



SOUTH CAROLINA AERONAUTICS COMMISSION

STATEWIDE AIRFIELD PAVEMENT MANAGEMENT SYSTEM UPDATE

 S19 - McCormick County Airport



Kimley»Horn

2023



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Overview

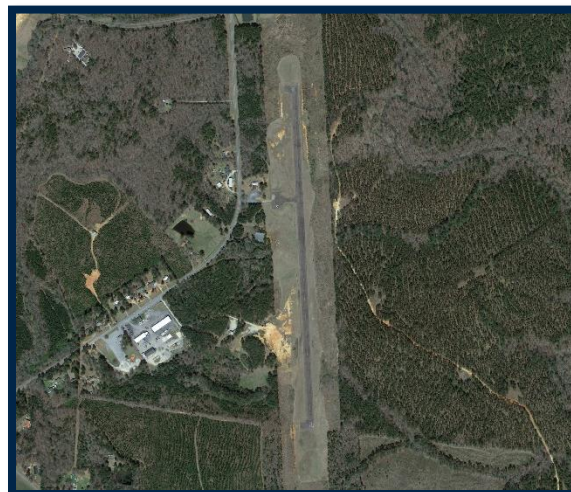
Introduction

For over 20 years, the South Carolina Aeronautics Commission (SCAC) has implemented an airfield pavement management program for publicly owned South Carolina airports. As part of their grant assurances federally obligated airports are required to perform detailed inspections as outlined in the FAA Advisory Circular 150/5380-7B – “Airport Pavement Management Program (PMP)”. All inspections performed within this program follow the guidance documented within the ASTM D5340-20 – “Standard Test Method for Airport Pavement Condition Surveys”. This is an objective process to assess the pavement condition in a consistent and repeatable manner.

Due to ever-changing pavement conditions, the FAA AC 150/5380-7B recommends the PMP be updated every 3 years. The overall pavement conditions are analyzed using the ASTM PCI methodology. It provides decision makers with a comparison of pavement facilities and a relative indication of their required maintenance or level of repair to aid in project prioritization. A detailed explanation of the SCAC airfield pavement management program process and pavement management terminology can be found in the SCAC Statewide Report.

Project elements performed for this 2021-2024 program update include the development and updates of pavement inventories, documentation of pavement conditions, performance modeling, and maintenance and rehabilitation (M&R) needs for all participating airports. This report summarizes the results of the SCAC pavement program update at McCormick County Airport (S19).

Figure 1 – Airport Layout



System Inventory

The pavements at McCormick County Airport (S19) include approximately 0.3 million square feet of airfield pavements consisting of runways, taxiways, and aprons. Per the guidance in the ASTM D5340-20, all pavements were divided and subdivided into pavement management units (Network, Branch, Section, Sample). The divisions are documented in the **Network Definition Exhibit** providing the name and location of each branch, section, and sample.

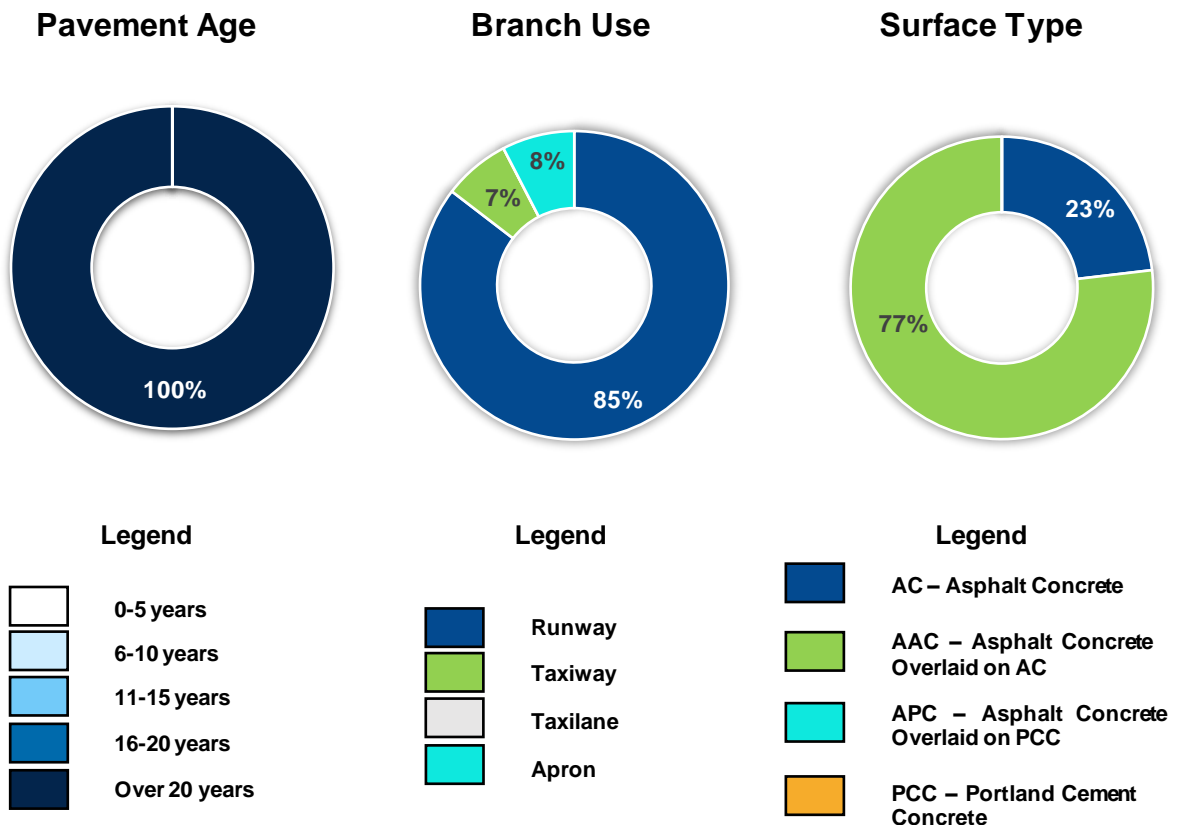
Each pavement update included a review of documentation of any maintenance and major rehabilitation related activities performed on the airfield pavements. No documented or identified projects occurred since the previous inspection.

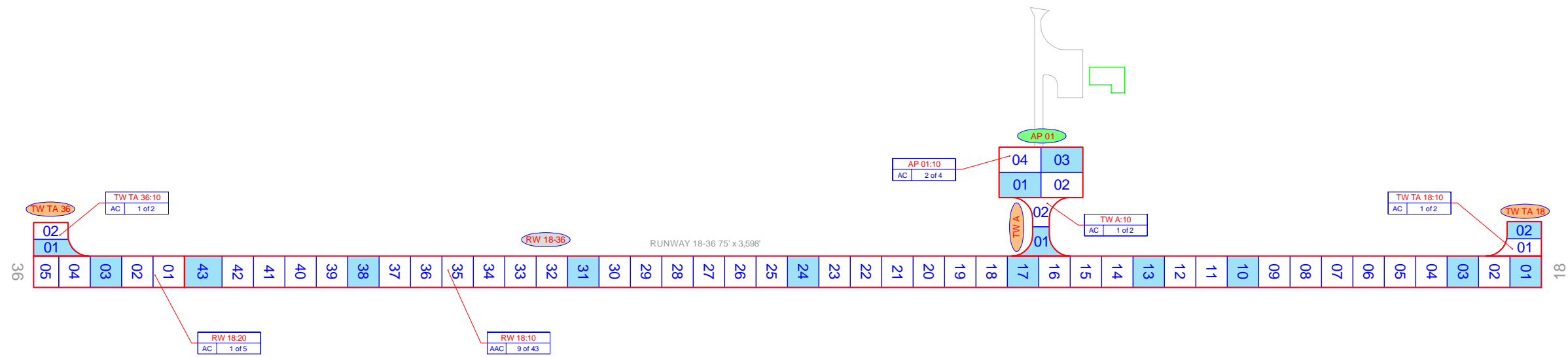
Table 1 - Recent Airfield Pavement Construction

Construction Year	Location	Work Type / Pavement Section
No Information Provided		

The following figure summarizes the inventory items at McCormick County Airport (S19). The **Estimated Age Exhibit** provides the last major work date for each pavement section based on the collected documentation.

Figure 2 – System Inventory Summary





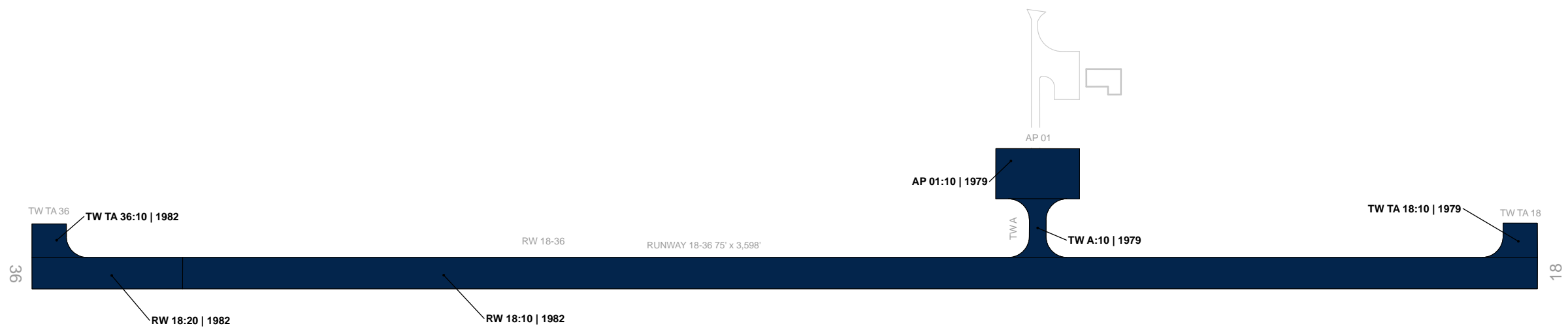
LEGEND

- RW 13-31 — TYPICAL RUNWAY BRANCH ID
- TW A — TYPICAL TAXIWAY BRANCH ID
- AP S — TYPICAL APRON BRANCH ID
- RW 13-10 — PAVEMENT BRANCH ID: SECTION ID
- AAC 5 of 15 — NUMBER OF SAMPLE UNITS IN SECTION
- AAC 0 of 5 — NUMBER OF SAMPLE UNITS TO BE INSPECTED
- 100 — PAVEMENT SURFACE TYPE
- RW 13-20 — SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE ESTIMATED AGE EXHIBIT FOR CONSTRUCTION DATES.
- AAC 0 of 5 — SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE ESTIMATED AGE EXHIBIT FOR CONSTRUCTION DATES.
- 100 — INSPECTED SAMPLE UNITS.

TOTAL SAMPLES INSPECTED = 15
AC: 15 PCC: 0

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





Legend

- Estimated Age at Inspection**
- 0-5 Years
 - 6-10 Years
 - 11-15 Years
 - 16-20 Years
 - > 20 Years
- BRANCH IDENTIFIER
— SECTION IDENTIFIER
- TWA:20 | 1985**
— LAST MAJOR WORK DATE



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MCCORMICK COUNTY AIRPORT (S19)
AIRFIELD PAVEMENT ESTIMATED AGE EXHIBIT

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Functional Evaluation

Pavement Condition Index

A Pavement Condition Index (PCI) survey is the primary means of obtaining and recording pavement distress data. In adherence to FAA Advisory Circular 150/5380-7B, the SCAC Airfield Pavement Management System (APMS) Update utilizes the PCI survey methodology to collect pavement distress data and analyze the condition. This method uses a visual statistical sampling of pavements for recording primary distress types, associated severities, and quantities as defined by the ASTM D5340-20.

Visual condition data collected during the PCI survey is analyzed and used to calculate the current PCI for each inspected sample unit and section. The PCI is a value ranging from 0 to 100, which indicates the apparent structural integrity and surface operational condition of the pavement, with “100” indicating a pavement in new condition and “0” indicating a failed pavement section. Pavement Condition Ratings are associated with PCI categories that range from “Failed” to “Good”. Representative photos of varying Pavement Condition Ratings are displayed in **Figure 3**.

Figure 3 – Representation of Pavement Condition Index Values



Poor/Failed Pavement

Pavements that are Poor to Failed require significant and costly interventions such as reconstruction to restore the pavement to operational service.



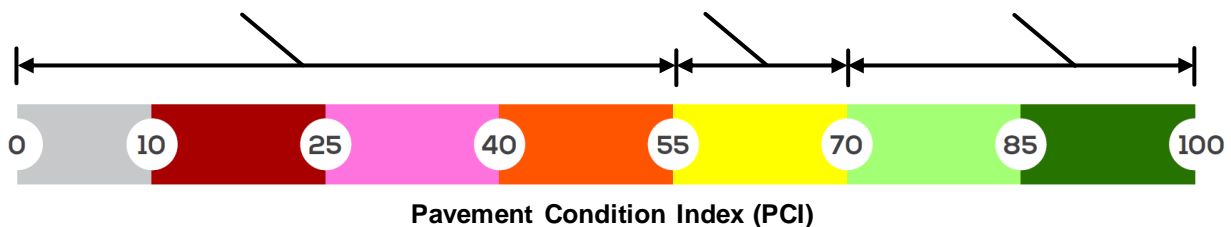
Fair Pavement

Pavements with a Fair condition rating typically require rehabilitation, or maintenance activities if rehabilitation cannot be immediately performed.



Good/New Pavement

Pavements classified as Good require either no treatment or would benefit from the application of preventive maintenance activities such as crack sealing.



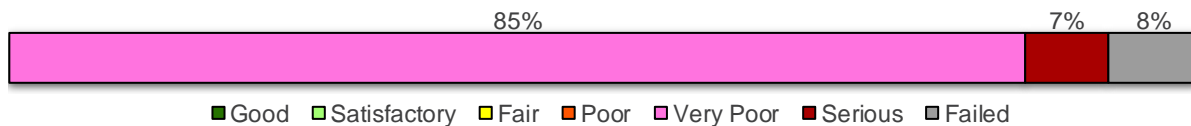
Critical PCI

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. Critical PCI refers to the condition beyond which the rate of pavement deterioration and the cost of applying a treatment increases significantly. In other words, it is the condition at which maintenance may no longer be cost effective and major rehabilitation should be considered. Based on the 2019 FAA Order 5100.38D Change 1 Airport Improvement Program Handbook, the FAA has established recommended PCI thresholds for pavement M&R. Accordingly, **the Critical PCI for all SCAC airfield pavements is defined at 70.**

PCI Results

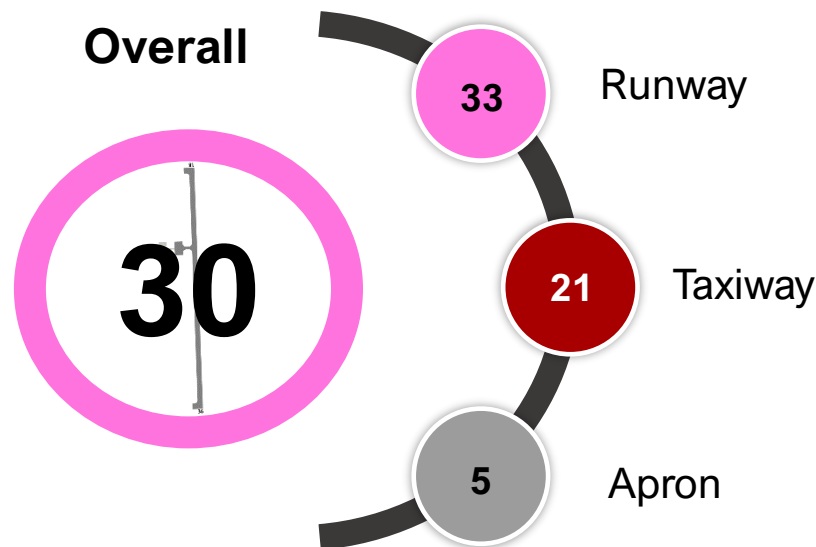
The PCI survey for McCormick County Airport (S19) was performed in January 2023. **The overall area-weighted average PCI value of the network was 30**, representing a condition rating of **Very Poor**. None of inspected pavements are in Good, Satisfactory, or Fair condition. All the pavements are in Poor or worse condition as summarized in **Figure 4.**

Figure 4 – Overall Network PCI Results



The area-weighted average PCIs by branch use are summarized in the figure below. The current PCIs at a section-level are displayed graphically on the **2023 Airfield Pavement Condition Index Exhibit** and are summarized in **Table 2.**

Figure 5 – Area Weighted Average Pavement Condition



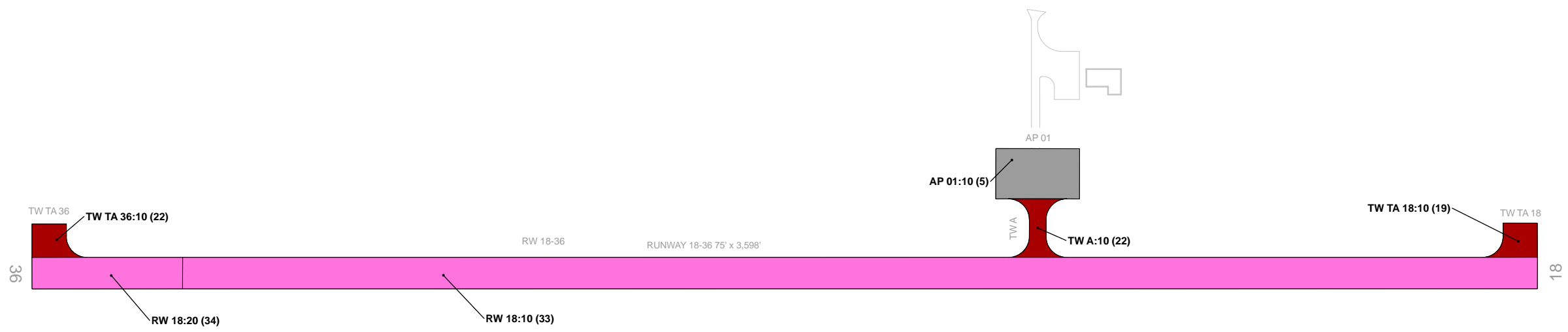


S19 - McCormick County Airport

Table 2 – Current Pavement Condition Index Summary - Section

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface	PCI	Condition Rating	PCI% Climate	PCI% Load	PCI% Other
S19	AP 01	Apron	10	24,000	AC	5	Failed	61	39	0
S19	RW 18	Runway	10	243,000	AAC	33	Very Poor	100	0	0
S19	RW 18	Runway	20	27,000	AC	34	Very Poor	100	0	0
S19	TW A	Taxiway	10	7,746	AC	22	Serious	90	10	0
S19	TW TA 18	Taxiway	10	7,261	AC	19	Serious	80	10	10
S19	TW TA 36	Taxiway	10	7,097	AC	22	Serious	84	16	0

**For further PCI details and photos see Appendix D – Detailed PCI Results.*



Legend

2023 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

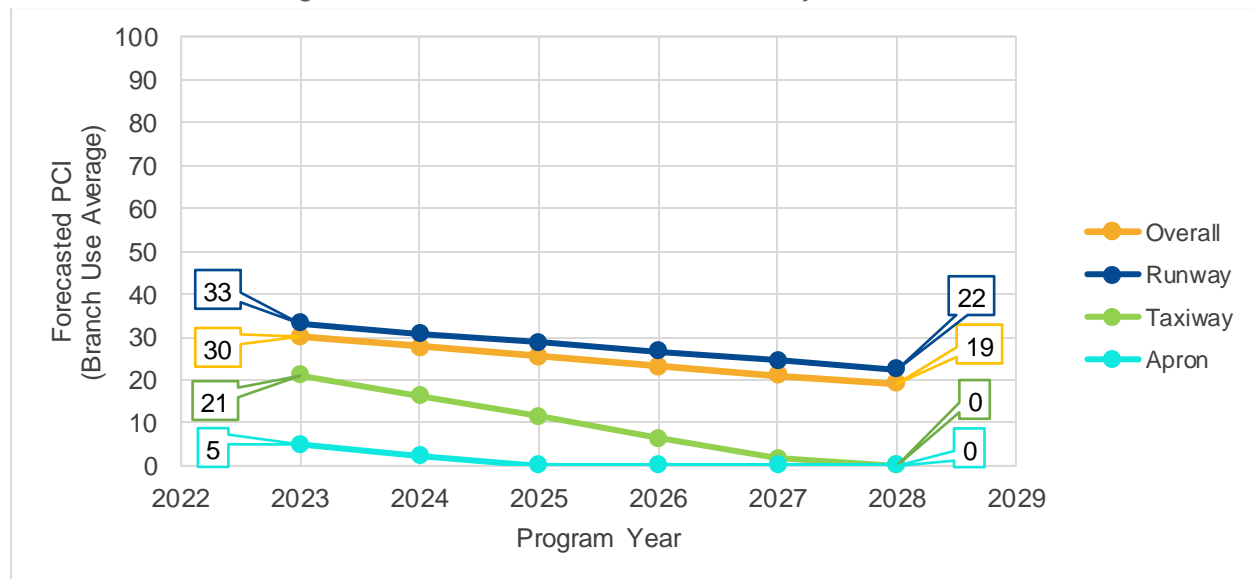
— BRANCH IDENTIFIER
— SECTION IDENTIFIER
TWA:20 (84)
— PCI



Pavement Condition Forecast

A primary objective of this APMS is to estimate the future condition of each individual pavement section. PAVER™ was utilized to develop prediction curves and determine typical deterioration rates that are then used to forecast a future PCI value. This value will assist decision makers in determining at what point in time certain pavement sections will require rehabilitation. The figure below shows the current and 5-year area-weighted forecasted pavement condition distribution of each functional use (Runway, Taxiway, Apron) found at the Airport. The forecasted 5-year PCIs at a section-level are displayed graphically on the **2028 Forecasted Airfield Pavement Condition Index Exhibit** and are summarized in **Table 3**. All forecasts presented assume that no maintenance or rehabilitation is performed within the 5-year analysis period. **Figure 6** displays the forecasted pavement conditions at the branch-level for S19.

Figure 6 – Forecasted 5-Year PCI by Branch Use



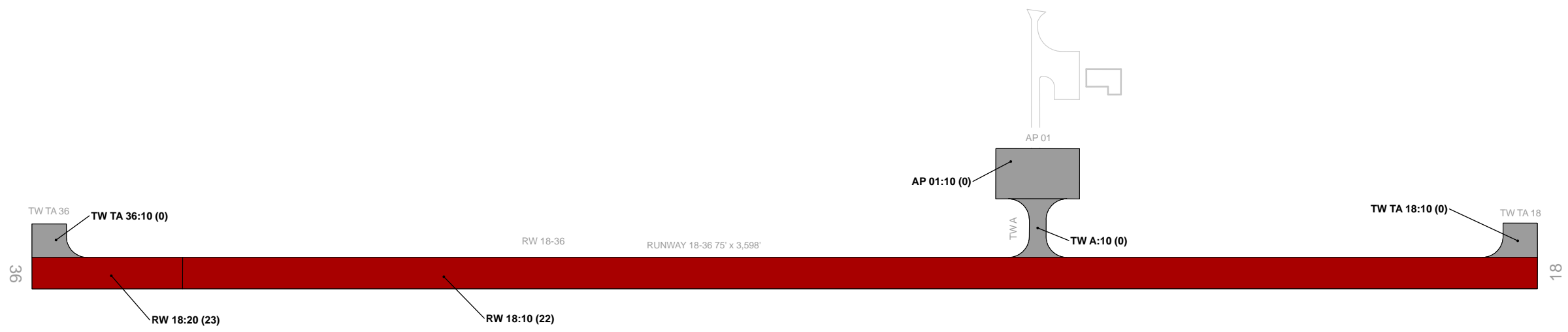
All condition forecasts are based on historical observations and analysis of South Carolina airfield pavements. The forecasts are not a guarantee of future PCI: - rather, they are a planning tool to aid in the timing of maintenance and rehabilitation activities.



S19 - McCormick County Airport

Table 3 – Forecast (2024-2028) Section Pavement Condition Index - Section

Network ID	Branch ID	Section ID	Current PCI	Forecasted PCI				
				2024	2025	2026	2027	2028
S19	AP 01	10	5	3	0	0	0	0
S19	RW 18	10	33	31	29	27	24	22
S19	RW 18	20	34	32	30	28	25	23
S19	TW A	10	22	17	12	7	3	0
S19	TW TA 18	10	19	14	9	4	0	0
S19	TW TA 36	10	22	17	12	7	3	0



Legend

2028 Forecasted 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

— BRANCH IDENTIFIER
— SECTION IDENTIFIER
TWA:20 (84)
— FORECASTED PCI



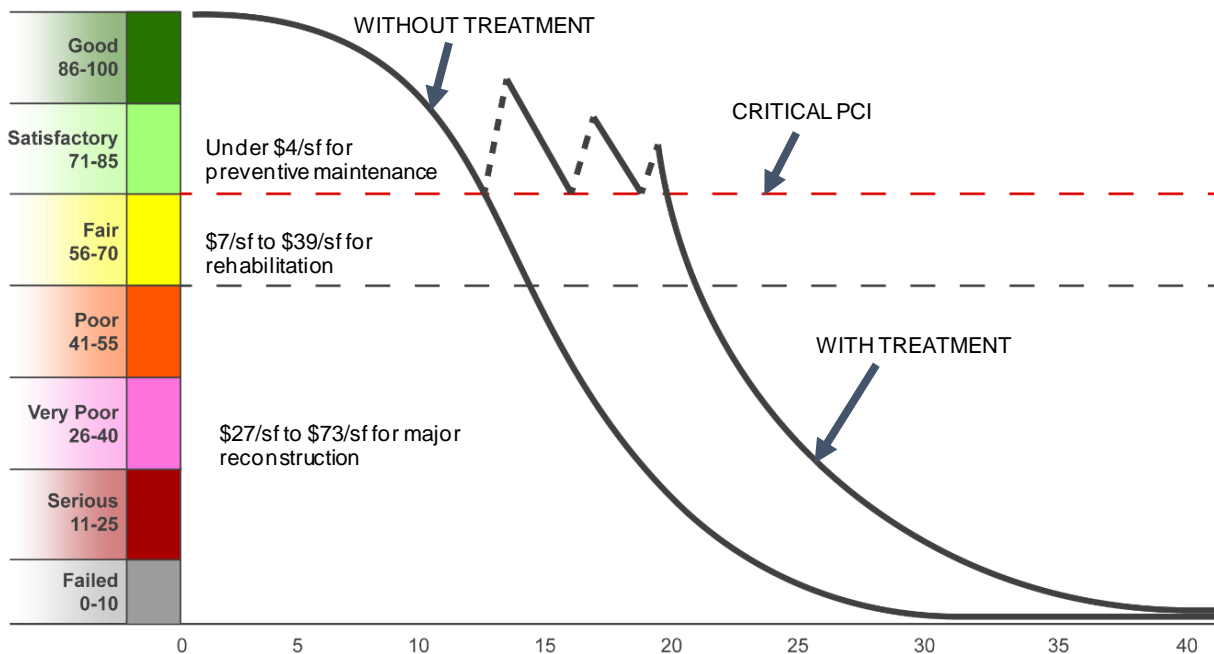
M&R Overview

An analysis was performed to assess the pavement maintenance and rehabilitation (M&R) needs at S19 over a 5-year period. The analysis compared the forecasted condition of each pavement section to the Critical PCI threshold to develop a resultant recommendation and associated cost for each year of the 5-year plan. The M&R analysis should enable responsible parties to do the following:

- ➔ **Maintain** existing airport infrastructure at an acceptable condition
- ➔ Make timely and cost-effective **decisions** to appropriately allocate funding
- ➔ **Apply** global maintenance, localized maintenance, and major M&R activities in a timely manner to maintain an acceptable operational condition of a pavement network.

M&R planning considers various methods of repair to address the cause of the problem rather than just treating the symptom. As pavements deteriorate, repair costs can increase significantly. Once pavements have deteriorated below a certain condition threshold (the Critical PCI value), the pavement benefits more from substantial rehabilitation in lieu of maintenance activities. The figure below illustrates how the cost of pavement repairs can exponentially increase if M&R activities are delayed.

Figure 7 – Pavement Life and the Effect of Treatments



Localized Maintenance and Repair

Localized maintenance is best used as a preservation measure and is applied to slow the rate of deterioration. These activities typically include crack sealing and patching. Localized maintenance differs from major rehabilitation in that it is applied based on the distresses observed rather than based on a PCI value. Treatments are selected based on the appropriate corrective measure for a given distress type and severity level. Localized maintenance applied on pavements with PCIs above the Critical PCI of 70 is known as Preventive Localized Maintenance, while Stopgap Localized Maintenance is typically applied to pavement sections that are at or below the Critical PCI value as a temporary repair due to safety concerns. The current localized maintenance needs are summarized in the table below.

Table 4 – Localized Maintenance Summary by Policy Type

Localized Maintenance Category	Localized Work Type	Rough Estimate of Work Quantity	Work Units	Planning Material Cost
Localized Preventive Maintenance	N/A			\$ -
<i>Localized Preventive Maintenance Total =</i>				\$ -
Localized Stopgap Maintenance	AC Crack Sealing Narrow	46,544	LF	\$ 162,940
	Surface Seal	291,954	SF	\$ 481,770
	AC Full-Depth Patching	6,651	SF	\$ 118,090
<i>Localized Stopgap Maintenance Total =</i>				\$ 762,800
<i>Planning-Level Localized M&R Needs =</i>				\$ 762,800

Major Rehabilitation Needs

Major rehabilitation needs are identified by analyzing the Airport’s pavement condition in relationship to the Critical PCI value, density of load-related distresses, and major rehabilitation policies, assuming there are no budget constraints. The needs analysis is performed over a 5-year analysis period. Major rehabilitation is divided into two policy categories:

- ➔ **Intermediate Major Rehabilitation (PCI 56 to 70)** –
 - **AC:** Milling of the upper surface course and replacing with new AC with isolated areas of full-depth reconstruction
 - **PCC:** Combination of crack sealing, joint seal replacement, limited patching, and slab replacement
- ➔ **Full-Depth Reconstruction (PCI 0 to 55)** – Removal and replacement of the existing pavement section down to the subgrade

The 5-year major rehabilitation needs analysis at S19 results in a total 5-year cost of \$9.09M. The **5-Year Major Rehabilitation Needs Exhibit** graphically depicts the major rehabilitation needs at a section-level which are also summarized in **Table 5** with rounded costs. Annual needs are displayed graphically in **Figure 8**.

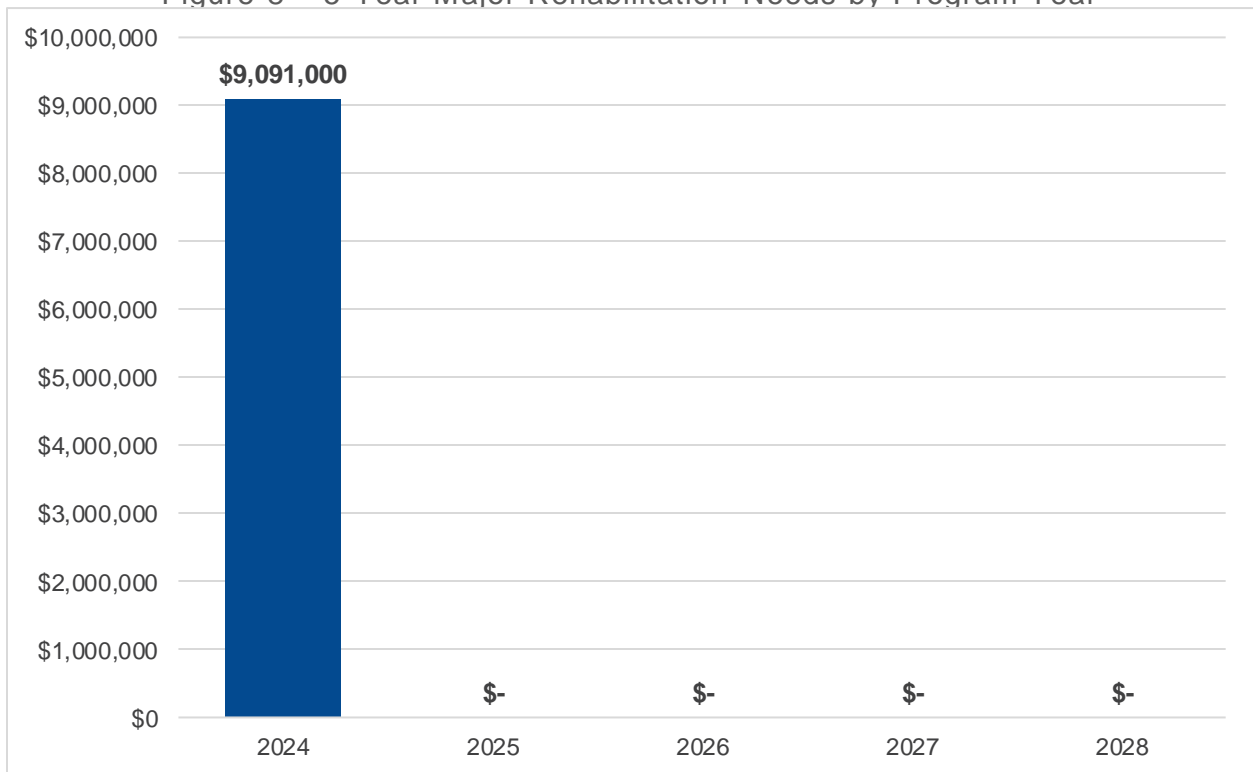


S19 - McCormick County Airport

Table 5 – 5-Year Major Rehabilitation Needs

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2024	S19	AP 01	10	AC	24,000	3	AC Reconstruction	\$ 690,000
2024	S19	RW 18	10	AAC	243,000	31	AC Reconstruction	\$ 6,987,000
2024	S19	RW 18	20	AC	27,000	32	AC Reconstruction	\$ 777,000
2024	S19	TW A	10	AC	7,746	17	AC Reconstruction	\$ 223,000
2024	S19	TW TA 18	10	AC	7,261	14	AC Reconstruction	\$ 209,000
2024	S19	TW TA 36	10	AC	7,097	17	AC Reconstruction	\$ 205,000
Total 5-Year Major Rehabilitation Needs =								\$ 9,091,000

Figure 8 – 5-Year Major Rehabilitation Needs by Program Year





S19 - McCormick County Airport

5-Year Major Rehabilitation Needs Exhibit

[Insert M&R Exhibit]

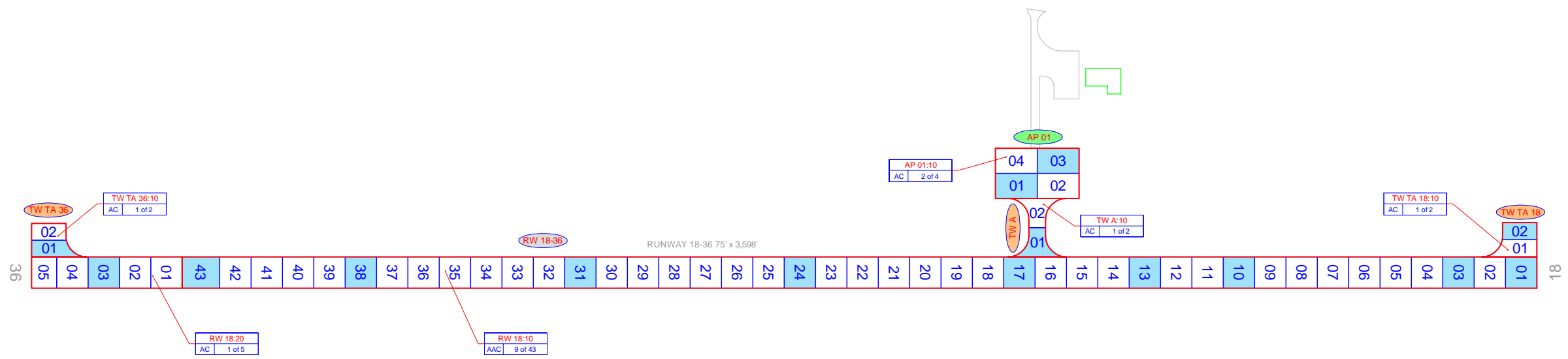
SECTION I

Appendices





Appendix A – Exhibits



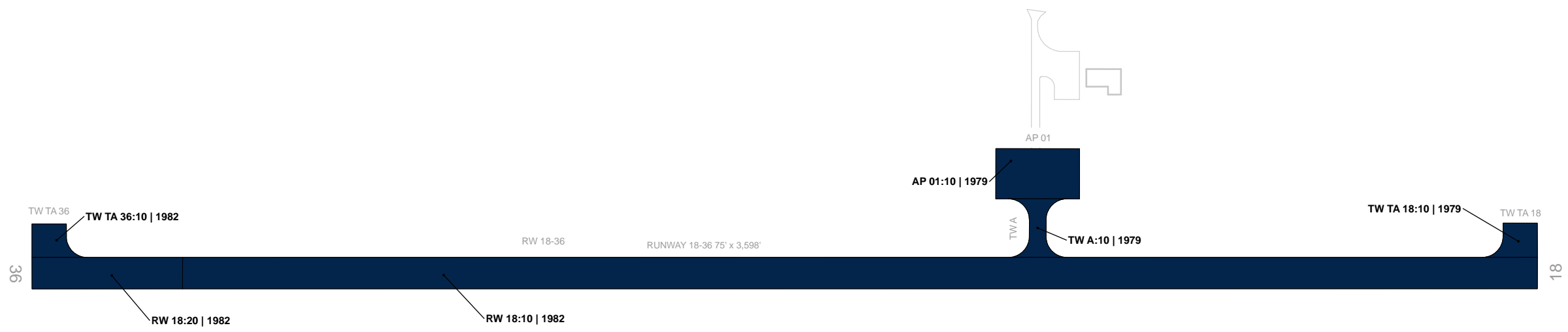
LEGEND

- RW 13-31 TYPICAL RUNWAY BRANCH ID
- TW A TYPICAL TAXIWAY BRANCH ID
- AP S TYPICAL APRON BRANCH ID
- RW 13-10 PAVEMENT BRANCH ID: SECTION ID
- AAC 5 of 15 NUMBER OF SAMPLE UNITS IN SECTION
- AAC 0 of 5 NUMBER OF SAMPLE UNITS TO BE INSPECTED
- 100 PAVEMENT SURFACE TYPE
- RW 13-20 SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE ESTIMATED AGE EXHIBIT FOR CONSTRUCTION DATES.
- AAC 0 of 5 SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE ESTIMATED AGE EXHIBIT FOR CONSTRUCTION DATES.
- 100 INSPECTED SAMPLE UNITS.

TOTAL SAMPLES INSPECTED = 15
AC: 15 PCC: 0

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





Legend

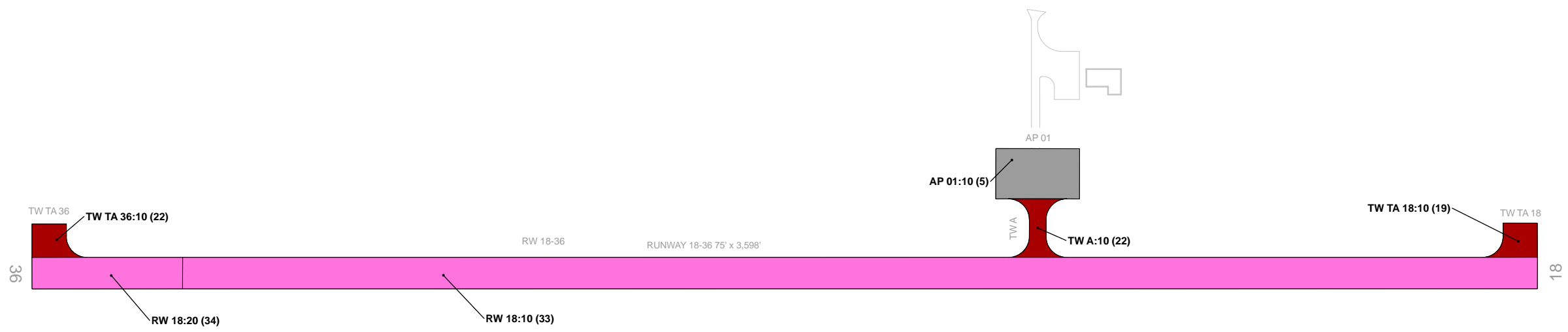
- Estimated Age at Inspection**
- 0-5 Years
 - 6-10 Years
 - 11-15 Years
 - 16-20 Years
 - > 20 Years
- BRANCH IDENTIFIER
— SECTION IDENTIFIER
- TWA:20 | 1985**
— LAST MAJOR WORK DATE



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MCCORMICK COUNTY AIRPORT (S19)
AIRFIELD PAVEMENT ESTIMATED AGE EXHIBIT

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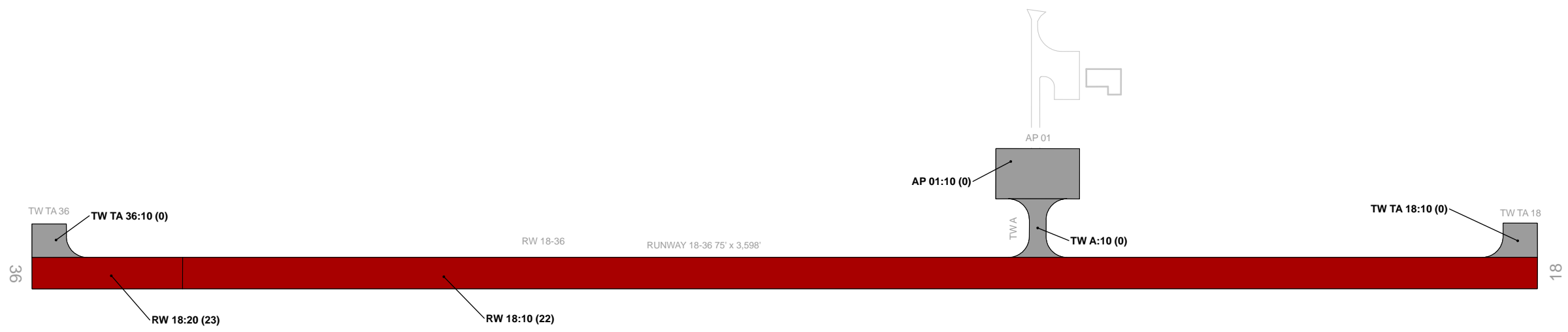
Legend

2023 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

— BRANCH IDENTIFIER
— SECTION IDENTIFIER
TWA:20 (84)
— PCI





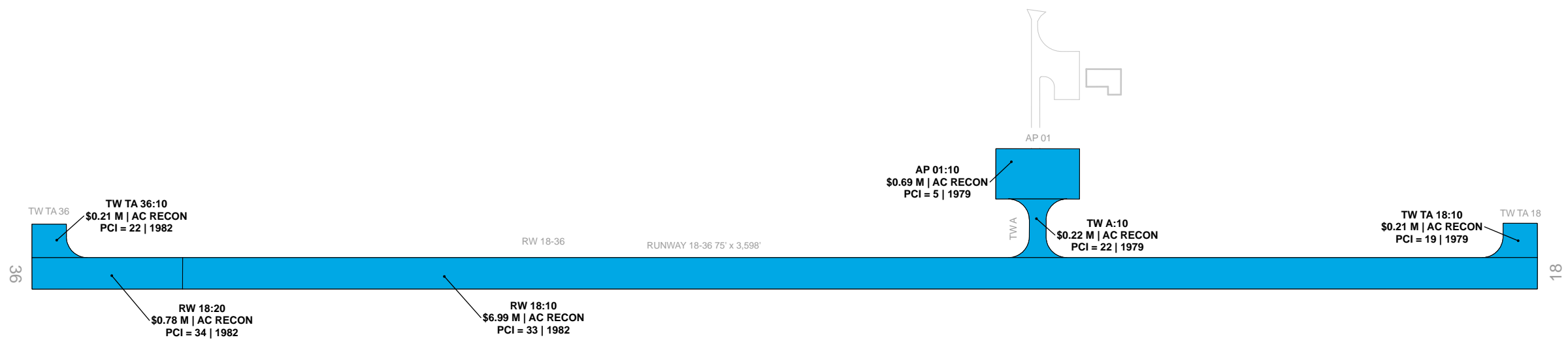
Legend

2028 Forecasted 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

— BRANCH IDENTIFIER
— SECTION IDENTIFIER
TWA:20 (84)
— FORECASTED PCI

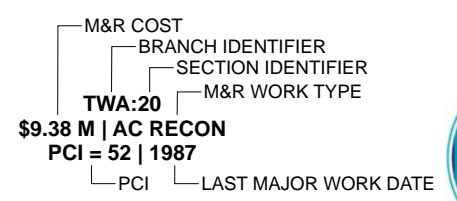




Legend

5-Year Major Rehabilitation Needs

- Year 1 Reconstruction Needs
- Year 1 Rehabilitation Needs
- Year 2 Rehabilitation Needs
- Year 3 Rehabilitation Needs
- Year 4 Rehabilitation Needs
- Year 5 Rehabilitation Needs



THIS EXHIBIT REPRESENTS NEEDS SOLEY BASED ON CURRENT AND FORECASTED CONDITIONS FURTHER PRIORITIZATION AND CONSIDERATIONS SHOULD BE MADE BEYOND THIS STUDY.





Appendix B – Analysis Tables



S19 - McCormick County Airport

Table B1 – System Inventory Data - Section

Network ID	Branch ID	Branch Use	Section ID	Area (SF)	Surface Type	Estimate of Last Construction Date
S19	AP 01	Apron	10	24,000	AC	6/1/1979
S19	RW 18	Runway	10	243,000	AAC	3/1/1982
S19	RW 18	Runway	20	27,000	AC	6/1/1982
S19	TW A	Taxiway	10	7,746	AC	6/1/1979
S19	TW TA 18	Taxiway	10	7,261	AC	6/1/1979
S19	TW TA 36	Taxiway	10	7,097	AC	6/1/1982

Table B2 – Current Pavement Condition Index Summary - Branch

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Area-Weighted Avg PCI	Condition Rating
AP 01	Apron	1	24,000	5	Failed
RW 18	Runway	2	270,000	33	Very Poor
TW A	Taxiway	1	7,746	22	Serious
TW TA 18	Taxiway	1	7,261	19	Serious
TW TA 36	Taxiway	1	7,097	22	Serious



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Table B3 – Current (2023) Pavement Condition Index Summary - Section

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
S19	AP 01	Apron	10	24,000	AC	5	Failed	61	39	0	2	4
S19	RW 18	Runway	10	243,000	AAC	33	Very Poor	100	0	0	9	43
S19	RW 18	Runway	20	27,000	AC	34	Very Poor	100	0	0	1	5
S19	TW A	Taxiway	10	7,746	AC	22	Serious	90	10	0	1	2
S19	TW TA 18	Taxiway	10	7,261	AC	19	Serious	80	10	10	1	2
S19	TW TA 36	Taxiway	10	7,097	AC	22	Serious	84	16	0	1	2



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Table B4 –Forecasted (2024-2028) Pavement Condition Index Summary - Section

Network ID	Branch ID	Section ID	Current PCI	Forecasted PCI				
				2024	2025	2026	2027	2028
S19	AP 01	10	5	3	0	0	0	0
S19	RW 18	10	33	31	29	27	24	22
S19	RW 18	20	34	32	30	28	25	23
S19	TW A	10	22	17	12	7	3	0
S19	TW TA 18	10	19	14	9	4	0	0
S19	TW TA 36	10	22	17	12	7	3	0



Appendix C – Maintenance and Rehabilitation Tables



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Table C1 – Localized Maintenance Summary by Policy Type

Localized Maintenance Category	Localized Work Type	Rough Estimate of Work Quantity	Work Units	Planning Material Cost
Localized Preventive Maintenance		N/A		\$ -
Localized Preventive Maintenance Total =				\$ -
Localized Stopgap Maintenance	AC Crack Sealing Narrow	46,544	LF	\$ 162,940
	Surface Seal	291,954	SF	\$ 481,770
	AC Full-Depth Patching	6,651	SF	\$ 118,090
Localized Stopgap Maintenance Total =				\$ 762,800
Planning-Level Localized M&R Needs =				\$ 762,800

Table C2 – Section – Level Year 1 Localized Maintenance Planning Cost Summary

Network ID	Branch ID	Section ID	Area (SF)	Start PCI	End PCI	Cost
S19	AP 01	10	24,000	5	49	\$ 168,260
S19	RW 18	10	243,000	33	66	\$ 483,860
S19	RW 18	20	27,000	34	66	\$ 50,450
S19	TW A	10	7,746	22	57	\$ 21,250
S19	TW TA 18	10	7,261	19	49	\$ 19,700
S19	TW TA 36	10	7,097	22	55	\$ 19,200

Table C3 – 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
S19	AP 01	10	ALLIGATOR CR	Medium	4,892	SF	20.4%	Stopgap	AC Full-Depth Patching	5,177	SF	\$ 17.75	\$ 91,910
S19	AP 01	10	ALLIGATOR CR	High	208	SF	0.9%	Stopgap	AC Full-Depth Patching	270	SF	\$ 17.75	\$ 4,800
S19	AP 01	10	BLOCKCR	Medium	15,572	SF	64.9%	Stopgap	AC Crack Sealing Narrow	4,746	LF	\$ 3.50	\$ 16,620
S19	AP 01	10	PATCHING	High	1,040	SF	4.3%	Stopgap	AC Full-Depth Patching	1,173	SF	\$ 17.75	\$ 20,840
S19	AP 01	10	RAVELING	Medium	20,672	SF	86.1%	Stopgap	Surface Seal	20,672	SF	\$ 1.65	\$ 34,110
S19	RW 18	10	L & T CR	Medium	31,127	LF	12.8%	Stopgap	AC Crack Sealing Narrow	31,128	LF	\$ 3.50	\$ 108,950
S19	RW 18	10	RAVELING	Medium	227,218	SF	93.5%	Stopgap	Surface Seal	227,218	SF	\$ 1.65	\$ 374,920
S19	RW 18	20	L & T CR	Medium	4,061	LF	15.0%	Stopgap	AC Crack Sealing Narrow	4,061	LF	\$ 3.50	\$ 14,220
S19	RW 18	20	RAVELING	Medium	21,960	SF	81.3%	Stopgap	Surface Seal	21,961	SF	\$ 1.65	\$ 36,240
S19	TW A	10	ALLIGATOR CR	Medium	12	SF	0.2%	Stopgap	AC Full-Depth Patching	30	SF	\$ 17.75	\$ 540
S19	TW A	10	BLOCKCR	Medium	7,434	SF	96.0%	Stopgap	AC Crack Sealing Narrow	2,266	LF	\$ 3.50	\$ 7,940



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S19 - McCormick County Airport

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
S19	TW A	10	RAVELING	Medium	7,746	SF	100.0%	Stopgap	Surface Seal	7,746	SF	\$ 1.65	\$ 12,790
S19	TW TA 18	10	BLOCKCR	Medium	7,229	SF	99.6%	Stopgap	AC Crack Sealing Narrow	2,203	LF	\$ 3.50	\$ 7,720
S19	TW TA 18	10	RAVELING	Medium	7,261	SF	100.0%	Stopgap	Surface Seal	7,261	SF	\$ 1.65	\$ 11,990
S19	TW TA 36	10	BLOCKCR	Medium	7,021	SF	98.9%	Stopgap	AC Crack Sealing Narrow	2,140	LF	\$ 3.50	\$ 7,490
S19	TW TA 36	10	RAVELING	Medium	7,097	SF	100.0%	Stopgap	Surface Seal	7,097	SF	\$ 1.65	\$ 11,720

Table C4 – 5-Year Major Rehabilitation Needs

Program Year	Network ID	Branch ID	Section ID	Surface	Area (SF)	PCI Before	Rehabilitation Type	Planning Cost Estimate
2024	S19	AP 01	10	AC	24,000	3	AC Reconstruction	\$ 690,000
2024	S19	RW 18	10	AAC	243,000	31	AC Reconstruction	\$ 6,987,000
2024	S19	RW 18	20	AC	27,000	32	AC Reconstruction	\$ 777,000
2024	S19	TW A	10	AC	7,746	17	AC Reconstruction	\$ 223,000
2024	S19	TW TA 18	10	AC	7,261	14	AC Reconstruction	\$ 209,000
2024	S19	TW TA 36	10	AC	7,097	17	AC Reconstruction	\$ 205,000
Total 5-Year Major Rehabilitation Needs =								\$ 9,091,000



Appendix D – PCI Results Summary

S19 - McCormick County Airport

RW 18

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
RW 18	RUNWAY	2	270,000	33	Very Poor

Section ID	Area (SF)	Surface	Est. Last Major Work Year	Est. Last Global Treatment Year	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other
10	243,000	AAC	1982	-	33	Very Poor	100	0	0
20	27,000	AC	1982	-	34	Very Poor	100	0	0



RW 18-10



RW 18-20

TWA

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TWA	TAXIWAY	1	7,746	22	Serious

Section ID	Area (SF)	Surface	Est. Last Major Work Year	Est. Last Global Treatment Year	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other
10	7,746	AC	1979	-	22	Serious	90	10	0



TWA A-10



TWA A-10

S19 - McCormick County Airport

TW TA 18

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TW TA 18	TAXIWAY	1	7,261	19	Serious

Section ID	Area (SF)	Surface	Est. Last Major Work Year	Est. Last Global Treatment Year	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other
10	7,261	AC	1979	-	19	Serious	80	10	10



TW TA-18

TW TA 36

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
TW TA 36	TAXIWAY	1	7,097	22	Serious

Section ID	Area (SF)	Surface	Est. Last Major Work Year	Est. Last Global Treatment Year	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other
10	7,097	AC	1982	-	22	Serious	84	16	0



TW TA-36

S19 - McCormick County Airport

AP 01

Branch ID	Branch Use	Number of Sections	Branch Area (SF)	Branch Area-Weighted Avg PCI	Branch Condition Rating
AP 01	APRON	1	24,000	5	Failed

Section ID	Area (SF)	Surface	Est. Last Major Work Year	Est. Last Global Treatment Year	PCI	Condition Rating	PCI % Climate	PCI % Load	PCI % Other
10	24,000	AC	1979	-	5	Failed	61	39	0



AP 01-10



AP 01-10



Appendix E – Re-Inspection Report

Re-Inspection Report

SCAC_2023

Generated Date

5/31/2023

Page 1 of 7

Network: S19 **Name:** McCormick County Airport

Branch: AP 01 **Name:** APRON 01 **Use:** APRON **Area:** 24,000 SqFt

Section: 10 of 1 **From:** - **To:** - **Last Const.:** 6/1/1979

Surface: AC **Family:** SC34_AP_AC **Zone:** **Category:** G **Rank:** T

Area: 24,000 SqFt **Length:** 200 Ft **Width:** 120 Ft

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

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

Section Comments:

Work Date: 6/1/1979 **Work Type:** Surface Course - AC (Layer Construct) **Code:** SU-AC **Is Major M&R:** False

Work Date: 6/1/1979 **Work Type:** Subbase - Aggregate **Code:** SB-AG **Is Major M&R:** False

Work Date: 6/1/1979 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 1/1/2013 **Work Type:** Patching - AC **Code:** PA-AC **Is Major M&R:** False

Work Date: 1/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 1/11/2023 **TotalSamples:** 4 **Surveyed:** 2

Conditions: PCI: 5

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6000.00 SqFt **PCI:** 3

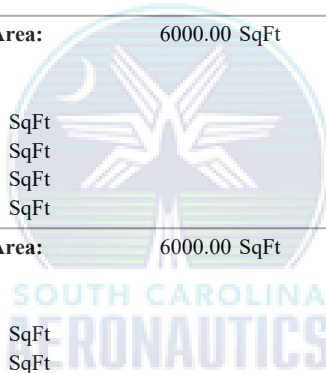
Sample Comments:

41	ALLIGATOR CR	M	1459.00	SqFt
41	ALLIGATOR CR	H	64.00	SqFt
43	BLOCK CR	M	4477.00	SqFt
52	RAVELING	M	6000.00	SqFt

Sample Number: 03 **Type:** R **Area:** 6000.00 SqFt **PCI:** 7

Sample Comments:

41	ALLIGATOR CR	M	987.00	SqFt
41	ALLIGATOR CR	H	40.00	SqFt
43	BLOCK CR	M	3309.00	SqFt
50	PATCHING	M	1144.00	SqFt
50	PATCHING	H	520.00	SqFt
52	RAVELING	M	4336.00	SqFt



Network:	S19	Name:	McCormick County Airport						
Branch:	RW 18	Name:	RUNWAY 18-36	Use:	RUNWAY	Area:	270,000 SqFt		
Section:	10	of	2	From:	-	To:	-	Last Const.:	3/1/1982
Surface:	AAC	Family:	SC34_RW_AC	Zone:		Category:	G	Rank:	T
Area:	243,000 SqFt	Length:	3,240 Ft	Width:	75 Ft				
Slabs:		Slab Length:	Ft	Slab Width:	Ft	Joint Length:	Ft		
Shoulder:		Street Type:		Grade:	0	Lanes:	0		
Section Comments:									
Work Date:	6/1/1979	Work Type:	Subbase - Aggregate	Code:	SB-AG	Is Major M&R:	False		
Work Date:	6/1/1979	Work Type:	Surface Course - AC (Layer Construct)	Code:	SU-AC	Is Major M&R:	False		
Work Date:	6/1/1979	Work Type:	New Construction - AC	Code:	NC-AC	Is Major M&R:	True		
Work Date:	3/1/1982	Work Type:	Overlay - AC Structural	Code:	OL-AS	Is Major M&R:	True		
Work Date:	1/1/2015	Work Type:	Crack Sealing - AC	Code:	CS-AC	Is Major M&R:	False		
Last Insp. Date:	1/11/2023	TotalSamples:	43	Surveyed:	9				
Conditions:	PCI: 33								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	5625.00 SqFt	PCI:	30		
Sample Comments:									
48	L & T CR	M	926.00 Ft						
52	RAVELING	M	5625.00 SqFt						
Sample Number:	03	Type:	R	Area:	5625.00 SqFt	PCI:	31		
Sample Comments:									
48	L & T CR	L	31.00 Ft						
48	L & T CR	M	775.00 Ft						
52	RAVELING	M	5625.00 SqFt						
Sample Number:	10	Type:	R	Area:	5625.00 SqFt	PCI:	30		
Sample Comments:									
48	L & T CR	M	881.00 Ft						
52	RAVELING	M	5625.00 SqFt						
Sample Number:	13	Type:	R	Area:	5625.00 SqFt	PCI:	31		
Sample Comments:									
48	L & T CR	M	839.00 Ft						
52	RAVELING	M	5625.00 SqFt						
Sample Number:	17	Type:	R	Area:	5625.00 SqFt	PCI:	38		
Sample Comments:									
48	L & T CR	L	874.00 Ft						
52	RAVELING	M	5625.00 SqFt						
Sample Number:	24	Type:	R	Area:	5625.00 SqFt	PCI:	32		
Sample Comments:									
48	L & T CR	M	789.00 Ft						
52	RAVELING	M	5624.00 SqFt						
Sample Number:	31	Type:	R	Area:	5625.00 SqFt	PCI:	33		
Sample Comments:									
48	L & T CR	M	907.00 Ft						
52	RAVELING	M	4575.00 SqFt						
Sample Number:	38	Type:	R	Area:	5625.00 SqFt	PCI:	36		
Sample Comments:									
48	L & T CR	L	375.00 Ft						
48	L & T CR	M	449.00 Ft						
52	RAVELING	M	4575.00 SqFt						

Sample Number: 43

Type: R

Area: 6750.00 SqFt

PCI: 34

Sample Comments:

48	L & T CR	M	1063.00 Ft
52	RAVELING	M	5490.00 SqFt



Network: S19 **Name:** McCormick County Airport

Branch: RW 18 **Name:** RUNWAY 18-36 **Use:** RUNWAY **Area:** 270,000 SqFt

Section: 20 of 2 **From:** - **To:** - **Last Const.:** 6/1/1982

Surface: AC **Family:** SC34_RW_AC **Zone:** **Category:** G **Rank:** T

Area: 27,000 SqFt **Length:** 360 Ft **Width:** 75 Ft

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

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

Section Comments:

Work Date: 3/1/1982 **Work Type:** Surface Course - AC (Layer Construct) **Code:** SU-AC **Is Major M&R:** False

Work Date: 3/1/1982 **Work Type:** Subbase - Aggregate **Code:** SB-AG **Is Major M&R:** False

Work Date: 6/1/1982 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 1/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 1/11/2023 **TotalSamples:** 5 **Surveyed:** 1

Conditions: PCI: 34

Inspection Comments:

Sample Number: 03 **Type:** R **Area:** 5625.00 SqFt **PCI:** 34

Sample Comments:

48 L & T CR M 846.00 Ft
52 RAVELING M 4575.00 SqFt



Network: S19 **Name:** McCormick County Airport

Branch: TW A **Name:** TAXIWAY A **Use:** TAXIWAY **Area:** 7,746 SqFt

Section: 10 of 1 **From:** - **To:** - **Last Const.:** 6/1/1979

Surface: AC **Family:** SC34_TWTL_AC **Zone:** **Category:** G **Rank:** T

Area: 7,746 SqFt **Length:** 140 Ft **Width:** 55 Ft

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

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

Section Comments:

Work Date: 6/1/1979 **Work Type:** Subbase - Aggregate **Code:** SB-AG **Is Major M&R:** False

Work Date: 6/1/1979 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 6/1/1979 **Work Type:** Surface Course - AC (Layer Construct) **Code:** SU-AC **Is Major M&R:** False

Work Date: 1/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 1/11/2023 **TotalSamples:** 2 **Surveyed:** 1

Conditions: PCI: 22

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3873.00 SqFt **PCI:** 22

Sample Comments:

41 ALLIGATOR CR M 6.00 SqFt
43 BLOCK CR L 150.00 SqFt
43 BLOCK CR M 3717.00 SqFt
52 RAVELING M 3873.00 SqFt



Network: S19 **Name:** McCormick County Airport

Branch: TW TA 18 **Name:** TURNAROUND TAXIWAY 18 **Use:** TAXIWAY **Area:** 7,261 SqFt

Section: 10 of 1 **From:** - **To:** - **Last Const.:** 6/1/1979

Surface: AC **Family:** SC34_TWTL_AC **Zone:** **Category:** G **Rank:** T

Area: 7,261 SqFt **Length:** 82 Ft **Width:** 88 Ft

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

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

Section Comments:

Work Date: 6/1/1979 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 6/1/1979 **Work Type:** Surface Course - AC (Layer Construct) **Code:** SU-AC **Is Major M&R:** False

Work Date: 6/1/1979 **Work Type:** Subbase - Aggregate **Code:** SB-AG **Is Major M&R:** False

Work Date: 1/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 1/11/2023 **TotalSamples:** 2 **Surveyed:** 1

Conditions: PCI: 19

Inspection Comments:

Sample Number: 02 **Type:** R **Area:** 3364.00 SqFt **PCI:** 19

Sample Comments:

41 ALLIGATOR CR L 15.00 SqFt
43 BLOCK CR M 3349.00 SqFt
45 DEPRESSION M 25.00 SqFt
52 RAVELING M 3364.00 SqFt



Network: S19 **Name:** McCormick County Airport

Branch: TW TA 36 **Name:** TURNAROUND TAXIWAY 36 **Use:** TAXIWAY **Area:** 7,097 SqFt

Section: 10 of 1 **From:** - **To:** - **Last Const.:** 6/1/1982

Surface: AC **Family:** SC34_TWTL_AC **Zone:** **Category:** G **Rank:** T

Area: 7,097 SqFt **Length:** 80 Ft **Width:** 89 Ft

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

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

Section Comments:

Work Date: 3/1/1982 **Work Type:** Subbase - Aggregate **Code:** SB-AG **Is Major M&R:** False

Work Date: 3/1/1982 **Work Type:** Surface Course - AC (Layer Construct) **Code:** SU-AC **Is Major M&R:** False

Work Date: 6/1/1982 **Work Type:** New Construction - Initial **Code:** NU-IN **Is Major M&R:** True

Work Date: 1/1/2015 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 1/11/2023 **TotalSamples:** 2 **Surveyed:** 1

Conditions: PCI: 22

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3813.00 SqFt **PCI:** 22

Sample Comments:

41 ALLIGATOR CR L 41.00 SqFt
43 BLOCK CR M 3772.00 SqFt
52 RAVELING M 3813.00 SqFt





Kimley»»Horn