2022 ODA Pavement Evaluation Program

Christmas Valley Airport

Christmas Valley, Oregon

December 30, 2022
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Prepared for

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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 Christmas Valley Airport in Christmas Valley, 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 Christmas Valley 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

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

Figure 2.1 – CHRISTMAS VALLEY AIRPORT LOCATION MAP

Christmas Valley Airport contains one runway, one primary parallel taxiway, and multiple connector taxiways and aprons. The airside pavements at Christmas Valley Airport are comprised of asphalt concrete (AC) and surface treated (ST) pavements. The airport pavements, delineated by surface type and branch use, are shown on the Christmas Valley Airport Percent of Pavement Area by Surface Type, Figure 2.2 and the Christmas Valley Airport Pavement Area by Branch Use, Figure 2.3. The pavement inventory, including work history for each pavement section, is displayed spatially on the Christmas Valley 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, Appendix F.

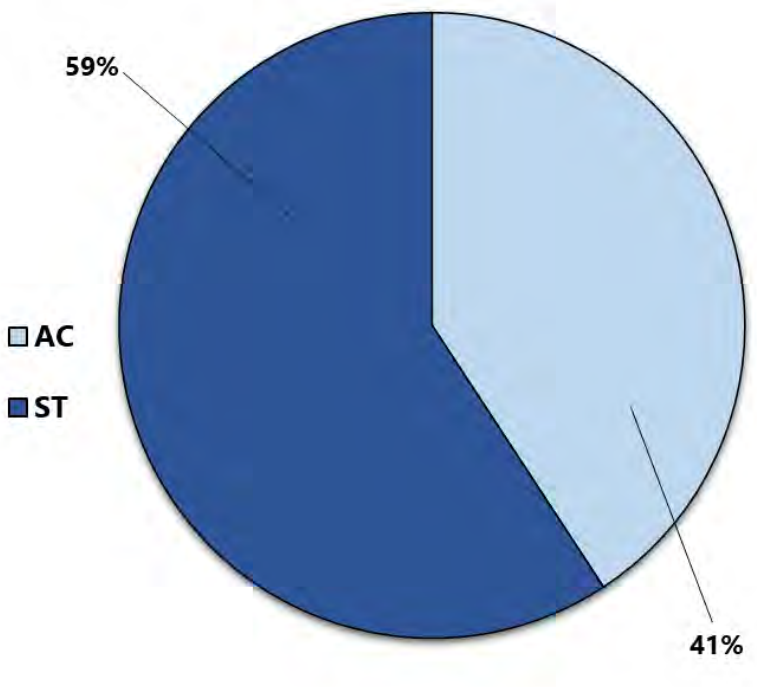


Figure 2.2 – CHRISTMAS VALLEY AIRPORT PERCENT OF PAVEMENT AREA BY SURFACE TYPE

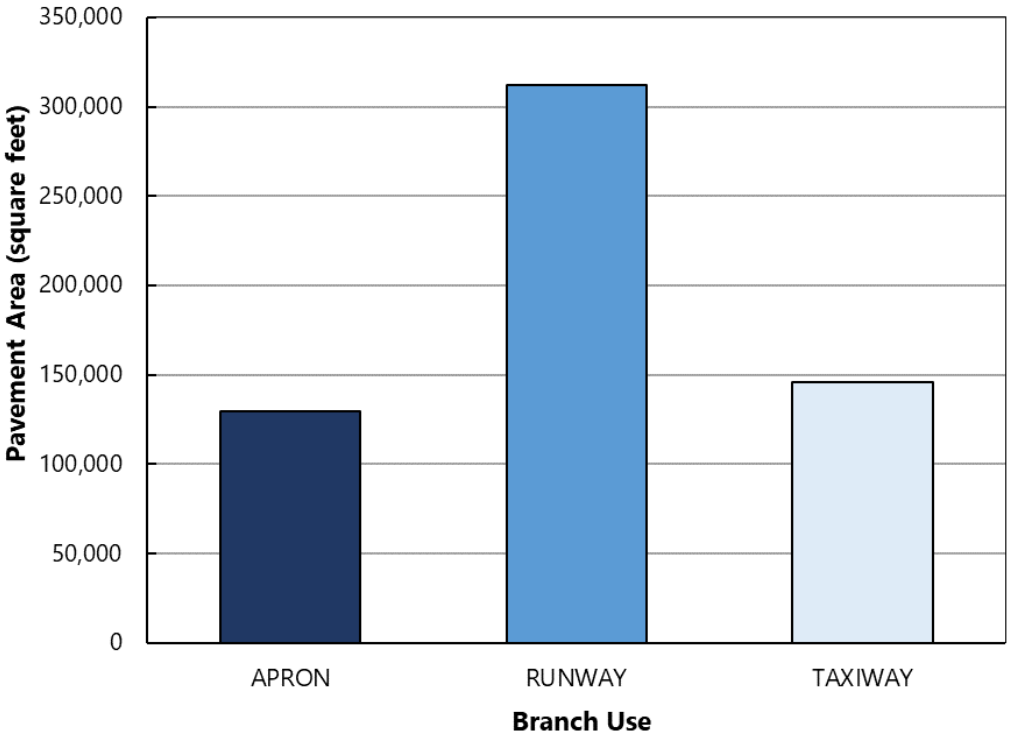
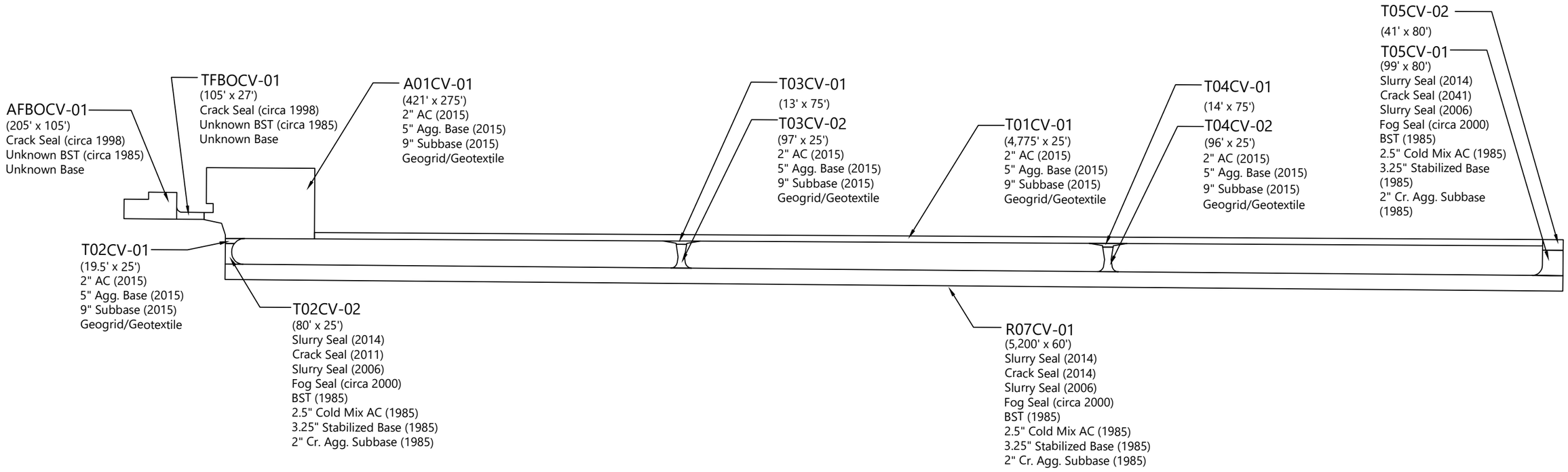
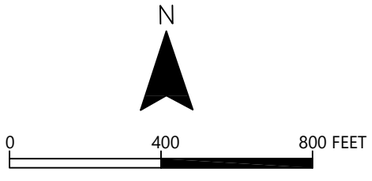


Figure 2.3 – CHRISTMAS VALLEY AIRPORT PAVEMENT AREA BY BRANCH USE



Abbreviations: AC = Asphalt Concrete; BST = Bituminous Surface Treatment; Cr. = Crushed; Agg. = Aggregate



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CHRISTMAS VALLEY AIRPORT PAVEMENT INVENTORY

DEC. 2022 JOB NO. 6593-B FIG. 2.4

3 PAVEMENT CONDITION INSPECTION RESULTS

3.1 Introduction

GRI conducted a visual PCI survey of the airside pavements at Christmas Valley Airport in March 2022. The 2022 survey work was performed on sections last inspected in 2019 in order to update the Christmas Valley 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.

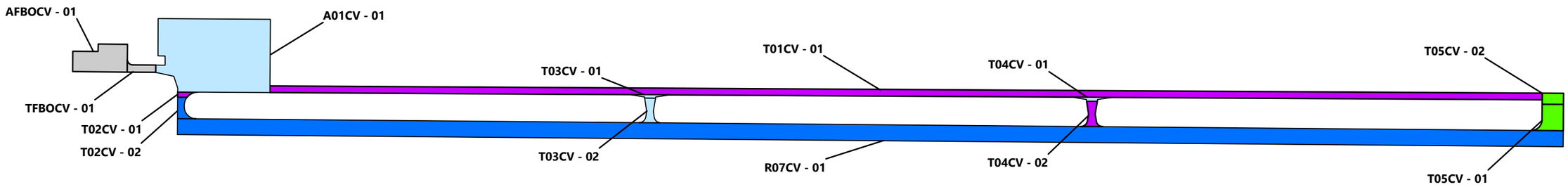
The PCI is based on the type, severity, and quantity of each distress found in an inspected sample unit. Further discussion of distress types for flexible pavement is provided in Appendix B and summarized in Table 1B in Appendix B. The results of the PCI survey are displayed using a seven-category rating 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 Christmas Valley Airport is approximately 68. The section PCIs ranged from a low of 14 to a high of 94. The primary distresses observed during the inspection were weathering, longitudinal and transverse cracking, fatigue (alligator) cracking, and block cracking. Section PCIs following our pavement survey are displayed below spatially on the 2022 PCI Survey Results, Figure 3.1.



2022 SECTION PCI

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

N

0 400 800 Feet

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2022 PCI SURVEY RESULTS

CHRISTMAS VALLEY AIRPORT

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The condition distribution of the network by the percent of total pavement area is provided on the Christmas Valley Airport Pavement Condition Rating by Percent of Area, Figure 3.2. A summary of the pavement condition results by branch and section are 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.

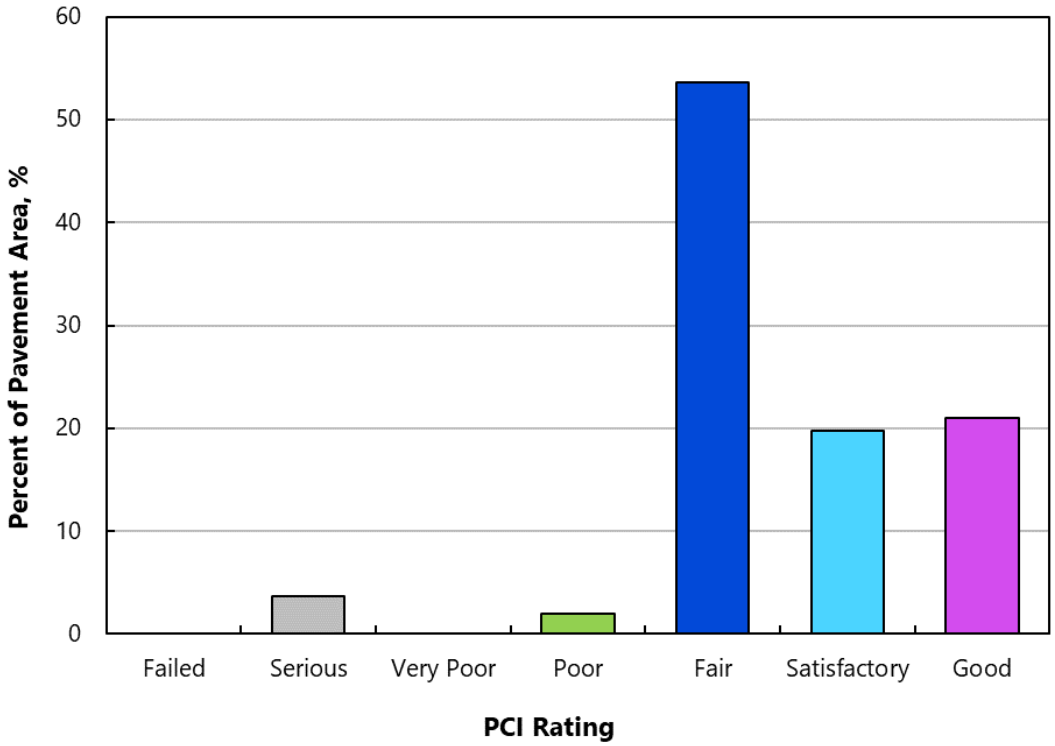


Figure 3.2 – CHRISTMAS VALLEY AIRPORT PAVEMENT CONDITION RATING BY PERCENT OF AREA

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 Christmas Valley Airport are displayed on Figures 1C through 3C 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 68 to a value of 56 in the year 2027 and 43 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 Christmas Valley Airport is displayed spatially on the Future Pavement Condition, Figure 4.1 and listed in Table 1C in Appendix C, along with the past and present PCI values for the pavement network.

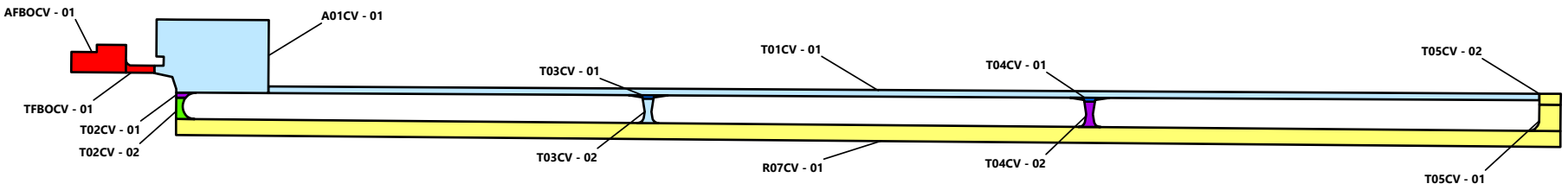
4.3 Functional Remaining Life

The functional remaining life is the practical amount of time a pavement is in service before requiring rehabilitation, as estimated 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 and typically a field exploration and testing program that includes core explorations and falling weight deflectometer (FWD) deflection tests.

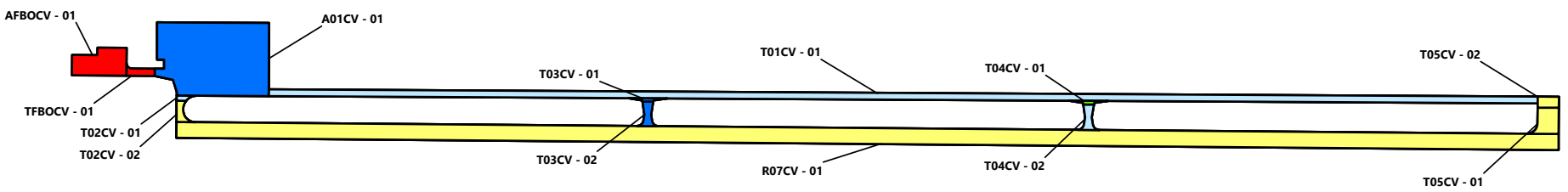
We calculated two forms of functional remaining life based on the current visual condition surveys of the pavement at Christmas Valley Airport. The first type of functional remaining life is the time until rehabilitation such as an overlay is needed. The critical PCI, further discussed in Section C.3 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 Christmas Valley Airport are summarized in Table 2C in Appendix C.

PREDICTED CONDITION IN 2027

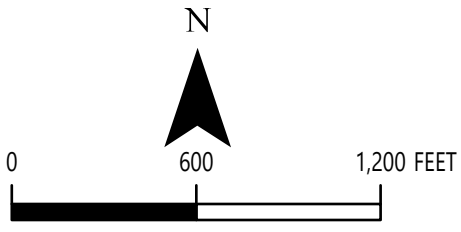


PREDICTED CONDITION IN 2032



SECTION PCI

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



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FUTURE PAVEMENT CONDITION
CHRISTMAS VALLEY AIRPORT

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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, the Christmas Valley Airport Pavement Network General Treatment Type Distribution Based on PCI, Figure 5.1 displays a breakdown of the Christmas Valley Airport network pavement condition by percent of area and general M&R treatment categories. Approximately 41%, 55%, and 4% of the area require preservation treatments, rehabilitation, and reconstruction, respectively.

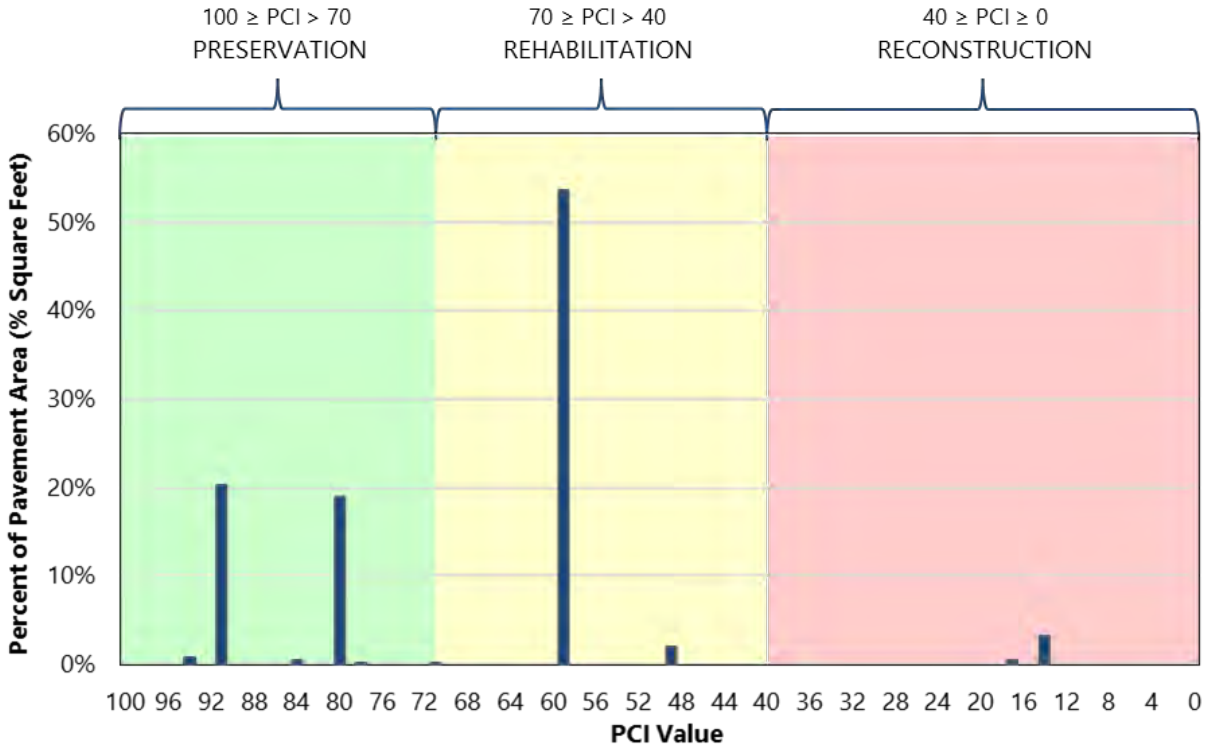


Figure 5.1 – CHRISTMAS VALLEY AIRPORT PAVEMENT NETWORK GENERAL TREATMENT TYPE DISTRIBUTION BASED ON PCI

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 the approximate total localized maintenance quantities is provided in Table 5-1 below.

Table 5-1: LOCALIZED MAINTENANCE QUANTITIES

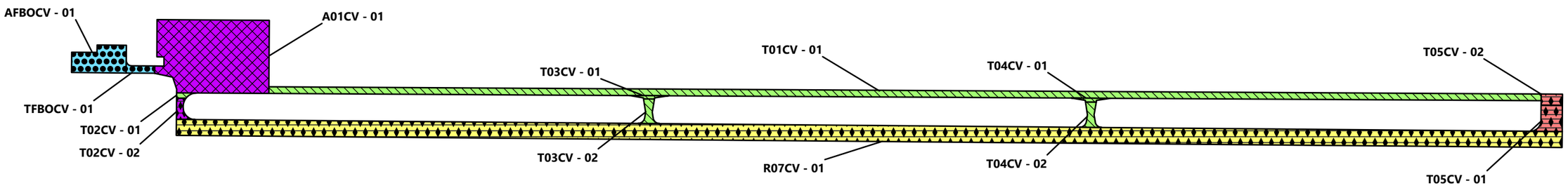
Localized Maintenance Operation	Approximate Quantity
Asphalt Concrete Crack Sealing	101,716 linear feet
Asphalt Concrete Wide Crack Sealing	1,247 linear feet
Asphalt Concrete Full-Depth Patching	767 square feet

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, 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	21,726
Overlay	326,078
Fog Seal	110,615
Slurry Seal	128,754



ACTION TIMING

- 2023
- 2024
- 2025
- 2026
- 2027

ACTION

- FOG SEAL
- SLURRY SEAL
- OVERLAY
- RECONSTRUCTION
- ROUTINE MAINTENANCE

N

0 400 800 Feet

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5-YEAR PAVEMENT MANAGEMENT PLAN

CHRISTMAS VALLEY AIRPORT

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6 LIMITATIONS

This report has been prepared to assist the ODA with pavement-related project planning for the Christmas Valley Airport. The scope is limited to the specific pavement areas described within this report. 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 Christmas Valley Airport would like to know more about the results presented in this report, please contact the undersigned.

Submitted for GRI,

RENEWS: 06/2023

Lindsi A. Hammond, PE
Principal

Matthew A. Haynes, PE
Project Engineer

This document has been submitted electronically.

APPENDIX A

Pavement Inventory Reports and Maps

APPENDIX A

PAVEMENT INVENTORY REPORTS AND MAPS

A.1 PAVEMENT NETWORK

Christmas Valley Airport is located in Christmas Valley, Oregon, and is owned and operated by Christmas Valley Parks and Recreation. The pavement network/facilities at Christmas Valley Airport serve a variety of general aviation aircraft. Christmas Valley Airport consists of one runway, one primary parallel taxiway, and multiple connector taxiways and aprons. The airside pavements at Christmas Valley Airport are comprised of asphalt concrete (AC) and surface treated (ST) pavements.

The current airport pavement management system (APMS) network at Christmas Valley Airport has an approximate area of 587,000 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 Christmas Valley Airport contains nine 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 Christmas Valley Airport contains 13 sections that are managed by Christmas Valley Parks and Recreation, 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 ± 2,000 square feet and 20 slabs ± 8 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:

$$n = \frac{N \times s^2}{\left(e^2/_4\right)(N-1)+s^2} \qquad \text{(Equation 1)}$$

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 Christmas Valley Airport PCI survey, Table 3A was used as a guideline in developing sampling rates for flexible 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 Christmas Valley 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 – CHRISTMAS VALLEY AIRPORT PAVEMENT BRANCHES

Facility Designation (Branch ID)	Branch Name	Number of Sections	Approximate Area, square feet
A01CV	Apron 01 Christmas Valley	1	110,615
AFBOCV	FBO Apron Christmas Valley	1	18,722
R07CV	Runway 07/25 Christmas Valley	1	312,000
T01CV	Taxiway 01 Christmas Valley	1	119,353
T02CV	Taxiway 02 Christmas Valley	2	3,456
T03CV	Taxiway 03 Christmas Valley	2	4,142
T04CV	Taxiway 04 Christmas Valley	2	4,338
T05CV	Taxiway 05 Christmas Valley	2	11,543
TFBOCV	Taxiway FBO Christmas Valley	1	3,004

Table 2A - CHRISTMAS VALLEY AIRPORT CURRENT PAVEMENT INVENTORY

BranchID	Branch Name	Branch Use	SectionID	From	To	Rank	Length, feet	Width, feet	Approximate Area, square feet	LCD[1]	Surface Type
A01CV	Apron 01 Christmas Valley	APRON	01	T02CV	T01CV	P	421	275	110,615	10/1/2015	AC
AFBOCV	FBO Apron Christmas Valley	APRON	01	Taxiway FBO	Fuel Pumps, Hangar	S	205	105	18,722	9/1/1985	ST
R07CV	Runway 07/25 Christmas Valley	RUNWAY	01	Runway 07 End	Runway 25 End	P	5,200	60	312,000	9/4/1985	ST
T01CV	Taxiway 01 Christmas Valley	TAXIWAY	01	Apron	T05	P	4,775	25	119,353	10/1/2015	AC
T02CV	Taxiway 02 Christmas Valley	TAXIWAY	01	Runway 07 End	Apron 01	P	20	25	921	10/1/2015	AC
T02CV	Taxiway 02 Christmas Valley	TAXIWAY	02	Runway 07 End	Apron 01	P	80	25	2,535	9/4/1985	ST
T03CV	Taxiway 03 Christmas Valley	TAXIWAY	01	T01	Hold Line	P	13	75	982	10/1/2015	AC
T03CV	Taxiway 03 Christmas Valley	TAXIWAY	02	Hold Line	Runway	P	97	25	3,160	10/1/2015	AC
T04CV	Taxiway 04 Christmas Valley	TAXIWAY	01	T01	Hold Line	P	14	75	1,046	10/1/2015	AC
T04CV	Taxiway 04 Christmas Valley	TAXIWAY	02	Hold Line	Runway	P	96	25	3,292	10/1/2015	AC
T05CV	Taxiway 05 Christmas Valley	TAXIWAY	01	R25 End	Hold Line	P	99	80	8,233	9/4/1985	ST
T05CV	Taxiway 05 Christmas Valley	TAXIWAY	02	Hold Line	T01	P	41	80	3,310	9/4/1985	ST
TFBOCV	Taxiway FBO Christmas Valley	TAXIWAY	01	Apron 01	FBO Apron	S	105	27	3,004	9/1/1985	ST

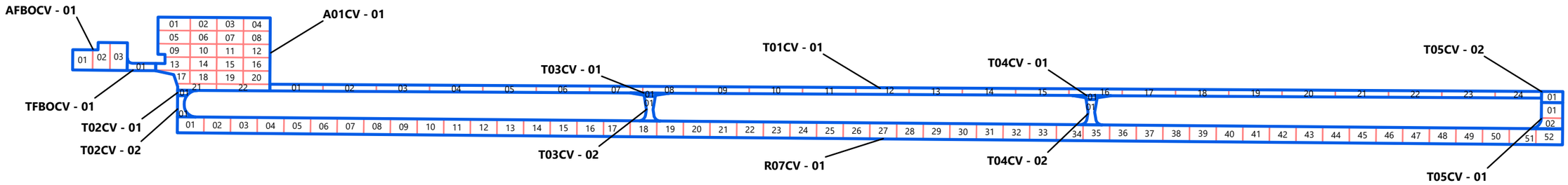
Abbreviations:
P = Primary pavement, S = Secondary pavement, AC = Asphalt Concrete, ST = Surface Treatment

Notes:
[1] LCD = Last Construction Date. The date of the last major rehabilitation (e.g. overlay)

Table 3A: EXAMPLE SAMPLE RATES FOR AC PAVEMENTS

AC Sampling Rate	
Total Number of Sample Units, N	**Sample Units to Survey, n**
1	1
2-3	2
4-6	3
7-13	4
14-38	5
39+	6

Note: AC = Asphalt Concrete



SECTION

SAMPLE UNIT

N

0 400 800

Feet

GRI

SAMPLE UNIT LAYOUT

CHRISTMAS VALLEY AIRPORT

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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) 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 PAVEMENT

Flexible Pavement		
PAVER Code	**Pavement Distress**	**Related Cause**
41	Alligator Cracking	Load
42	Bleeding	Other
43	Block Cracking	Climate/ Durability
44	Corrugation	Other
45	Depression	Other
46	Jet Blast	Other
47	Joint Reflection Cracking	Climate/ Durability
48	Longitudinal & Transverse Cracking	Climate/ Durability
49	Oil Spillage	Other
50	Patching	Climate/ Durability
51	Polished Aggregate	Other
52	Raveling	Climate/ Durability
53	Rutting	Load
54	Shoving	Other
55	Slippage Cracking	Other
56	Swelling	Other
57	Weathering	Climate/ Durability

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; neither 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 Christmas Valley Airport pavement network consists of 9 branches and 13 sections. A total of 28 sample units were visually inspected in the field. Data from the inspected sample units were 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 Christmas Valley Airport is approximately 68, which corresponds to a PCI rating of Fair.

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 Christmas Valley Airport pavement sections is outlined in Table 4B in this appendix.

Table 2B - CHRISTMAS VALLEY AIRPORT CURRENT BRANCH CONDITION REPORT

Branch ID	Number of Sections	Approximate Area, square feet	Use	Area Weighted Average Branch PCI	PCI Category
A01CV	1	110,615	APRON	80	Satisfactory
AFBOCV	1	18,722	APRON	14	Serious
R07CV	1	312,000	RUNWAY	59	Fair
T01CV	1	119,353	TAXIWAY	91	Good
T02CV	2	3,456	TAXIWAY	68	Fair
T03CV	2	4,142	TAXIWAY	83	Satisfactory
T04CV	2	4,338	TAXIWAY	88	Good
T05CV	2	11,543	TAXIWAY	49	Poor
TFBOCV	1	3,004	TAXIWAY	17	Serious

Use Category	Number of Sections	Total Area, square feet	Area Weighted Average PCI
APRON	2	129,337	70
RUNWAY	1	312,000	59
TAXIWAY	10	145,836	85
ALL	**13**	**587,173**	**68**

Table 3B - CHRISTMAS VALLEY 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
A01CV	01	10/1/2015	AC	APRON	3/1/2022	6	80	Satisfactory	100	0	0
AFBOCV	01	9/1/1985	ST	APRON	3/1/2022	37	14	Serious	76	24	0
R07CV	01	9/4/1985	ST	RUNWAY	3/1/2022	36	59	Fair	100	0	0
T01CV	01	10/1/2015	AC	TAXIWAY	3/1/2022	6	91	Good	100	0	0
T02CV	01	10/1/2015	AC	TAXIWAY	3/1/2022	6	94	Good	100	0	0
T02CV	02	9/4/1985	ST	TAXIWAY	3/1/2022	36	59	Fair	100	0	0
T03CV	01	10/1/2015	AC	TAXIWAY	3/1/2022	6	78	Satisfactory	100	0	0
T03CV	02	10/1/2015	AC	TAXIWAY	3/1/2022	6	84	Satisfactory	100	0	0
T04CV	01	10/1/2015	AC	TAXIWAY	3/1/2022	6	71	Satisfactory	100	0	0
T04CV	02	10/1/2015	AC	TAXIWAY	3/1/2022	6	94	Good	100	0	0
T05CV	01	9/4/1985	ST	TAXIWAY	3/1/2022	36	49	Poor	100	0	0
T05CV	02	9/4/1985	ST	TAXIWAY	3/1/2022	36	49	Poor	53	47	0
TFBOCV	01	9/1/1985	ST	TAXIWAY	3/1/2022	37	17	Serious	62	38	0

Abbreviations:
PCI = Pavement Condition Index, AC = Asphalt Concrete, ST = Surface Treatment

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

Branch ID	Section ID	Surface Type[1]	Approximate Area, square feet	LCD[2]	2019 Survey			2022 Survey		Age[3]	Δ PCI/yr[4]	Rate of Deterioration
					PCI	PCI Category	Insp. Date	PCI	PCI Category			
A01CV	01	AC	110,615	10/1/2015	98	Good	5/13/2019	80	Satisfactory	4	-6.42	HIGH
AFBOCV	01	ST	18,722	9/1/1985	20	Serious	5/13/2019	14	Serious	34	-2.14	NORMAL
R07CV	01	ST	312,000	9/4/1985	61	Fair	5/13/2019	59	Fair	34	-0.71	NORMAL
T01CV	01	AC	119,353	10/1/2015	98	Good	5/13/2019	91	Good	4	-2.50	NORMAL
T02CV	01	AC	921	10/1/2015	91	Good	5/13/2019	94	Good	4	1.07	NONE
T02CV	02	ST	2,535	9/4/1985	66	Fair	5/13/2019	59	Fair	34	-2.50	NORMAL
T03CV	01	AC	982	10/1/2015	95	Good	5/13/2019	78	Satisfactory	4	-6.07	HIGH
T03CV	02	AC	3,160	10/1/2015	95	Good	5/13/2019	84	Satisfactory	4	-3.92	NORMAL
T04CV	01	AC	1,046	10/1/2015	91	Good	5/13/2019	71	Satisfactory	4	-7.14	HIGH
T04CV	02	AC	3,292	10/1/2015	91	Good	5/13/2019	94	Good	4	1.07	NONE
T05CV	01	ST	8,233	9/4/1985	56	Fair	5/13/2019	49	Poor	34	-2.50	NORMAL
T05CV	02	ST	3,310	9/4/1985	56	Fair	5/13/2019	49	Poor	34	-2.50	NORMAL
TFBOCV	01	ST	3,004	9/1/1985	53	Poor	5/13/2019	17	Serious	34	-12.84	HIGH

Abbreviations:

[1] AC = Asphalt Concrete, ST = Surface Treatment

[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 2019

[4] Δ PCI/yr = Change in PCI points per year between 2019 survey and 2022 survey

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APPENDIX C

Future Pavement Condition Analysis

APPENDIX C

FUTURE 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 Christmas Valley Airport. The delineation is based on branch use, surface type, section rank, and structural design life. We use three distinct models for the following "families" of pavements at Christmas Valley Airport. For each model, we reviewed the data in order to filter out any suspicious 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 fourth-order, 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 3C below.

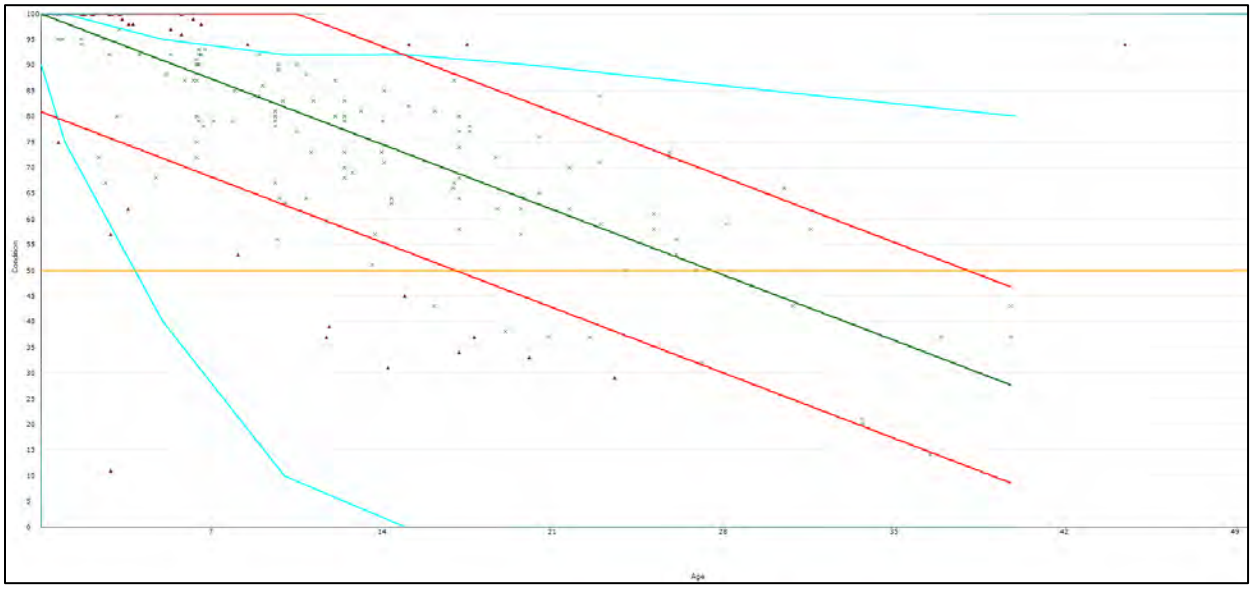

Figure 1C – CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 4 AC AND ST APRONS

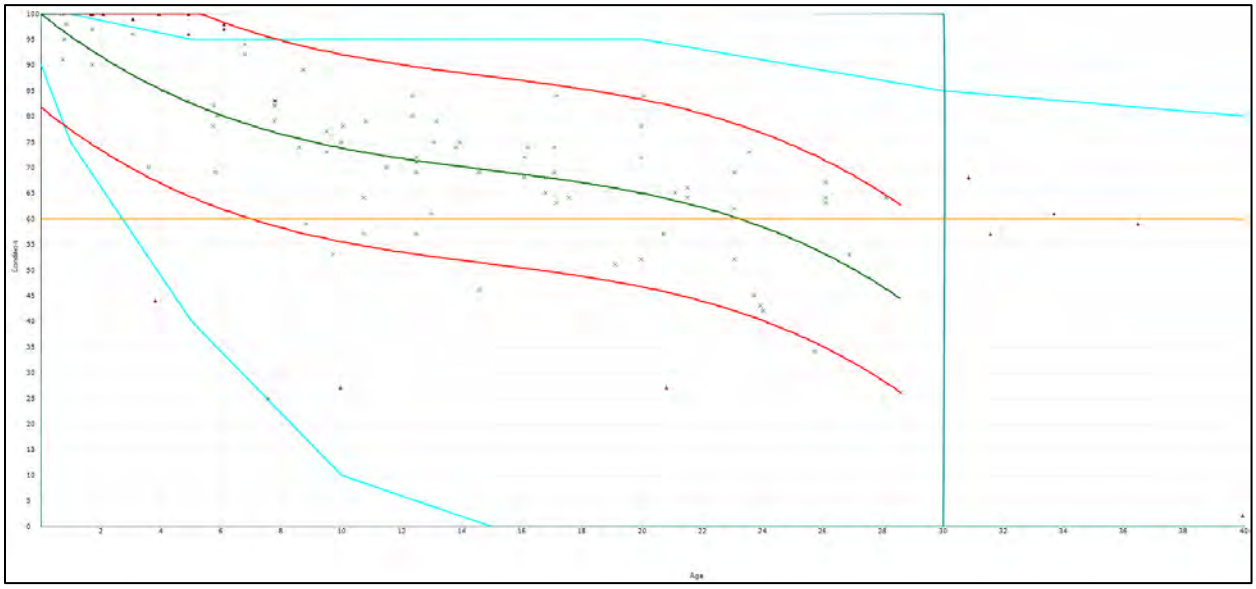

Figure 2C - CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 4 AC AND ST RUNWAYS

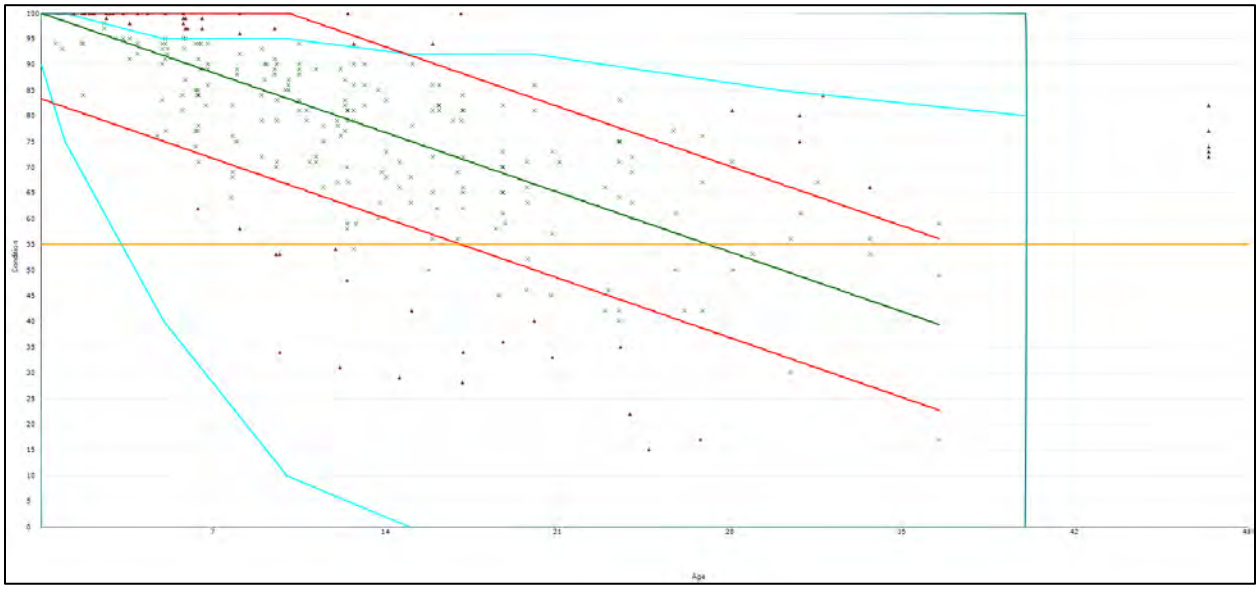

Figure 3C - CONDITION PREDICTION MODEL FOR CENTRAL CATEGORY 4 ST TAXIWAYS

C.3 CRITICAL PAVEMENT CONDITION INDEX

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 Christmas Valley Airport:

- Runways – 60
- Taxiways/Taxilanes – 55
- Aprons – 50

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 Christmas Valley 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 Christmas Valley 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	Past Inspection PCI 2019	Current PCI 2022	Predicted Future PCI 2027	Predicted Future PCI 2032
A01CV	01	98	80	71	62
AFBOCV	01	20	14	5	0
R07CV	01	61	59	44	27
T01CV	01	98	91	83	74
T02CV	01	91	94	86	77
T02CV	02	66	59	51	42
T03CV	01	95	78	70	61
T03CV	02	95	84	76	67
T04CV	01	91	71	63	54
T04CV	02	91	94	86	77
T05CV	01	56	49	41	32
T05CV	02	56	49	41	32
TFBOCV	01	53	17	9	0

Abbreviations:
PCI = Pavement Condition Index

Table 2C - CHRISTMAS VALLEY 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
A01CV	01	AC	80	16 - 20	50	> 20
AFBOCV	01	ST	14	0 - 5	50	0 - 5
R07CV	01	ST	59	0 - 5	60	6 - 10
T01CV	01	AC	91	> 20	55	> 20
T02CV	01	AC	94	> 20	55	> 20
T02CV	02	ST	59	0 - 5	55	11 - 15
T03CV	01	AC	78	11 - 15	55	> 20
T03CV	02	AC	84	16 - 20	55	> 20
T04CV	01	AC	71	6 - 10	55	16 - 20
T04CV	02	AC	94	> 20	55	> 20
T05CV	01	ST	49	0 - 5	55	0 - 5
T05CV	02	ST	49	0 - 5	55	0 - 5
TFBOCV	01	ST	17	0 - 5	55	0 - 5

Abbreviations:
M&R = Maintenance and Rehabilitation, AC = Asphalt Concrete, ST = Surface Treatment
[1] Major M&R 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 Christmas Valley Airport pavement network condition over time. We used PAVER v7 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, 2023. 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 2019 report and updated them by reviewing the bid tabulations for recent projects within the vicinity of Christmas Valley 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 Christmas Valley Airport. The costs represent the fully-loaded costs and include aspects of the project such as administration, contingencies, mobilization, and striping. The cost tables used in the analysis are presented in Table 2D below.

Table 2D: CHRISTMAS VALLEY AIRPORT UNIT COST DATA

Type of M&R	Work Type	Unit Cost	Work Unit
Major M&R	Complete Reconstruction with AC	$11.10	Sq Ft
	Cold Mill and Overlay – 3 Inches Thick	$4.90	Sq Ft
Global M&R	Surface Treatment - Slurry Seal	$0.33	Sq Ft
	Surface Treatment - Fog Seal	$0.20	Sq Ft
Localized Preventive M&R	Crack Sealing - AC	$2.00	Ft
	Crack Sealing - PCC	$15.00	Ft
	Crack Sealing – Wide Cracks	$33.00	Ft
	AC Patching – Full Depth	$50.00	Sq Ft
	PCC Patching – Full Depth	$100.00	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 - CHRISTMAS VALLEY NETWORK MAINTENANCE REPORT

Network	Branch ID	Section ID	Distress	Severity	Action	Work Quantity	Unit	Unit Cost	Work Cost	Section Total
Christmas	A01CV	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	102	Ft	$2.00	$204	$5,088
Christmas	A01CV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	2,442	Ft	$2.00	$4,884	
Christmas	AFBOCV	01	Long. & Trans. Cracking	High	Crack Seal - Wide Cracks	1,247	Ft	$33.00	$41,157	$60,621
Christmas	AFBOCV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	143	Ft	$2.00	$286	
Christmas	AFBOCV	01	Block Cracking	Medium	Crack Sealing - AC	436	Ft	$2.00	$872	
Christmas	AFBOCV	01	Alligator Cracking	High	Patching - AC Deep	366	SqFt	$50.00	$18,306	
Christmas	R07CV	01	Block Cracking	Low	Crack Sealing - AC	95,097	Ft	$2.00	$190,196	$190,196
Christmas	T01CV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	119	Ft	$2.00	$239	$430
Christmas	T01CV	01	Long. & Trans. Cracking	Low	Crack Sealing - AC	95	Ft	$2.00	$191	
Christmas	T02CV	02	Block Cracking	Low	Crack Sealing - AC	386	Ft	$2.00	$771	$1,075
Christmas	T02CV	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	152	Ft	$2.00	$304	
Christmas	T03CV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	23	Ft	$2.00	$46	$106
Christmas	T03CV	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	30	Ft	$2.00	$60	
Christmas	T04CV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	47	Ft	$2.00	$94	$94
Christmas	T05CV	01	Block Cracking	Medium	Crack Sealing - AC	1,255	Ft	$2.00	$2,509	$4,304
Christmas	T05CV	01	Block Cracking	Low	Crack Sealing - AC	898	Ft	$2.00	$1,795	
Christmas	T05CV	02	Long. & Trans. Cracking	Medium	Crack Sealing - AC	278	Ft	$2.00	$556	$5,315
Christmas	T05CV	02	Alligator Cracking	Medium	Patching - AC Deep	95	SqFt	$50.00	$4,759	
Christmas	TFBOCV	01	Long. & Trans. Cracking	Medium	Crack Sealing - AC	213	Ft	$2.00	$426	$15,744
Christmas	TFBOCV	01	Alligator Cracking	Medium	Patching - AC Deep	307	SqFt	$50.00	$15,318	

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

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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
2023	T05CV	01	TAXIWAY	ST	49	Overlay	8,233	$6.98	$57,491
	T05CV	02	TAXIWAY	ST	49	Overlay	3,310	$6.98	$23,114
2024	R07CV	01	RUNWAY	ST	59	Overlay	312,000	$4.90	$1,528,708
2025	T01CV	01	TAXIWAY	AC	91	Slurry Seal	119,353	$0.33	$39,387
	T02CV	01	TAXIWAY	AC	94	Slurry Seal	921	$0.33	$304
	T03CV	01	TAXIWAY	AC	78	Slurry Seal	982	$0.33	$324
	T03CV	02	TAXIWAY	AC	84	Slurry Seal	3,160	$0.33	$1,043
	T04CV	01	TAXIWAY	AC	71	Slurry Seal	1,046	$0.33	$345
	T04CV	02	TAXIWAY	AC	94	Slurry Seal	3,292	$0.33	$1,086
2026	AFBOCV	01	APRON	ST	14	Reconstruction	18,722	$11.10	$207,815
	TFBOCV	01	TAXIWAY	ST	17	Reconstruction	3,004	$11.10	$33,345
2027	A01CV	01	APRON	AC	80	Fog Seal	110,615	$0.20	$22,123
	T02CV	02	TAXIWAY	ST	59	Overlay	2,535	$4.90	$12,421

Abbreviations:
PCI = Pavement Condition Index, AC = Asphalt Concrete, ST = Surface Treatment

Cost Summary	
2023 Total Project Cost	$80,605
2024 Total Project Cost	$1,528,708
2025 Total Project Cost	$42,489
2026 Total Project Cost	$241,160
2027 Total Project Cost	$34,544
Total 5-Year Project Cost	**$1,927,506**

APPENDIX E

Re-Inspection Report

Re-Inspection Report

ODA_WOC3_9-1-2022_PostBendAnalysis
Generated Date 9/30/2022

Network: Christmas **Name:** Christmas Valley

Branch: A01CV **Name:** Apron 01 Christmas Valley **Use:** APRON **Area:** 110,615 SqFt

Section: 01 of 1 **From:** T02CV **To:** T01CV **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Apron_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 110,615 SqFt **Length:** 421 Ft **Width:** 275 Ft

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

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

Section Comments:

Work Date: 9/1/1986	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/1986	**Work Type:** Base Course - Stabilized (non-Bi.)	**Code:** BA-ST	**Is Major M&R:** False
Work Date: 9/3/1986	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/4/1986	**Work Type:** Surface Course - BST	**Code:** SU-SB	**Is Major M&R:** True
Work Date: 9/1/1998	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

Last Insp. Date: 3/1/2022 **TotalSamples:** 22 **Surveyed:** 5

Conditions: **PCI:** 80

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6045.00 SqFt **PCI:** 80

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6045.00	SqFt
48	L & T CR	M	50.00	Ft
48	L & T CR	M	50.00	Ft
48	L & T CR	L	12.00	Ft

Sample Number: 06 **Type:** R **Area:** 5000.00 SqFt **PCI:** 76

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt
48	L & T CR	L	8.00	Ft
48	L & T CR	M	40.00	Ft
48	L & T CR	M	93.00	Ft

Sample Number: 10 **Type:** R **Area:** 5000.00 SqFt **PCI:** 74

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	150.00	Ft
57	WEATHERING	L	5000.00	SqFt
48	L & T CR	M	16.00	Ft

Sample Number: 15 **Type:** R **Area:** 5000.00 SqFt **PCI:** 73

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	176.00	Ft
57	WEATHERING	L	5000.00	SqFt
48	L & T CR	L	4.00	Ft

Sample Number: 20 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: AFBOCV **Name:** FBO Apron Christmas Valley **Use:** APRON **Area:** 18,722 SqFt

Section: 01 of 1 **From:** Taxiway FBO **To:** Fuel Pumps, Hangar **Last Const.:** 9/1/1985

Surface: ST **Family:** 2022_Central_Cat4/5_Apron_AC/AAC **Zone:** 62S **Category:** M **Rank:** S

Area: 18,722 SqFt **Length:** 205 Ft **Width:** 105 Ft

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

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

Section Comments:

Work Date: 9/1/1985 **Work Type:** Surface Course - BST **Code:** SU-SB **Is Major M&R:** True

Work Date: 9/1/1998 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

Last Insp. Date: 3/1/2022 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 14

Inspection Comments:

Sample Number: 02 **Type:** R **Area:** 6265.00 SqFt **PCI:** 11

Sample Comments: Created by Inspection Schedule

41	ALLIGATOR CR	H	72.00	SqFt
48	L & T CR	M	100.00	Ft
48	L & T CR	H	117.00	Ft
41	ALLIGATOR CR	H	85.00	SqFt
57	WEATHERING	H	6265.00	SqFt
48	L & T CR	H	289.00	Ft

Sample Number: 03 **Type:** R **Area:** 6825.00 SqFt **PCI:** 17

Sample Comments: Created by Inspection Schedule

48	L & T CR	H	143.00	Ft
48	L & T CR	H	323.00	Ft
57	WEATHERING	H	6825.00	SqFt
41	ALLIGATOR CR	H	48.00	SqFt
43	BLOCK CR	M	1000.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: R07CV **Name:** Runway 07/25 Christmas Valley **Use:** RUNWAY **Area:** 312,000 SqFt

Section: 01 of 1 **From:** Runway 07 End **To:** Runway 25 End **Last Const.:** 9/4/1985

Surface: ST **Family:** 2022_Central_Cat4/5_RW_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 312,000 SqFt **Length:** 5,200 Ft **Width:** 60 Ft

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

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

Section Comments:

Work Date: 1/1/1985	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 9/1/1985	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/1985	**Work Type:** Base Course - Stabilized (non-Bi.)	**Code:** BA-ST	**Is Major M&R:** False
Work Date: 9/3/1985	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/4/1985	**Work Type:** Surface Course - BST	**Code:** SU-SB	**Is Major M&R:** True
Work Date: 9/1/1998	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2000	**Work Type:** Surface Seal - Fog Seal	**Code:** SS-FS	**Is Major M&R:** False
Work Date: 9/1/2006	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2006	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 6/1/2011	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 6/2/2011	**Work Type:** Crack Seal - Wide Cracks	**Code:** CS-WD	**Is Major M&R:** False
Work Date: 9/1/2014	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2014	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False

Last Insp. Date: 3/1/2022 **TotalSamples:** 52 **Surveyed:** 6

Conditions: **PCI:** 59

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 6000.00 SqFt **PCI:** 59

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6000.00	SqFt
43	BLOCK CR	L	6000.00	SqFt

Sample Number: 10 **Type:** R **Area:** 6000.00 SqFt **PCI:** 59

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6000.00	SqFt
43	BLOCK CR	L	6000.00	SqFt

Sample Number: 19 **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: 28 **Type:** R **Area:** 6000.00 SqFt **PCI:** 59

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6000.00	SqFt
43	BLOCK CR	L	6000.00	SqFt

Sample Number: 37 **Type:** R **Area:** 6000.00 SqFt **PCI:** 59

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	6000.00	SqFt
43	BLOCK CR	L	6000.00	SqFt

Sample Number: 48 **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

Network: Christmas **Name:** Christmas Valley

Branch: T01CV **Name:** Taxiway 01 Christmas Valley **Use:** TAXIWAY **Area:** 119,353 SqFt

Section: 01 of 1 **From:** Apron **To:** T05 **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 119,353 SqFt **Length:** 4,775 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True

Last Insp. Date: 3/1/2022 **TotalSamples:** 24 **Surveyed:** 5

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 5000.00 SqFt **PCI:** 88

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt
48	L & T CR	M	18.00	Ft

Sample Number: 07 **Type:** R **Area:** 5000.00 SqFt **PCI:** 90

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt
48	L & T CR	M	7.00	Ft

Sample Number: 11 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt

Sample Number: 16 **Type:** R **Area:** 5000.00 SqFt **PCI:** 90

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt
48	L & T CR	L	20.00	Ft

Sample Number: 21 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	5000.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T02CV **Name:** Taxiway 02 Christmas Valley **Use:** TAXIWAY **Area:** 3,456 SqFt

Section: 02 of 2 **From:** Runway 07 End **To:** Apron 01 **Last Const.:** 9/4/1985

Surface: ST **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 2,535 SqFt **Length:** 80 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 1/1/1985	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 9/1/1985	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/1985	**Work Type:** Base Course - Stabilized (non-Bi.)	**Code:** BA-ST	**Is Major M&R:** False
Work Date: 9/3/1985	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/4/1985	**Work Type:** Surface Course - BST	**Code:** SU-SB	**Is Major M&R:** True
Work Date: 9/1/2000	**Work Type:** Surface Seal - Fog Seal	**Code:** SS-FS	**Is Major M&R:** False
Work Date: 9/1/2006	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2006	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 6/1/2011	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2014	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 9/1/2014	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False

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

Conditions: **PCI:** 59

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 2535.00 SqFt **PCI:** 59

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	152.00	Ft
57	WEATHERING	L	2535.00	SqFt
43	BLOCK CR	L	1265.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T02CV **Name:** Taxiway 02 Christmas Valley **Use:** TAXIWAY **Area:** 3,456 SqFt

Section: 01 of 2 **From:** Runway 07 End **To:** Apron 01 **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 921 SqFt **Length:** 20 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** Complete Reconstruction - AC	**Code:** CR-AC	**Is Major M&R:** True

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

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 921.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	921.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T03CV **Name:** Taxiway 03 Christmas Valley **Use:** TAXIWAY **Area:** 4,142 SqFt

Section: 02 of 2 **From:** Hold Line **To:** Runway **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 3,160 SqFt **Length:** 97 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True

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

Conditions: **PCI:** 84

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3160.00 SqFt **PCI:** 84

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	3160.00	SqFt
48	L & T CR	M	30.00	Ft

Network: Christmas **Name:** Christmas Valley

Branch: T03CV **Name:** Taxiway 03 Christmas Valley **Use:** TAXIWAY **Area:** 4,142 SqFt

Section: 01 of 2 **From:** T01 **To:** Hold Line **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 982 SqFt **Length:** 13 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: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True

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

Conditions: **PCI:** 78

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 982.00 SqFt **PCI:** 78

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	982.00	SqFt
48	L & T CR	M	23.00	Ft

Network: Christmas **Name:** Christmas Valley

Branch: T04CV **Name:** Taxiway 04 Christmas Valley **Use:** TAXIWAY **Area:** 4,338 SqFt

Section: 02 of 2 **From:** Hold Line **To:** Runway **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 3,292 SqFt **Length:** 96 Ft **Width:** 25 Ft

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

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

Section Comments:

Work Date: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True

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

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3292.00 SqFt **PCI:** 94

Sample Comments: Created by Inspection Schedule

57	WEATHERING	L	3292.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T04CV **Name:** Taxiway 04 Christmas Valley **Use:** TAXIWAY **Area:** 4,338 SqFt

Section: 01 of 2 **From:** T01 **To:** Hold Line **Last Const.:** 10/1/2015

Surface: AC **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 1,046 SqFt **Length:** 14 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: 9/28/2015	**Work Type:** Geotextile	**Code:** FB-TX	**Is Major M&R:** False
Work Date: 9/29/2015	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/30/2015	**Work Type:** Base Course - Aggregate	**Code:** BA-AG	**Is Major M&R:** False
Work Date: 10/1/2015	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True

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

Conditions: **PCI:** 71

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 1046.00 SqFt **PCI:** 71

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	47.00	Ft
57	WEATHERING	L	1046.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T05CV **Name:** Taxiway 05 Christmas Valley **Use:** TAXIWAY **Area:** 11,543 SqFt

Section: 01 of 2 **From:** R25 End **To:** Hold Line **Last Const.:** 9/4/1985

Surface: ST **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 8,233 SqFt **Length:** 99 Ft **Width:** 80 Ft

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

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

Section Comments:

Work Date: 9/1/1985	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/1985	**Work Type:** Base Course - Stabilized (non-Bi.)	**Code:** BA-ST	**Is Major M&R:** False
Work Date: 9/3/1985	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/4/1985	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 9/1/1998	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2000	**Work Type:** Surface Seal - Fog Seal	**Code:** SS-FS	**Is Major M&R:** False
Work Date: 9/1/2006	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2006	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 6/1/2011	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2014	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2014	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False

Last Insp. Date: 3/1/2022 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 49

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 4682.00 SqFt **PCI:** 49

Sample Comments: Created by Inspection Schedule

43	BLOCK CR	L	1170.00	SqFt
57	WEATHERING	L	4682.00	SqFt
43	BLOCK CR	M	2341.00	SqFt

Sample Number: 02 **Type:** R **Area:** 3551.00 SqFt **PCI:** 49

Sample Comments: Created by Inspection Schedule

43	BLOCK CR	M	1775.00	SqFt
43	BLOCK CR	L	1775.00	SqFt
57	WEATHERING	L	3551.00	SqFt

Network: Christmas **Name:** Christmas Valley

Branch: T05CV **Name:** Taxiway 05 Christmas Valley **Use:** TAXIWAY **Area:** 11,543 SqFt

Section: 02 of 2 **From:** Hold Line **To:** T01 **Last Const.:** 9/4/1985

Surface: ST **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** P

Area: 3,310 SqFt **Length:** 41 Ft **Width:** 80 Ft

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

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

Section Comments:

Work Date: 9/1/1985	**Work Type:** Subbase - Aggregate	**Code:** SB-AG	**Is Major M&R:** False
Work Date: 9/2/1985	**Work Type:** Base Course - Stabilized (non-Bi.)	**Code:** BA-ST	**Is Major M&R:** False
Work Date: 9/3/1985	**Work Type:** New Construction - AC	**Code:** NC-AC	**Is Major M&R:** True
Work Date: 9/4/1985	**Work Type:** New Construction - Initial	**Code:** NU-IN	**Is Major M&R:** True
Work Date: 9/1/1998	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2000	**Work Type:** Surface Seal - Fog Seal	**Code:** SS-FS	**Is Major M&R:** False
Work Date: 9/1/2006	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2006	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False
Work Date: 6/1/2011	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/1/2014	**Work Type:** Crack Sealing - AC	**Code:** CS-AC	**Is Major M&R:** False
Work Date: 9/2/2014	**Work Type:** Surface Treatment - Slurry Seal	**Code:** ST-SS	**Is Major M&R:** False

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

Conditions: **PCI:** 49

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3310.00 SqFt **PCI:** 49

Sample Comments: Created by Inspection Schedule

41	ALLIGATOR CR	M	60.00	SqFt
57	WEATHERING	L	3310.00	SqFt
48	L & T CR	M	278.00	Ft

Network: Christmas **Name:** Christmas Valley

Branch: TFBOCV **Name:** Taxiway FBO Christmas Valley **Use:** TAXIWAY **Area:** 3,004 SqFt

Section: 01 of 1 **From:** Apron 01 **To:** FBO Apron **Last Const.:** 9/1/1985

Surface: ST **Family:** 2022_Central_Cat4/5_Taxiway_AC/AAC **Zone:** 62S **Category:** M **Rank:** S

Area: 3,004 SqFt **Length:** 105 Ft **Width:** 27 Ft

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

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

Section Comments:

Work Date: 9/1/1985 **Work Type:** Surface Course - BST **Code:** SU-SB **Is Major M&R:** True

Work Date: 9/1/1998 **Work Type:** Crack Sealing - AC **Code:** CS-AC **Is Major M&R:** False

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

Conditions: **PCI:** 17

Inspection Comments:

Sample Number: 01 **Type:** R **Area:** 3004.00 SqFt **PCI:** 17

Sample Comments: Created by Inspection Schedule

48	L & T CR	M	68.00	Ft
48	L & T CR	M	145.00	Ft
57	WEATHERING	H	3004.00	SqFt
41	ALLIGATOR CR	M	150.00	SqFt
41	ALLIGATOR CR	M	90.00	SqFt

APPENDIX F

Work History Report

Pavement Database: ODA_WOC3_9-7-2022_PostChiloquinAnalysis

Network: Christmas Valley **Branch:** A01CV Apron 01 Christma **Section:** 01 **Surface:**AC

L.C.D. 10/1/2015 **Use:** APRON **Rank:** P **Length:** 421.00 (Ft) **Width:** 275.00 (Ft) **True Area:** 110615 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	P403
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/4/1986	SU-SB	Surface Course - BST	0.00	1.50	☑	Assume double BST
9/3/1986	NC-AC	New Construction - AC	0.00	2.50	☑	
9/2/1986	BA-ST	Base Course - Stabilized (non-Bi.)	0.00	3.25	☐	
9/1/1986	SB-AG	Subbase - Aggregate	0.00	2.00	☐	

Network: Christmas Valley **Branch:** AFBOCV FBO Apron Christ **Section:** 01 **Surface:**ST

L.C.D. 9/1/1985 **Use:** APRON **Rank:** S **Length:** 205.00 (Ft) **Width:** 105.00 (Ft) **True Area:** 18722 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/1/1985	SU-SB	Surface Course - BST	0.00	1.50	☑	circa 1985, assume double BST

Network: Christmas Valley **Branch:** R07CV Runway 07/25 Chr **Section:** 01 **Surface:**ST

L.C.D. 9/4/1985 **Use:** RUNWAY **Rank:** P **Length:** 5,200.00 (Ft) **Width:** 60.00 (Ft) **True Area:** 312000.0012 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/2/2014	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2014	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
6/2/2011	CS-WD	Crack Seal - Wide Cracks	0.00	0.00	☐	PMP 2011
6/1/2011	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2011
9/2/2006	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	☐	circa 2000
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/4/1985	SU-SB	Surface Course - BST	0.00	1.50	☑	Assume double BST
9/3/1985	NC-AC	New Construction - AC	0.00	2.50	☑	
9/2/1985	BA-ST	Base Course - Stabilized (non-Bi.)	0.00	3.25	☐	
9/1/1985	SB-AG	Subbase - Aggregate	0.00	2.00	☐	
1/1/1985	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Christmas Valley **Branch:** T01CV Taxiway 01 Christ **Section:** 01 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 4,775.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 119353 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	NC-AC	New Construction - AC	0.00	2.00	☑	P403
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T02CV Taxiway 02 Christ **Section:** 01 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 19.50 (Ft) **Width:** 25.00 (Ft) **True Area:** 921 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	CR-AC	Complete Reconstruction - AC	0.00	2.00	☑	P403
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T02CV Taxiway 02 Christ **Section:** 02 **Surface:**ST

L.C.D. 9/4/1985 **Use:** TAXIWAY **Rank:** P **Length:** 80.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 2535 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2014	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
9/1/2014	ST-SS	Surface Treatment - Slurry Seal	887.25	0.00	☐	
6/1/2011	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2011
9/2/2006	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	☐	circa 2000
9/4/1985	SU-SB	Surface Course - BST	0.00	1.50	☑	Assume double BST
9/3/1985	NC-AC	New Construction - AC	0.00	2.50	☑	
9/2/1985	BA-ST	Base Course - Stabilized (non-Bi.)	0.00	3.25	☐	
9/1/1985	SB-AG	Subbase - Aggregate	0.00	2.00	☐	
1/1/1985	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Christmas Valley **Branch:** T03CV Taxiway 03 Christ **Section:** 01 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 13.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 982.0000003 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T03CV Taxiway 03 Christ **Section:** 02 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 97.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 3160.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T04CV Taxiway 04 Christ **Section:** 01 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 14.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 1046.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T04CV Taxiway 04 Christ **Section:** 02 **Surface:**AC

L.C.D. 10/1/2015 **Use:** TAXIWAY **Rank:** P **Length:** 96.00 (Ft) **Width:** 25.00 (Ft) **True Area:** 3292.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2015	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/30/2015	BA-AG	Base Course - Aggregate	0.00	5.00	☐	P208
9/29/2015	SB-AG	Subbase - Aggregate	0.00	9.00	☐	P154
9/28/2015	FB-TX	Geotextile	0.00	0.00	☐	Geogrid/Geotextile

Network: Christmas Valley **Branch:** T05CV Taxiway 05 Christ **Section:** 01 **Surface:**ST

L.C.D. 9/4/1985 **Use:** TAXIWAY **Rank:** P **Length:** 99.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 8233.000002 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/2/2014	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2014	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
6/1/2011	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2011
9/2/2006	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	☐	circa 2000
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/4/1985	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/3/1985	NC-AC	New Construction - AC	0.00	2.50	☑	
9/2/1985	BA-ST	Base Course - Stabilized (non-Bi.)	0.00	3.25	☐	
9/1/1985	SB-AG	Subbase - Aggregate	0.00	2.00	☐	

Network: Christmas Valley **Branch:** T05CV Taxiway 05 Christ **Section:** 02 **Surface:**ST
L.C.D. 9/4/1985 **Use:** TAXIWAY **Rank:** P **Length:** 41.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 3310.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/2/2014	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2014	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
6/1/2011	CS-AC	Crack Sealing - AC	0.00	0.00	☐	PMP 2011
9/2/2006	ST-SS	Surface Treatment - Slurry Seal	0.00	0.00	☐	
9/1/2006	CS-AC	Crack Sealing - AC	0.00	0.00	☐	
9/1/2000	SS-FS	Surface Seal - Fog Seal	0.00	0.10	☐	circa 2000
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/4/1985	NU-IN	New Construction - Initial	0.00	0.00	☑	
9/3/1985	NC-AC	New Construction - AC	0.00	2.50	☑	
9/2/1985	BA-ST	Base Course - Stabilized (non-Bi.)	0.00	3.25	☐	
9/1/1985	SB-AG	Subbase - Aggregate	0.00	2.00	☐	

Network: Christmas Valley **Branch:** TFBOCV Taxiway FBO Chri **Section:** 01 **Surface:**ST
L.C.D. 9/1/1985 **Use:** TAXIWAY **Rank:** S **Length:** 105.00 (Ft) **Width:** 27.00 (Ft) **True Area:** 3004.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/1998	CS-AC	Crack Sealing - AC	0.00	0.10	☐	circa 1998
9/1/1985	SU-SB	Surface Course - BST	0.00	1.50	☑	circa 1985, assume double BST

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Base Course - Aggregate	7	239,369.00	5.00	0.00
Base Course - Stabilized (non-Bi.)	5	436,693.00	3.25	0.00
Complete Reconstruction - AC	2	111,536.00	2.00	0.00
Crack Seal - Wide Cracks	1	312,000.00	0.00	0.00
Crack Sealing - AC	18	1,434,118.01	0.03	0.05
Geotextile	7	239,369.00	0.00	0.00
New Construction - AC	6	556,046.00	2.42	0.19
New Construction - Initial	8	334,558.00	0.00	0.00
Subbase - Aggregate	12	676,062.00	6.08	3.45
Surface Course - BST	5	446,876.00	1.50	0.00
Surface Seal - Fog Seal	4	326,078.00	0.10	0.00
Surface Treatment - Slurry Seal	8	652,156.00	0.00	0.00