# 2012 Cobb County-McCollum Field Pavement Management Plan

Preserving Georgia's Critical Airport Pavement Infrastructure



## Acknowledgement

## This document was produced under the auspices of the **GEORGIA DEPARTMENT OF TRANSPORTATION**

Keith Golden, PE, Commissioner Russell McMurry, PE, Chief Engineer

#### **DIVISION OF INTERMODAL**

Carol L. Comer, Director

#### **GEORGIA STATEWIDE PAVEMENT MANAGEMENT STUDY**

Carla Sands, Project Manager

#### STATE TRANSPORTATION BOARD

1st District – Jay Shaw, Vice Chairman 2nd District – Johnny Floyd, Chairman 3rd District – Sam Wellborn 4th District – Robert L. Brown, Jr. 5th District – Emory C. McClinton 6th District – Brandon L. Beach 7th District – Rudy Bowen 8th District – Jim Cole 9th District – Emily Dunn 10th District – Don Grantham 11th District – Jeff Lewis 12th District – Bobby Parham 13th District – Dana Lemon



The preparation of this report was financed in part through a planning grant from the Federal Aviation Administration (FAA) as provided under Section 505 of the Airport and Airway Improvement Act of 1982. The contents of this report do not necessarily reflect the views or policy of the USDOT or the FAA, and do not constitute a commitment on the part of the United States to participate in any development depicted therein, nor does it indicate that the proposed development is environmentally acceptable in accordance with applicable public laws.

## COBB COUNTY-MCCOLLUM FIELD

## **PAVEMENT MANAGEMENT REPORT**

#### **Prepared By:**



Applied Pavement Technology, Inc. 115 West Main Street, Suite 400 Urbana, Illinois 61801 217-398-3977 www.appliedpavement.com

#### In Association With:



CDM Smith 3715 Northside Parkway NW Building 300, Suite 400 Atlanta, Georgia 30327

#### **Prepared For:**



Georgia Department of Transportation Aviation Programs 600 West Peachtree Street, NW Atlanta, GA 30308 404-631-1000 http://www.dot.ga.gov

## **DECEMBER 2012**

## TABLE OF CONTENTS

INTRODUCTION	1
METHODOLOGY	3
Records Review and Network Definition	3
Pavement Evaluation Procedure	3
Paint Markings Evaluation Procedure	6
Development of Maintenance and Rehabilitation Program	6
Analysis Parameters	6
Critical PCI Values	6
Budget and Inflation Rate	6
Maintenance Policies	7
Unit Costs	7
Analysis Approach	7
RESULTS	
Pavement Inventory	
Pavement Evaluation and Paint Assessment	
Inspection Comments	. 10
Runway 9-27	
Taxiways	
Aprons	
Overall Condition	
Maintenance and Rehabilitation Program	
GENERAL RECOMMENDATIONS	
Maintenance	
Remaining in Compliance with Public Law 103-305	
SUMMARY	. 19

### LIST OF FIGURES

Pavement Condition versus Cost of Repair	. 1
Visual Representation of PCI Scale.	. 4
PCI versus Repair Type	. 5
Pavement Inventory.	. 8
Network Definition Map.	. 9
Condition Distribution.	12
Condition by Use	12
PCI Map	
	Visual Representation of PCI Scale. PCI versus Repair Type. Pavement Inventory. Network Definition Map. Condition Distribution.

### LIST OF TABLES

Table 1.	Critical PCI Values.	6
Table 2.	Pavement Evaluation Results	14
Table 3.	5-Year Program under an Unlimited Funding Analysis Scenario	17

### APPENDICES

Appendix A – Cause Of Distress Tables	A-1
Appendix B – Photographs	B-1
Appendix C – Inspection Report	C-1
Appendix D – Maintenance Policies and Unit Costs	D-1
Appendix E – Maintenance Plan Organized By Section	E-1
Appendix F – Maintenance Plan Organized By Repair Type	F-1

### INTRODUCTION

In 2012, the Georgia Department of Transportation – Aviation Programs (the Department), selected Applied Pavement Technology, Inc. (APTech), assisted by CDM Smith, to update its statewide airport pavement management system (APMS). This study will provide airports and the State with pavement information and analytical tools to help identify pavement related needs, optimize selection of individual airport projects over a multi-year period, and evaluate the long-term impacts of project priorities.

As part of this study, pavement conditions at Cobb County-McCollum Field were assessed in 2012 using the pavement condition index (PCI) procedure. The results of that evaluation are presented within this report and can be used by the Department, the Federal Aviation Administration (FAA), and Cobb County-McCollum Field to monitor the condition of airfield pavements and to identify, prioritize, and schedule pavement maintenance and rehabilitation (M&R) actions at the airport.

During a PCI inspection, the types, severities, and amounts of distress present in a pavement are visually quantified. This information is then used to develop a composite index that represents the overall condition of the pavement in numerical terms, ranging from 0 (failed) to 100 (excellent). The PCI number is a measure of overall condition and is indicative of the level of work that will be required to maintain or repair a pavement. Further, the information provides insight into the cause of pavement deterioration, which is the first step in selecting the appropriate repair action.

Programmed into an APMS, PCI information is used to determine when preventive maintenance actions, such as crack sealing, are advisable and also identifies the most cost-effective time to perform major rehabilitation, such as an overlay. The importance of identifying not only the type of repair but also the optimal time of repair is illustrated in Figure 1. There is a point in a pavement's life cycle where the rate of deterioration increases and the financial impact of delaying repairs beyond this point can be severe.

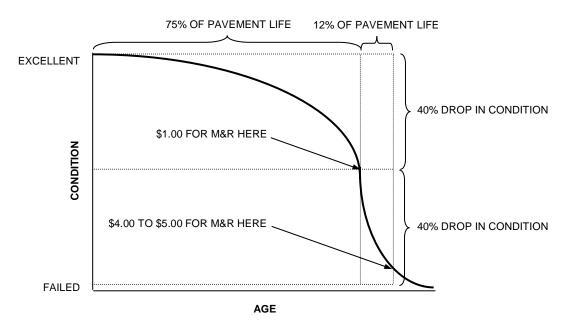


Figure 1. Pavement Condition versus Cost of Repair.

This study collected pavement history information, developed CAD maps, evaluated current pavement condition, and updated the Department's APMS. The APMS was used to prepare a 5-year pavement M&R program. Individual reports, such as this one, have been prepared for each individual airport as well as a statewide analysis report and an executive summary report in order to convey the study results.

### METHODOLOGY

The study consists of three major work elements: records review and network definition; pavement condition evaluation; and the development of an M&R plan for the preservation of the pavement infrastructure. Detail of each work element is further described below.

#### **Records Review and Network Definition**

The first activities undertaken involved gathering historical airfield pavement data, which includes date of original construction and date of any subsequent rehabilitation; location of completed work; and the type of work undertaken.

The historical data is used to divide the pavement system into management units – branches, sections, and sample units. A branch is a single entity that serves a distinct function. For example, a runway is considered a branch because it serves a single function (allowing aircraft to take off and land). Taxiways and aprons are also separate branches.

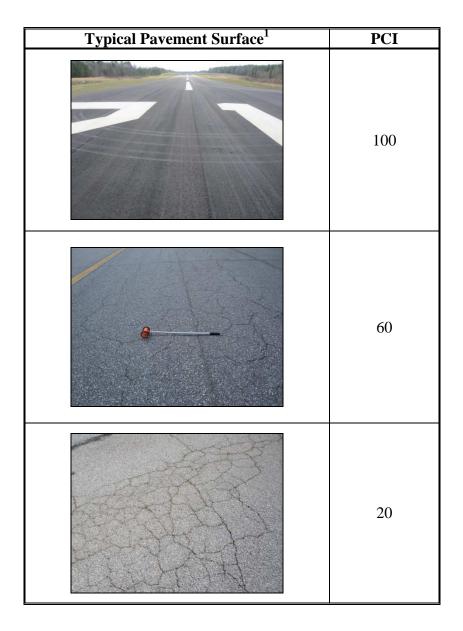
A branch is further divided into sections. A section is considered the management unit of the APMS, and represents a pavement area where pavement maintenance or rehabilitation would be undertaken. For example, if a runway was built in 1968 and then extended and overlaid in 1984, this runway might be represented by a single section, even though there are two distinct construction periods. However, if the condition of one part of the runway was significantly different than another the branch would be divided into two sections because in that situation the runway may not be repaired as a whole in the future.

To estimate the overall condition of each pavement section, each section is subdivided into sample units. A percentage of these sample units are then evaluated during pavement inspections, and the condition information is extrapolated to predict the condition of the section as a whole.

#### **Pavement Evaluation Procedure**

Pavements were evaluated at Cobb County-McCollum Field using the PCI procedure. This procedure is described in FAA Advisory Circular (AC) 150/5380-6B, *Guidelines and Procedures for Maintenance of Airport Pavements* and American Society for Testing and Material (ASTM) Standard D5340-11, *Standard Test Method for Airport Pavement Condition Index Surveys*.

The PCI provides a numerical indication of overall pavement condition, as illustrated in Figure 2. The types and amounts of deterioration are used to calculate the PCI value of the section. The PCI ranges from 0 to 100, with 100 representing a pavement in excellent condition. It should be noted that a PCI value is based on visual signs of pavement deterioration and does not provide a measure of structural capacity.



<sup>1</sup>Photographs shown are not specific to Cobb County-McCollum Field. Figure 2. Visual Representation of PCI Scale.

In general terms, pavements with a PCI greater than 70 that are not exhibiting significant loadrelated distress will benefit from preventive maintenance actions, such as crack sealing and surface treatments. Pavements with a PCI of 40 to 70 may require major rehabilitation, such as an overlay. Often, when the PCI is less than 40, reconstruction is the only viable alternative due to the substantial damage to the pavement structure. Figure 3 illustrates how repair type varies with the PCI of a pavement section.

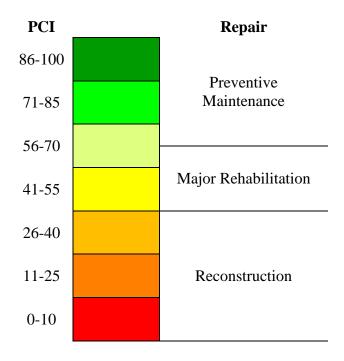


Figure 3. PCI versus Repair Type.

The types of distress identified during the PCI inspection provide insight into the cause of pavement deterioration. PCI distress types are characterized as:

- **Load-related** These distress types are defined as being caused by aircraft or vehicular traffic and may provide an indication of a structural deficiency. Examples of load-related distresses include alligator cracking on hot-mix asphalt (HMA) pavements and corner breaks on portland cement concrete (PCC) pavements,
- **Climate/durability-related** These distress types often signify the presence of aged and/or environment-susceptible material and include durability-related issues. Examples of climate/durability-related distresses include weathering, which is climate-related, on HMA pavements and durability cracking, which is durability-related, on PCC pavements, and
- **Other** Distress types that fall into this category cannot be attributed solely to load or climate/durability. Examples of this type of distress include depressions on HMA pavements and shrinkage cracking on PCC pavements.

Understanding the cause of distress helps in selecting a rehabilitation alternative that corrects the cause and thus eliminates its recurrence.

Appendix A contains tables for asphalt and PCC pavements indicating the typical types of distresses that may be identified during a PCI survey, the likely cause of each distress type, and feasible maintenance strategies for addressing each distress type.

#### **Paint Markings Evaluation Procedure**

The condition of the paint markings was evaluated for each section at Cobb County-McCollum Field. The markings were rated as "satisfactory" or "non-satisfactory" based on whether the markings were visible and the paint and reflectivity appeared intact. Following is a short description of each category:

- <u>Not Applicable (N/A)</u>: No paint markings exist to rate.
- <u>Satisfactory (SAT)</u>: Markings that are still visible and in good condition, requiring no maintenance or remarking.
- <u>Non-satisfactory:</u> Markings that require maintenance or remarking in the near future and any of the following conditions are present:
  - Paint is faded to the point where markings are not easily visible from a distance (U-FA).
  - Paint is flaking off the surface or has worn to point that portions of the painted surface no longer have paint on them (U-CH).
  - Painted areas have a large amount of superficial cracking within their limits, degrading the integrity of the painted area and reducing its visibility (U-CR).

#### **Development of Maintenance and Rehabilitation Program**

Using the information collected during the 2012 pavement inspection, an M&R program for 2013 through 2017 was developed. The MicroPAVER<sup>TM</sup> pavement management software was used to perform this analysis.

#### Analysis Parameters

Several parameters were defined prior to running the analysis, and are further explained below.

#### Critical PCI Values

MicroPAVER<sup>TM</sup> uses critical PCI values to determine whether preventive maintenance or major rehabilitation is the appropriate repair action. Above the critical PCI, localized (such as crack sealing) and global (such as a slurry seal) preventive maintenance activities are recommended. Below the critical PCI, major rehabilitation (such as an overlay or reconstruction) is recommended. The Department set the critical PCI values shown in Table 1.

Airport Classification	Runway	Taxiway/ T-Hangar	Apron/Helipad
General Aviation	70	60	60
Commercial Service	75	65	65

#### Budget and Inflation Rate

An unlimited budget and an inflation rate of 3 percent were used during the analysis.

#### Maintenance Policies

Localized preventive maintenance policies and global preventive maintenance policies were developed for the Department. Localized maintenance policies, shown in Appendix D, identify the localized maintenance actions that the Department consider appropriate to correct different distress types when the PCI of the pavement is above the critical PCI level.

Global maintenance actions were also considered in the analysis. These are treatments that are applied over an entire section, rather than just to distressed areas. Rejuvenators were considered for pavements that are more than 5 years old with a PCI value greater than 80. Rejuvenators were only applied once during the analysis period to eligible sections.

#### Unit Costs

Unit costs for maintenance treatments and major rehabilitation actions are presented in Appendix D. For general aviation airports, the costs were separated by geographic regions. MicroPAVER<sup>TM</sup> estimates the cost of major rehabilitation based on the PCI of the pavement. If major rehabilitation is recommended in the program, further engineering investigation will be needed to identify the most appropriate rehabilitation action and to more accurately estimate the cost of such work.

#### Analysis Approach

The goal of the M&R program is to maintain the pavements above established critical PCI values. Major rehabilitation was recommended for pavements in the year they dropped below their critical PCI value for 2013 through 2017.

For 2013, a localized preventive maintenance plan was developed for those pavement sections that were above their critical PCI value. If major rehabilitation was triggered for a section in 2014 or 2015, then localized maintenance was not recommended for 2013. It was assumed that all low-severity cracking would need to be resealed in 2017 unless major rehabilitation was triggered on the section. No other maintenance activities, other than crack sealing, were considered for year 2017.

### RESULTS

#### **Pavement Inventory**

Cobb County-McCollum Field has over 2,675,785 square feet of pavement, as shown in Figure 4. Figure 5 is a network definition map of the airport showing the pavement system broken down into management units, as described on page 3 of this report. It also shows the nomenclature used in the MicroPAVER<sup>TM</sup> pavement management database to identify the different pavement areas. Additionally, the map summarizes the construction history information compiled during the records review and identifies the areas inspected during the visual survey.

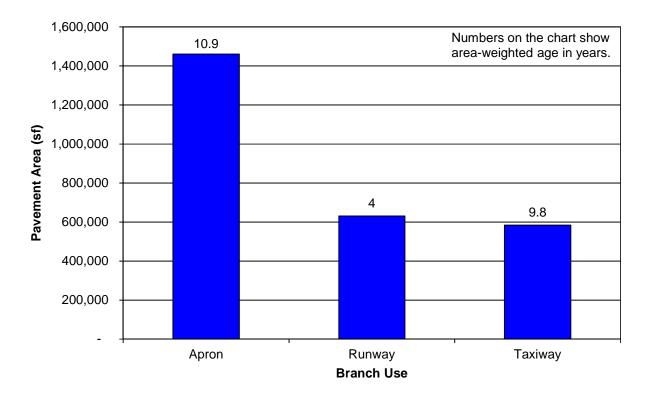
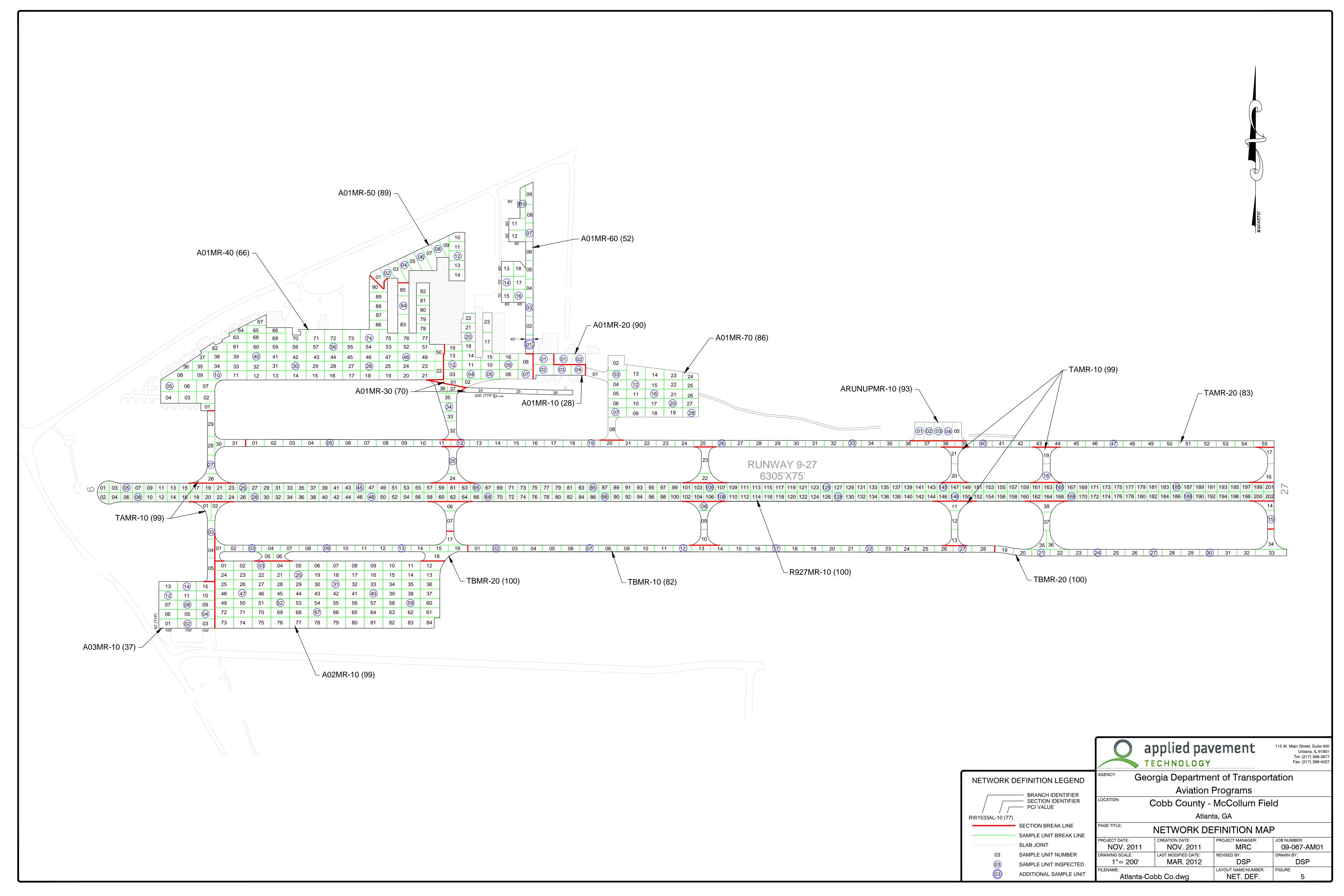


Figure 4. Pavement Inventory.



#### **Pavement Evaluation and Paint Assessment**

The inspection of Cobb County-McCollum Field was completed on March 31, 2012 using the PCI procedure described previously. The map presented in Figure 5 identifies the sample units inspected during the pavement evaluation.

#### **Inspection Comments**

Fifteen pavement sections were defined during the inspection.

#### Runway 9-27

Runway 9-27 was comprised of one section. Section 10 had recently received a PCC overlay and was in excellent condition with a PCI value of 100. No distresses were observed.

#### Taxiways

#### Taxiway A

Taxiway A was defined by two sections. Section 10 consisted of the connecting taxiways between Taxiway A and Runway 9-27. This section had a PCI value of 99. The only distress recorded was a small amount of low-severity, unsealed L&T cracking. Section 20 had a PCI value of 83. The primary distress observed in this section was low-severity L&T cracking, all of which was in an unsealed condition. Small amounts of low-severity swelling and bleeding were also identified. The seal coat on this section that was recently applied was in good condition.

#### Taxiway B

Taxiway B was comprised of two sections. Section 10 had a PCI value of 82. The primary distress type identified in this section was low-severity L&T cracking. Small amounts of medium-severity L&T cracking, bleeding, and low-severity patching were also recorded. Section 20 was recently constructed and had a PCI value of 100. No distresses were observed at the time of inspection.

#### Aprons

#### North Apron (A01MR)

The north apron area (A01MR) consisted of seven sections. Section 10 was in poor condition with a PCI value of 28. Extensive amounts of medium-severity alligator cracking as well as lowseverity block cracking and L&T cracking were observed. A small amount of high-severity alligator cracking was also identified. Additionally, low- and medium-severity weathering were recorded throughout. Section 20 had a PCI value of 90. The primary distress type observed on this section was low-severity weathering due to loss of fines and oxidation of the asphalt binder. A small amount of low-severity, unsealed L&T cracking was also noted. Section 30 had a PCI value of 70. Extensive low-severity block cracking was the primary distress identified on this section, along with smaller amounts of low-severity L&T cracking, bleeding, and mediumseverity alligator cracking. None of the cracking in this section had been sealed. Low-severity weathering was also observed throughout. Section 40 had a PCI value of 66. The primary distress types observed in this section were low- and medium-severity L&T cracking and lowseverity weathering. All of the cracking in this section was observed in an unsealed condition. Additionally, areas of medium-severity alligator cracking and low- and medium-severity raveling were identified. A small amount of bleeding was also noted. Section 50 had a PCI value of 89. Low-severity L&T cracking, along with small amounts of low-severity patching

and low- and medium-severity alligator cracking were identified in this section. All of the cracking was observed in an unsealed condition. Section 60 had a PCI value of 52. Distresses identified on this section included amounts of medium-severity alligator cracking; low- and medium-severity L&T cracking, weathering, and patching; and low-severity depression. Additionally, an area of high-severity rutting was identified as an additional sample in an area trafficked by fuel trucks. Section 70 had a PCI value of 86. Distresses observed on this section included low-severity L&T cracking and weathering and small amounts of bleeding and medium-severity alligator cracking. All of the cracking in this section was unsealed.

#### South Apron (A02MR)

The south apron area (A02MR) was defined by one section. Section 10 was in excellent condition with a PCI value of 99. This section had been recently rehabilitated, and the only distress identified was a small amount of low-severity, unsealed L&T cracking.

#### State Police Apron (A03MR)

The state police apron area (A03MR) was comprised of one section. Section 10 was in poor condition with a PCI value of 37. Extensive quantities of low- and medium-severity L&T cracking and low-severity weathering along with significant amounts of medium-severity alligator cracking, rutting, and raveling were recorded in this section. Additionally, a large area of low-severity depression was observed. The crack sealant was no longer performing satisfactorily.

#### **Run-up Apron (ARUNUPMR)**

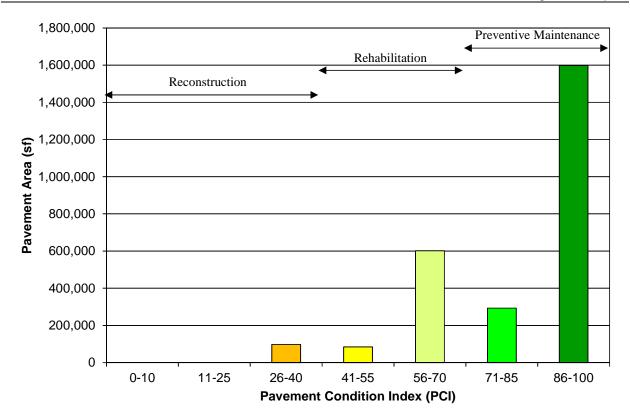
The run-up apron area (ARUNUPMR) contained one section. Section 10 had a PCI value of 93. Small amounts of low-severity, unsealed L&T cracking, along with a small amount of low-severity rutting were identified in this section.

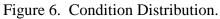
#### **Overall Condition**

The 2012 area-weighted condition of Cobb County-McCollum Field is 85, with conditions ranging from 28 to 100 [on a scale of 0 (failed) to 100 (excellent)]. This compares to a 2007 PCI of 100.

Figures 6 and 7 provide graphs summarizing the overall condition of the pavements at Cobb County-McCollum Field. Figure 8 is a map that displays the condition of the pavements evaluated. Table 2 summarizes the results of the pavement evaluation and paint assessment and also presents both the 2007 and 2012 PCI values. Please note that modifications have been made to the PCI methodology since the time of the last pavement inspection in 2007, as detailed in ASTM 5340-11. These changes include the separation of the raveling and weathering distress type on asphalt-surfaced pavements into two distress types along with the addition of the alkali silica reaction (ASR) distress type on PCC pavements.

Appendix B presents photographs taken during the PCI inspection, and Appendix C contains a detailed inspection report. The detailed inspection report provides information on the quantity of the different types and severities of distresses observed during the visual survey.





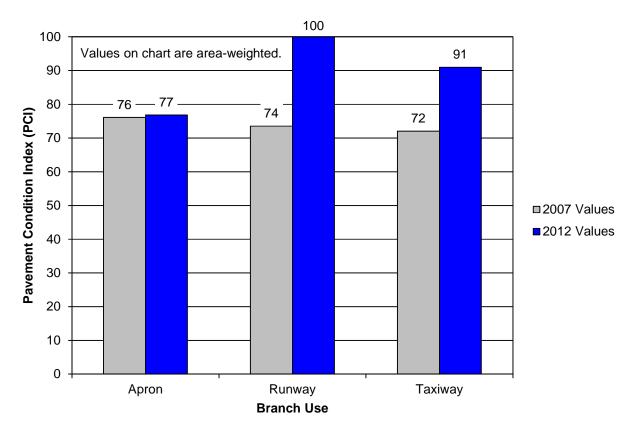
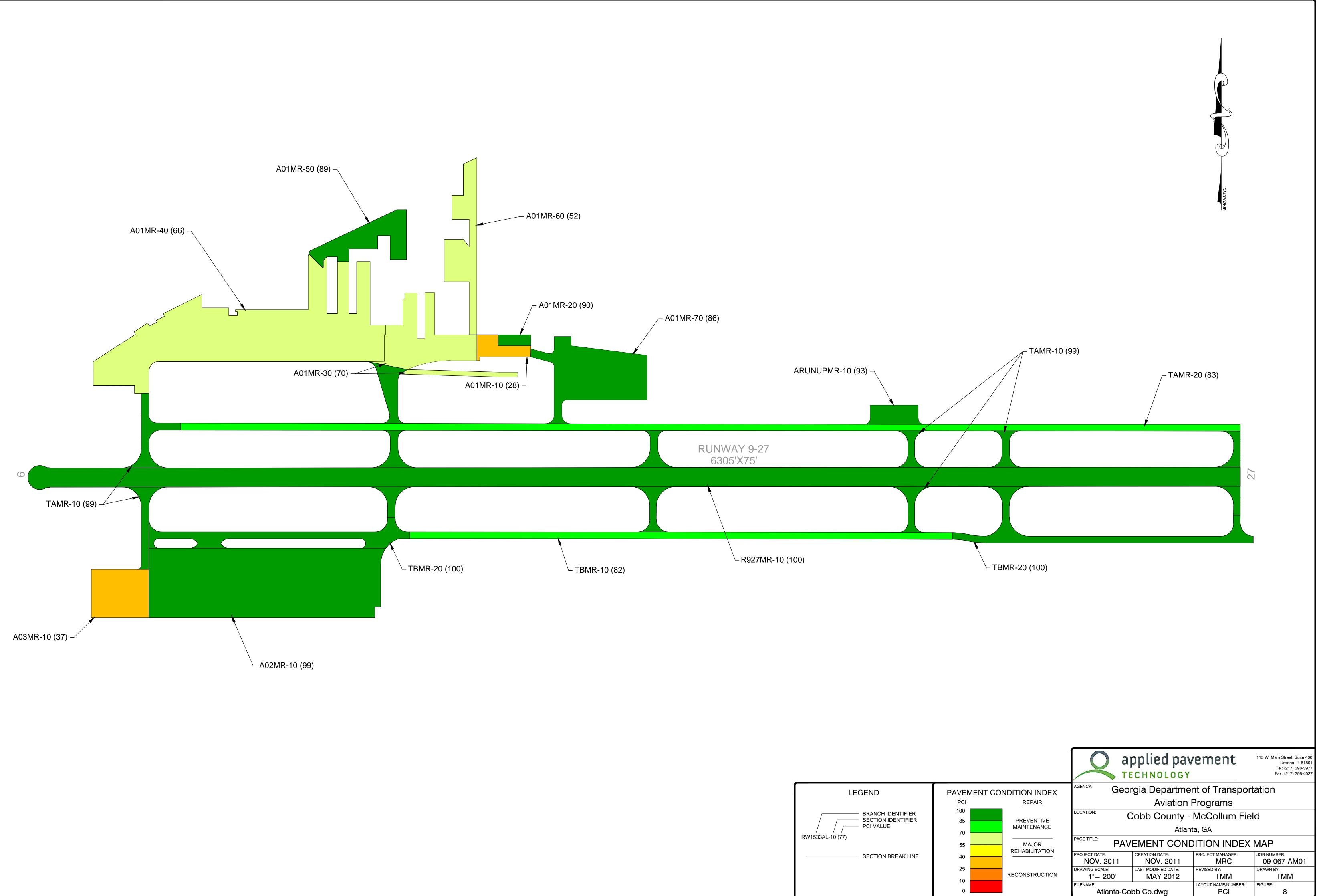


Figure 7. Condition by Use.



ł	LEGEND
	RW1533AL-10 (77) BRANCH IDENTIF SECTION IDENTIF PCI VALUE
	SECTION BREAK

		Surface	Section		Paint	2007	2012	% Dist	ress due to:																
Branch <sup>1</sup>	Section <sup>1</sup>	Type <sup>2</sup>	Area (sf)	LCD <sup>3</sup>	Paint Markings <sup>4</sup>	2007 PCI			Load <sup>5</sup>	Climate or Durability <sup>6</sup>	Distress Types <sup>7</sup>														
										Alligator Cracking, Block															
A01MR	10	AC	22,773	6/1/1975	U-CR	28	28	65	35	Cracking, L&T Cracking,															
										Weathering															
A01MR	20	AC	9,818	6/1/2006	N/A	100	90	0	100	L&T Cracking, Weathering															
										Alligator Cracking, Bleeding,															
A01MR	30	AC	118,615	6/2/1998	U-FA	83	70	20	80	Block Cracking, L&T Cracking															
										Weathering															
										Alligator Cracking, Bleeding,															
A01MR	40	AAC	483,309	6/1/1998	U-FA	85	66	66 49	51	L&T Cracking, Raveling,															
																Weathering									
A01MR	50	50	50	50	50	50	50	50	50	50	50	50	50	50	AAC	66,387	6/1/2009	SAT	29	89	84	16	Alligator Cracking, L&T		
AUTWIK	50	AAC	00,387	0/1/2009	SAT	29	09	04	10	Cracking, Patching															
																									Alligator Cracking, Depression
A01MR	60	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	84,297	6/2/1989	U-FA	56	52	48	50	L&T Cracking, Patching,					
																			Rutting, Weathering						
A01MR	70	AC	142,121	6/3/2004	U-FA	100 86	100	86	43	57	Alligator Cracking, Bleeding,														
AUTWIK	70	AC	142,121	0/3/2004	U-PA	100	80	43	57	L&T Cracking, Weathering															
A02MR	10	AAC	432,871	6/1/2010	SAT	67	99	0	100	L&T Cracking															
										Alligator Cracking, Depression															
A03MR	10	AC	75,000	6/2/1981	N/A	49	37	52	52 45	L&T Cracking, Raveling,															
										Rutting, Weathering															
ARUNUPMR	10	AC	25,390	6/1/2005	SAT	100	93	63	37	L&T Cracking, Rutting															
R927MR	10	PCC	631,088	12/1/2008	SAT	69	100	0	0	No Distresses															
TAMR	10	AAC	175,298	6/1/2008	SAT	40	99	0	100	L&T Cracking															
TAMR		20 AC 194,380 1/1/1991 SAT 14 83 0 91 Bleeding, L&T (	Bleeding, L&T Cracking,																						
IAWIK	20	AC	194,380	1/1/1991	SAT	SAT	SAT	14	00	0	91	Swelling													

Table 2. Pavement Evaluation Results.

14

I			Surface	Section		Paint	2007 2012	2007 2012	2007	2007 2012 -	2007 2012	07 2012 % Distress due to:	% Distress due to:		
	<b>Branch</b> <sup>1</sup>	Section <sup>1</sup>	Type <sup>2</sup>	Area (sf)	LCD <sup>3</sup>	Markings <sup>4</sup>	PCI	PCI	Load <sup>5</sup>	Climate or Durability <sup>6</sup>	Distress Types <sup>7</sup>				
	TBMR	10	AC	98,938	6/3/2005	SAT	96	82	0	100	Bleeding, L&T Cracking, Patching				
	TBMR	20	AC	115,500	6/1/2010	SAT	N/A	100	0	0	No Distresses				

Table 2. Pavement Evaluation Results (continued).

#### NOTES:

<sup>1</sup>See Figure 5 for the location of the branch and section.

 $^{2}AC$  = asphalt cement concrete; AAC = asphalt overlay on AC; PCC = portland cement concrete; APC = asphalt overlay on PCC.

 $^{3}$ LCD = last construction date.

<sup>4</sup>Paint markings condition: not applicable (N/A), satisfactory (SAT), unsatisfactory due to faded paint (U-FA), unsatisfactory due to chipping paint (U-CH), or unsatisfactory due to superficial cracking (U-CR).

<sup>5</sup>Distress due to load includes distresses attributed to a structural deficiency in the pavement, such as alligator (fatigue) cracking, rutting, or shattered concrete slabs. <sup>6</sup>Distress due to climate or durability includes those distresses attributed to either the aging of the pavement and the effects of the environment

(such as weathering or block cracking in AC pavements) or to a materials-related problem (such as durability cracking in a PCC pavement).

<sup>7</sup>L&T Cracking = longitudinal and transverse cracking.

#### Maintenance and Rehabilitation Program

The 5-year M&R program developed for Cobb County-McCollum Field is described on page 6 of this report.

A summary of the M&R program is presented in Table 3. Detailed information on the localized maintenance plan for 2013 is contained in Appendix E and Appendix F. While localized preventive maintenance should be an annual undertaking at Cobb County-McCollum Field, it is not possible to accurately predict the propagation of cracking and other distresses. The airport should budget for maintenance every year and can use the 2013 maintenance plan as a baseline for that work. As the pavements age, it can be assumed that the amount of localized maintenance required will increase.

Because an unlimited budget was used in the analysis, it is probable that the pavement repair program will need to be adjusted to take into account economic and/or operational constraints. Further, the identification of the need for a major rehabilitation project does not mean that federal or state funding will be available to complete the work in the year shown. It is important to remember that regardless of the recommendations presented within this report, Cobb County-McCollum Field is responsible for repairing pavements where existing conditions pose a hazard to safe operations.

Note these recommendations are based on a broad network-level analysis and are meant to provide Cobb County-McCollum Field with an indication of the type of pavement-related work required during the next 5 years. Further engineering investigation will need to be performed to identify exactly which repair action is most appropriate and to more accurately estimate the cost of such work. In addition, the cost estimates provided were based on a statewide policy and each airport should adjust the maintenance policies and unit costs to match its own approach to pavement maintenance and to reflect local costs.

Branch <sup>1</sup>	Section	Year	Type of Repair <sup>2</sup>	Estimated Cost <sup>3</sup>
	10	2013	Major M&R	\$138,688
	20	2013	Rejuvenator	\$2,160
	20	2017	Preventive Maintenance	\$130
	30	2013	Preventive Maintenance	\$367
	50	2017	Preventive Maintenance	\$32,544
	40	2013	Major M&R	\$947,287
A01MR		2013	Preventive Maintenance	\$1,546
	50	2014	Rejuvenator	\$15,043
		2017	Preventive Maintenance	\$585
	60	2013	Major M&R	\$557,648
		2013	Preventive Maintenance	\$129
	70	2013	Rejuvenator	\$31,267
		2017	Preventive Maintenance	\$6,204
AOOMD	10	2015	Rejuvenator	\$101,031
A02MR	10	2017	Preventive Maintenance	\$984
A03MR	10	2013	Major M&R	\$456,750
	10	2013	Rejuvenator	\$5,586
ARUNUPMR	10	2017	Preventive Maintenance	\$586
	10	2013	Rejuvenator	\$38,566
TAMR	10	2017	Preventive Maintenance	\$458
IAWK	20	2013	Rejuvenator	\$42,764
	20	2017	Preventive Maintenance	\$26,895
		2013	Preventive Maintenance	\$162
TBMR	10	2013	Rejuvenator	\$21,766
IDIVIK		2017	Preventive Maintenance	\$12,575
	20	2015	Rejuvenator	\$26,957

Table 3. 5-Year Program under an Unlimited Funding Analysis Scenario.

<sup>1</sup>See Figure 5 for the location of the branch and section.

<sup>2</sup>Major Rehabilitation: overlay, mill and overlay, reconstruction, and so on;

Localized Maintenance: crack sealing, patching, joint resealing, and so on;

Global Maintenance: surface treatments, rejuvenators, and so on.

<sup>3</sup>Cost estimates based on broad, statewide policy and should be adjusted to reflect local costs.

### **GENERAL RECOMMENDATIONS**

#### Maintenance

In addition to the specific maintenance actions presented in Appendix E and Appendix F, the following strategies are recommended to prolong pavement life:

- 1. Conduct an aggressive campaign against weed growth through timely herbicide applications. Vegetation growing in pavement cracks is very destructive and significantly increases the rate of pavement deterioration.
- 2. Implement a periodic crack sealing program. Sealing cracks is a proven method for costeffectively keeping water and debris out of the pavement system and extending its life.
- 3. Ensure that dirt does not build up along the edges of the pavements. This can create a "bathtub" effect—reducing the ability of water to drain away from the pavement system.
- 4. Closely monitor heavy equipment movement, such as construction equipment, emergency equipment, and fueling equipment, to make sure that it is only operating on pavement designed to accommodate the heavy loads this type of equipment often applies. Failure to restrict heavy equipment to appropriate areas may result in the premature failure of airport pavements.
- 5. Other maintenance necessities include keeping all pavement markings well painted, keeping safety signage clear of debris and weeds, ensuring the continuous operation of lighting systems (bulb replacement), and the frequent removal of any debris found in any of the operating areas. In addition, failed pavement areas should be remediated as necessary.

#### **Remaining in Compliance with Public Law 103-305**

Public Law 103-305 states that after January 1, 1995, airport sponsors must provide assurances or certifications that an airport has implemented an effective airport pavement maintenance management system (PMMS) before the airport will be considered for funding of pavement replacement or reconstruction projects. To be in full compliance with the Federal law, the PMMS must include the following components at a minimum: pavement inventory, pavement inspections, record keeping, information retrieval, and program funding.

By undertaking this project, the Department has provided Cobb County-McCollum Field with an excellent basis for meeting the requirements of this law. The airport now has a complete pavement inventory and a detailed inspection. To remain in compliance with the law, the airport will also need to undertake monthly drive-by inspections of pavement conditions and track pavement-related maintenance activities. The next detailed inspection should occur in 2015.

The FAA AC 150/5380-6B provides further information on Public Law 103-305. Specifically, Appendix 1 of this AC outlines what needs to be included in a PMMS to satisfy FAA Grant Assurance 11. A copy of this AC can be found at the following website <a href="http://www.faa.gov/regulations\_policies/advisory\_circulars/index.cfm/go/document.information/documentID/22556">http://www.faa.gov/regulations\_policies/advisory\_circulars/index.cfm/go/document.information/documentID/22556</a>.

### SUMMARY

This report documents the results of the pavement evaluation conducted at Cobb County-McCollum Field. During a visual inspection of the pavements in 2012, it was found that the overall condition of the pavement network is a PCI of 85. A 5- year pavement repair program was generated for Cobb County-McCollum Field, which revealed that approximately \$2,468,677 needs to be expended on the pavement system to maintain and/or improve its condition.

## **APPENDIX A**

## **CAUSE OF DISTRESS TABLES**

Distress Type	Probable Cause of Distress	Feasible Maintenance Strategies
Alligator Cracking	Fatigue failure of the asphalt concrete surface under repeated traffic loading.	If localized, partial- or full-depth asphalt patch. If extensive, major rehabilitation needed.
Bleeding	Excessive amounts of asphalt cement or tars in the mix and/or low air void content.	Spread heated sand, roll, and sweep. Another option is to plane excess asphalt. Or, remove and replace.
Block Cracking	Shrinkage of the asphalt concrete and daily temperature cycling; it is not load associated.	At low severity levels, crack seal and/or surface treatment. At higher severities, consider overlay.
Corrugation	Traffic action combined with an unstable pavement layer.	If localized, mill. If extensive, remove and replace.
Depression	Settlement of the foundation soil or can be "built up" during construction.	Patch.
Jet Blast	Bituminous binder has been burned or carbonized.	Patch.
Joint Reflection Cracking	Movement of the concrete slab beneath the asphalt concrete surface due to thermal and moisture changes.	At low- and medium-severities, crack seal. At higher severities, especially if extensive, consider overlay.
Longitudinal and Transverse Cracking	Cracks may be caused by 1) poorly constructed paving lane joint, 2) shrinkage of the AC surface due to low temperatures or hardening of the asphalt, or 3) reflective crack caused by cracks in an underlying PCC slab.	At low- and medium-severity levels, crack seal. At higher severities, especially if extensive, consider overlay options.
Oil Spillage	Deterioration or softening of the pavement surface caused by the spilling of oil, fuel, or other solvents.	Patch.
Patching	N/A	Replace patch if deteriorated.
Polished Aggregate	Repeated traffic applications.	Aggregate seal coat is one option. Could also groove or mill. Overlay is another option.
Raveling	Asphalt binder may have hardened significantly, causing coarse aggregate pieces to dislodge.	Patch if isolated. At higher severity levels, consider major rehabilitation if extensive.
Rutting	Usually caused by consolidation or lateral movement of the materials due to traffic loads.	Patch medium- and high-severity levels if localized. If extensive, consider major rehabilitation.
Shoving	Where PCC pavements adjoin flexible pavements, PCC "growth" may shove the asphalt pavement.	Mill and patch as needed.
Slippage Cracking	Low strength surface mix or poor bond between the surface and next layer of pavement structure.	Partial- or full-depth patch.
Swelling	Usually caused by frost action or by swelling soil.	Patch if localized. Major rehabilitation if extensive.
Weathering	Asphalt binder and/or fine aggregate may wear away as the pavement ages and hardens.	Patch if isolated. Consider a surface treatment if extensive.

### Table A-1. Cause of Pavement Distress, Asphalt-Surfaced Pavements.

Distress Type	Probable Cause of Distress	Feasible Maintenance Strategies
Alkali Silica Reaction (ASR)	Chemical reaction of alkalis in the portland cement with certain reactive silica minerals. ASR may be accelerated by the use of chemical pavement deicers.	At medium- and high-severity levels, slab replacement is recommended.
Blow-Up	Incompressibles in joints.	Partial- or full-depth patch. Slab replacement.
Corner Break	Load repetition combined with loss of support and curling stresses.	Seal cracks at low-severity. Full-depth patch.
Cracks	Combination of load repetition, curling stresses, and shrinkage stresses.	Seal cracks. At high-severity, may need full-depth patch or slab replacement.
Durability Cracking	Concrete's inability to withstand environmental factors such as freeze- thaw cycles.	Full-depth patch if present on small amount of slab. At higher severity levels, once it has appeared on most of slab, slab replacement.
Joint Seal Damage	Stripping of joint sealant, extrusion of joint sealant, weed growth, hardening of the filler (oxidation), loss of bond to the slab edges, or absence of sealant in joint.	Replace joint seal.
Patching (Small and Large)	N/A	Replace patches if deteriorated.
Popouts	Freeze-thaw action in combination with expansive aggregates.	Monitor.
Pumping	Poor drainage, poor joint sealant.	Seal cracks and joints. Underseal is an option if voids have developed. Establish good drainage.
Scaling	Overfinishing of concrete, deicing salts, improper construction, freeze- thaw cycles, and poor aggregate.	At low-severity levels, do nothing. At medium- and high-severity levels, partial-depth patches or slab replacement.
Settlement	Upheaval or consolidation.	At higher severity levels, leveling patch or grind to restore smooth ride.
Shattered Slab	Load repetition.	Replace slab.
Shrinkage	Setting and curing of the concrete.	Monitor.
Spalling (Joint and Corner)	Excessive stresses at the joint caused by infiltration of incompressible materials or traffic loads; weak concrete at joint combined with traffic loads.	Partial-depth patch.

#### Table A-2. Cause of Pavement Distress, PCC Pavements.

A-2

## **APPENDIX B**

## **PHOTOGRAPHS**



A01MR-10. Overview.



A01MR-10. Alligator Cracking (Sample Unit #01).



A01MR-10. Alligator Cracking (Sample Unit #04).



A01MR-10. Unsatisfactory Paint.



A01MR-20. Overview.



A01MR-20. Longitudinal and Transverse Cracking (Sample Unit #03).



A01MR-30. Overview.



A01MR-30. Block Cracking (Sample Unit #04).



A01MR-30. Unsatisfactory Paint.



A01MR-40. Overview.



A01MR-40. Alligator Cracking (Sample Unit #56).



A01MR-40. Longitudinal and Transverse Cracking (Sample Unit #10).



A01MR-40. Unsatisfactory Paint.



A01MR-50. Overview.



A01MR-50. Longitudinal and Transverse Cracking (Sample Unit #12).



A01MR-50. Satisfactory Paint.



A01MR-60. Overview.



A01MR-60. Longitudinal and Transverse Cracking (Sample Unit #03).



A01MR-60. Rutting and Alligator Cracking (Additional Sample Unit #01).



A01MR-60. Unsatisfactory Paint.



A01MR-70. Overview.



A01MR-70. Longitudinal and Transverse Cracking.



A01MR-70. Unsatisfactory Paint.



A02MR-10. Overview.



A02MR-10. Longitudinal and Transverse Cracking.



A02MR-10. Satisfactory Paint.



A03MR-10. Overview.



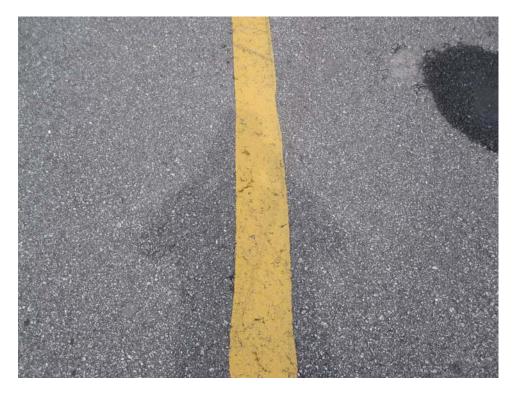
A03MR-10. Alligator Cracking (Sample Unit #14).



A03MR-10. Longitudinal and Transverse Cracking (Sample Unit #14).



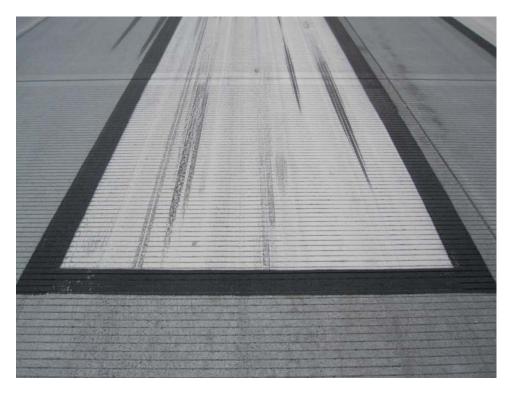
ARUNUPMR-10. Overview.



ARUNUPMR-10. Satisfactory Paint.



R927MR-10. Overview.



R927MR-10. Satisfactory Paint.



TAMR-10. Overview.



TAMR-10. Satisfactory Paint.



TAMR-20. Overview.



TAMR-20. Longitudinal and Transverse Cracking (Sample Unit #01).



TAMR-20. Satisfactory Paint.



TBMR-10. Overview.



TBMR-10. Longitudinal and Transverse Cracking (Sample Unit #17).



TBMR-10. Satisfactory Paint.



TBMR-20. Overview.



TBMR-20. Satisfactory Paint.

## **APPENDIX C**

## **INSPECTION REPORT**

	c-mspc	cuon Report		
GA 2012 FINAL				
Report Generated Date: November 20, 2012				
Network: ATL-RYY Name: COBB COUNTY-McCOLLU	M FIELD			
Branch: A01MR Name: APRON 01		Use: APRON	Area: 927	,320.00SqFt
Section: 10 of 7 From: ACCESS ROAI Surface: AC Family: GAACAPGA3	)	To: hang	GAR NEAR LG. APRON Zone: U-CR	Last Const.: 06/01/1975 Category: Rank: P
Area: 22,773.00SqFt Length: 280.00Ft	W	idth: 110.00Ft		
	Lanes: 0	11010010		
Section Comments:				
Last Insp. Date: 03/31/2012 Total Samples: 6 Survey	red: 4			
Conditions: PCI : 28				
Inspection Comments:				
Sample Number: 01 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 60	
57 WEATHERING	${\tt L}$	4,000.00 SqH	Ft Comments:	
43 BLOCK CRACKING	L	2,400.00 SqH	Ft Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	115.00 Ft	Comments:	
Sample Number: 02 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 11	
57 WEATHERING	М	5,200.00 SqH	Ft Comments:	
41 ALLIGATOR CRACKING	М	5,200.00 SqH	Ft Comments:	
Sample Number: 03 Type: R Sample Comments:	Area:	6,500.00SqFt	PCI = 11	
41 ALLIGATOR CRACKING	М	6,500.00 SqH	Ft Comments:	
57 WEATHERING	М	6,500.00 SqH	Et Comments:	
Sample Number: 04 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 43	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	565.00 Ft	Comments:	
57 WEATHERING			Et Comments:	
	М	5,200.00 SqH		
41 ALLIGATOR CRACKING	M H	5,200.00 SqF 20.00 SqF 75.00 SqF	Et Comments:	

GA 2012 Report Ge	FINAL nerated Date: N	November 2	0, 2012			•									
Network:	ATL-RYY	Name: 0	COBB COUN	TY-McCOL	LUM FIEL	D									
Branch:	A01MR	Name: A	APRON 01				Use: AF	PRON	Are	a:	927,	,320.00SqFt			
Section:	20	of 7	From:	FRONT OF I	HANGAR		To: 5	50' FROM	HANGAR			Last Const	.: (	06/01/2	2006
Surface:	AC	Family	GAACAP	GA3					Zor	ne: N/	A	Category:		Rank:	Р
Area:	9,818.00SqFt	Lei	ngth:	170.00Ft		Wi	dth: 57.00	Ft							
Shoulder:	Street T	vpe:	Grade:	0.00	Lanes:	0									
	nments: Date: 03/31/20	)12 Total Sa	mples: 3	Surv	veyed: 2	2									
Last Insp. 1 Conditions	Date: 03/31/20 3: PCI : 90	)12 Total Sa	mples: 3	Surv	veyed: 2	2									
Last Insp. 1 Conditions Inspection C Sample Nu	Date: 03/31/20 s: PCI:90 Comments: 1mber: 01		mples: 3 e: R	Surv	veyed: 2 Area:	2	6,000.00SqFt		PCI = 90	)					
Last Insp. 1 Conditions Inspection C Sample Nu Sample Con	Date: 03/31/20 s: PCI:90 Comments: 1mber: 01	Тур	e: R		-	2 L	6,000.00SqFt 30.00	Ft		) ment:	s:u				
Last Insp. Conditions Inspection C Sample Nu Sample Con 48 LONC	Date: 03/31/20 s: PCI:90 Comments: Imber: 01 nments:	Тур	e: R		-				Com						
Last Insp. 1 Conditions Inspection C Sample Nu Sample Con 48 LONC 57 WEAT Sample Nu	Date: 03/31/20 S: PCI: 90 Comments: Imber: 01 Imments: GITUDINAL/ THERING Imber: 02	Typ TRANSVEI	e: R		-	L	30.00		Com	ment: ment:					
Conditions Inspection C Sample Nu Sample Con 48 LONG 57 WEAT Sample Nu Sample Con	Date: 03/31/20 S: PCI: 90 Comments: Imber: 01 Imments: GITUDINAL/ THERING Imber: 02	Typ TRANSVEI Typ	e: R RSE CRA( e: R	CKING	Area:	L	30.00 6,000.00	SqFt	Com Com PCI = 90	ment: ment:	s:				

	Re-inspe	ection Report			
GA 2012 FINAL Report Generated Date: November 20, 2012					
Network: ATL-RYY Name: COBB COUNTY-McCO	LLUM FIELD				
Branch: A01MR Name: APRON 01		Use: APRON	Area:	927,320.00SqFt	
Section: 30 of 7 From: SE CORNE Surface: AC Family: GAACAPGA3	ER OF LG APRO	N To: LONG	G SPUR OFF TW Zone: U-1	Last Const.: FA Category:	06/02/1998 Rank: P
Area: 118,615.00SqFt Length: 480.00Ft	_	/idth: 185.00Ft			
Shoulder: Street Type: Grade: 0.00 Section Comments:	Lanes: 0				
Last Insp. Date: 03/31/2012 Total Samples: 41 Su Conditions: PCI: 70 Inspection Comments: no sealant	rveyed: 6				
Sample Number: 04 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 57		
57 WEATHERING	L	5,000.00 Sqi	Ft Comments	3:	
43 BLOCK CRACKING	L	4,000.00 Sq		3:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.00 Ft	Comments	5:	
Sample Number: 05 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 63		
57 WEATHERING	$\mathbf{L}$	5,000.00 Sqi		5:	
43 BLOCK CRACKING	L	2,000.00 Sq			
48 LONGITUDINAL/TRANSVERSE CRACKING	L	160.00 Ft			
42 BLEEDING	N	8.00 Sq	Ft Comments	3:	
Sample Number: 07 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 85		
48 LONGITUDINAL/TRANSVERSE CRACKING	$\mathbf{L}$	156.00 Ft	Comments	s:	
57 WEATHERING	L	5,000.00 Sq	Ft Comments	3:	
Sample Number: 09 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 69		
57 WEATHERING	$\mathbf{L}$	5,000.00 Sq	Ft Comments	s:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	315.00 Ft			
41 ALLIGATOR CRACKING	М	20.00 Sq	Ft Comments	3:	
Sample Number: 12 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 60		
43 BLOCK CRACKING	L	3,000.00 Sqi			
48 LONGITUDINAL/TRANSVERSE CRACKING	L	76.00 Ft			
57 WEATHERING	L	5,000.00 Sq	Ft Comments	3:	
Sample Number: 20 Type: R Sample Comments:	Area:	5,200.00SqFt	PCI = 86		
48 LONGITUDINAL/TRANSVERSE CRACKING	$\mathbf{L}$	215.00 Ft	Comments	3:	
57 WEATHERING	L	215.00 Sqi	Ft Comments	5:	

GA 2012 FINAL Report Generated Date: November 20, 2012						
Network: ATL-RYY Name: COBB COUNTY-McCO	LLUM FIELD					
Branch: A01MR Name: APRON 01		Use: AF	PRON	Area: 927,3	320.00SqFt	
Section: 40 of 7 From: LARGEST Surface: AAC Family: GAAACAPGA3NOR		То: т	FAXIWAY A	Zone: U-FA	Last Const.: Category:	06/01/1998 Rank: P
Area: 483,309.00SqFt Length: 1,515.00Ft	V	Vidth: 270.00	Ft			
Shoulder: Street Type: Grade: 0.00	Lanes: 0					
Section Comments:						
Last Insp. Date: 03/31/2012 Total Samples: 87 Su Conditions: PCI : 66 Inspection Comments: all 48 unsealed	rveyed: 9					
Sample Number: 05 Type: R Sample Comments:	Area:	5,700.00SqFt		PCI = 75		
57 WEATHERING	L			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	L			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	М	110.00	F't	Comments:		
Sample Number: 10 Type: R Sample Comments:	Area:	5,000.00SqFt		PCI = 76		
48 LONGITUDINAL/TRANSVERSE CRACKING	L			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	М			Comments:		
57 WEATHERING	L	5,000.00	SqFt	Comments:		
Sample Number: 26 Type: R Sample Comments:	Area:	5,000.00SqFt		PCI = 79		
48 LONGITUDINAL/TRANSVERSE CRACKING	L			Comments:u		
57 WEATHERING	L	5,000.00	SqFt	Comments:		
Sample Number: 30 Type: R Sample Comments:	Area:	5,000.00SqFt		PCI = 73		
57 WEATHERING	L	•		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	M			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	180.00	Fτ	Comments:		
Sample Number: 40 Type: R Sample Comments:	Area:	5,000.00SqFt		PCI = 71		
48 LONGITUDINAL/TRANSVERSE CRACKING	L			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	M			Comments:		
57 WEATHERING	L	5,000.00	SqFt	Comments:		
Sample Number: 48 Type: R Sample Comments:	Area:	5,000.00SqFt		PCI = 78		
57 WEATHERING	L			Comments:		
52 RAVELING	L		SqFt Ft	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING 42 BLEEDING	L N		FL SqFt	Comments: Comments:u		
Sample Number: 56 Type: R Sample Comments:	Area:	6,500.00SqFt		PCI = 47		
48 LONGITUDINAL/TRANSVERSE CRACKING	М	40.00	Ft	Comments:		
52 RAVELING	М		SqFt	Comments:		
41 ALLIGATOR CRACKING	М			Comments:		
57 WEATHERING	L			Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	245.00	ЪС	Comments:		

#### GA 2012 FINAL Report Generated Date: November 20, 2012

Sample Number: 74 Type: R	Area:		5,700.00SqFt	PCI = 31
Sample Comments:				
41 ALLIGATOR CRACKING		М	700.00 SqFt	Comments:
57 WEATHERING		L	5,000.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING		L	54.00 Ft	Comments:
Sample Number: 84 Type: R	Area:		6,000.00SqFt	PCI = 76
Sample Comments:				
48 LONGITUDINAL/TRANSVERSE CRACKING		М	175.00 Ft	Comments:
57 WEATHERING		L	5,000.00 SqFt	Comments:

	r			N	ve-1118	peci	ion repo	ι			
GA 2012 FINAI Report Generated		mb an 20 /	2012								
Network: ATL-I				NTY-McCOLLU	JM FIEL	D					
Branch: A01M	IR Na	ame: APF	RON 01				Use: Al	PRON	Area:	927,320.00SqFt	
Section: 50 Surface: AAC	of	7 Family: 0		LG APR. SECT APGA3NORTH		N-S RD	To: 1	NORTH TO	WARD NE-SW RD Zone: SA	Last Const.: T Category:	06/01/2009 Rank: P
Area: 66,387.0	00SqFt	Lengtl	h:	420.00Ft		Widt	h: 170.00	)Ft			
Shoulder:	Street Type:		Grade:	0.00	Lanes:	0					
Section Comments:											
Last Insp. Date: 0 Conditions: PCI	: 89	'otal Samp	les: 1	9 Surve	yed: 6	i					
Inspection Commen	ts:										
Sample Number:	02	Type:	R		Area:	e	5,000.00SqFt		PCI = 95		
Sample Comments: 50 PATCHING	1					L	100.00	SqFt	Comments	5:	
Sample Number: Sample Comments:	03	Type:	R		Area:	e	5,000.00SqFt		PCI = 96		
48 LONGITUD	INAL/TRA	NSVERS	E CRA	CKING		L	34.00	Ft	Comments	5 <b>:</b>	
Sample Number: Sample Comments:	04	Type:	А		Area:	6	5,000.00SqFt		PCI = 45		
41 <sup>°</sup> ALLIGATC						М	400.00	SqFt	Comments	3:	
48 LONGITUD	INAL/TRA	NSVERS	E CRA	CKING		L	33.00	Ft	Comments	3:	
Sample Number: Sample Comments:	06	Type:	R		Area:	6	5,000.00SqFt		PCI = 96		
48 LONGITUD	INAL/TRA	NSVERS	e cra	CKING		L	29.00	Ft	Comments	3:	
Sample Number: Sample Comments:	08	Type:	R		Area:	6	5,000.00SqFt		PCI = 86		
41 ALLIGATO	R CRACKI	NG				L	15.00	-	Comments	5:	
48 LONGITUD	INAL/TRA	NSVERS	E CRA	CKING		L	25.00	Ft	Comments	3:	
Sample Number: Sample Comments:	12	Type:	R		Area:	3	3,750.00SqFt		PCI = 96		
48 LONGITUD	INAL/TRA	NSVERS	E CRA	CKING		L	15.00	Ft	Comments	s∶u	

GA 2012 FINAL		γP℃		·			
Report Generated Date: November 20, 2012 Network: ATL-RYY Name: COBB COUNTY-McCOI	LLUM FIEL	D					
Branch: A01MR Name: APRON 01			Use: AF	PRON	Area: 927	,320.00SqFt	
Section:60of7From: NEAR NWSurface:ACFamily:GAACAPGA3	-SE ROAD		To: s	S. ENDS O	F T HANGARS Zone: U-FA	Last Const.: Category:	06/02/1989 Rank: P
Area: 84,297.00SqFt Length: 900.00Ft		Wi	idth: 40.00	Ft			
Shoulder: Street Type: Grade: 0.00	Lanes:	0					
Section Comments:							
	rveyed: 6	ó					
Conditions: PCI : 52 Inspection Comments:							
Sample Number: 01 Type: A Sample Comments:	Area:		4,000.00SqFt		PCI = 8		
41 ALLIGATOR CRACKING		M	4,000.00	-	Comments:		
53 RUTTING 57 WEATHERING		H L	100.00 4,000.00	-	Comments: Comments:		
Sample Number: 03 Type: R Sample Comments:	Area:		4,000.00SqFt		PCI = 56		
41 ALLIGATOR CRACKING		М	15.00	-	Comments:		
57 WEATHERING		L	4,000.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING 48 LONGITUDINAL/TRANSVERSE CRACKING		M L	246.00 156.00		Comments: Comments:		
		ш	190.00	ГC	continentes.		
Sample Number: 07 Type: R Sample Comments:	Area:		4,000.00SqFt		PCI = 67		
57 WEATHERING		L	4,000.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING 48 LONGITUDINAL/TRANSVERSE CRACKING		M L	167.00 189.00		Comments: Comments:		
+o LONGITUDINAL/TRANSVERSE CRACKING		Ц	109.00	гι	connencs.		
Sample Number: 10 Type: R Sample Comments:	Area:		5,081.00SqFt		PCI = 56		
57 WEATHERING		L	4,600.00	SqFt	Comments:		
57 WEATHERING		М	500.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING		L	520.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING		M	224.00		Comments:		
45 DEPRESSION		L	42.00	SqFt	Comments:		
Sample Number: 14 Type: R Sample Comments:	Area:		4,550.00SqFt		PCI = 43		
57 WEATHERING		L	4,550.00	SqFt	Comments:		
41 ALLIGATOR CRACKING		М	55.00		Comments:		
45 DEPRESSION		L	75.00		Comments:		
50 PATCHING		M	250.00		Comments:		
<ul><li>48 LONGITUDINAL/TRANSVERSE CRACKING</li><li>48 LONGITUDINAL/TRANSVERSE CRACKING</li></ul>		L M	184.00 192.00		Comments: Comments:		
Sample Number: 16 Type: R	Area:		4,550.00SqFt		PCI = 53		
Sample Comments: 57 WEATHERING		L	4,550.00	SaFt	Comments:		
50 PATCHING		L	2,800.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING		M	115.00		Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING		L	56.00	Ft	Comments:		

GA 2012 FINAL	Ke-ms	bection Report			
Report Generated Date: November 20, 2012					
Network: ATL-RYY Name: COBB COUNTY-McCO	LLUM FIELD				
Branch: A01MR Name: APRON 01		Use: APRON	Area: 927	7,320.00SqFt	
Section: 70 of 7 From: Taxiway A Surface: AC Family: GAACAPGA3		To: A01MR-2	0 Zone: U-FA	Last Const.: Category:	06/03/2004 Rank: S
Area: 142,121.00SqFt Length: 485.00Ft		Width: 230.00Ft			
Shoulder: Street Type: Grade: 0.00	Lanes:	0			
Section Comments:					
Last Insp. Date: 03/31/2012 Total Samples: 28 Su Conditions: PCI: 86 Inspection Comments: unsealed	rveyed: 6				
Sample Number: 03 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 83		
57 WEATHERING		L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING 42 BLEEDING		L 185.00 Ft N 4.00 SqFt	Comments: Comments:		
12 DIFFITING	1	4.00 Sqrt	continentes.		
Sample Number: 07 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 84		
57 WEATHERING		L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING		L 172.00 Ft	Comments:		
Sample Number: 12 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 86		
57 WEATHERING		L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	]	L 127.00 Ft	Comments:		
Sample Number: 16 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 90		
57 WEATHERING	]	L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	]	L 19.00 Ft	Comments:		
Sample Number: 20 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 90		
57 WEATHERING		L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	]	L 23.00 Ft	Comments:		
Sample Number: 28 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 80		
41 ALLIGATOR CRACKING	I	M 4.00 SqFt	Comments:		
57 WEATHERING		L 5,000.00 SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING	]	L 50.00 Ft	Comments:		

		ke-inspec	ction Report			
GA 2012 FINAL Report Generated Dat	te: November 20, 2012					
Network: ATL-RYY		-McCOLLUM FIELD				
Branch: A02MR	Name: APRON 02		Use: APRON	Area: 432,	871.00SqFt	
Section: 10 Surface: AAC	of 1 From: FR Family: GAAACAPG	OM S. PART OF TW B A3NORTH	To: hangar	S TO THE SOUTH Zone: SAT	Last Const.: ( Category:	06/01/2010 Rank: S
Area: 432,871.00Sq Shoulder: Stre	-	_	dth: 250.00Ft			
Section Comments:	et Type: Grade: 0.0	0 Laics. 0				
Last Insp. Date: 03/31 Conditions: PCI : 99 Inspection Comments:	1/2012 Total Samples: 84	Surveyed: 8				
Sample Number: 03 Sample Comments: <no distresses<="" td=""><td></td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>		Area:	5,000.00SqFt	PCI = 100		
Sample Number: 20 Sample Comments: <no distresses<="" td=""><td>51</td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	51	Area:	5,000.00SqFt	PCI = 100		
Sample Number: 3 Sample Comments: 48 LONGITUDINA	I Type: R AL/TRANSVERSE CRACK	Area: ING L	5,000.00SqFt 5.00 Ft	PCI=98 Comments:u		
Sample Number: 40 Sample Comments: <no distresses<="" td=""><td></td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>		Area:	5,000.00SqFt	PCI = 100		
Sample Number: 4 <sup>4</sup>	7 Type: R	Area:	5,000.00SqFt	PCI = 96		
Sample Comments: 48 LONGITUDINA	AL/TRANSVERSE CRACK	ING L	35.00 Ft	Comments:		
Sample Number: 52 Sample Comments: <no distresses<="" td=""><td></td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>		Area:	5,000.00SqFt	PCI = 100		
Sample Number: 59 Sample Comments: <no distresses<="" td=""><td></td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>		Area:	5,000.00SqFt	PCI = 100		
Sample Number: 6 Sample Comments: <no distresses<="" td=""><td></td><td>Area:</td><td>5,000.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>		Area:	5,000.00SqFt	PCI = 100		

GA 2012 FINAL	Re-inspe	ection Report	Į –	
Report Generated Date: November 20, 2012				
Network: ATL-RYY Name: COBB COUNTY-McCO	OLLUM FIELD			
Branch: A03MR Name: APRON 03		Use: APF	RON Area:	75,000.00SqFt
Section: 10 of 1 From: SW CORN Surface: AC Family: GAACAPGA3 Area: 75,000.00SqFt Length: 300.00Ft Shoulder: Street Type: Grade: 0.00		To: sw /idth: 250.00F	V NEAR ROADS Zone: N/A t	Last Const.: 06/02/1981 Category: Rank: S
Section Comments:				
Last Insp. Date: 03/31/2012 Total Samples: 15 Su Conditions: PCI : 37 Inspection Comments:	rveyed: 5			
Sample Number: 02 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 26	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	210.00	Ft Comments	:
48 LONGITUDINAL/TRANSVERSE CRACKING	М	427.00	Ft Comments	:
41 ALLIGATOR CRACKING	М	600.00	-	
57 WEATHERING	L	5,000.00	SqFt Comments	:
Sample Number: 04 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 50	
48 LONGITUDINAL/TRANSVERSE CRACKING	М	445.00	Ft Comments	:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	165.00		
41 ALLIGATOR CRACKING	M	30.00	-	
57 WEATHERING	L	5,000.00	SqFt Comments	:
Sample Number: 08 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 40	
41 ALLIGATOR CRACKING	М	110.00		:
57 WEATHERING	L	4,800.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	310.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	М	475.00	Ft Comments	:
Sample Number: 12 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 21	
57 WEATHERING	$\mathbf{L}$	4,600.00		:
53 RUTTING	М	400.00		
41 ALLIGATOR CRACKING	M	180.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	215.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	М	550.00	Ft Comments	•
Sample Number: 14 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 47	
52 RAVELING	М	200.00		
57 WEATHERING	L	4,100.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	145.00		
48 LONGITUDINAL/TRANSVERSE CRACKING	M	410.00		
45 DEPRESSION	L	150.00	SqFt Comments	•

~		Ke-inspeci	on Report		
GA 2012 FINAL	20, 2012				
Report Generated Date: N					
Network: ATL-RYY	Name: COBB COUNTY-McCOL	LUM FIELD			
Branch: ARUNUPMR	Name: RUNUP APRON		Use: APRON	Area: 25,390.00SqFt	
Section: 10 Surface: AC	of 1 From: TAMR-10 Family: GAACAPGA3		To: SEE MAP	Last Const. Zone: SAT Category:	: 06/01/2005 Rank: P
Area: 25,390.00SqFt	Length: 250.00Ft	Width	: 100.00Ft		
Shoulder: Street Ty		Lanes: 0			
Section Comments:					
Last Insp. Date: 03/31/20 Conditions: PCI:93 Inspection Comments: Sample Number: 01	2 Total Samples: 5 Sur Type: R	veyed: 4 Area: 5,	000.00SqFt	PCI = 95	
Sample Comments: 48 LONGITUDINAL/	TRANSVERSE CRACKING	L	50.00 Ft	Comments:u	
Sample Number: 02 Sample Comments:	Type: R	Area: 5,	000.00SqFt	PCI = 95	
	FRANSVERSE CRACKING	L	50.00 Ft	Comments:	
Sample Number: 03 Sample Comments:	Type: R	Area: 5,	000.00SqFt	PCI = 95	
1	FRANSVERSE CRACKING	L	46.00 Ft	Comments:	
Sample Number: 04 Sample Comments:	Type: R	Area: 5,	000.00SqFt	PCI = 87	
1	IRANSVERSE CRACKING	L L	57.00 Ft 4.00 SqFt	Comments: Comments:	

GA 2012 FINAL		Re-inspecti	on Report			
Report Generated Date: N						
Network: ATL-RYY	Name: COBB COUNTY-M	McCOLLUM FIELD				
Branch: R927MR	Name: RUNWAY 9/27		Use: RUNWAY	Area: 63	1,088.00SqFt	
Section: 10 Surface: PCC Area: 631,088.00SqFt	of 1 From: 9 END Family: GAPCCRWYN Length: 5,355.	ORTH-70	To: R927MR-20	Zone: SAT	Last Const.: Category:	12/01/2008 Rank: P
· 1	ab Width: 12.50Ft	Slab Length:	12.50Ft	Joint Length:	58,830.00Ft	
Section Comments:						
Last Insp. Date: 03/31/201 Conditions: PCI : 100 Inspection Comments:	2 Total Samples: 202	Surveyed: 20				
Sample Number: 05 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 08 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 25 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 28 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 45 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 48 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 65 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 68 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 85 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		
Sample Number: 88 Sample Comments: <no distresses=""></no>	Type: R	Area:	20.00Slabs	PCI = 100		

#### GA 2012 FINAL Report Generated Date: November 20, 2012

Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td></td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>		pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td></td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>		pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td>-</td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>	-	pe: R	Area:	20.00Slabs	PCI = 100
Sample Number: Sample Comments: <no distresse<="" td=""><td></td><td>pe: R</td><td>Area:</td><td>20.00Slabs</td><td>PCI = 100</td></no>		pe: R	Area:	20.00Slabs	PCI = 100

GA 2012 FINAL					Ke-iiis	spectio	n Kepor	ŀ				
Report Generated		November	20, 2012									
Network: ATL-R				OUNTY-McCO	LLUM FIEL	.D						
Branch: TAMR	Ł	Name:	TAXIWA	Y A			Use: TAX	XIWAY	Area:	369	,678.00SqFt	
Section: 10 Surface: AAC Area: 175,298.0 Shoulder: Section Comments:	00SqFt Street T		ly: GAAA Length:	n: N OF RUN ACTWYGA3N0 5,710.00Ft e: 0.00		Width: 0	To: A 40.00F	PRON 1 AREA	Zone:	SAT	Last Const.: Category:	06/01/2008 Rank: P
Last Insp. Date: 0. Conditions: PCI : Inspection Comment	: 99	)12 Total S	Samples:	37 Su	rveyed: 7	7						
Sample Number: Sample Comments: 48 LONGITUD	03 INAL/		ype: R ERSE CF	RACKING	Area:	4,00 L	0.00SqFt 40.00		=95 Comme	nts:		
Sample Number: Sample Comments: <no distres<="" td=""><td>08 SES&gt;</td><td>Т</td><td>ype: R</td><td></td><td>Area:</td><td>5,65</td><td>8.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	08 SES>	Т	ype: R		Area:	5,65	8.00SqFt	PCI	= 100			
Sample Number: Sample Comments: <no distres<="" td=""><td>15 SES&gt;</td><td>Т</td><td>ype: R</td><td></td><td>Area:</td><td>3,72</td><td>8.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	15 SES>	Т	ype: R		Area:	3,72	8.00SqFt	PCI	= 100			
Sample Number: Sample Comments: <no distres<="" td=""><td>18 SES&gt;</td><td>Т</td><td>ype: R</td><td></td><td>Area:</td><td>5,91</td><td>4.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	18 SES>	Т	ype: R		Area:	5,91	4.00SqFt	PCI	= 100			
Sample Number: Sample Comments: <no distres<="" td=""><td>25 SES&gt;</td><td>Т</td><td>ype: R</td><td></td><td>Area:</td><td>6,96</td><td>0.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	25 SES>	Т	ype: R		Area:	6,96	0.00SqFt	PCI	= 100			
Sample Number: Sample Comments: <no distres<="" td=""><td>27 SES&gt;</td><td>Т</td><td>ype: R</td><td></td><td>Area:</td><td>4,47</td><td>5.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	27 SES>	Т	ype: R		Area:	4,47	5.00SqFt	PCI	= 100			
Sample Number: Sample Comments: <no distres<="" td=""><td>34 SES&gt;</td><td>T</td><td>ype: R</td><td></td><td>Area:</td><td>4,06</td><td>8.00SqFt</td><td>PCI</td><td>= 100</td><td></td><td></td><td></td></no>	34 SES>	T	ype: R		Area:	4,06	8.00SqFt	PCI	= 100			

<b>Ke-inspection Keport</b>					
GA 2012 FINAL Report Generated Date: November 20, 2012					
Network: ATL-RYY Name: COBB COUNTY-McCO	OLLUM FIELD				
Branch: TAMR Name: TAXIWAY A		Use: TAXIWAY	Area: 369,678.00SqFt		
Section: 20 of 2 From: TAMR-10 Surface: AC Family: GAACTWYGA3NO		To: TAMR-30	Last Const Zone: SAT Category:	.: 01/01/1991 Rank: P	
Area: 194,380.00SqFt Length: 1,005.00Ft	-	Width: 40.00Ft	Zone. SAT Category.	Kalik. F	
Shoulder: Street Type: Grade: 0.00	Lanes: 0				
51					
Section Comments:					
Last Insp. Date: 03/31/2012 Total Samples: 55 Su	irveyed: 7				
Conditions: PCI: 83					
Inspection Comments:					
Sample Number: 05 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 79		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	260.00 Ft	Comments:u		
56 SWELLING	L		Comments:		
Sample Number: 12 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 76		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	310.00 Ft	Comments:u		
56 SWELLING	L	20.00 SqFt	Comments:		
Sample Number: 19 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 79		
48 LONGITUDINAL/TRANSVERSE CRACKING	L		Comments:u		
56 SWELLING	L	10.00 SqFt	Comments:		
Sample Number: 26 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 77		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	305.00 Ft	Comments:		
56 SWELLING	L		Comments:		
56 SWELLING	L	10.00 SqFt	Comments:		
Sample Number: 33 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 76		
48 LONGITUDINAL/TRANSVERSE CRACKING	L	335.00 Ft	Comments:u		
42 BLEEDING	N		Comments:		
56 SWELLING	L	5.00 SqFt	Comments:		
Sample Number: 40 Type: R Sample Comments: <no distresses=""></no>	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 47 Type: R	Area:	3,500.00SqFt	PCI = 96		
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING	L	21.00 Ft	Comments:		

	ne-msh	ection kepor			
GA 2012 FINAL Report Generated Date: November 20, 2012					
Network: ATL-RYY Name: COBB COUNTY-McCOI	LUM FIELD				
Branch: TBMR Name: TAXIWAY B		Use: TAX	XIWAY Area:	214,438.00SqFt	
Section: 10 of 2 From: Apron 03		To: R	unway 27 End	Last Const.:	06/03/2005
Surface: AC Family: GAACTWYGA3NOF	TH		Zone:	SAT Category:	Rank: S
Area: 98,938.00SqFt Length: 2,800.00Ft		Width: 35.00F	řt		
Shoulder: Street Type: Grade: 0.00	Lanes:	0			
Section Comments:					
Last Insp. Date: 03/31/2012 Total Samples: 28 Sur Conditions: PCI : 82	rveyed: 6				
Inspection Comments:					
Sample Number: 02 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 84		
48 LONGITUDINAL/TRANSVERSE CRACKING	I				
42 BLEEDING	ľ	1 5.00	SqFt Comme	nts:	
Sample Number: 07 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 77		
<pre>48 LONGITUDINAL/TRANSVERSE CRACKING 42 BLEEDING</pre>	I M				
Sample Number: 12 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 83		
48 LONGITUDINAL/TRANSVERSE CRACKING	I	183.00	Ft Comme	nts:u	
42 BLEEDING	ľ	10.00	SqFt Comme	nts:	
Sample Number: 17 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 94		
48 LONGITUDINAL/TRANSVERSE CRACKING	I	51.00	Ft Comme	nts:U	
Sample Number: 22 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 77		
48 LONGITUDINAL/TRANSVERSE CRACKING	I			nts:u	
48 LONGITUDINAL/TRANSVERSE CRACKING	Ν	17.00	Ft Comme	nts:s	
Sample Number: 27 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 79		
48 LONGITUDINAL/TRANSVERSE CRACKING	I				
50 PATCHING	I	26.00	SqFt Comme	nts:	

GA 2012 FINAL Report Generated Date	e: November 20, 2012					
Network: ATL-RYY	Name: COBB COUNTY-N	McCOLLUM FIELD	,			
Branch: TBMR	Name: TAXIWAY B		Use: TAXIWAY	Area:	214,438.00SqFt	
Section: 20 Surface: AC	of 2 From: . Family: GAACTWYGA		To: .	Zone:	Last Const.: SAT Category:	06/01/2010 Rank: P
Area: 115,500.00SqF Shoulder: Stree	t Type: Grade: 0.00		Width: 35.00Ft 0			
Section Comments:						
Last Insp. Date: 03/31/ Conditions: PCI : 100 Inspection Comments:	/2012 Total Samples: 38	Surveyed: 7				
Sample Number: 03 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 09 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 13 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 21 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 24 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 27 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		
Sample Number: 30 Sample Comments: <no distresses<="" td=""><td>Type: R</td><td>Area:</td><td>3,500.00SqFt</td><td>PCI = 100</td><td></td><td></td></no>	Type: R	Area:	3,500.00SqFt	PCI = 100		

## **APPENDIX D**

# MAINTENANCE POLICIES AND UNIT COSTS

Distress Type	Severity Level	Maintenance Action
	Low	Monitor
Alligator Cracking	Medium	AC Patching
	High	AC Patching
Bleeding	N/A	Monitor
	Low	Monitor
Block Cracking	Medium	Crack Sealing – AC
	High	Crack Sealing – AC
	Low	Monitor
Corrugation	Medium	AC Patching
	High	AC Patching
	Low	Monitor
Depression	Medium	AC Patching
	High	AC Patching
Jet Blast	N/A	AC Patching
	Low	Monitor
Joint Reflection Cracking	Medium	Crack Sealing – AC
	High	Crack Sealing – AC
	Low	Monitor
Longitudinal and Transverse Cracking	Medium	Crack Sealing – AC
Cracking	High	Crack Sealing – AC
Oil/Fuel Damage	N/A	AC Patching
	Low	Monitor
Patching	Medium	Monitor
	High	AC Patching
Polished Aggregate	N/A	Monitor
	Low	Monitor
Raveling	Medium	AC Patching
	High	AC Patching
	Low	Monitor
Rutting	Medium	AC Patching
	High	AC Patching
	Low	Monitor
Shoving	Medium	AC Patching
	High	AC Patching
Slippage Cracking	N/A	AC Patching
	Low	Monitor
Swelling	Medium	AC Patching
	High	AC Patching
	Low	Monitor
Weathering	Medium	Monitor
-	High	AC Patching

Table D-1. I	Localized Maintenance	Policy,	Asphalt-Surfaced Pavements.
--------------	-----------------------	---------	-----------------------------

Distress Type	Severity Level	Maintenance Action
	Low	Monitor
Alkali Silica Reaction (ASR)	Medium	Slab Replacement
	High	Slab Replacement
	Low	Slab Replacement
Blow-Up	Medium	Slab Replacement
	High	Slab Replacement
	Low	Crack Sealing – PCC
Corner Break	Medium	PCC Full Depth Patch
	High	PCC Full Depth Patch
	Low	Crack Sealing – PCC
LTD Cracking	Medium	Crack Sealing – PCC
	High	Crack Sealing – PCC
	Low	Monitor
Durability Cracking	Medium	Slab Replacement
	High	Slab Replacement
	Low	Monitor
Joint Seal Damage	Medium	Joint Sealing – PCC
	High	Joint Sealing – PCC
	Low	Monitor
Patching (Large and Small)	Medium	PCC Full Depth Patch
	High	PCC Full Depth Patch
Popouts	N/A	Monitor
Pumping	N/A	Monitor
	Low	Monitor
Scaling	Medium	Slab Replacement
	High	Slab Replacement
	Low	Monitor
Faulting	Medium	Monitor
	High	PCC Partial Depth Patch
	Low	Crack Sealing – PCC
Shattered Slab	Medium	Slab Replacement
	High	Slab Replacement
Shrinkage	N/A	Monitor
	Low	Monitor
Spalling (Joint and Corner)	Medium	PCC Partial Depth Patch
	High	PCC Partial Depth Patch

Table D-2. Localized Maintenance Policy, PCC Pavements.

Maintenance Action	Unit Cost				
Maintenance Action	Metro	North	South		
AC Patching	\$3.19/sf	\$3.18/sf	\$3.28/sf		
Crack Sealing – AC	\$2.02/lf	\$2.02/lf	\$1.95/lf		
Crack Sealing – PCC	\$2.71/lf	\$2.71/lf	\$2.71/lf		
Joint Sealing – PCC	\$2.71/lf	\$2.71/lf	\$2.71/lf		
PCC Partial Depth Patch	\$12.84/sf	\$12.84/sf	\$12.84/sf		
PCC Full Depth Patch	\$43.32/sf	\$43.32/sf	\$43.32/sf		
Slab Replacement	\$43.32/sf	\$43.32/sf	\$43.32/sf		

Table D-3. 2012 Unit Costs for Localized Maintenance Actions, General Aviation Airports.

Table D-4. 2012 Unit Costs for Localized Maintenance Actions, Air Carrier Airports.

Maintenance Action	Unit Cost
AC Patching	\$3.47/sf
Crack Sealing – AC	\$6.25/lf
Crack Sealing – PCC	\$2.71/lf
Joint Sealing – PCC	\$2.71/lf
PCC Partial Depth Patch	\$12.84/sf
PCC Full Depth Patch	\$43.32/sf
Slab Replacement	\$43.32/sf

Table D-5. 2012 Unit Costs for Global Maintenance Actions, General Aviation Airports.

Maintenance Action	Unit Cost				
Maintenance Action	Metro	North	South		
Single Surface Treatment	\$0.26/sf	\$0.12/sf	\$0.19/sf		
Pavement Rejuvenator	\$0.22/sf	\$0.22/sf	\$0.22/sf		

Table D-6. 2012 Unit Costs for Global Maintenance Actions, Air Carrier Airports.

Maintenance Action	Unit Cost
Single Surface Treatment	\$0.43/sf
Pavement Rejuvenator	\$0.22/sf

Type of	PCI Range									
Airport <sup>1</sup>	0 – 29	30 - 39	40 - 49	50 - 59	60 - 69	70 – 79	80 - 89	> 89		
G.A., Metro	\$6.09/sf	\$6.09/sf	\$6.85/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf		
G.A., North	\$5.14/sf	\$5.14/sf	\$5.38/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf		
G.A., South	\$5.00/sf	\$5.00/sf	\$5.42/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf		
Air Carrier	\$6.52/sf	\$6.52/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf		

Table D-7. 2012 Major Rehabilitation Unit Costs Based on PCI Ranges for Asphalt-Surfaced Pavements.

 $^{1}$ G.A. = General Aviation

Table D-8. 2012 Major Rehabilitation Unit Costs Based on PCI Ranges for PCC-Surfaced<br/>Pavements.

Type of	PCI Range									
Airport <sup>1</sup>	0 – 29	30 - 39	40 – 49	50 - 59	60 - 69	70 – 79	80 - 89	> 89		
G.A., Metro	\$9.50/sf	\$9.50/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf	\$1.96/sf		
G.A., North	\$9.87/sf	\$9.87/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf	\$1.71/sf		
G.A., South	\$9.71/sf	\$9.71/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf	\$1.87/sf		
Air Carrier	\$9.68/sf	\$9.68/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf	\$2.62/sf		

 ${}^{1}$ G.A. = General Aviation

### **APPENDIX E**

# YEAR 2013 MAINTENANCE PLAN ORGANIZED BY SECTION

Branch <sup>1</sup>	Section <sup>1</sup>	Distress Type <sup>2</sup>	Severity	Maintenance Action	Maintenance Quantity	Maintenance Unit	Unit Cost	Estimated Cost
A01MR	30	Alligator Cracking	Medium	Patching - AC Deep	115	SqFt	\$3.19	\$367
A01MR	50	Alligator Cracking	Medium	Patching - AC Deep	485	SqFt	\$3.19	\$1,546
A01MR	70	Alligator Cracking	Medium	Patching - AC Deep	41	SqFt	\$3.19	\$129
TBMR	10	L&T Cracking	Medium	Crack Sealing - AC	80	Ft	\$2.02	\$162

Table E-1. 2013 Maintenance Plan Organized by Section.

<sup>1</sup>See Figure 5 for the location of the branch and section.

<sup>2</sup>L&T Cracking = longitudinal and transverse cracking.

### **APPENDIX F**

# YEAR 2013 MAINTENANCE PLAN ORGANIZED BY REPAIR TYPE

Branch <sup>1</sup>	Section <sup>1</sup>	Distress Type <sup>2</sup>	Severity	Maintenance Action	Maintenance Quantity	Maintenance Unit	Unit Cost	Estimated Cost
TBMR	10	L&T Cracking	Medium	Crack Sealing - AC	80	Ft	\$2.02	\$162
A01MR	30	Alligator Cracking	Medium	Patching - AC Deep	115	SqFt	\$3.19	\$367
A01MR	50	Alligator Cracking	Medium	Patching - AC Deep	485	SqFt	\$3.19	\$1,546
A01MR	70	Alligator Cracking	Medium	Patching - AC Deep	41	SqFt	\$3.19	\$129

Table F-1. 2013 Maintenance Plan Organized by Repair Type.

<sup>1</sup>See Figure 5 for the location of the branch and section.

<sup>2</sup>L&T Cracking = longitudinal and transverse cracking.



For more information contact: **Georgia Department of Transportation Aviation Programs** 600 West Peachtree Street Atlanta, Georgia 30308 Contact phone: 404.631.1990 Web: dot.ga.gov/aviation

Prepared by:



