication of the cause and rate of deterioration of a pavement section from a functional point of view and can help identify if any underlying structural deficiencies are present. Although a visual PCI survey does not predict the remaining structural life of a pavement section or its ability to support loads, it does assess the rating of the operational surface. Functional condition, determined by the PCI method, can provide a cost-effective means to plan for pavement rehabilitation projects. Timely application of pavement rehabilitation may lead to the extension of functional life of individual pavement sections. This method varies from structural evaluation; functional condition is limited to visually observed distresses and indicative modes of pavement deterioration. A formal structural evaluation analyzes subsurface conditions, material characteristics, and qualitative pavement structure attributes. A structural evaluation may consist of subsurface geotechnical exploration, falling weight deflectometer testing, petrographic testing, material coring, and/or flexural testing.

2.6.1 Pavement Distress Types

For each sample, the severity and quantity of defined distresses are recorded and then analyzed in accordance with the ASTM D5340-20 standard, which identifies 17 AC distress types and 16 PCC distress types. **Tables 2.6.1 (a)** and **2.6.1 (b)** identify these distresses and their common causes or mechanisms.

Table 2.6.1 (a): Pavement Distress Types – Asphalt Concrete

Distress Mechanism	Distress Type
Load	Alligator Cracking Rutting
Climate/Durability	Block Cracking Joint Reflection Cracking Longitudinal and Transverse Cracking (LT) Raveling Shoving Weathering
Construction/Material	Bleeding Corrugation Depression Polished Aggregate Slippage Cracking Swelling
Other	Jet Blast Erosion Oil Spillage Patching and Utility Cut Patching

Table 2.6.1 (b): Pavement Distress Types – Portland Cement Concrete

Distress Mechanism	Distress Type
Load	Corner Break Longitudinal, Transverse, and Diagonal Cracking (LTD) Pumping Shattered Slab/Intersecting Cracks
Climate/Durability	Blowup Durability "D" Cracking Joint Seal Damage Popouts
Construction/Material	Alkali Silica Reaction (ASR) Scaling Shrinkage Cracking
Other	Corner Spalling Joint Spalling Large Patching and Utility Cut Settlement or Faulting Small Patching

2.6.2 PCI Survey Procedures

PCI surveys are conducted on sample units defined in previous System Updates. Sample units are subject to change at the discretion of field personnel and/or to major pavement rehabilitation treatments. Furthermore, access to sample units based on accessibility or operational impacts may affect the overall sampling rate effort at each airport. **Tables 2.6.2 (a)** and **(b)** define the sampling criteria used by the FDOT SAPMP. A higher sampling rate may be utilized to achieve greater statistical confidence, should the Airport have the available resources to perform PCI survey independent of the FDOT SAPMP.

Table 2.6.2 (a): Recommended Sampling Rates for Asphalt Concrete

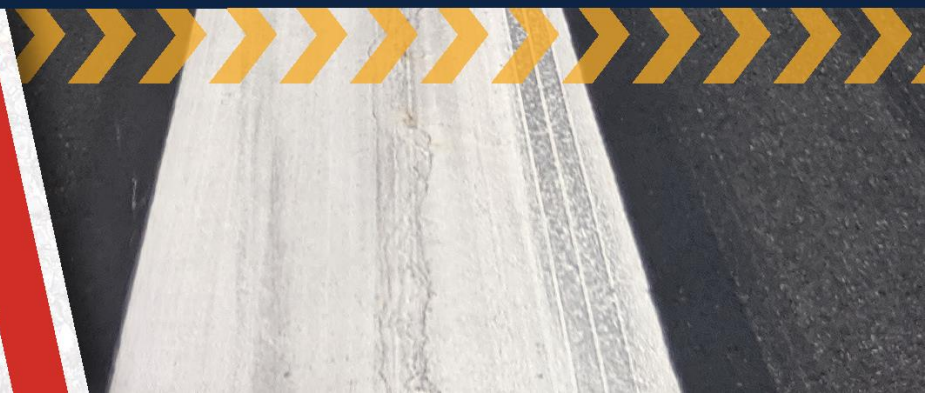
Number of Total Sample Units in Section	Runway Sampling Rate	Taxiways, Aprons, and Others Sampling Rate
1 - 4	1	1
5 - 10	2	1
11 - 15	3	2
16 - 30	5	3
31 - 40	7	4
41 - 50	8	5
51 or more	20% but ≤ 20	10% but ≤ 10

Table 2.6.2 (b): Recommended Sampling Rates for Portland Cement Concrete

Number of Total Sample Units in Section	Runway Sampling Rate	Taxiways, Aprons, and Others Sampling Rate
1 - 3	1	1
4 - 6	2	1
7 - 10	3	2
11 - 15	4	2
16 - 20	5	3
21 - 30	7	3
31 - 40	8	4
41 - 50	10	5
51 or more	20% but ≤ 20	10% but ≤ 10

The FDOT SAPMP is limited to select sample units for each section identified in each airport's Airfield Pavement Network Definition. The intent is to perform a limited amount of sample unit PCI surveys to reasonably reflect the functional condition. Due to the limited sampling criteria, there may be instances of pavement distress and deterioration outside of the inspected sample units that were not observed.

Chapter 3: Airfield Pavement System Inventory



Chapter 3 – Airfield Pavement System Inventory

This chapter discusses the inventory data collected from the Airport and summarizes network-level characteristics of the Airport's airfield pavements. At the start of each FDOT SAPMP System Update, all airports are asked to review the existing Airfield Pavement Network Definition Exhibit for accuracy. Furthermore, participating airports are asked to provide documentation of any recent or anticipated construction related to their airfield pavements.

3.1 Airfield Pavement Network Information

3.1.1 Previous and/or Anticipated Airfield Pavement Construction

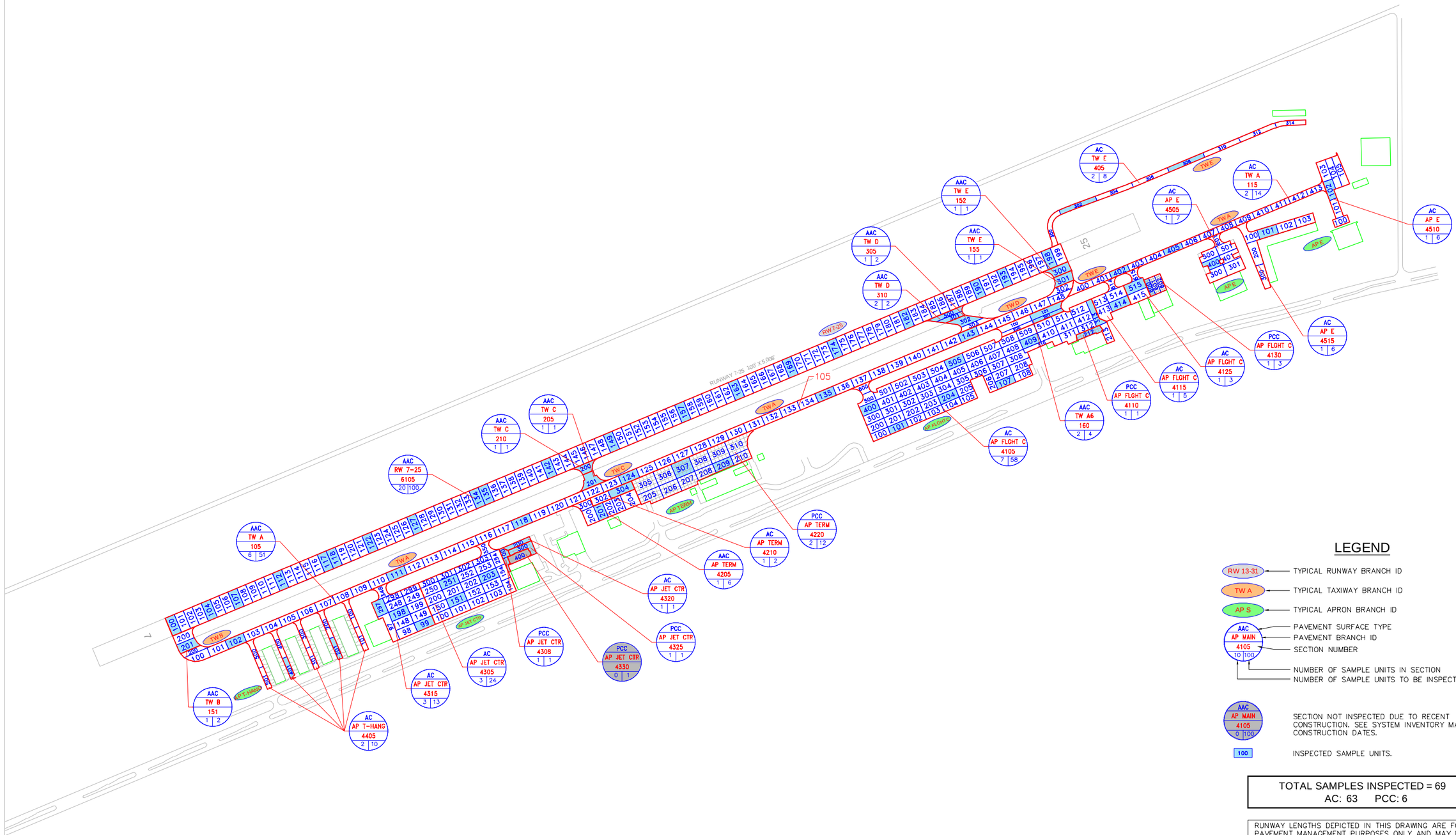
Based on information provided by the Airport, **Table 3.1.1** summarizes recent or anticipated airfield pavement construction projects since 2017.

Table 3.1.1: Summary of Previous and/or Anticipated Airfield Pavement Construction

Construction Year	Location	Work Type / Pavement Section
2017	AP FLGHT C	New Construction - PCC
	AP E	New Construction - AC
2020	AP JET CTR	New Construction - PCC

The Airport provided a combination of record drawings, reports, and staff input, which aided in developing the construction history of the Airport's pavements since inception. Major rehabilitation and construction activities performed in the last 24 months, or anticipated in the next 24 months, are assumed to restore the PCI to 100. These activities include pavement overlay, mill and overlay, new construction, and/or complete reconstruction. These pavements were not formally subject to a PCI assessment and actual conditions may vary. Furthermore, any localized maintenance or repair performed in the assessment areas that would improve the PCI are considered in the condition analysis.

Figure 3.1.1 (a), the Airfield Pavement Network Definition Exhibit, provides details of the PCI assessment efforts. The Exhibit identifies pavement facilities, surface types, section definitions, and sample unit delineations. **Figure 3.1.1 (b)**, the Airfield Pavement System Inventory Exhibit, provides details of the work history updates communicated by the Airport. The Exhibit provides the approximate limits of recent and/or anticipated construction on the airfield pavement facilities. The limits are based on documentation provided by the Airport and, if constructed, are confirmed during field surveys.



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID
- AAC / AP MAIN / 4105 / 10 | 100 — PAVEMENT SURFACE TYPE; PAVEMENT BRANCH ID; SECTION NUMBER; NUMBER OF SAMPLE UNITS IN SECTION; NUMBER OF SAMPLE UNITS TO BE INSPECTED
- AAC / AP MAIN / 4105 / 0 | 100 — SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE SYSTEM INVENTORY MAP FOR CONSTRUCTION DATES.
- 100 — INSPECTED SAMPLE UNITS.

TOTAL SAMPLES INSPECTED = 69
AC: 63 PCC: 6

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

MTH

AIRFIELD PAVEMENT NETWORK DEFINITION EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

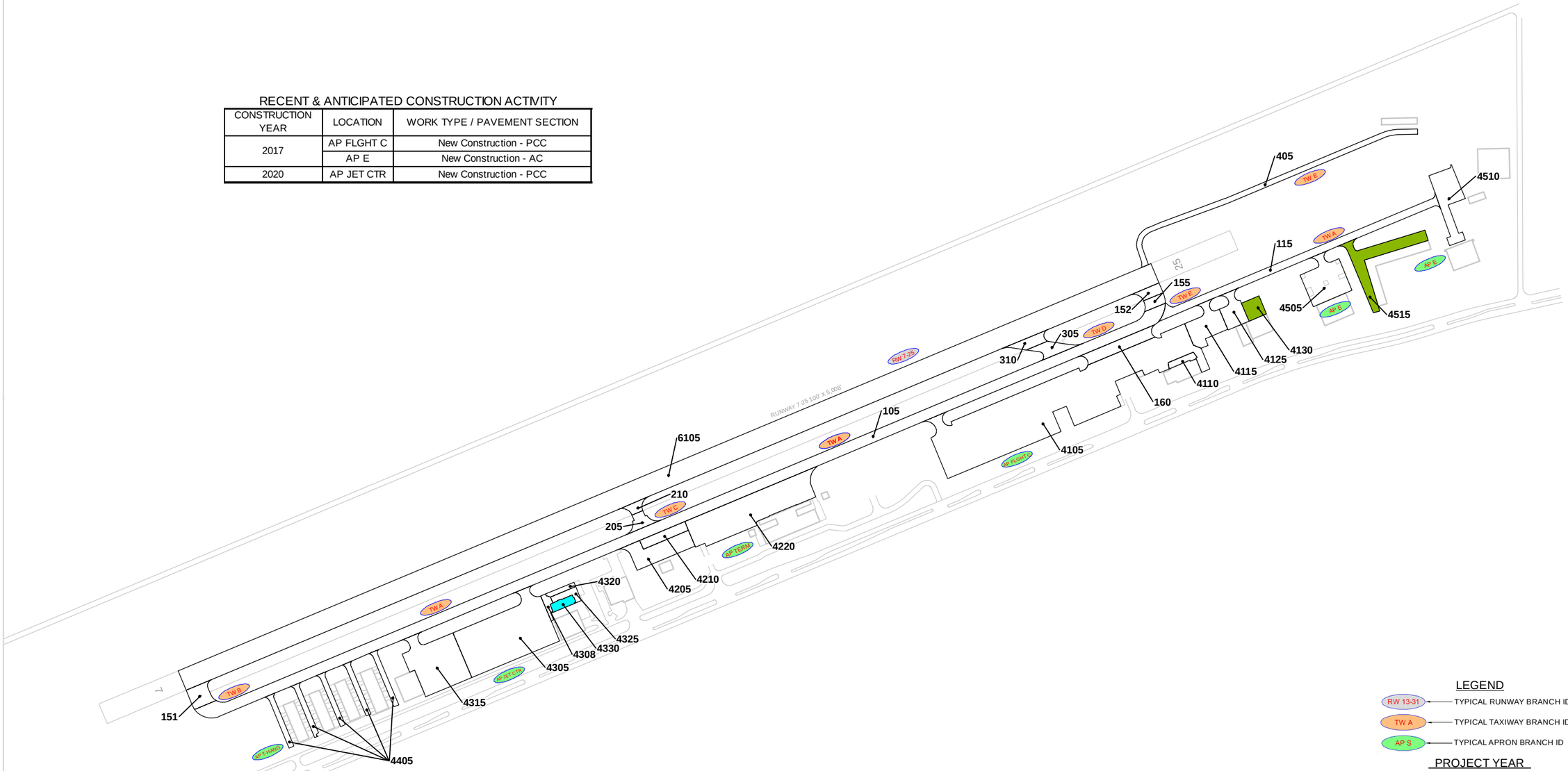
FDOT

2022

MTH

RECENT & ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
2017	AP FLGHT C	New Construction - PCC
	AP E	New Construction - AC
2020	AP JET CTR	New Construction - PCC



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

PROJECT YEAR

2017		2022	
2018		2023	
2019		2024	
2020		2025	
2021		2026	

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

AIRFIELD PAVEMENT SYSTEM INVENTORY EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

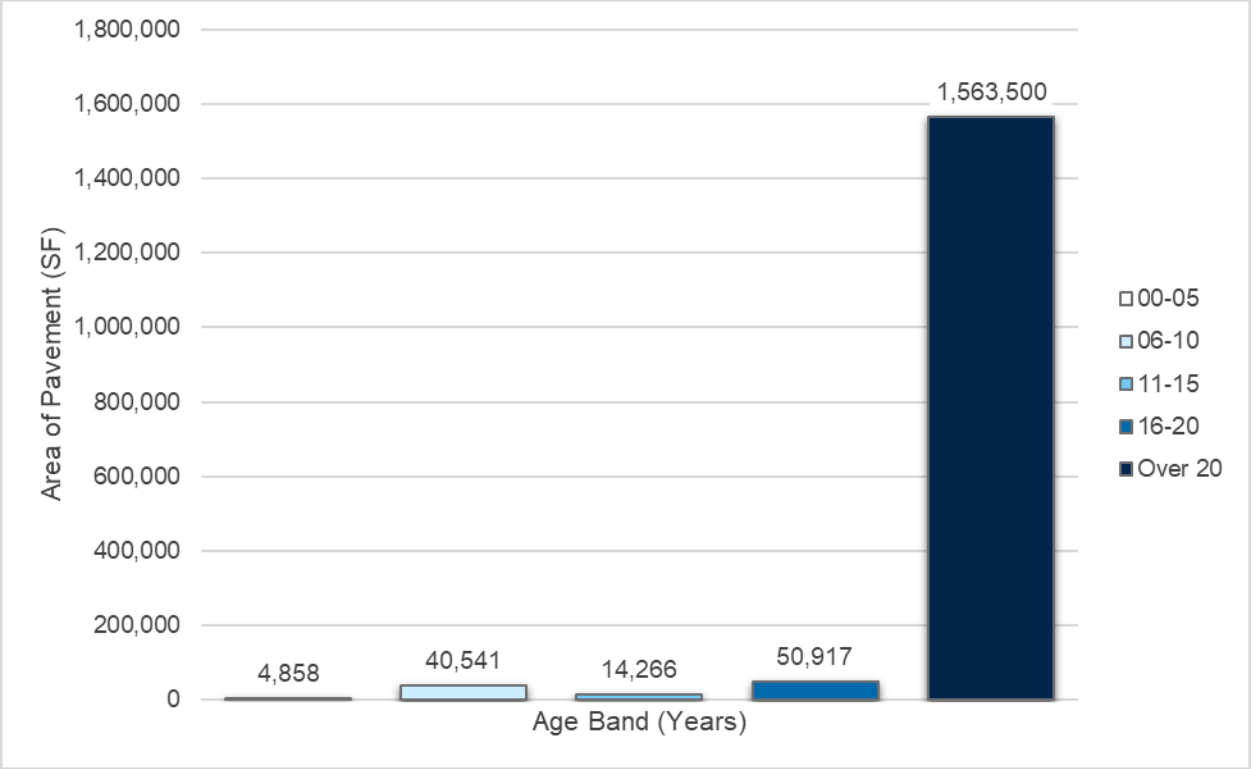
FDOT

2022

3.1.2 Estimated Pavement Age

Standard pavement design practice considers a design life of 20 years. Design inputs typically require subgrade soil conditions, pavement layer material characteristics, and anticipated loading (aircraft fleet mix) for the design-life period. Based on the review of historic airfield pavement construction activities, **Figure 3.1.2 (a)** summarizes the age of the pavement sections since the last major construction activity has occurred. **Figure 3.1.2 (b)** provides the approximate limits of those age ranges on the airfield pavement facilities. This is intended to be a rough estimate based on interpretation of the limited data available at the time of report. The estimation of pavement age is based on information requested from the Airport.

Figure 3.1.2 (a): Age of Pavements at PCI Survey



MTH

NORTH

RUNWAY 7-25 100' X 5,008'

405
TW E
4510
115
TW A
AP E
155
TW E
25
152
4505
AP E
4515
305
TW D
4130
310
RW 7-25
4125
4115
4110
160
105
4105
AP FLIGHT
6105
TW A
210
TW C
205
AP TERM
4220
4210
4205
4320
4325
4330
4308
4305
TW A
AP JET CTR
4315
7
TW B
151
AP TAXIWAY
4405

LEGEND

RW 13-31 — TYPICAL RUNWAY BRANCH ID

TW A — TYPICAL TAXIWAY BRANCH ID

AP S — TYPICAL APRON BRANCH ID

AGE AT INSPECTION

- 0-5 Years
- 6-10 Years
- 11-15 Years
- 16-20 Years
- > 20 Years

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

AIRFIELD PAVEMENT ESTIMATED AGE EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

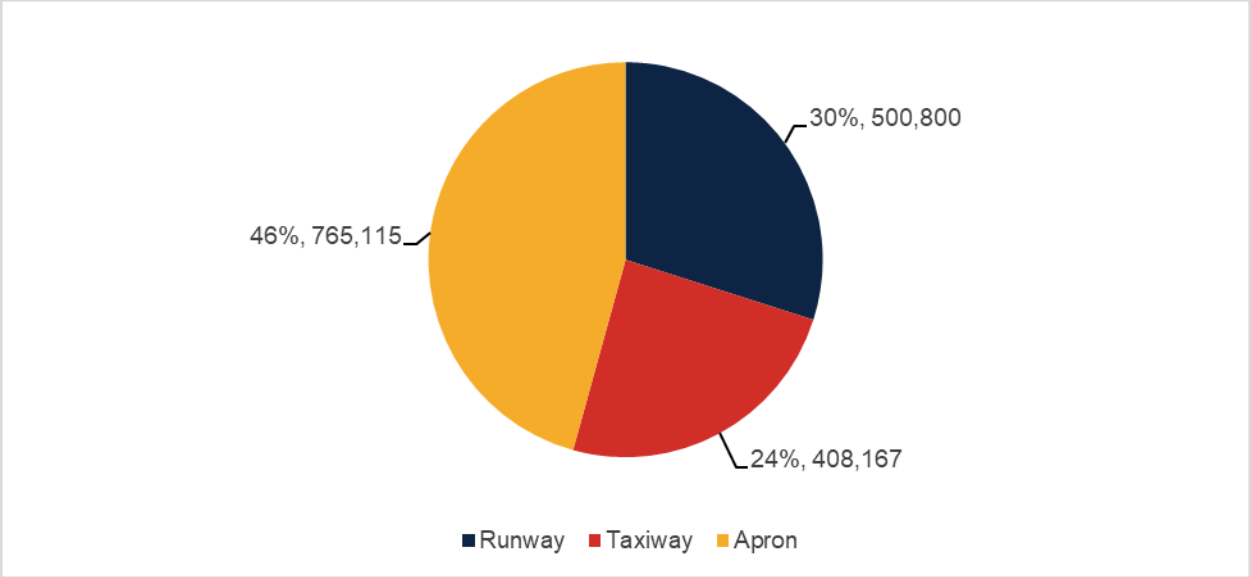
FDOT

2022

3.1.3 Functional Use

Pavements are subject to variations in aircraft loading patterns based on use and overall operations. This is termed "functional use" or "branch use." For this SAPMP System Update, the following categories of pavement functional use are identified: runway, taxiway, taxilane, and apron. **Figure 3.1.3** summarizes pavement functional use by area and excludes paved shoulders.

Figure 3.1.3: Airfield Pavement Branch Use by Area (SF)

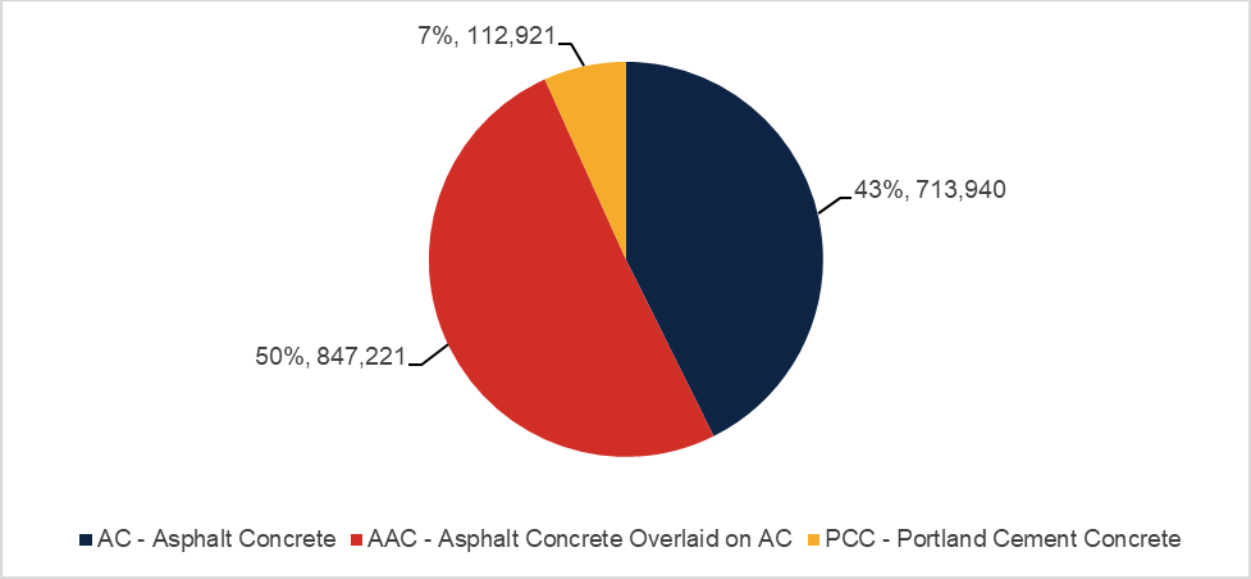


3.1.4 Pavement Surface Type

The airfield pavement facility surface types within the SAPMP include four (4) common types of pavement: Asphalt Concrete (AC), Asphalt Concrete overlaid on Asphalt Concrete (AAC), Asphalt Concrete overlaid on Portland cement concrete (APC), and Portland cement concrete (PCC).

Based on the record documentation incorporated within the SAPMP database and as observed during airfield pavement field assessments, pavement surface types have been assigned to the various pavement sections. **Figure 3.1.4** summarizes the applicable pavement types observed at MTH.

Figure 3.1.4: Airfield Pavement Surface Type by Area (SF)



3.1.5 Pavement System Inventory Details

The pavement inventory scope includes updates to existing pavement geometry and the development of an AutoCAD model with spatial projection for use within GIS. **Appendix C** includes the Airfield Pavement Network Definition Exhibit and the Airfield Pavement System Inventory Exhibit, which visually summarize the results of the airfield pavement system inventory analysis.

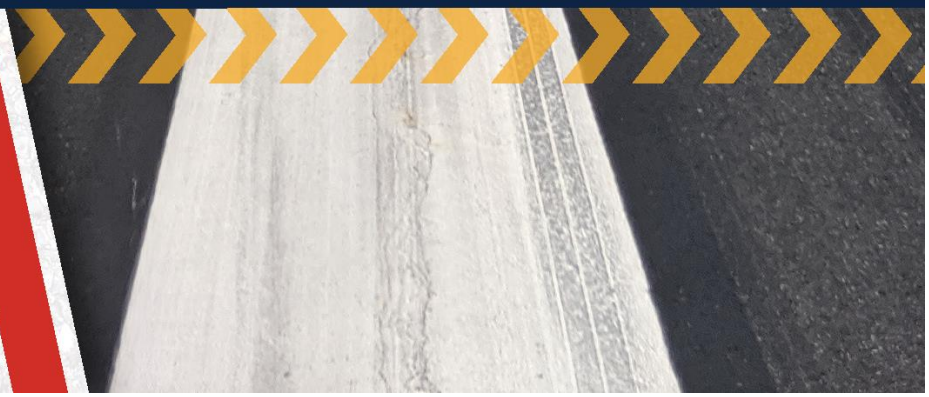
Table 3.1.5 displays the section-level pavement inventory data, which is based on record documentation provided by the airports and from previous System Updates. The information presented relies on the accuracy and the adequacy of data provided. In some cases, characteristics such as pavement area may be estimated based on aerial interpretation of spatially-projected imagery. Additionally, if the last construction date is unknown, a date of January 1 of the estimated year was assigned to the section. The accuracy of data is appropriate for this network-level planning document. Should the Airport perform rehabilitation work, it is recommended that project-level investigations be performed to support the data accuracy needed for design and construction.

Table 3.1.5: Pavement System Inventory Details

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface Type	Estimate of Last Construction Date
MTH	RW 7-25	Runway	6105	500,800	AAC	1/1/1985
MTH	TW A	Taxiway	105	252,086	AAC	1/1/1998
MTH	TW A	Taxiway	115	50,654	AC	12/25/1999
MTH	TW A6	Taxiway	160	18,521	AAC	1/1/1998
MTH	TW B	Taxiway	151	10,353	AAC	1/1/1998
MTH	TW C	Taxiway	205	6,247	AAC	1/1/1998
MTH	TW C	Taxiway	210	3,873	AAC	1/1/1998
MTH	TW D	Taxiway	305	9,290	AAC	1/1/1998

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface Type	Estimate of Last Construction Date
MTH	TW D	Taxiway	310	7,468	AAC	1/1/1998
MTH	TW E	Taxiway	152	5,537	AAC	1/1/1998
MTH	TW E	Taxiway	155	5,103	AAC	1/1/1998
MTH	TW E	Taxiway	405	39,035	AC	1/1/1998
MTH	AP E	Apron	4505	32,298	AC	1/1/1999
MTH	AP E	Apron	4510	28,781	AC	1/1/1999
MTH	AP E	Apron	4515	32,261	AC	3/1/2017
MTH	AP FLGHT C	Apron	4105	276,751	AC	1/1/1983
MTH	AP FLGHT C	Apron	4110	4,112	PCC	1/1/1983
MTH	AP FLGHT C	Apron	4115	22,974	AC	1/1/2004
MTH	AP FLGHT C	Apron	4125	14,266	AC	7/1/2008
MTH	AP FLGHT C	Apron	4130	8,280	PCC	1/1/2017
MTH	AP JET CTR	Apron	4305	108,317	AC	1/1/1990
MTH	AP JET CTR	Apron	4308	3,269	PCC	1/1/1987
MTH	AP JET CTR	Apron	4315	60,631	AC	12/25/1999
MTH	AP JET CTR	Apron	4320	3,223	AC	1/1/1990
MTH	AP JET CTR	Apron	4325	5,039	PCC	1/1/1990
MTH	AP JET CTR	Apron	4330	4,858	PCC	1/1/2020
MTH	AP TERM	Apron	4205	27,943	AAC	1/1/2006
MTH	AP TERM	Apron	4210	10,440	AC	1/1/1978
MTH	AP TERM	Apron	4220	87,363	PCC	1/1/1994
MTH	AP T-HANG	Apron	4405	34,309	AC	12/25/1999

Chapter 4: Airfield Pavement Condition Analysis



Chapter 4 – Airfield Pavement Condition Analysis

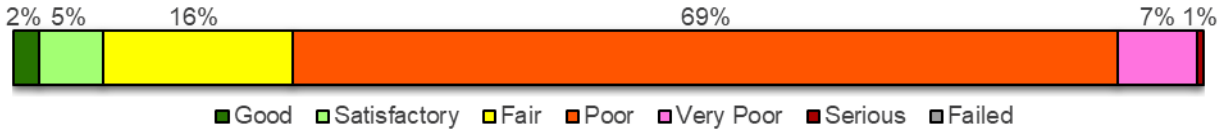
The Pavement Condition Index (PCI) provides insight to possible causes of deterioration to help support pavement maintenance and rehabilitation planning. Distress type, severity, and extent are required in the computation of a PCI value. The PCI method of pavement condition evaluation is strictly a visual review of surface condition, also referred to as a functional evaluation. Further evaluation of pavement conditions may be necessary, such as structural evaluation, for design- and/or project-level determination of pavement rehabilitation needs.

4.1 Airfield Pavement Condition Index

4.1.1 Network-Level Analysis

The following figure, **Figure 4.1.1**, summarizes the network-level pavement condition analysis based on the most recent survey results. On a network level, approximately 7% of inspected pavements are in Good or Satisfactory condition. Presently, roughly 16% of inspected pavements are in Fair condition and the remaining 77% of inspected pavements are in Poor or worse condition.

Figure 4.1.1: Current Condition – Overall Network



4.1.2 Branch-Level Analysis

The following **Figures 4.1.2 (a)-(d)** summarize branch-level pavement conditions according to the most recent PCI assessment results.

Figure 4.1.2 (a): Current Condition Summary – Branch-Level

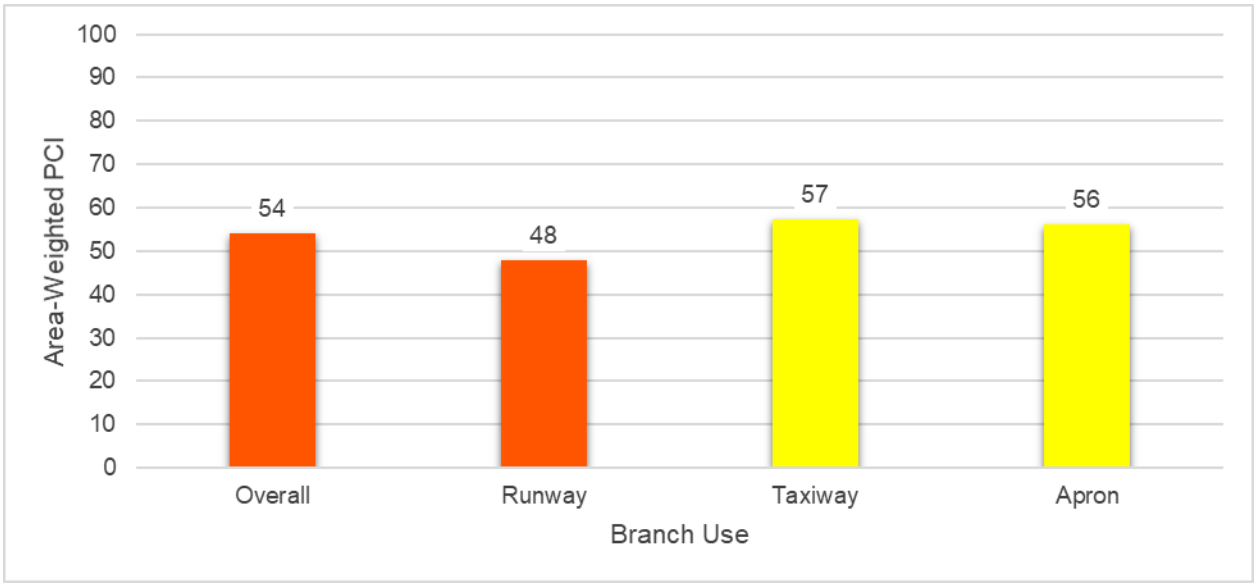


Figure 4.1.2 (b): Current Condition – Runway

Figure 4.1.2 (c): Current Condition – Taxiway

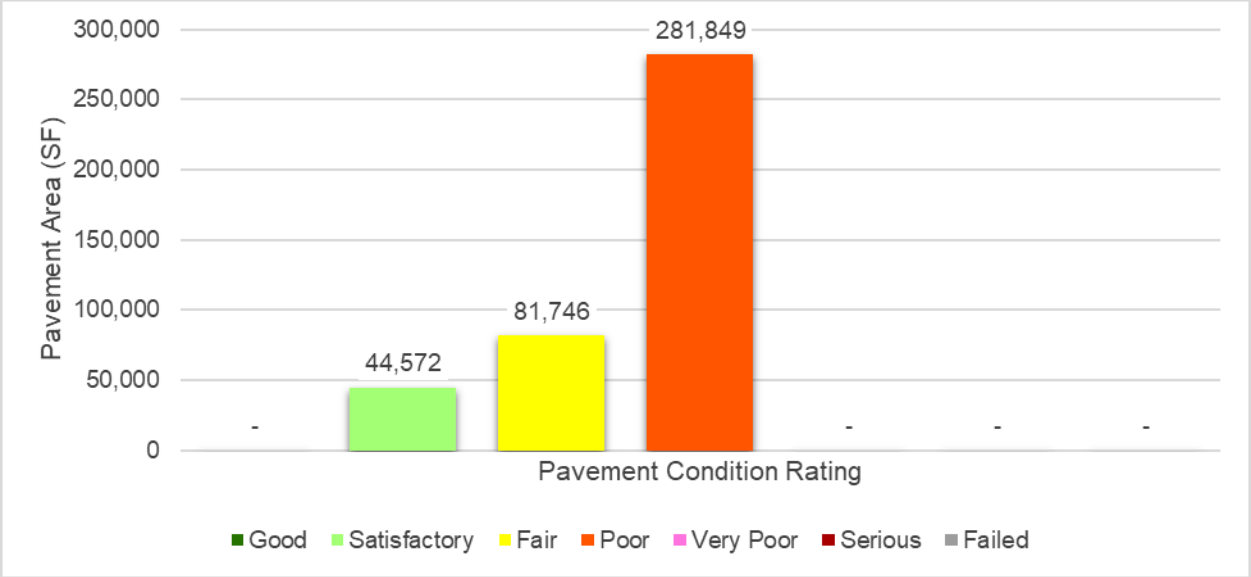


Figure 4.1.2 (d): Current Condition – Apron

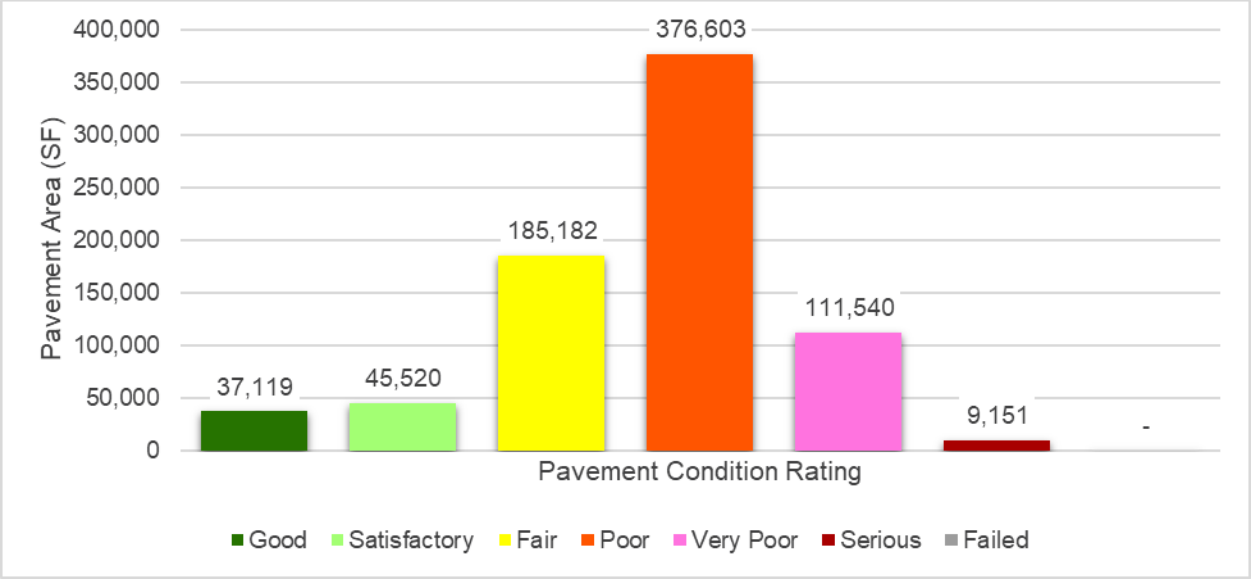


Table 4.1.2 details the branch-level condition for each airfield pavement branch.

Table 4.1.2: Current Condition Summary – Branch-Level

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Area-Weighted Avg PCI	Condition Rating
RW 7-25	Runway	1	500,800	48	Poor
TW A	Taxiway	2	302,740	55	Poor
TW A	Taxiway	2	302,740	55	Poor
TW A6	Taxiway	1	18,521	56	Fair
TW B	Taxiway	1	10,353	50	Poor
TW C	Taxiway	2	10,120	52	Poor
TW C	Taxiway	2	10,120	52	Poor
TW D	Taxiway	2	16,758	56	Fair
TW D	Taxiway	2	16,758	56	Fair
TW E	Taxiway	3	49,675	74	Satisfactory
TW E	Taxiway	3	49,675	74	Satisfactory
TW E	Taxiway	3	49,675	74	Satisfactory
AP E	Apron	3	93,340	70	Fair
AP E	Apron	3	93,340	70	Fair
AP E	Apron	3	93,340	70	Fair
AP FLGHT C	Apron	5	326,383	57	Fair
AP FLGHT C	Apron	5	326,383	57	Fair
AP FLGHT C	Apron	5	326,383	57	Fair
AP FLGHT C	Apron	5	326,383	57	Fair
AP FLGHT C	Apron	5	326,383	57	Fair
AP JET CTR	Apron	6	185,337	44	Poor
AP JET CTR	Apron	6	185,337	44	Poor
AP JET CTR	Apron	6	185,337	44	Poor

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Area-Weighted Avg PCI	Condition Rating
AP JET CTR	Apron	6	185,337	44	Poor
AP JET CTR	Apron	6	185,337	44	Poor
AP JET CTR	Apron	6	185,337	44	Poor
AP TERM	Apron	3	125,746	58	Fair
AP TERM	Apron	3	125,746	58	Fair
AP TERM	Apron	3	125,746	58	Fair
AP T-HANG	Apron	1	34,309	68	Fair

4.1.3 Section-Level Analysis

Table 4.1.3 provides each pavement section's area-weighted average PCI and the percent of distress related to load, climate, and other factors. The causes of condition deterioration help inform maintenance, repair, and rehabilitation decisions. For example, load-related distress can indicate that the pavement is reaching the end of its structural design life and the selected rehabilitation treatment should include either strengthening or reconstruction. **Figure 4.1.3** provides a technical exhibit that graphically depicts PCI values and ratings determined from this SAPMP System Update.

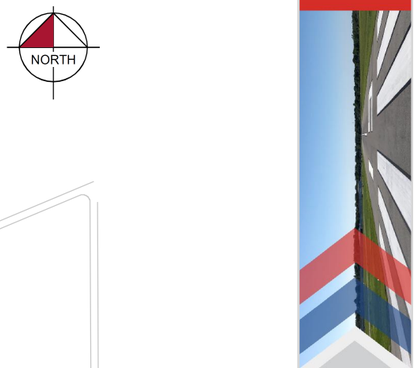
Pavement facilities that have been reconstructed within the past 24 months, or are anticipated for reconstruction within the next 24 months, may have been omitted from this assessment. Pavement that has received major rehabilitation will be set to a PCI of 100 for this analysis.

Table 4.1.3: Latest Pavement Condition Index Summary – Section-Level

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other	Sample Units Inspected	Total Sample Units in Section
MTH	RW 7-25	Runway	6105	500,800	AAC	48	Poor	100	0	0	20	100
MTH	TW A	Taxiway	105	252,086	AAC	54	Poor	75	20	5	6	51
MTH	TW A	Taxiway	115	50,654	AC	61	Fair	90	0	10	2	14
MTH	TW A6	Taxiway	160	18,521	AAC	56	Fair	71	0	29	2	4
MTH	TW B	Taxiway	151	10,353	AAC	50	Poor	63	0	37	1	2
MTH	TW C	Taxiway	205	6,247	AAC	54	Poor	46	21	33	1	1
MTH	TW C	Taxiway	210	3,873	AAC	49	Poor	68	23	9	1	1
MTH	TW D	Taxiway	305	9,290	AAC	48	Poor	67	15	18	1	2
MTH	TW D	Taxiway	310	7,468	AAC	66	Fair	74	24	2	2	2
MTH	TW E	Taxiway	152	5,537	AAC	71	Satisfactory	85	0	15	1	1
MTH	TW E	Taxiway	155	5,103	AAC	56	Fair	81	0	19	1	1
MTH	TW E	Taxiway	405	39,035	AC	77	Satisfactory	100	0	0	2	8
MTH	AP E	Apron	4505	32,298	AC	69	Fair	100	0	0	1	7
MTH	AP E	Apron	4510	28,781	AC	45	Poor	92	0	8	1	6
MTH	AP E	Apron	4515	32,261	AC	94	Good	100	0	0	1	6
MTH	AP FLGHT C	Apron	4105	276,751	AC	55	Poor	78	5	17	7	58
MTH	AP FLGHT C	Apron	4110	4,112	PCC	16	Serious	8	77	15	1	1
MTH	AP FLGHT C	Apron	4115	22,974	AC	71	Satisfactory	75	0	25	1	5
MTH	AP FLGHT C	Apron	4125	14,266	AC	76	Satisfactory	100	0	0	1	3
MTH	AP FLGHT C	Apron	4130	8,280	PCC	83	Satisfactory	40	21	39	1	2
MTH	AP JET CTR	Apron	4305	108,317	AC	38	Very Poor	69	0	31	3	24
MTH	AP JET CTR	Apron	4308	3,269	PCC	70	Fair	22	40	38	1	1
MTH	AP JET CTR	Apron	4315	60,631	AC	51	Poor	69	0	31	3	13
MTH	AP JET CTR	Apron	4320	3,223	AC	27	Very Poor	75	0	25	1	1
MTH	AP JET CTR	Apron	4325	5,039	PCC	21	Serious	5	75	20	1	1
MTH	AP JET CTR	Apron	4330	4,858	PCC	100	Good	0	0	0	0	0
MTH	AP TERM	Apron	4205	27,943	AAC	57	Fair	70	0	30	1	6
MTH	AP TERM	Apron	4210	10,440	AC	55	Poor	83	0	17	1	2
MTH	AP TERM	Apron	4220	87,363	PCC	58	Fair	11	45	44	2	12
MTH	AP T-HANG	Apron	4405	34,309	AC	68	Fair	81	0	19	2	10

** Zero (0) Sample Units Inspected signifies that the pavement section was not inspected during this SAPMP System Update due to recent construction projects. These sections correlate with the gray sections on the Network Definition Exhibit.*

MTH



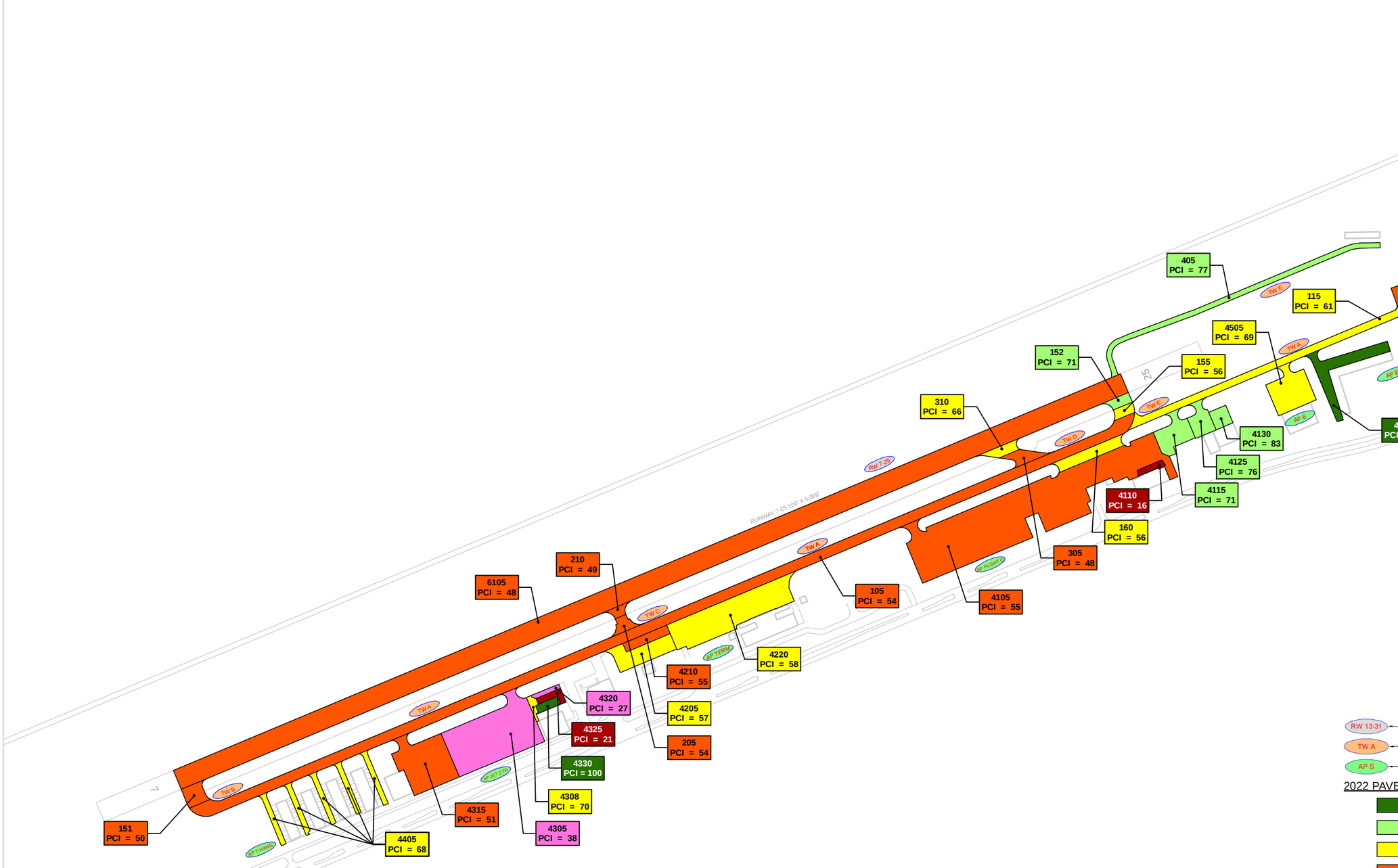
AIRFIELD PAVEMENT CONDITION INDEX EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

2022 PAVEMENT CONDITION INDEX

- PCI 86-100 Good
- PCI 71-85 Satisfactory
- PCI 56-70 Fair
- PCI 41-55 Poor
- PCI 26-40 Very Poor
- PCI 11-25 Serious
- PCI 0-10 Failed

"SECTION ID"
"PCI VALUE"

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

4.2 Summary of Pavement Condition Evaluation Results

4.2.1 Network-Level Observations

The PCI assessment for The Florida Keys Marathon International Airport (MTH) was performed in October 2022. The overall area-weighted average PCI value of the network was 54, representing a condition rating of Poor. A small portion of the airfield pavement was not inspected due to recent construction in 2020. This area includes a portion of the Jet Center Apron.

Based on the FAA 5010 Report as of 11/15/2022, the Airport has reported 47,263 operations for 12 months ending 12/31/2021.

4.2.2 Branch-Level Observations

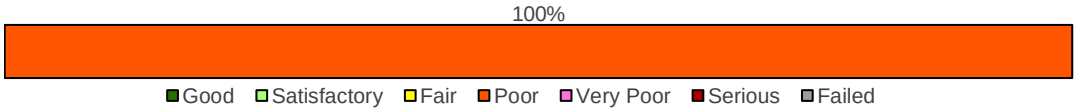
The following branch-level observations are a summary of select pavement facilities identified during the PCI assessment, including a discussion of general conditions and branch characteristics. The summary may not include all branches and/or sections within the Airport's airfield pavement network. Representative distress photographs of airfield pavements are presented in **Appendix D**. "Vicinity" photos refer to the approximate boundaries of an inspected sample unit within the section and provide an overview of the section condition but are not focused on a specific distress. The Re-inspection Report found in **Appendix E** provides listings of each sample unit and distress.

Runways

RW 7-25

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
RW 7-25	RUNWAY	1	500,800	48	Poor

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 100% Poor (41-55 PCI).



Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
6105	AAC	500,800	48	Poor

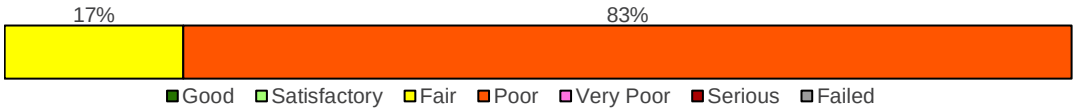
RW 7-25 consists of 1 flexible pavement section, totaling 500,800 sf. The last major construction date for the branch was 1985, resulting in an area-weighted average age at inspection of 38 years old. Overall, RW 7-25 is in Poor condition with an area-weighted average PCI of 48.

Taxiways

TW A

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TW A	TAXIWAY	2	302,740	55	Poor

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 17% Fair (56-70 PCI), 83% Poor (41-55 PCI).



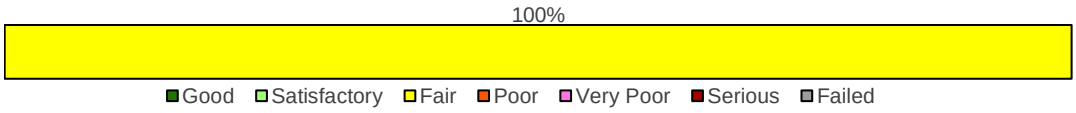
Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
105	AAC	252,086	54	Poor
115	AC	50,654	61	Fair

TW A consists of 2 flexible pavement sections, totaling 302,740 sf. The last major construction dates range from 1998 to 1999, resulting in an area-weighted average age at inspection of 24 years old. Overall, TW A is in Poor condition with an area-weighted average PCI of 55.

TW A6

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TW A6	TAXIWAY	1	18,521	56	Fair

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 100% Fair (56-70 PCI).



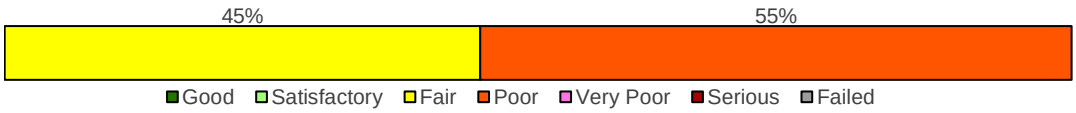
Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
160	AAC	18,521	56	Fair

TW A6 consists of 1 flexible pavement section, totaling 18,521 sf. The last major construction date for the branch was 1998, resulting in an area-weighted average age at inspection of 25 years old. Overall, TW A6 is in Fair condition with an area-weighted average PCI of 56.

TW D

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TW D	TAXIWAY	2	16,758	56	Fair

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 45% Fair (56-70 PCI), 55% Poor (41-55 PCI).



Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
305	AAC	9,290	48	Poor
310	AAC	7,468	66	Fair

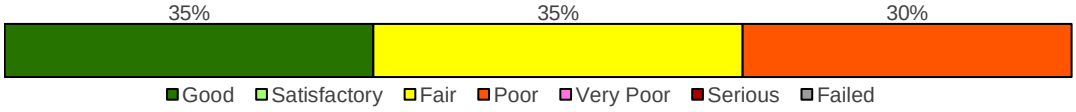
TW D consists of 2 flexible pavement sections, totaling 16,758 sf. The last major construction date for the branch was 1998, resulting in an area-weighted average age at inspection of 25 years old. Overall, TW D is in Fair condition with an area-weighted average PCI of 56.

Aprons

AP E

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
AP E	APRON	3	93,340	70	Fair

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 35% Good (86-100 PCI), 35% Fair (56-70 PCI), 30% Poor (41-55 PCI).



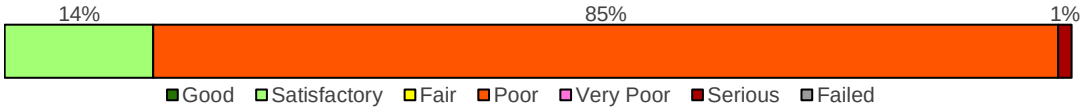
Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
4505	AC	32,298	69	Fair
4510	AC	28,781	45	Poor
4515	AC	32,261	94	Good

AP E consists of 3 flexible pavement sections, totaling 93,340 sf. The last major construction dates range from 1999 to 2017, resulting in an area-weighted average age at inspection of 17 years old. Overall, AP E is in Fair condition with an area-weighted average PCI of 70.

AP FLGHT C

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
AP FLGHT C	APRON	5	326,383	57	Fair

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 14% Satisfactory (71-85 PCI), 85% Poor (41-55 PCI), 1% Serious (11-25 PCI).



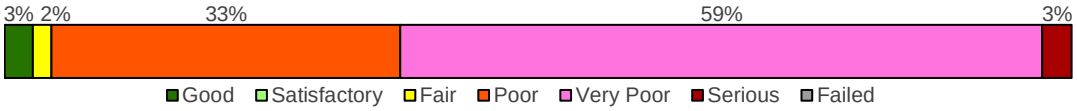
Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
4105	AC	276,751	55	Poor
4110	PCC	4,112	16	Serious
4115	AC	22,974	71	Satisfactory
4125	AC	14,266	76	Satisfactory
4130	PCC	8,280	83	Satisfactory

AP FLGHT C consists of 3 flexible and 2 rigid pavement sections, totaling 326,383 sf. The last major construction dates range from 1983 to 2017, resulting in an area-weighted average age at inspection of 36 years old. Overall, AP FLGHT C is in Fair condition with an area-weighted average PCI of 57.

AP JET CTR

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
AP JET CTR	APRON	6	185,337	44	Poor

The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 3% Good (86-100 PCI), 2% Fair (56-70 PCI), 33% Poor (41-55 PCI), 59% Very Poor (26-40 PCI), 3% Serious (11-25 PCI).



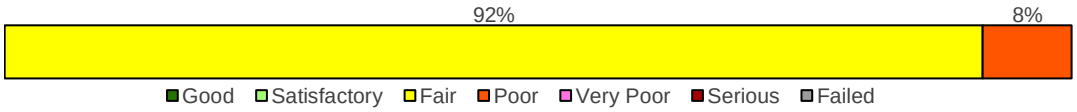
Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
4305	AC	108,317	38	Very Poor
4308	PCC	3,269	70	Fair
4315	AC	60,631	51	Poor
4320	AC	3,223	27	Very Poor
4325	PCC	5,039	21	Serious
4330	PCC	4,858	100	Good

AP JET CTR consists of 3 flexible and 3 rigid pavement sections, totaling 185,337 sf. The last major construction dates range from 1987 to 2020, resulting in an area-weighted average age at inspection of 29 years old. Overall, AP JET CTR is in Poor condition with an area-weighted average PCI of 44.

AP TERM

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
AP TERM	APRON	3	125,746	58	Fair

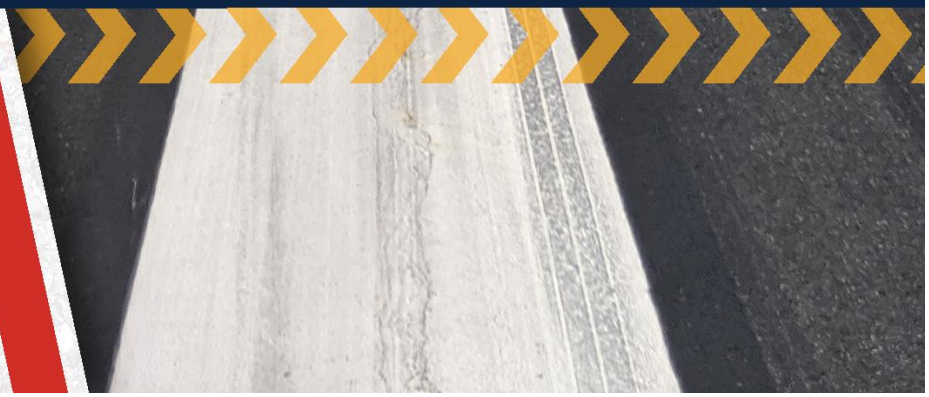
The following bar graph shows proportional distribution (as % of area within branch) of condition categories among sections within the branch. Given the individual section data shown in the subsequent table, the distribution is as follows: 92% Fair (56-70 PCI), 8% Poor (41-55 PCI).



Section ID	Surface Type	Section Area (SF)	PCI	Condition Rating
4205	AAC	27,943	57	Fair
4210	AC	10,440	55	Poor
4220	PCC	87,363	58	Fair

AP TERM consists of 2 flexible and 1 rigid pavement sections, totaling 125,746 sf. The last major construction dates range from 1978 to 2006, resulting in an area-weighted average age at inspection of 27 years old. Overall, AP TERM is in Fair condition with an area-weighted average PCI of 58.

Chapter 5: SAPMP Customization



Chapter 5 – SAPMP Customization

Once the PAVER™ database is populated with inventory and condition data (including PCI and rank), it is further customized with key elements such as network-level attributes, performance models, critical PCI, maintenance policies, and unit costs that are specific to the FDOT SAPMP. Each of these factors play a role in the development of rehabilitation strategies as they help to identify maintenance and rehabilitation needs for long-term management.

The FDOT SAPMP is organized to provide airports with planning-level data and does not intend to preclude the responsible engineer from performing the appropriate level of investigation and analysis in determining the appropriate design details of a pavement rehabilitation. It would not be advisable to solely base design-level rehabilitation without the appropriate level of investigation and determination of pavement deterioration beyond that of a visual functional condition assessment.

5.1 Network-Level Customization

The network-level attribute fields used in the FDOT SAPMP PAVER™ database consist of the Network, Airport Classification, District, FAA ADO Area, Inspection Phase, and Continuing Florida Aviation System Planning Process (CFASPP) Center. Each of these elements are briefly defined below.

- The “Network” field identifies the airport being analyzed;
- The “Airport Classification” field classifies the Airport according to the type and volume of aircraft traffic;
  - “GA” for General Aviation, community airports
  - “RL” for Regional Relievers
  - “PR” for Primary/Commercial airports
- The “District” field identifies the FDOT District to which the Airport belongs;
- The “FAA ADO Area” is an area used by the Orlando ADO to assign airports within those areas to the responsible FAA ADO personnel (planners, engineers, and environmentalists);
- The “Inspection Phase” denotes which phase of the SAPMP the Airport is surveyed (Phase 1 or Phase 2); and
- The “CFASPP Center” identifies which Region or Metropolitan Area of the Continuing Florida Aviation Systems Planning Process an Airport falls within.

5.2 Pavement Condition Forecasts

Pavement performance models, alternatively known as forecast models, prediction curves, or family curves, are developed from past and current distress data, as well as age data. These prediction curves are used to develop forecasts of PCI values that then help determine optimum timing for pavement maintenance and rehabilitation.

5.2.1 Forecasting PCI Considerations

Performance models will continue to be refined as the FDOT updates the SAPMP with subsequent PCI surveys. With the refinement of additional PCI and age data points, the forecasting of pavement conditions will continue to better reflect the performance trends of airfield pavements in the FAS. As a reminder, forecasting of pavement condition for the Airport is intended for planning purposes only. **The estimation of forecasted PCI values gives no assurance of future pavement conditions as PCI values represent an engineering estimation to be used as a planning tool. Forecasted PCI data should not be the sole metric for determining the year in which a project should be planned. Design-level planning should be undertaken by the responsible engineer prior to the development of airfield design plans.** Design-level recommendations for pavement rehabilitation and/or reconstruction will require the appropriate application of the procedures defined in the FAA AC 150/5320-6F.

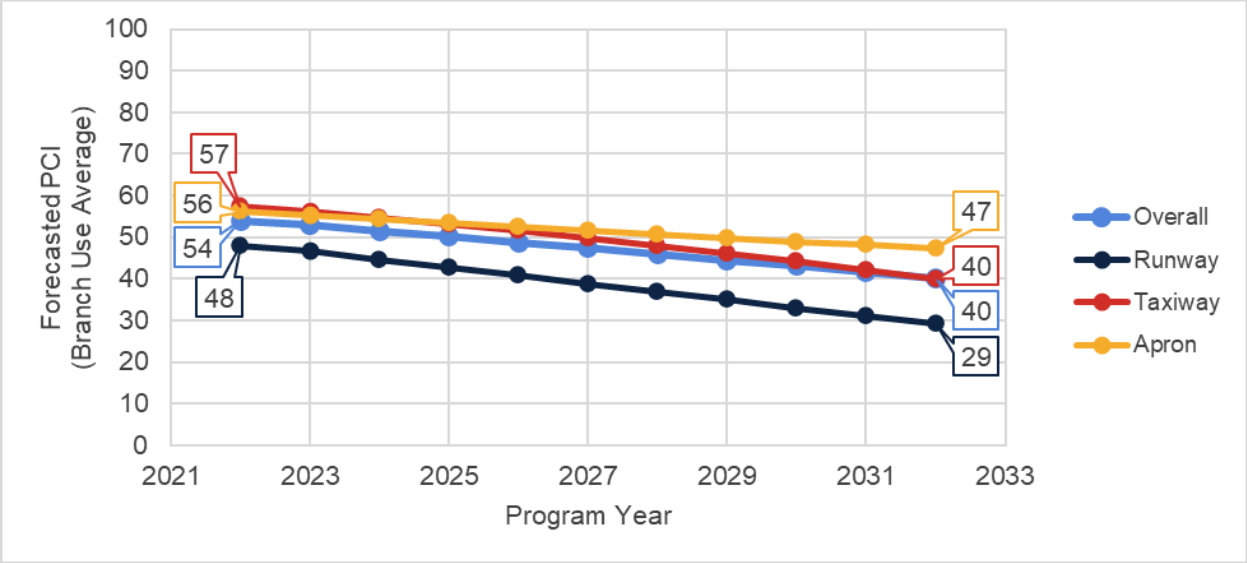
5.2.2 Performance Models

To develop pavement performance models, data for each section is combined into "groups" or "families" according to pavement type, traffic, and functional use. For the FDOT SAPMP, the models were defined for both PCC- and AC-surfaced pavements and further divided according to functional use. Based on average deterioration rates for different pavement types, each pavement section is assigned to a specific deterioration family to forecast the condition over a 10-year period.

5.2.3 Branch-Level Pavement Condition Forecast

Figure 5.2.3 depicts the branch-level pavement condition forecast for each branch use (Runway, Taxiway, Taxilane, and/or Apron) as well as the overall network. The condition forecasts are for a 10-year duration, starting in 2023 through 2032.

Figure 5.2.3: Forecasted Branch-Level Pavement Performance



5.2.4 Section-Level Pavement Condition Forecast

Table 5.2.4 provides section-level details for PCI forecasts. Pavement condition forecasts should be used for planning purposes only, as actual condition of sections is subject to the sensitivities in changes of traffic and maintenance frequency.

Table 5.2.4: Forecasted PCI Values 2023-2032 – Section-Level

Network ID	Branch ID	Section ID	Current PCI	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MTH	RW 7-25	6105	48	47	45	43	41	39	37	35	33	31	29
MTH	TW A	105	54	53	51	49	48	46	44	41	39	37	34
MTH	TW A	115	61	60	60	59	58	58	57	57	56	56	55
MTH	TW A6	160	56	55	53	51	49	47	45	43	41	39	37
MTH	TW B	151	50	49	47	45	43	40	38	36	33	30	28
MTH	TW C	205	54	53	51	49	48	46	44	41	39	37	34
MTH	TW C	210	49	48	46	44	41	39	37	34	31	29	26
MTH	TW D	305	48	47	45	42	40	38	35	33	30	27	25
MTH	TW D	310	66	65	64	63	61	60	59	57	56	54	53
MTH	TW E	152	71	70	69	68	66	65	64	63	61	60	59
MTH	TW E	155	56	55	53	52	50	48	46	44	42	40	37
MTH	TW E	405	77	76	74	73	72	70	69	68	67	66	65
MTH	AP E	4505	69	68	66	65	64	62	61	60	59	58	57
MTH	AP E	4510	45	45	44	44	43	43	42	42	41	41	41
MTH	AP E	4515	94	92	90	88	86	84	82	80	78	76	74
MTH	AP FLGHT C	4105	55	54	53	53	52	51	50	49	49	48	47
MTH	AP FLGHT C	4110	16	15	14	13	12	11	11	10	9	8	7
MTH	AP FLGHT C	4115	71	70	68	67	65	64	63	62	60	59	58
MTH	AP FLGHT C	4125	76	75	73	71	70	68	67	65	64	63	62
MTH	AP FLGHT C	4130	83	82	81	80	79	78	78	77	76	75	74
MTH	AP JET CTR	4305	38	38	37	37	36	36	36	35	35	34	34
MTH	AP JET CTR	4308	70	69	68	67	66	65	65	64	63	62	61
MTH	AP JET CTR	4315	51	50	50	49	48	48	47	46	46	45	45
MTH	AP JET CTR	4320	27	26	26	25	24	23	23	22	21	20	19
MTH	AP JET CTR	4325	21	20	19	18	17	16	16	15	14	13	12
MTH	AP JET CTR	4330	100	97	96	95	94	93	92	91	90	89	88
MTH	AP TERM	4205	57	56	54	52	50	48	46	44	42	40	38
MTH	AP TERM	4210	55	54	53	53	52	51	50	49	49	48	47
MTH	AP TERM	4220	58	57	56	55	54	53	53	52	51	50	49
MTH	AP T-HANG	4405	68	67	66	64	63	62	60	59	58	57	56

5.3 Critical PCI Value

An important concept in pavement management is the critical PCI value, a value that prompts major rehabilitation activities. It serves as a condition threshold that helps determine a section's suitability to receive major work. As soon as a section's PCI reaches the critical PCI value, the rate of PCI loss (deterioration) is expected to increase. The critical PCI concept assumes that once a pavement section deteriorates to this critical level, it is more cost-effective to complete a major rehabilitation project rather than continuing to apply preventive maintenance or deferring major work until more costly reconstruction activities are required. **Figure 5.3 (a)** illustrates the benefit of applying lower cost preventive maintenance to extend the life of the pavement.

Figure 5.3 (a): Pavement Life and the Effect of Treatments

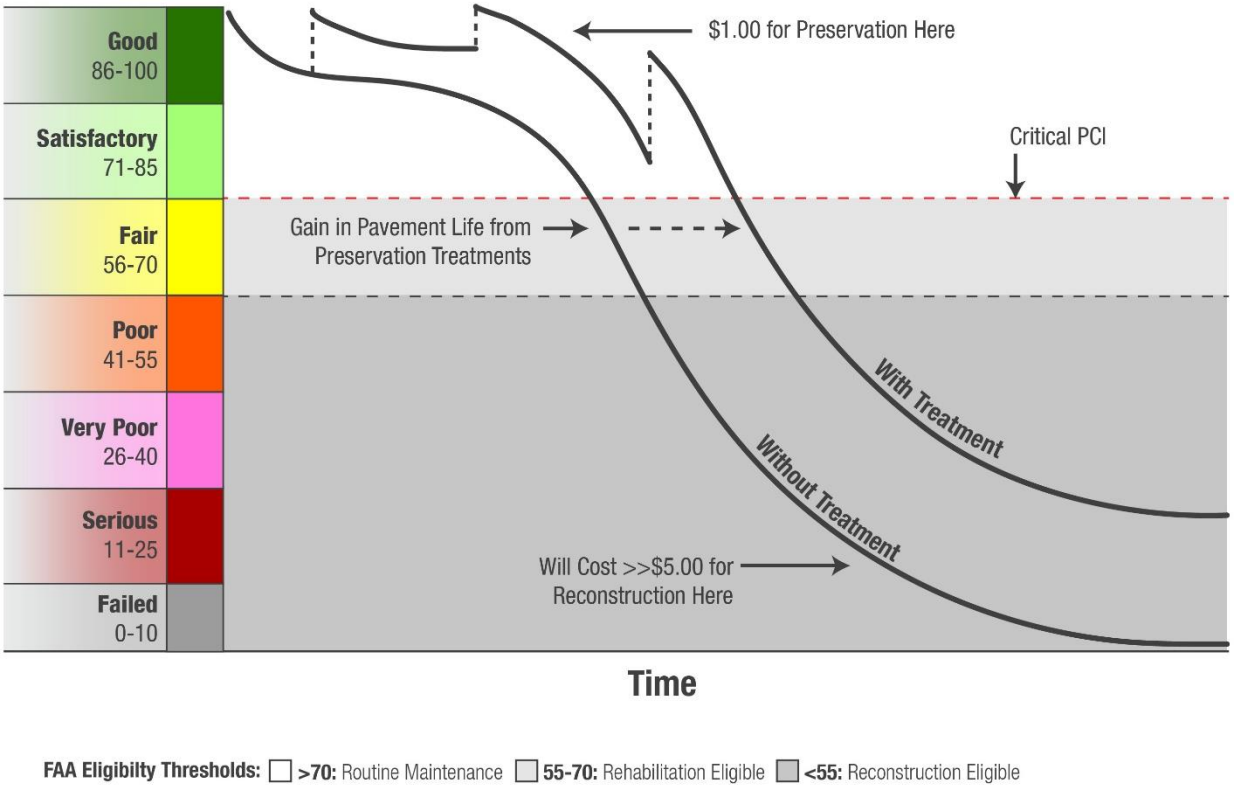


**Figure is for conceptual purposes only – unit costs are not specific to airfield pavements.*

Critical PCI values vary and are typically based on a pavement's surface type, functional use, and importance, or priority, in daily operations. Pavement priority is generally assigned based on the branch use of a pavement section. In previous System Updates, the critical PCI value was set to 65 for all functional uses. Now, based on FAA Order 5100.38D Change 1 Airport Improvement Handbook, issued February 26, 2019, the FAA has established pavement construction based on thresholds that distinguish Rehabilitation and Reconstruction. Pavement sections between PCI Values 55 and 70 will be considered for Rehabilitation and sections less than 55 will be considered for Reconstruction at the planning-level, as shown in **Table 5.3 (a)**. The FDOT SAPMP will

integrate the PCI thresholds for airfield pavement projects to maintain alignment with the FAA AIP and/or PFC eligibility for project planning. Moving forward, the critical PCI value will be defined at 70 for the FDOT SAPMP. Critical PCI values for this SAPMP System Update are shown in **Table 5.3 (b)**.

Table 5.3 (a): AIP Handbook PCI Requirements for Airfield Pavement Projects

Airfield Pavement Project Type	PCI Requirement
Reconstruction	PCI < 55 (Poor)
Rehabilitation	PCI < 70 (Fair)
Maintenance	N/A

**Source:* AIP Handbook, in reference to Runways, Taxiways, and Aprons as seen in table G-2, H-1, and I-1 respectively

Table 5.3 (b): Critical PCI Values by Branch Use

Runway	Taxiway	Apron
70	70	70

Figures 5.3 (b) and **5.3 (c)** depict the decision process for major rehabilitation project identification with the assumption of available funds (Shahin). Should funding be unavailable for pavement sections in need of major rehabilitation, the Airport may elect to apply appropriate localized stopgap repair strategies. As the figures show, once major rehabilitation has been applied, the PCI of the section is reset to 100.

Figure 5.3 (b): Major Rehabilitation Planning Decision Diagram, PCI < Critical PCI

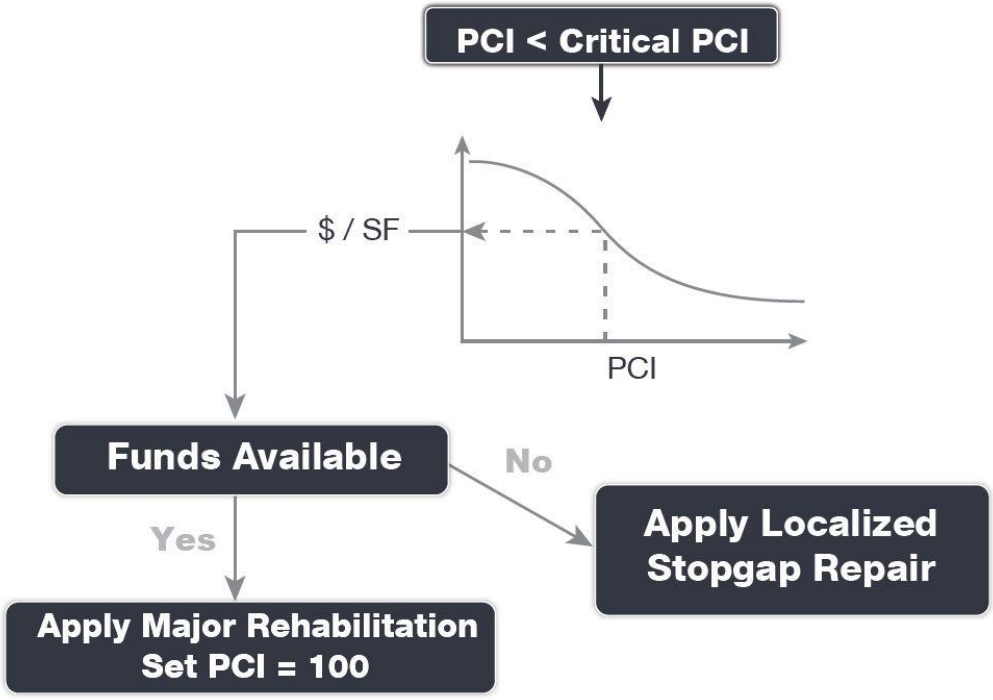
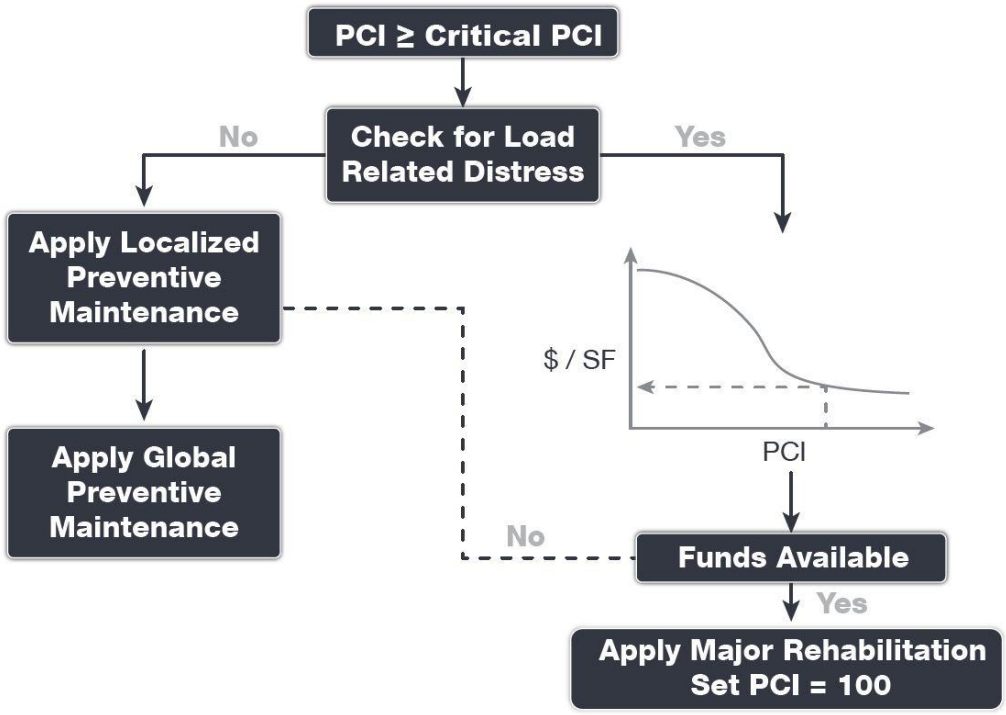


Figure 5.3 (c): Major Rehabilitation Planning Decision Diagram, PCI ≥ Critical PCI



5.4 Localized Maintenance and Repair

This section discusses both localized maintenance and major rehabilitation methods and how they may be most effectively applied to extend the life of the pavement network. General maintenance and rehabilitation (M&R) methods are characterized under two (2) broad categories: localized maintenance and major rehabilitation.

Localized maintenance is best applied as a conservation measure and is applied to slow the rate of pavement deterioration. It may, however, be applied as a temporary corrective measure in isolated areas. Proactive localized maintenance, and specifically preservation, is highly recommended to the Airport. However, it is recognized that once pavements have deteriorated below a certain condition threshold (the critical PCI value), the pavement benefits from more substantial rehabilitation in lieu of localized repairs.

Major rehabilitation is recommended when a pavement section falls below the critical PCI value or if a pavement section has a significant presence of load-related distress. Major rehabilitation efforts can correct or improve structural deficiencies and/or functional deterioration for pavement sections within a network.

M&R planning combines methods of repair to address the cause of the problem rather than just treating the symptom. For example, a PCC corner break may require slab under-sealing, full-depth patching, and joint sealing. While these repair methods apply to specific distress and pavement types, they also consider the impact of Foreign Object Debris (FOD) on aircraft operations. Untidy or improperly constructed repair activities may disintegrate and potentially create FOD at or near the repair site. Therefore, maintenance activities must include quality control monitoring to ensure that repairs are conducted properly and clean-up activities are undertaken to address this potential. The current version of the FAA Advisory Circular 150/5210-24 “Airport Foreign Object Debris (FOD) Management” provides additional guidance for developing and managing an airport FOD program.

5.4.1 Localized Maintenance and Repair Approach

Localized maintenance differs from major rehabilitation in that localized maintenance is applied based on the distresses observed and not an averaged or forecasted PCI value. Treatments are selected based on the appropriate corrective measure for a given distress type and severity level. Localized maintenance can be applied either as a preventive measure or a safety (“stopgap”) measure. The two (2) types of localized maintenance are described below in further detail.

- Localized Preventive Maintenance and Repair
  - Distress maintenance activities performed with the primary objective of slowing the rate of deterioration. These activities typically include crack sealing and patching.
- Localized Stopgap/Safety Maintenance and Repair
  - Defined as the localized distress repair needed to keep a pavement in a safe and operational condition. These activities are typically applied to high-severity distresses or distresses impacting operations.

5.4.2 Localized Work Types

The following sections provide detailed descriptions of the maintenance policy work types identified in the Localized Maintenance Policy.

AC Crack Sealing

Crack sealing is the process of cleaning and sealing (or resealing) cracks in AC pavements. This repair is used to fill longitudinal and transverse cracks, including reflective cracks and block cracks that are wider than 1/8-inch. The purpose of this treatment is to prevent water and incompressible materials from entering cracks and causing further deterioration of the pavement structure. Accumulation of incompressible materials in cracks may lead to spalling and is a source of FOD. Crack sealing is cost-effective when used as a preventive measure. Depending on the size of the crack, routing and cleaning the crack may be necessary to remove the loose material within the crack for better adherence of the crack sealant to the crack face. Measurement of this work type is typically in linear feet.

AC Full-Depth Patching

This technique involves replacing the full thickness of the AC layer and may include replacement of the base and subbase layers. Full-depth patching is used to repair structural and material-related distresses, such as alligator cracking, corrugation, depressions, rutting, slippage cracking, and swelling in AC pavements. This repair may be limited to the top AC layer (partial-depth patch) if the base and subbase layers exhibit no signs of deterioration. Measurement of this work type is typically in square feet or square yards.

AC Partial-Depth AC Patching

This technique involves the removal of a given thickness of the surface layer using a milling machine and adding back a layer of AC pavement. This technique removes the deteriorated layer and provides a good bond for an overlay. It can correct or improve the structural capacity or functional requirement, such as skid resistance and ride quality. This repair is used for surface distresses that can occur over a large area, such as raveling, shoving, and bleeding. While mill and replace can be a major rehabilitation M&R method when applied at a large scale, its application in a localized capacity to treat specific distress types also classifies it under localized maintenance for the purpose of this study. After milling operations are completed, any cracks still present should be cleaned and sealed prior to the placement of a tack coat and AC overlay layer(s). Measurement of this work type is typically in square feet or square yards.

Grinding

Grinding is the process of removing a thin layer of the existing concrete by grinding it with a series of closely spaced, rotating saw blades. This method is used to re-profile jointed concrete pavements with poor ride quality due to faulting or warping. Grinding is also used to restore transverse drainage and to provide a textured pavement surface. The concern with this type of maintenance is that if too much material is removed, the overall structural composition of the pavement section may change, potentially reducing the overall life of the pavement. Measurement of this work type is typically in square feet or square yards.

Monitor Pavement

Monitor pavement is recommended when the distresses do not interfere with ride quality, do not have FOD potential, and do not pose an immediate safety concern.

PCC Crack Sealing

Crack sealing is the process of routing, cleaning, and sealing (or resealing) cracks in PCC pavement to prevent water from infiltrating into the pavement foundation and to stop the accumulation of incompressible materials in the cracks. Water entering cracks can weaken the subgrade, potentially leading to pumping, corner breaks, and/or shattered slabs. Accumulation of incompressible materials in cracks may lead to spalling and is a source of FOD. Routing and cleaning of the crack is often necessary to adhere the crack sealant to both sides of the crack. Measurement of this work type is typically in linear feet.

PCC Full-Depth Patching

This type of M&R activity involves full-depth replacement of a portion of a PCC slab. This repair is used for medium- and high-severity corner breaks, medium-severity durability cracking, medium-severity blowups and buckling, and high-severity large patches. This repair requires restoring load transfer if near a joint or crack. Measurement of this work type is typically in square feet or square yards.

PCC Joint Seal

Joint sealing is the process of cleaning and sealing (or resealing) joints in PCC pavement to prevent water from infiltrating into the pavement foundation and to stop the accumulation of incompressible materials in the joints. Water entering joints can weaken the subgrade, potentially leading to pumping, corner breaks, and/or shattered slabs. Accumulation of incompressible materials in joints leads to spalling of the concrete and is a source of FOD. In some cases, it may be necessary to re-saw the pavement joints to remove old material prior to resealing. Measurement of this work type is typically in linear feet.

PCC Partial-Depth Patching

Partial-depth patching involves removing shallow, localized areas of deteriorated or spalled PCC pavement and replacing them with a suitable patch-like cement concrete or epoxy concrete. This method is used to repair distresses that are confined to the top few inches of the slab, such as joint and corner spalling. This repair would require restoring the joint sealant if near a joint. Measurement of this work type is typically in square feet or square yards.

PCC Slab Replacement

This type of M&R activity involves full-depth replacement of an entire PCC slab. This repair is used to repair high-severity blowups and buckling, high-severity durability cracking, medium- and high-severity shattered slabs, and medium- and high-severity ASR. This repair requires restoring load transfer with adjacent slabs through dowels or similar means. Measurement of this work type is typically in square feet or square yards.

Surface Seal

Application of a surface treatment provides AC-surfaced pavements with an unoxidized layer of bituminous material that can help extend the life of a pavement that is experiencing climate-related distresses such as weathering and raveling. The surface treatment can also serve as a repair that re-establishes a bond between aggregates, slowing pavement deterioration and reducing FOD potential. Measurement of this work type is typically in square feet or square yards.

5.4.3 Localized Maintenance Planning-Level Unit Costs

The activities identified here are based on research of practical pavement treatments in consideration of the FAA AC 150/5380-6C. The Localized Maintenance Policies and associated planning-level unit costs are developed in consideration of a network-level analysis.

The Localized Maintenance and Repair Policies and associated planning-level unit costs are based on a statewide consideration of pavement treatments and construction costs from both airfield pavements and the FDOT Historical Cost Information archives. Furthermore, a consideration of limited repair quantities is factored into the determination of conservative planning-level unit costs. Neither the FDOT nor the Consultant team have control over the cost of labor, materials, equipment, the Contractor's methods of determining prices, or over competitive bidding or market conditions. Opinions of probable construction costs provided herein are based on the information known to the FDOT at this time and represent only the Consultant team's judgment as a design professional familiar with the construction industry. This Report cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable construction costs.

Tables 5.4.3 (a) and **(b)** display the cost by maintenance activity for AC and PCC pavement types, respectively. Because the localized maintenance activities identified for both preventive and stopgap work types are based on a statewide network approach, project-specific evaluations and maintenance quantities should be developed prior to construction.

Table 5.4.3 (a): Localized M&R Planning-Level Unit Costs – Asphalt Concrete

Localized Work Type	General Aviation Costs		Work Type Unit
AC Crack Sealing	$	4.00	LF
AC Full-Depth Patching	$	10.00	SF
AC Partial-Depth Patching	$	4.75	SF
Surface Seal	$	0.75	SF

Table 5.4.3 (b): Localized M&R Planning-Level Unit Costs – Portland Cement Concrete

Localized Work Type	General Aviation Costs		Work Type Unit
Grinding	$	2.00	SF
PCC Crack Sealing	$	7.00	LF
PCC Joint Seal	$	4.25	LF
PCC Full-Depth Patching	$	50.00	SF
PCC Partial-Depth Patching	$	169.00	SF
PCC Slab Replacement	$	51.50	SF

**PCC Partial-Depth Patching considers high-early-strength and high-performing repair material.*

5.4.4 Localized Maintenance and Repair Policy

Table 5.4.4 and **Table 5.4.5** depicts the Localized Preventive Maintenance Policy and the Localized Stopgap Maintenance Policy for AC and PCC pavements. The resulting Localized Maintenance recommendations for this program are identified based on this policy.

Table 5.4.4: AC Pavement Localized Preventive& Stopgap Maintenance & Repair Policy

Distress	Severity	Description	AC Preventive Work Type	AC Stopgap Work Type
41	Low	Alligator Cracking	Monitor Pavement	Monitor Pavement
41	Medium	Alligator Cracking	AC Full Depth Patching	AC Full Depth Patching
41	High	Alligator Cracking	AC Full Depth Patching	AC Full Depth Patching
42	N/A	Bleeding	Monitor Pavement	Monitor Pavement
43	Low	Block Cracking	Monitor Pavement	Monitor Pavement
43	Medium	Block Cracking	AC Crack Sealing	Monitor Pavement
43	High	Block Cracking	AC Crack Sealing	AC Crack Sealing
44	Low	Corrugation	Monitor Pavement	Monitor Pavement
44	Medium	Corrugation	AC Full Depth Patching	Monitor Pavement
44	High	Corrugation	AC Full Depth Patching	AC Full Depth Patching
45	Low	Depression	Monitor Pavement	Monitor Pavement
45	Medium	Depression	AC Full Depth Patching	Monitor Pavement
45	High	Depression	AC Full Depth Patching	AC Full Depth Patching
46	N/A	Jet Blast	Monitor Pavement	Monitor Pavement
47	Low	Jt. Reflective Cracking	Monitor Pavement	Monitor Pavement
47	Medium	Jt. Reflective Cracking	AC Crack Sealing	Monitor Pavement
47	High	Jt. Reflective Cracking	AC Full Depth Patching	AC Full Depth Patching
48	Low	L&T Cracking	Monitor Pavement	Monitor Pavement
48	Medium	L&T Cracking	AC Crack Sealing	Monitor Pavement
48	High	L&T Cracking	AC Full Depth Patching	AC Full Depth Patching
49	N/A	Oil Spillage	Monitor Pavement	Monitor Pavement
50	Low	Patching	Monitor Pavement	Monitor Pavement
50	Medium	Patching	AC Full Depth Patching	Monitor Pavement
50	High	Patching	AC Full Depth Patching	AC Full Depth Patching
51	N/A	Polished Aggregate	Monitor Pavement	Monitor Pavement
52	Low	Raveling	Surface Seal	Monitor Pavement
52	Medium	Raveling	Surface Seal	Monitor Pavement
52	High	Raveling	AC Partial Depth Patching	AC Partial Depth Patching
53	Low	Rutting	Monitor Pavement	Monitor Pavement
53	Medium	Rutting	AC Full Depth Patching	Monitor Pavement
53	High	Rutting	AC Full Depth Patching	AC Full Depth Patching
54	Low	Shoving	Monitor Pavement	Monitor Pavement
54	Medium	Shoving	AC Partial Depth Patching	Monitor Pavement
54	High	Shoving	AC Full Depth Patching	AC Full Depth Patching
55	N/A	Slippage Cracking	AC Full Depth Patching	AC Full Depth Patching
56	Low	Swelling	Monitor Pavement	Monitor Pavement
56	Medium	Swelling	AC Full Depth Patching	Monitor Pavement
56	High	Swelling	AC Full Depth Patching	AC Full Depth Patching

Distress	Severity	Description	AC Preventive Work Type	AC Stopgap Work Type
57	Low	Weathering	Monitor Pavement	Monitor Pavement
57	Medium	Weathering	Surface Seal	Monitor Pavement
57	High	Weathering	AC Partial Depth Patching	Surface Seal

Table 5.4.5: PCC Pavement Localized Preventive& Stopgap Maintenance & Repair Policy

Distress	Severity	Description	PCC Preventive Work Type	PCC Stopgap Work Type
61	Low	Blow-up	PCC Full Depth Patching	Monitor Pavement
61	Medium	Blow-up	PCC Full Depth Patching	PCC Full Depth Patching
61	High	Blow-up	PCC Slab Replacement	PCC Slab Replacement
62	Low	Corner Break	Monitor Pavement	Monitor Pavement
62	Medium	Corner Break	PCC Full Depth Patching	PCC Full Depth Patching
62	High	Corner Break	PCC Full Depth Patching	PCC Full Depth Patching
63	Low	Linear Cracking	Monitor Pavement	Monitor Pavement
63	Medium	Linear Cracking	PCC Crack Sealing	PCC Crack Sealing
63	High	Linear Cracking	PCC Full Depth Patching	PCC Crack Sealing
64	Low	Durability Cracking	Monitor Pavement	Monitor Pavement
64	Medium	Durability Cracking	PCC Full Depth Patching	PCC Full Depth Patching
64	High	Durability Cracking	PCC Slab Replacement	PCC Slab Replacement
65	Low	Jt. Seal Damage	PCC Joint Seal	Monitor Pavement
65	Medium	Jt. Seal Damage	PCC Joint Seal	Monitor Pavement
65	High	Jt. Seal Damage	PCC Joint Seal	PCC Joint Seal
66	Low	Small Patch	Monitor Pavement	Monitor Pavement
66	Medium	Small Patch	PCC Partial Depth Patching	Monitor Pavement
66	High	Small Patch	PCC Partial Depth Patching	PCC Partial Depth Patching
67	Low	Large Patch	Monitor Pavement	Monitor Pavement
67	Medium	Large Patch	PCC Full Depth Patching	Monitor Pavement
67	High	Large Patch	PCC Full Depth Patching	PCC Full Depth Patching
68	N/A	Popouts	Monitor Pavement	Monitor Pavement
69	N/A	Pumping	Monitor Pavement	Monitor Pavement
70	Low	Scaling	Monitor Pavement	Monitor Pavement
70	Medium	Scaling	PCC Slab Replacement	Monitor Pavement
70	High	Scaling	PCC Slab Replacement	PCC Slab Replacement
71	Low	Faulting	Monitor Pavement	Monitor Pavement
71	Medium	Faulting	Grinding	Monitor Pavement
71	High	Faulting	PCC Slab Replacement	PCC Slab Replacement
72	Low	Shattered Slab	PCC Crack Sealing	Monitor Pavement
72	Medium	Shattered Slab	PCC Slab Replacement	PCC Crack Sealing
72	High	Shattered Slab	PCC Slab Replacement	PCC Slab Replacement
73	N/A	Shrinkage Cracking	Monitor Pavement	Monitor Pavement

Distress	Severity	Description	PCC Preventive Work Type	PCC Stopgap Work Type
74	Low	Joint Spall	Monitor Pavement	Monitor Pavement
74	Medium	Joint Spall	PCC Partial Depth Patching	PCC Partial Depth Patching
74	High	Joint Spall	PCC Partial Depth Patching	PCC Partial Depth Patching
75	Low	Corner Spall	Monitor Pavement	Monitor Pavement
75	Medium	Corner Spall	PCC Partial Depth Patching	PCC Partial Depth Patching
75	High	Corner Spall	PCC Partial Depth Patching	PCC Partial Depth Patching
76	Low	ASR	Monitor Pavement	Monitor Pavement
76	Medium	ASR	PCC Slab Replacement	PCC Slab Replacement
76	High	ASR	PCC Slab Replacement	PCC Slab Replacement

5.5 Major Rehabilitation

Major rehabilitation is recommended to correct or improve structural deficiencies and/or functional deterioration. Often, when pavements are subject to significant changes in the aircraft fleet mix (frequency and type), major rehabilitation is required to provide a pavement section that can meet the structural demands of traffic loading. Major rehabilitation is generally described as a pavement construction that removes and replaces the pavement surface, thus resetting the PCI value to 100 and the pavement age to zero. Typical policies include full- and partial-depth reconstruction and mill and overlay.

5.5.1 Major Rehabilitation Pavement Section Development

Once the timing of the major rehabilitation activity is determined based on the PCI value, existing as-built record documentation is used to determine typical rehabilitation processes and pavement sections. Refinement of the pavement section layers is performed in consideration of the FAA AC 150/5320-6F. It should be noted that no subsurface geotechnical investigation, American Land Title Association (ALTA)/American Congress on Surveying and Mapping (ACSM) Survey, topographic survey, utilities survey, environmental, or site-specific air traffic study(s) have been utilized in the development of the design criteria. No warranty or assurance is implied in this document for final design nor construction for any airfield pavements discussed within this Report.

Major rehabilitation is divided into two (2) policy categories as part of this System Update: Full-Depth Reconstruction (Reconstruction) and Intermediate Major Rehabilitation (Rehabilitation). Based on the pavement type, the general categories are defined as AC Reconstruction and AC Rehabilitation for AC, AAC, and APC pavement types, and PCC Reconstruction and PCC Rehabilitation for PCC pavement types. The pavement sections are based on the average General Aviation Airport Type requirements; no pavement design has been performed in accordance with the FAA AC 150/5320-6F for the determined conceptual sections. **Table 5.5.1** provide details on the conceptual pavement sections developed for this study.

Table 5.5.1: Conceptual Pavement Sections for Major Rehabilitation

Rehabilitation Type	General Aviation Pavement Section
AC Reconstruction	
Full-depth asphalt pavement section reconstruction. Removal of existing pavement section and construction of a new section. **PCI < 55**	Pavement Removal
	Unclassified Excavation
	Subgrade Stabilization (12")
	Limerock Base Course (6")
	Prime Coat
	Tack Coat
	P-401 Surface Course (3")
	Excludes any paved shoulder features
AC Rehabilitation	
Combination of asphalt pavement milling and replacement overlay with 15% of the areas subject to full-depth reconstruction. **PCI = 55 to 70**	**15% AC Reconstruction**
	Mill and Overlay
	AC Milling (3")
	Tack Coat
	P-401 Surface Course (3")
	Excludes any paved shoulder features
PCC Reconstruction	
Full-depth rigid pavement section reconstruction. **PCI < 55**	Pavement Removal
	Unclassified Excavation
	Subgrade Stabilization (6")
	Limerock Base Course (6")
	P-501 PCC Pavement (8")
	PCC Joint Seal
PCC Rehabilitation	
Rehabilitation of PCC pavement with a combination of crack sealing, joint seal replacement, limited patching, and replacement of 15% of slab panels. **PCI = 55 to 70**	**15% Slab Replacement**
	Joint and Crack Seal
	Limited Patching

The identification of rehabilitation needs and conceptual pavement sections have been determined at the planning level. Design-level investigation is recommended prior to developing construction-level design documents and budgets. **This type of construction typically warrants consideration for non-pavement efforts that may include drainage, turfing, electrical lighting, pavement marking, construction contingency, mobilization costs, and project soft costs.**

Reconstruction (AC or PCC)

Reconstruction is the removal and replacement of the existing AC or PCC pavement and base layer and includes preparation of the existing subgrade material. This technique is utilized when the pavement is badly deteriorated or a structural improvement is required. Reconstruction is used when the pavements are structurally deficient and an overlay is not possible due to adjacent pavement grades.

AC Rehabilitation

AC Rehabilitation, for the purposes of this SAPMP, is a removal of all or a portion of the asphalt surface through milling and replacing the milled depth with an overlay of asphalt. This rehabilitation activity is typically applied to pavement that does not require a structural improvement and does not display an extensive amount of load-related distresses. However, this work type conservatively accounts for 15% of the planned area to receive a full-depth replacement of the pavement structure. This is meant to capture any deficiencies that may not be apparent from a visual evaluation of the surface of the pavement. This work type occurs on pavement sections with a PCI value between 55 and 70. As a general rule of thumb, intermediate rehabilitation activities have a shorter pavement life compared to a full-depth reconstruction, but AC Rehabilitation will still reset the pavement to a PCI of 100.

PCC Rehabilitation

PCC Rehabilitation, for the purposes of this SAPMP, is a planning-level estimate of several concurrent PCC maintenance activities intended to raise the PCI above Critical without reconstructing the entire area. This work type accounts for the replacement of 15% of the slabs as well as a PCC patching, crack sealing, and joint sealing for areas outside of the panel replacement. This work type occurs on pavement sections with a PCI value between 55 and 70.

5.5.2 Major Rehabilitation Planning-Level Unit Costs

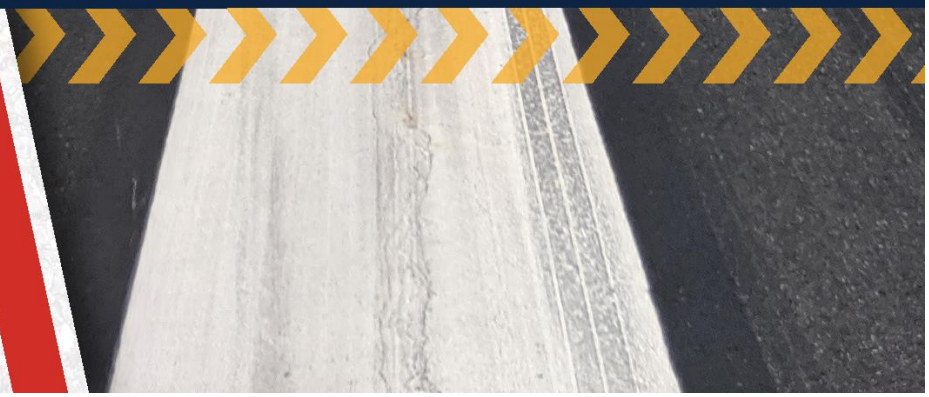
Planning-level opinions of probable construction cost developed for this System Update are based on archived bid tabulations and records from airfield pavement projects provided by participating airports. A review of cost trends and cost factors have been incorporated to assist airports in planning for project budgets.

Neither the FDOT nor the Consultant team have control over the cost of labor, materials, equipment, Contractor's methods of determining prices, or over competitive bidding or market conditions. Opinions of probable construction costs provided herein are based on the information known to the FDOT at this time and represent only the Consultant team's judgment as a design professional familiar with the construction industry. This Report cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable construction costs. **Table 5.5.2** depicts the associated work type planning-level unit costs for Major Rehabilitation for each pavement type.

Table 5.5.2: GA Major Rehabilitation Planning-Level Unit Cost by Pavement Type

Rehabilitation Type	PCI Range	Asphalt Concrete Cost per SF	Portland Cement Concrete Cost Per SF
Rehabilitation	55 to 70	$9.00	$15.00
Reconstruction	0 to 55	$16.00	$29.00

Chapter 6: M&R Planning and Budget Scenario Analysis



Chapter 6 – M&R Planning and Budget Scenario Analysis

6.1 Localized Maintenance and Repair Analysis and Recommendations

This FDOT SAPMP System Update provides a planning-level estimation of Localized Maintenance and Repair costs based on the results of the latest PCI assessment performed at the Airport. Due to the limited sample units inspected in certain pavement sections, a statistical extrapolation of distresses is used to estimate the quantities of recommended repair activities at the section level, based the policies defined in **5.4.4 Localized Maintenance and Repair Policy**. These work quantities are limited to a near-term application since they were determined directly from the PCI assessment efforts. As pavements continue to deteriorate year-to-year, quantities and/or distress severities may increase, which will affect the amount and type of localized maintenance required. This analysis can be utilized as a planning tool to assist Airport staff in determining an annual budget allocation for maintenance activities that will help maintain Airport pavements above the critical PCI value and extend the life of the pavement.

Table 6.1 (a) provides a summary of the anticipated planning-level costs for Year 1 Localized Preventive Maintenance and Localized Stopgap Maintenance. The following table depicts planning-level costs rounded up to the next 10-dollar increment.

Table 6.1 (a): Year 1 Summary of Localized Maintenance

Work Category	Cost
Preventive	$ 22,650
Stopgap	$ 28,440
Planning-Level Localized M&R Needs =	***$ 51,090***

Localized Preventive Maintenance is typically applied to pavements that are in a condition above the critical PCI value of the pavement section. Localized Stopgap Maintenance is typically applied to pavement sections that are at or below the critical PCI value. Application of localized maintenance and repair should be coordinated with the planning of major rehabilitation efforts identified through the Major Rehabilitation analysis. Pavements with stopgap recommendations that are subject to near-term major rehabilitation efforts may remove the need to perform localized (stopgap) maintenance efforts in subsequent years.

Table 6.1 (b) summarizes the anticipated Year 1 Localized Maintenance recommendations by work type, based on the PCI assessment efforts performed as part of this SAPMP System Update. The following table depicts planning-level costs rounded up to the next 10-dollar increment.

Table 6.1 (b): Year 1 Localized Maintenance by Work Type Summary

Localized Maintenance Category	Localized Work Type	Rough Estimate of Work Quantity	Work Units	Planning Material Cost
Localized Preventive Maintenance	Surface Seal	15,154	SF	$ 11,390
	PCC Joint Seal	1,336	LF	$ 5,680
	PCC Partial-Depth Patching	33	SF	$ 5,580
Localized Stopgap Maintenance	AC Partial-Depth Patching	30	SF	$ 150
	AC Full-Depth Patching	62	SF	$ 630
	PCC Crack Sealing	247	LF	$ 1,740
	PCC Joint Seal	295	LF	$ 1,260
	PCC Partial-Depth Patching	80	SF	$ 13,510
	PCC Full-Depth Patching	223	SF	$ 11,150

Table 6.1 (c) provides a breakdown of the anticipated planning-level costs by section for those areas exhibiting distresses that would benefit from Year 1 Localized M&R. The table shows the approximate improved "End Condition" PCI value of the section after the application of Localized M&R. This approximation is intended to depict a planning-level estimate of the effect of the localized M&R on the section-level PCI; the performance of the work does not guarantee the pavement will not deteriorate in other ways outside of the described treatment. The following table depicts planning-level costs rounded up to the next 10-dollar increment.

Table 6.1 (c): Section-Level Year 1 Localized M&R Planning Cost Summary

Network ID	Branch ID	Section ID	Area (SF)	Start PCI	End PCI	Cost
MTH	RW 7-25	6105	500,800	48	48	$ -
MTH	TW A	105	252,086	54	54	$ -
MTH	TW A	115	50,654	61	61	$ -
MTH	TW A6	160	18,521	56	56	$ -
MTH	TW B	151	10,353	50	50	$ -
MTH	TW C	205	6,247	54	54	$ -
MTH	TW C	210	3,873	49	49	$ -
MTH	TW D	305	9,290	48	48	$ -
MTH	TW D	310	7,468	66	66	$ -
MTH	TW E	152	5,537	71	80	$ 840
MTH	TW E	155	5,103	56	56	$ -
MTH	TW E	405	39,035	77	89	$ 4,960
MTH	AP E	4505	32,298	69	69	$ -
MTH	AP E	4510	28,781	45	45	$ -
MTH	AP E	4515	32,261	94	94	$ -
MTH	AP FLGHT C	4105	276,751	55	56	$ 630
MTH	AP FLGHT C	4110	4,112	16	42	$ 6,190
MTH	AP FLGHT C	4115	22,974	71	80	$ 3,450
MTH	AP FLGHT C	4125	14,266	76	89	$ 2,140
MTH	AP FLGHT C	4130	8,280	83	94	$ 11,260
MTH	AP JET CTR	4305	108,317	38	39	$ 70
MTH	AP JET CTR	4308	3,269	70	78	$ 2,430
MTH	AP JET CTR	4315	60,631	51	55	$ 80

Network ID	Branch ID	Section ID	Area (SF)	Start PCI	End PCI	Cost
MTH	AP JET CTR	4320	3,223	27	27	$ -
MTH	AP JET CTR	4325	5,039	21	35	$ 9,620
MTH	AP JET CTR	4330	4,858	100	100	$ -
MTH	AP TERM	4205	27,943	57	57	$ -
MTH	AP TERM	4210	10,440	55	55	$ -
MTH	AP TERM	4220	87,363	58	61	$ 9,370
MTH	AP T-HANG	4405	34,309	68	68	$ -

6.2 Major Rehabilitation Needs

Major rehabilitation is identified within the FDOT SAPMP as a major construction activity that results in a substantial improvement to the pavement condition and resets the pavement section's PCI value to 100. Major rehabilitation recommendations (AC Rehabilitation, AC Reconstruction, PCC Rehabilitation, and PCC Reconstruction) should be considered as planning-level only. Additional design-level investigation in accordance with FAA Advisory Circulars is required. Recommendations identified within this planning document do not imply final design.

The objective of the Major Pavement Rehabilitation Needs analysis is to develop planning-level projects within an Airport's airfield pavement network. As depicted in **Figures 5.3 (b)** and **(c)** in **Chapter 5**, major rehabilitation activities are recommended when a pavement section has deteriorated below the critical PCI value, a point at which localized maintenance and repair activities may not be a cost-effective solution. In addition, major rehabilitation is also recommended when the section's PCI value is above the critical PCI value with the section exhibiting a significant amount of load-related distresses. Identification of rehabilitation needs is done at the section-level. This, however, does not limit the Airport from further refining limits of project planning areas.

6.2.1 10-Year Unconstrained Budget Major Rehabilitation Needs

Major rehabilitation needs are identified by analyzing the Airport's pavement condition in relationship to critical PCI values, major rehabilitation policies, and unit costs, assuming there are no budget constraints. This is done over a 10-year analysis period. While this is financially impractical, it does yield the unbiased pavement needs over a 10-year time frame at the Airport given current and forecasted pavement conditions. The FDOT recognizes that airports are constrained by budgets and does not intend to convey an unrealistic approach of addressing pavement rehabilitation. Each airport has a unique set of challenges and FDOT's goals are to provide it with the data needed to formulate a practical Capital Improvement Program and identify needs in the Joint Automated Capital Improvement Program (JACIP). This includes:

- An estimation of current pavement condition;
- Major pavement rehabilitation needs based on condition and policies; and
- Planning-level cost estimates for the major rehabilitation needs.

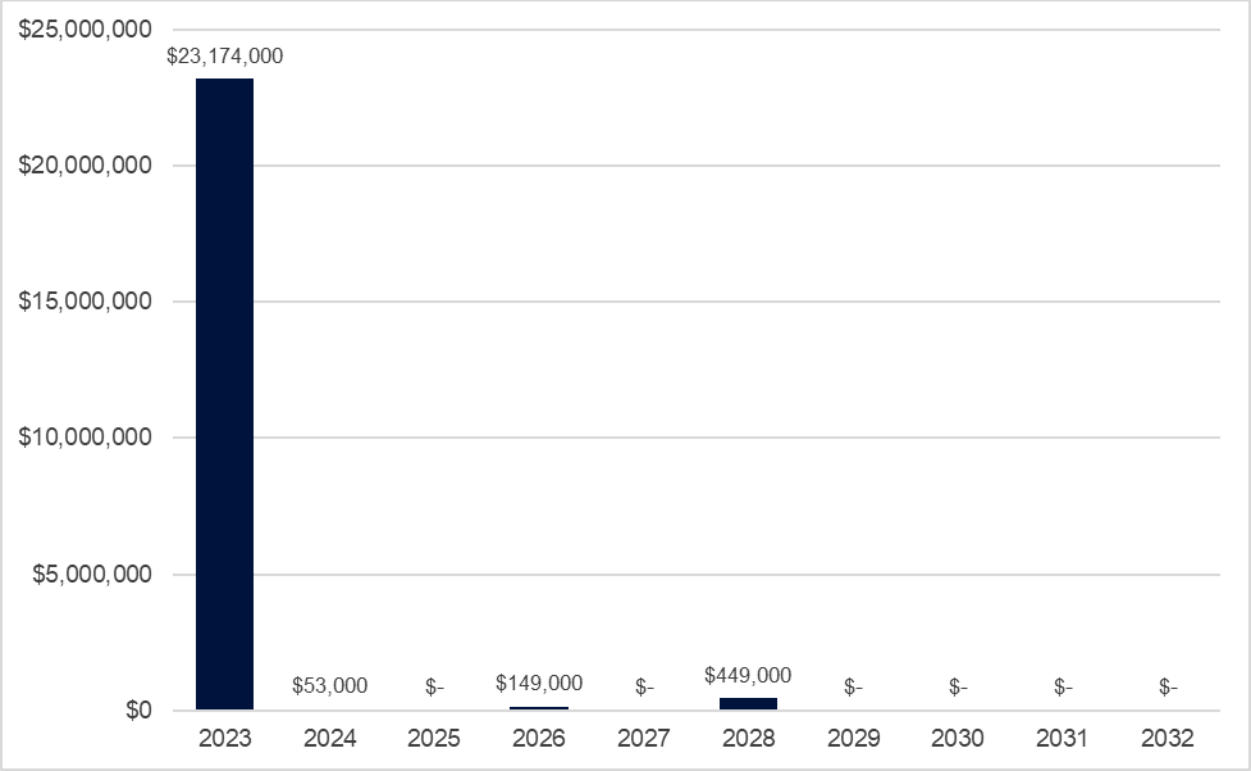
Table 6.2.1 (a) summarizes section-level major rehabilitation needs forecasted for a 10-year period. It should be noted that the following table depicts planning-level costs and has been rounded up to the nearest $1,000 for planning purposes.

Table 6.2.1 (a): Section-Level 10-Year Major Rehabilitation Needs

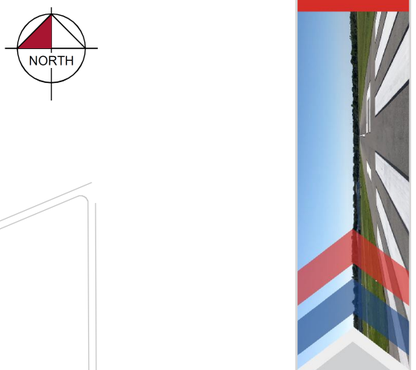
Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2023	**MTH**	RW 7-25	6105	AAC	500,800	47	AC Reconstruction	$ 8,013,000
2023	**MTH**	TW A	105	AAC	252,086	53	AC Reconstruction	$ 4,034,000
2023	**MTH**	TW A	115	AC	50,654	60	AC Rehabilitation	$ 456,000
2023	**MTH**	TW A6	160	AAC	18,521	55	AC Reconstruction	$ 219,000
2023	**MTH**	TW B	151	AAC	10,353	49	AC Reconstruction	$ 166,000
2023	**MTH**	TW C	205	AAC	6,247	53	AC Reconstruction	$ 100,000
2023	**MTH**	TW C	210	AAC	3,873	48	AC Reconstruction	$ 62,000
2023	**MTH**	TW D	305	AAC	9,290	47	AC Reconstruction	$ 149,000
2023	**MTH**	TW D	310	AAC	7,468	65	AC Rehabilitation	$ 68,000
2023	**MTH**	TW E	155	AAC	5,103	55	AC Reconstruction	$ 49,000
2023	**MTH**	AP E	4505	AC	32,298	68	AC Rehabilitation	$ 291,000
2023	**MTH**	AP E	4510	AC	28,781	45	AC Reconstruction	$ 461,000
2023	**MTH**	AP FLGHT C	4105	AC	276,751	54	AC Reconstruction	$ 3,809,000
2023	**MTH**	AP FLGHT C	4110	PCC	4,112	15	PCC Reconstruction	$ 120,000
2023	**MTH**	AP FLGHT C	4115	AC	22,974	70	AC Rehabilitation	$ 207,000
2023	**MTH**	AP JET CTR	4305	AC	108,317	38	AC Reconstruction	$ 1,734,000
2023	**MTH**	AP JET CTR	4308	PCC	3,269	69	PCC Rehabilitation	$ 50,000
2023	**MTH**	AP JET CTR	4315	AC	60,631	50	AC Reconstruction	$ 971,000
2023	**MTH**	AP JET CTR	4320	AC	3,223	26	AC Reconstruction	$ 52,000
2023	**MTH**	AP JET CTR	4325	PCC	5,039	20	PCC Reconstruction	$ 147,000
2023	**MTH**	AP TERM	4205	AAC	27,943	56	AC Rehabilitation	$ 252,000
2023	**MTH**	AP TERM	4210	AC	10,440	54	AC Reconstruction	$ 144,000
2023	**MTH**	AP TERM	4220	PCC	87,363	57	PCC Rehabilitation	$ 1,311,000
2023	**MTH**	AP T-HANG	4405	AC	34,309	67	AC Rehabilitation	$ 309,000
2024	**MTH**	TW E	152	AAC	5,537	69	AC Rehabilitation	$ 53,000
2026	**MTH**	AP FLGHT C	4125	AC	14,266	70	AC Rehabilitation	$ 149,000
2028	**MTH**	TW E	405	AC	39,035	69	AC Rehabilitation	$ 449,000

Figure 6.2.1 (a) summarizes the section-level major rehabilitation needs for a 10-year period between 2023 and 2032. **Figure 6.2.1 (b)**, the Airfield Pavement Major Rehabilitation Exhibit, graphically depicts the major rehabilitation needs with rounded costs. As suggested previously, this is planning-level data that can be used by the Airport to support developing a practical CIP.

Figure 6.2.1 (a): 10-Year Major Rehabilitation Needs by Program Year



MTH



AIRFIELD PAVEMENT MAJOR REHABILITATION EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022

NORTH

TW A:115
2023 | AC REHAB
$0.46 M

TW E:155
2023 | AC REHAB
$0.05 M

TW C:205
2023 | AC RECON
$0.10 M

TW D:305
2023 | AC RECON
$0.15 M

AP TERM:4210
2023 | AC REHAB
$0.14 M

AP JET CTR:4308
2023 | PCC REHAB
$0.05 M

AP E:4505
2023 | AC REHAB
$0.29 M

AP FLGHT C:4125
2026 | AC REHAB
$0.15 M

TW E:405
2028 | AC REHAB
$0.45 M

TW E:152
2024 | AC REHAB
$0.05 M

AP E:4510
2023 | AC RECON
$0.46 M

TW D:310
2023 | AC REHAB
$0.07 M

AP FLGHT C:4115
2023 | AC REHAB
$0.21 M

AP FLGHT C:4110
2023 | PCC RECON
$0.12 M

RW 7-25:6105
2023 | AC RECON
$8.01 M

TW A6:160
2023 | AC REHAB
$0.22 M

TW C:210
2023 | AC RECON
$0.06 M

TW A:105
2023 | AC RECON
$4.03 M

AP FLGHT C:4105
2023 | AC REHAB
$3.81 M

AP TERM:4220
2023 | PCC REHAB
$1.31 M

AP TERM:4205
2023 | AC REHAB
$0.25 M

AP JET CTR:4320
2023 | AC RECON
$0.05 M

AP JET CTR:4325
2023 | PCC RECON
$0.15 M

AP JET CTR:4305
2023 | AC RECON
$1.73 M

AP JET CTR:4315
2023 | AC RECON
$0.97 M

AP T-HANG:4405
2023 | AC REHAB
$0.31 M

TW B:151
2023 | AC RECON
$0.17 M

115
4505
4515
4130
4125
155
305
205
4210
4330
4308

RUNWAY 7-25 100' X 5,000'

RW 7-25
TW A
TW B
TW C
TW D
TW E
AP E
AP FLGHT
AP TERM
AP JET CTR
AP T-HANG

LEGEND

RW 13-31 — TYPICAL RUNWAY BRANCH ID
TW A — TYPICAL TAXIWAY BRANCH ID
AP S — TYPICAL APRON BRANCH ID

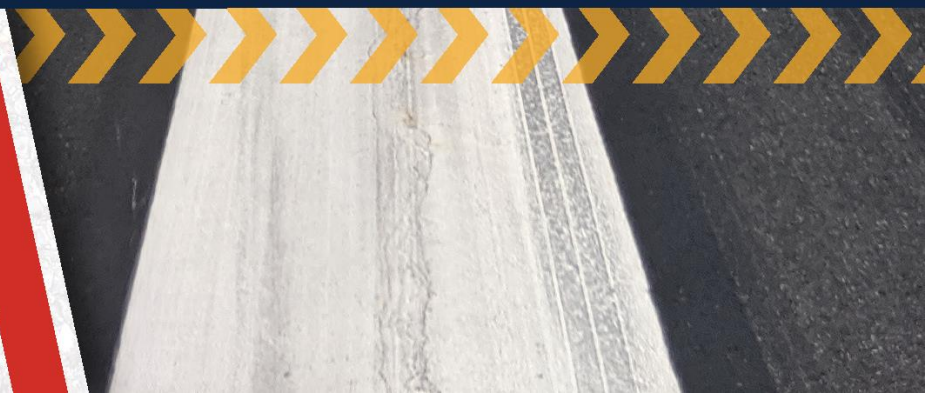
PROGRAM YEAR

2023	2028
2024	2029
2025	2030
2026	2031
2027	2032

"BRANCH":"SECTION"
"YEAR"|"REHAB ACTIVITY"
"EST. COST"

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

Chapter 7: Conclusion



Chapter 7 – Conclusion

7.1 Recommendations

7.1.1 Continued PCI Surveys

It is recommended that the Airport continue to perform regularly scheduled PCI surveys in accordance with the ASTM D5340-20 (or latest edition) to monitor the condition of airfield pavement facilities.

A high priority should be placed on maintaining good record keeping and re-inspecting the Airport's maintained pavement facilities to ensure continued safe aircraft operations. Per the FAA AC 150/5380-7B, a series of scheduled periodic inspections must be carried out for an effective maintenance program. Re-inspection of pavements should be scheduled in a timely manner to ensure that all areas, particularly those that may not come under day-to-day observation, are thoroughly evaluated and reported.

7.1.2 Localized Maintenance and Repair

While deterioration of the pavements due to usage and exposure to the environment cannot be prevented, applying timely and effective maintenance efforts can slow the anticipated rate of deterioration. Lack of adequate and timely maintenance is a significant factor in pavement deterioration. **Chapter 6** identified localized maintenance and repair needs. It is recommended that Airport sponsors coordinate with their respective Airport maintenance staff and Airport engineer when developing project-level maintenance and repair efforts.

7.1.3 Major Rehabilitation

Chapter 6 also identified major pavement rehabilitation project needs from 2023-2032. Identification of these rehabilitation needs are performed at the section level for manageable project areas and assume an unconstrained budget scenario. Given the uncertainty in Airport-specific budget information and prioritization goals, the unconstrained budget scenario represents a conservative scenario and identifies pavement needs over a 10-year period. Certainly, it is understood that most airports are faced with constrained budgets, thus further evaluation of projects based on prioritization, operational criticality, funding availability, and practicality is recommended.

7.1.4 Pavement Management System

The following recommendations are made to fully implement an effective pavement management program for the Airport:

- Develop a detailed preventive maintenance program for the Airport based on the recommendations provided in **Section 6.1**;
- Further refine and implement the identified 10-year major rehabilitation needs provided in **Section 6.2**;
- Maintain detailed records on pavement maintenance, construction, and inspection; and
- Maintain records on major pavement construction projects (year, scope, cost, and construction documents).

7.2 Supporting Documents

Airfield Pavement Network Definition Exhibit

The Airfield Pavement Network Definition Exhibit is located in **Chapter 3** and **Appendix C**. The Exhibit depicts the airfield layout in a manner that defines the airfield pavement infrastructure as branches, sections, and sample units in accordance with the ASTM D5340-20. The Exhibit is intended for planning purposes only. Further details can be found on the Airport's adopted Airport Layout Plan. Detailed characteristics are tabulated in **Appendix A.**

Airfield Pavement System Inventory Exhibit

The Airfield Pavement System Inventory Exhibit is located in **Chapter 3** and **Appendix C**. The Exhibit depicts recent and/or anticipated construction activity within the airfield pavement facilities reported by Airport staff. The Exhibit is intended to schematically identify the pavement limits of work and general work description. The information reported on the Airport Response Form provided by each participating airport was used as the basis of the changes. Furthermore, changes are confirmed at the Airport with Airport staff during the in-brief and debrief meeting.

Airfield Pavement Estimated Age Exhibit

The Airfield Pavement Estimated Age Exhibit is located in **Chapter 3** and **Appendix C**. Based on the review of historic airfield pavement construction activities, the Exhibit provides the approximate limits of the age of the pavement sections since the last major construction activity has occurred. This is intended to be a rough estimate based on interpretation of the limited data available at the time of report.

Airfield Pavement Condition Index Exhibit

The Airfield Pavement Condition Index Exhibit is located in **Chapter 4** and **Appendix C**. The Exhibit is a visual summary of the latest conditions reported from the PCI assessment performed at the Airport. Distress analysis occurred in accordance with ASTM D5340-20 (referenced in **Appendix E**), with results being analyzed using PAVER™ software to determine PCI values. The PCI values are identified in the Exhibit and graphically represented using the standard ASTM D5340-20 condition rating categories.

Airfield Pavement Major Rehabilitation Exhibit

The Airfield Pavement Major Rehabilitation Exhibit is located in **Chapter 6** and **Appendix C**. The Exhibit has been prepared based on the section condition analysis, pavement condition forecasts, and major rehabilitation needs analysis. The Exhibit graphically depicts the inventory with the associated rehabilitation type activity, program year, and the planning-level costs. Area limits, rehabilitation type, and planning-level costs should not be considered a design-level recommendation. A tabulation of the 10-Year Major Rehabilitation is located in **Appendix B**.

Inspection Photograph Documentation

Representative field conditions from the PCI assessment are documented with digital photographs located in **Appendix D**. Select photographs are provided with a limited caption on the distress(es) observed. "Vicinity" photos refer to the approximate boundaries of an inspected sample unit within the section and provide an overview of the section condition but are not focused on a specific distress. The Appendix does not contain photographs for every section and sample unit.

7.3 Conclusion

The FDOT SAPMP System Update Phase 2 2021-2023 was completed for the Airport on behalf of the FDOT AO in accordance with the FAA AC 150/5380-7B and 150/5380-6C. FDOT's implementation of the SAPMP has assisted public airports with this requirement in performing PCI survey inspections and analysis in accordance with the ASTM D5340-20.

7.4 References

The following documents are referenced as specific guidelines and procedures for maintaining Airport pavements, establishing an effective pavement maintenance program, and identifying specific pavement distresses, probable causes of distresses, survey guidelines, and recommended methods of repair.

- ASTM D5340-20, Standard Test Method for Airport Pavement Condition Index Surveys, American Society for Testing and Materials, West Conshohocken, PA, 2018.
- AC 150/5210-24 Airport Foreign Object Debris (FOD) Management, Federal Aviation Administration, Washington, D.C., 2010.
- AC 150/5320-6F, Airport Pavement Design and Evaluation, Federal Aviation Administration, Washington, D.C., 2016.
- AC 150/5380-7B, Airport Pavement Management Program (PMP), Federal Aviation Administration, Washington, D.C., 2014.
- AC 150/5380-6C, Guidelines and Procedures for Maintenance of Airport Pavements, Federal Aviation Administration, Washington, D.C., 2014.
- AC 150/5370-10H, Standard Specifications for Construction of Airports, Federal Aviation Administration, Washington, D.C., 2018.
- Airport Improvement Program Handbook, Order 5100.38D, Change 1, Federal Aviation Administration, Washington, D.C., 2019.
- Tri-Service Pavements Working Group (TSPWG) Manual 3-270-08. 14-03, Preventive Maintenance Plan (PMP) for Airfield Pavements, Department of Defense, Washington, D.C., 2019.
- Unified Facilities Criteria (UFC) 3-260-16, O&M Manual: Standard Practice for Airfield Pavement Condition Surveys, Department of Defense, Washington, D.C., 2019.
- Unified Facilities Criteria (UFC) 3-260-03, Airfield Pavement Evaluation, Department of Defense, Washington, D.C., 2001.
- Shahin, Mohamed Y., Pavement Management for Airports, Roads, and Parking Lots, Springer, 2005.

Appendix A: Airfield Pavement Analysis

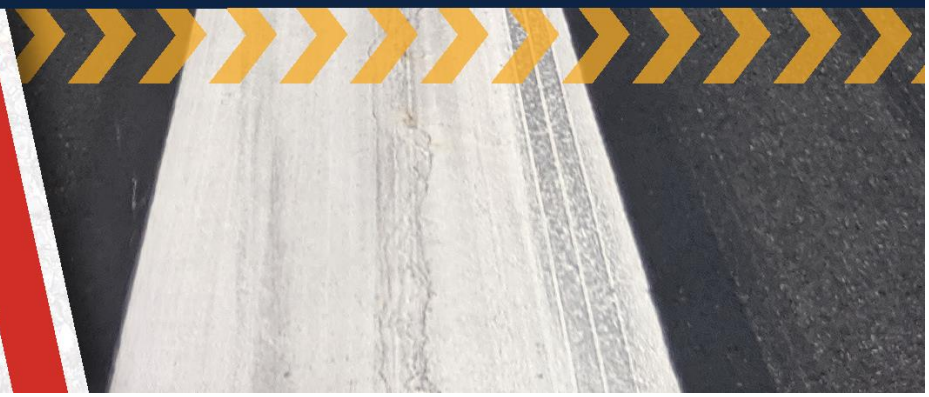


Table A.1: Pavement System Inventory Details

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface Type	Estimate of Last Construction Date
MTH	RW 7-25	Runway	6105	500,800	AAC	1/1/1985
MTH	TW A	Taxiway	105	252,086	AAC	1/1/1998
MTH	TW A	Taxiway	115	50,654	AC	12/25/1999
MTH	TW A6	Taxiway	160	18,521	AAC	1/1/1998
MTH	TW B	Taxiway	151	10,353	AAC	1/1/1998
MTH	TW C	Taxiway	205	6,247	AAC	1/1/1998
MTH	TW C	Taxiway	210	3,873	AAC	1/1/1998
MTH	TW D	Taxiway	305	9,290	AAC	1/1/1998
MTH	TW D	Taxiway	310	7,468	AAC	1/1/1998
MTH	TW E	Taxiway	152	5,537	AAC	1/1/1998
MTH	TW E	Taxiway	155	5,103	AAC	1/1/1998
MTH	TW E	Taxiway	405	39,035	AC	1/1/1998
MTH	AP E	Apron	4505	32,298	AC	1/1/1999
MTH	AP E	Apron	4510	28,781	AC	1/1/1999
MTH	AP E	Apron	4515	32,261	AC	3/1/2017
MTH	AP FLGHT C	Apron	4105	276,751	AC	1/1/1983
MTH	AP FLGHT C	Apron	4110	4,112	PCC	1/1/1983
MTH	AP FLGHT C	Apron	4115	22,974	AC	1/1/2004
MTH	AP FLGHT C	Apron	4125	14,266	AC	7/1/2008
MTH	AP FLGHT C	Apron	4130	8,280	PCC	1/1/2017
MTH	AP JET CTR	Apron	4305	108,317	AC	1/1/1990
MTH	AP JET CTR	Apron	4308	3,269	PCC	1/1/1987
MTH	AP JET CTR	Apron	4315	60,631	AC	12/25/1999
MTH	AP JET CTR	Apron	4320	3,223	AC	1/1/1990
MTH	AP JET CTR	Apron	4325	5,039	PCC	1/1/1990
MTH	AP JET CTR	Apron	4330	4,858	PCC	1/1/2020
MTH	AP TERM	Apron	4205	27,943	AAC	1/1/2006
MTH	AP TERM	Apron	4210	10,440	AC	1/1/1978
MTH	AP TERM	Apron	4220	87,363	PCC	1/1/1994
MTH	AP T-HANG	Apron	4405	34,309	AC	12/25/1999

Table A.2: Pavement Condition Index Summary (Current PCI Survey) – Section Level

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	PCI	Condition Rating
MTH	RW 7-25	Runway	6105	500,800	48	Poor
MTH	TW A	Taxiway	105	252,086	54	Poor
MTH	TW A	Taxiway	115	50,654	61	Fair
MTH	TW A6	Taxiway	160	18,521	56	Fair
MTH	TW B	Taxiway	151	10,353	50	Poor
MTH	TW C	Taxiway	205	6,247	54	Poor
MTH	TW C	Taxiway	210	3,873	49	Poor
MTH	TW D	Taxiway	305	9,290	48	Poor
MTH	TW D	Taxiway	310	7,468	66	Fair
MTH	TW E	Taxiway	152	5,537	71	Satisfactory
MTH	TW E	Taxiway	155	5,103	56	Fair
MTH	TW E	Taxiway	405	39,035	77	Satisfactory
MTH	AP E	Apron	4505	32,298	69	Fair
MTH	AP E	Apron	4510	28,781	45	Poor
MTH	AP E	Apron	4515	32,261	94	Good
MTH	AP FLGHT C	Apron	4105	276,751	55	Poor
MTH	AP FLGHT C	Apron	4110	4,112	16	Serious
MTH	AP FLGHT C	Apron	4115	22,974	71	Satisfactory
MTH	AP FLGHT C	Apron	4125	14,266	76	Satisfactory
MTH	AP FLGHT C	Apron	4130	8,280	83	Satisfactory
MTH	AP JET CTR	Apron	4305	108,317	38	Very Poor
MTH	AP JET CTR	Apron	4308	3,269	70	Fair
MTH	AP JET CTR	Apron	4315	60,631	51	Poor
MTH	AP JET CTR	Apron	4320	3,223	27	Very Poor
MTH	AP JET CTR	Apron	4325	5,039	21	Serious
MTH	AP JET CTR	Apron	4330	4,858	100	Good
MTH	AP TERM	Apron	4205	27,943	57	Fair
MTH	AP TERM	Apron	4210	10,440	55	Poor
MTH	AP TERM	Apron	4220	87,363	58	Fair
MTH	AP T-HANG	Apron	4405	34,309	68	Fair

Table A.3: Forecasted PCI Values 2023-2032 – Section-Level

Network ID	Branch ID	Section ID	Current PCI	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MTH	RW 7-25	6105	48	47	45	43	41	39	37	35	33	31	29
MTH	TW A	105	54	53	51	49	48	46	44	41	39	37	34
MTH	TW A	115	61	60	60	59	58	58	57	57	56	56	55
MTH	TW A6	160	56	55	53	51	49	47	45	43	41	39	37
MTH	TW B	151	50	49	47	45	43	40	38	36	33	30	28
MTH	TW C	205	54	53	51	49	48	46	44	41	39	37	34
MTH	TW C	210	49	48	46	44	41	39	37	34	31	29	26
MTH	TW D	305	48	47	45	42	40	38	35	33	30	27	25
MTH	TW D	310	66	65	64	63	61	60	59	57	56	54	53
MTH	TW E	152	71	70	69	68	66	65	64	63	61	60	59
MTH	TW E	155	56	55	53	52	50	48	46	44	42	40	37
MTH	TW E	405	77	76	74	73	72	70	69	68	67	66	65
MTH	AP E	4505	69	68	66	65	64	62	61	60	59	58	57
MTH	AP E	4510	45	45	44	44	43	43	42	42	41	41	41
MTH	AP E	4515	94	92	90	88	86	84	82	80	78	76	74
MTH	AP FLGHT C	4105	55	54	53	53	52	51	50	49	49	48	47
MTH	AP FLGHT C	4110	16	15	14	13	12	11	11	10	9	8	7
MTH	AP FLGHT C	4115	71	70	68	67	65	64	63	62	60	59	58
MTH	AP FLGHT C	4125	76	75	73	71	70	68	67	65	64	63	62
MTH	AP FLGHT C	4130	83	82	81	80	79	78	78	77	76	75	74
MTH	AP JET CTR	4305	38	38	37	37	36	36	36	35	35	34	34
MTH	AP JET CTR	4308	70	69	68	67	66	65	65	64	63	62	61
MTH	AP JET CTR	4315	51	50	50	49	48	48	47	46	46	45	45
MTH	AP JET CTR	4320	27	26	26	25	24	23	23	22	21	20	19
MTH	AP JET CTR	4325	21	20	19	18	17	16	16	15	14	13	12
MTH	AP JET CTR	4330	100	97	96	95	94	93	92	91	90	89	88
MTH	AP TERM	4205	57	56	54	52	50	48	46	44	42	40	38
MTH	AP TERM	4210	55	54	53	53	52	51	50	49	49	48	47
MTH	AP TERM	4220	58	57	56	55	54	53	53	52	51	50	49
MTH	AP T-HANG	4405	68	67	66	64	63	62	60	59	58	57	56

Pavement Database: FDOT

Network: THE FLORIDA KEY **Branch:** AP E EAST APRON **Section:** 4505 **Surface:**AC
L.C.D. 1/1/1999 **Use:** APRON **Rank:** P **Length:** 200.00 (Ft) **Width:** 163.00 (Ft) **True Area:** 32298.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1999	NU-IN	New Construction - Initial	0.00	2.00	☑	2" AC/ 6" Limerock

Network: THE FLORIDA KEY **Branch:** AP E EAST APRON **Section:** 4510 **Surface:**AC
L.C.D. 1/1/1999 **Use:** APRON **Rank:** P **Length:** 345.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 28781.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1999	NU-IN	New Construction - Initial	0.00	2.00	☑	2" AC / 6" Limerock

Network: THE FLORIDA KEY **Branch:** AP E EAST APRON **Section:** 4515 **Surface:**AC
L.C.D. 3/1/2017 **Use:** APRON **Rank:** P **Length:** 370.00 (Ft) **Width:** 355.00 (Ft) **True Area:** 32261.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
3/1/2017	NC-AC	New Construction - AC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP FLGHT C APRON AT FLIG **Section:** 4105 **Surface:**AC
L.C.D. 1/1/1983 **Use:** APRON **Rank:** P **Length:** 1,290.00 (Ft) **Width:** 245.00 (Ft) **True Area:** 276751.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1990	ST-SC	Surface Treatment - Seal Coat	0.00	0.00	☐	1990 SEAL COAT
1/1/1983	IMPORTED	BUILT	0.00	2.00	☑	1983 P-625 2" P-401 8" P-211

Network: THE FLORIDA KEY **Branch:** AP FLGHT C APRON AT FLIG **Section:** 4110 **Surface:**PCC
L.C.D. 1/1/1983 **Use:** APRON **Rank:** P **Length:** 130.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 4112.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1983	IMPORTED	BUILT	0.00	0.00	☑	1983 PCC

Network: THE FLORIDA KEY **Branch:** AP FLGHT C APRON AT FLIG **Section:** 4115 **Surface:**AC
L.C.D. 1/1/2004 **Use:** APRON **Rank:** P **Length:** 179.00 (Ft) **Width:** 160.00 (Ft) **True Area:** 22974.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2004	NC-AC	New Construction - AC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP FLGHT C APRON AT FLIG **Section:** 4125 **Surface:**AC
L.C.D. 7/1/2008 **Use:** APRON **Rank:** P **Length:** 108.00 (Ft) **Width:** 107.00 (Ft) **True Area:** 14266.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
7/1/2008	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP FLGHT C APRON AT FLIG **Section:** 4130 **Surface:**PCC
L.C.D. 1/1/2017 **Use:** APRON **Rank:** P **Length:** 92.00 (Ft) **Width:** 90.00 (Ft) **True Area:** 8280.000002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2017	NC-PC	New Construction - PCC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4305 **Surface:**AC

L.C.D. 1/1/1990 **Use:** APRON **Rank:** P **Length:** 452.00 (Ft) **Width:** 231.00 (Ft) **True Area:** 108317.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1990	IMPORTED	BUILT	0.00	2.00	☑	1990 P-625 2" P-401 8" P-211 12" P-154

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4308 **Surface:**PCC

L.C.D. 1/1/1987 **Use:** APRON **Rank:** P **Length:** 127.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 3269.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1987	IMPORTED	BUILT	0.00	0.00	☑	EST 1987 P-501

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4315 **Surface:**AC

L.C.D. 12/25/199 **Use:** APRON **Rank:** P **Length:** 231.00 (Ft) **Width:** 237.00 (Ft) **True Area:** 60631.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
12/25/1999	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4320 **Surface:**AC

L.C.D. 1/1/1990 **Use:** APRON **Rank:** P **Length:** 145.00 (Ft) **Width:** 23.00 (Ft) **True Area:** 3223.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1990	NC-AC	New Construction - AC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4325 **Surface:**PCC

L.C.D. 1/1/1990 **Use:** APRON **Rank:** P **Length:** 130.00 (Ft) **Width:** 71.00 (Ft) **True Area:** 5039.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1990	NC-PC	New Construction - PCC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP JET CTR JET CENTER AP **Section:** 4330 **Surface:**PCC

L.C.D. 1/1/2020 **Use:** APRON **Rank:** P **Length:** 115.00 (Ft) **Width:** 41.00 (Ft) **True Area:** 4858.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2020	NC-PC	New Construction - PCC	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** AP TERM TERMINAL APR **Section:** 4205 **Surface:**AAC

L.C.D. 1/1/2006 **Use:** APRON **Rank:** P **Length:** 300.00 (Ft) **Width:** 125.00 (Ft) **True Area:** 27943.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2006	ML-OVL	Mill and Overlay	0.00	0.00	☑	1978 3" P-401
1/1/1987	ST-SC	Surface Treatment - Seal Coat	0.00	0.00	☐	1987 SEAL COAT
1/1/1978	NC-AC	New Construction - AC	0.00	3.00	☑	1978 3" P-401

Network: THE FLORIDA KEY **Branch:** AP TERM TERMINAL APR **Section:** 4210 **Surface:**AC

L.C.D. 1/1/1978 **Use:** APRON **Rank:** P **Length:** 232.00 (Ft) **Width:** 45.00 (Ft) **True Area:** 10440.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1978	IMPORTED	BUILT	0.00	4.00	☑	1978 P-625 4" P-401 6" P-211

Network: THE FLORIDA KEY **Branch:** AP TERM TERMINAL APR **Section:** 4220 **Surface:**PCC

L.C.D. 1/1/1994 **Use:** APRON **Rank:** P **Length:** 609.00 (Ft) **Width:** 127.00 (Ft) **True Area:** 87363.00002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2021	CS-PC	Crack Sealing - PCC	0.00	0.00	☐	
1/1/1994	IMPORTED	BUILT	0.00	0.00	☑	1994 P501 ON LIMEROCK

Network: THE FLORIDA KEY **Branch:** AP T-HANG T-HANGAR APR **Section:** 4405 **Surface:**AC

L.C.D. 12/25/199 **Use:** APRON **Rank:** P **Length:** 1,335.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 34309.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
12/25/1999	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** RW 7-25 RUNWAY 7-25 **Section:** 6105 **Surface:**AAC

L.C.D. 1/1/1985 **Use:** RUNWAY **Rank:** P **Length:** 5,008.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 500800.0001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/2021	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
1/1/1985	IMPORTED	OVERLAY	0.00	6.00	☑	1985 1.5-6" P-401 OL
1/1/1966	IMPORTED	BUILT	0.00	1.00	☑	1966 1" P-401 OL

Network: THE FLORIDA KEY **Branch:** TW A TAXIWAY A **Section:** 105 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 4,940.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 252086.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	IMPORTED	OVERLAY	0.00	1.50	☑	1998 1.5" P401 OVERLAY
1/1/1978	IMPORTED	OVERLAY	0.00	3.00	☑	1978 3" P401
1/1/1973	IMPORTED	BUILT	0.00	1.00	☑	1973 1" P401 ON 6" P211

Network: THE FLORIDA KEY **Branch:** TW A TAXIWAY A **Section:** 115 **Surface:**AC

L.C.D. 12/25/199 **Use:** TAXIWAY **Rank:** P **Length:** 1,420.00 (Ft) **Width:** 35.00 (Ft) **True Area:** 50654.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
12/25/1999	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: THE FLORIDA KEY **Branch:** TW A6 TAXIWAY A6 **Section:** 160 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 345.00 (Ft) **Width:** 54.00 (Ft) **True Area:** 18521.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	OL-AS	Overlay - AC Structural	0.00	0.00	☑	1998 TAPERED AC OVERLAY
1/1/1973	NC-AC	New Construction - AC	0.00	4.00	☑	1973 4" P401 ON 6" P211

Network: THE FLORIDA KEY **Branch:** TW B TAXIWAY B **Section:** 151 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 100.00 (Ft) **Width:** 113.00 (Ft) **True Area:** 10353.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	OL-AS	Overlay - AC Structural	0.00	1.50	☑	1998 1.5" P401
1/1/1973	NU-IN	New Construction - Initial	0.00	1.00	☑	1973 1" P401 ON 6" P211

Network: THE FLORIDA KEY **Branch:** TW C TAXIWAY C **Section:** 205 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 75.00 (Ft) **Width:** 56.00 (Ft) **True Area:** 6247.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	IMPORTED	OVERLAY	0.00	1.50	☑	1998 1.5" P401
1/1/1978	IMPORTED	OVERLAY	0.00	3.00	☑	1978 3" P401
1/1/1966	IMPORTED	BUILT	0.00	1.00	☑	1966 1" P401 ON 6" P211

Network: THE FLORIDA KEY **Branch:** TW C TAXIWAY C **Section:** 210 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 50.00 (Ft) **Width:** 56.00 (Ft) **True Area:** 3873.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	IMPORTED	OVERLAY	0.00	1.50	☑	1998 1.5" P401 OVERLAY
1/1/1966	IMPORTED	OVERLAY	0.00	1.00	☑	1966 1" P401 OVERLAY
1/1/1942	IMPORTED	BUILT	0.00	0.00	☑	1942 ORIGINAL CONSTRUCTION

Network: THE FLORIDA KEY **Branch:** TW D TAXIWAY D **Section:** 305 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 110.00 (Ft) **Width:** 110.00 (Ft) **True Area:** 9290.000002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	OL-AS	Overlay - AC Structural	0.00	0.00	☑	1998 AC OVERLAY
1/1/1983	IMPORTED	BUILT	0.00	3.00	☑	1983 3" P-401 8" P-211

Network: THE FLORIDA KEY **Branch:** TW D TAXIWAY D **Section:** 310 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 60.00 (Ft) **Width:** 110.00 (Ft) **True Area:** 7468.000002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	IMPORTED	OVERLAY	0.00	1.50	☑	1998 1.5" P401 OVERLAY
1/1/1966	IMPORTED	OVERLAY	0.00	1.00	☑	1966 1" P401 OVERLAY
1/1/1942	IMPORTED	BUILT	0.00	0.00	☑	1942 ORIGINAL CONSTRUCTION

Network: THE FLORIDA KEY **Branch:** TW E TAXIWAY E **Section:** 152 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 50.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 5537.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	OL-AS	Overlay - AC Structural	0.00	1.50	☑	1998 1.5" P401
1/1/1985	OL-AS	Overlay - AC Structural	0.00	1.50	☑	1985 1.5" P401 TAPERED
1/1/1973	OL-AS	Overlay - AC Structural	0.00	1.00	☑	1973 1" P401 ON 6" P211
1/1/1942	NU-IN	New Construction - Initial	0.00	1.00	☑	1942 1" P401 ON ORIGINAL BASE

Network: THE FLORIDA KEY **Branch:** TW E TAXIWAY E **Section:** 155 **Surface:**AAC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 50.00 (Ft) **Width:** 100.00 (Ft) **True Area:** 5103.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	OL-AS	Overlay - AC Structural	0.00	1.50	☑	1998 1.5" P401
1/1/1973	OL-AS	Overlay - AC Structural	0.00	1.00	☑	1973 1" P401 ON 6" P211
1/1/1966	OL-AS	Overlay - AC Structural	0.00	1.00	☑	1966 1" P401
1/1/1942	NU-IN	New Construction - Initial	0.00	0.00	☑	1942 ORIGINAL

Network: THE FLORIDA KEY **Branch:** TW E TAXIWAY E **Section:** 405 **Surface:**AC

L.C.D. 1/1/1998 **Use:** TAXIWAY **Rank:** P **Length:** 1,550.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 39035.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
1/1/1998	NC-AC	New Construction - AC	0.00	0.00	☑	

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	12	1,270,016.00	1.17	1.28
Crack Sealing - AC	1	500,800.00	0.00	0.00
Crack Sealing - PCC	1	87,363.00	0.00	0.00
Mill and Overlay	1	27,943.00	0.00	0.00
New Construction - AC	6	143,957.00	1.17	1.67
New Construction - Initial	9	241,932.00	0.67	0.82
New Construction - PCC	3	18,177.00	0.00	0.00
OVERLAY	9	1,040,148.00	2.22	1.51
Overlay - AC Structural	9	70,084.00	1.00	0.58
Surface Treatment - Seal Coat	2	304,694.00	0.00	0.00

Branch Condition Report

Pavement Database: FDOT

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
AP E	3	915.00	206.00	93,340.00	APRON	69.33	20.01	70.24
AP FLGHT	5	1,799.00	126.40	326,383.00	APRON	60.20	23.94	57.26
AP JET CTR	6	1,200.00	104.67	185,337.00	APRON	51.17	27.10	43.79
AP TERM	3	1,141.00	99.00	125,746.00	APRON	56.67	1.25	57.53
AP T-HANG	1	1,335.00	25.00	34,309.00	APRON	68.00	0.00	68.00
RW 7-25	1	5,008.00	100.00	500,800.00	RUNWAY	48.00	0.00	48.00
TW A	2	6,360.00	42.50	302,740.00	TAXIWAY	57.50	3.50	55.17
TW A6	1	345.00	54.00	18,521.00	TAXIWAY	56.00	0.00	56.00
TW B	1	100.00	113.00	10,353.00	TAXIWAY	50.00	0.00	50.00
TW C	2	125.00	56.00	10,120.00	TAXIWAY	51.50	2.50	52.09
TW D	2	170.00	110.00	16,758.00	TAXIWAY	57.00	9.00	56.02
TW E	3	1,650.00	75.00	49,675.00	TAXIWAY	68.00	8.83	74.17

Pavement Database: FDOT

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average STD PCI	Weighted Average PCI
APRON	18	765,115.00	58.56	22.69	56.11
RUNWAY	1	500,800.00	48.00	0.00	48.00
TAXIWAY	11	408,167.00	58.36	8.98	57.35
ALL	30	1,674,082.00	58.13	18.49	53.98

Pavement Database: FDOT *NetworkId: MTH*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP E	4505	1/1/1999	AC	APRON	P	0	32,298.00	10/11/2022	23	69
AP E	4510	1/1/1999	AC	APRON	P	0	28,781.00	10/11/2022	23	45
AP E	4515	3/1/2017	AC	APRON	P	0	32,261.00	10/11/2022	5	94
AP FLGHT C	4105	1/1/1983	AC	APRON	P	0	276,751.00	10/11/2022	39	55
AP FLGHT C	4110	1/1/1983	PCC	APRON	P	0	4,112.00	10/11/2022	39	16
AP FLGHT C	4115	1/1/2004	AC	APRON	P	0	22,974.00	10/11/2022	18	71
AP FLGHT C	4125	7/1/2008	AC	APRON	P	0	14,266.00	10/11/2022	14	76
AP FLGHT C	4130	1/1/2017	PCC	APRON	P	0	8,280.00	10/11/2022	5	83
AP JET CTR	4305	1/1/1990	AC	APRON	P	0	108,317.00	10/11/2022	32	38
AP JET CTR	4308	1/1/1987	PCC	APRON	P	0	3,269.00	10/11/2022	35	70
AP JET CTR	4315	12/25/1999	AC	APRON	P	0	60,631.00	10/11/2022	23	51
AP JET CTR	4320	1/1/1990	AC	APRON	P	0	3,223.00	10/11/2022	32	27
AP JET CTR	4325	1/1/1990	PCC	APRON	P	0	5,039.00	10/11/2022	32	21
AP JET CTR	4330	1/1/2020	PCC	APRON	P	0	4,858.00	1/1/2020	0	100
AP TERM	4205	1/1/2006	AAC	APRON	P	0	27,943.00	10/11/2022	16	57
AP TERM	4210	1/1/1978	AC	APRON	P	0	10,440.00	10/11/2022	44	55
AP TERM	4220	1/1/1994	PCC	APRON	P	0	87,363.00	10/11/2022	28	58
AP T-HANG	4405	12/25/1999	AC	APRON	P	0	34,309.00	10/11/2022	23	68
RW 7-25	6105	1/1/1985	AAC	RUNWAY	P	0	500,800.00	10/11/2022	37	48
TW A	105	1/1/1998	AAC	TAXIWAY	P	0	252,086.00	10/11/2022	24	54
TW A	115	12/25/1999	AC	TAXIWAY	P	0	50,654.00	10/11/2022	23	61
TW A6	160	1/1/1998	AAC	TAXIWAY	P	0	18,521.00	10/11/2022	24	56
TW B	151	1/1/1998	AAC	TAXIWAY	P	0	10,353.00	10/11/2022	24	50
TW C	205	1/1/1998	AAC	TAXIWAY	P	0	6,247.00	10/11/2022	24	54
TW C	210	1/1/1998	AAC	TAXIWAY	P	0	3,873.00	10/11/2022	24	49
TW D	305	1/1/1998	AAC	TAXIWAY	P	0	9,290.00	10/11/2022	24	48

TW D	310	1/1/1998	AAC	TAXIWAY	P	0	7,468.00	10/11/2022	24	66
TW E	152	1/1/1998	AAC	TAXIWAY	P	0	5,537.00	10/11/2022	24	71
TW E	155	1/1/1998	AAC	TAXIWAY	P	0	5,103.00	10/11/2022	24	56
TW E	405	1/1/1998	AC	TAXIWAY	P	0	39,035.00	10/11/2022	24	77

Pavement Database: FDOT

Age Category	Average Age at Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
00-02		4,858.00	1	100.00	0.00	100.00
03-05	5	40,541.00	2	88.50	5.50	91.75
11-15	14	14,266.00	1	76.00	0.00	76.00
16-20	17	50,917.00	2	64.00	7.00	63.32
21-25	24	564,186.00	15	58.33	9.40	57.35
26-30	28	87,363.00	1	58.00	0.00	58.00
31-35	33	119,848.00	4	39.00	18.91	37.86
36-40	38	781,663.00	3	39.67	16.98	50.31
41-50	44	10,440.00	1	55.00	0.00	55.00
ALL	24	1,674,082.00	30	58.13	18.49	53.98

Appendix B: Maintenance and Rehabilitation Planning Needs

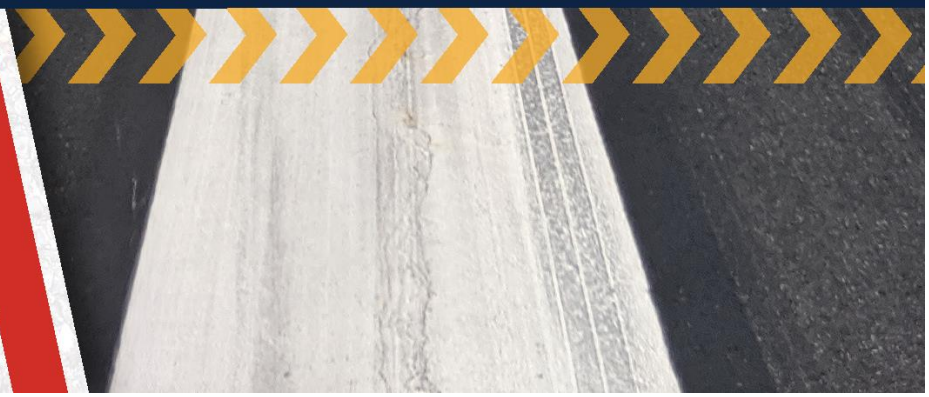


Table B.1: Localized Maintenance and Repair Needs Based on Current Distresses

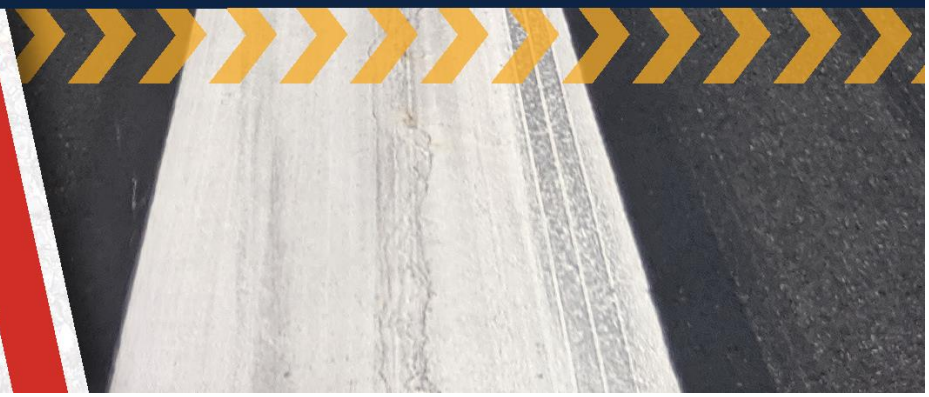
Network ID	Branch ID	Section ID	Description	Severity	Distress Qty	Distress Unit	Distress Density	Policy Type	Localized Work Type	Work Qty	Work Unit	Unit Cost	Work Cost
MTH	TW E	152	RAVELING	Low	1,107	SF	20.0%	Preventive	Surface Seal	1,107	SF	$ 0.75	$ 840
MTH	TW E	405	RAVELING	Low	6,601	SF	16.9%	Preventive	Surface Seal	6,600	SF	$ 0.75	$ 4,960
MTH	AP FLGHT C	4115	RAVELING	Low	4,595	SF	20.0%	Preventive	Surface Seal	4,595	SF	$ 0.75	$ 3,450
MTH	AP FLGHT C	4125	RAVELING	Low	2,853	SF	20.0%	Preventive	Surface Seal	2,852	SF	$ 0.75	$ 2,140
MTH	AP FLGHT C	4130	JT SEAL DMG	Medium	69	Slabs	100.0%	Preventive	PCC Joint Seal	1,336	LF	$ 4.25	$ 5,680
MTH	AP FLGHT C	4130	JOINT SPALL	Medium	5	Slabs	7.4%	Preventive	PCC Partial-Depth Patching	33	SF	$ 169.00	$ 5,580
MTH	AP FLGHT C	4105	PATCHING	High	34	SF	0.0%	Stopgap	AC Full-Depth Patching	62	SF	$ 10.00	$ 630
MTH	AP FLGHT C	4110	CORNER BREAK	Medium	1	Slabs	7.1%	Stopgap	PCC Full-Depth Patching	32	SF	$ 50.00	$ 1,620
MTH	AP FLGHT C	4110	LINEAR CR	Medium	3	Slabs	21.4%	Stopgap	PCC Crack Sealing	53	LF	$ 7.00	$ 370
MTH	AP FLGHT C	4110	JT SEAL DMG	High	14	Slabs	100.0%	Stopgap	PCC Joint Seal	295	LF	$ 4.25	$ 1,260
MTH	AP FLGHT C	4110	SHAT. SLAB	Medium	2	Slabs	14.3%	Stopgap	PCC Crack Sealing	70	LF	$ 7.00	$ 490
MTH	AP FLGHT C	4110	JOINT SPALL	Medium	1	Slabs	7.1%	Stopgap	PCC Partial-Depth Patching	7	SF	$ 169.00	$ 1,100
MTH	AP FLGHT C	4110	JOINT SPALL	High	1	Slabs	7.1%	Stopgap	PCC Partial-Depth Patching	9	SF	$ 169.00	$ 1,370
MTH	AP JET CTR	4305	RAVELING	High	14	SF	0.0%	Stopgap	AC Partial-Depth Patching	14	SF	$ 4.75	$ 70
MTH	AP JET CTR	4308	CORNER BREAK	Medium	1	Slabs	5.3%	Stopgap	PCC Full-Depth Patching	29	SF	$ 50.00	$ 1,450
MTH	AP JET CTR	4308	JOINT SPALL	Medium	1	Slabs	5.3%	Stopgap	PCC Partial-Depth Patching	5	SF	$ 169.00	$ 980
MTH	AP JET CTR	4315	RAVELING	High	16	SF	0.0%	Stopgap	AC Partial-Depth Patching	16	SF	$ 4.75	$ 80
MTH	AP JET CTR	4325	CORNER BREAK	Medium	5	Slabs	29.4%	Stopgap	PCC Full-Depth Patching	162	SF	$ 50.00	$ 8,080
MTH	AP JET CTR	4325	JOINT SPALL	Medium	1	Slabs	5.9%	Stopgap	PCC Partial-Depth Patching	7	SF	$ 169.00	$ 1,100
MTH	AP JET CTR	4325	CORNER SPALL	Medium	1	Slabs	5.9%	Stopgap	PCC Partial-Depth Patching	2	SF	$ 169.00	$ 460
MTH	AP TERM	4220	LINEAR CR	Medium	6	Slabs	2.9%	Stopgap	PCC Crack Sealing	125	LF	$ 7.00	$ 880
MTH	AP TERM	4220	CORNER SPALL	Medium	19	Slabs	8.6%	Stopgap	PCC Partial-Depth Patching	51	SF	$ 169.00	$ 8,500

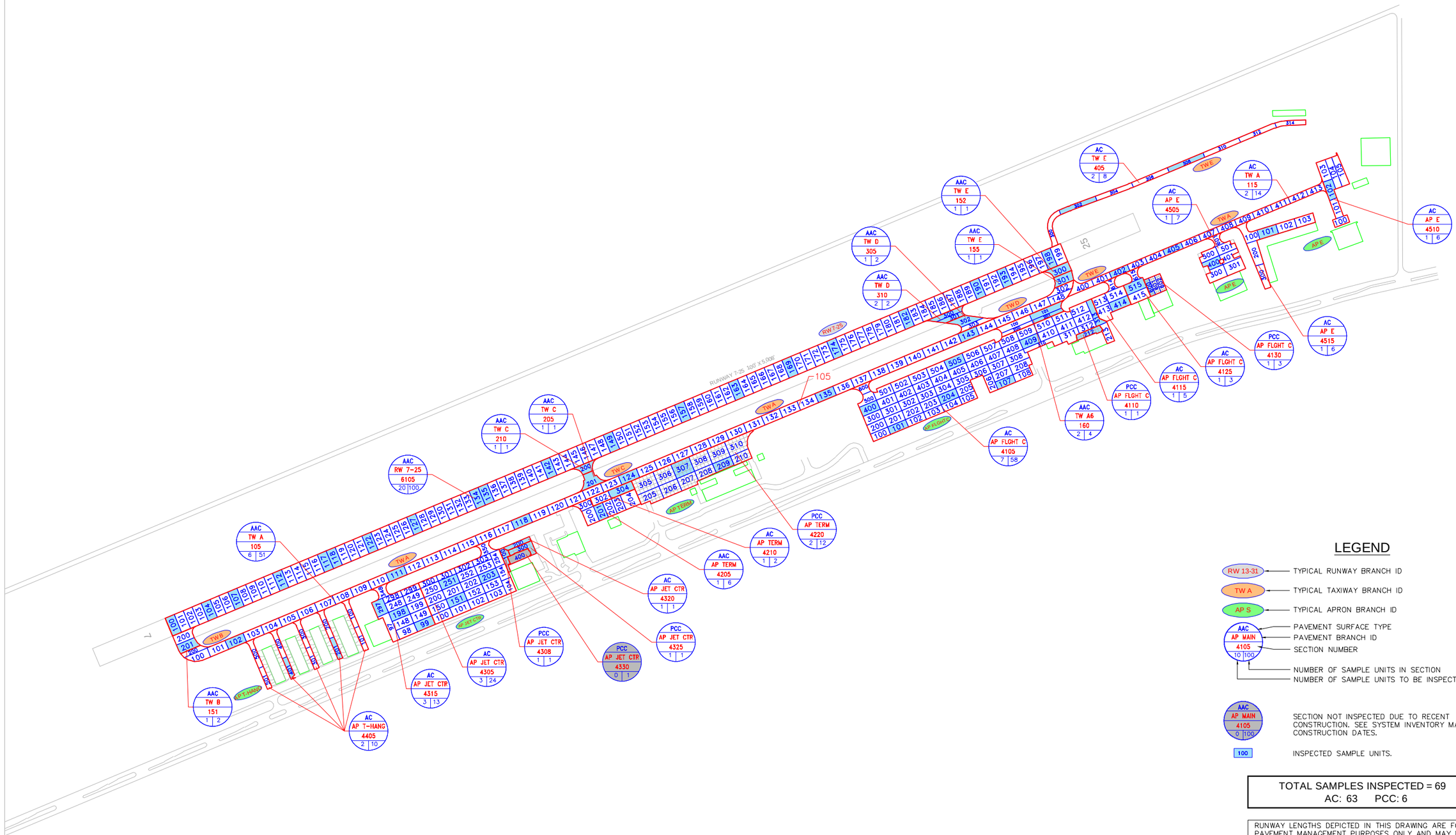
Table B.2: Section-Level 10-Year Major Rehabilitation Needs

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2023	MTH	RW 7-25	6105	AAC	500,800	47	AC Reconstruction	$ 8,013,000
2023	MTH	TW A	105	AAC	252,086	53	AC Reconstruction	$ 4,034,000
2023	MTH	TW A	115	AC	50,654	60	AC Rehabilitation	$ 456,000
2023	MTH	TW A6	160	AAC	18,521	55	AC Reconstruction	$ 219,000
2023	MTH	TW B	151	AAC	10,353	49	AC Reconstruction	$ 166,000
2023	MTH	TW C	205	AAC	6,247	53	AC Reconstruction	$ 100,000
2023	MTH	TW C	210	AAC	3,873	48	AC Reconstruction	$ 62,000
2023	MTH	TW D	305	AAC	9,290	47	AC Reconstruction	$ 149,000
2023	MTH	TW D	310	AAC	7,468	65	AC Rehabilitation	$ 68,000
2023	MTH	TW E	155	AAC	5,103	55	AC Reconstruction	$ 49,000
2023	MTH	AP E	4505	AC	32,298	68	AC Rehabilitation	$ 291,000
2023	MTH	AP E	4510	AC	28,781	45	AC Reconstruction	$ 461,000
2023	MTH	AP FLGHT C	4105	AC	276,751	54	AC Reconstruction	$ 3,809,000
2023	MTH	AP FLGHT C	4110	PCC	4,112	15	PCC Reconstruction	$ 120,000
2023	MTH	AP FLGHT C	4115	AC	22,974	70	AC Rehabilitation	$ 207,000
2023	MTH	AP JET CTR	4305	AC	108,317	38	AC Reconstruction	$ 1,734,000
2023	MTH	AP JET CTR	4308	PCC	3,269	69	PCC Rehabilitation	$ 50,000
2023	MTH	AP JET CTR	4315	AC	60,631	50	AC Reconstruction	$ 971,000
2023	MTH	AP JET CTR	4320	AC	3,223	26	AC Reconstruction	$ 52,000
2023	MTH	AP JET CTR	4325	PCC	5,039	20	PCC Reconstruction	$ 147,000
2023	MTH	AP TERM	4205	AAC	27,943	56	AC Rehabilitation	$ 252,000
2023	MTH	AP TERM	4210	AC	10,440	54	AC Reconstruction	$ 144,000
2023	MTH	AP TERM	4220	PCC	87,363	57	PCC Rehabilitation	$ 1,311,000
2023	MTH	AP T-HANG	4405	AC	34,309	67	AC Rehabilitation	$ 309,000
2024	MTH	TW E	152	AAC	5,537	69	AC Rehabilitation	$ 53,000
2026	MTH	AP FLGHT C	4125	AC	14,266	70	AC Rehabilitation	$ 149,000
2028	MTH	TW E	405	AC	39,035	69	AC Rehabilitation	$ 449,000

**All planning cost values have been rounded up to the nearest thousand dollars.*

Appendix C: Technical Exhibits





LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID
- AAC / AP MAIN / 4105 / 10 | 100 — PAVEMENT SURFACE TYPE; PAVEMENT BRANCH ID; SECTION NUMBER; NUMBER OF SAMPLE UNITS IN SECTION; NUMBER OF SAMPLE UNITS TO BE INSPECTED
- AAC / AP MAIN / 4105 / 0 | 100 — SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE SYSTEM INVENTORY MAP FOR CONSTRUCTION DATES.
- 100 — INSPECTED SAMPLE UNITS.

TOTAL SAMPLES INSPECTED = 69
AC: 63 PCC: 6

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

MTH

AIRFIELD PAVEMENT NETWORK DEFINITION EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

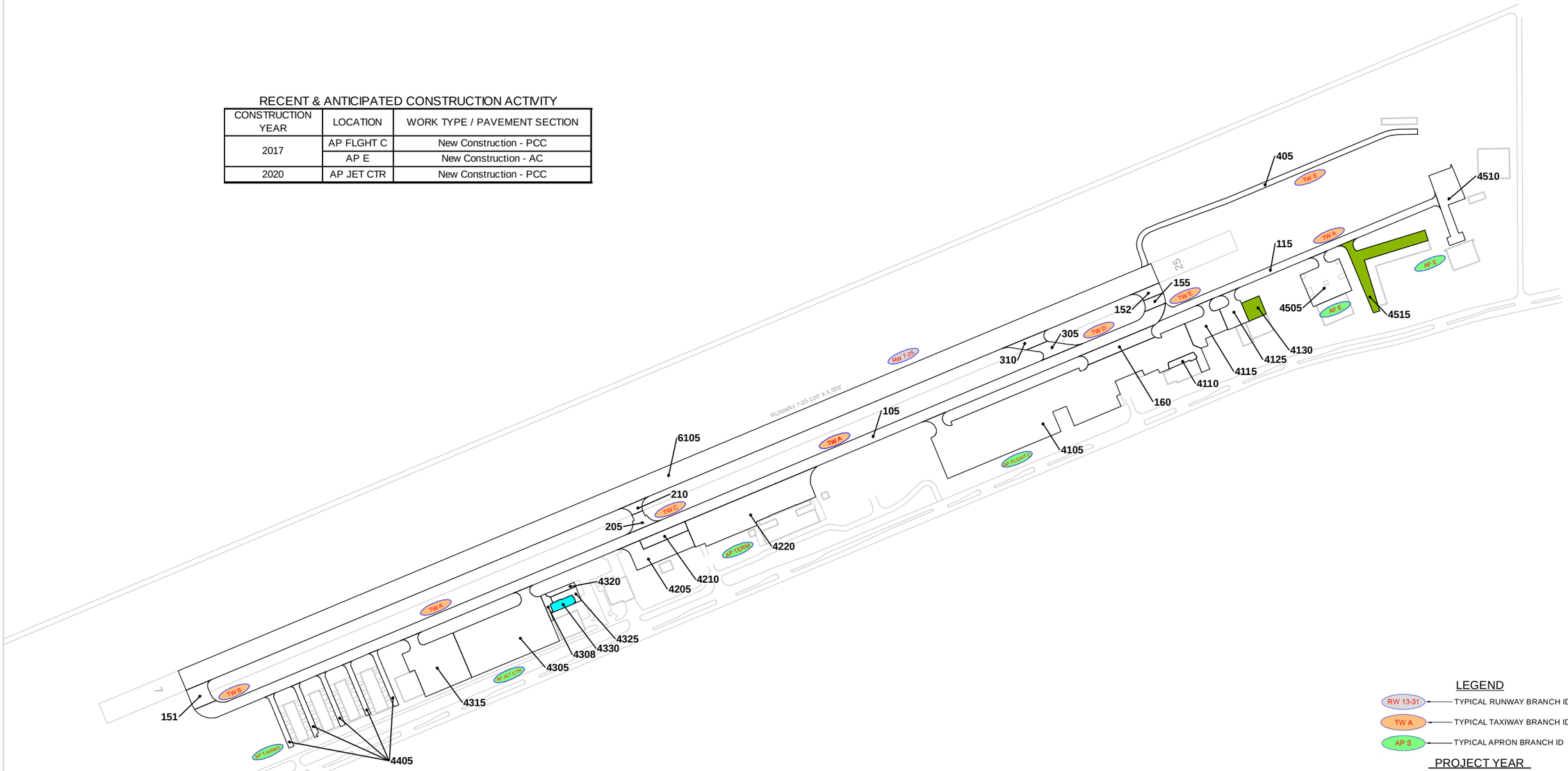
FDOT

2022

MTH

RECENT & ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
2017	AP FLGHT C	New Construction - PCC
	AP E	New Construction - AC
2020	AP JET CTR	New Construction - PCC



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

PROJECT YEAR

2017		2022	
2018		2023	
2019		2024	
2020		2025	
2021		2026	

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

AIRFIELD PAVEMENT SYSTEM INVENTORY EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022

MTH

NORTH

RUNWAY 7-25 100' X 5,008'

405
TW E
4510
115
TW A
AP E
155
TW E
25
152
4505
AP E
4515
305
TW D
4130
310
RW 7-25
4125
4115
4110
160
105
4105
AP FLIGHT
6105
TW A
210
TW C
205
AP TERM
4220
4210
4205
4320
4325
4330
4308
4305
TW A
AP JET CTR
4315
7
TW B
151
AP TAXIWAY
4405

LEGEND

RW 13-31 — TYPICAL RUNWAY BRANCH ID

TW A — TYPICAL TAXIWAY BRANCH ID

AP S — TYPICAL APRON BRANCH ID

AGE AT INSPECTION

- 0-5 Years
- 6-10 Years
- 11-15 Years
- 16-20 Years
- > 20 Years

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

AIRFIELD PAVEMENT ESTIMATED AGE EXHIBIT

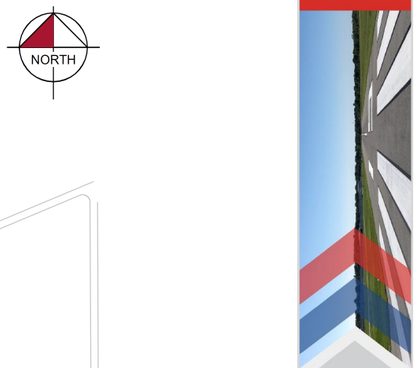
Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022

MTH



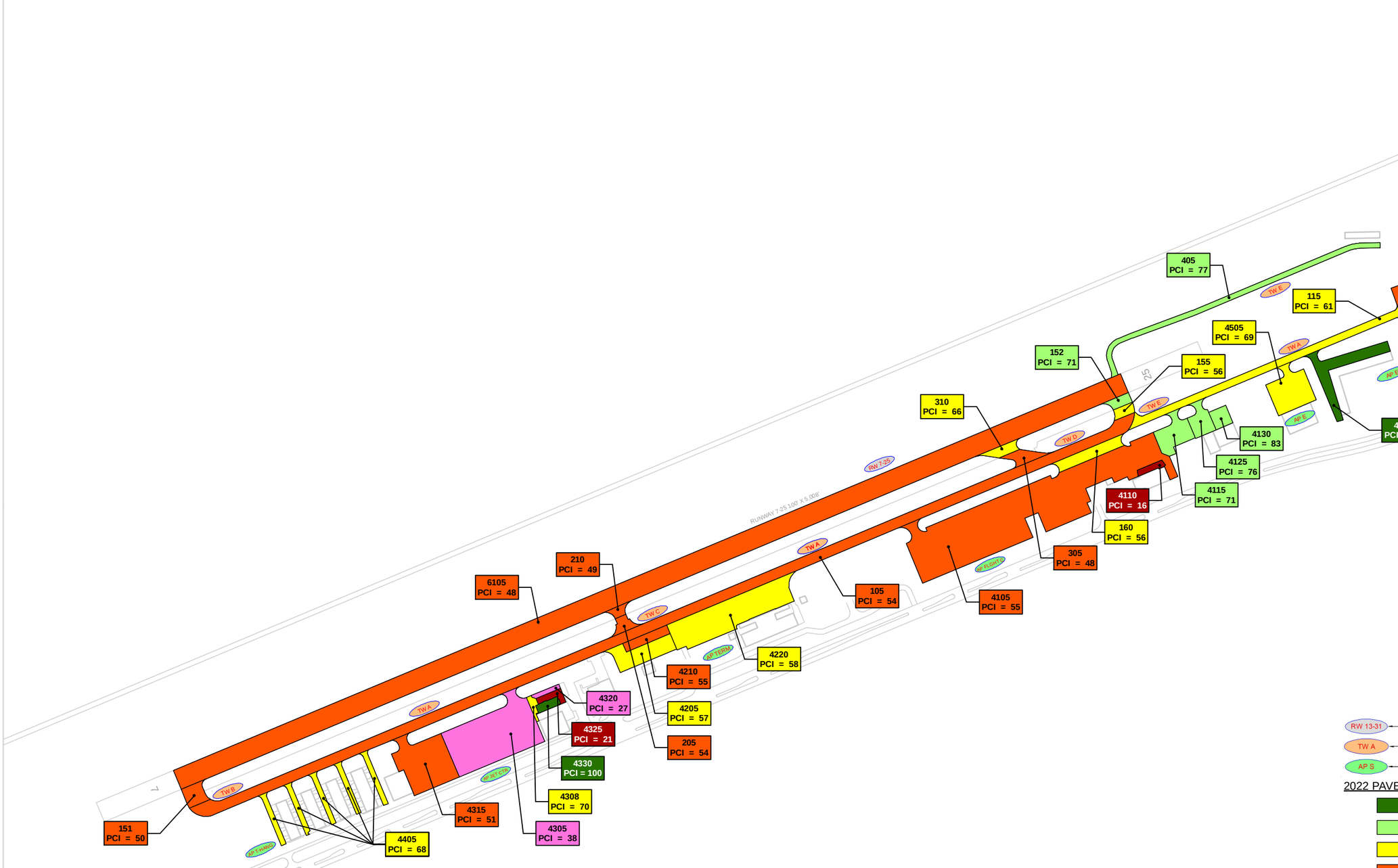
AIRFIELD PAVEMENT CONDITION INDEX EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022



LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID

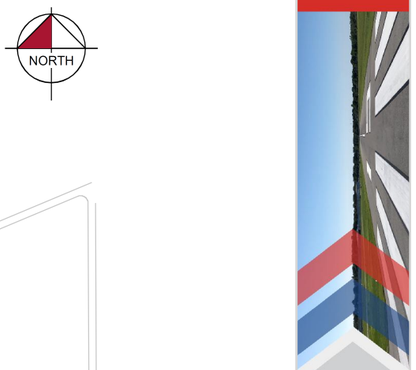
2022 PAVEMENT CONDITION INDEX

- PCI 86-100 Good
- PCI 71-85 Satisfactory
- PCI 56-70 Fair
- PCI 41-55 Poor
- PCI 26-40 Very Poor
- PCI 11-25 Serious
- PCI 0-10 Failed

"SECTION ID"
"PCI VALUE"

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

MTH



AIRFIELD PAVEMENT MAJOR REHABILITATION EXHIBIT

Statewide Airfield Pavement Management Program

THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

FDOT

2022

NORTH

TW A:115
2023 | AC REHAB
$0.46 M

TW E:155
2023 | AC REHAB
$0.05 M

TW C:205
2023 | AC RECON
$0.10 M

TW D:305
2023 | AC RECON
$0.15 M

AP TERM:4210
2023 | AC REHAB
$0.14 M

AP JET CTR:4308
2023 | PCC REHAB
$0.05 M

AP E:4505
2023 | AC REHAB
$0.29 M

AP FLGHT C:4125
2026 | AC REHAB
$0.15 M

TW E:405
2028 | AC REHAB
$0.45 M

TW E:152
2024 | AC REHAB
$0.05 M

AP E:4510
2023 | AC RECON
$0.46 M

TW D:310
2023 | AC REHAB
$0.07 M

AP FLGHT C:4115
2023 | AC REHAB
$0.21 M

AP FLGHT C:4110
2023 | PCC RECON
$0.12 M

RW 7-25:6105
2023 | AC RECON
$8.01 M

TW A6:160
2023 | AC REHAB
$0.22 M

TW C:210
2023 | AC RECON
$0.06 M

TW A:105
2023 | AC RECON
$4.03 M

AP FLGHT C:4105
2023 | AC REHAB
$3.81 M

AP TERM:4220
2023 | PCC REHAB
$1.31 M

AP TERM:4205
2023 | AC REHAB
$0.25 M

AP JET CTR:4320
2023 | AC RECON
$0.05 M

AP JET CTR:4325
2023 | PCC RECON
$0.15 M

AP JET CTR:4305
2023 | AC RECON
$1.73 M

AP JET CTR:4315
2023 | AC RECON
$0.97 M

AP T-HANG:4405
2023 | AC REHAB
$0.31 M

TW B:151
2023 | AC RECON
$0.17 M

115
4505
4515
4130
4125
155
305
205
4210
4330
4308

RUNWAY 7-25 100' X 5,000'

RW 7-25
TW A
TW B
TW C
TW D
TW E
AP E
AP FLGHT
AP TERM
AP JET CTR
AP T-HANG

LEGEND

RW 13-31 — TYPICAL RUNWAY BRANCH ID
TW A — TYPICAL TAXIWAY BRANCH ID
AP S — TYPICAL APRON BRANCH ID

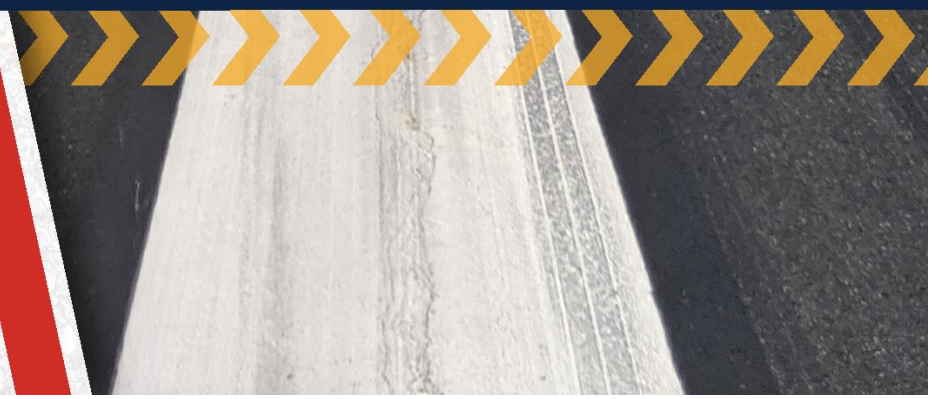
PROGRAM YEAR

2023	2028
2024	2029
2025	2030
2026	2031
2027	2032

"BRANCH":"SECTION"
"YEAR"|"REHAB ACTIVITY"
"EST. COST"

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS. DRAWING NOT TO SCALE.

Appendix D: Inspection Photograph Documentation



RW 7-25, Section 6105, Sample Unit 127 - Longitudinal & Transverse Cracking

RW 7-25, Section 6105, Sample Unit 174 - Longitudinal & Transverse Cracking

TW A, Section 105, Sample Unit 111 - Longitudinal & Transverse Cracking and Raveling

TW A, Section 115, Sample Unit 402 - Block Cracking

TW C, Section 210, Sample Unit 200 – Vicinity

TW D, Section 305, Sample Unit 302 - Longitudinal & Transverse Cracking

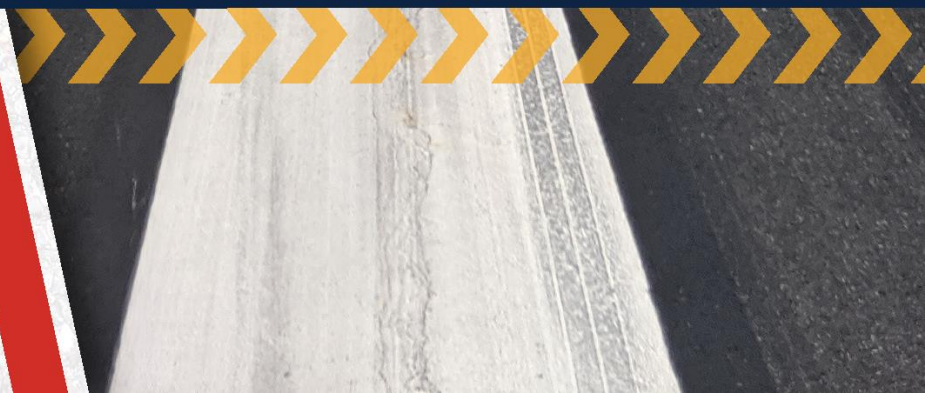
AP FLGHT C, Section 4105, Sample Unit 409 - Vicinity

AP JET CTR, Section 4305, Sample Unit 151 - Raveling

AP TERM, Section 4210, Sample Unit 304 - Patching

AP TERM, Section 4220, Sample Unit 307 - Linear Cracking

Appendix E: Inspection Distress Details



Re-Inspection Report

FDOT
Generated Date 11/17/2022

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP E **Name:** EAST APRON **Use:** APRON **Area:** 93,340 SqFt

Section: 4505 of 3 **From:** - **To:** - **Last Const.:** 1/1/1999

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 32,298 SqFt **Length:** 200 Ft **Width:** 163 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1999 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 7 **Surveyed:** 1

Conditions: **PCI:** 69

Inspection Comments:

Sample Number: 400 **Type:** R **Area:** 4125.00 SqFt **PCI:** 69

Sample Comments:

48	L & T CR	L	151.00	Ft
52	RAVELING	L	4125.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP E **Name:** EAST APRON **Use:** APRON **Area:** 93,340 SqFt

Section: 4510 of 3 **From:** - **To:** - **Last Const.:** 1/1/1999

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 28,781 SqFt **Length:** 345 Ft **Width:** 100 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1999 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 6 **Surveyed:** 1

Conditions: **PCI:** 45

Inspection Comments:

Sample Number: 102 **Type:** R **Area:** 4550.00 SqFt **PCI:** 45

Sample Comments:

43	BLOCK CR	L	2803.00	SqFt
43	BLOCK CR	M	148.00	SqFt
45	DEPRESSION	L	36.00	SqFt
48	L & T CR	L	96.00	Ft
57	WEATHERING	L	4095.00	SqFt
57	WEATHERING	M	455.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP E **Name:** EAST APRON **Use:** APRON **Area:** 93,340 SqFt

Section: 4515 of 3 **From:** - **To:** - **Last Const.:** 3/1/2017

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 32,261 SqFt **Length:** 370 Ft **Width:** 355 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 3/1/2017 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 6 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 101 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments:

57	WEATHERING	L	5000.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Section: 4105 of 5 **From:** - **To:** - **Last Const.:** 1/1/1983

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 276,751 SqFt **Length:** 1,290 Ft **Width:** 245 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1983 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1990 **Work Type:** Surface Treatment - Seal Coat **Code:** ST-SC **Is Major M&R:** False

Last Insp. Date: 10/11/2022 **TotalSamples:** 58 **Surveyed:** 7

Conditions: **PCI:** 55

Inspection Comments:

Sample Number: 101 **Type:** R **Area:** 4100.00 SqFt **PCI:** 58

Sample Comments:

48	L & T CR	L	209.00	Ft
48	L & T CR	M	30.00	Ft
50	PATCHING	H	4.00	SqFt
52	RAVELING	L	817.00	SqFt
52	RAVELING	M	10.00	SqFt
56	SWELLING	L	10.00	SqFt
57	WEATHERING	L	3269.00	SqFt

Sample Number: 107 **Type:** R **Area:** 4100.00 SqFt **PCI:** 61

Sample Comments:

45	DEPRESSION	L	99.00	SqFt
48	L & T CR	L	215.00	Ft
52	RAVELING	L	815.00	SqFt
52	RAVELING	M	25.00	SqFt
56	SWELLING	L	50.00	SqFt
57	WEATHERING	L	3260.00	SqFt

Sample Number: 204 **Type:** R **Area:** 5000.00 SqFt **PCI:** 68

Sample Comments:

48	L & T CR	L	257.00	Ft
48	L & T CR	M	50.00	Ft
52	RAVELING	L	1000.00	SqFt
56	SWELLING	L	15.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Sample Number: 313 **Type:** R **Area:** 3711.00 SqFt **PCI:** 33

Sample Comments:

43	BLOCK CR	L	3525.00	SqFt
43	BLOCK CR	M	186.00	SqFt
45	DEPRESSION	L	138.00	SqFt
45	DEPRESSION	M	21.00	SqFt
49	OIL SPILLAGE	N	22.00	SqFt
52	RAVELING	L	2969.00	SqFt
52	RAVELING	M	742.00	SqFt

Sample Number: 400 **Type:** R **Area:** 4800.00 SqFt **PCI:** 54

Sample Comments:

48	L & T CR	L	428.00	Ft
48	L & T CR	M	50.00	Ft
52	RAVELING	L	955.00	SqFt
52	RAVELING	M	25.00	SqFt
56	SWELLING	L	75.00	SqFt
57	WEATHERING	L	3820.00	SqFt

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Sample Number: 409 **Type:** R **Area:** 5000.00 SqFt **PCI:** 35

Sample Comments:

41	ALLIGATOR CR	L	42.00	SqFt
43	BLOCK CR	L	4710.00	SqFt
43	BLOCK CR	M	248.00	SqFt
45	DEPRESSION	L	296.00	SqFt
52	RAVELING	L	1000.00	SqFt
56	SWELLING	L	496.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Sample Number: 505 **Type:** R **Area:** 5400.00 SqFt **PCI:** 70

Sample Comments:

48	L & T CR	L	265.00	Ft
48	L & T CR	M	25.00	Ft
52	RAVELING	L	1080.00	SqFt
57	WEATHERING	L	4320.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Section: 4110 of 5 **From:** - **To:** - **Last Const.:** 1/1/1983

Surface: PCC **Family:** CA653-GA-AP-PCC **Zone:** **Category:** **Rank:** P

Area: 4,112 SqFt **Length:** 130 Ft **Width:** 30 Ft

Slabs: 14 **Slab Length:** 20 Ft **Slab Width:** 15 Ft **Joint Length:** 295 Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1983 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 16

Inspection Comments:

Sample Number: 212 **Type:** R **Area:** 14.00 Slabs **PCI:** 16

Sample Comments:

62	CORNER BREAK	L	1.00	Slabs
62	CORNER BREAK	M	1.00	Slabs
63	LINEAR CR	L	7.00	Slabs
63	LINEAR CR	M	3.00	Slabs
65	JT SEAL DMG	H	14.00	Slabs
72	SHAT. SLAB	L	2.00	Slabs
72	SHAT. SLAB	M	2.00	Slabs
74	JOINT SPALL	L	1.00	Slabs
74	JOINT SPALL	M	1.00	Slabs
74	JOINT SPALL	H	1.00	Slabs

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Section: 4115 of 5 **From:** - **To:** - **Last Const.:** 1/1/2004

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 22,974 SqFt **Length:** 179 Ft **Width:** 160 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/2004 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 5 **Surveyed:** 1

Conditions: **PCI:** 71

Inspection Comments:

Sample Number: 414 **Type:** R **Area:** 5200.00 SqFt **PCI:** 71

Sample Comments:

45	DEPRESSION	L	84.00	SqFt
48	L & T CR	L	147.00	Ft
52	RAVELING	L	1040.00	SqFt
57	WEATHERING	L	4160.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Section: 4125 of 5 **From:** - **To:** - **Last Const.:** 7/1/2008

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 14,266 SqFt **Length:** 108 Ft **Width:** 107 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 7/1/2008 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 3 **Surveyed:** 1

Conditions: **PCI:** 76

Inspection Comments:

Sample Number: 515 **Type:** R **Area:** 5836.00 SqFt **PCI:** 76

Sample Comments:

48	L & T CR	L	63.00	Ft
52	RAVELING	L	1167.00	SqFt
57	WEATHERING	L	4669.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP FLGHT C **Name:** APRON AT FLIGHT CENTER **Use:** APRON **Area:** 326,383 SqFt

Section: 4130 of 5 **From:** - **To:** - **Last Const.:** 1/1/2017

Surface: PCC **Family:** CA653-GA-AP-PCC **Zone:** **Category:** **Rank:** P

Area: 8,280 SqFt **Length:** 92 Ft **Width:** 90 Ft

Slabs: 69 **Slab Length:** 12 Ft **Slab Width:** 10 Ft **Joint Length:** 1,336 Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/2017 **Work Type:** New Construction - PCC **Code:** NC-PC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 2 **Surveyed:** 1

Conditions: **PCI:** 83

Inspection Comments:

Sample Number: 600 **Type:** R **Area:** 27.00 Slabs **PCI:** 83

Sample Comments:

63	LINEAR CR	L	1.00	Slabs
65	JT SEAL DMG	M	27.00	Slabs
74	JOINT SPALL	L	1.00	Slabs
74	JOINT SPALL	M	2.00	Slabs

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP JET CTR **Name:** JET CENTER APRON **Use:** APRON **Area:** 185,337 SqFt

Section: 4305 of 6 **From:** - **To:** - **Last Const.:** 1/1/1990

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 108,317 SqFt **Length:** 452 Ft **Width:** 231 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1990 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 24 **Surveyed:** 3

Conditions: **PCI:** 38

Inspection Comments:

Sample Number: 151 **Type:** R **Area:** 5000.00 SqFt **PCI:** 35

Sample Comments:

43	BLOCK CR	L	2850.00	SqFt
45	DEPRESSION	L	992.00	SqFt
48	L & T CR	L	108.00	Ft
52	RAVELING	L	994.00	SqFt
52	RAVELING	M	30.00	SqFt
56	SWELLING	L	75.00	SqFt
57	WEATHERING	L	3976.00	SqFt

Sample Number: 203 **Type:** R **Area:** 5000.00 SqFt **PCI:** 41

Sample Comments:

43	BLOCK CR	L	4964.00	SqFt
45	DEPRESSION	L	300.00	SqFt
50	PATCHING	M	36.00	SqFt
52	RAVELING	L	993.00	SqFt
56	SWELLING	L	60.00	SqFt
57	WEATHERING	L	3971.00	SqFt

Sample Number: 251 **Type:** R **Area:** 5000.00 SqFt **PCI:** 38

Sample Comments:

43	BLOCK CR	L	5000.00	SqFt
45	DEPRESSION	L	264.00	SqFt
49	OIL SPILLAGE	N	32.00	SqFt
52	RAVELING	L	1000.00	SqFt
52	RAVELING	H	2.00	SqFt
56	SWELLING	L	60.00	SqFt
57	WEATHERING	L	3998.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP JET CTR **Name:** JET CENTER APRON **Use:** APRON **Area:** 185,337 SqFt

Section: 4308 of 6 **From:** - **To:** - **Last Const.:** 1/1/1987

Surface: PCC **Family:** CA653-GA-AP-PCC **Zone:** **Category:** **Rank:** P

Area: 3,269 SqFt **Length:** 127 Ft **Width:** 25 Ft

Slabs: 17 **Slab Length:** 13 Ft **Slab Width:** 15 Ft **Joint Length:** 304 Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1987 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 70

Inspection Comments:

Sample Number: 100 **Type:** R **Area:** 19.00 Slabs **PCI:** 70

Sample Comments:

62	CORNER BREAK	L	1.00	Slabs
62	CORNER BREAK	M	1.00	Slabs
65	JT SEAL DMG	M	19.00	Slabs
67	LARGE PATCH	L	1.00	Slabs
74	JOINT SPALL	L	3.00	Slabs
74	JOINT SPALL	M	1.00	Slabs

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP JET CTR **Name:** JET CENTER APRON **Use:** APRON **Area:** 185,337 SqFt

Section: 4315 of 6 **From:** - **To:** - **Last Const.:** 12/25/1999

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 60,631 SqFt **Length:** 231 Ft **Width:** 237 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 12/25/1999 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 13 **Surveyed:** 3

Conditions: **PCI:** 51

Inspection Comments:

Sample Number: 198 **Type:** R **Area:** 5000.00 SqFt **PCI:** 50

Sample Comments:

45	DEPRESSION	L	315.00	SqFt
48	L & T CR	L	391.00	Ft
50	PATCHING	L	80.00	SqFt
52	RAVELING	L	984.00	SqFt
52	RAVELING	H	2.00	SqFt
56	SWELLING	L	60.00	SqFt
57	WEATHERING	L	3934.00	SqFt

Sample Number: 297 **Type:** R **Area:** 5022.00 SqFt **PCI:** 52

Sample Comments:

45	DEPRESSION	L	358.00	SqFt
48	L & T CR	L	211.00	Ft
50	PATCHING	L	96.00	SqFt
52	RAVELING	L	985.00	SqFt
52	RAVELING	H	2.00	SqFt
57	WEATHERING	L	3939.00	SqFt

Sample Number: 99 **Type:** R **Area:** 5000.00 SqFt **PCI:** 52

Sample Comments:

43	BLOCK CR	L	660.00	SqFt
45	DEPRESSION	L	196.00	SqFt
48	L & T CR	L	204.00	Ft
49	OIL SPILLAGE	N	48.00	SqFt
50	PATCHING	L	21.00	SqFt
52	RAVELING	L	996.00	SqFt
56	SWELLING	L	60.00	SqFt
57	WEATHERING	L	3983.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP JET CTR **Name:** JET CENTER APRON **Use:** APRON **Area:** 185,337 SqFt

Section: 4320 of 6 **From:** - **To:** - **Last Const.:** 1/1/1990

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 3,223 SqFt **Length:** 145 Ft **Width:** 23 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1990 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 27

Inspection Comments:

Sample Number: 200 **Type:** R **Area:** 3222.00 SqFt **PCI:** 27

Sample Comments:

43	BLOCK CR	L	713.00	SqFt
43	BLOCK CR	M	38.00	SqFt
45	DEPRESSION	L	238.00	SqFt
48	L & T CR	L	292.00	Ft
48	L & T CR	M	41.00	Ft
52	RAVELING	M	1933.00	SqFt
54	SHOVING	M	37.00	SqFt
57	WEATHERING	L	1289.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP JET CTR **Name:** JET CENTER APRON **Use:** APRON **Area:** 185,337 SqFt

Section: 4325 of 6 **From:** - **To:** - **Last Const.:** 1/1/1990

Surface: PCC **Family:** CA653-GA-AP-PCC **Zone:** **Category:** **Rank:** P

Area: 5,039 SqFt **Length:** 130 Ft **Width:** 71 Ft

Slabs: 17 **Slab Length:** 20 Ft **Slab Width:** 15 Ft **Joint Length:** 876 Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1990 **Work Type:** New Construction - PCC **Code:** NC-PC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 21

Inspection Comments:

Sample Number: 300 **Type:** R **Area:** 17.00 Slabs **PCI:** 21

Sample Comments:

62	CORNER BREAK	L	10.00	Slabs
62	CORNER BREAK	M	5.00	Slabs
63	LINEAR CR	L	3.00	Slabs
65	JT SEAL DMG	M	17.00	Slabs
67	LARGE PATCH	L	2.00	Slabs
72	SHAT. SLAB	L	2.00	Slabs
73	SHRINKAGE CR	N	1.00	Slabs
74	JOINT SPALL	L	3.00	Slabs
74	JOINT SPALL	M	1.00	Slabs
75	CORNER SPALL	L	1.00	Slabs
75	CORNER SPALL	M	1.00	Slabs

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP TERM **Name:** TERMINAL APRON **Use:** APRON **Area:** 125,746 SqFt

Section: 4205 of 3 **From:** - **To:** - **Last Const.:** 1/1/2006

Surface: AAC **Family:** CA653-GA-AP-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 27,943 SqFt **Length:** 300 Ft **Width:** 125 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1978	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 1/1/1987	**Work Type:** Surface Treatment - Seal Coat	**Code:** ST-SC	**Is Major M&R:** False
Work Date: 1/1/2006	**Work Type:** Mill and Overlay	**Code:** ML-OVL	**Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 6 **Surveyed:** 1

Conditions: **PCI:** 57

Inspection Comments:

Sample Number: 201 **Type:** R **Area:** 4100.00 SqFt **PCI:** 57

Sample Comments:

48	L & T CR	L	484.00	Ft
49	OIL SPILLAGE	N	5.00	SqFt
52	RAVELING	L	820.00	SqFt
56	SWELLING	L	450.00	SqFt
57	WEATHERING	L	3280.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP TERM **Name:** TERMINAL APRON **Use:** APRON **Area:** 125,746 SqFt

Section: 4210 of 3 **From:** - **To:** - **Last Const.:** 1/1/1978

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 10,440 SqFt **Length:** 232 Ft **Width:** 45 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1978 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 2 **Surveyed:** 1

Conditions: **PCI:** 55

Inspection Comments:

Sample Number: 304 **Type:** R **Area:** 5940.00 SqFt **PCI:** 55

Sample Comments:

45	DEPRESSION	L	176.00	SqFt
48	L & T CR	L	177.00	Ft
50	PATCHING	M	225.00	SqFt
52	RAVELING	L	5143.00	SqFt
52	RAVELING	M	572.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP TERM **Name:** TERMINAL APRON **Use:** APRON **Area:** 125,746 SqFt

Section: 4220 of 3 **From:** - **To:** - **Last Const.:** 1/1/1994

Surface: PCC **Family:** CA653-GA-AP-PCC **Zone:** **Category:** **Rank:** P

Area: 87,363 SqFt **Length:** 609 Ft **Width:** 127 Ft

Slabs: 218 **Slab Length:** 20 Ft **Slab Width:** 20 Ft **Joint Length:** 6,998 Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1994 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/2021 **Work Type:** Crack Sealing - PCC **Code:** CS-PC **Is Major M&R:** False

Last Insp. Date: 10/11/2022 **TotalSamples:** 12 **Surveyed:** 2

Conditions: **PCI:** 58

Inspection Comments:

Sample Number: 209 **Type:** R **Area:** 15.00 Slabs **PCI:** 69

Sample Comments:

63	LINEAR CR	M	1.00	Slabs
65	JT SEAL DMG	M	15.00	Slabs
73	SHRINKAGE CR	N	15.00	Slabs
75	CORNER SPALL	L	2.00	Slabs

Sample Number: 307 **Type:** R **Area:** 20.00 Slabs **PCI:** 50

Sample Comments:

63	LINEAR CR	L	8.00	Slabs
65	JT SEAL DMG	M	20.00	Slabs
67	LARGE PATCH	L	2.00	Slabs
72	SHAT. SLAB	L	1.00	Slabs
73	SHRINKAGE CR	N	11.00	Slabs
74	JOINT SPALL	L	1.00	Slabs
75	CORNER SPALL	L	2.00	Slabs
75	CORNER SPALL	M	3.00	Slabs

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: AP T-HANG **Name:** T-HANGAR APRONS **Use:** APRON **Area:** 34,309 SqFt

Section: 4405 of 1 **From:** - **To:** - **Last Const.:** 12/25/1999

Surface: AC **Family:** CA653-GA-AP-AC **Zone:** **Category:** **Rank:** P

Area: 34,309 SqFt **Length:** 1,335 Ft **Width:** 25 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 12/25/1999 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 10 **Surveyed:** 2

Conditions: **PCI:** 68

Inspection Comments:

Sample Number: 201 **Type:** R **Area:** 2925.00 SqFt **PCI:** 70

Sample Comments:

45	DEPRESSION	L	8.00	SqFt
48	L & T CR	L	142.00	Ft
52	RAVELING	L	585.00	SqFt
57	WEATHERING	M	2340.00	SqFt

Sample Number: 401 **Type:** R **Area:** 2775.00 SqFt **PCI:** 66

Sample Comments:

45	DEPRESSION	L	92.00	SqFt
48	L & T CR	L	52.00	Ft
52	RAVELING	L	555.00	SqFt
57	WEATHERING	M	2220.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: RW 7-25 **Name:** RUNWAY 7-25 **Use:** RUNWAY **Area:** 500,800 SqFt

Section: 6105 of 1 **From:** - **To:** - **Last Const.:** 1/1/1985

Surface: AAC **Family:** CA653-GA-RW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 500,800 SqFt **Length:** 5,008 Ft **Width:** 100 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1966 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1985 **Work Type:** OVERLAY **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/2021 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 10/11/2022 **TotalSamples:** 100 **Surveyed:** 20

Conditions: **PCI:** 48

Inspection Comments:

Sample Number: 100 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	487.00	Ft
48	L & T CR	M	100.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 104 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	487.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 107 **Type:** R **Area:** 5000.00 SqFt **PCI:** 49

Sample Comments:

48	L & T CR	L	429.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 112 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	413.00	Ft
48	L & T CR	M	188.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 117 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	311.00	Ft
48	L & T CR	M	221.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 118 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	445.00	Ft
48	L & T CR	M	200.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 122 **Type:** R **Area:** 5000.00 SqFt **PCI:** 52

Sample Comments:

48	L & T CR	L	326.00	Ft
48	L & T CR	M	111.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 127 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	342.00	Ft
48	L & T CR	M	230.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 134 **Type:** R **Area:** 5000.00 SqFt **PCI:** 44

Sample Comments:

48	L & T CR	L	317.00	Ft
48	L & T CR	M	298.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 135 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	528.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 142 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	546.00	Ft
48	L & T CR	M	100.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 149 **Type:** R **Area:** 5000.00 SqFt **PCI:** 47

Sample Comments:

48	L & T CR	L	522.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 157 **Type:** R **Area:** 5000.00 SqFt **PCI:** 46

Sample Comments:

48	L & T CR	L	538.00	Ft
48	L & T CR	M	200.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 163 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	506.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 169 **Type:** R **Area:** 5000.00 SqFt **PCI:** 50

Sample Comments:

48	L & T CR	L	323.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 174 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	362.00	Ft
48	L & T CR	M	200.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 182 **Type:** R **Area:** 5000.00 SqFt **PCI:** 46

Sample Comments:

48	L & T CR	L	605.00	Ft
48	L & T CR	M	150.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 190 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	513.00	Ft
48	L & T CR	M	100.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Sample Number: 193 **Type:** R **Area:** 5000.00 SqFt **PCI:** 46

Sample Comments:

48	L & T CR	L	619.00	Ft
48	L & T CR	M	100.00	Ft
52	RAVELING	L	3749.00	SqFt
52	RAVELING	M	1251.00	SqFt

Sample Number: 198 **Type:** R **Area:** 5000.00 SqFt **PCI:** 48

Sample Comments:

48	L & T CR	L	307.00	Ft
48	L & T CR	M	200.00	Ft
52	RAVELING	L	3750.00	SqFt
52	RAVELING	M	1250.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW A **Name:** TAXIWAY A **Use:** TAXIWAY **Area:** 302,740 SqFt

Section: 105 of 2 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 252,086 SqFt **Length:** 4,940 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1973 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1978 **Work Type:** OVERLAY **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1998 **Work Type:** OVERLAY **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 51 **Surveyed:** 6

Conditions: **PCI:** 54

Inspection Comments:

Sample Number: 102 **Type:** R **Area:** 5000.00 SqFt **PCI:** 56

Sample Comments:

43	BLOCK CR	L	1236.00	SqFt
48	L & T CR	L	180.00	Ft
52	RAVELING	L	1000.00	SqFt
53	RUTTING	L	51.00	SqFt
56	SWELLING	L	15.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Sample Number: 111 **Type:** R **Area:** 5000.00 SqFt **PCI:** 46

Sample Comments:

43	BLOCK CR	L	1250.00	SqFt
48	L & T CR	L	93.00	Ft
48	L & T CR	M	18.00	Ft
52	RAVELING	L	1000.00	SqFt
52	RAVELING	M	300.00	SqFt
53	RUTTING	L	136.00	SqFt
56	SWELLING	L	15.00	SqFt
57	WEATHERING	L	3700.00	SqFt

Sample Number: 118 **Type:** R **Area:** 5000.00 SqFt **PCI:** 57

Sample Comments:

43	BLOCK CR	L	1000.00	SqFt
48	L & T CR	L	122.00	Ft
52	RAVELING	L	1000.00	SqFt
53	RUTTING	L	69.00	SqFt
56	SWELLING	L	15.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Sample Number: 124 **Type:** R **Area:** 5000.00 SqFt **PCI:** 58

Sample Comments:

48	L & T CR	L	501.00	Ft
52	RAVELING	L	1000.00	SqFt
53	RUTTING	L	36.00	SqFt
56	SWELLING	L	60.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Sample Number: 135 **Type:** R **Area:** 5000.00 SqFt **PCI:** 52

Sample Comments:

43	BLOCK CR	L	2000.00	SqFt
48	L & T CR	L	169.00	Ft
52	RAVELING	L	1000.00	SqFt
53	RUTTING	L	104.00	SqFt
56	SWELLING	L	20.00	SqFt

57	WEATHERING	L	4000.00	SqFt

Sample Number: 143 **Type:** R **Area:** 5000.00 SqFt **PCI:** 55

Sample Comments:

48	L & T CR	L	563.00	Ft
52	RAVELING	L	1000.00	SqFt
53	RUTTING	L	135.00	SqFt
56	SWELLING	L	325.00	SqFt
57	WEATHERING	L	4000.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW A **Name:** TAXIWAY A **Use:** TAXIWAY **Area:** 302,740 SqFt

Section: 115 of 2 **From:** - **To:** - **Last Const.:** 12/25/1999

Surface: AC **Family:** CA653-GA-TW-AC **Zone:** **Category:** **Rank:** P

Area: 50,654 SqFt **Length:** 1,420 Ft **Width:** 35 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 12/25/1999 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 14 **Surveyed:** 2

Conditions: **PCI:** 61

Inspection Comments:

Sample Number: 402 **Type:** R **Area:** 3500.00 SqFt **PCI:** 55

Sample Comments:

43	BLOCK CR	L	1183.00	SqFt
48	L & T CR	L	194.00	Ft
52	RAVELING	L	700.00	SqFt
56	SWELLING	L	180.00	SqFt
57	WEATHERING	L	2800.00	SqFt

Sample Number: 405 **Type:** R **Area:** 3500.00 SqFt **PCI:** 66

Sample Comments:

43	BLOCK CR	L	463.00	SqFt
48	L & T CR	L	151.00	Ft
52	RAVELING	L	700.00	SqFt
57	WEATHERING	L	2800.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW A6 **Name:** TAXIWAY A6 **Use:** TAXIWAY **Area:** 18,521 SqFt

Section: 160 of 1 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-AP-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 18,521 SqFt **Length:** 345 Ft **Width:** 54 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1973 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Work Date: 1/1/1998 **Work Type:** Overlay - AC Structural **Code:** OL-AS **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 4 **Surveyed:** 2

Conditions: **PCI:** 56

Inspection Comments:

Sample Number: 101 **Type:** R **Area:** 5832.00 SqFt **PCI:** 64

Sample Comments:

48	L & T CR	L	491.00	Ft
48	L & T CR	M	60.00	Ft
52	RAVELING	L	1166.00	SqFt
57	WEATHERING	M	4666.00	SqFt

Sample Number: 201 **Type:** A **Area:** 3327.00 SqFt **PCI:** 18

Sample Comments:

43	BLOCK CR	L	559.00	SqFt
43	BLOCK CR	M	559.00	SqFt
45	DEPRESSION	L	126.00	SqFt
45	DEPRESSION	M	1118.00	SqFt
48	L & T CR	L	304.00	Ft
52	RAVELING	L	665.00	SqFt
57	WEATHERING	M	2662.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW B **Name:** TAXIWAY B **Use:** TAXIWAY **Area:** 10,353 SqFt

Section: 151 of 1 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 10,353 SqFt **Length:** 100 Ft **Width:** 113 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1973 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 1/1/1998 **Work Type:** Overlay - AC Structural **Code:** OL-AS **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 2 **Surveyed:** 1

Conditions: **PCI:** 50

Inspection Comments:

Sample Number: 201 **Type:** R **Area:** 5160.00 SqFt **PCI:** 50

Sample Comments:

43	BLOCK CR	L	835.00	SqFt
45	DEPRESSION	L	350.00	SqFt
48	L & T CR	L	342.00	Ft
52	RAVELING	L	1738.00	SqFt
56	SWELLING	L	350.00	SqFt
57	WEATHERING	L	3422.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW C **Name:** TAXIWAY C **Use:** TAXIWAY **Area:** 10,120 SqFt

Section: 205 of 2 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 6,247 SqFt **Length:** 75 Ft **Width:** 56 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1966	**Work Type:** BUILT	**Code:** IMPORTED	**Is Major M&R:** True
Work Date: 1/1/1978	**Work Type:** OVERLAY	**Code:** IMPORTED	**Is Major M&R:** True
Work Date: 1/1/1998	**Work Type:** OVERLAY	**Code:** IMPORTED	**Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 54

Inspection Comments:

Sample Number: 201 **Type:** R **Area:** 6247.00 SqFt **PCI:** 54

Sample Comments:

45	DEPRESSION	L	588.00	SqFt
48	L & T CR	L	312.00	Ft
52	RAVELING	L	1681.00	SqFt
53	RUTTING	L	90.00	SqFt
57	WEATHERING	L	4566.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW C **Name:** TAXIWAY C **Use:** TAXIWAY **Area:** 10,120 SqFt

Section: 210 of 2 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 3,873 SqFt **Length:** 50 Ft **Width:** 56 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1942 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1966 **Work Type:** OVERLAY **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1998 **Work Type:** OVERLAY **Code:** IMPORTED **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 49

Inspection Comments:

Sample Number: 200 **Type:** R **Area:** 3873.00 SqFt **PCI:** 49

Sample Comments:

45	DEPRESSION	L	48.00	SqFt
48	L & T CR	L	488.00	Ft
48	L & T CR	M	41.00	Ft
52	RAVELING	L	775.00	SqFt
53	RUTTING	L	92.00	SqFt
57	WEATHERING	L	3098.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW D **Name:** TAXIWAY D **Use:** TAXIWAY **Area:** 16,758 SqFt

Section: 305 of 2 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 9,290 SqFt **Length:** 110 Ft **Width:** 110 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1983 **Work Type:** BUILT **Code:** IMPORTED **Is Major M&R:** True

Work Date: 1/1/1998 **Work Type:** Overlay - AC Structural **Code:** OL-AS **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 2 **Surveyed:** 1

Conditions: **PCI:** 48

Inspection Comments:

Sample Number: 302 **Type:** R **Area:** 5453.00 SqFt **PCI:** 48

Sample Comments:

45	DEPRESSION	L	241.00	SqFt
48	L & T CR	L	475.00	Ft
48	L & T CR	M	48.00	Ft
52	RAVELING	L	1825.00	SqFt
53	RUTTING	L	48.00	SqFt
57	WEATHERING	M	3628.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW D **Name:** TAXIWAY D **Use:** TAXIWAY **Area:** 16,758 SqFt

Section: 310 of 2 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 7,468 SqFt **Length:** 60 Ft **Width:** 110 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1942	**Work Type:** BUILT	**Code:** IMPORTED	**Is Major M&R:** True
Work Date: 1/1/1966	**Work Type:** OVERLAY	**Code:** IMPORTED	**Is Major M&R:** True
Work Date: 1/1/1998	**Work Type:** OVERLAY	**Code:** IMPORTED	**Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 66

Inspection Comments:

Sample Number: 300 **Type:** R **Area:** 4354.00 SqFt **PCI:** 69

Sample Comments:

45	DEPRESSION	L	10.00	SqFt
48	L & T CR	L	171.00	Ft
52	RAVELING	L	218.00	SqFt
57	WEATHERING	M	4136.00	SqFt

Sample Number: 301 **Type:** R **Area:** 3114.00 SqFt **PCI:** 62

Sample Comments:

45	DEPRESSION	L	8.00	SqFt
48	L & T CR	L	230.00	Ft
52	RAVELING	L	156.00	SqFt
53	RUTTING	L	51.00	SqFt
57	WEATHERING	M	2958.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW E **Name:** TAXIWAY E **Use:** TAXIWAY **Area:** 49,675 SqFt

Section: 152 of 3 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 5,537 SqFt **Length:** 50 Ft **Width:** 100 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1942	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 1/1/1973	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True
Work Date: 1/1/1985	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True
Work Date: 1/1/1998	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 71

Inspection Comments:

Sample Number: 300 **Type:** R **Area:** 5537.00 SqFt **PCI:** 71

Sample Comments:

45	DEPRESSION	L	30.00	SqFt
48	L & T CR	L	160.00	Ft
52	RAVELING	L	1107.00	SqFt
56	SWELLING	L	10.00	SqFt
57	WEATHERING	L	4430.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW E **Name:** TAXIWAY E **Use:** TAXIWAY **Area:** 49,675 SqFt

Section: 155 of 3 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AAC **Family:** CA653-GA-TW-AAC-APC **Zone:** **Category:** **Rank:** P

Area: 5,103 SqFt **Length:** 50 Ft **Width:** 100 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1942	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 1/1/1966	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True
Work Date: 1/1/1973	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True
Work Date: 1/1/1998	**Work Type:** Overlay - AC Structural	**Code:** OL-AS	**Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 56

Inspection Comments:

Sample Number: 301 **Type:** R **Area:** 5103.00 SqFt **PCI:** 56

Sample Comments:

43	BLOCK CR	L	110.00	SqFt
45	DEPRESSION	L	90.00	SqFt
48	L & T CR	L	197.00	Ft
48	L & T CR	M	15.00	Ft
52	RAVELING	L	1756.00	SqFt
56	SWELLING	L	10.00	SqFt
57	WEATHERING	L	3347.00	SqFt

Network: MTH **Name:** THE FLORIDA KEYS MARATHON INTERNATIONAL AIRPORT

Branch: TW E **Name:** TAXIWAY E **Use:** TAXIWAY **Area:** 49,675 SqFt

Section: 405 of 3 **From:** - **To:** - **Last Const.:** 1/1/1998

Surface: AC **Family:** CA653-GA-TW-AC **Zone:** **Category:** **Rank:** P

Area: 39,035 SqFt **Length:** 1,550 Ft **Width:** 25 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Work Date: 1/1/1998 **Work Type:** New Construction - AC **Code:** NC-AC **Is Major M&R:** True

Last Insp. Date: 10/11/2022 **TotalSamples:** 8 **Surveyed:** 2

Conditions: **PCI:** 77

Inspection Comments:

Sample Number: 302 **Type:** R **Area:** 5000.00 SqFt **PCI:** 77

Sample Comments:

48	L & T CR	L	71.00	Ft
52	RAVELING	L	941.00	SqFt
57	WEATHERING	L	4059.00	SqFt

Sample Number: 308 **Type:** R **Area:** 5000.00 SqFt **PCI:** 78

Sample Comments:

48	L & T CR	L	78.00	Ft
52	RAVELING	L	750.00	SqFt
57	WEATHERING	L	4250.00	SqFt

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