GRIFFIN-SPALDING COUNTY AIRPORT
PAVEMENT MANAGEMENT REPORT

2007 GEORGIA AIRPORT PAVEMENT MANAGEMENT REPORT

Preserving Georgia's Critical Airport Pavement Infrastructure

Acknowledgement

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INTRODUCTION

In 2007, the Georgia Department of Transportation (GDOT), Aviation Programs, selected Applied Pavement Technology, Inc. (APTech), assisted by Wilbur Smith Associates (WSA) and AVCON, to update its statewide Airport Pavement Management System (APMS). The ultimate goal of this project was to provide the airports and the State with the pavement information and analytical tools that can help them identify pavement related needs, optimize the selection of projects and treatments over a multi-year period, and evaluate the long-term impacts of their project priorities.

As part of this project, pavement conditions at Griffin-Spalding County Airport were assessed in 2007 using the Pavement Condition Index (PCI) procedure. During a PCI inspection, the types, severities, and amounts of distress present in a pavement are 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 distress information provides insight into what is causing the pavement to deteriorate, 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 to identify 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. This figure shows there is a point in a pavement's life cycle where the rate of deterioration increases. The financial impact of delaying repairs beyond this point can be severe.

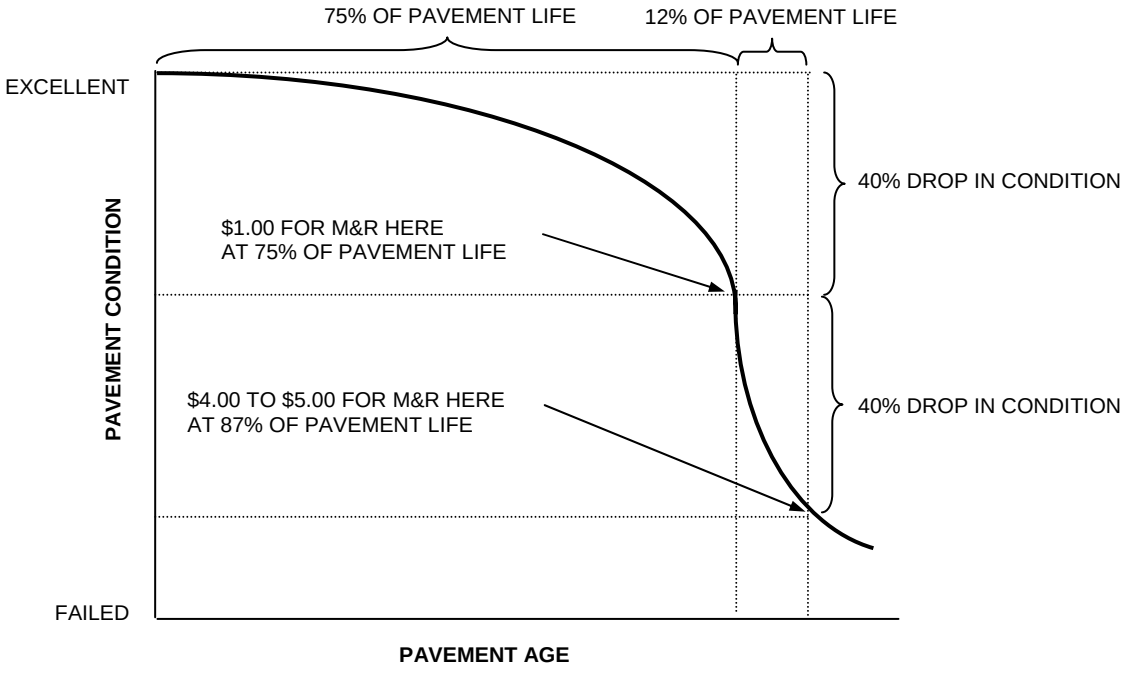

Figure 1. Pavement condition versus cost of repair.

This project included the collection of pavement history information, the development of CAD maps, the evaluation of current pavement condition, and the update of Aviation Program's APMS. The APMS was then used to prepare a 5-year pavement maintenance and rehabilitation program. Individual reports, such as this one, were prepared for each of the project airports to communicate the results of the pavement inspections. A statewide analysis report and an executive summary report were also developed.

PROJECT APPROACH

The project consisted of three major work elements: records review and network definition; pavement condition evaluation; and the development of a maintenance and rehabilitation plan for the preservation of the pavement infrastructure. The overall process is described in this chapter. The following chapter presents the results of the study.

Records Review and Network Definition

The first activities undertaken during the project involved gathering work history information pertaining to the airport pavements. The data collected include date of original construction and date of any subsequent rehabilitation; location of completed work; and the type of work undertaken. AVCON worked with GDOT Aviation Programs to gather this information.

The work history information was then 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. Traditionally, sections are defined as parts of the branch that share common attributes, such as cross-section and last construction date. GDOT applies a modified approach to sectioning. The basic premise of this approach is that the section is considered the management unit of the APMS, and that it should represent a pavement area where it is realistic to expect that pavement maintenance or rehabilitation would be undertaken. For example, if a runway was built in 1968 and then extended and overlayed in 1984, this runway would be represented by a single section, even though there are two distinct construction periods. This is because in the future if repair work is scheduled for that runway it is probable that it will be programmed for the entire runway and not just a portion of it.

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

Pavement Evaluation

APTech evaluated the pavements using the PCI procedure. This procedure is described in FAA AC 150/5380-6B and ASTM Standard D5340. 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.

Typical Pavement Surface[1]	PCI
	100
	60
	5

Figure 2. Visual representation of PCI scale.

[1]Photographs shown are not specific to the Airport.

In general terms, pavements with a PCI of 60 to 100 that are not exhibiting significant load-related distress will benefit from preventive maintenance actions, such as crack sealing and surface treatments. Pavements with a PCI of 40 to 60 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 the appropriate repair type varies with the PCI of a pavement section.

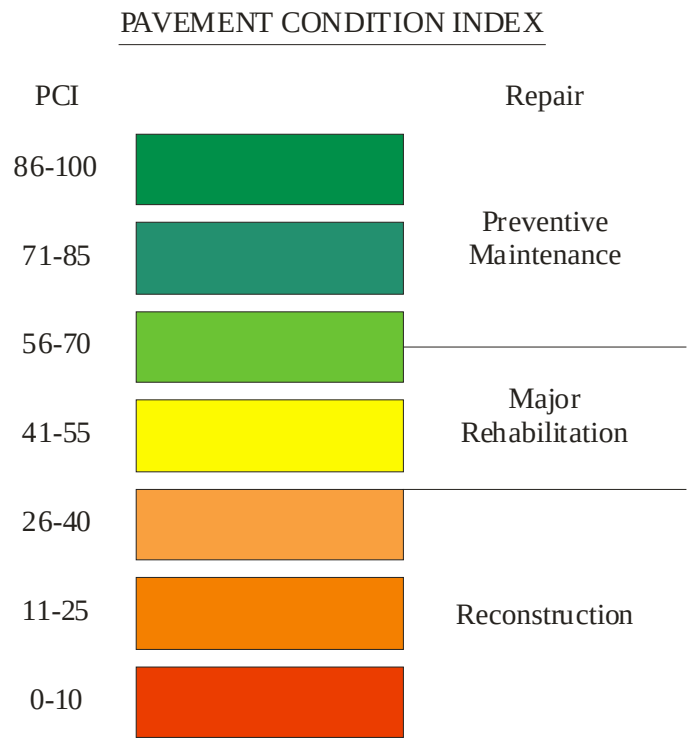

Figure 3. PCI versus repair type.

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 (such as alligator cracking on hot-mix asphalt [HMA] pavements or corner breaks on portland cement concrete [PCC] pavements), climate/durability-related (such as weathering [climate-related on HMA pavements] and D-cracking [durability-related on PCC pavements]), and other (distress types that cannot be attributed solely to load or climate/durability). 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 concrete 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.

Development of Maintenance and Rehabilitation Program

Using the information collected during the pavement inspection, a maintenance and rehabilitation program for 2008 through 2012 was developed. The Micro PAVER pavement management software was used to perform this analysis.

Analysis Parameters

Several analysis parameters were defined prior to running the analysis, including critical PCI values, budget, inflation rates, maintenance policies, and unit cost information.

Critical PCI Values

Micro PAVER 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. GDOT set the critical PCI values shown in Table 1.

Table 1. Critical PCI values.

Airport Classification	Runway	Taxiway	Apron
General Aviation	70	60	60
Commercial Service	75	65	65

Budget and Inflation Rate

An unlimited budget and an inflation rate of 7 percent were used during the analysis.

Maintenance Policies

Localized preventive maintenance policies and global preventive maintenance policies were developed for Aviation Programs. Localized maintenance policies, shown in Appendix D, identify the localized maintenance actions that Aviation Programs 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 four years old with a PCI value greater than 80. Rejuvenators were only applied once during the analysis period to eligible sections.

Unit Costs

WSA developed unit costs, presented in Appendix D, for maintenance treatments and for major rehabilitation. For general aviation airports, the costs were separated by geographic regions. Micro PAVER estimates the cost of major rehabilitation based upon 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 maintenance and rehabilitation 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 2008 through 2012.

For 2008, 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 2009 or 2010, then localized maintenance was not recommended for 2008.

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 cost-effectively 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.

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, GDOT has provided Griffin-Spalding County Airport 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 2010.

Appendix G, which contains a copy of 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.

PROJECT RESULTS

Pavement Inventory

Griffin-Spalding County Airport has over 1,194,398 square feet of pavement, as shown in Figure 4. Figure 5 is a map of the airport showing the pavement system broken down into management units, as described on page 3 of this report.

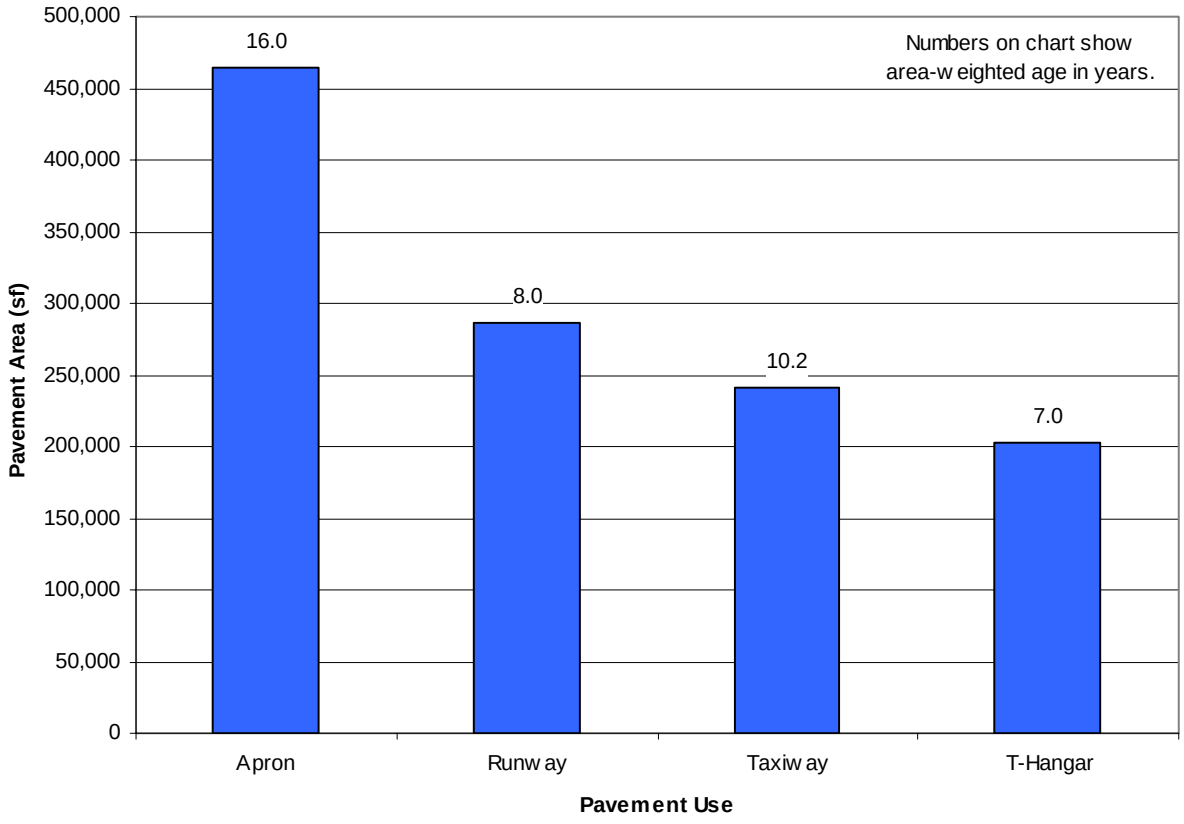

Figure 4. Pavement inventory.

Figure 5. Network definition map.
(11 x 17 except for very large airports that need larger map folded into a map sleeve)

Pavement Evaluation

The inspection of Griffin-Spalding County Airport was completed on June 9, 2007 using the PCI procedure described earlier on pages 3 through 5. The map presented earlier in Figure 4 identifies the sample units inspected during the pavement evaluation.

Inspection Comments

Following are the field comments made by the pavement inspectors.

The inspection of Griffin-Spaulding County Airport was completed on June 9th, 2007. Sixteen pavement sections were defined during the inspection.

Runway 14-32 at Griffin-Spaulding County Airport consists of a single pavement section. Section R1432GF-10 is in fair condition with a PCI value of 78. A significant amount of low and medium-severity longitudinal and transverse (L&T) cracking as well as low-severity raveling and weathering was observed in this section. A significant quantity of low-severity patching was also noted. All cracking on Runway 14-32 was observed in an unsealed condition.

Taxiway A at Griffin-Spaulding County Airport consists of a single pavement section. Section TAGF-10 is in good condition with a PCI value of 83. Small amounts of low-severity L&T cracking as well as small amounts of low-severity raveling and weathering were observed in this section. Additionally, isolated, small amounts of the above distresses at a medium-severity level were also recorded.

Taxiway B is composed of four pavement sections. Section TBGF-10 is in good condition with a PCI value of 81. Distresses observed in this section include low and medium-severity L&T cracking.

Section TBGF-20 is in fair condition with a PCI value of 63. Low and medium-severity L&T cracking as well as areas of low-severity patching were observed in this section.

Section TBGF-30 is in serious condition with a PCI value of 29. Quantities of low, medium, and high-severity alligator cracking as well as low-severity patching and block cracking were observed. Medium-severity L&T cracking, rutting, and raveling and weathering were also noted in this section.

Section TBGF-40 is in good condition with a PCI value of 88. Distresses observed in this section include low-severity L&T cracking and raveling and weathering.

Apron 01 is located in the northeastern portion of the airfield and is defined by two sections. Sections A01GF-10 and A01GF-20 are each in poor condition with PCI values of 49 and 43, respectively. Areas of both low and medium-severity L&T cracking and raveling and weathering were observed in both sections. Instances of bleeding, low-severity depression, oil spillage, and patching were identified in section A01GF-10 while alligator cracking at all severity levels, as well as high-severity raveling and weathering were observed in section A01GF-20.

The primary apron area (A02GF) consists of seven sections. Section A02GF-10 is in good condition with a PCI value of 81. Quantities of both low and medium-severity L&T cracking as well as low-severity patching and raveling and weathering were observed in this section.

Section A02GF-20 is in fair condition with a PCI value of 61. Large quantities of low and medium severity L&T cracking, all in an unsealed condition were noted in this section. A fair amount of high-severity L&T cracking was also observed. Additionally, a number of low-severity patches were recorded.

Section A02GF-30 is in poor condition with a PCI value of 32. Quantities of low, medium, and high-severity alligator cracking were observed in this section. Additionally, a significant quantity of medium-severity L&T cracking was recorded. Other distress types observed in this section included low-severity patching, medium-severity rutting, and both low and medium-severity raveling and weathering. A sizable amount of oil spillage was also recorded.

Section A02GF-40 consists of three non-contiguous pavement areas which lie on either side of section A02GV-10. This section was recently constructed and is in excellent condition with a PCI value of 100. No distresses were observed in this section.

Section A02GF-50 is a small, recently constructed apron area in excellent condition with a PCI value of 100. No distresses were observed in this section.

Section A02GF-60 is in good condition with a PCI value of 87. Small quantities of low and medium-severity L&T cracking, all in an unsealed condition, and a small amount of low-severity raveling and weathering were observed in this section.

Section A02GF-70 is in excellent condition with a PCI value of 100. A small area of low-severity depression was the only distress recorded in this section.

The new t-hangar area at Griffin-Spaulding County Airport is composed of a single pavement section. Section TH01GF-10 was recently constructed and is in excellent condition with a PCI value of 100. No distresses were observed in this section.

Overall Pavement Condition

The 2007 area-weighted condition of Griffin-Spalding County Airport is 79, with conditions ranging from 29 to 100 [on a scale of 0 (failed) to 100 (excellent)]. This compares to a 2001 PCI of 84.

Figures 6 and 7 provide graphs summarizing the overall condition of the pavements at Griffin-Spalding County Airport. Figure 8 is a map that displays the condition of the pavements evaluated. Table 2 summarizes the results of the pavement evaluation and compares the 2001 conditions to the 2007 conditions.

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.

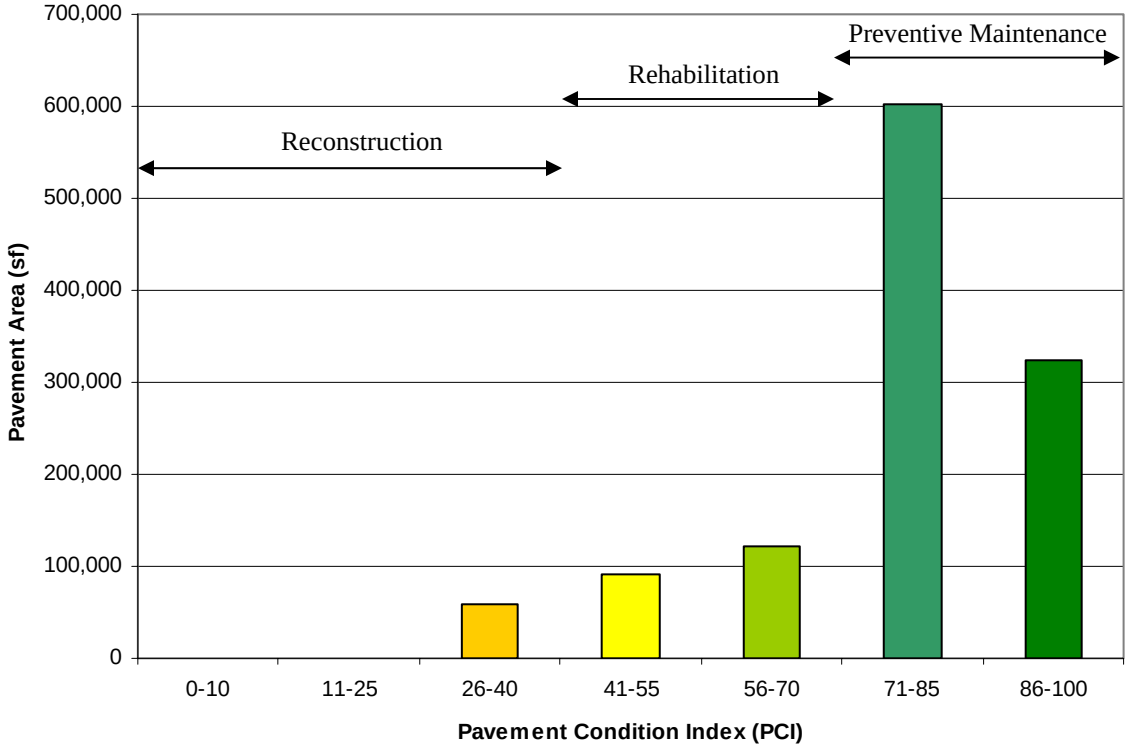

Figure 6. Condition distribution.

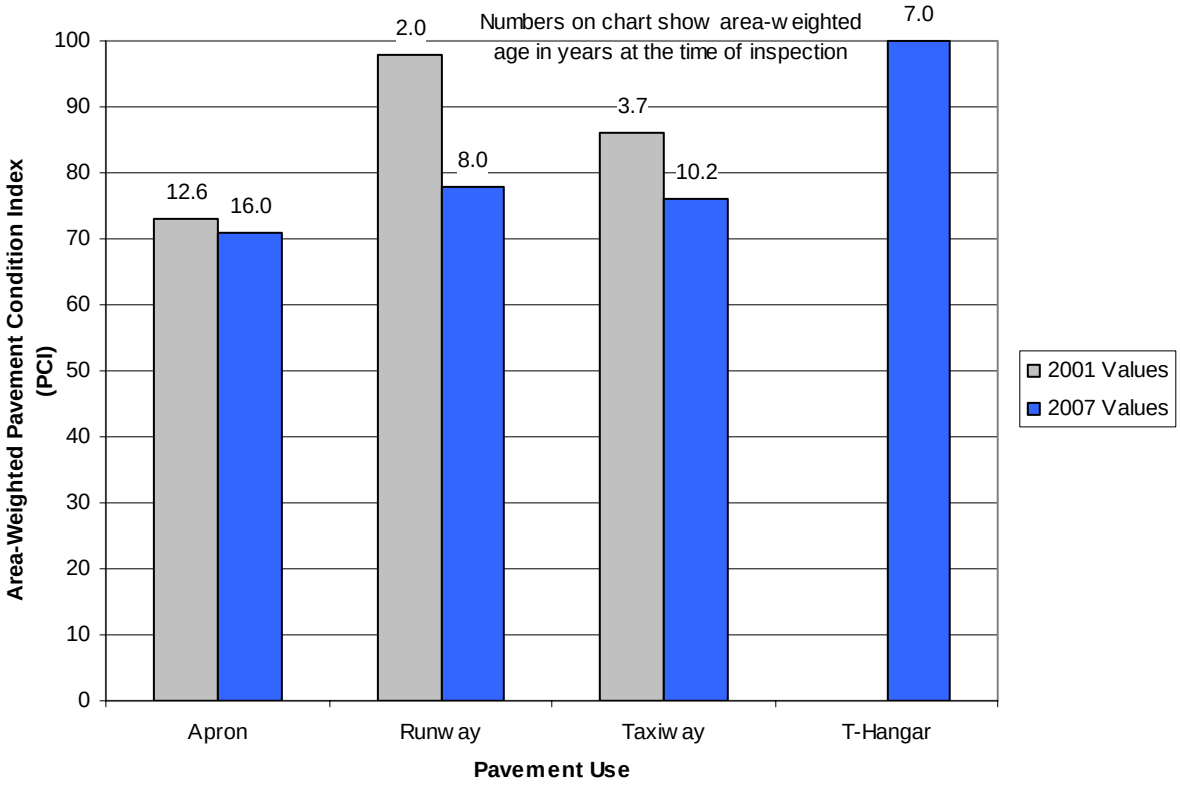

Figure 7. Condition by use.

Figure 8. PCI Map
(11 x 17)

Table 2. Pavement evaluation results.

Branch[1]	Section[1]	Surface Type[2]	Section Area (sf)	LCD[3]	2001 PCI	2007 PCI	% Distress due to:		Distress Types Present[6]
							Load [4]	Climate or Durability [5]	
A01GF	10	AC	76,632	6/1/1988	69	49	0	94	Bleeding, Depression, L&T Cracking, Oil Spillage, Patching, Swelling, Raveling & Weathering
A01GF	20	AC	13,598	6/1/1996	99	43	43	57	Alligator cracking, L&T Cracking, Raveling & Weathering
A02GF	10	AC	137,338	6/1/1988	100	81	0	100	L&T Cracking, Patching, Raveling & Weathering
A02GF	20	AC	87,500	6/1/1985	65	61	0	100	L&T Cracking, Patching
A02GF	30	AAC	38,717	6/1/1988	44	32	73	23	Alligator cracking, L&T Cracking, Oil Spillage, Patching, Rutting, Raveling & Weathering
A02GF	40	AC	31,377	6/1/2002	N/A	100	0	0	No distress
A02GF	50	AC	8,749	6/1/2004	N/A	100	0	0	No distress
A02GF	60	AC	15,396	6/3/1995	N/A	87	0	100	L&T Cracking, Raveling & Weathering
A02GF	70	AC	54,884	6/3/2004	N/A	100	0	0	Depression
A02GF	70	AC	54,884	6/3/2004	N/A	100	0	0	No distress
R1432GF	10	AAC	286,761	6/1/1999	98	78	0	100	L&T Cracking, Patching, Raveling & Weathering
TAGF	10	AAC	146,815	6/1/1999	97	83	0	100	L&T Cracking, Raveling & Weathering
TBGF	10	AAC	30,300	6/1/1999	98	81	0	100	L&T Cracking
TBGF	20	AAC	33,983	6/1/1985	82	63	0	100	L&T Cracking, Patching
TBGF	30	AAC	19,382	6/1/1996	25	29	78	22	Alligator cracking, Block cracking, L&T Cracking, Patching, Rutting, Raveling & Weathering
TBGF	40	AAC	10,229	6/1/1999	N/A	88	0	100	L&T Cracking, Raveling & Weathering
TH01GF	10	AC	202,737	6/1/2000	N/A	100	0	0	No distress

Table 2. Pavement evaluation results (continued).

NOTES:

[1]See Figure 5 for the location of the branch.

[2] AC - asphalt cement concrete; AAC - asphalt overlay on AC; PCC - portland cement concrete; APC - asphalt overlay on PCC.

[3]LCD = last construction date.

[4]Distress due to load includes distresses attributed to a structural deficiency in the pavement, such as alligator (fatigue) cracking, rutting, or shattered concrete slabs.

[5]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 and raveling or block cracking in asphalt pavements) or to a materials-related problem (such as durability cracking in a concrete pavement).

[6]L & T CR = longitudinal and transverse cracking.

Maintenance and Rehabilitation Program

A 5-year maintenance and rehabilitation program was developed for Griffin-Spalding County Airport as described on page 6 of this report.

A summary of the resultant program is presented in Table 3. Detailed information on the localized maintenance plan for 2008 is contained in Appendix E and Appendix F. While localized preventive maintenance should be an annual undertaking at Griffin-Spalding County Airport, it is not possible to accurately predict the propagation of cracking and so on. The airport should budget for maintenance every year and can use the 2008 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, Griffin-Spalding County Airport is responsible for repairing pavements where existing conditions pose a hazard to safe operations.

Note that these recommendations are based upon a broad network level analysis and are meant to provide the Airport 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.

Table 3. 5-year program under an unlimited funding analysis scenario.

Branch[1]	Section	Year	Type of Repair[2]	Estimated Cost[3]
A01GF	10	2008	Major M&R	$135,294
A01GF	20	2008	Major M&R	$24,007
A02GF	10	2008	Rejuvenator	$20,601
A02GF	10	2008	Preventive Maintenance	$1,519
A02GF	30	2008	Major M&R	$185,055
A02GF	40	2008	Rejuvenator	$4,707
A02GF	60	2008	Preventive Maintenance	$62
A02GF	60	2008	Rejuvenator	$2,309
R1432GF	10	2008	Preventive Maintenance	$4,096
TAGF	10	2008	Preventive Maintenance	$1,181
TAGF	10	2008	Rejuvenator	$22,022
TBGF	10	2008	Preventive Maintenance	$839
TBGF	10	2008	Rejuvenator	$4,545
TBGF	30	2008	Major M&R	$99,131
TBGF	40	2008	Rejuvenator	$1,534
TH01GF	10	2008	Rejuvenator	$30,411
A02GF	20	2009	Major M&R	$165,295
TBGF	20	2010	Major M&R	$68,691
A02GF	10	2012	Preventive Maintenance	$8,161
A02GF	60	2012	Preventive Maintenance	$758
R1432GF	10	2012	Preventive Maintenance	$20,836
TAGF	10	2012	Preventive Maintenance	$10,859
TBGF	10	2012	Preventive Maintenance	$2,562
TBGF	40	2012	Preventive Maintenance	$273

[1]See Figure 5 for the location of the branch.
[2]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.
[3]Cost estimates based on broad statewide policy and should be adjusted to reflect local costs.

SUMMARY

This report documents the results of the pavement evaluation conducted at Griffin-Spalding County Airport. During a visual inspection of the pavements in 2007, it was found that the overall condition of the pavement network is a PCI of 79. A 5- year pavement repair program was generated for the Airport, which revealed that approximately $814,748 needs to be expended on the pavement system in order to maintain and improve its condition.

APPENDIX A

CAUSE OF DISTRESS TABLES

Table A-1. Cause of pavement distress, asphalt-surfaced pavements.

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	Movement of the concrete slab beneath the asphalt concrete surface because of 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[1] 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 and Weathering	Asphalt binder may have hardened significantly	Patch if isolated. If low-severity, consider surface treatment if extensive. At medium and high 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.

Table A-2. Cause of pavement distress, portland cement concrete pavements.

Distress Type	Probable Cause of Distress	Feasible Maintenance Strategies
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, poor aggregate, and alkali-silica reactivity	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.

APPENDIX B

PHOTOGRAPHS

A01GF-10. Overview.

A01GF-10. L&T cracking.

A01GF-10. Raveling and weathering.

A01GF-20. Overview.

A01GF-20. Alligator cracking.

A01GF-20. Raveling and weathering.

A02GF-10. Overview.

A02GF-20. Overview.

A02GF-20. L&T cracking.

A02GF-30. Overview.

A02GF-40. Overview.

A02GF-60. Overview.

A02GF-70. Overview.

R1432GF-10. Overview.

TAGF-10. Overview.

TBGF-10. Overview.

TBGF-20. Overview.

TBGF-30. Overview.

TBGF-40. Overview.

TH01GF-10. Overview.

APPENDIX C

INSPECTION REPORT

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A01GF Name: APRON 01 Use: APRON Area: 90,230.00SqFt

Section: 10 of 2 From: TAXIWAY A To: FBO Last Const.: 6/1/1988
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: S
Area: 76,632.00SqFt Length: 325.00Ft Width: 330.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 15 Surveyed: 5
Conditions: PCI:49.00 |
Inspection Comments:

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 67
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	312.08	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	25.01	Ft	Comments:U

Sample Number: 06 Type: R Area: 6,500.00SqFt PCI = 51
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	741.19	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	109.03	Ft	Comments:
52 WEATHERING/RAVELING	L	1,249.99	SqFt	Comments:
42 BLEEDING	N	5.00	SqFt	Comments:

Sample Number: 09 Type: R Area: 5,000.00SqFt PCI = 47
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	600.15	Ft	Comments:FS
48 LONGITUDINAL/TRANSVERSE CRACKING	L	523.13	Ft	Comments:U
56 SWELLING	L	50.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	200.00	SqFt	Comments:

Sample Number: 11 Type: R Area: 5,000.00SqFt PCI = 39
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	675.17	Ft	Comments:FS
48 LONGITUDINAL/TRANSVERSE CRACKING	L	452.12	Ft	Comments:
50 PATCHING	L	144.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	200.00	SqFt	Comments:
45 DEPRESSION	L	5.00	SqFt	Comments:
56 SWELLING	L	75.00	SqFt	Comments:

Sample Number: 13 Type: R Area: 5,500.00SqFt PCI = 39
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	752.19	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	506.13	Ft	Comments:
49 OIL SPILLAGE	N	50.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	1,249.99	SqFt	Comments:
52 WEATHERING/RAVELING	M	200.00	SqFt	Comments:
42 BLEEDING	N	10.00	SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A01GF Name: APRON 01 Use: APRON Area: 90,230.00SqFt

Section: 20 of 2 From: SOUTHEAST EDGE OF SECT 10 To: EDGE OF TAXIWAY Last Const.: 6/1/1996
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: S
Area: 13,598.00SqFt Length: 210.00Ft Width: 150.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 4 Surveyed: 3
Conditions: PCI:43.00 |
Inspection Comments:

Sample Number: 02 Type: R Area: 7,000.00SqFt PCI = 54
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	10.00	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	80.02	Ft	Comments:
52 WEATHERING/RAVELING	L	6,999.94	SqFt	Comments:
52 WEATHERING/RAVELING	M	20.00	SqFt	Comments:
41 ALLIGATOR CRACKING	L	25.00	SqFt	Comments:

Sample Number: 03 Type: R Area: 2,500.00SqFt PCI = 44
Sample Comments:

52 WEATHERING/RAVELING	L	1,999.98	SqFt	Comments:
52 WEATHERING/RAVELING	M	500.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	280.07	Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	M	155.04	Ft	Comments:

Sample Number: 04 Type: A Area: 4,625.00SqFt PCI = 27
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	168.04	Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	52.01	Ft	Comments:
52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
52 WEATHERING/RAVELING	M	500.00	SqFt	Comments:
52 WEATHERING/RAVELING	H	35.00	SqFt	Comments:
41 ALLIGATOR CRACKING	M	105.00	SqFt	Comments:
41 ALLIGATOR CRACKING	H	35.00	SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 10 of 7 From: EAST END OF TAGF To: SECTION 20 Last Const.: 6/1/1988
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 137,338.00SqFt Length: 895.00Ft Width: 155.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 27 Surveyed: 6
Conditions: PCI:81.00 |
Inspection Comments:

Sample Number: 02 Type: R Area: 6,860.00SqFt PCI = 87
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	229.06 Ft	Comments:U
52 WEATHERING/RAVELING	L	45.00 SqFt	Comments:

Sample Number: 07 Type: R Area: 5,500.00SqFt PCI = 87
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	233.06 Ft	Comments:U

Sample Number: 12 Type: R Area: 5,000.00SqFt PCI = 77
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	142.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	26.01 Ft	Comments:

Sample Number: 15 Type: R Area: 4,725.00SqFt PCI = 84
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	256.07 Ft	Comments:U

Sample Number: 24 Type: R Area: 5,000.00SqFt PCI = 75
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	100.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	141.04 Ft	Comments:
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 25 Type: R Area: 4,735.00SqFt PCI = 74
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	100.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	49.01 Ft	Comments:
50 PATCHING	L	300.00 SqFt	Comments:
52 WEATHERING/RAVELING	L	250.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 20 of 7 From: SECTION 10 To: SECTION 30 Last Const.: 6/1/1985
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 87,500.00SqFt Length: 350.00Ft Width: 256.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 15 Surveyed: 5
Conditions: PCI:61.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 6,000.00SqFt PCI = 57
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	H	20.01 Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	M	508.13 Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	42.01 Ft	Comments:	

Sample Number: 05 Type: R Area: 6,000.00SqFt PCI = 65
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	410.10 Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	123.03 Ft	Comments:U	

Sample Number: 09 Type: R Area: 5,500.00SqFt PCI = 62
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	448.11 Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	90.02 Ft	Comments:	

Sample Number: 12 Type: R Area: 6,000.00SqFt PCI = 65
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	335.09 Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	12.00 Ft	Comments:	
50 PATCHING	L	116.00 SqFt	Comments:	

Sample Number: 14 Type: R Area: 6,000.00SqFt PCI = 58
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	158.04 Ft	Comments:U	
48 LONGITUDINAL/TRANSVERSE CRACKING	M	631.16 Ft	Comments:	

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 30 of 7 From: SECTION 20 To: TBGF-30 Last Const.: 6/1/1988
Surface: AAC Family: 2007GAAACAPRON3 Zone: Category: Rank: P
Area: 38,717.00SqFt Length: 1,525.00Ft Width: 55.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 7 Surveyed: 5
Conditions: PCI:32.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 4,500.00SqFt PCI = 29
Sample Comments:

41 ALLIGATOR CRACKING	M	165.00	SqFt	Comments:
41 ALLIGATOR CRACKING	L	66.00	SqFt	Comments:
50 PATCHING	L	44.00	SqFt	Comments:
53 RUTTING	M	165.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	132.03	Ft	Comments:
52 WEATHERING/RAVELING	M	44.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	27.00	SqFt	Comments:

Sample Number: 03 Type: R Area: 4,500.00SqFt PCI = 29
Sample Comments:

41 ALLIGATOR CRACKING	M	165.00	SqFt	Comments:
41 ALLIGATOR CRACKING	L	66.00	SqFt	Comments:
50 PATCHING	L	44.00	SqFt	Comments:
53 RUTTING	M	165.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	132.03	Ft	Comments:
52 WEATHERING/RAVELING	M	44.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	27.00	SqFt	Comments:

Sample Number: 05 Type: R Area: 4,500.00SqFt PCI = 16
Sample Comments:

49 OIL SPILLAGE	N	319.00	SqFt	Comments:
50 PATCHING	L	849.99	SqFt	Comments:
41 ALLIGATOR CRACKING	M	165.00	SqFt	Comments:
41 ALLIGATOR CRACKING	H	165.00	SqFt	Comments:
41 ALLIGATOR CRACKING	L	66.00	SqFt	Comments:
50 PATCHING	L	44.00	SqFt	Comments:
53 RUTTING	M	165.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	132.03	Ft	Comments:
52 WEATHERING/RAVELING	M	44.00	SqFt	Comments:
52 WEATHERING/RAVELING	L	27.00	SqFt	Comments:

Sample Number: 06 Type: A Area: 4,500.00SqFt PCI = 69
Sample Comments:

49 OIL SPILLAGE	N	319.00	SqFt	Comments:
50 PATCHING	L	849.99	SqFt	Comments:
50 PATCHING	L	699.99	SqFt	Comments:

Sample Number: 07 Type: R Area: 4,500.00SqFt PCI = 35
Sample Comments:

41 ALLIGATOR CRACKING	M	165.00	SqFt	Comments:
41 ALLIGATOR CRACKING	L	44.00	SqFt	Comments:
53 RUTTING	M	165.00	SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	132.03	Ft	Comments:
52 WEATHERING/RAVELING	L	27.00	SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 40 of 7 From: A02GF-10 To: END Last Const.: 6/1/2002
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 31,377.00SqFt Length: 300.00Ft Width: 70.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 7 Surveyed: 4
Conditions: PCI:100.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 4,500.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 03 Type: R Area: 4,900.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 05 Type: R Area: 6,000.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 06 Type: R Area: 6,000.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 50 of 7 From: NEW T-HANGAR AREA To: END Last Const.: 6/1/2004
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 8,749.00SqFt Length: 135.00Ft Width: 70.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 2 Surveyed: 2
Conditions: PCI:100.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 3,850.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 02 Type: R Area: 4,900.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 60 of 7 From: A02GF-10 To: A02GF-60 Last Const.: 6/3/1995
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 15,396.00SqFt Length: 150.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 3 Surveyed: 3
Conditions: PCI:87.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 91
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	52.01 Ft	Comments:U
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 79
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	50.01 Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	L	279.07 Ft	Comments:

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 90
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	117.03 Ft	Comments:U
52 WEATHERING/RAVELING	L	15.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: A02GF Name: APRON 02 Use: APRON Area: 373,961.00SqFt

Section: 70 of 7 From: A02GF-20 To: TBGF-30 Last Const.: 6/3/2004
Surface: AC Family: 2007GAACAPRONNORTH Zone: Category: Rank: P
Area: 54,884.00SqFt Length: 1,336.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 12 Surveyed: 5
Conditions: PCI:100.00 |
Inspection Comments:

Sample Number: 03 Type: R Area: 5,500.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 04 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 07 Type: R Area: 4,000.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 10 Type: R Area: 4,125.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 12 Type: R Area: 5,775.00SqFt PCI = 99
Sample Comments:
45 DEPRESSION L 10.00 SqFt Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: R1432GF Name: RUNWAY 14/32 Use: RUNWAY Area: 286,761.00SqFt

Section: 10 of 1 From: END OF 14-32 To: 210' IN FROM 14 END Last Const.: 6/1/1999
Surface: AAC Family: Zone: Category: Rank: P
Area: 286,761.00SqFt Length: 3,700.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 50 Surveyed: 12
Conditions: PCI:78.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 5,250.00SqFt PCI = 81
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	133.03 Ft	Comments:
52 WEATHERING/RAVELING	L	1,049.99 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,250.00SqFt PCI = 85
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	280.07 Ft	Comments:

Sample Number: 03 Type: R Area: 5,250.00SqFt PCI = 91
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	135.03 Ft	Comments:U

Sample Number: 05 Type: R Area: 5,625.00SqFt PCI = 86
Sample Comments:

50 PATCHING	L	53.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	177.05 Ft	Comments:

Sample Number: 13 Type: R Area: 5,625.00SqFt PCI = 76
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	172.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	100.03 Ft	Comments:
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 20 Type: R Area: 5,625.00SqFt PCI = 83
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	246.06 Ft	Comments:U
52 WEATHERING/RAVELING	L	75.00 SqFt	Comments:

Sample Number: 21 Type: R Area: 5,625.00SqFt PCI = 75
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	270.07 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	100.03 Ft	Comments:
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:

Sample Number: 24 Type: R Area: 5,625.00SqFt PCI = 75
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	283.07 Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	M	50.01 Ft	Comments:
52 WEATHERING/RAVELING	L	250.00 SqFt	Comments:

Sample Number: 28 Type: R Area: 5,625.00SqFt PCI = 70
Sample Comments:

50 PATCHING	L	1,059.99 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	186.05 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	120.03 Ft	Comments:

Sample Number: 34 Type: R Area: 5,625.00SqFt PCI = 68
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	304.08 Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	M	219.06 Ft	Comments:
52 WEATHERING/RAVELING	L	250.00 SqFt	Comments:

Sample Number: 41 Type: R Area: 5,625.00SqFt PCI = 72
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	150.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	126.03 Ft	Comments:U
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:

Sample Number: 44 Type: R Area: 5,625.00SqFt PCI = 80
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	159.04 Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	M	45.01 Ft	Comments:
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TAGF Name: TAXIWAY A Use: TAXIWAY Area: 146,815.00SqFt

Section: 10 of 1 From: 14 END OF RUNWAY To: 32 END OF RUNWAY Last Const.: 6/1/1999
Surface: AAC Family: 2007GAAACTWYGANORTH Zone: Category: Rank: P
Area: 146,815.00SqFt Length: 4,165.00Ft Width: 30.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 30 Surveyed: 11
Conditions: PCI:83.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 80
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	287.07 Ft	Comments:U
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,250.00SqFt PCI = 90
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	160.04 Ft	Comments:U

Sample Number: 04 Type: R Area: 5,250.00SqFt PCI = 82
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	248.06 Ft	Comments:U
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 08 Type: R Area: 5,250.00SqFt PCI = 84
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	205.05 Ft	Comments:
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 11 Type: R Area: 5,250.00SqFt PCI = 77
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	92.02 Ft	Comments:U
48 LONGITUDINAL/TRANSVERSE CRACKING	M	22.01 Ft	Comments:
52 WEATHERING/RAVELING	M	75.00 SqFt	Comments:
52 WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Sample Number: 13 Type: R Area: 5,250.00SqFt PCI = 81
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	370.09 Ft	Comments:

Sample Number: 18 Type: R Area: 4,500.00SqFt PCI = 82
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	311.08 Ft	Comments:U

Sample Number: 22 Type: R Area: 4,500.00SqFt PCI = 82
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	301.08 Ft	Comments:U

Sample Number: 25 Type: R Area: 5,250.00SqFt PCI = 76
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	139.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	380.10 Ft	Comments:U

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Sample Number: 27 Type: R Area: 3,680.00SqFt PCI = 88
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	133.03 Ft	Comments:U

Sample Number: 28 Type: R Area: 6,450.00SqFt PCI = 88
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	129.03 Ft	Comments:U
52 WEATHERING/RAVELING	L	260.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TBGF Name: TAXIWAY B Use: TAXIWAY Area: 93,894.00SqFt

Section: 10 of 4 From: MID RUNWAY To: MID APRON 2 Last Const.: 6/1/1999
Surface: AAC Family: 2007GAAACTWYGANORTH Zone: Category: Rank: S
Area: 30,300.00SqFt Length: 770.00Ft Width: 30.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 5 Surveyed: 4
Conditions: PCI:81.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 5,460.00SqFt PCI = 95
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	56.01 Ft	Comments:

Sample Number: 02 Type: R Area: 4,500.00SqFt PCI = 78
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	M	100.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	248.06 Ft	Comments:

Sample Number: 03 Type: R Area: 4,500.00SqFt PCI = 73
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	148.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	162.04 Ft	Comments:

Sample Number: 04 Type: R Area: 4,500.00SqFt PCI = 73
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	196.05 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	172.04 Ft	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TBGF Name: TAXIWAY B Use: TAXIWAY Area: 93,894.00SqFt

Section: 20 of 4 From: MID APRON 2 To: MID RUNWAY Last Const.: 6/1/1985
Surface: AAC Family: 2007GAAACTWYGANORTH Zone: Category: Rank: S
Area: 33,983.00SqFt Length: 930.00Ft Width: 30.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 6 Surveyed: 4
Conditions: PCI:63.00 |
Inspection Comments:

Sample Number: 02 Type: R Area: 4,500.00SqFt PCI = 65
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	145.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	300.08 Ft	Comments:

Sample Number: 03 Type: R Area: 4,500.00SqFt PCI = 65
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	170.04 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	300.08 Ft	Comments:

Sample Number: 04 Type: R Area: 4,500.00SqFt PCI = 62
Sample Comments:

50 PATCHING	L	350.00 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	109.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	268.07 Ft	Comments:

Sample Number: 05 Type: R Area: 4,500.00SqFt PCI = 60
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	110.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	300.08 Ft	Comments:
50 PATCHING	L	125.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TBGF Name: TAXIWAY B Use: TAXIWAY Area: 93,894.00SqFt

Section: 30 of 4 From: A02GF-30 To: END OF RUNWAY Last Const.: 6/1/1996
Surface: AAC Family: 2007GAAACTWYGANORTH Zone: Category: Rank: S
Area: 19,382.00SqFt Length: 700.00Ft Width: 25.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date6/9/2007 Total Samples: 4 Surveyed: 3
Conditions: PCI:29.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 5,000.00SqFt PCI = 11
Sample Comments:

43 BLOCK CRACKING	L	266.00 SqFt	Comments:
50 PATCHING	L	1,154.99 SqFt	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	55.01 Ft	Comments:
41 ALLIGATOR CRACKING	H	806.99 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 40
Sample Comments:

41 ALLIGATOR CRACKING	L	264.00 SqFt	Comments:
41 ALLIGATOR CRACKING	M	330.00 SqFt	Comments:

Sample Number: 03 Type: R Area: 5,000.00SqFt PCI = 38
Sample Comments:

41 ALLIGATOR CRACKING	M	215.00 SqFt	Comments:
52 WEATHERING/RAVELING	M	88.00 SqFt	Comments:
50 PATCHING	L	1,319.99 SqFt	Comments:
53 RUTTING	M	66.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TBGF Name: TAXIWAY B Use: TAXIWAY Area: 93,894.00SqFt

Section: 40 of 4 From: TBGF-30 To: RUNWAY 1432 Last Const.: 6/1/1999
Surface: AAC Family: 2007GAAACTWYGANORTH Zone: Category: Rank: P
Area: 10,229.00SqFt Length: 200.00Ft Width: 25.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 2 Surveyed: 2
Conditions: PCI:88.00 |
Inspection Comments:

Sample Number: 01 Type: R Area: 3,750.00SqFt PCI = 86
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	91.02 Ft	Comments:U
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:

Sample Number: 02 Type: R Area: 5,000.00SqFt PCI = 89
Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	66.02 Ft	Comments:U
52 WEATHERING/RAVELING	L	204.00 SqFt	Comments:

Re-inspection Report

GA2007
Report Generated Date: 1/8/2008
Site Name:

Network: GRIFFIN Name: GRIFFIN-SPALDING COUNTY AIRPORT

Branch: TH01GF Name: T-HANGAR 01 Use: THANGAR Area: 202,737.00SqFt

Section: 10 of 1 From: SEE MAP To: SEE MAP Last Const.: 6/1/2000
Surface: AC Family: 2007GAACTHNORTHGA Zone: Category: Rank: P
Area: 202,737.00SqFt Length: 560.00Ft Width: 360.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date 6/9/2007 Total Samples: 43 Surveyed: 7
Conditions: PCI:100.00 |
Inspection Comments:

Sample Number: 09 Type: R Area: 5,000.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 18 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 23 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 26 Type: R Area: 4,500.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 35 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 40 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

Sample Number: 43 Type: R Area: 4,800.00SqFt PCI = 100
Sample Comments:
<NO DISTRESSES>

APPENDIX D

MAINTENANCE POLICIES AND UNIT COSTS

Table D-1. Localized maintenance policy, asphalt-surfaced pavements.

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

Table D-2. Localized maintenance policy, portland cement concrete pavements.

Distress Type	Severity Level	Maintenance Action
Blow-Up	Low	Slab Replacement
	Medium	Slab Replacement
	High	Slab Replacement
Corner Break	Low	Crack Seal
	Medium	Patch
	High	Patch
Cracks	Low	Crack Seal
	Medium	Crack Seal
	High	Crack Seal
Durability Cracking	Low	Monitor
	Medium	Slab Replacement
	High	Slab Replacement
Joint Seal Damage	Low	Monitor
	Medium	Joint Seal
	High	Joint Seal
Patching	Low	Monitor
	Medium	Patch
	High	Patch
Popouts	N/A	Monitor
Pumping	N/A	Monitor
Scaling	Low	Monitor
	Medium	Slab Replacement
	High	Slab Replacement
Settlement	Low	Monitor
	Medium	Monitor
	High	Grinding
Shattered Slab	Low	Crack Seal
	Medium	Slab Replacement
	High	Slab Replacement
Shrinkage	N/A	Monitor
Spalling (Joint and Corner)	Low	Monitor
	Medium	Patch
	High	Patch

Table D-3. Unit costs for localized maintenance actions, general aviation airports.

Maintenance Action	Unit Cost		
	Metro	North	South
AC Patching	$3.15/sf	$2.76/sf	$2.72/sf
Crack Sealing – AC	$1.13/lf	$0.85/lf	$0.85/lf
Crack Sealing – PCC	$3.90/lf	$3.25/lf	$3.25/lf
Joint Sealing – PCC	$3.30/lf	$2.75/lf	$2.75/lf
PCC Partial Depth Patch	$10.86/sf	$10.86/sf	$10.86/sf
PCC Full Depth Patch	$36.67/sf	$36.67/sf	$36.67/sf
Slab Replacement	$36.67/sf	$36.67/sf	$36.67/sf
Grinding	$0.36/sf	$0.36/sf	$0.36/sf

Table D-4. Unit costs for localized maintenance actions, commercial service airports.

Maintenance Action	Unit Cost
AC Patching	$3.15/sf
Crack Sealing – AC	$3.90/lf
Crack Sealing – PCC	$3.90/lf
Joint Sealing – PCC	$3.30/lf
PCC Partial Depth Patch	$10.86/sf
PCC Full Depth Patch	$36.67/sf
Slab Replacement	$36.67/sf
Grinding	$0.36/sf

Table D-5. Unit costs for global maintenance actions, general aviation airports.

Maintenance Action	Unit Cost		
	Metro	North	South
Single Surface Treatment	$0.47/sf	$0.17/sf	$0.18/sf
Pavement Rejuvenator	$0.15/sf	$0.15/sf	$0.15/sf

Table D-6. Unit costs for global maintenance actions, commercial service airports.

Maintenance Action	Unit Cost
Single Surface Treatment	$0.74/sf
Pavement Rejuvenator	$0.16/sf

Table D-7. Major rehabilitation unit costs based on PCI ranges for asphalt-surfaced pavements.

General Aviation	PCI Range							
	0 – 29	**30 – 39**	**40 – 49**	**50 – 59**	**60 – 69**	**70 – 79**	**80 – 89**	**> 89**
Metro	$4.78/sf	$4.78/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf
North	$4.21/sf	$4.21/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf
South	$4.27/sf	$4.27/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf
Commercial Service	$5.19/sf	$5.19/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf

Table D-8. Major rehabilitation unit costs based on PCI ranges for PCC-surfaced pavements.

General Aviation	PCI Range							
	0 – 29	**30 – 39**	**40 – 49**	**50 – 59**	**60 – 69**	**70 – 79**	**80 – 89**	**> 89**
Metro	$12.95/sf	$12.95/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf	$1.65/sf
North	$12.83/sf	$12.83/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf	$1.17/sf
South	$12.89/sf	$12.89/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf	$1.08/sf
Commercial Service	$12.95/sf	$12.95/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf	$1.31/sf

APPENDIX E

YEAR 2008 MAINTENANCE PLAN
ORGANIZED BY SECTION

Table E-1. 2008 maintenance plan organized by section.

Branch	Section	Distress Type	Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
A02GF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	1,256	Ft	$1.13	$1,420
A02GF	60	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	51	Ft	$1.13	$58
R1432GF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	3,388	Ft	$1.13	$3,828
TAGF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	425	Ft	$1.13	$480
TAGF	10	Weathering and raveling	Medium	Patching - AC Deep	198	SqFt	$3.15	$623
TBGF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	694	Ft	$1.13	$784

APPENDIX F

YEAR 2008 MAINTENANCE PLAN
ORGANIZED BY REPAIR TYPE

Table F-1. 2008 maintenance plan organized by repair type.

Branch	Section	Distress Type	Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
A02GF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	1,256	Ft	$1.13	$1,420
A02GF	60	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	51	Ft	$1.13	$58
R1432GF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	3,388	Ft	$1.13	$3,828
TAGF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	425	Ft	$1.13	$480
TBGF	10	Longitudinal and transverse cracking	Medium	Crack Sealing - AC	694	Ft	$1.13	$784
TAGF	10	Weathering and raveling	Medium	Patching - AC Deep	198	SqFt	$3.15	$623

APPENDIX G

FAA AC 150/5380-6B

Georgia Department of Transportation

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