AIRFIELD PAVEMENT MANAGEMENT REPORT
MARYSVILLE MUNICIPAL AIRPORT

Prepared for the

KANSAS DEPARTMENT OF TRANSPORTATION
Topeka, KS

December 2014

Airfield Pavement Management Report

prepared for the

Kansas Department of Transportation

and the

Marysville Municipal Airport
Marysville, KS

December 2014

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1.0 INTRODUCTION

In 2011, Alfred Benesch & Company, in association with Burns & McDonnell and Roy D. McQueen and Associates, Ltd., was retained by the Kansas Department of Transportation (KDOT) to prepare a state-wide Airport Pavement Management System (APMS). The objective of the APMS is to evaluate the functional conditions of all airports in the State of Kansas listed in the National Plan of Integrated Airport Systems (NPIAS). The assessment of the APMS will be summarized in a report that allows the airport ownership as well as the State of Kansas to:

- Assess the current and projected functional condition (PCI) of pavement surfaces and catalogue of pavement distresses
- Assess the operational effectiveness of existing pavements based on current PCI and PCI projections
- Prioritize rehabilitation and/or maintenance needs
- Optimize timing for pavement rehabilitation projects
- Recommend pavement maintenance procedures

To achieve the objectives of the APMS, the following tasks will be performed:

- Records research
- Development of a Network Identification Drawing
- Condition Survey
- MicroPAVER and GIS implementation
- PCI Computation
- Maintenance and Rehabilitation analysis

The information contained in this report provides guidance in planning not only local, but also state and federal budgets for pavement asset management.

1.1 OVERVIEW OF KANSAS AVIATION

Based on the Kansas Aviation Economic Impact Study, the State of Kansas receives an economic benefit from aviation of roughly $10 billion based on the value of goods and services related to the airports in the state. Airport activity accounts for over $2 billion in wages and benefits for employees in the State of Kansas. Based on these demographics, it is of paramount importance that the assets associated with airports in the State of Kansas be maintained for the continued economic benefit realized by the

communities they serve. An Airport Pavement Management System is an excellent tool used to maintain and monitor the pavement assets associated with the State of Kansas Aviation system.

1.2 PAVEMENT CONDITION INDEX INSPECTIONS

The Alfred Benesch & Company team inspected a total of 43 NPIAS airports in the winter of 2012-2013. These inspections captured 100% of the publically owned pavements at each of the airports inspected. All inspections were conducted in accordance with ASTM D5340 – Standard Test Method for Airport Pavement Condition Index Surveys. A Network Identification Drawings was developed to organize the airport pavements into the following:

- **Branch – A single entity. Typically a branch is categorized as a runway, taxiway, or apron. As an example, Runway 16-34 is categorized as a branch.**
- **Section – A section is within a branch. Typically, a section is part of a branch and is separated based on perceived traffic, construction history, pavement types, etc. For example, the first 1,000 feet of a runway could be considered a separate traffic area.**
- **Sample Unit – A sample unit is a subdivision of a section. For asphalt concrete pavements, a sample unit is 5,000 contiguous square feet (±2,000 square feet). For Portland cement concrete pavements, a sample unit is 20 contiguous slabs (±8 slabs).**

Based upon the Network Identification Drawing, all sample units for each pavement section were inspected. The inspection catalogues the types, severity, quantity, and location of the distresses in order to provide the State and the airport owner an accurate location of each pavement defect. The inspection results were entered in MicroPAVER™ to compute the Pavement Condition Index (PCI) and rate the pavements. The PCI rating scale used for this program is shown in Figure 1.1.

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

Figure 1.1: PCI Rating Scale

The scale presented in Figure 1.1 is the default scale provided by the ASTM D5340. This scale was used for clarity of usage and ease of data transfer to airport owners and the KDOT.

1.3 MARYSVILLE MUNICIPAL AIRPORT

Marysville Municipal Airport (MYZ) is located approximately one mile northeast of Marysville in central Marshall County in northeast Kansas. Weather conditions in the area are typical of the central plains. Typically, the area experiences hot summers with average highs at 90 degrees, cold winters with average highs at 35 degrees, and moderate annual precipitation of approximately 35 inches. The typical frost penetration is approximately 30 inches.

The airport features one paved runway. Runway 16-34 is an asphalt paved runway. It is 4,200' x 60' and rated for 12,500lb Single Wheeled Gear (SWG) aircraft. Taxiway A is parallel to Runway 16-34 and has four connecting taxiways. The airport also features a 50' x 50' helipad with a concrete surface located west of the terminal building.

According to the Kansas Aviation Economic Impact Study, the Marysville Municipal Airport contributes seven total jobs and a total economic activity of just over $813,400. The airport is considered a business airport and supports medical transportation, aerial agricultural spraying, and aerial photography. Pavement management is integral to the continued maintenance of the infrastructure at MYZ in order for the businesses that use the airport to have continuing support within the community and for the medical transport service to not lose critical time when patients travel by ground instead of by air.

The Marysville Municipal Airport was also part of the Airport System Plan prepared by the Kansas Department of Transportation. This project provided recommended development costs for the airport, and pavement maintenance is included within the anticipated mid-term and long-term budgets of the airport. According to the system plan, the activity forecast for the airport is anticipated to increase steadily over the analysis period, thus providing justification for increased pavement management. The following sections provide the current pavement conditions and recommendations for further pavement improvements at the airport.

* * * * *

2.0 MARYSVILLE MUNICIPAL AIRPORT PAVEMENT

2.1 PAVEMENT INVENTORY

A detailed pavement inventory is provided in Appendix A of this report. This inventory provides details regarding each pavement branch's general dimensions, structural type and section, age of structure (if known), drainage features, pavement usage, pavement strength (per current published documentation), priority, and any miscellaneous information. An aerial image of the existing pavement branches is illustrated in Figure 2.2.

The pavements at MYZ were divided into branches, sections, and sample units in accordance with ASTM D 5340. Approximately 490,942 square feet of pavement was inspected at the airport. Figure 2.1 shows the distribution of pavement usages by branch and Figure 2.3 shows the distribution of pavement types.

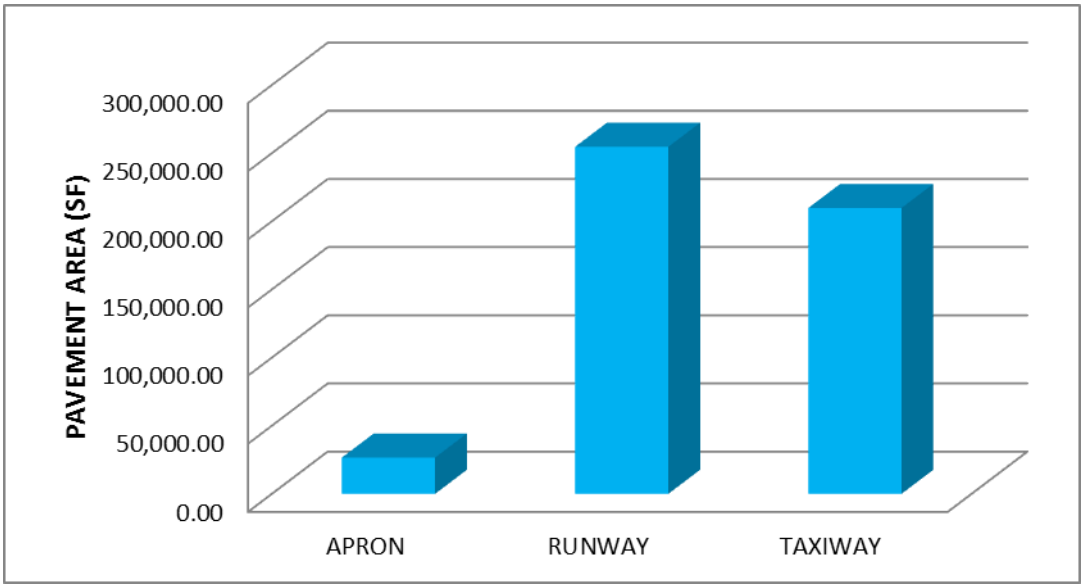

Figure 2.1: Pavement Area by Branch Usage

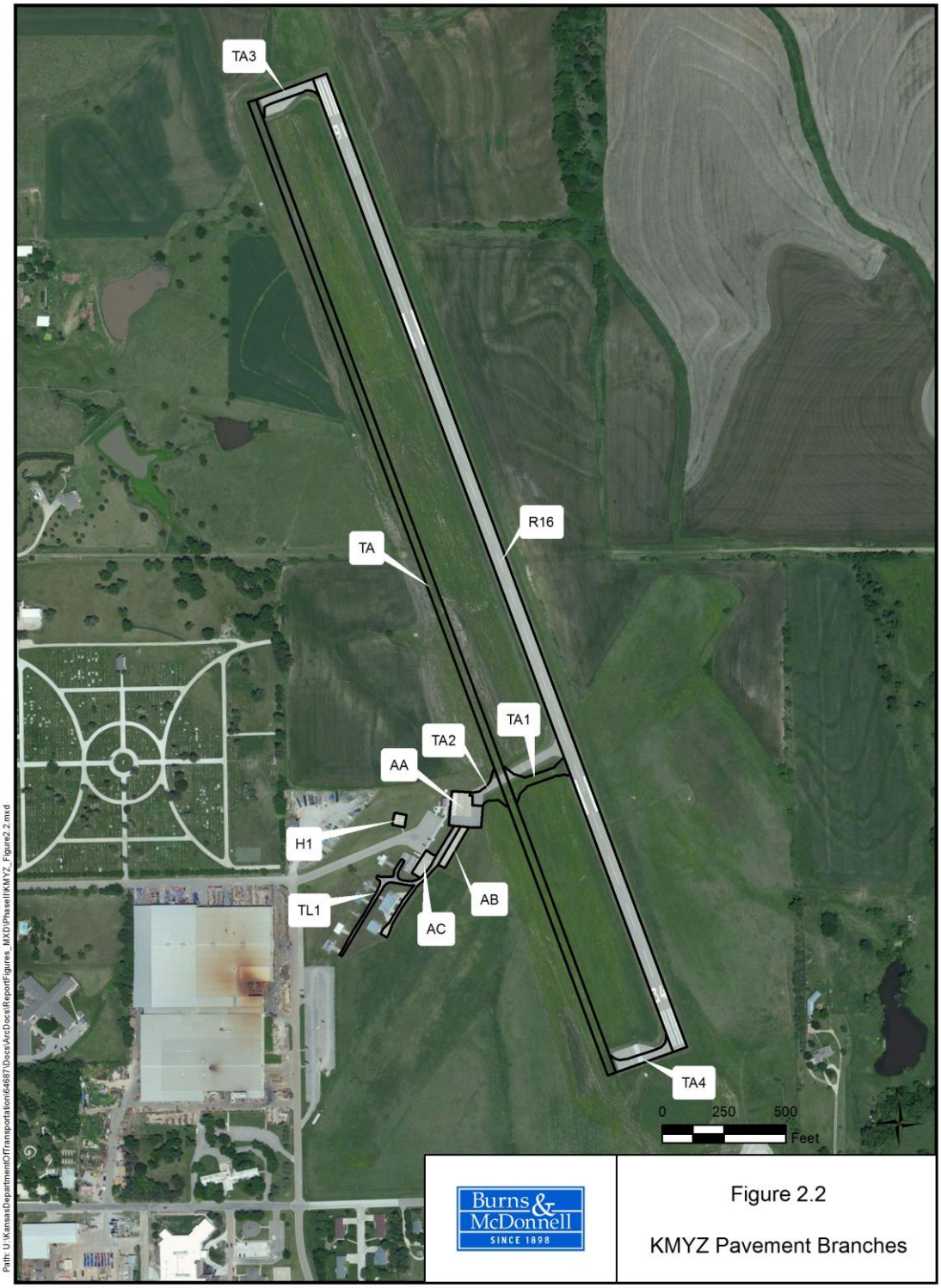
TA3
R16
TA
TA1
TA2
AA
H1
TL1
AB
AC
TA4
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Figure 2.2
KMYZ Pavement Branches

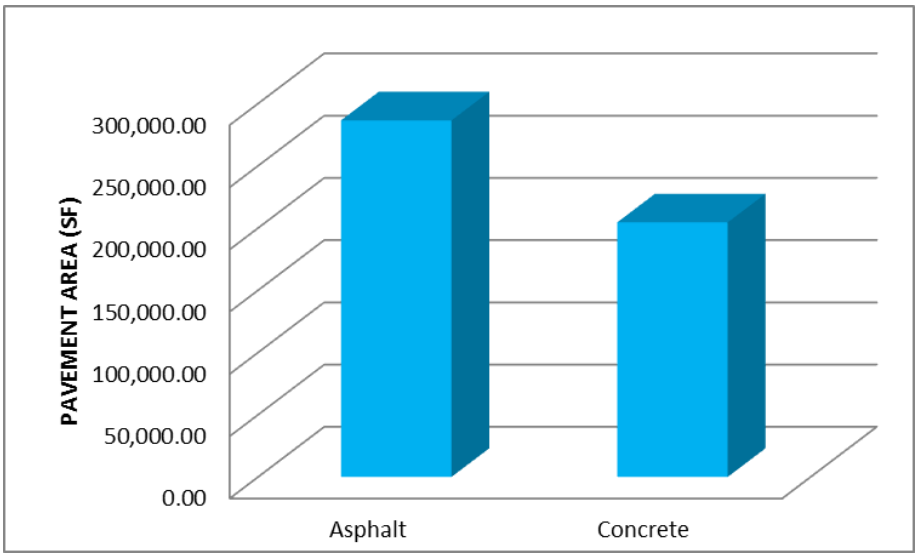

Figure 2.3: Pavement Area by Pavement Type

2.2 PAVEMENT CONDITION SURVEY

An inspection of the pavement systems at Marysville Municipal Airport was conducted on December 4, 2012. The inspection covered all relevant areas including aprons, taxiways, and runways. All distresses were recorded into the MicroPAVER™ software to compute the most current Pavement Condition Index (PCI). Currently, 90% of the pavement area inspected is in good condition illustrated in Figure 2.4.

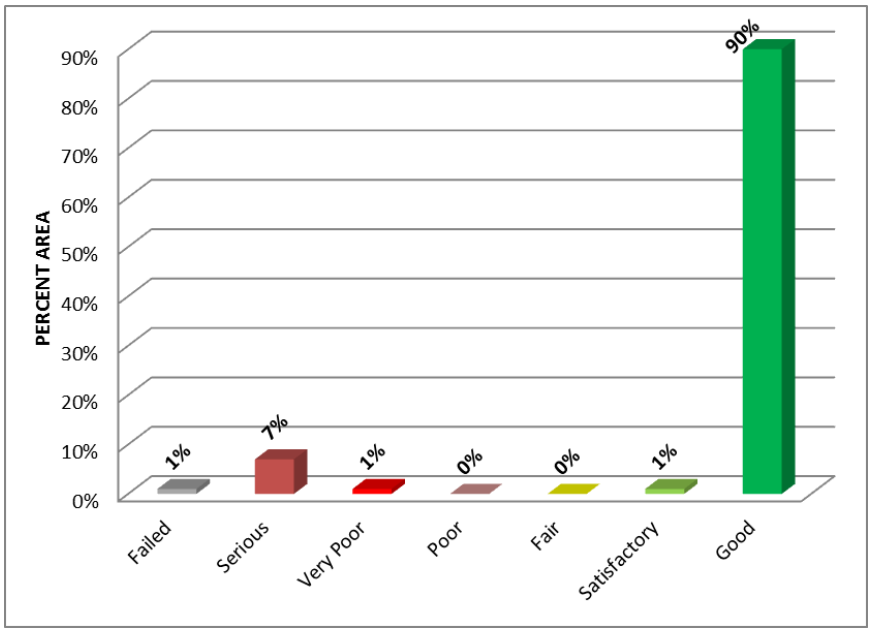

Figure 2.4: Pavement Condition by Area

An aerial photo with the pavement condition of each pavement section is provided in Figure 2.5, and the breakdown of each branch's weighted PCI is identified in Table 2.1.


Legend
PCI
Good (86 - 100)
Satisfactory (71 - 85)
Fair (56 - 70)
Poor (41 - 55)
Very Poor (26 - 40)
Serious (11 - 25)
Failed (0 - 10)
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Figure 2.5
KMYZ Current Pavement Conditions

Branch ID	Usage	Weighted Average PCI
AA	Apron	20
AB	Apron	25
AC	Apron	30
H1	Helipad	85
R16	Runway 16-34	91
TA	Taxiway A	98
TA1	Connecting Taxiway	95
TA2	Connecting Taxiway	97
TA3	Connecting Taxiway	94
TA4	Connecting Taxiway	97
TL1	Taxilane	13

Table 2.1: Branch PCI Values

The following paragraphs provide a general description of the branches inspected at Marysville Municipal Airport. Some of the distresses encountered during the inspection were archived in the following photographs of this report. The following photos are in no way a comprehensive library of all distresses located in the pavement sections, but rather a set of photographs providing a sample of distresses common to the pavement elements at Marysville Municipal Airport. For more guidance on distress identification and maintenance, it is suggested that the reader reference the American Society for Testing and Materials (ASTM) section D 5340-11 – *Standard Test Method for Airport Pavement Condition Surveys* and FAA Advisory Circular 150/5380-6C – *Guidelines and Procedures for Maintenance of Airport Pavements*.

2.2.1 Runway 16-34

Runway 16-34 currently features an asphalt concrete pavement structure. The pavement section consists of approximately 6-inches of asphalt concrete on 6-inches of crushed aggregate base on 9-inches of fly-ash treated subgrade. In 2004, the runway received a 3-inch asphalt overlay. A photo of Runway 16-34 and its condition at the time of inspection is illustrated in Figure 2.6.

Figure 2.6: Condition of Runway 16-34

2.2.2 Helipad 1

Helipad 1 currently features a Portland cement concrete pavement structure. It should be noted that Helipad 1 did not have construction history available; therefore, the MicroPAVER program was used to calculate the last estimated construction date. If future information becomes available, the MicroPAVER database should be updated. A photo of Helipad 1 and its condition at the time of inspection is illustrated in Figure 2.7.

Figure 2.7: Condition of Helipad 1

2.2.3 Taxiway A

Taxiway A consists of a new Portland cement concrete pavement structure constructed in 2011. Taxiway A is a full length taxiway parallel to Runway 16-34. The new pavement section consists of 6-inches of Portland cement concrete on 4-inches of aggregate base on 8-inches of cement kiln dust treated subgrade. A photo of Taxiway A and its condition at the time of inspection is shown in Figure 2.8.

Figure 2.8: Condition of Taxiway A

2.2.4 Connecting Taxiways

These branches include the Connecting Taxiways A1, A2, A3, and A4. Connectors A1 and A2 were reconstructed in 2011 with 6-inches of Portland cement concrete on 4-inches of aggregate base on 8-inches of cement kiln dust treated subgrade. Connectors A3 and A4 were partially reconstructed in 2011. The remaining pavement consists of an asphalt concrete surface which was overlain with 3 inches of asphalt in 2004. The reconstructed section consists of 6-inches of Portland cement concrete on 4-inches of aggregate base on 8-inches of cement kiln dust treated subgrade. A typical photo of the fully reconstructed connector taxiways is shown in Figure 2.9 and a typical photo of the partially reconstructed connector taxiways is given in Figure 2.10.

Figure 2.9: Fully Reconstructed Connecting Taxiway A-1

Figure 2.10: Partially Reconstructed Connecting Taxiway A-4

2.2.5 Aprons

The general aviation apron consists of a section with an asphalt concrete surface and a section with a Portland cement concrete surface. The aircraft parking apron consists of a Portland cement concrete pavement section. It should be noted that the apron areas did not have construction history available; therefore, the MicroPAVER program was used to calculate the last estimated construction date. If future information becomes available, the MicroPAVER database should be updated. A photo of the typical distresses on the general aviation apron is shown in Figure 2.11 and a photo of aircraft parking apron is given in Figure 2.12.

Figure 2.11: Corner Break and Popouts on the General Aviation Apron

Figure 2.12: Aircraft Parking Apron

2.2.6 Taxilanes

The taxilanes consist of a section with a Portland cement concrete surface and sections with asphalt concrete surfaces. It should be noted that the taxilanes did not have construction history available; therefore, the MicroPAVER program was used to calculate the last estimated construction date. If future information becomes available, the MicroPAVER database should be updated. A photo of a typical taxilane and its condition at the time of inspection is shown in Figure 2.13.

Figure 2.13: Raveling on Taxilanes

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3.0 PAVEMENT MAINTENANCE

Several scenarios were examined to address any anticipated major rehabilitation or maintenance tasks necessary to help Marysville Municipal Airport maintain pavement. The scenarios presented herein include the following assumptions:

- **Any maintenance and rehabilitation plan begins from the date of this report for a length of 5 years.**
- **There is only one budget for all maintenance and rehabilitation.**
- **The MicroPAVER™ defined defaults for maintenance and rehabilitation are adequate for this program.**
- **An inflation rate of 2.1% is applied to any future work**

3.1 UNFUNDED PAVEMENT MAINTENANCE

The first scenario examined for Marysville Municipal Airport involves predicting the resultant PCI values of those pavement sections inspected if no maintenance or rehabilitation is performed over the next 5-year period. A figurative representation of the condition presented in the year 2017 is included in Figure 3.1. As the figure displays, a significant drop off in pavement condition is anticipated when no maintenance or rehabilitation is performed. Table 3.1 provides a yearly examination of each branch's PCI value if no maintenance work is performed.


Legend
PCI
Good (86 - 100)
Satisfactory (71 - 85)
Fair (56 - 70)
Poor (41 - 55)
Very Poor (26 - 40)
Serious (11 - 25)
Failed (0 - 10)
0 250 500
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Burns & McDonnell
SINCE 1898
Figure 3.1
KMYZ Pavement Condition
No M&R

Branch ID	2013	2014	2015	2016	2017
AA	19	17	15	13	11
AB	24	23	21	19	17
AC	29	28	26	24	23
H1	85	85	84	84	83
R16	90	89	88	87	86
TA	96	93	90	87	84
TA1	94	91	88	85	82
TA2	96	93	90	87	84
TA3	93	92	90	89	87
TA4	95	93	92	90	88
TL1	12	10	9	7	6

Table 3.1: Projected PCI Condition Analysis – No Maintenance

3.2 LIMITED BUDGET FOR PAVEMENT MAINTENANCE

The limited budget scenario included limiting the budget for maintenance and rehabilitation to $165,000 per calendar year. This number includes using all of the anticipated FAA entitlement funding ($150,000) plus an airport sponsor's typical 10% contribution ($15,000).

Using the PAVER™ modeling software, a figurative representation of the condition presented in the year 2017 under this scenario is included in Figure 3.2. Table 3.2, provides a yearly examination of each branch's PCI value for a limited maintenance budget.

Branch ID	2013	2014	2015	2016	2017
AA	54	99	96	93	90
AB	24	100	97	94	91
AC	100	97	94	91	88
H1	85	85	84	84	83
R16	93	92	90	89	88
TA	96	93	90	88	85
TA1	94	91	88	85	83
TA2	96	93	90	87	85
TA3	94	93	91	90	89
TA4	95	93	92	90	88
TL1	31	70	97	94	91

Table 3.2: Projected PCI Condition Analysis – Limited Maintenance Budget

Regarding limited budget maintenance; a number of items of note can be taken from this analysis. Please also note the reconstruction of Apron AA, AB, and AC in the first few years. This will require considerable funds to increase the PCI value.


Legend
PCI
Good (86 - 100)
Satisfactory (71 - 85)
Fair (56 - 70)
Poor (41 - 55)
Very Poor (26 - 40)
Serious (11 - 25)
Failed (0 - 10)
0 250 500
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Figure 3.2
KMYZ Pavement Condition
Budgeted M&R

3.3 UNLIMITED BUDGET FOR PAVEMENT MAINTENANCE

The unlimited budget scenario includes allowing all necessary pavement maintenance and rehabilitation goals to be met assuming there is no restraint on a Federal, State, or Local government level funding.

Using the PAVER™ modeling software, a figurative representation of the condition presented in the year 2017 under this scenario is included in Figure 3.3. Table 3.3 provides a yearly examination of each branch's PCI value for an unlimited budget scenario.

Branch ID	2013	2014	2015	2016	2017
AA	100	97	94	91	88
AB	100	97	94	91	88
AC	100	97	94	91	88
H1	85	85	84	84	83
R16	93	92	90	89	88
TA	96	93	90	88	85
TA1	94	91	88	85	83
TA2	96	93	90	87	85
TA3	94	93	91	90	89
TA4	95	93	92	90	88
TL1	100	97	94	91	88

Table 3.3: Projected PCI Condition Analysis – Unlimited Maintenance Budget

Using the unlimited maintenance budget scenario allows the user to coordinate potential priorities based on the location of the anticipated major repair work to be conducted on a pavement section. In this instance, the repair work includes reconstruction of all three aprons and the taxilane in the first year. Subsequently, most of the remaining asphalt and concrete pavement at the airport would undergo significant repair work during the upcoming 5-year period.

3.4 PROGRAM FUNDING AND PROGRAMMING

The Marysville Municipal Airport is funded solely by agricultural leasing revenues. Available funds are limited, and the cost of most repairs may exceed the revenue generated by the airport. Any future repairs are recommended to follow a combination of the limited and unlimited budget scenarios to prioritize future maintenance and rehabilitation projects.


Legend
PCI
Good (86 - 100)
Satisfactory (71 - 85)
Fair (56 - 70)
Poor (41 - 55)
Very Poor (26 - 40)
Serious (11 - 25)
Failed (0 - 10)
0 250 500
Feet
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Burns & McDonnell
SINCE 1898
Figure 3.3
KMYZ Pavement Condition
Unconstrained M&R

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4.0 RECOMMENDATIONS

The following recommendations are based on the existing pavement conditions at Marysville Municipal Airport. All recommendations are based on maintaining pavement condition at the airport and do not consider other potentially critical maintenance projects involving lighting, pavement marking, etc.

4.1 PAVEMENT INSPECTIONS

The Airport Manager, Airport Maintenance Staff, or other qualified personnel designated by the Airport Manager, will complete the Marysville Municipal Airport pavement inspections on a regular basis. All inspections should be properly recorded and kept on file with the Airport Manager. As a result, the inspection schedule, as illustrated in Table 4.1, has been established for the Marysville Municipal Airport.

Inspection Type	Description
Daily	Basic pavement review. Observe Foreign Object Damage (FOD) debris or rodent issues that may present a safety issue.
Weekly	Included as part of the overall pavement remediation program and as limited by the annual maintenance budget. These weekly inspections need not be as thorough as monthly inspections, but should contain notes on areas of frequent pavement distresses.
Monthly	Review of pavements and implementation of pavement remediation program as limited by the annual maintenance budget. One pavement branch shall be thoroughly inspected.
Yearly	Comprehensive review of the observations and remediation performed from the most recent fiscal year and the expenditures incurred. Also a review of previous fiscal years and the completed remediation and general upkeep performed.

Table 4.1: Inspection Types and Descriptions

According to the Federal Aviation Administration (FAA) Advisory Circular 150/5380-6B, in Appendix A, "Trained personnel must perform a detailed inspection of the airport pavements at least once a year. If a history of recorded pavement deterioration in the form of a Pavement Condition Index (PCI) survey as set forth in ASTM D 5340, Standard Test Method for Airport Pavement Condition Index Surveys, is available, the frequency of inspections may be extended to 3 years." (A-2 Inspection Schedule, Paragraph a.) Drive-by inspections should be performed at least once a month to detect any unusual or drastic changes in pavement conditions. Additional inspection report forms can be found in Appendix B of this report and are recommended to be used to file any findings from inspections performed on the airport.

4.2 AIRFIELD CAPITAL IMPROVEMENT PLAN

A number of factors are considered in developing an airfield capital improvement plan (ACIP) for each airport. These factors include, but are not limited to, budgetary concerns, airport master plan recommendations, existing infrastructure conditions, and public demand at the airport.

The following table provides a recommendation of an ACIP over the next 5 years that includes pavement maintenance goals and costs. Table 4.2 is in no way meant to supersede those recommendations provided by the KASP. However, the purpose of this plan is to focus solely on pavement condition and the costs to maintain that condition at an acceptable level.

Year/ Maintenance Item	Cost	Anticipated Source of Funding
2013		
Install RW 16-34 REILs / PAPIs, Replace Beacon, Install Windcone	$394,000	FAA / City Funds
2014		
Airfield Maintenance	$30,000	City Funds
2015		
Runway 16-34 Rehabilitation	$360,000	FAA / City Funds
2016		
Rehabilitate Apron and Taxiway – Design/Bid	$160,000	FAA / City Funds
2017		
Rehabilitate Apron and Taxiway – Construct	$1,285,000	FAA / City Funds

Table 4.2: Recommended Airport Capital Improvement Plan

Notes:

1. **This table was derived based on 2013 estimated costs for materials, labor, and installation/repairs.**
2. **These figures represent only budgetary estimates and should be re-examined prior to any repairs.**

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APPENDIX A – PAVEMENT INVENTORY

APPENDIX A - PAVEMENT INVENTORY

PAVEMENT BRANCH	RUNWAY R16 (Runway 16-34)
Dimensions:	**4,200 Feet Long by 60 Feet Wide**
Pavement Structure Type:	**Flexible**
Pavement Surface Material:	Asphalt Concrete
Pavement Structure:	***Runway 16-34***
	1. 3-inches AC (P-401) (2004)
	2. 1-inch HMA (BM-1) (Unknown)
	3. 2-inches HMA (BM-2) (Unknown)
	4. 6-inches AB-3 (Unknown)
	5. 9-inches Fly Ash Treated (P-155) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Primary Runway
Pavement Strength:	12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	HELIPAD H1 (Helipad 1)
Dimensions:	**50 Feet Long by 50 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	***Helipad 1***
	1. PCC (P-501) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Helipad
Pavement Strength:	Unknown
Miscellaneous:	

PAVEMENT BRANCH	TAXIWAY TA (Taxiway A)
Dimensions:	**4,200 Feet Long by 35 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. 6-inches PCC (P-501) (2011)
	2. 4-inches Subbase (P-209) (2011)
	3. 8-inches CKD Treated Subgrade (P-157) (2011)
Drainage Features:	Granular Subdrains
Pavement Use:	Primary Taxiway
Pavement Strength:	30,000 SWG
Miscellaneous:	

PAVEMENT BRANCH	TAXIWAY TA1, TA2 (Connecting Taxiways TA-1, TA-2)
Dimensions:	**TA1: Approx. 240 Feet Long by 35 Feet Wide, TA2: Approx. 130 Feet Long by 35 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. 6-inches PCC (P-501) (2011) 2. 4-inches Subbase (P-209) (2011) 3. 8-inches CKD Treated Subgrade (P-157) (2011)
Drainage Features:	Granular Subdrains
Pavement Use:	Taxiway Connectors
Pavement Strength:	30,000 SWG
Miscellaneous:	

PAVEMENT BRANCH	TAXIWAY TA3, TA4 (Connecting Taxiways TA-3, TA-4)
Dimensions:	**TA3: Approx. 57 Feet Long by 35 Feet Wide TA4: Approx. 130 Feet Long by 35 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. 6-inches PCC (P-501) (2011) 2. 4-inches Subbase (P-209) (2011) 3. 8-inches CKD Treated Subgrade (P-157) (2011)
Drainage Features:	Granular Subdrains under Rigid Section
Pavement Use:	Taxiway Connectors
Pavement Strength:	30,000 SWG
Miscellaneous:	

PAVEMENT BRANCH	TAXIWAY TA3, TA4 (Connecting Taxiways TA-3, TA-4)
Dimensions:	**TA3: Approx. 185 Feet Long by 35 Feet Wide** **TA4: Approx. 115 Feet Long by 35 Feet Wide**
Pavement Structure Type:	**Flexible**
Pavement Surface Material:	Asphalt Concrete
	1. 3-inches AC (P-401) (2004)
	2. HMA (P-401) (Unknown)
Drainage Features:	Granular Subdrains under Rigid Section
Pavement Use:	Taxiway Connectors
Pavement Strength:	12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	APRON AA (Main General Aviation Apron)
Dimensions:	**Approx. 100 Feet Long by 87.5 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. PCC (P-501) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Main General Aviation Apron
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	APRON AA (Main General Aviation Apron)
Dimensions:	**Approx. 130 Feet Long by 40 Feet Wide**
Pavement Structure Type:	**Flexible**
Pavement Surface Material:	Asphalt Concrete
Pavement Structure:	1. HMA (P-401) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Main General Aviation Apron
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	APRON AB (Aircraft Parking Apron)
Dimensions:	**Approx. 185 Feet Long by 30 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. PCC (P-501) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Aircraft Parking Apron
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	APRON AC (Aircraft Apron)
Dimensions:	**Approx. 105 Feet Long by 50 Feet Wide**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. PCC (P-501) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Aircraft Parking Apron
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	TAXILANE TL1 (Section 5)
Dimensions:	**Varies**
Pavement Structure Type:	**Rigid**
Pavement Surface Material:	Portland Cement Concrete
Pavement Structure:	1. PCC (P-501) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Taxilane Access to Hangars
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

PAVEMENT BRANCH	TAXILANE TL1 (Section 1 through 4)
Dimensions:	**Varies**
Pavement Structure Type:	**Flexible**
Pavement Surface Material:	Asphalt Concrete
Pavement Structure:	1. HMA (P-401) (Unknown)
Drainage Features:	No Apparent Subsurface Drainage
Pavement Use:	Taxilane Access to Hangars
Pavement Strength:	Estimated at 12,500 SWG
Miscellaneous:	

APPENDIX B – INSPECTION FORMS

Pavement Element: _____ **Inspected By:** _____ **Date Inspected:** _____

Inspection Record		Maintenance Action		
Location	Distress Description/Dimensions/Severity/Features Recommended Action	Description of Repair	Date Performed	Cost

Pavement Element: _____ **Inspected By:** _____ **Date Inspected:** _____

Inspection Record		Maintenance Action		
Location	Distress Description/Dimensions/Severity/Features Recommended Action	Description of Repair	Date Performed	Cost

Pavement Element: _____ **Inspected By:** _____ **Date Inspected:** _____

Inspection Record		Maintenance Action		
Location	Distress Description/Dimensions/Severity/Features Recommended Action	Description of Repair	Date Performed	Cost

Pavement Element: _____ **Inspected By:** _____ **Date Inspected:** _____

Inspection Record		Maintenance Action		
Location	Distress Description/Dimensions/Severity/Features Recommended Action	Description of Repair	Date Performed	Cost

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

PAVEMENT BRANCH

Dimensions:

Pavement Structure Type: _____

Pavement Surface Material: _____

Pavement Structure: _____

_____

_____

Drainage Features: _____

Pavement Use: _____

Pavement Strength: _____

Miscellaneous:

APPENDIX C – REFERENCES

REFERENCES

FAA ADVISORY CIRCULARS

150/5320-17A – Airfield Pavement Surface Evaluation and Rating Manuals
http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.information/documentID/1025586

150/5380-6C – Guidelines and Procedures for Maintenance of Airport Pavements
http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.information/documentID/1026067

150/5380-7B – Airport Pavement Management Program (PMP)
http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5380-7

ASTM

D5340-12 – Standard Test Method for Airport Pavement Condition Index Surveys