

2022 ODA Pavement Evaluation Program Enterprise Municipal Airport

Enterprise, Oregon

May 8, 2023

Prepared for

State of Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97303-1125

Prepared by



16520 SW Upper Boones Ferry Road, Suite 100
Tigard, OR 97224-7661
(503) 641-3478 | www.gri.com

TABLE OF CONTENTS

1	OVERVIEW.....	1
2	PAVEMENT INVENTORY	1
3	PAVEMENT CONDITION INSPECTION RESULTS.....	4
	3.1 Introduction.....	4
	3.2 Pavement Condition Index Survey Results	4
4	FUTURE PAVEMENT CONDITION ANALYSIS.....	5
	4.1 Introduction.....	5
	4.2 Future Condition Analysis	5
	4.3 Functional Remaining Life.....	6
5	MAINTENANCE AND REHABILITATION PROJECT RECOMMENDATIONS	7
	5.1 Introduction.....	7
	5.2 Recommended Localized Maintenance.....	7
	5.3 Global Maintenance and Rehabilitation Plan	8
6	LIMITATIONS.....	9

TABLES

Table 3-1:	ASTM PCI Rating Scale
Table 5-1:	Localized Maintenance Quantities
Table 5-2:	Global Maintenance and Rehabilitation Quantities

FIGURES

Figure 2.1:	Enterprise Municipal Airport Location Map
Figure 2.2:	Enterprise Municipal Airport Pavement Area by Surface Type
Figure 2.3:	Enterprise Municipal Airport Pavement Area by Branch Use
Figure 2.4:	Enterprise Municipal Airport Pavement Inventory
Figure 3.1:	2022 PCI Survey Results Enterprise Municipal Airport
Figure 3.2:	Enterprise Municipal Airport Pavement Condition Rating by Percent of Area
Figure 4.1:	Future Pavement Condition Enterprise Municipal Airport
Figure 5.1:	Enterprise Municipal Airport Pavement Network General Treatment Type Distribution Based on PCI
Figure 5.2:	5-Year Pavement Management Plan Enterprise Municipal Airport

APPENDICES

Appendix A:	Pavement Inventory Report and Maps
Appendix B:	Pavement Condition Index Survey Results
Appendix C:	Future Pavement Condition Analysis
Appendix D:	Unit Cost Data and Maintenance and Rehabilitation Plan
Appendix E:	Reinspection Report

APPENDICES (continued)

Appendix F: Work History Report

1 OVERVIEW

GRI assisted with updating the Oregon Department of Aviation (ODA) airport pavement management system and developing a five-year plan for global maintenance and rehabilitation (M&R) and preservation work for the Enterprise Municipal Airport in Enterprise, Oregon. This project was implemented as a part of the ODA and Federal Aviation Administration (FAA) *Oregon Continuous Aviation System Plan*. The information provided in this report ensures compliance with FAA Grant Assurance Number 11, which outlines that an airport shall have an effective airport pavement maintenance-management program in place to receive federal financial assistance for the construction, reconstruction, or repair of airport pavements.

GRI conducted surveys of the airside pavement at Enterprise Municipal Airport in 2022 in accordance with the procedures of Advisory Circular 150/5380-7B and ASTM International (ASTM) D5340. We uploaded the survey data into the PAVER database and used the software to provide a rapid calculation of the pavement condition index (PCI) rating. The PCI is a numerical indicator that defines the functional condition of the pavement based on visual inspection. The scale ranges from zero to 100, where zero represents a pavement in the worst possible condition with no remaining functional life and 100 represents a pavement in the best possible condition with no defects.

2 PAVEMENT INVENTORY

Enterprise Municipal Airport is located in Enterprise, Oregon, and is owned and operated by the City of Enterprise. The airport consists of one runway that serves a variety of general aviation aircraft. The general location of the airport is shown below on the Enterprise Municipal Airport Location Map, Figure 2.1.



Figure 2.1 - ENTERPRISE MUNICIPAL AIRPORT LOCATION MAP

Enterprise Municipal Airport contains one runway, one primary parallel taxiway, and multiple connector taxiways, taxilanes, and aprons. The types of airside pavements include asphalt concrete (AC), AC overlaid with AC (AAC), portland cement concrete (PCC), and surface-treated (ST) pavements. The airport pavements, delineated by surface type and branch use, are shown on the Enterprise Airport Percent of Pavement Area by Surface Type, Figure 2.2, and on the Enterprise Pavement Area by Branch Use, Figure 2.3. The pavement inventory, including work history for each pavement section, is displayed spatially on the Enterprise Municipal Airport Pavement Inventory, Figure 2.4. The pavement facilities summarized by branch and section are listed in Tables 1A and 2A, respectively, in Appendix A. The sample unit layout for each section is shown on Figure 1A in Appendix A. We used the sampling rates outlined in Table 3A of Appendix A in our survey. The pavement inventory, including work history for individual airport pavement sections, is provided in the work history report in Table 1F.

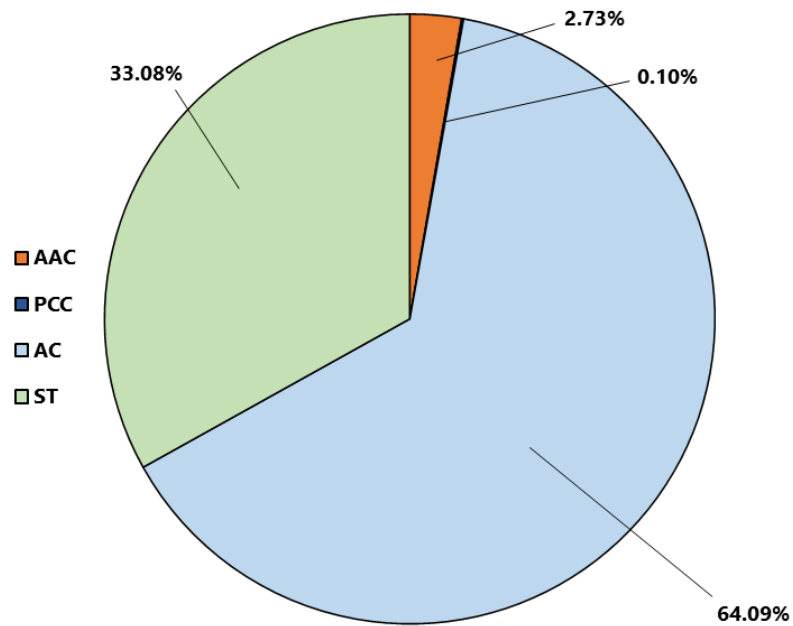


Figure 2.2 - ENTERPRISE MUNICIPAL AIRPORT PERCENT OF PAVEMENT AREA BY SURFACE TYPE

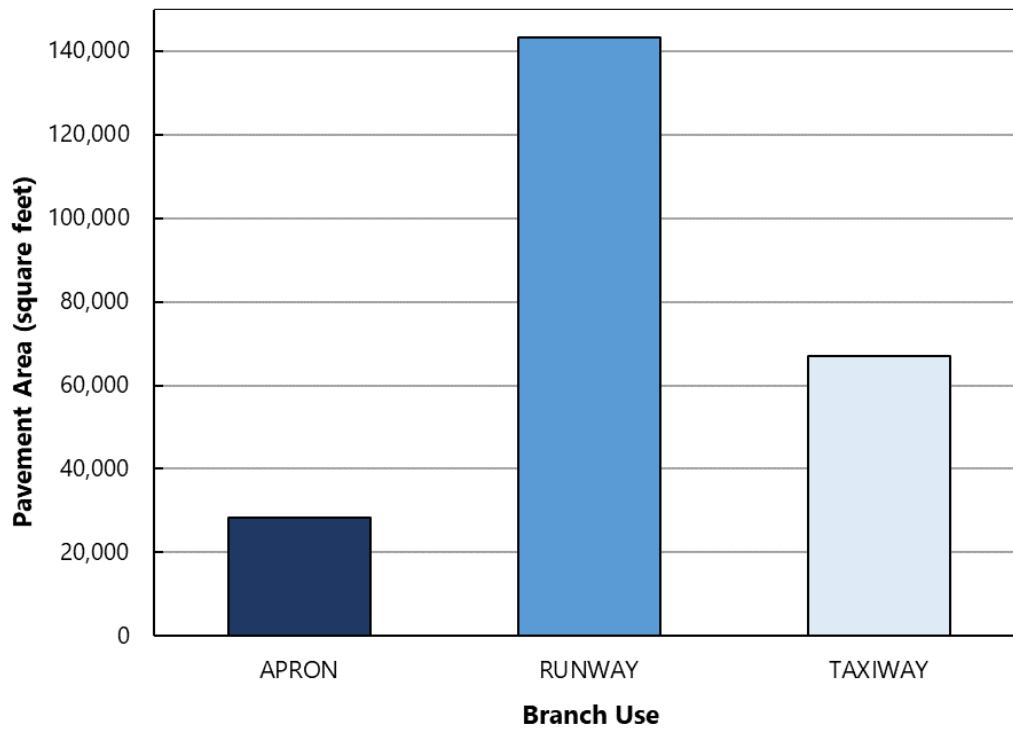
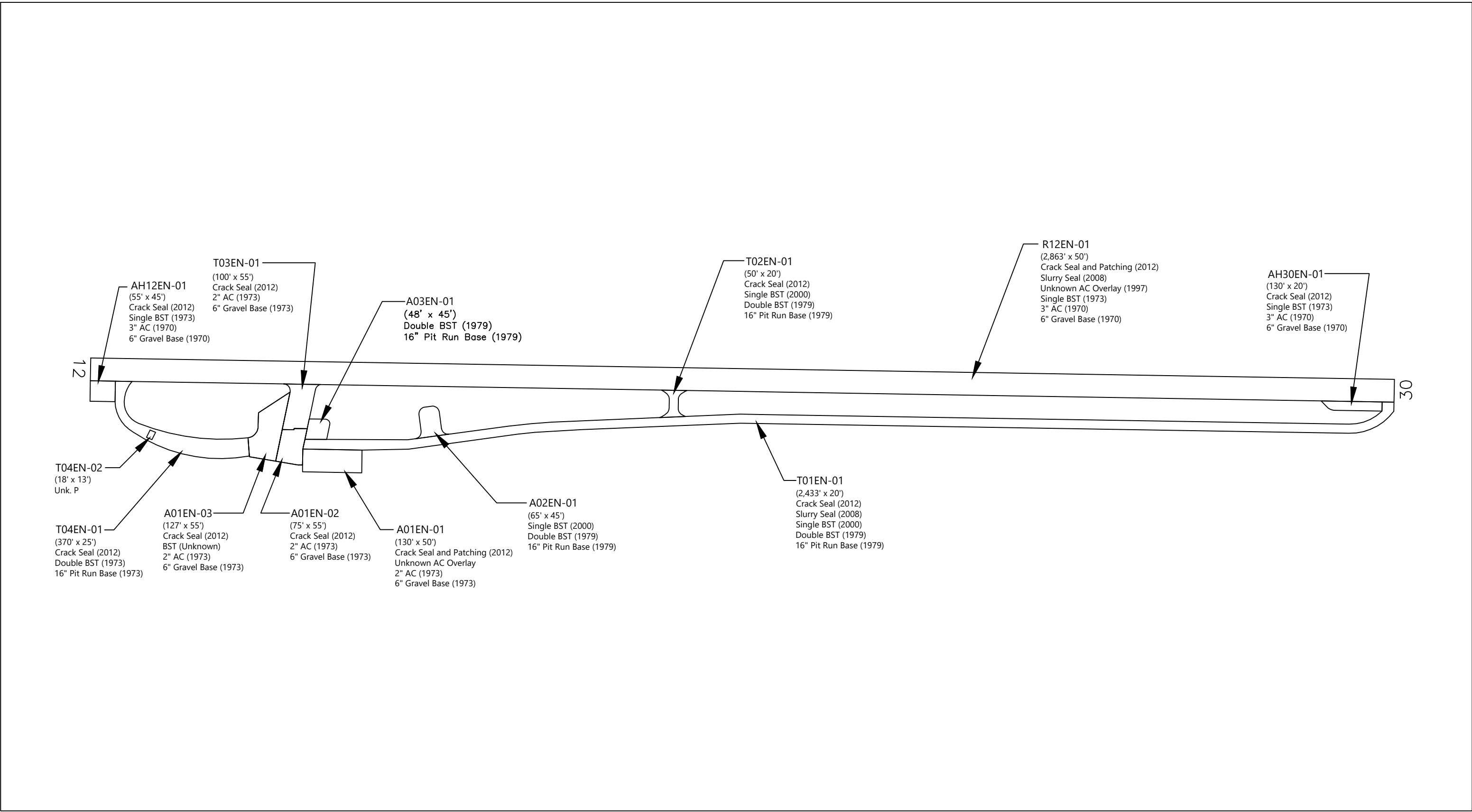
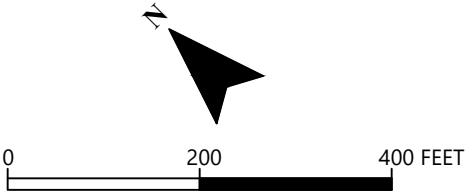


Figure 2.3 - ENTERPRISE MUNICIPAL AIRPORT PAVEMENT AREA BY BRANCH USE



ABBREVIATIONS: AC = ASPHALT CONCRETE; PCC = PORTLAND CEMENT CONCRETE; BST = BITUMINOUS SURFACE TREATMENT; Unk. = UNKNOWN



3 PAVEMENT CONDITION INSPECTION RESULTS

3.1 Introduction

GRI conducted a visual PCI survey of the airside pavements at Enterprise Municipal Airport in July 2022. The 2022 survey work was performed on sections last inspected in 2017 in order to update the Enterprise Municipal Airport inspection data. GRI performed the 2022 PCI survey in accordance with the methods described in FAA Advisory Circular 150/5380-6C and ASTM D5340 and further discussed in Appendix B of this report.

The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. Further discussion of distress types for flexible and rigid pavement is provided in Appendix B and summarized in Table 1B in Appendix B. The results of the PCI survey are displayed using a seven-category rating scale in accordance with ASTM D5340. Details of the ASTM PCI rating scale are provided in Table 3-1 below.

Table 3-1: ASTM PCI RATING SCALE

PCI Color Legend	PCI Range	PCI Rating and Definition
	86 – 100	GOOD: Pavement has minor or no distresses and should require only routine maintenance.
	71 – 85	SATISFACTORY: Pavement has scattered low-severity distresses that should require only routine maintenance.
	56 – 70	FAIR: Pavement has a combination of generally low- and medium-severity distresses. Maintenance and repair needs may range from routine to major.
	41 – 55	POOR: Pavement has low-, medium-, and high-severity distresses that probably cause some operational problems. M&R needs will be major.
	26 – 40	VERY POOR: Pavement has predominantly medium- and high-severity distresses that cause considerable maintenance and operational problems. M&R needs will be major.
	11 – 25	SERIOUS: Pavement has mainly high-severity distresses that may affect operational safety; immediate repairs are needed.
	0 – 10	FAILED: Pavement deterioration has progressed to the point that safe aircraft operations are no longer possible; complete reconstruction is required.

3.2 Pavement Condition Index Survey Results

The area-weighted average PCI for all airport pavements at Enterprise Municipal Airport is approximately 46. The section PCIs ranged from a low of 0 to a high of 57. The primary distresses observed during the inspection were weathering, longitudinal and transverse cracking, fatigue (alligator) cracking, raveling and bleeding on AC-surfaced pavements, and spalling on PCC pavements. Section PCIs following our pavement survey are displayed below spatially on the 2022 PCI Survey Results Enterprise Municipal Airport, Figure 3.1.

The condition distribution of the network by percent of total pavement area is provided on the Enterprise Municipal Airport Pavement Condition Rating by Percent of Area, Figure 3.2. A summary of the pavement condition results by branch and section is included in Tables 2B and 3B of Appendix B, respectively. A comparison between the previous inspection and the 2022 inspection is provided in Table 4B in Appendix B. The re-inspection report that includes inspection details for individual sample units is provided in Table 1E in Appendix E.

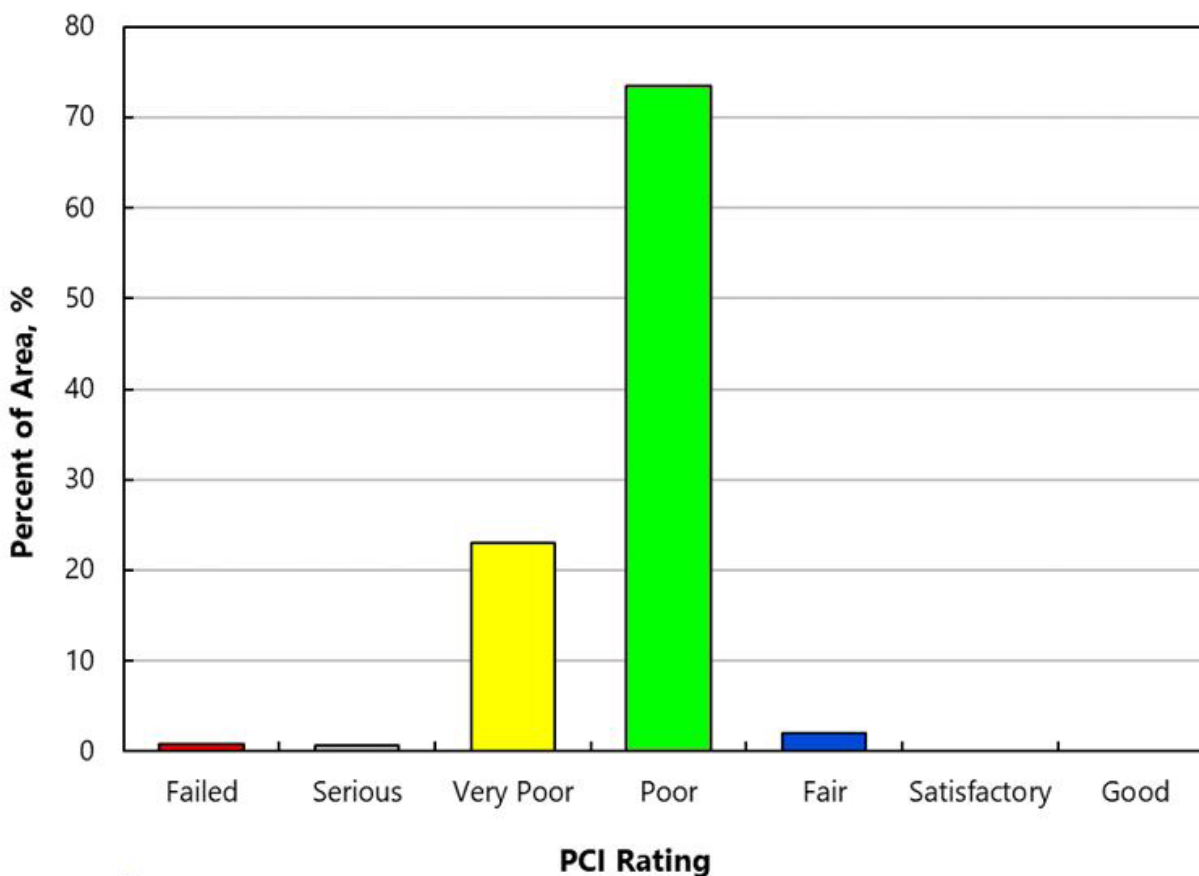


Figure 3.2 - ENTERPRISE MUNICIPAL AIRPORT PAVEMENT CONDITION RATING BY PERCENT OF AREA

4 FUTURE PAVEMENT CONDITION ANALYSIS

4.1 Introduction

In addition to assessing the current condition of a pavement, it is very important from a planning standpoint to be able to predict with reasonable accuracy the future condition. Additional details regarding our future pavement condition analysis, including pavement condition prediction models, are provided in Appendix C. PCI performance curves developed for Enterprise Municipal Airport are displayed on Figures 1C through 4C in Appendix C.

4.2 Future Condition Analysis

Using the condition prediction models discussed above, the projected condition of each pavement section was determined for 5- and 10-year periods. Based on this analysis, we project the PCI to decrease from a current value of 46 to a value of 32 in the year 2027 and 19 in year the 2032 if no maintenance or rehabilitation work is performed. The projected pavement condition in five years and ten years for each pavement section at Enterprise Municipal Airport is displayed spatially on the Future Pavement Condition Enterprise Municipal Airport, Figure 4.1 and listed in Table 1C in Appendix C, along with the past and present PCI values for the pavement network.

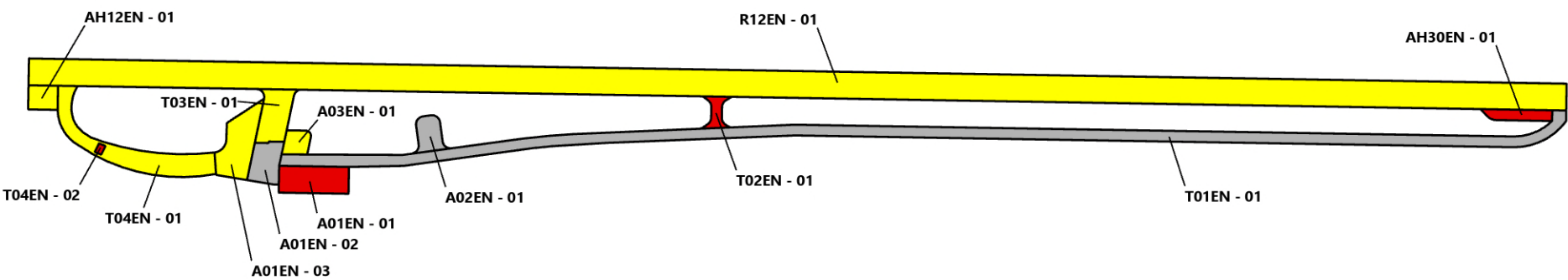
4.3 Functional Remaining Life

The functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated solely based on visual condition. This is not to be confused with structural remaining life, which requires analysis of the structural capacity of a pavement and typically a field exploration and testing program that includes core explorations and falling weight deflectometer (FWD) deflection tests.

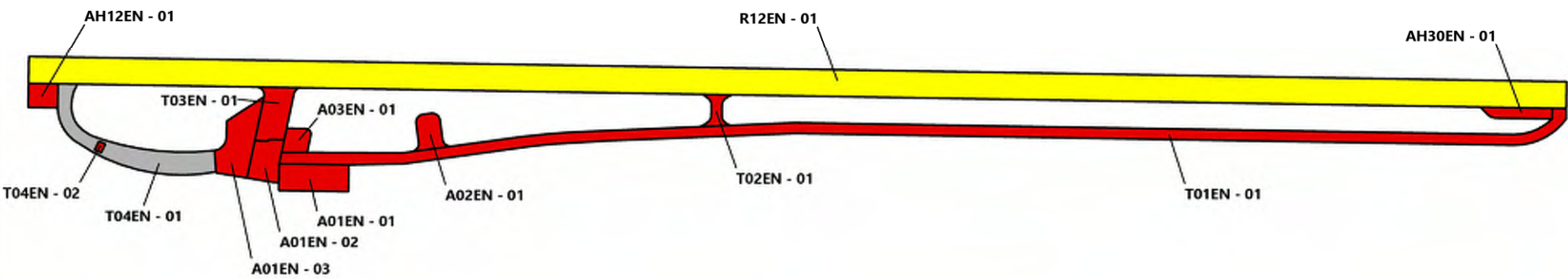
We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Enterprise Municipal Airport. The first type of functional remaining life is the time until rehabilitation, such as an overlay, is needed. The critical PCI, further discussed in Section C.3 of Appendix C, is the threshold used for this type of functional remaining life analysis. The second type of functional remaining life is the time until the pavement is no longer operational due to high foreign object debris (FOD) potential and increased safety concerns for trafficking aircraft. A PCI of 40 was set as the trigger point for the end of the pavement's functional service life with regard to FOD potential.

The two types of functional remaining life for each section at Enterprise Municipal Airport are summarized in Table 2C in Appendix C.

PREDICTED CONDITION IN 2027

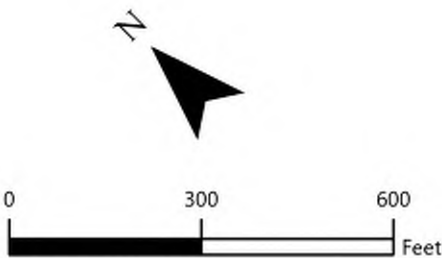


PREDICTED CONDITION IN 2032



SECTION PCI

- (86 - 100) GOOD
- (71 - 85) SATISFACTORY
- (56 - 70) FAIR
- (41 - 55) POOR
- (26 - 40) VERY POOR
- (11 - 25) SERIOUS
- (0 - 10) FAILED



OREGON DEPARTMENT OF AVIATION
STATEWIDE PAVEMENT EVALUATION PROGRAM

FUTURE PAVEMENT CONDITION
ENTERPRISE MUNICIPAL AIRPORT

5 MAINTENANCE AND REHABILITATION PROJECT RECOMMENDATIONS

5.1 Introduction

We evaluated M&R needs, as determined from the PAVER analysis results, in order to develop localized maintenance, global maintenance, and rehabilitation needs. Details of our M&R work priority and unit costs for work activities are provided in Tables 1D and 2D, respectively, in Appendix D.

Based on the 2022 PCI survey results shown on the Enterprise Municipal Airport Pavement Network General Treatment Type Distribution Based on PCI, Figure 5.1 displays a breakdown of the Enterprise Municipal Airport network pavement condition by percent of area and general M&R treatment categories. Approximately 76% and 24% of the area require rehabilitation and reconstruction.

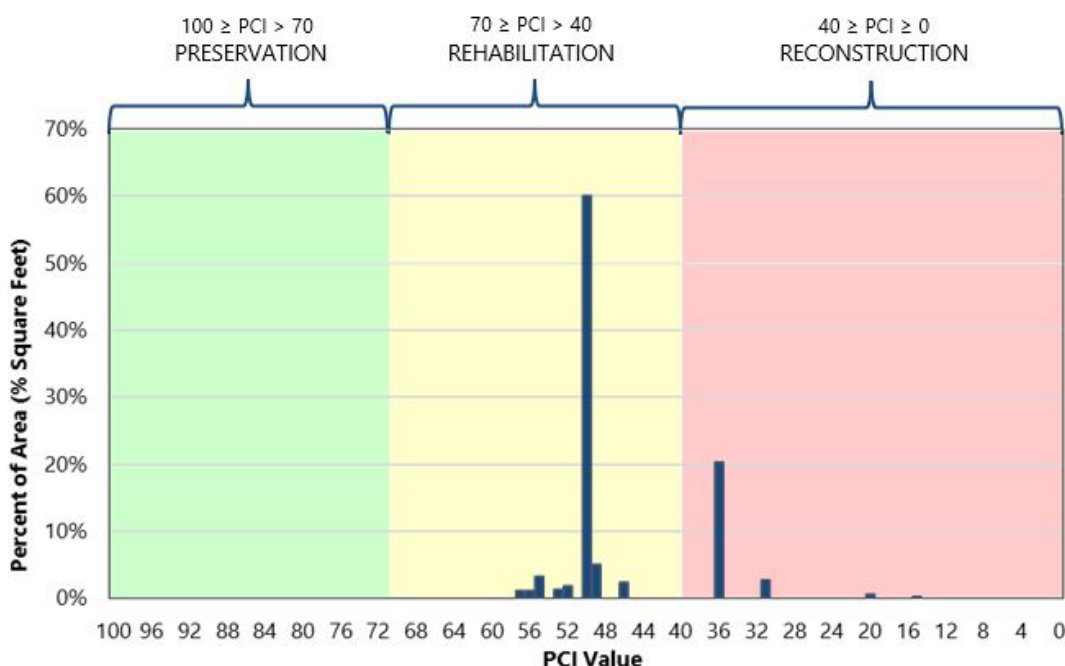


Figure 5.1 - ENTERPRISE MUNICIPAL AIRPORT PAVEMENT NETWORK GENERAL TREATMENT TYPE DISTRIBUTION BASED ON PCI

5.2 Recommended Localized Maintenance

Localized maintenance refers to activities such as crack sealing and patching, which should be performed annually in order to properly maintain aging pavements. Using the PAVER Localized Distress Maintenance Analysis tool, we developed a list of recommended localized maintenance. This list is shown in Table 3D in Appendix D and is independent of the global maintenance and rehabilitation projects associated with the five-year global

maintenance and rehabilitation work plan. A summary of total localized maintenance quantities is provided in Table 5-1 below.

Table 5-1: LOCALIZED MAINTENANCE QUANTITIES

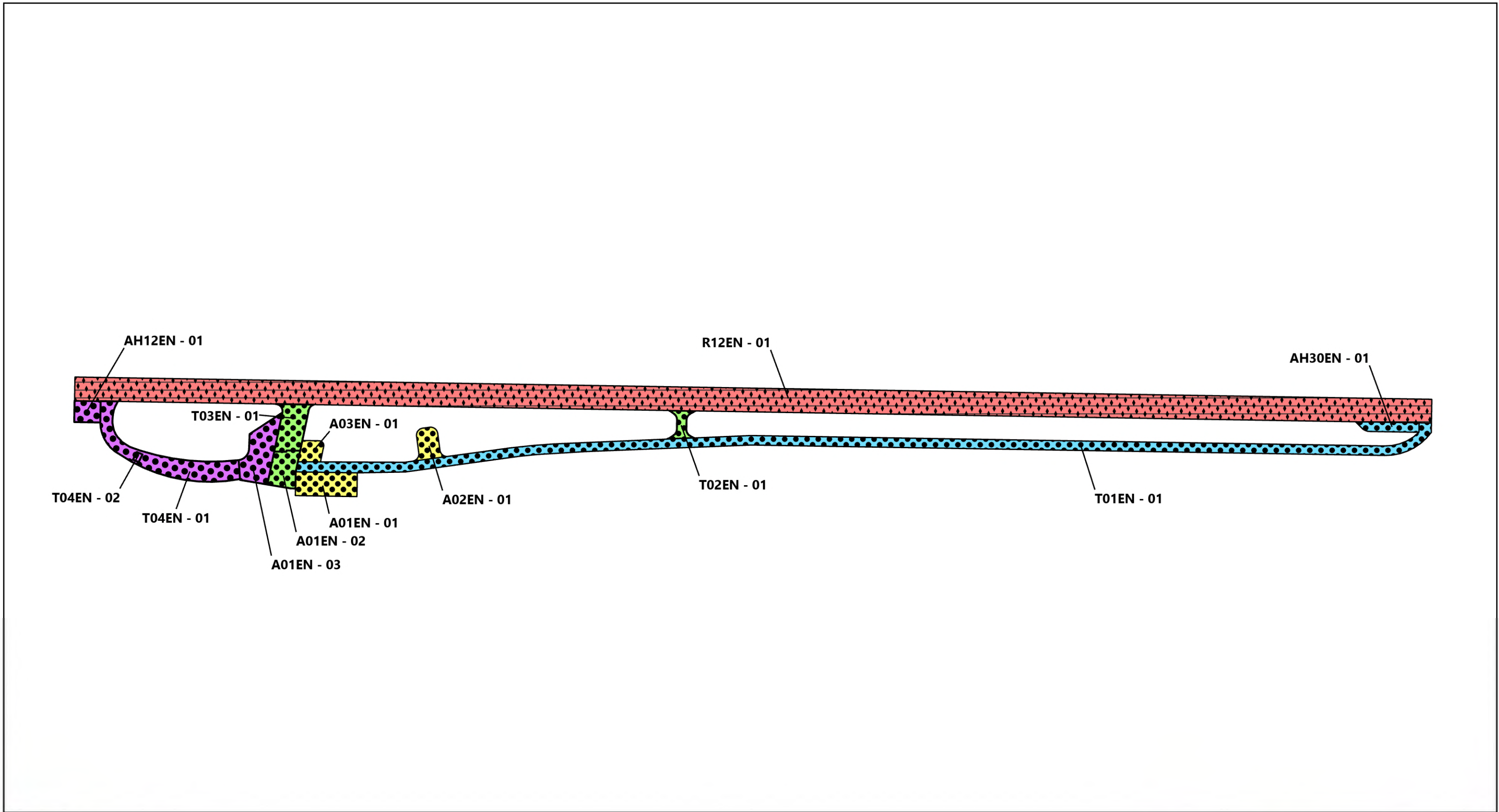
Localized Maintenance Operation	Quantity
Asphalt Concrete Crack Sealing	23,966 linear feet
Portland Cement Concrete Crack Sealing	31 linear feet
Asphalt Concrete Full-Depth Patching	3,491 linear feet

5.3 Global Maintenance and Rehabilitation Plan

To develop the five-year work plan, we first ran the eliminate backlog scenario with the PAVER M&R Work Planning Module in order to generate a list, organized by year, of global M&R projects. We then reviewed the project list and refined it into practical construction projects for each year. A summary of global M&R quantities is provided in Table 5-2 below, and maps of the project locations by year are shown on the 5-Year Pavement Management Plan Enterprise Municipal Airport Figure 5.2. The complete list of recommended global M&R projects is presented in Table 4D in Appendix D.

Table 5-2: GLOBAL MAINTENANCE AND REHABILITATION QUANTITIES

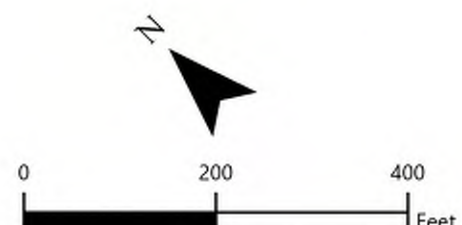
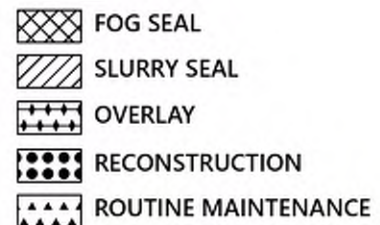
Global Maintenance or Rehabilitation Operation	Quantity, square feet
Reconstruction	82,808
Overlay	155,597
Fog Seal	7,507



ACTION TIMING



ACTION

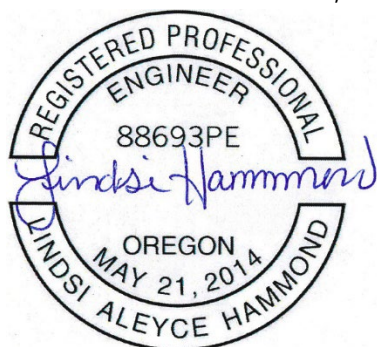


6 LIMITATIONS

This report has been prepared to assist the Oregon Department of Aviation (ODA) with pavement-related project planning for the Enterprise Municipal Airport. The scope is limited to the specific pavement areas described herein. The conclusions and recommendations provided in this report are based on information provided by ODA, estimated costs, and an understanding of the pavement conditions based solely on visual assessment. The global maintenance and rehabilitation recommendations and project selections provided in this report, as well as their corresponding cost estimates, are based on a practical grouping of projects and an estimate of the structural requirements. It is possible that recommendations based on a structural evaluation would differ materially from the recommendations given herein. Therefore, the information included in this report should be used solely for project planning purposes, and it should be understood that rehabilitation costs may vary from the cost estimates given within this report.

Because the condition of the airport pavement network is dynamic, an effective maintenance and rehabilitation program should be reviewed and updated on a regular basis. In addition to regularly surveying and updating the pavement condition, completed construction activities should be tracked in the PAVER database. If Enterprise Municipal Airport would like to know more about the results presented in this report, please contact the undersigned.

Submitted for GRI,



RENEWS: 06/2023
Lindsy A. Hammond, PE
Principal

Matthew A. Haynes, PE
Project Engineer

Ana-Maria Coca, PhD
Engineering Staff

This document has been submitted electronically.

APPENDIX A

Pavement Inventory Report and Maps

APPENDIX A

PAVEMENT INVENTORY REPORTS AND MAPS

A.1 PAVEMENT NETWORK

Enterprise Municipal Airport is located in Enterprise, Oregon, and is owned and operated by the City of Enterprise. The pavement network/facilities at Enterprise Municipal Airport serve a variety of general aviation aircraft. Enterprise Municipal Airport consists of one runway, one primary parallel taxiway, multiple connector taxiways, taxilanes, and several aprons. The types of airside pavements include asphalt concrete (AC), AC overlaid with AC (AAC), portland cement concrete (PCC), and surface-treated (ST) pavements.

The current airport pavement management system (APMS) network at Enterprise Municipal Airport has an approximate area of 238 thousand square feet of paved airside facilities. The pavement network has previously been divided (by others) into a hierarchical order of branches, sections, and sample units that facilitate inspection and maintenance planning. The pavement facilities summarized by branch and section are listed in Tables 1A and 2A, respectively. Pavement sections and the sample unit layout for each section are shown on Figure 1A in this appendix.

A.2 BRANCHES

A branch, as defined in the PAVER system, is a facility that is a readily identifiable part of a pavement system and has a distinct function. For airports, branches typically consist of individual runways, taxiways, and aprons. The current pavement network for Enterprise Municipal Airport contains 10 branches, tabulated in Table 1A and shown on Figure 1A.

A.3 SECTIONS AND SAMPLE UNITS

A pavement section is the smallest management unit used when considering the application and selection of maintenance and rehabilitation (M&R) repairs and treatments and is defined by Section 2.1.8 of ASTM International (ASTM) D5340 as *"a contiguous pavement area having uniform construction, maintenance, usage history, and condition."* All sections should also have the same traffic volume and load intensity. The current pavement network included in the PAVER database for Enterprise Municipal Airport contains 13 sections that are managed by the City of Enterprise, which are tabulated in Table 2A and shown spatially on Figure 1A.

PAVER assigns a rank, which designates that pavement's prioritization in receiving maintenance and repair. The highest use or priority pavements, such as runways, taxiways, and terminal aprons, are ranked *Primary*, while the surrounding aprons and shoulders are

ranked *Secondary* and low-use areas are ranked *Tertiary*. The ranks for all sections are shown on Table 2A.

To facilitate the visual survey of the airport pavement, each section is further subdivided into smaller areas called sample units. Similar sizing of these units is critical, and studies have found that maintaining the size of the sample units to within 40% of the established normal distribution reduces the standard error of the average pavement condition index (PCI) values. To meet this criterion, the ASTM method recommends sample units for flexible pavements be $5,000 \pm 2,000$ square feet and $20 \text{ slabs} \pm 8 \text{ slabs}$ for rigid pavements. The delineation of sample units for each section is displayed on Figure 1A.

A.4 SAMPLE UNIT DELINEATION

For an APMS survey, a PCI confidence level of 92% and an allowable error (e) of eight PCI points are used for all airport pavements. To determine the number of sample units that need to be inspected to achieve the required confidence level and allowable error, the following equation is used:

$$n = \frac{N \times s^2}{\left(\frac{e^2}{4}\right)(N-1) + s^2} \quad (\text{Equation 1})$$

where:

- n = number of sample units to be inspected
- N = total number of samples in the pavement sections
- e = allowable error
- s = section standard deviation

For the 2022 Enterprise Municipal Airport PCI survey, Table 3A was used as a guideline in developing sampling rates for flexible and rigid pavement that reflect similar rates used for other large airport pavement networks. In general, this sampling rate distribution provides a 92% confidence level with a standard error of eight PCI points.

Sample unit locations at Enterprise Municipal Airport were selected using a systematic random sampling model method. This technique is implemented by first determining the number of sample units needed based on the confidence interval calculated using Equation 1. The first sample unit is randomly placed in the section and then the remaining sample units are systematically spaced throughout the section at an equal distance apart.

Table 1A – ENTERPRISE AIRPORT PAVEMENT BRANCHES

Facility Designation (Branch ID)	Branch Name	Number of Sections	Approximate Area, square feet
A01EN	Apron 01 Enterprise	3	18,189
A02EN	Apron 02 Enterprise	1	2,970
A03EN	Apron 03 Enterprise	1	2,105
AH12EN	Hold Apron RW 12 End Enterprise	1	2,475
AH30EN	Hold Apron RW 30 End Enterprise	1	2,465
R12EN	Runway 12/30 Enterprise	1	143,150
T01EN	Taxiway 01 Enterprise	1	48,242
T02EN	Taxiway 02 Enterprise	1	1,193
T03EN	Taxiway 03 Enterprise	1	5,464
T04EN	Taxiway 04 Enterprise	2	12,152

Table 2A - ENTERPRISE AIRPORT CURRENT PAVEMENT INVENTORY

BranchID	Branch Name	Branch Use	SectionID	From	To	Rank	Length, feet	Width, feet	Approximate Area, square feet	LCD	Surface Type	Approximate Slab Length, feet	Approximate Slab Width, feet	Number of Slabs
A01EN	Apron 01 Enterprise	APRON	01	A01-02	End	P	130	50	6,500	32,752	AAC	0	0	0
A01EN	Apron 01 Enterprise	APRON	02	A01-01	A01-03	P	60	70	4,182	26,909	AC	0	0	0
A01EN	Apron 01 Enterprise	APRON	03	A01-02	T04-01	P	58	155	7,507	26,910	ST	0	0	0
A02EN	Apron 02 Enterprise	APRON	01	T01-01	EDGE	S	65	45	2,970	36,770	ST	0	0	0
A03EN	Apron 03 Enterprise	APRON	01	T01-01, T03-01	End	S	48	45	2,105	29,100	ST	0	0	0
AH12EN	Hold Apron RW 12 End Enterprise	APRON	01	R12 End	Edge	P	55	45	2,475	26,908	ST	0	0	0
AH30EN	Hold Apron RW 30 End Enterprise	APRON	01	R30 END	EDGE	P	130	20	2,465	26,908	ST	0	0	0
R12EN	Runway 12/30 Enterprise	RUNWAY	01	R30 End	R12 End	P	2,863	50	143,150	35,674	AC	0	0	0
T01EN	Taxiway 01 Enterprise	TAXIWAY	01	R30 End	T03-01	P	2,433	20	48,242	36,770	ST	0	0	0
T02EN	Taxiway 02 Enterprise	TAXIWAY	01	R12	T01	P	50	20	1,193	36,770	ST	0	0	0
T03EN	Taxiway 03 Enterprise	TAXIWAY	01	R12	A01	P	98	53	5,464	26,909	AC	0	0	0
T04EN	Taxiway 04 Enterprise	TAXIWAY	01	R12 End	A01-03	P	370	35	11,918	26,909	ST	0	0	0
T04EN	Taxiway 04 Enterprise	TAXIWAY	02	T04-01	-	P	18	13	234	367	PCC	18	13	1

Abbreviations:

P = Primary pavement, S = Secondary pavement

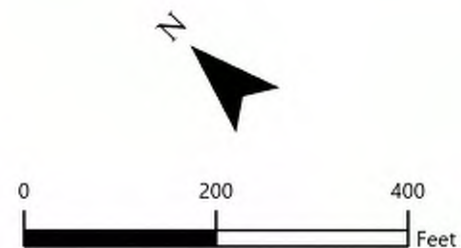
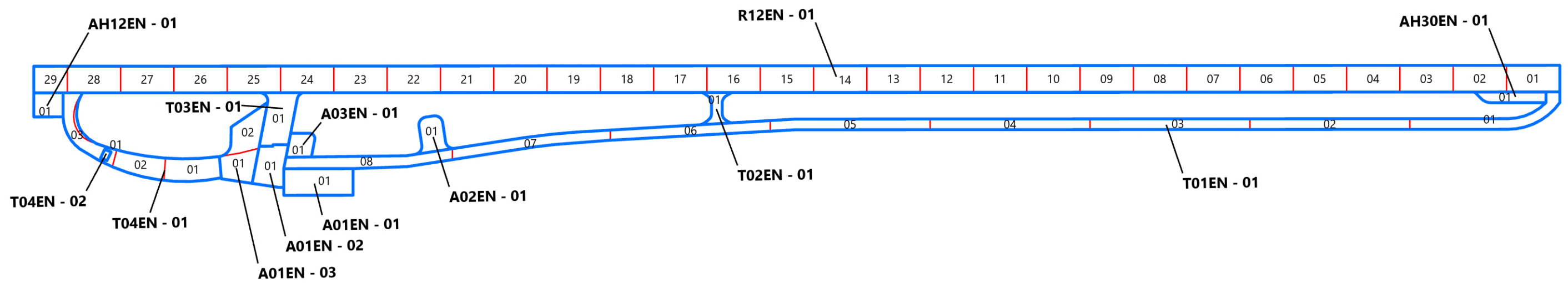
LCD = Last Construction Date. The date of the last major rehabilitation (e.g. overlay)

AC = Asphalt Concrete, AAC = AC overlaid AC, PCC = Portland Cement Concrete, ST = Surface Treatment

Table 3A: EXAMPLE SAMPLE RATES FOR AC AND PCC PAVEMENTS

AC Sampling Rate		PCC Sampling Rate	
Total Number of Sample Units, N	Sample Units to Survey, n	Total Number of Sample Units, N	Sample Units to Survey, n
1	1	1	1
2-3	2	2	2
4-6	3	3-4	3
7-13	4	5-6	4
14-38	5	7-8	5
39+	6	9-11	6
		12-14	7
		15-19	8
		20-27	9
		28-38	10
		39-58	11
		59-104	12
		105-313	13
		314+	14

Note: AC = Asphalt Concrete
PCC = portland cement concrete



**SAMPLE UNIT LAYOUT
ENTERPRISE MUNICIPAL AIRPORT**

APPENDIX B

Pavement Condition Index Survey Results

APPENDIX B

PAVEMENT CONDITION INDEX SURVEY RESULTS

B.1 METHODOLOGY

As previously discussed, the PCI is a measure of the pavement's functional surface condition and provides a methodology for assessing the causes of distress and whether the distress is related to a load or climatic conditions. Although the PCI is not a direct measure of structural capacity, it provides a suggestion of the structural needs of the pavement.

The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. The results are displayed using a seven-category rating scale in accordance with ASTM D5340. Flexible pavement (e.g., AC and AAC) and rigid pavement (e.g., PCC) distress types are presented in Table 1B. A summary of the pavement condition results by branch and section are included in Tables 2B and 3B of Appendix B, respectively.

Table 1B: PAVER DISTRESS CODES FOR FLEXIBLE AND RIGID PAVEMENT

Flexible Pavement			Rigid Pavement		
PAVER Code	Pavement Distress	Related Cause	PAVER Code	Pavement Distress	Related Cause
41	Alligator Cracking	Load	61	Blow-Up	Load
42	Bleeding	Other	62	Corner Break	Load
43	Block Cracking	Climate/ Durability	63	Longitudinal, Transverse, & Diagonal Cracks	Climate/ Durability
44	Corrugation	Other	64	Durability Cracking	Climate/ Durability
45	Depression	Other	65	Joint Seal Damage	Other
46	Jet Blast	Other	66	Small Patch	Other
47	Joint Reflection Cracking	Climate/ Durability	67	Large Patch	Other
48	Longitudinal & Transverse Cracking	Climate/ Durability	68	Pop Outs	Other
49	Oil Spillage	Other	69	Pumping	Other
50	Patching	Climate/ Durability	70	Scaling	Other
51	Polished Aggregate	Other	71	Faulting	Other
52	Raveling	Climate/ Durability	72	Shattered Slab	Load

Flexible Pavement		
PAVER Code	Pavement Distress	Related Cause
53	Rutting	Load
54	Shoving	Other
55	Slippage Cracking	Other
56	Swelling	Other
57	Weathering	Climate/ Durability

Rigid Pavement		
PAVER Code	Pavement Distress	Related Cause
73	Shrinkage Cracking	Other
74	Joint Spalls	Other
75	Corner Spalls	Other
76	Alkali-Silica Reactivity (ASR)	Other

To obtain the section PCI, we extrapolated the PCI of each selected sample unit over the entire section area. Distresses found in sample units classified as “additional”– defined as nonrepresentative instead of random- are not extrapolated over the entire section but merely added to the extrapolated quantity. The PCI rating scale presented previously in Table 3-1 of Section 3.1 and are based on ASTM D5340.

Section 4.1 of ASTM D5340 governing PCI surveys offers this caution:

“The PCI is a numerical indicator that rates the surface condition of the pavement. The PCI provides a measure of the **present condition** of the pavement based on the distress observed on the surface of the pavement, which also indicates the structural integrity and surface operational condition (localized roughness and safety). The PCI **cannot** measure the structural capacity; nor does it provide a direct measurement of skid resistance or roughness. It provides an objective and rational basis for determining maintenance and repair needs and priorities. Continuous monitoring of the PCI is used to establish the rate of pavement deterioration, which permits early identification of major rehabilitation needs. The PCI provides feedback on pavement performance for validation or improvement of current pavement design and maintenance procedures.”

Based on the limitations of the PCI method, it is imperative that engineers and planners treat the PCI as a tool that will assist them during the M&R planning process. Any major project should always be preceded by an up-to-date, detailed, 100% project-level inspection of the pavement in order to reevaluate maintenance needs prior to the project design process.

B.2 DISTRESS TYPES

Distress tends to fall into one of the following four cause categories:

- **Load-related:** Flexible pavement distresses include alligator/fatigue cracking, corrugation, depression, polished aggregate, rutting, and slippage cracking. Rigid

pavement distresses include corner breaks, longitudinal cracking, divided slabs, polished aggregate, pumping, and joint spalling.

- **Climate- and durability-related:** Flexible pavement distresses include bleeding, block cracking, joint reflection cracking, longitudinal and transverse (L&T) cracking, swelling, and raveling/weathering. Rigid pavement distresses include blow-ups, durability cracking, longitudinal cracking, pop-outs, pumping, scaling, shrinkage cracks, and joint and corner spalling.
- **Moisture- and drainage-related:** Flexible pavement distresses include alligator/fatigue cracking, depressions, potholes, and swelling. Rigid pavement distresses include corner breaks, divided slabs, and pumping.
- **Other factors:** Oil spillage, jet blast erosion, bleeding, patching, and concrete slab joint faulting.

As described above, a distress may be the result of more than one cause. For example, depressions may be caused by incorrect compaction during construction or by subgrade softening due to environmental factors. In addition, a distress may be initiated by one cause but may progress to a distress of higher severity by another cause. Therefore, engineering judgment is critical in analyzing the actual cause or causes of the distress.

B.3 PAVEMENT CONDITION INDEX SURVEY RESULTS

The evaluated Enterprise Municipal Airport pavement network consists of 10 branches and 13 sections. A total of 22 sample units were visually inspected in the field. Data from the inspected sample units was input into the PAVER database, and a resultant PCI for each section was computed. Additional details regarding the PCI and distress types observed for each surveyed sample unit are provided in the re-inspection report, Table 1E, in Appendix E. Based on the 2022 PCI survey, the area-weighted average PCI for the entire pavement network at Enterprise Municipal Airport is approximately 46, which corresponds to a PCI rating of Poor.

To investigate the rate of deterioration of each pavement section we compared the PCI results from the 2022 survey to the PCI results from the previous inspection. The variation in PCI between inspections for Enterprise Municipal Airport pavement sections is outlined in Table 4B in this appendix.

Table 2B - ENTERPRISE AIRPORT CURRENT BRANCH CONDITION REPORT

Branch ID	Number of Sections	Approximate Area, square feet	Use	Area Weighted Average Branch PCI	PCI Category
A01EN	3	18,189	APRON	46	Poor
A02EN	1	2,970	APRON	53	Poor
A03EN	1	2,105	APRON	0	Failed
AH12EN	1	2,475	APRON	56	Fair
AH30EN	1	2,465	APRON	57	Fair
R12EN	1	143,150	RUNWAY	50	Poor
T01EN	1	48,242	TAXIWAY	36	Very Poor
T02EN	1	1,193	TAXIWAY	20	Serious
T03EN	1	5,464	TAXIWAY	46	Poor
T04EN	2	12,152	TAXIWAY	48	Poor

Use Category	Number of Sections	Total Area, square feet	Area Weighted Average PCI
APRON	7	28,204	45
RUNWAY	1	143,150	50
TAXIWAY	5	67,051	39
ALL	13	238,405	46

Abbreviation: PCI = Pavement Condition Index

Table 3B - ENTERPRISE AIRPORT 2022 PAVEMENT CONDITION INDEX SURVEY RESULTS

BranchID	SectionID	Last Construction Date	Surface Type	Use	Last Inspection Date	Age at Inspection	PCI	PCI Category	PCI % Climate	PCI % Load	PCI % Other
A01EN	01	9/1/1989	AAC	APRON	7/1/2022	33	31	Very Poor	80	20	0
A01EN	02	9/2/1973	AC	APRON	7/1/2022	49	52	Poor	75	25	0
A01EN	03	9/3/1973	ST	APRON	7/1/2022	49	55	Poor	82	18	0
A02EN	01	9/1/2000	ST	APRON	7/1/2022	22	53	Poor	100	0	0
A03EN	01	9/2/1979	ST	APRON	7/1/2022	43	0	Failed	6	94	0
AH12EN	01	9/1/1973	ST	APRON	7/1/2022	49	56	Fair	56	44	0
AH30EN	01	9/1/1973	ST	APRON	7/1/2022	49	57	Fair	100	0	0
R12EN	01	9/1/1997	AC	RUNWAY	7/1/2022	25	50	Poor	83	17	0
T01EN	01	9/1/2000	ST	TAXIWAY	7/1/2022	22	36	Very Poor	25	50	25
T02EN	01	9/1/2000	ST	TAXIWAY	7/1/2022	22	20	Serious	37	26	37
T03EN	01	9/2/1973	AC	TAXIWAY	7/1/2022	49	46	Poor	55	45	0
T04EN	01	9/2/1973	ST	TAXIWAY	7/1/2022	49	49	Poor	54	46	0
T04EN	02	1/1/1901	PCC	TAXIWAY	7/1/2022	122	15	Serious	0	51	49

Abbreviations:

AC = Asphalt Concrete, AAC = AC overlaid AC, PCC = Portland Cement Concrete, ST = Surface Treatment, PCI = Pavement Condition Index

Table 4B - ENTERPRISE AIRPORT COMPARISON OF PREVIOUS INSPECTION AND 2022 RESULTS

Branch ID	Section ID	Surface Type ¹	Approximate Area, square feet	LCD ²	2017 Survey			2022 Survey			Age ³	Δ PCI/yr ⁴	Rate of Deterioration
					PCI	PCI Category	Insp. Date	PCI	PCI Category				
A01EN	01	AAC	6,500	9/1/1989	27	Very Poor	6/13/2017	31	Very Poor	28	0.79		NONE
A01EN	02	AC	4,182	9/2/1973	71	Satisfactory	6/13/2017	52	Poor	44	-3.76		NORMAL
A01EN	03	ST	7,507	9/3/1973	78	Satisfactory	6/13/2017	55	Poor	44	-4.55		HIGH
A02EN	01	ST	2,970	9/1/2000	68	Fair	6/13/2017	53	Poor	17	-2.97		NORMAL
A03EN	01	ST	2,105	9/2/1979	1	Failed	6/13/2017	0	Failed	38	-0.20		NORMAL
AH12EN	01	ST	2,475	9/1/1973	59	Fair	6/13/2017	56	Fair	44	-0.59		NORMAL
AH30EN	01	ST	2,465	9/1/1973	31	Very Poor	6/13/2017	57	Fair	44	5.15		NONE
R12EN	01	AC	143,150	9/1/1997	57	Fair	6/13/2017	50	Poor	20	-1.39		NORMAL
T01EN	01	ST	48,242	9/1/2000	36	Very Poor	6/13/2017	36	Very Poor	17	0.00		NONE
T02EN	01	ST	1,193	9/1/2000	33	Very Poor	6/13/2017	20	Serious	17	-2.57		NORMAL
T03EN	01	AC	5,464	9/2/1973	71	Satisfactory	6/13/2017	46	Poor	44	-4.95		HIGH
T04EN	01	ST	11,918	9/2/1973	43	Poor	6/13/2017	49	Poor	44	1.19		NONE
T04EN	02	PCC	234	1/1/1901	43	Poor	6/13/2017	15	Serious	117	-5.54		HIGH

Abbreviations:

¹ AC = Asphalt Concrete, AAC = AC overlaid AC, PCC = Portland Cement Concrete, ST = Surface Treatment, PCI = Pavement Condition Index

² LCD = Last construction date. The date of the last major pavement rehabilitation (e.g. AC overlay)

³ Age = Pavement age in years at the time of the PCI survey in 2017

⁴ Δ PCI/yr = Change in PCI points per year between 2017 survey and 2022 survey

APPENDIX C

Future Pavement Condition Analysis

APPENDIX C

PAVEMENT CONDITION ANALYSIS

C.1 METHODOLOGY

In addition to assessing the current condition of a pavement, it is very important from a planning standpoint to be able to predict with reasonable accuracy its future condition. In a pavement management plan (PMP), this is done with the aid of a prediction model. When an APMS is initially implemented, the default models are typically used to predict the future condition of a pavement. However, after PCI surveys are completed, the historical data are then used to refine the models, so they better represent the deterioration of a particular class of pavement based on local climatic conditions, loading, material sources, construction procedures, etc. The importance of accurate prediction models is part of the reason it is essential to conduct periodic, routine surveys in order to track the rate of deterioration.

In PAVER, the pavement deterioration curves are developed based on the “family” model procedure. A pavement “family” is defined as a group of pavements with similar deterioration characteristics. The procedure for developing the prediction models is:

- 1) Define the pavement families.
- 2) Review the data.
- 3) Conduct a data outlier analysis.
- 4) Model the data.

C.2 PREDICTION MODELS

We developed separate condition prediction models for each pavement “family” at Enterprise Municipal Airport. The delineation is based on branch use, surface type, section rank, and structural design life. We use five distinct models for the following “families” of pavements at Enterprise Municipal Airport. For each model, we reviewed the data in order to filter out any inconsistent or inaccurate data or any data that fall outside boundary values set by PAVER. After outliers are removed and the data are checked for accuracy and reasonableness, the PAVER program calculates a best-fit curve using a polynomial-constrained, least-squares analysis procedure. This best-fit curve for each family is used in the analysis to predict the average behavior of all sections within each “family.” Our condition prediction models for each “family” are provided on Figures 1C through 4C below.

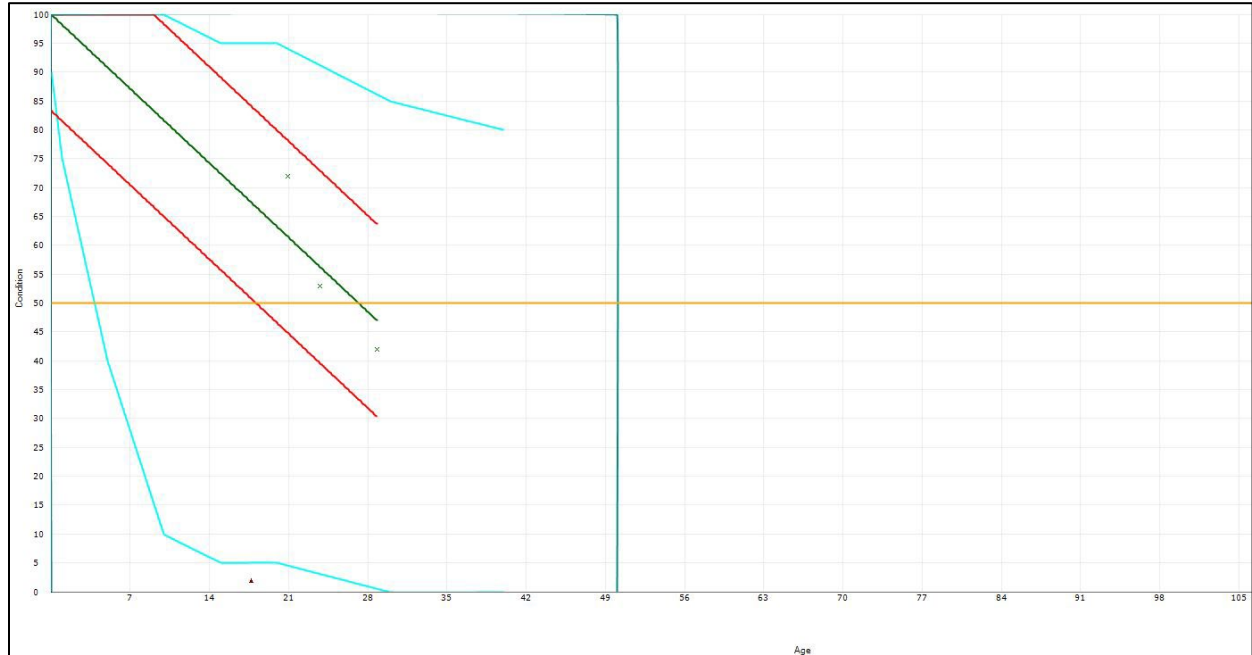


Figure 1C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 PCC RUNWAYS, TAXIWAYS, AND APRONS

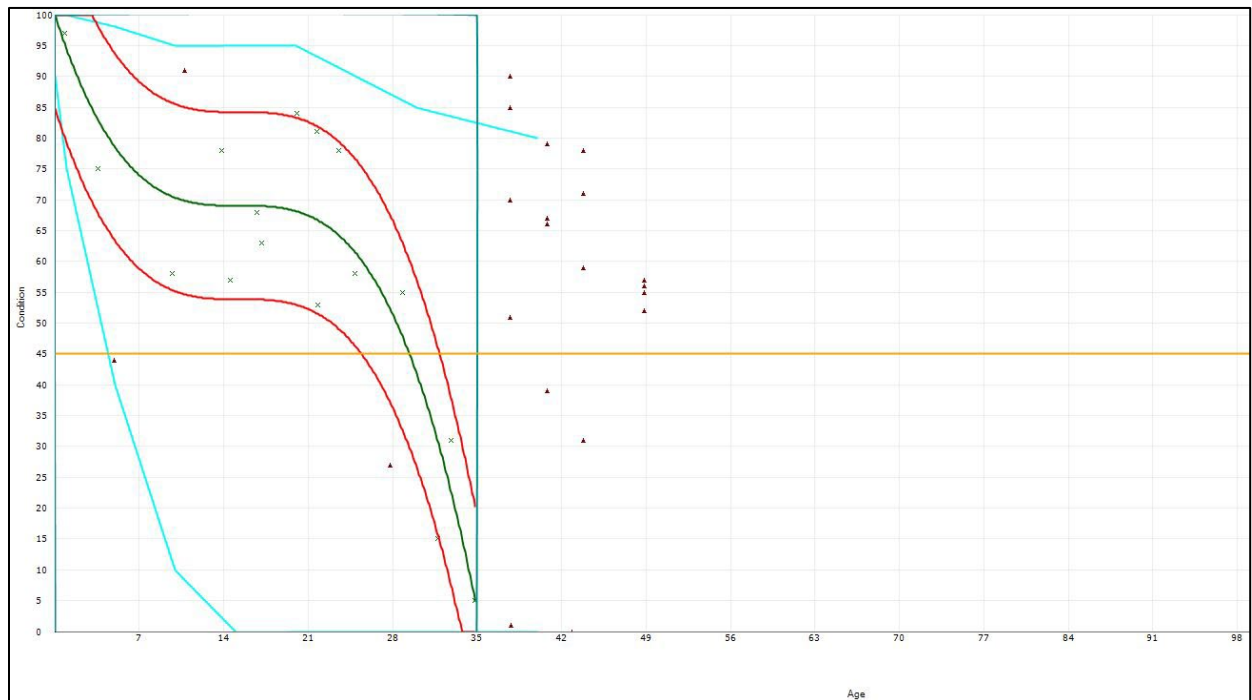


Figure 2C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 AC AND AAC APRONS

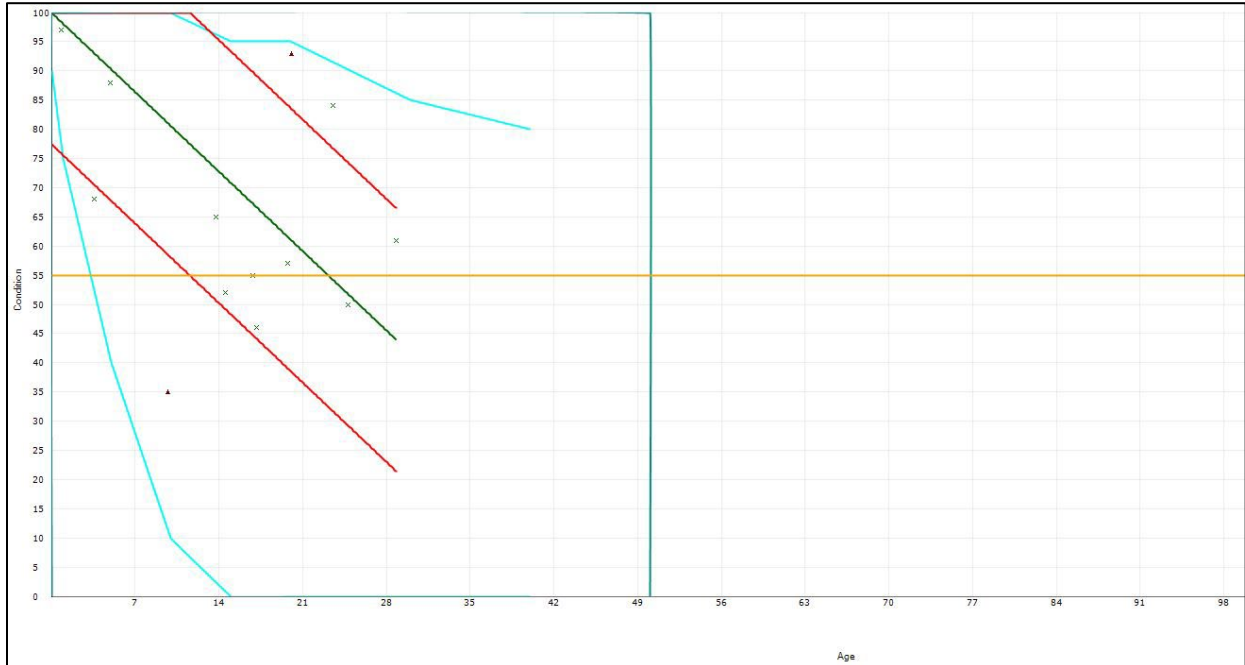


Figure 3C - CONDITION PREDICTION MODEL FOR EAASTERN CATEGORY 5 AC AND AAC RUNWAYS

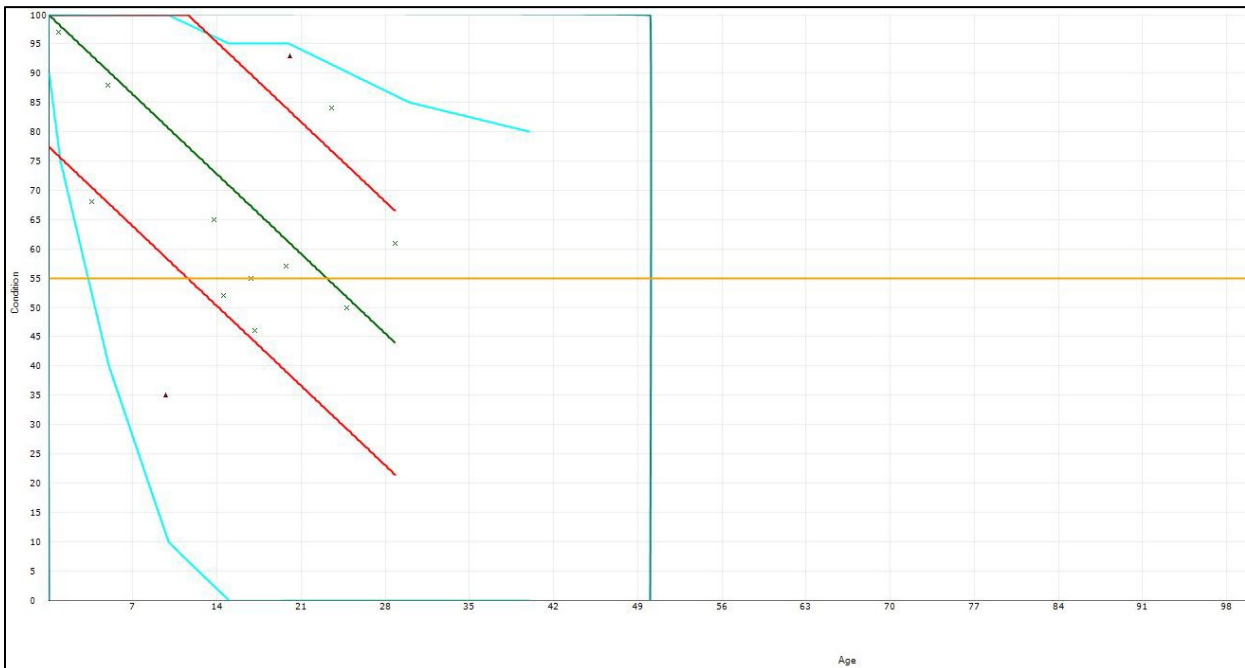


Figure 4C - CONDITION PREDICTION MODEL FOR EASTERN CATEGORY 5 AC AND AAC TAXIWAYS

C.3 CRITICAL PCI

Each of the condition-prediction models have an assigned critical PCI. The critical PCI is the point at which the pavement condition begins to deteriorate more quickly over time. As the condition deteriorates to a worse state, major M&R is triggered because the cost to apply localized M&R increases significantly. Pavement sections with PCI above the critical value are given a higher priority for funding during budget analysis in order to prevent them from deteriorating to the point where more costly rehabilitation is necessary. We used the following critical PCI values at Enterprise Municipal Airport:

- Runways – 55
- Taxiways/Taxilanes – 50
- Aprons – 45

C.4 FUTURE CONDITION ANALYSIS

As previously discussed, the projected condition of each pavement section was determined for 5- and 10-year periods. The projected pavement conditions in 5 years and 10 years for each pavement section at Enterprise Municipal Airport, along with the conditions at the previous inspection, are listed in Table 1C.

C.5 FUNCTIONAL REMAINING LIFE

As mentioned above, functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated based solely on visual condition. This is not to be confused with structural remaining life, which requires analysis of the structural capacity of a pavement.

We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Enterprise Municipal Airport, the time until rehabilitation, and the time until the pavement is no longer operational due to high foreign object debris potential and increased safety concerns for trafficking aircraft (PCI less than 40). The results of the functional life analysis are provided in Table 2C.

Table 1C - PAST, PRESENT AND FUTURE PCI

BranchID	SectionID	<u>Past Inspection PCI</u>	<u>Current PCI</u>	<u>Predicted Future PCI</u>	
		2017	2022	2027	2032
A01EN	01	27	31	0	0
A01EN	02	71	52	22	0
A01EN	03	78	55	28	0
A02EN	01	68	53	24	0
A03EN	01	1	0	0	0
AH12EN	01	59	56	30	0
AH30EN	01	31	57	33	0
R12EN	01	57	50	40	31
T01EN	01	36	36	17	0
T02EN	01	33	20	1	0
T03EN	01	71	46	27	9
T04EN	01	43	49	30	12
T04EN	02	43	15	6	0

Abbreviation: PCI = Pavement Condition Index

Table 2C - ENTERPRISE AIRPORT FUNCTIONAL REMAINING LIFE ANALYSIS

Branch ID	Section ID	Surface Type	Current PCI	Years to Major M&R	Major M&R Trigger PCI ¹	Years to End of Functional Service Life
A01EN	01	AAC	31	0 - 5	45	0 - 5
A01EN	02	AC	52	0 - 5	45	0 - 5
A01EN	03	ST	55	0 - 5	45	0 - 5
A02EN	01	ST	53	0 - 5	45	0 - 5
A03EN	01	ST	0	0 - 5	45	0 - 5
AH12EN	01	ST	56	0 - 5	45	0 - 5
AH30EN	01	ST	57	0 - 5	45	0 - 5
R12EN	01	AC	50	0 - 5	55	0 - 5
T01EN	01	ST	36	0 - 5	50	0 - 5
T02EN	01	ST	20	0 - 5	50	0 - 5
T03EN	01	AC	46	0 - 5	50	0 - 5
T04EN	01	ST	49	0 - 5	50	0 - 5
T04EN	02	PCC	15	0 - 5	50	0 - 5

Abbreviations:

AC = Asphalt Concrete, AAC = AC overlaid AC, PCC = Portland Cement Concrete, ST = Surface Treatment,
PCI = Pavement Condition Index

¹ Major M&R (Maintenance and Rehabilitation) Trigger PCI = Critical PCI

APPENDIX D

Unit Cost Data and Maintenance and Rehabilitation Plan

APPENDIX D

UNIT COST DATA AND MAINTENANCE AND REHABILITATION PLAN

D.1 ANALYSIS METHODOLOGY

We evaluated the M&R needs, as determined from the PAVER analysis results, in order to develop project recommendations for the next five years. The purpose of this analysis is to determine the M&R needs of the Enterprise Municipal Airport pavement network condition over time. We used PAVER v7.0.8 software to develop network-level project recommendations for the next five years.

The PAVER M&R Work Planning Module identifies when and where M&R is required and how much it will cost. M&R plans can be developed either by assuming an annual budget or by identifying specific constraints, such as a condition goal to determine the budget required to meet the goal. The M&R work planning analysis was based on a five-year period beginning on August 1, 2024. A backlog elimination analysis scenario was selected to generate a list of global maintenance and rehabilitation projects in order to optimize the allocation of capital and establish preservation-based project recommendations. The repair strategies considered for pavement sections in our analysis are as follows:

- Reconstruction – Considered for pavements with a PCI less than 40.
- Flexible Overlay – Considered for pavements between 40 PCI and the critical PCI, and for pavements exhibiting significant load-related distresses.
- Global Maintenance – Treatments (fog seal, slurry seal, thin AC overlay) applied to an entire pavement section with the intent of slowing the rate of deterioration.
- Localized Maintenance – Maintenance performed on a routine basis such as crack sealing, wide crack repair, and patching.

It should be noted that the five-year list of recommended projects only includes the highest-cost maintenance items and does not include routine localized maintenance (e.g., crack sealing) work that should also be conducted in addition to and concurrently with the five-year work plan.

D.1.1 Pavement Rank and Use Prioritization

Pavement sections are assigned a rank to establish their relative importance in the overall pavement network, which is most commonly defined by their use (e.g., Taxiway, Apron, Runway). The PAVER analysis uses the combination of the section rank and the branch use

to define the priority of each section during the M&R analysis. Table 1D displays the branch use and section rank prioritization schema we used for analysis.

Table 1D: M&R WORK PRIORITY BY BRANCH USE AND SECTION RANK

Branch Use	Section Rank		
	Primary	Secondary	Tertiary
RUNWAY	1	3	6
TAXIWAY	2	5	8
APRON	4	7	9

D.2 MAINTENANCE POLICIES AND UNIT COSTS

The distress-maintenance policies are policies that determine what type of work should be applied to a specific distress type and severity. For example, on an AC pavement, a medium-severity longitudinal/transverse crack would be repaired by crack sealing. Policies for all the distress types and severities are established by ASTM D5340.

Although our work scope does not include budget analysis, we did assign construction costs to the maintenance work so that PAVER would allocate M&R projects that were approximately equal in cost for each year of the five-year period. The anticipated cost of performing M&R is based on cost tables that relate M&R work type cost to PCI. We reviewed the unit costs from the 2017 report and updated them by reviewing the bid tabulations for recent projects within the vicinity of Enterprise Municipal Airport and information provided by the project team. The costs for reconstruction are based on the existing pavement sections present within each branch use at Enterprise Municipal Airport. The costs represent the fully-loaded costs and include aspects of the project such as administration, contingencies, mobilization, and stripping. The cost tables used in the analysis are presented in Table 2D below.

Table 2D: ENTERPRISE MUNICIPAL AIRPORT UNIT COST DATA

Type of M&R	Work Type	Unit Cost	Work Unit
Major M&R	Complete Reconstruction with AC	\$13.32	Sq Ft
	Cold Mill and Overlay – 2 Inches Thick	\$5.88	Sq Ft
Global M&R	Surface Treatment - Slurry Seal	\$0.40	Sq Ft
	Surface Treatment - Fog Seal	\$0.24	Sq Ft
Localized Preventive M&R	Crack Sealing - AC	\$2.40	Ft
	Crack Sealing - PCC	\$18.00	Ft
	Crack Sealing – Wide Cracks	\$39.60	Ft
	AC Patching – Full Depth	\$60.00	Sq Ft
	PCC Patching – Full Depth	\$120.00	Sq Ft

D.3 RECOMMENDED LOCALIZED MAINTENANCE

In order to properly maintain aging pavements, localized M&R activities such as crack sealing and patching should be performed on a routine basis. A list of recommended localized maintenance activities is provided in Table 3D of this appendix.

D.4 RECOMMENDED GLOBAL MAINTENANCE AND REHABILITATION PROJECTS

Global maintenance and rehabilitation projects refer to activities such as slurry seal and thin AC overlays, as well as thick AC overlays and reconstruction. A list of recommended global M&R activities is provided in Table 4D of this appendix.

Table 3D - ENTERPRISE AIRPORT NETWORK MAINTENANCE REPORT

Network	Branch ID	Section ID	Distress	Severity	Action	Work Quantity	Unit	Unit Cost	Work Cost	Section Total
Enterprise	A01EN	01	Alligator Cracking	Low	Crack Sealing - AC	12	Ft	\$2.40	\$30	\$1,292
Enterprise	A01EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	526	Ft	\$2.40	\$1,262	
Enterprise	A01EN	01	Alligator Cracking	Medium	Patching - AC Deep	30	SqFt	\$60.00	\$1,797	\$1,797
Enterprise	A01EN	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	342	Ft	\$2.40	\$821	\$2,424
Enterprise	A01EN	02	Alligator Cracking	Medium	Patching - AC Deep	27	SqFt	\$60.00	\$1,604	
Enterprise	A01EN	03	Long. & Trans. Cracking	Medium	Crack Sealing - AC	454	Ft	\$2.40	\$1,090	\$2,493
Enterprise	A01EN	03	Alligator Cracking	Medium	Patching - AC Deep	24	SqFt	\$60.00	\$1,403	
Enterprise	A02EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	270	Ft	\$2.40	\$648	\$100,494
Enterprise	A03EN	01	Alligator Cracking	High	Patching - AC Deep	1,664	SqFt	\$60.00	\$99,846	
Enterprise	AH12EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	23	Ft	\$2.40	\$55	\$2,918
Enterprise	AH12EN	01	Alligator Cracking	Medium	Patching - AC Deep	47	SqFt	\$60.00	\$2,863	
Enterprise	AH30EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	119	Ft	\$2.40	\$286	\$1,487
Enterprise	AH30EN	01	Block Cracking	Low	Crack Sealing - AC	501	Ft	\$2.40	\$1,202	
Enterprise	R12EN	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	4,747	Ft	\$2.40	\$11,392	\$31,882
Enterprise	R12EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	8,537	Ft	\$2.40	\$20,490	
Enterprise	R12EN	01	Alligator Cracking	High	Patching - AC Deep	78	SqFt	\$60.00	\$4,623	\$6,382
Enterprise	T01EN	01	Alligator Cracking	Low	Crack Sealing - AC	733	Ft	\$2.40	\$1,759	\$16,380
Enterprise	T01EN	01	Block Cracking	Low	Crack Sealing - AC	6,825	Ft	\$2.40	\$16,380	
Enterprise	T01EN	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	40	Ft	\$2.40	\$96	\$96
Enterprise	T01EN	01	Alligator Cracking	High	Patching - AC Deep	96	SqFt	\$60.00	\$5,733	\$5,733
Enterprise	T01EN	01	Alligator Cracking	Medium	Patching - AC Deep	1,137	SqFt	\$60.00	\$68,198	\$68,198
Enterprise	T02EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	38	Ft	\$2.40	\$91	\$91
Enterprise	T02EN	01	Alligator Cracking	Medium	Patching - AC Deep	70	SqFt	\$60.00	\$4,167	\$4,167
Enterprise	T03EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	337	Ft	\$2.40	\$809	\$11,568
Enterprise	T03EN	01	Alligator Cracking	Medium	Patching - AC Deep	178	SqFt	\$60.00	\$10,652	
Enterprise	T04EN	01	Alligator Cracking	Low	Crack Sealing - AC	45	Ft	\$2.40	\$107	\$9,478
Enterprise	T04EN	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	229	Ft	\$2.40	\$550	
Enterprise	T04EN	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	188	Ft	\$2.40	\$450	\$9,478
Enterprise	T04EN	01	Alligator Cracking	Medium	Patching - AC Deep	141	SqFt	\$60.00	\$8,478	
Enterprise	T04EN	02	Shattered Slab	Low	Crack Sealing - PCC	31	Ft	\$18.00	\$558	\$558

Abbreviations:

Long. = Longitudinal; Trans. = Transverse; AC = Asphalt Concrete; PCC = Portland Cement Concrete; Ft = Feet; SqFt = Square Feet

Table 4D - FIVE-YEAR GLOBAL MAINTENANCE AND REHABILITATION PLAN

Action Year	Branch ID	Section ID	Branch Use	Surface Type	Current PCI	Action	Area, square feet	Unit Cost per square foot	Total Cost
2024	R12EN	01	RUNWAY	AC	50	Overlay	143,150	\$10.67	\$1,527,411
	A01EN	01	APRON	AAC	31	Reconstruction	6,500	\$13.32	\$86,583
2025	A02EN	01	APRON	ST	53	Reconstruction	2,970	\$13.32	\$39,562
	A03EN	01	APRON	ST	0	Reconstruction	2,105	\$13.32	\$28,040
	A01EN	02	APRON	AC	52	Reconstruction	4,182	\$13.32	\$55,706
2026	T03EN	01	TAXIWAY	AC	46	Reconstruction	5,464	\$13.32	\$72,783
	T02EN	01	TAXIWAY	ST	20	Reconstruction	1,193	\$13.32	\$15,891
	T01EN	01	TAXIWAY	ST	36	Reconstruction	48,242	\$13.32	\$642,605
2027	AH30EN	01	APRON	ST	57	Reconstruction	2,465	\$13.32	\$32,834
	T04EN	02	TAXIWAY	PCC	15	Reconstruction	234	\$13.32	\$3,117
	T04EN	01	TAXIWAY	ST	49	Reconstruction	11,918	\$13.32	\$158,753
2028	A01EN	03	APRON	ST	55	Reconstruction	7,507	\$13.32	\$99,993
	AH12EN	01	APRON	ST	56	Reconstruction	2,475	\$13.32	\$32,967

Abbreviations:

PCI = Pavement Condition Index, AC = Asphalt Concrete, AAC = AC overlaid AC, ST = Surface Treatment;
PCC = Portland Cement Concrete

Cost Summary	
2024 Total Project Cost	\$1,527,411
2025 Total Project Cost	\$154,184
2026 Total Project Cost	\$144,380
2027 Total Project Cost	\$675,438
2028 Total Project Cost	\$294,830
Total 5-Year Project Cost	\$2,796,243

APPENDIX E

Reinspection Report

Re-Inspection Report

ODA_WOC3_4-10-2023_PostWHEdits_4PM

Generated Date 4/13/2023

Page 1 of 14

Network:	Enterprise		Name:	Enterprise Municipal		
Branch:	A01EN	Name:	Apron 01 Enterprise		Use:	APRON
			Area:	18,189 SqFt		
Section:	01	of 3	From:	A01-02		To: End
			Last Const.:	9/1/1989		
Surface:	AAC	Family:	2022_Eastern_Cat5_Apron	Zone:	8S4	Category: O
			_AC/AAC/ST	Rank:	P	
Area:	6,500 SqFt	Length:	130 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:	9/1/1973	Work Type:	Base Course - Aggregate		Code:	BA-AG
					Is Major M&R:	True
Work Date:	9/2/1973	Work Type:	New Construction - AC		Code:	NC-AC
					Is Major M&R:	True
Work Date:	9/1/1989	Work Type:	Overlay - AC Thin		Code:	OL-AT
					Is Major M&R:	True
Work Date:	9/1/2012	Work Type:	Crack Sealing - AC		Code:	CS-AC
					Is Major M&R:	False
Work Date:	9/2/2012	Work Type:	Patching - AC Deep		Code:	PA-AD
					Is Major M&R:	False
Last Insp. Date:	7/1/2022	TotalSamples:	1	Surveyed:	1	
Conditions:	PCI:	31				
Inspection Comments:						
Sample Number:	01	Type:	R	Area:	6500.00 SqFt	PCI: 31
Sample Comments:	Created by Inspection Schedule					

41	ALLIGATOR CR	L	19.00	SqFt
41	ALLIGATOR CR	M	12.00	SqFt
48	L & T CR	M	526.00	Ft
50	PATCHING	M	276.00	SqFt
52	RAVELING	H	328.00	SqFt
57	WEATHERING	L	5850.00	SqFt
57	WEATHERING	M	650.00	SqFt

Network:	Enterprise			Name:	Enterprise Municipal						
Branch:	A01EN		Name:	Apron 01 Enterprise		Use:	APRON	Area:	18,189 SqFt		
Section:	03	of	3	From:	A01-02		To:	T04-01	Last Const.:	9/3/1973	
Surface:	ST	Family:	2022_Eastern_Cat5_Apron_AC/AAC/ST		Zone:	8S4	Category:	O	Rank:	P	
Area:	7,507 SqFt		Length:	58 Ft		Width:	155 Ft				
Slabs:	Slab Length:		Ft		Slab Width:	Ft		Joint Length:	Ft		
Shoulder:	Street Type:				Grade:	0		Lanes:	0		
Section Comments:											
Work Date:	9/1/1973		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	True
Work Date:	9/2/1973		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R:	True
Work Date:	9/3/1973		Work Type: Surface Course - BST				Code:	SU-SB		Is Major M&R:	True
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	2		Surveyed: 2					
Conditions:	PCI: 55										
Inspection Comments:											
Sample Number:	01	Type:	R	Area:	3467.00 SqFt		PCI:	46			
Sample Comments: Created by Inspection Schedule											
41	ALLIGATOR CR		M	4.00	SqFt						
48	L & T CR		M	187.00	Ft						
48	L & T CR		M	120.00	Ft						
52	RAVELING		H	11.00	SqFt						
57	WEATHERING		L	2774.00	SqFt						
57	WEATHERING		M	346.00	SqFt						
Sample Number:	02	Type:	R	Area:	4040.00 SqFt		PCI:	63			
Sample Comments: Created by Inspection Schedule											
41	ALLIGATOR CR		M	4.00	SqFt						
48	L & T CR		M	147.00	Ft						
57	WEATHERING		L	3636.00	SqFt						
57	WEATHERING		M	404.00	SqFt						

Network:	Enterprise		Name:	Enterprise Municipal								
Branch:	A01EN		Name:	Apron 01 Enterprise		Use:	APRON	Area:	18,189 SqFt			
Section:	02	of 3	From:	A01-01			To:	A01-03		Last Const.:	9/2/1973	
Surface:	AC	Family:	2022_Eastern_Cat5_Apron_AC/AAC/ST		Zone:	8S4		Category:	O		Rank:	P
Area:	4,182 SqFt		Length:	60 Ft		Width:	70 Ft					
Slabs:	Slab Length:		Ft		Slab Width:	Ft		Joint Length:	Ft			
Shoulder:	Street Type:				Grade:	0		Lanes:	0			
Section Comments:												
Work Date:	9/1/1973		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	True	
Work Date:	9/2/1973		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R:	True	
Work Date:	9/1/1985		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False	
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False	
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False	
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1					
Conditions:	PCI: 52											
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	4182.00 SqFt		PCI:	52				
Sample Comments: Created by Inspection Schedule												
41	ALLIGATOR CR		M	10.00 SqFt								
48	L & T CR		M	342.00 Ft								
57	WEATHERING		L	2928.00 SqFt								
57	WEATHERING		M	1254.00 SqFt								

Network: Enterprise		Name: Enterprise Municipal	
Branch: A02EN	Name: Apron 02 Enterprise	Use: APRON	Area: 2,970 SqFt
Section: 01 of 1	From: T01-01	To: EDGE	Last Const.: 9/1/2000
Surface: ST	Family: 2022_Eastern_Cat5_Apron_AC/AAC/ST	Zone: 8S4	Category: O
Rank: S			
Area: 2,970 SqFt	Length: 65 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: 9/1/1979	Work Type: Base Course - Aggregate		Code: BA-AG
Is Major M&R: True			
Work Date: 9/2/1979	Work Type: Surface Course - Double Bitum.		Code: SU-DB
Is Major M&R: True			
Work Date: 9/1/2000	Work Type: Surface Course - BST		Code: SU-SB
Is Major M&R: True			
Last Insp. Date: 7/1/2022	TotalSamples: 1	Surveyed: 1	
Conditions: PCI: 53			
Inspection Comments:			
Sample Number: 01	Type: R	Area: 2970.00 SqFt	PCI: 53
Sample Comments: Created by Inspection Schedule			
48	L & T CR	M	65.00 Ft
48	L & T CR	M	10.00 Ft
48	L & T CR	M	65.00 Ft
48	L & T CR	M	65.00 Ft
48	L & T CR	M	65.00 Ft
57	WEATHERING	M	2673.00 SqFt
57	WEATHERING	H	297.00 SqFt

Network:	Enterprise			Name:	Enterprise Municipal							
Branch:	A03EN		Name:	Apron 03 Enterprise		Use:	APRON		Area:	2,105 SqFt		
Section:	01	of 1		From:	T01-01, T03-01			To:	End		Last Const.:	9/2/1979
Surface:	ST	Family:	2022_Eastern_Cat5_Apron_AC/AAC/ST		Zone:	8S4		Category:	O		Rank:	S
Area:	2,105 SqFt		Length:	48 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:	9/1/1979		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R: True		
Work Date:	9/2/1979		Work Type: Surface Course - Double Bitum.				Code:	SU-DB		Is Major M&R: True		
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:		1				
Conditions:	PCI: 0											
Inspection Comments:												
Sample Number:	01	Type:	R		Area:	2105.00 SqFt		PCI:	0			
Sample Comments:		Created by Inspection Schedule										
41	ALLIGATOR CR		H	1504.00 SqFt								
57	WEATHERING		L	2105.00 SqFt								

Network:	Enterprise			Name:	Enterprise Municipal						
Branch:	AH12EN		Name:	Hold Apron RW 12 End Enterprise		Use:	APRON	Area:	2,475 SqFt		
Section:	01	of	1	From:	R12 End			To:	Edge	Last Const.:	9/1/1973
Surface:	ST	Family:	2022_Eastern_Cat5_Apron_AC/AAC/ST		Zone:	8S4		Category:	O	Rank:	P
Area:	2,475 SqFt		Length:	55 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:	9/1/1970		Work Type:	Base Course - Aggregate			Code:	BA-AG		Is Major M&R:	True
Work Date:	9/2/1970		Work Type:	New Construction - AC			Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/1973		Work Type:	Surface Course - BST			Code:	SU-SB		Is Major M&R:	True
Work Date:	9/1/2008		Work Type:	Crack Sealing - AC			Code:	CS-AC		Is Major M&R:	False
Work Date:	9/1/2012		Work Type:	Crack Sealing - AC			Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1				
Conditions:	PCI:		56								
Inspection Comments:											
Sample Number:	01	Type:	R	Area:	2475.00 SqFt		PCI:	56			
Sample Comments: Created by Inspection Schedule											
41	ALLIGATOR CR		M	24.00 SqFt							
48	L & T CR		M	23.00 Ft							
50	PATCHING		L	40.00 SqFt							
57	WEATHERING		M	2475.00 SqFt							

Network:	Enterprise			Name:	Enterprise Municipal						
Branch:	AH30EN		Name:	Hold Apron RW 30 End Enterprise		Use:	APRON	Area:	2,465 SqFt		
Section:	01	of	1	From:	R30 END			To:	EDGE	Last Const.:	9/1/1973
Surface:	ST	Family:	2022_Eastern_Cat5_Apron_AC/AAC/ST		Zone:	8S4		Category:	O	Rank:	P
Area:	2,465 SqFt		Length:	130 Ft		Width:	20 Ft				
Slabs:	Slab Length:		Ft		Slab Width:	Ft		Joint Length:	Ft		
Shoulder:	Street Type:		Grade:		0		Lanes:	0			
Section Comments:											
Work Date:	9/1/1970		Work Type: Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	True
Work Date:	9/2/1970		Work Type: New Construction - AC				Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/1973		Work Type: Surface Course - BST				Code:	SU-SB		Is Major M&R:	True
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1				
Conditions:	PCI:		57								
Inspection Comments:											
Sample Number:	01	Type:	R	Area:	2465.00 SqFt		PCI:	57			
Sample Comments: Created by Inspection Schedule											
43	BLOCK CR		L	1643.00 SqFt							
48	L & T CR		M	119.00 Ft							
50	PATCHING		L	2.00 SqFt							
57	WEATHERING		L	2465.00 SqFt							

Network:	Enterprise			Name:	Enterprise Municipal				
Branch:	R12EN		Name:	Runway 12/30 Enterprise		Use:	RUNWAY	Area:	143,150 SqFt
Section:	01	of	1	From:	R30 End		To:	R12 End	Last Const.: 9/1/1997
Surface:	AC	Family:	2022_Eastern_Cat5_RW_AC/AAC	Zone:	8S4		Category:	O	Rank: P
Area:	143,150 SqFt		Length:	2,863 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:	9/1/1970		Work Type: Base Course - Aggregate				Code:	BA-AG	Is Major M&R: True
Work Date:	9/2/1970		Work Type: New Construction - AC				Code:	NC-AC	Is Major M&R: True
Work Date:	9/1/1973		Work Type: Surface Course - BST				Code:	SU-SB	Is Major M&R: True
Work Date:	9/1/1997		Work Type: Overlay - AC Thin				Code:	OL-AT	Is Major M&R: True
Work Date:	9/1/2008		Work Type: Crack Seal - Wide Cracks				Code:	CS-WD	Is Major M&R: False
Work Date:	9/2/2008		Work Type: Surface Treatment - Slurry Seal				Code:	ST-SS	Is Major M&R: False
Work Date:	9/1/2012		Work Type: Crack Seal - Wide Cracks				Code:	CS-WD	Is Major M&R: False
Work Date:	9/2/2012		Work Type: Patching - AC Deep				Code:	PA-AD	Is Major M&R: False
Last Insp. Date:	7/1/2022		TotalSamples:	29		Surveyed: 5			
Conditions:	PCI: 50								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	5000.00 SqFt		PCI:	43	
Sample Comments: Created by Inspection Schedule									
48	L & T CR		L	100.00	Ft				
48	L & T CR		L	50.00	Ft				
48	L & T CR		M	473.00	Ft				
48	L & T CR		M	50.00	Ft				
50	PATCHING		L	250.00	SqFt				
50	PATCHING		L	30.00	SqFt				
50	PATCHING		L	90.00	SqFt				
50	PATCHING		L	50.00	SqFt				
57	WEATHERING		L	4500.00	SqFt				
57	WEATHERING		M	500.00	SqFt				
Sample Number:	07	Type:	R	Area:	5000.00 SqFt		PCI:	44	
Sample Comments: Created by Inspection Schedule									
41	ALLIGATOR CR		H	8.00	SqFt				
48	L & T CR		L	110.00	Ft				
48	L & T CR		M	375.00	Ft				
50	PATCHING		L	300.00	SqFt				
57	WEATHERING		L	3750.00	SqFt				
57	WEATHERING		M	1250.00	SqFt				
Sample Number:	14	Type:	R	Area:	5000.00 SqFt		PCI:	60	
Sample Comments: Created by Inspection Schedule									
48	L & T CR		L	68.00	Ft				
48	L & T CR		L	320.00	Ft				
48	L & T CR		M	70.00	Ft				
50	PATCHING		L	120.00	SqFt				
57	WEATHERING		L	2500.00	SqFt				
57	WEATHERING		M	2500.00	SqFt				
Sample Number:	21	Type:	R	Area:	5000.00 SqFt		PCI:	53	
Sample Comments: Created by Inspection Schedule									
48	L & T CR		L	100.00	Ft				
48	L & T CR		L	81.00	Ft				
48	L & T CR		M	250.00	Ft				

48	L & T CR	M	55.00	Ft
50	PATCHING	L	64.00	SqFt
57	WEATHERING	L	2500.00	SqFt
57	WEATHERING	M	2500.00	SqFt

Sample Number: 28

Type: R

Area: 5000.00 SqFt

PCI: 51

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	98.00	Ft
48	L & T CR	M	120.00	Ft
50	PATCHING	L	300.00	SqFt
50	PATCHING	L	255.00	SqFt
50	PATCHING	L	45.00	SqFt
50	PATCHING	L	14.00	SqFt
52	RAVELING	H	120.00	SqFt
57	WEATHERING	L	2380.00	SqFt
57	WEATHERING	M	2500.00	SqFt

Network:	Enterprise		Name:	Enterprise Municipal			
Branch:	T01EN	Name:	Taxiway 01 Enterprise		Use:	TAXIWAY	Area: 48,242 SqFt
Section:	01	of 1	From:	R30 End	To:	T03-01	Last Const.: 9/1/2000
Surface:	ST	Family:	2022_Eastern_Cat5_Taxiway_AC/AAC	Zone:	8S4	Category:	O Rank: P
Area:	48,242 SqFt	Length:	2,433 Ft	Width:	20 Ft		
Slabs:		Slab Length:	Ft	Slab Width:	Ft	Joint Length:	Ft
Shoulder:		Street Type:		Grade:	0	Lanes:	0
Section Comments:							
Work Date:	9/1/1979	Work Type: Base Course - Aggregate			Code:	BA-AG	Is Major M&R: True
Work Date:	9/2/1979	Work Type: Surface Course - Double Bitum.			Code:	SU-DB	Is Major M&R: True
Work Date:	9/1/2000	Work Type: Surface Course - BST			Code:	SU-SB	Is Major M&R: True
Work Date:	9/1/2008	Work Type: Crack Sealing - AC			Code:	CS-AC	Is Major M&R: False
Work Date:	9/2/2008	Work Type: Surface Treatment - Slurry Seal			Code:	ST-SS	Is Major M&R: False
Work Date:	9/1/2012	Work Type: Crack Sealing - AC			Code:	CS-AC	Is Major M&R: False
Last Insp. Date:	7/1/2022	TotalSamples:	8	Surveyed:	4		
Conditions:	PCI: 36						
Inspection Comments:							
Sample Number:	01	Type:	R	Area:	6000.00 SqFt	PCI:	12
Sample Comments: Created by Inspection Schedule							
41	ALLIGATOR CR	M	200.00 SqFt				
41	ALLIGATOR CR	M	300.00 SqFt				
41	ALLIGATOR CR	H	30.00 SqFt				
42	BLEEDING	N	3000.00 SqFt				
43	BLOCK CR	L	840.00 SqFt				
48	L & T CR	L	20.00 Ft				
50	PATCHING	L	60.00 SqFt				
57	WEATHERING	L	3000.00 SqFt				
Sample Number:	04	Type:	R	Area:	6000.00 SqFt	PCI:	39
Sample Comments: Created by Inspection Schedule							
41	ALLIGATOR CR	L	200.00 SqFt				
42	BLEEDING	N	400.00 SqFt				
43	BLOCK CR	L	4000.00 SqFt				
57	WEATHERING	L	6000.00 SqFt				
Sample Number:	05	Type:	R	Area:	6000.00 SqFt	PCI:	59
Sample Comments: Created by Inspection Schedule							
43	BLOCK CR	L	6000.00 SqFt				
57	WEATHERING	L	6000.00 SqFt				
Sample Number:	07	Type:	R	Area:	6000.00 SqFt	PCI:	33
Sample Comments: Created by Inspection Schedule							
41	ALLIGATOR CR	L	900.00 SqFt				
42	BLEEDING	N	150.00 SqFt				
43	BLOCK CR	L	300.00 SqFt				
57	WEATHERING	L	3000.00 SqFt				
57	WEATHERING	M	3000.00 SqFt				

Network:	Enterprise			Name:	Enterprise Municipal				
Branch:	T02EN		Name:	Taxiway 02 Enterprise		Use:	TAXIWAY	Area:	1,193 SqFt
Section:	01	of	1	From:	R12		To:	T01	Last Const.: 9/1/2000
Surface:	ST	Family:	2022_Eastern_Cat5_Taxiway_AC/AAC		Zone:	8S4	Category:	O	Rank: P
Area:	1,193 SqFt		Length:	50 Ft		Width:	20 Ft		
Slabs:	Slab Length:		Ft		Slab Width:		Ft		Joint Length: Ft
Shoulder:	Street Type:		Grade: 0		Lanes: 0				
Section Comments:									
Work Date: 9/1/1979	Work Type: Base Course - Aggregate			Code: BA-AG			Is Major M&R: True		
Work Date: 9/2/1979	Work Type: Surface Course - Double Bitum.			Code: SU-DB			Is Major M&R: True		
Work Date: 9/1/2000	Work Type: Surface Course - BST			Code: SU-SB			Is Major M&R: True		
Last Insp. Date: 7/1/2022	TotalSamples: 1		Surveyed: 1						
Conditions: PCI: 20									
Inspection Comments:									
Sample Number: 01	Type: R	Area: 1193.00 SqFt		PCI: 20					
Sample Comments: Created by Inspection Schedule									
41	ALLIGATOR CR	M	40.00	SqFt					
42	BLEEDING	N	596.00	SqFt					
48	L & T CR	M	38.00	Ft					
50	PATCHING	L	156.00	SqFt					
52	RAVELING	H	12.00	SqFt					
57	WEATHERING	L	1181.00	SqFt					

Network:	Enterprise			Name:	Enterprise Municipal							
Branch:	T03EN		Name:	Taxiway 03 Enterprise		Use:	TAXIWAY	Area:	5,464 SqFt			
Section:	01	of	1	From:	R12			To:	A01		Last Const.:	9/2/1973
Surface:	AC	Family:	2022_Eastern_Cat5_Taxiway_AC/AAC		Zone:	8S4		Category:	O		Rank:	P
Area:	5,464 SqFt		Length:	98 Ft		Width:	53 Ft					
Slabs:			Slab Length:	Ft		Slab Width:	Ft		Joint Length:	Ft		
Shoulder:			Street Type:			Grade:	0		Lanes:	0		
Section Comments:												
Work Date:	9/1/1973		Work Type:	Base Course - Aggregate				Code:	BA-AG		Is Major M&R:	True
Work Date:	9/2/1973		Work Type:	New Construction - AC				Code:	NC-AC		Is Major M&R:	True
Work Date:	9/1/1985		Work Type:	Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Work Date:	9/1/2008		Work Type:	Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Work Date:	9/1/2012		Work Type:	Crack Sealing - AC				Code:	CS-AC		Is Major M&R:	False
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1					
Conditions:	PCI:		46									
Inspection Comments:												
Sample Number:	01	Type:	R	Area:	5464.00 SqFt			PCI:	46			
Sample Comments: Created by Inspection Schedule												
41	ALLIGATOR CR		M	128.00	SqFt							
48	L & T CR		M	337.00	Ft							
57	WEATHERING		L	3278.00	SqFt							
57	WEATHERING		M	2185.00	SqFt							

Network:	Enterprise			Name:	Enterprise Municipal				
Branch:	T04EN		Name:	Taxiway 04 Enterprise		Use:	TAXIWAY	Area:	12,152 SqFt
Section:	01	of	2	From:	R12 End		To:	A01-03	Last Const.: 9/2/1973
Surface:	ST	Family:	2022_Eastern_Cat5_Taxiway_AC/AAC		Zone:	8S4	Category:	O	Rank: P
Area:	11,918 SqFt		Length:	370 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:	9/1/1973		Work Type: Base Course - Aggregate				Code:	BA-AG Is Major M&R: True	
Work Date:	9/2/1973		Work Type: Surface Course - Double Bitum.				Code:	SU-DB Is Major M&R: True	
Work Date:	9/1/2008		Work Type: Crack Sealing - AC				Code:	CS-AC Is Major M&R: False	
Work Date:	9/1/2012		Work Type: Crack Sealing - AC				Code:	CS-AC Is Major M&R: False	
Last Insp. Date:	7/1/2022		TotalSamples:	3		Surveyed: 2			
Conditions:	PCI: 49								
Inspection Comments:									
Sample Number:	01	Type:	R	Area:	4397.00 SqFt		PCI:	47	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR		M	66.00	SqFt				
48	L & T CR		L	96.00	Ft				
48	L & T CR		M	82.00	Ft				
52	RAVELING		H	70.00	SqFt				
57	WEATHERING		L	4327.00	SqFt				
Sample Number:	02	Type:	R	Area:	3667.00 SqFt		PCI:	52	
Sample Comments:	Created by Inspection Schedule								
41	ALLIGATOR CR		L	69.00	SqFt				
48	L & T CR		L	31.00	Ft				
48	L & T CR		M	73.00	Ft				
52	RAVELING		H	56.00	SqFt				
57	WEATHERING		L	2877.00	SqFt				
57	WEATHERING		M	733.00	SqFt				

Network:	Enterprise			Name:	Enterprise Municipal						
Branch:	T04EN		Name:	Taxiway 04 Enterprise		Use:	TAXIWAY	Area:	12,152 SqFt		
Section:	02	of 2	From:	T04-01		To:	-		Last Const.:	1/1/1901	
Surface:	PCC	Family:	2022_Eastern_Cat5_AllUses_PCC		Zone:	8S4		Category:	O	Rank:	P
Area:	234 SqFt		Length:	18 Ft		Width:	13 Ft				
Slabs:	1	Slab Length:	18 Ft		Slab Width:	13 Ft		Joint Length:	Ft		
Shoulder:		Street Type:		Grade:	0		Lanes:	0			
Section Comments:											
Work Date:	1/1/1901		Work Type:	New Construction - Initial			Code:	NU-IN		Is Major M&R:	True
Last Insp. Date:	7/1/2022		TotalSamples:	1		Surveyed:	1				
Conditions:	PCI:	15									
Inspection Comments:											
Sample Number:	01	Type:	R	Area:	1.00 Slabs		PCI:	15			
Sample Comments: Created by Inspection Schedule											
72	SHAT. SLAB		L	1.00 Slabs							
74	JOINT SPALL		M	1.00 Slabs							
75	CORNER SPALL		L	1.00 Slabs							

APPENDIX F

Work History Report

4/13/2023

Work History Report

Page 1 of 4

Pavement Database: ODA_WOC3_4-10-2023_PostWHEdits_4PM

Network: Enterprise Municipal		Branch: A01EN		Apron 01 Enterpris		Section: 01	Surface: AAC
L.C.D. 9/1/1989	Use: APRON	Rank: P	Length: 130.00 (Ft)	Width: 50.00 (Ft)	True Area: 6500.000082 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/2/2012	PA-AD	Patching - AC Deep	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/1/1989	OL-AT	Overlay - AC Thin	0.00	0.00	<input checked="" type="checkbox"/>	date estimated from model	
9/2/1973	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
9/1/1973	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: A01EN		Apron 01 Enterpris		Section: 02	Surface: AC
L.C.D. 9/2/1973	Use: APRON	Rank: P	Length: 60.00 (Ft)	Width: 70.00 (Ft)	True Area: 4182.000105 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008	
9/1/1985	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>		
9/2/1973	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
9/1/1973	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: A01EN		Apron 01 Enterpris		Section: 03	Surface: ST
L.C.D. 9/3/1973	Use: APRON	Rank: P	Length: 58.00 (Ft)	Width: 155.00 (Ft)	True Area: 7507.000218 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/3/1973	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>	date unknown	
9/2/1973	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
9/1/1973	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: A02EN		Apron 02 Enterpris		Section: 01	Surface: ST
L.C.D. 9/1/2000	Use: APRON	Rank: S	Length: 65.00 (Ft)	Width: 45.00 (Ft)	True Area: 2970.000073 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2000	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>		
9/2/1979	SU-DB	Surface Course - Double Bitum.	0.00	0.75	<input checked="" type="checkbox"/>		
9/1/1979	BA-AG	Base Course - Aggregate	0.00	16.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: A03EN		Apron 03 Enterpris		Section: 01	Surface: ST
L.C.D. 9/2/1979	Use: APRON	Rank: S	Length: 48.00 (Ft)	Width: 45.00 (Ft)	True Area: 2105.000053 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/2/1979	SU-DB	Surface Course - Double Bitum.	0.00	0.75	<input checked="" type="checkbox"/>		
9/1/1979	BA-AG	Base Course - Aggregate	0.00	16.00	<input checked="" type="checkbox"/>		

4/13/2023

Work History Report

Page 2 of 4

Pavement Database: ODA_WOC3_4-10-2023_PostWHEdits_4PM

Network: Enterprise Municipal		Branch: AH12EN	Hold Apron RW 1		Section: 01	Surface: ST
L.C.D. 9/1/1973	Use: APRON	Rank: P	Length: 55.00 (Ft)	Width: 45.00 (Ft)	True Area: 2475.000061 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008
9/1/1973	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>	
9/2/1970	NC-AC	New Construction - AC	0.00	3.00	<input checked="" type="checkbox"/>	
9/1/1970	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	

Network: Enterprise Municipal		Branch: AH30EN	Hold Apron RW 3		Section: 01	Surface: ST
L.C.D. 9/1/1973	Use: APRON	Rank: P	Length: 130.00 (Ft)	Width: 20.00 (Ft)	True Area: 2465.000064 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/1/1973	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>	
9/2/1970	NC-AC	New Construction - AC	0.00	3.00	<input checked="" type="checkbox"/>	
9/1/1970	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	

Network: Enterprise Municipal		Branch: R12EN	Runway 12/30 Ent		Section: 01	Surface: AC
L.C.D. 9/1/1997	Use: RUNWAY	Rank: P	Length: 2,863.00 (Ft)	Width: 50.00 (Ft)	True Area: 143150.0035 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/2/2012	PA-AD	Patching - AC Deep	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/1/2012	CS-WD	Crack Seal - Wide Cracks	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-WD	Crack Seal - Wide Cracks	0.00	0.10	<input type="checkbox"/>	PMP 2008
9/1/1997	OL-AT	Overlay - AC Thin	0.00	0.00	<input checked="" type="checkbox"/>	unk. thickness
9/1/1973	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>	
9/2/1970	NC-AC	New Construction - AC	0.00	3.00	<input checked="" type="checkbox"/>	
9/1/1970	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>	

Network: Enterprise Municipal		Branch: T01EN	Taxiway 01 Enterp		Section: 01	Surface: ST
L.C.D. 9/1/2000	Use: TAXIWAY	Rank: P	Length: 2,433.00 (Ft)	Width: 20.00 (Ft)	True Area: 48242.00121 (SqFt)	
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012
9/2/2008	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	<input type="checkbox"/>	PMP 2008
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008
9/1/2000	SU-SB	Surface Course - BST	0.00	0.50	<input checked="" type="checkbox"/>	
9/2/1979	SU-DB	Surface Course - Double Bitum.	0.00	0.75	<input checked="" type="checkbox"/>	
9/1/1979	BA-AG	Base Course - Aggregate	0.00	16.00	<input checked="" type="checkbox"/>	

4/13/2023

Work History Report

Page 3 of 4

Pavement Database: ODA_WOC3_4-10-2023_PostWHEdits_4PM

Network: Enterprise Municipal		Branch: T02EN		Taxiway 02 Enterp		Section: 01	Surface: ST
L.C.D. 9/1/2000	Use: TAXIWAY	Rank: P	Length: 50.00 (Ft)	Width: 20.00 (Ft)	True Area: 1193.000004 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2000	SU-SB	Surface Course - BST	0.00	0.00	<input checked="" type="checkbox"/>		
9/2/1979	SU-DB	Surface Course - Double Bitum.	0.00	0.75	<input checked="" type="checkbox"/>		
9/1/1979	BA-AG	Base Course - Aggregate	0.00	16.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: T03EN		Taxiway 03 Enterp		Section: 01	Surface: AC
L.C.D. 9/2/1973	Use: TAXIWAY	Rank: P	Length: 98.00 (Ft)	Width: 53.00 (Ft)	True Area: 5464.000131 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008	
9/1/1985	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>		
9/2/1973	NC-AC	New Construction - AC	0.00	2.00	<input checked="" type="checkbox"/>		
9/1/1973	BA-AG	Base Course - Aggregate	0.00	6.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: T04EN		Taxiway 04 Enterp		Section: 01	Surface: ST
L.C.D. 9/2/1973	Use: TAXIWAY	Rank: P	Length: 370.00 (Ft)	Width: 35.00 (Ft)	True Area: 11918 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
9/1/2012	CS-AC	Crack Sealing - AC	0.00	0.00	<input type="checkbox"/>	PMP 2012	
9/1/2008	CS-AC	Crack Sealing - AC	0.00	0.10	<input type="checkbox"/>	PMP 2008	
9/2/1973	SU-DB	Surface Course - Double Bitum.	0.00	0.75	<input checked="" type="checkbox"/>		
9/1/1973	BA-AG	Base Course - Aggregate	0.00	16.00	<input checked="" type="checkbox"/>		

Network: Enterprise Municipal		Branch: T04EN		Taxiway 04 Enterp		Section: 02	Surface: PCC
L.C.D. 1/1/1901	Use: TAXIWAY	Rank: P	Length: 18.00 (Ft)	Width: 13.00 (Ft)	True Area: 234.0000000 (SqFt)		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments	
1/1/1901	NU-IN	New Construction - Initial	0.00	0.00	<input checked="" type="checkbox"/>		

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Aggregate	12	238,171.01	10.17	4.93
Crack Seal - Wide Cracks	2	286,300.01	0.05	0.05
Crack Sealing - AC	16	178,187.00	0.05	0.05
New Construction - AC	7	171,743.00	2.43	0.49
New Construction - Initial	1	234.00	0.00	0.00
Overlay - AC Thin	2	149,650.00	0.00	0.00
Patching - AC Deep	2	149,650.00	0.00	0.00
Surface Course - BST	7	208,002.01	0.43	0.17
Surface Course - Double Bitum.	5	66,428.00	0.75	0.00
Surface Treatment - Slurry Seal	2	191,392.00	0.00	0.00