

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION AVIATION OFFICE

## Statewide Airfield Pavement Management Program

Plant City Airport– PCM (General Aviation) Tampa, Florida (District 7)



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#### **EXECUTIVE SUMMARY**

In 2010, the Florida Department of Transportation (FDOT) Aviation Office selected a Consultant team consisting of Kimley-Horn and Associates and their Subconsultants, AMEC and All About Pavements, Inc., to provide services in support of FDOT in the continuing evaluation and updating of the existing Statewide Airfield Pavement Management Program (SAPMP) to be completed over fiscal years 2011 and 2012.

The tasks required to achieve this objective at Plant City Airport included:

- Obtain recent construction history from the Airport to update the Pavement Inventory CADD drawings from the previous SAPMP update,
- Perform a visual Pavement Condition Index (PCI) survey of the airfield pavements at the Airport,
- Update the MicroPAVER database to analyze the PCI field data and determine the current condition of the airfield pavements,
- Predict the future deterioration of the pavements,
- > Develop a 10-year M&R plan to address the pavement needs at Plant City Airport, and
- Provide the estimated costs associated with the suggested immediate and future M&R activities

During November 2011, the PCI survey was performed at Plant City Airport. The results of the survey indicate that, based on a numerical scale of 0 to 100, the overall area-weighted average PCI of the airfield pavements in 2011 is 76, representing a Satisfactory overall network condition.

Table I below summarizes the overall condition summary by network branch.

Branch Name	Area Weighted PCI	Average PCI Range	Condition Rating	FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required
Apron	76	63 - 100	Satisfactory	60	65	Х
Runway 10-28	79	59 - 82	Satisfactory	75	65	Х
Taxiway Alpha	75	33 - 100	Satisfactory	65	65	Х
T-Hangars Taxiway	70	62 - 82	Fair	65	65	Х

## Table I: Condition Summary by Branch

Tables II and III below illustrate the area-weighted PCI computed individually for each pavement use and rank, respectively.

Use	Average Area- Weighted PCI	Condition Rating
Runway	79	Satisfactory
Taxiway	74	Satisfactory
Apron	76	Satisfactory
All (Weighted)	76	Satisfactory

## Table II: Condition Summary by Pavement Use

## **Table III: Condition Summary by Pavement Rank**

Rank*	Average Area- Weighted PCI	Condition Rating
Primary	72	Satisfactory
Secondary	N/A	N/A
Tertiary	N/A	N/A
All (Weighted)	72	Satisfactory

\*The pavement rank for the airport pavement network is listed on Table 2-3.

The immediate M&R needs, or needs that have been programmed to be completed in the first year of the 10-year M&R plan based on an unlimited budget at Plant City Airport, include: Taxiway A and Runway 10-28. These pavement sections exhibited distresses which justify mill and overlay rehabilitation or full pavement reconstruction. The immediate needs are summarized in Table IV below.

Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	AC	101,892	\$301,622.32	62	Mill and Overlay	100
Runway 10-28	6103	AC	18,856	\$77,569.53	58	Mill and Overlay	100
Taxiway A	150	AC	4,773	\$28,098.94	52	Mill and Overlay	100
Taxiway A	160	AC	5,383	\$14,420.72	63	Mill and Overlay	100
Taxiway A	164	AC	3,873	\$48,484.76	32	Reconstruction	100
Taxiway A	165	AC	2,323	\$20,314.09	37	Reconstruction	100
T-Hangars Taxiway	710	AAC	5,895	\$19,108.55	61	Mill and Overlay	100
T-Hangars Taxiway	725	AAC	13,183	\$39,024.72	62	Mill and Overlay	100
				\$548,643.63	53		100

## Table IV: Immediate Major M&R Needs

\* Costs are adjusted for inflation.

A forecast of Major M&R needs for a 10-year period, starting from 2012, was developed using an unlimited budget. The analysis identified ongoing maintenance needs and major M&R during that interval. The results of this analysis are provided in Table V below.

## Table V: 10-Year M&R Costs under Unlimited Funding Scenario

Year	Preventative	Major M&R	Total Year Cost
2012	\$53,931.61	\$548,643.63	\$602,575.24
2013	\$101,513.94	\$0.00	\$101,513.94
2014	\$116,382.73	\$12,387.58	\$128,770.31
2015	\$131,457.37	\$18,911.33	\$150,368.70
2016	\$109,869.45	\$385,270.95	\$495,140.40
2017	\$124,272.30	\$0.00	\$124,272.30
2018	\$141,546.14	\$0.00	\$141,546.14
2019	\$158,218.32	\$0.00	\$158,218.32
2020	\$100,802.09	\$776,468.06	\$877,270.15
2021	\$113,004.98	\$13,197.26	\$126,202.24
Total	\$1,150,998.93	\$1,754,878.81	\$2,905,877.74

Note: Costs are adjusted for inflation.

The implementation of the 10-Year Major M&R Plan is expected to provide an improvement in the overall condition of the airfield pavement, where the area-weighted PCI would increase from

76 in 2011 to 82 in 2021. Appendix F lists the Major M&R for the 10-Year program. Appendix G graphically depicts the program activity.

It is important to note that although preventative and some major M&R activities would have to be conducted over several years, the area-weighted PCI value for all Plant City Airport pavements in 2021 may remain near 76. The airport manager should realize that what is most important is that the pavement repair work (preventative and major M&R) that has been identified for Plant City Airport is conducted at some point in the 10-year plan.

#### 1. INTRODUCTION

The State of Florida has more than 100 public airports that are vital to the Florida economy as well as the economy of the United States. There are millions of square yards of pavement for the runways, taxiways, aprons and other areas of these airports that support aircraft operations. The timely and proper maintenance and rehabilitation (M&R) of these pavements allows the airports to operate efficiently, economically and without excessive down time.

In order to support the planning, scheduling, and design of the M&R activities based on pavement evaluation and pavement management performance trends, the Florida Department of Transportation (FDOT) Aviation Office implemented the Statewide Airfield Pavement Management Program (SAPMP) in 1992.

In 2010, the FDOT Aviation Office selected a Consultant team consisting of Kimley-Horn and Associates and their Subconsultants, MACTEC Engineering and Consulting and All About Pavements, Inc., to provide services in support of FDOT in the continuing evaluation and updating of the existing SAPMP to be completed over fiscal years 2011 and 2012.

This report discusses the work performed, a summary of the findings, results, and recommendations for M&R planning associated with the update to the SAPMP. It also describes the procedures used to ensure that the appropriate engineering and scientific standards of care, quality, budget, and schedule requirements are implemented during the performance of the SAPMP.

#### 1.1 Purpose

This Florida Airport Pavement Evaluation Report is intended to:

- Describe, briefly, the SAPMP and the roles and responsibilities of the program's participants;
- Provide background information on pavement management principles, objectives, and benefits to this airport;
- Outline the procedures used to collect, evaluate and report pavement inspection results at this airport;
- Present the findings from the pavement inspection;
- Analyze and discuss the needs for Maintenance and Rehabilitation (M&R) activities and associated costs for this airport.

#### 1.2 FDOT Statewide Airfield Pavement Management Program

In 1992, the FDOT implemented the SAPMP to improve the knowledge of pavement conditions at public airports in the State system, identify maintenance needs at individual airports, automate information management, and establish standards to address future needs. The 1992 SAPMP provided valuable information for establishing and performing pavement M&R.

In 1992/1993, and 1998/1999, the FDOT Aviation Office participated in the development of a proprietary software pavement management system and developed and populated a pavement management database that provided valuable information for establishing M&R policies, estimating M&R costs, and developing recommendations for performing routine pavement

maintenance. This system, AIRPAV, was implemented, and initial condition surveys were performed in 1992 and 1993. The SAPMP was updated with additional surveys in 1998 and 1999.

In 2004, the FDOT Aviation Office undertook a project to update the pavement management system software utilized for the SAPMP. This project involved a review of the AIRPAV software and other available pavement management system software. As a result of this review, MicroPAVER was selected as the software for the update project. Data from the 1998/1999 condition surveys were converted to the MicroPAVER system, and the inventory of the pavement systems and drawings of the pavements were updated to reflect maintenance, rehabilitation, and construction activities since 1998/1999. The pavements were inspected between 2006 and 2008, and an updated M&R program was developed based on the new condition of the airfield pavements. As part of the update, procedures for the inspection and collection of pavement data were developed, and a website (www.floridaairportpavement.com) was created for the input of data under secure procedures.

Currently, airports using the AIP Grant Program are required by the Federal Aviation Administration (FAA) to develop a pavement maintenance program (FAA/AC 150/5380-6B "Guidelines and Procedures for Maintenance of Airport Pavements") using trained personnel to perform a detailed inspection of airfield pavements. The inspections are required to be performed at least once a year or every 3 years if pavement inspection is characterized in the form of a Pavement Condition Index (PCI) survey (such as ASTM D 5340 "Standard Test Method for Airport Pavement Condition Index Surveys", (2004 edition)). The 2004 edition was utilized in lieu of the 2010 edition to maintain database integrity and benefit of pavement performance curves from the previous inspections.

In 2010, the FDOT Aviation Office selected a team consisting of the Consultant and their Subconsultants to provided services in support of FDOT in the continuing evaluation and updating of the existing SAPMP to be completed over fiscal years 2011 and 2012.

#### 1.3 Organization

#### **1.3.1** Aviation Office Program Manager Role

The Aviation Office Airport Engineering Manager serves as the Aviation Office Program Manager (AO-PM) monitoring the work of the Consultant. The AO-PM has review and approval authority for each program task and also manages the day-to-day details of the SAPMP and the updates.

#### 1.3.2 Consultant Role

The Consultant (Kimley-Horn and Associates, Inc.) and their Subconsultants (AMEC Engineering and Consulting and All About Pavements, Inc.) provide technical and administrative assistance to the AO-PM during the execution of this program, which involves the continuing evaluation of airport pavements and updating of the SAPMP based upon procedures outlined in FAA Advisory Circular 150/5380-6B "Guidelines and Procedures for Maintenance of Airport Pavements" and ASTM D 5340 "Standard Test Method for Airport Pavement Condition Index Surveys" (2004).

#### 1.3.3 Airport Role

The airports are the ultimate client for each of the field inspections and reports. Individual airports will be provided final deliverables prepared by the Consultant that have been reviewed and approved by the AO-PM. The airport should provide a current Airport Layout Plan (ALP) to the Consultant and, if they participated in the previous SAPMP update, indicate any construction activity that has been performed since the previous inspections.

#### **1.4** Pavement Types and Pavement Management

#### 1.4.1 Pavement basics

A pavement is a prepared surface designed to provide a continuous smooth ride at a certain speed and to support an estimated amount of traffic for a certain number of years. Pavements are constructed of a combination of subgrade soils, subbases, bases and surfacing. There are mainly two types of pavements;

- Flexible pavement, composed of an asphalt concrete (AC) surface, and
- Rigid pavement composed of a Portland Cement Concrete (PCC) surface.

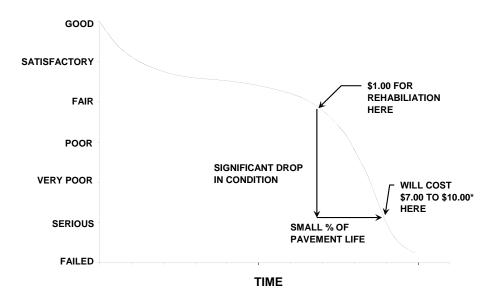
Both pavement types use a combination of layered materials and thicknesses in order to support the traffic loads and protect the underlying natural subgrade soil. Flexible pavements (AC) dissipate the load from layer to layer until the load magnitude is small enough to be supported by the subgrade soil. In rigid pavements (PCC), the Portland Cement Concrete supports most of the load, and the base or subbase layer is mainly constructed to provide a smooth and continuous platform for the construction of the concrete surface.

A small percentage of the airport pavements in Florida are composed of asphalt concrete surface over Portland Cement Concrete (APC). This pavement type is known as "composite" pavement.

Due to the different nature of the pavement types and their materials, flexible and rigid pavements have different distresses and failure mechanisms. Understanding the mechanics and failure modes of both pavement types will assist engineers in making adequate and long lasting repairs or rehabilitation to the pavement structures.

#### 1.4.2 Pavement Management System Concept

The SAPMP utilized a Pavement Management System (PMS) to develop the M&R recommendations discussed in this report. A PMS is a tool to assist engineers, planners and managing agencies in making decisions when planning pavement M&R. The management of pavements involves scheduling pavement maintenance and rehabilitation before pavements deteriorate to a condition where reconstruction (the most expensive alternative) is the only solution. Figure 1-1 below, taken from FAA/AC 5380-7A "Airport Pavement Management Program", illustrates how a pavement generally deteriorates and the relative cost of rehabilitation at various times throughout its life. Note that during the first 75 percent of a pavement's life, it performs relatively well. After that, however, it begins to deteriorate rapidly. The number of years a pavement stays in "good" condition depends on how well it is maintained. As the illustration demonstrates, the cost of maintaining the pavement above a critical condition before rapid deterioration has occurred.



## Figure 1-1: Pavement Life Cycle

Source: FAA/AC 150/5380-7A "Airport Pavement Management Program" \*Modified to reflect current construction costs.

Pavements deteriorate at an accelerated rate with increasing traffic and limited M&R resources. Planned maintenance and rehabilitation, essentially preventing pavements from reaching deteriorated conditions, helps managers/owners/agencies maximize the use of their budgets and prolong the life of the pavements. A PMS provides a tool to schedule and plan maintenance and rehabilitation based on engineering information and existing and predicted conditions of pavements.

There are several components or elements that are essential to a PMS. The first steps in the implementation of a PMS are to know and clearly identify what needs to be managed, the limits of the managing agency's responsibilities and the condition of the existing pavements. Once the cause and the extent of pavement problems are known, the appropriate maintenance and/or rehabilitation can be planned. By using local unit costs and expected yearly budgets, a multi-year M&R plan can be determined.

#### **1.4.3** Pavement Inspection Methodology for the SAPMP

Pavement condition assessment is one of the primary decision variables in any airport PMS. Pavement condition assessments generally include visual surveys in accordance with ASTM D 5340, "Standard Test Method for Airport Pavement Condition Index Surveys" and structural evaluation. Pavement condition surveys assess the functional condition of the pavement surface. Typically, most problems within a pavement structure will eventually reflect to the pavement surface. The structural condition and relative support of the pavement layers can be assessed utilizing non-destructive deflection testing (NDT) as well as other in-depth engineering evaluation or sampling and testing methods.

For the Statewide Aviation Pavement Management Program update, only visual surveys were performed. Further structural and geotechnical testing should be conducted to determine the appropriate rehabilitation methods during the design process.

In preparation of the PCI surveys, the airfield pavements are divided into sample units as established in FAA AC 150/5380-6B and ASTM D 5340. Further discussion of how the airport pavements are divided and subdivided into units by construction and use can be found in Section 2 "Network Definition and Pavement Inventory" of this report.

Sample unit sizes are approximately  $5000 \pm 2000$  square feet for AC-surfaced pavements and  $20 \pm 8$  slabs for PCC-surfaced pavements. Prior to conducting the field inspections, the sampling plan was developed based on previous sampling and modified based on the available knowledge of Branches, Sections, use patterns, construction types and history. The sampling rate used for the FDOT Statewide Airfield Pavement Management Program is provided in Table 1-1 below.

	AC Pavemen	ts		PCC Paveme	ents		
NT	n		n		NT	]	n
Ν	Runway	Others	Ν	Runway	Others		
1-4	1	1	1-3	1	1		
5-10	2	1	4-6	2	1		
11-15	3	2	7-10	3	2		
16-30	5	3	11-15	4	2		
31-40	7	4	16-20	5	3		
41-50	8	5	21-30	7	3		
>51	20% but <u>&lt;</u> 20	10% but <10	31-40	8	4		
			41-50	10	5		
			<u>&gt;</u> 51	20% but <u>&lt;</u> 20	10% but <u>&lt;</u> 10		

## Table 1-1: Sampling Rate for FDOT Condition Surveys

Where

N = total number of sample units in Section n = number of sample units to inspect

The sample units to inspect are determined by a systematic random sampling technique. This means that the locations are determined such that they are distributed evenly throughout the Section. In the case when nonrepresentive distresses are observed in the field, additional sample units were added.

The distress quantities and severity levels from the sample units are used to compute the PCI value for each Section. PCI values range from 0 to 100. As Figure 1-2 below indicates, MicroPAVER provides a rating scale that relates PCI to pavement condition. A PCI between 0 and 10 is considered 'Failed' pavement, and a PCI between 86 and 100 is considered 'Good' pavement, with five other conditions for PCI values between 11 and 85.

РСІ	Condition Rating
86 - 100	Good
71 - 85	Satisfactory
56 - 70	Fair
41 – 55	Poor
26 - 40	Very Poor
 11 - 25	Serious
0 – 10	Failed

## Figure 1-2: PCI Rating Scale

#### **1.5 Definitions**

<u>Aviation Office</u> - The Aviation Office is charged with responsibility for promoting the safe development of aviation to serve the people of the State of Florida. The Aviation Office Program Manager (AO-PM) has review and approval authority for each program task of the SAPMP.

<u>Base Course</u> - Base Course is a layer of manufactured material, usually crushed rock (aggregate) or stabilized material (asphalt or concrete or Florida Limerock), immediately beneath the surface course of a pavement, which provides support to the surface course.

<u>Branch</u> - A Branch designates pavements that have common usage and functionality, such as an entire runway, taxiway, or apron.

<u>Branch ID</u> - A short form identification for the pavement Branch. In this report, Branch includes the common designation for the item e.g. RW 18-36.

<u>Category</u> - The Category classifies the airport according to the type and volume of aircraft traffic, as follows:

- GA for general aviation or community airports;
- RL for regional relievers or small hubs;
- PR for primary (certified under Part 139 requirements).

<u>Critical PCI</u> - The PCI value considered to be the threshold for M&R decisions. PCI above the Critical generate economical activities expected to preserve and prolong acceptable condition. M&R for PCI values less than Critical make sense only for reasons of safety or to maintain a pavement in operable condition. A pavement section is expected to deteriorate very quickly once it reaches the Critical PCI and the unit cost of repair increases significantly.

<u>Distress Type</u> - A distress type is a defined visible defect in pavement evidenced by cracking, vertical displacement or deterioration of material. In PCI technology, 16 distinct distress types for asphalt surfaced and 15 for Portland Cement Concrete surfaced pavements have been described and rated according to the impact their presence has on pavement condition.

<u>Florida DOT (FDOT)</u> - Florida Department of Transportation was represented in this project by the Office of Aviation.

<u>Global M&R</u> - Global M&R is defined as activities applied to entire pavement Sections with the primary objective of slowing the rate of deterioration. These activities are primary for asphalt surfaced pavements, e.g. surface treatments.

Localized M&R (Maintenance and Repair) - Localized M&R is a temporizing activity performed on existing pavement to extend its serviceability and/or to improve rideability. Localized M&R can be applied either as a safety (stop-gap) measure or preventive measure. Common localized maintenance methods include crack sealing, joint sealing, and patching.

<u>Major M&R (e.g. Rehabilitation)</u> - Activities performed over the entire area of a pavement Section that are intended to restore and/or maintain serviceability. This includes asphalt overlays, milling and replacing asphalt pavement, reconstruction with asphalt, reconstruction with Portland Cement Concrete (PCC) pavements, and PCC overlays.

<u>MicroPAVER</u> - A commercially available software subsidized by FAA and agencies in the US Department of Defense developed to support engineered management of pavement assets using a condition based approach. This software has the functionality such that, if properly implemented, maintained, and operated, it meets the pavement management program requirements described by the FAA in Advisory Circular 150/5380-7A.

<u>Minimum Condition Level</u> - A threshold PCI value established by FDOT to represent the targeted minimum pavement condition that is desirable in the Florida Airport System. These values were established with consideration of pavement function and airport type. For instance, runways have higher minimum condition levels than aprons, and Primary airports have higher minimum condition levels than General Aviation airports.

<u>Network Definition</u> - A Network Definition is a Computer-Aided Drafting & Design (CADD) drawing which shows the airport pavement outline with Branch and Section boundaries. This drawing also includes the PCI sample units and is used to identify those sample units to be surveyed, i.e. the sampling plan. The Network Definition for the airport is in Appendix A along with a table of inventory data.

<u>Pavement Condition Index (PCI)</u> - The Pavement Condition Index is a number which represents the condition of a pavement segment at a specific point in time. It is based on visual identification and measurement of specific distress types commonly found in pavement which has been in service for a period of time. The definitions and procedures for determining the PCI are found in ASTM D 5340, published by ASTM International.

<u>Pavement Evaluation</u> - A systematic approach undertaken by trained and experienced personnel intended for determination of the condition, serviceability, and best corrective action for pavement. Techniques to standardize pavement evaluation include the Pavement Condition Index procedures.

<u>Pavement Management System (PMS)</u> - A Pavement Management System is a broad function that uses pavement evaluation and pavement performance trends as a basis for planning, programming, financing, and maintaining a pavement system.

<u>Pavement Surface Type</u> - The surface of pavement is identified as one of four types:

- AC for asphalt surface pavements;
- PCC for Portland Cement Concrete pavements;
- AAC for asphalt surface pavements that have had an asphalt overlay at some point in their construction history;
- APC for composite pavements, which consist of asphalt over Portland Cement Concrete pavement.
- PAC for composite pavements, which consist of Portland Cement Concrete over asphalt pavement.

<u>Rank</u> - Pavement rank in MicroPAVER determines the priority to be assigned to a pavement Section when developing an M&R plan. Pavement Sections are ranked as follows according to their use:

- P for Primary pavements, such as primary runways, primary taxiways, and primary aprons;
- S or Secondary pavements, such as secondary runways, secondary taxiways, and secondary aprons;
- T for Tertiary pavements such as "T" hangars and slightly used aprons.

<u>Reconstruction</u> - Reconstruction includes removal of existing pavement, preparation of subgrade, and construction of new pavement with new or recycled materials. Reconstruction is indicated when distress types evident at the surface indicate failure in the pavement structure or subgrade of a type, and to an extent, not correctable by less extensive construction.

<u>Rehabilitation</u> - Rehabilitation represents construction using existing pavement for a foundation. Rehabilitation most commonly consists of an overlay of existing pavement with a new asphalt or concrete surface. Recently, technology has expanded the options to include recycling of existing pavement and incorporating engineering fabrics or thin layers of elasticized materials to retard reflection of distress types through the new surface.

<u>Sample Unit</u> - Uniformly sized portions of a Section as defined in ASTM D 5340. Sample units are a means to reduce the total amount of pavement actually surveyed using statistics to select and survey enough area to provide a representative measure of Section PCI. Sample Unit sizes are  $5,000 \pm 2,000$  square feet for AC-surfaced pavements and  $20 \pm 8$  slabs for PCC-surfaced pavements.

<u>Section</u> - Sections subdivide Branches into portions of similar pavement. Sections are prescribed by pavement structure, age, condition, and use. Sections are identified on the airport Network Definition. They are the smallest unit used for determining M&R requirements based on condition.

<u>Section ID</u> - A short form identification for the pavement Section that maintains the original AirPAV identification where 100 series through 3000 series Sections are taxiways, 4000 and 5000 series Sections are aprons (the 5000 series represent run-up aprons and turnarounds), and 6000 series Sections are runways.

<u>Statewide Airfield Pavement Management Program (SAPMP)</u> – The Statewide Airfield Pavement Management Program is a program implemented in 1992 by the Florida Department of Transportation to plan, schedule, and design the maintenance and rehabilitation activities

necessary for the airfield pavement on Florida's public airports to allow the airports to operate efficiently, economically, and without excessive down time.

<u>System Inventory</u> - A System Inventory is a Computer-Aided Drafting & Design (CADD) drawing which shows the airport pavement outline and identifies airfield construction activities since the last inspection. The System Inventory for the airport is included in Appendix A.

<u>Use</u> - In MicroPAVER, Use is the term for the function of the pavement area. This is either Runway, Taxiway, or Apron for purposes of the FDOT Statewide Aviation Pavement Management System.

#### 2. NETWORK DEFINITION AND PAVEMENT INVENTORY

Plant City Airport (PCM) consists of one runway, Runway 10-28. Runway 10-28 is 75-ft wide by 3,948-ft long. Runway 10-28 is served by parallel Taxiway A and multiple taxiway connectors. The Airport has hangar and apron facilities on the north side of the property. The Airport runways, taxiways and aprons are constructed of asphalt concrete pavement, with the exception of one apron section constructed of portland cement concrete. This airport is designated as a General Aviation airport and is located in District 7 of the Florida Department of Transportation.

It is important to note that the aforementioned runway data in addition to the remaining airfield pavement facilities geometric dimensions may vary slightly from the geometry used in the condition and M & R analysis based on field measurements.

#### 2.1 Network Definition

The pavements within the network are defined in MicroPAVER in terms of manageable units that help to organize the data into similar groups. An organizational hierarchy is used to establish these units.

#### 2.1.1 Branch Section Identification

The airport pavement network is subdivided into separate Branches (runways, taxiways, or aprons) that have distinctly different uses. Branches are then further divided into Sections with similar pavement construction and performance that may share other common attributes.

Sections are manageable units used to organize the data collection and are treated individually during the rehabilitation planning stage. A pavement rank, consisting of primary, secondary, and tertiary levels, is assigned to each Section based on their level and type of use. The pavement rankings that were designated for each Section in the previous SAPMP update were again used for this update.

As discussed in Section 1.4.3 "Pavement Inspection Methodology for the SAPMP", the sections are sub-divided into sample units, which are the smallest subdivision in a pavement network, only for the purpose of conducting the pavement condition survey.

#### 2.1.2 System Inventory and Network Definition Update

The System Inventory and Network Definition drawings are used to identify changes in the network since the most recent update from the 2006/2008 inspections and also to plan the field inspection activities for the 2011 survey. Prior to the field inspection process, the System Inventory drawing was updated from the previous inspection with notes indicating recent construction projects on the various Sections of pavement throughout the airfield. This System Inventory drawing is used to update the Network Definition drawing.

The Network Definition drawing shows the airport pavement outline with Branch and Section boundaries. This drawing also includes the PCI sample units and is used to identify those sample units to be surveyed, i.e. the sampling plan. The previous airport configuration and history was compared with the current airport configuration, and the existing network branch, section and sample unit designations were revised to match the current configuration. This drawing serves not only as a primary guide for the airfield inspectors but also as an important historical record.

Due to recent and anticipate construction history; pavement area sections may have been consolidated or created which will affect the total number of sample units to be inspected based on the ASTM 5340 criteria.

The updated System Inventory and Network Definition drawings for Plant City Airport are provided in Appendix A. Table 2-1 below lists the recent construction projects at the airport.

## Table 2-1: Construction Since Last Inspection & Anticipated ConstructionActivity

Construction Year	Location	Work Type / Pavement Section
2010	East Apron and Taxilanes	Pavement Seal Coat Application
2011	Hangar 1 and Taxilanes	New Hangar and Taxilane Pavement Construction
2012	West Apron	Rehabilitation of West Apron and Access Road Pavement

#### 2.2 Pavement Inventory

The detailed pavement inventory was updated to reflect the network definition update and field inspection results. The total number of sample units designated to be inspected at the airport is 48 sample units.

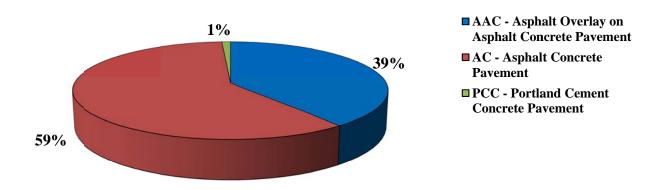
The total airfield pavement area in 2011 at Plant City Airport is 883,500 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

Use	Area (ft <sup>2</sup> )	% of Total Area
Runway	300,152	34%
Taxiway	266,811	30%
Apron	316,537	36%
All (Weighted)	883,500	100%

#### Table 2-2: Pavement Area by Pavement Use

Figure 2-1 presents the breakdown of the pavement area at Plant City Airport by surface type.

## Figure 2-1: Pavement Area by Surface Type



Details of pavement Branch and Section information including Branch name (which indicates pavement use), Branch ID, Section ID, section area, rank, surface type, last construction date, number of samples inspected, and number of samples in each Section are given in Table 2-3 below. A more detailed Pavement Inventory Table may be found in Appendix A of this report.

Branch Name	Branch ID	Section ID	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples Inspected	Total Samples
Apron	AP	4130	80,014	Р	AC	1/1/1986	11/29/2011	3	19
Apron	AP	4105	101,892	Р	AC	1/1/1986	11/29/2011	3	29
Apron	AP	4120	46,434	Р	AAC	1/1/1992	11/29/2011	1	13
Apron	AP	4110	45,437	Р	AAC	1/1/1992	11/29/2011	2	11
Apron	AP	4135	40,260	Р	AC	1/1/2008	11/29/2011	1	1
Apron	AP	4140	2,500	Р	PCC	1/1/2010	11/29/2011	1	1
Runway 10-28	RW 10-28	6115	228,796	Р	AAC	1/1/1983	11/29/2011	13	47
Runway 10-28	RW 10-28	6103	18,856	Р	AC	1/1/2002	11/29/2011	2	2
Runway 10-28	RW 10-28	6120	52,500	Р	AC	1/1/2002	11/29/2011	3	3
Taxiway Alpha	TW A	175	3,191	Р	AAC	1/1/2001	11/29/2011	1	1
Taxiway Alpha	TW A	150	4,773	Р	AC	1/1/2001	11/29/2011	1	1
Taxiway Alpha	TW A	160	5,383	Р	AC	1/1/2001	11/29/2011	1	2
Taxiway Alpha	TW A	170	4,870	Р	AC	1/1/2001	11/29/2011	1	2
Taxiway Alpha	TW A	110	131,334	Р	AC	1/1/2001	11/29/2011	6	25
Taxiway Alpha	TW A	165	2,323	Р	AC	1/1/2001	11/29/2011	1	1
Taxiway Alpha	TW A	164	3,873	Р	AC	1/1/2001	11/29/2011	1	1
Taxiway Alpha	TW A	174	4,218	Р	AC	1/1/2001	11/29/2011	1	1
Taxiway Alpha	TW A	115	34,041	Р	AC	1/1/2001	11/29/2011	2	2
T-Hangars TW	TW T-HANG	710	5,895	Р	AAC	1/1/1986	11/29/2011	1	2
T-Hangars TW	TW T-HANG	720	6,460	Р	AC	1/1/1986	11/29/2011	1	2
T-Hangars TW	TW T-HANG	705	13,043	Р	AAC	1/1/1992	11/29/2011	1	3
T-Hangars TW	TW T-HANG	715	10,224	Р	AC	1/1/1997	11/29/2011	1	1
T-Hangars TW	TW T-HANG	725	13,183	Р	AAC	1/1/1997	11/29/2011	1	1

## **Table 2-3: Branch and Section Inventory**

\* Note: If new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

\*Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.

#### 3. PAVEMENT CONDITION

Pavement conditions were inspected in accordance with the methods outlined in FAA AC 150/5380-6B and ASTM D 5340-04 "Standard Practice for Airport Pavement Condition Index Surveys." These procedures define distress type, severity and quantity for sampling areas within each section to determine the Pavement Condition Index (PCI).

#### 3.1 Inspection Methodology

A PCI survey is performed by measuring the amount and severity of pavement distresses, which are caused by traffic load, climate, and other factors, observed within a sample unit. This data is imported into MicroPAVER, which calculates PCI values for the pavement sections. Tables 3-1 and 3-2 below list the pavement distress types and related causes for asphalt concrete (AC) and Portland Cement Concrete (PCC), respectively.

Code	Distress	Mechanism		
41	Alligator Cracking	Load		
42	Bleeding	Construction Quality/ Mix Design		
43	Block Cracking	Climate / Age		
44	Corrugation	Load / Construction Quality		
45	Depression	Subgrade Quality		
46	Jet Blast	Aircraft		
47	Joint Reflection - Cracking	Climate / Prior Pavement		
48	Longitudinal/Transverse Cracking	Climate / Age		
49	Oil Spillage	Aircraft / Vehicle		
50	Patching	Utility / Pavement Repair		
51	Polished Aggregate	Load		
52	Weathering/Raveling	Climate / Load		
53	Rutting	Load		
54	Shoving	Pavement Growth		
55	Slippage Cracking	Load / Pavement Bond		
56	Swelling	Climate / Subgrade Quality		
Source: U.S. Army CERL, FDOT Airfield Inspection Reference Manual				

Code	Distress	Mechanism			
61	Blow-up	Climate			
62	Corner Break	Load			
63	Linear Cracking	Load			
64	Durability Cracking	Climate			
65	Joint Seal Damage	Climate			
66	Small Patch	Pavement Repair			
67	Large Patch/Utility Cut	Utility / Pavement Repair			
68	Popout	Climate			
69	Pumping	Load			
70	Scaling/Crazing	Construction Quality			
71	Faulting	Subgrade Quality			
72	Shattered Slab	Load			
73	Shrinkage Cracking	Construction Quality / Load			
74	Joint Spalling	Load			
75	Corner Spalling	Load			
Source: U.S.	Source: U.S. Army CERL, FDOT Airfield Inspection Reference Manual				

## Table 3-2: Pavement Distresses for Portland Cement Concrete Surfaces

Prior to conducting the inspections, Global Positioning System (GPS) coordinates were recorded using CADD at the centroid of each sample unit. The centroid is usually the geometric center of the area, but in cases where sample units are irregular in shape, this is the center of mass. These data are presented in a table on the updated Network Definition Map in Appendix A of this report.

Pavement condition inspections at Plant City Airport were performed in November 2011. Data was recorded in the field in accordance with FAA Advisory Circular 150/5380-6B "Guidelines and Procedures for Maintenance of Airport Pavements" and ASTM D 5340 "Standard Test Method for Airport Pavement Condition Index Surveys" (2004).

After the completion of data collection, the data was imported into MicroPAVER, and PCI values were calculated for the pavement sections.

#### **3.2** Pavement Condition Index Results

According to the 2011 survey, the overall area-weighted PCI at Plant City Airport is 76, representing a Satisfactory overall network condition.

Overall the airport exhibited pavement distresses associated with climate, vehicle, and age distresses. Asphalt Concrete pavement distresses include block cracking, weathering/raveling, longitudinal/transverse cracking, oil spillage, patching and swelling. The portland cement concrete section exhibited no distresses.

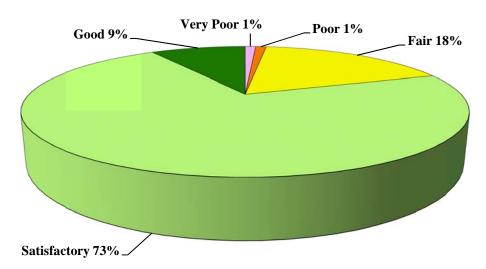
The pavement on Runway 10-28 exhibited low and medium severity longitudinal/transverse cracking, low and medium severity weathering/raveling and low severity swelling. These distresses are mostly attributed to the climate and age of the pavement.

Taxiway A pavements exhibited low severity block cracking, low and medium severity weathering/raveling, low severity patching and low severity longitudinal/transverse cracking. These are climate and age related distresses. Taxiway A connectors exhibited low and medium severity longitudinal/transverse cracking and low and medium severity weathering/raveling. The west apron connector was in Very Poor condition. These are climate and age related distresses.

The remaining aprons appeared to be in Fair to Good condition. Most of the distresses consisted of low severity longitudinal/transverse cracking, low and medium severity weathering/raveling and low severity block cracking.

Appendix B contains a table and a Condition Map which depicts the PCI results by Section, and Appendix C contains a table of PCI results by Branch. Appendix I includes detailed distress data generated by MicroPAVER for each inspected sample unit.

Figure 3-1 provides the PCI distribution by rating category for Plant City Airport.



## Figure 3-1: Network PCI Distribution by Rating Category

Condition Rating	Total Area (ft <sup>2</sup> )	Percent
Good	75,128	9%
Satisfactory	640,864	73%
Fair	156,538	18%
Poor	4,772	1%
Very Poor	6,196	1%
Serious	0	0%
Failed	0	0%

#### Figure 3-1a: Condition Rating Summary

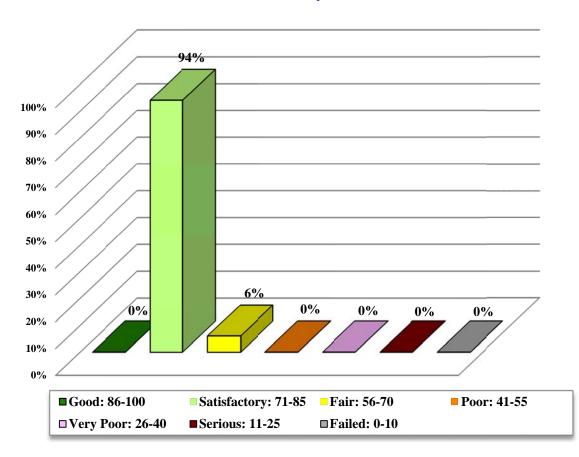
Approximately 82% of the network is in Good and Satisfactory condition while 2% of the network is in Poor and Very Poor condition. Table 3-3 illustrates the area-weighted PCI computed individually for each pavement use.

Use	Average Area- Weighted PCI	Condition Rating
Runway	79	Satisfactory
Taxiway	74	Satisfactory
Apron	76	Satisfactory
All (Weighted)	76	Satisfactory

## Table 3-3: Condition by Pavement Use

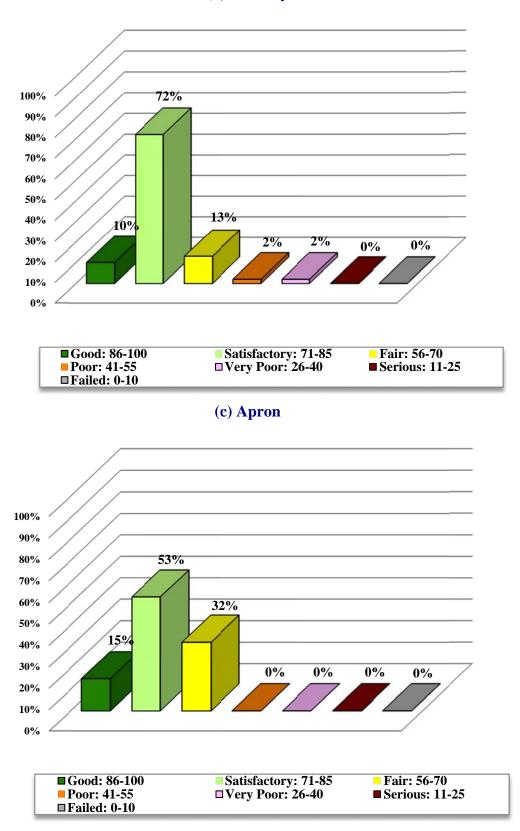
Figure 3-2 presents the breakdown of PCI by range for each pavement use.

## Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use



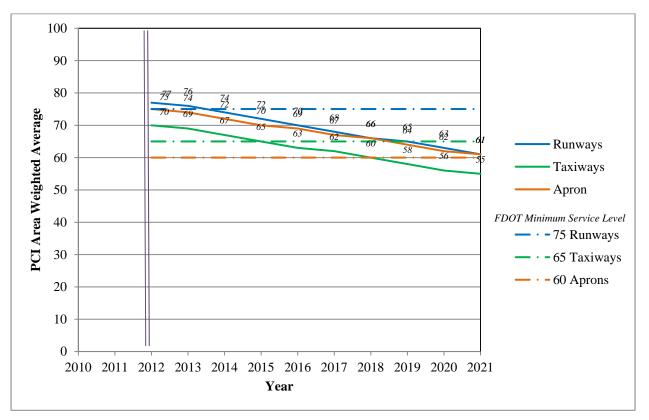
(a) Runway





#### 4. PAVEMENT CONDITION PREDICTION

Performance prediction models or deterioration curves for PCI were used to develop a condition forecast. The performance models were developed for combinations of variables such as pavement use (runway, taxiway or apron), surface type (AC or PCC) and airport category (GA, RL, or PR). Figure 4-1 illustrates the predicted performance of pavements at Plant City Airport based on current condition, age since last construction and the deterioration model appropriate for the type of pavement. The figure presents the forecast for each pavement use and displays the FDOT minimum service level for General Aviation (GA) airports.



## Figure 4-1: Predicted PCI by Pavement Use

Appendix D presents the tabular summary of the predicted Section PCI for each year from 2012 to 2021.

#### 5. MAINTENANCE POLICIES AND COSTS

#### 5.1 Policies

Maintenance and rehabilitation (M&R) policies are sets of rules used to develop repair recommendations for distresses encountered during the visual inspections.

Maintenance refers to repair-type activities that are applied to specific distress types on the pavement. These activities are preventative and/or corrective in nature and are recommended to help achieve the performance goal.

Table 5-1 provides the list of the maintenance activities used in MicroPAVER to treat specific distress types. MicroPAVER applies repairs to these distresses and adjusts the PCI based on specific rules. These repairs are used only in the first year of an analysis.

Rehabilitation is warranted when the pavement condition decreases below a critical point such that the deterioration is extensive or the rate of deterioration is so great that routine maintenance is no longer cost-efficient. This critical point is called "Critical PCI." The critical PCI levels for different pavement and branch types established in the previous SAPMP update were used in this update for the development of the M&R plan for the airport. Sections above critical PCI levels receive routine maintenances while pavements predicted to deteriorate below their respective critical PCI level during the analysis period will be identified for Major M&R. Table 5-2 gives the critical PCI levels for General Aviation Airports.

The maintenance rehabilitation policy and activity costs have been updated based on the study of readily available construction cost data at the time of this study. The costs depicted in this report are intended for planning purposes.

Surface	Distress	Severity*	Work Type	Code	Work Unit
	Alligator Crack	М, Н	Patching - AC Deep	PA-AD	SqFt
	Bleeding	N/A	No Localized M&R	NONE	N/A
	Block Crack	M, H	Crack Sealing – AC	CS-AC	SqFt
	Corrugation	L, M, H	Patching - AC Deep	PA-AD	SqFt
	Depression	M, H	Patching - AC Deep	PA-AD	SqFt
	Jet Blast	N/A	Patching - AC Deep	PA-AD	SqFt
	Joint Ref. Crack	M, H	Crack Sealing – AC	CS-AC	Ft
	L & T Crack	M, H	Crack Sealing – AC	CS-AC	Ft
AC	Oil Spillage	N/A	Patching - AC Shallow	PA-AS	SqFt
AC	Patching	M, H	Patching - AC Deep	PA-AD	SqFt
	Polished Agg.	N/A	No Localized M&R	NONE	N/A
	Deresting /	L	Surface Sealing - Rejuvenating	SS-RE	SqFt
	Raveling / Weathering	М	Surface Seal - Coal Tar	SS-CT	SqFt
	weathering	Н	Microsurfacing	MI-AC	SqFt
	Rutting	M, H	Patching - AC Deep	PA-AD	SqFt
	Shoving	M, H	Grinding (Localized)	GR-LL	SqFt
	Slippage Crack	N/A	Patching - AC Shallow	PA-AS	SqFt
	Swelling	M, H	Patching - AC Deep	PA-AD	SqFt
	Blow-Up	L, M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Corner Break	M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Linear Crack	М, Н	Crack Sealing – PCC	CS-PC	Ft
	Dunch ilitar Croals	Н	Slab Replacement – PCC	SL-PC	SqFt
	Durability Crack	М	Patching - PCC Full Depth	PA-PF	SqFt
	Jt. Seal Damage	М, Н	Joint Seal (Localized)	JS-LC	Ft
	Small Patch	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
PCC	Large Patch	M, H	Patching - PCC Full Depth	PA-PF	SqFt
PCC	Popouts	N/A	No Localized M&R	NONE	N/A
	Pumping	N/A	No Localized M&R	NONE	N/A
	Scaling	Н	Slab Replacement – PCC	SL-PC	SqFt
	Faulting	M, H	Grinding (Localized)	GR-PP	Ft
	Shattered Slab	M, H	Slab Replacement – PCC	SL-PC	SqFt
	Shrinkage Crack	N/A	No Localized M&R	NONE	N/A
	Joint Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
	Corner Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt

## Table 5-1: Routine Maintenance Activities for Airfield Pavements

L = Low, M = Medium, H = High

Use	Critical PCI
Runway	65
Taxiway	65
Apron	65

## Table 5-2: Critical PCI for General Aviation Airports

It should be noted that critical PCI is not the same as Minimum PCI or Minimum Condition. The Minimum PCI is a value set by the user so pavement sections are rehabilitated before they fall below the set minimum. Table 5-3 gives the targeted, or desired, Minimum PCI values for runways, taxiways, and aprons of General Aviation Airports.

# Table 5-3: FDOT Minimum Service Level PCI for General AviationAirports

Minimum PCI				
Runway Taxiway Apron				
75	65	60		

Typical Major M&R activities range from overlays to reconstruction. Based on the critical PCI values in Table 5-2 the PCI trigger range when the likely activity would be a mill and resurface was 40 to 79 and reconstruction at a PCI of 39 or lower. One important concept of pavement management systems is that it is cost effective to maintain pavements that are already in good condition rather than wait for them to get worse and require more expensive rehabilitation.

Crack sealing and full-depth patching are the M&R activities recommended to repair pavements with PCI values between 80 and 90. MicroPAVER considers these as preventative M&R with their primary objective being to slow the rate of pavement deterioration. While the trigger PCI for mill and overlay has been set to 55, MicroPAVER also assigns mill and overlay to sections with a PCI greater than 55 if they exhibit some structural distress. Table 5-4 summarizes the M&R activities for General Aviation Airports based on PCI value.

	Activity	PCI Range
Maintenance	Crack Sealing and Full-Depth Patching	80 and 90
Rehabilitation	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	40 to 79
	Reconstruction	39 and less

## Table 5-4: M&R Activities for General Aviation Airports

#### 5.2 Unit Costs

FDOT cost databases for airports and highway pavement maintenance and rehabilitation were updated from the previous SAPMP study based on current construction cost trends in order to determine meaningful costs for the program. Table 5-5 presents the unit costs summary.

#### 5.3 M&R Activities

FDOT recognizes that although Mill and Overlay work is recommended for asphalt pavements within a PCI range from 40 to 79, it is conceivable that airports may not have adequate funding to perform this type of rehabilitation. Microsurfacing treatment is a maintenance/rehabilitation measure that can be used in lieu of asphalt pavement mill and overlay; however it should be understood that this measure is intended for short term pavement life extension. While the cost of microsurfacing is significantly lower than that of pavement mill and overlay, it is not intended to be a full rehabilitative measure for long term benefit.

Code	Name	Cost	Unit
GR-LL	Grinding (Localized for AC)	\$2.10	SqFt
PA-AL	Patching – AC Leveling	\$2.30	SqFt
PA-AS	Patching – AC Shallow	\$2.90	SqFt
PA-PF	Patching – PCC Full Depth	\$38.11	SqFt
PA-PP	Patching – PCC Partial Depth	\$19.06	SqFt
SL-PC	Slab Replacement – PCC	\$39.11	SqFt
CS-PC	Crack Sealing – PCC	\$4.24	Ft
UN-PC	Undersealing – PCC	\$3.40	Ft
CS-AC	Crack Sealing – AC	\$2.25	Ft
GR-PP	Grinding (Localized for PCC)	\$22.51	Ft
JS-LC	Joint Seal (Localized)	\$2.00	Ft
SH-LE	Shoulder Leveling	\$2.81	Ft
JS-SI	Joint Seal – Silicon	\$2.81	Ft
PA-AD	Patching – AC Deep	\$4.90	SqFt
OL-AT	Overlay – AC Thin	\$2.80	SqFt
SS-CT	Surface Seal – Coal Tar	\$0.40	SqFt
SS-FS	Surface Seal – Fog Seal	\$0.40	SqFt
SS-RE	Surface Seal – Rejuvenating	\$0.40	SqFt
ST-SB	Surface Treatment – Single Bitum.	\$0.30	SqFt
ST-SS	Surface Treatment – Slurry Seal	\$0.55	SqFt
ST-ST	Surface Treatment – Sand Tar	\$0.28	SqFt
MI-AC	Microsurfacing - AC	\$0.65	SqFt

## Table 5-5: Maintenance Unit Costs for FDOT

The improvement in condition due to maintenance actions applied to specific distresses is only performed when an inspection was performed recently and only in the first year of the M&R analysis. In subsequent years, MicroPAVER calculates M&R costs based on expected unit costs for pavements in a range of PCIs. That is, for low PCI, it is expected that the repair would be significant (e.g. reconstruction) and therefore very costly.

Using available unit cost data, the Major M&R Cost by Condition table was set up as shown in Table 5-6. The cost assigned to each range of PCI is based on a Transportation Cost Report provided by Office of Planning Policy of FDOT where the unit costs of reconstruction and resurfacing of airfield pavements were included. These costs were then assigned to the appropriate PCI range to arrive at a cost per square foot necessary to restore pavements at that PCI level to new condition, i.e. a PCI of 100.

## Table 5-6: M&R Activities and Unit Costs by Condition for General Aviation Airports

	Activity	PCI Trigger	Cost/SqFt
Maintenance	Crack Sealing and Full-Depth Patching	90	\$0.06
Wantenance	Crack Scaling and I un-Depth I atching	80	\$0.24
		70	\$3.00
Rehabilitation	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	60	\$3.42
		50	\$6.29
		40	\$6.29
	Reconstruction	30	\$13.62
	Reconstruction	20	\$13.62

A 3% inflation rate per year was applied to the unit costs during the M&R analysis.

#### 6. PAVEMENT REHABILITATION NEEDS ANALYSIS

Maintenance and Rehabilitation (M&R) analyses were performed after the condition data were calculated and MicroPAVER was customized with the maintenance policies and cost settings described in the previous section.

The objective of the M&R analysis is to observe the effect of different fiscal scenarios on the network condition, over a period of ten years, starting from 2012. The analysis was conducted using an unlimited budget. An unlimited budget allows all M&R needs to be identified along with the associated cost regardless of priority.

Table 6-1 presents the M&R list of immediate needs for Major M&R, i.e. Year 1 of the forecast. The importance of this listing is that it points out the major activities triggered by the current condition of the pavements.

Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs* M&R		M&R Activity	PCI After M&R	
Apron	4105	AC	101,892	\$301,622.32	62	Mill and Overlay	100	
Runway 10-28	6103	AC	18,856	\$77,569.53	58	Mill and Overlay	100	
Taxiway A	150	AC	4,773	\$28,098.94	52	Mill and Overlay	100	
Taxiway A	160	AC	5,383	\$14,420.72	63	Mill and Overlay	100	
Taxiway A	164	AC	3,873	\$48,484.76	32	Reconstruction	100	
Taxiway A	165	AC	2,323	\$20,314.09	37	Reconstruction	100	
T-Hangars Taxiway	710	AAC	5,895	\$19,108.55	61	Mill and Overlay	100	
T-Hangars Taxiway	725	AAC	13,183	\$39,024.72	62	Mill and Overlay	100	
				\$548,643.63	53		100	

## Table 6-1: Summary of Immediate Major M&R Needs Option No. 1

\* Costs are adjusted for inflation.

FDOT recognizes that the costs attributed to the aforementioned 'Major Activity' of performing a pavement 'Mill and Overlay' may conflict with budgetary constraints. Table 6-2 presents an alternative minor rehabilitative activity to the mid-range performing pavements. The alternative activity is performing a 'Microsurfacing/Slurry Seal' to the pavement to retard the degradation of the facility until funding is available for a 'Mill and Overlay' activity.

Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	AC	101,892	\$66,229.66	62	Microsurfacing	100
Runway 10-28	6103	AC	18,856	\$12,256.29	58	Microsurfacing	100
Taxiway A	150	AC	4,773	\$3,102.23	52	Microsurfacing	100
Taxiway A	160	AC	5,383	\$3,498.83	63	Microsurfacing	100
Taxiway A	164	AC	3,873	\$2,517.46	32	Reconstruction	100
Taxiway A	165	AC	2,323	\$1,510.14	37	Reconstruction	100
T-Hangar Taxiway	710	AAC	5,895	\$3,831.83	61	Microsurfacing	100
T-Hangar Taxiway	725	AAC	13,183	\$8,568.98 62 Microsurfacing		100	
				\$101,515.41	53		100

## Table 6-2: Summary of Immediate Major M&R Needs Option No. 2

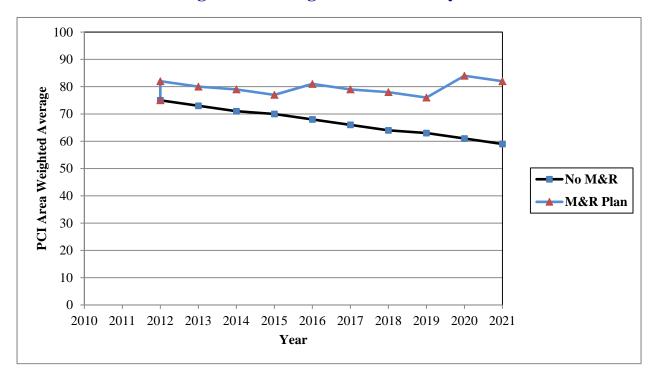
\* Costs are adjusted for inflation.

In addition to the immediate Major M&R needs, maintenance activities for pavement areas above critical PCI have been recommended by MicroPAVER for Year 1 and are shown in Table 6-3 below. The costs provided in Table 5-5 were used to calculate the costs associated with this work, which is intended to treat specific distress types. A more detailed table is provided in Appendix E.

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Apron	AP	4110	OIL SPILLAGE	N Patching - AC Shallow		852.20	SqFt	\$2.90	\$2,471.43
Apron	AP	4135	WEATH/RAVEL	L	Surface Seal - Rejuvenating	161.00	SqFt	\$0.40	\$64.42
Runway 10-28	RW 10-28	6115	WEATH/RAVEL	М	Surface Seal - Coat Tar	2,224.60	SqFt	\$0.40	\$889.84
Runway 10-28	RW 10-28	6115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	46,002.80	SqFt	\$0.40	\$18,401.28
Runway 10-28	RW 10-28	6120	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,969.30	SqFt	\$0.40	\$3,587.73
Taxiway A	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	39,400.00	SqFt	\$0.40	\$15,760.12
Taxiway A	TW A	110	WEATH/RAVEL	М	Surface Seal - Coat Tar	853.70	SqFt	\$0.40	\$341.47
Taxiway A	TW A	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	7,455.70	SqFt	\$0.40	\$2,982.29
Taxiway A	TW A	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	4,869.50	SqFt	\$0.40	\$1,947.83
T-Hangars Taxiway	TW T-HANG	715	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,325.90	SqFt	\$0.40	\$3,330.37
T-Hangars Taxiway	TW T-HANG	720	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,459.90	SqFt	\$0.40	\$2,584.00
								Total =	\$52,360.78

## Table 6-3: Summary of Year 1 Maintenance Activities

The 10 year forecast results are shown in Figure 6-1, illustrating the effect on pavement condition (PCI) of doing no maintenance versus having unlimited funds and performing all M&R actions based on the policies.



## **Figure 6-1: Budget Scenario Analysis**

The following network level observations can be made from the figure above:

- The PCI will deteriorate from an average of 75 in 2012 to an average of 59 in ten years if no M&R activities are performed. Specific pavement sections may be closer to critical condition as identified by the immediate needs in Table IV. Estimated PCI ratings are presented in Appendix D.
- The PCI will remain at or above an average of 76 through the 10-year analysis period under the unlimited budget scenario. A 2021 PCI average of of 82 with this scenario is 23 PCI points higher than a "No M&R" scenario. The total cost for Major M&R over this 10-year period is about \$1.8 million.

#### 7. MAINTENANCE AND REHABILITATION PLAN

The M&R analysis results include activities that likely exceed a typical annual budget level. These activities would need to be evaluated for feasibility and desirability based on the airport's future plans. In an effort to identify appropriate budget levels, the 10 year M&R analysis was evaluated to determine levels needed to address several specific areas: preventive maintenance, major activities for pavements in poor condition (Major M&R for PCIs less than Critical), and activities that would be desirable to preserve good pavement conditions where they exist (Major M&R for PCI greater than or equal to Critical).

Table 7-1 provides the summary results under the critical PCI unlimited funding scenario.

Year	Preventative	Major M&R	Total Year Cost
2012	\$53,931.61	\$548,643.63	\$602,575.24
2013	\$101,513.94	\$0.00	\$101,513.94
2014	\$116,382.73	\$12,387.58	\$128,770.31
2015	\$131,457.37	\$18,911.33	\$150,368.70
2016	\$109,869.45	\$385,270.95	\$495,140.40
2017	\$124,272.30	\$0.00	\$124,272.30
2018	\$141,546.14	\$0.00	\$141,546.14
2019	\$158,218.32	\$0.00	\$158,218.32
2020	\$100,802.09	\$776,468.06	\$877,270.15
2021	\$113,004.98	\$13,197.26	\$126,202.24
Total	\$1,150,998.93	\$1,754,878.81	\$2,905,877.74

## Table 7-1: M&R Costs under Unlimited Funding Scenario

Note: Costs are adjusted for inflation.

Approximately 31% of the total Major M&R cost is required in the first year (2012). According to the 2011 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- Apron Asphalt pavement mill and overlay activity
- Runway 10-28 Asphalt pavement mill and overlay activity
- **Taxiway A** Asphalt pavement mill and overlay along with reconstruction
- **T-Hangars Taxiway** Asphalt pavement mill and overlay activity

The unlimited budget scenario provides the basis for estimating the total repair cost.

Appendix F provides details of M&R plan by year under the unlimited funding scenario, and the map of the 10-year M&R plan is provided in Appendix G. It is important to understand that the

SAPMP is a network level tool and the M&R costs provided in this report are only for planning purposes.

## 8. VISUAL AIDS

#### 8.1 System Inventory and Network Definition Drawings

The System Inventory and Network Definition CADD drawings, which show the airport pavement outline with Branch and Section boundaries and identify changes in the network pavement since the last inspection and the sampling plan, respectively, are included in Appendix A of this report.

#### 8.2 Condition Map

A Condition Map that has been prepared based on data linked to the airport's shape file is included in Appendix B. The Condition Map graphically show the inventory and condition of the airport via color coding shown on the shape file. The coding provides a visual representation that illustrates the PCIs for each pavement section.

#### 8.3 10-Year M&R Map

A 10-Year M&R Map that shows the summary of the M&R plan is attached in Appendix G.

#### 8.4 Photographs

Selected digital photographs taken during the pavement inspection are provided in Appendix H to provide visual support to special pavement conditions or distress observed during the inspection of the airport.

### 9. RECOMMENDATIONS

Pavement condition inspections were performed at Plant City Airport, and a 10-year M&R plan was developed based on the unlimited funding scenario.

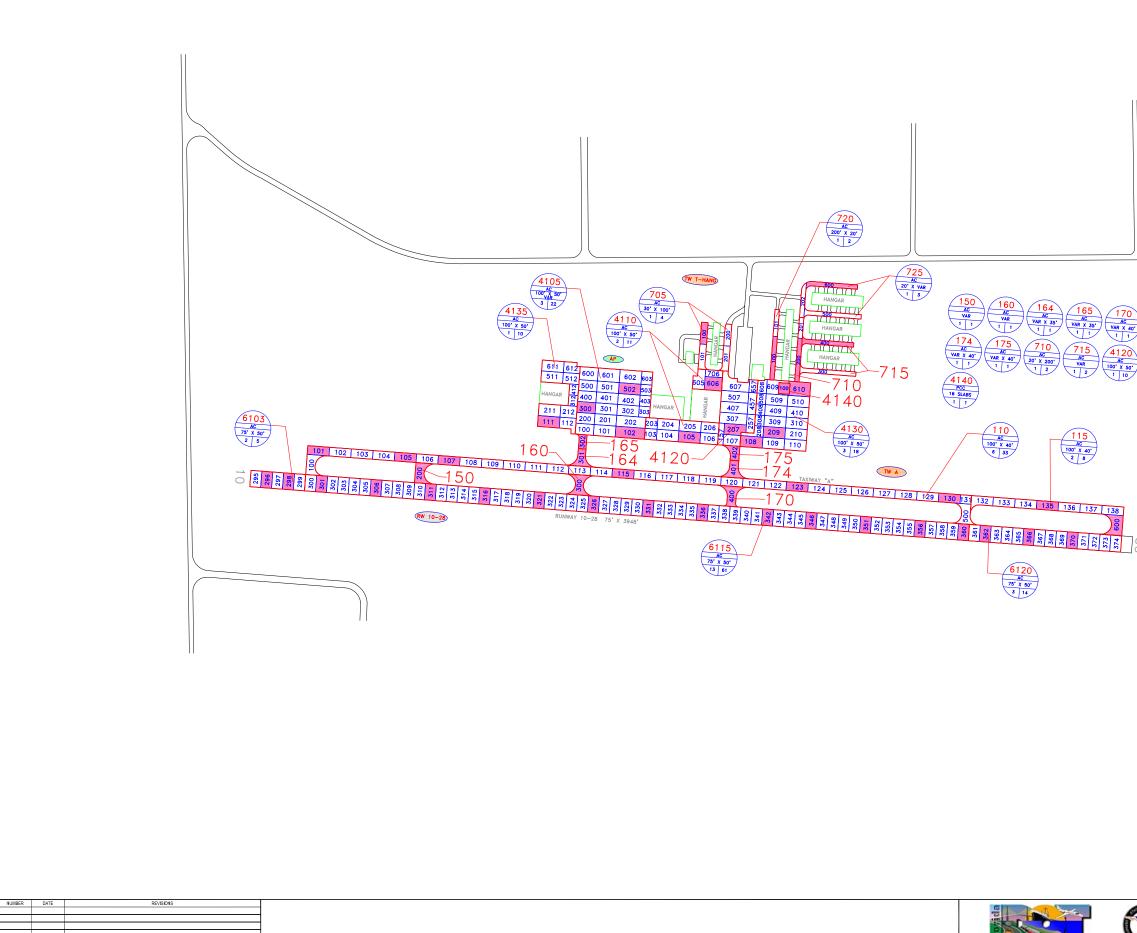
The following recommendations were made based on the 2011 condition inspection and M&R analysis results:

- Apron Asphalt pavement mill and overlay activity
- **Runway 10-28** Asphalt pavement mill and overlay activity Specification
- **Taxiway A** Asphalt pavement mill and overlay along with reconstruction
- **T-Hangars Taxiway** Asphalt pavement mill and overlay activity

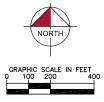
Further evaluation of these features is necessary in order to develop repair plans and timing for future budgets since these needs cannot be addressed with typical annual expenditures.

# **APPENDIX A**

# NETWORK DEFINITION MAP SYSTEM INVENTORY MAP PAVEMENT INVENTORY TABLE WORK HISTORY REPORT



K:\WF8_Aviation\142175	1005\CACO\PLANSHEETS\P	CM/(DOMBITS/001-PCM-00)	FINITION.deg		PLOTTED: February 21, 20	12 - 2 38 PM, B1 Bave,	
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# Image: Section Number of Sample Units in Section Number of Sample Units in Section Image: Section Number of Sample Units in Section Image: Section Section Section Image: Section Section

TOTAL SAMPLES INSPECTED = 48

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.



NETWORK DEFINITION MAP	
PLANT CITY AIRPORT PLANT CITY, HILLSBOROUGH, FLORIDA	
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE	1

Branch	Section	Sample	Latitude	Longitude
RW 10-28	6120	370	27.999799	-82.157901
RW 10-28	6120	366	27.999839	-82.158519
RW 10-28	6120	362	27.999880	-82.159137
RW 10-28	6115	360	27.999900	-82.159446
RW 10-28	6115	356	27.999940	-82.160064
RW 10-28	6115	351	27.999991	-82.160837
RW 10-28	6115	346	28.000042	-82.161610
RW 10-28	6115	342	28.000082	-82.162228
RW 10-28	6115	336	28.000143	-82.163155
RW 10-28	6115	331	28.000194	-82.163927
RW 10-28	6115	326	28.000244	-82.164700
RW 10-28	6115	321	28.000295	-82.165473
RW 10-28	6115	316	28.000346	-82.166245
RW 10-28	6115	311	28.000396	-82.167018
RW 10-28	6115	306	28.000447	-82.167791
RW 10-28	6115	301	28.000497	-82.168563
RW 10-28	6103	298	28.000528	-82.169033
RW 10-28	6103	296	28.000548	-82.169342
AP	4135	111	28.001285	-82.165338
AP	4130	108	28.001035	-82.162459
AP	4130	209	28.001152	-82.162135
AP	4130	610	28.001701	-82.161778
AP	4120	207	28.001192	-82.162699
AP	4110	105	28.001093	-82.163340
AP	4110	606	28.001767	-82.163001
AP	4105	102	28.001148	-82.164181
AP	4105	300	28.001465	-82.164805
AP	4105	502	28.001700	-82.164189
TW T- HANG	725	600	28.003010	-82.161323
TW T- HANG	720	100	28.002090	-82.162146
TW T- HANG	715	200	28.002067	-82.161792
TW T- HANG	715	400	28.002282	-82.161387
TW T- HANG	705	100	28.002222	-82.163157
TW A	175	402	28.000901	-82.162707

Sample Un	it Centroid	Coordinates
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Branch

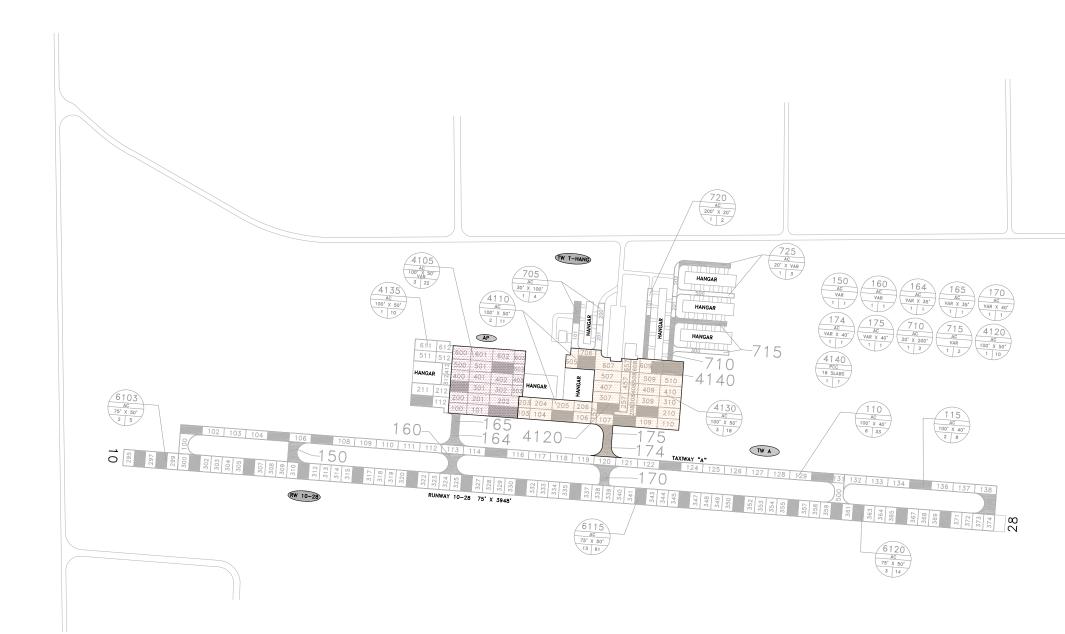
Section

TW A	174	401	28.000671	-82.162710
TW A	170	400	28.000365	-82.162735
TW A	165	302	28.001035	-82.164856
TW A	164	301	28.000813	-82.164873
TW A	160	300	28.000488	-82.164900
TW A	150	200	28.000636	-82.167149
TW A	115	600	27.999989	-82.157285
TW A	115	135	28.000235	-82.158253
TW A	110	130	28.000327	-82.159646
TW A	110	123	28.000469	-82.161809
TW A	110	115	28.000631	-82.164281
TW A	110	107	28.000793	-82.166754
TW A	110	105	28.000833	-82.167372
TW A	110	101	28.000914	-82.168608

Sample

Latitude

Longitude

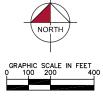


#### CONSTRUCTION SINCE LAST INSPECTION & ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
2010	EAST APRON AND TAXILANES	SURFACE SEAL
2011	HANGAR I AND TAXILANES	TAXILANES / NEW ASPHALT
2012	WEST APRON	SURFACE SEAL



NUMBER         DATE         REVISIONS           Image: Constraint of the second se	K:\\$F8_Aviation\142179	005\CACO\PLANSHEETS\P	CM/10048115/002-PCM-60	VENTORY.deg		PLOTTED: February 21, 201	12 - 2:38 PM, B1: Barus,	Art	
NUMBER DATE REVISIONS	DESIGNED:	BAL	DRAWN:	BAL	CHECKED:	EVV	DATE:		
NUMBER DATE REVISIONS									
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	NUMBER	DATE		REVISIONS					





PROJECTS YEAR 2014 PROJECTS YEAR 2015 PROJECTS YEAR 2016 PROJECTS YEAR 2017

## LEGEND

RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

## Table A-1: Pavement Inventory

Branch Name	Branch ID	Branch Use	Section ID	Length (ft)	Width (ft)	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
Apron	AP	APRON	4130	300	250	80,014	Р	AC	1/1/1986	11/29/2011	19
Apron	AP	APRON	4105	360	320	101,892	Р	AC	1/1/1986	11/29/2011	29
Apron	AP	APRON	4120	300	140	46,434	Р	AAC	1/1/1992	11/29/2011	13
Apron	AP	APRON	4110	320	100	45,437	Р	AAC	1/1/1992	11/29/2011	11
Apron	AP	APRON	4135	305	132	40,260	Р	AC	1/1/2008	11/29/2011	1
Apron	AP	APRON	4140	50	50	2,500	Р	PCC	1/1/2010	11/29/2011	1
Runway 10-28	RW 10-28	RUNWAY	6115	3051	75	228,796	Р	AAC	1/1/1983	11/29/2011	47
Runway 10-28	RW 10-28	RUNWAY	6103	250	75	18,856	Р	AC	1/1/2002	11/29/2011	2
Runway 10-28	RW 10-28	RUNWAY	6120	700	75	52,500	Р	AC	1/1/2002	11/29/2011	3
Taxiway Alpha	TW A	TAXIWAY	175	70	40	3,191	Р	AAC	1/1/2001	11/29/2011	1
Taxiway Alpha	TW A	TAXIWAY	150	120	35	4,773	Р	AC	1/1/2001	11/29/2011	1
Taxiway Alpha	TW A	TAXIWAY	160	125	40	5,383	Р	AC	1/1/2001	11/29/2011	2
Taxiway Alpha	TW A	TAXIWAY	170	125	40	4,870	Р	AC	1/1/2001	11/29/2011	2
Taxiway Alpha	TW A	TAXIWAY	110	2500	40	131,334	Р	AC	1/1/2001	11/29/2011	25
Taxiway Alpha	TW A	TAXIWAY	165	65	35	2,323	Р	AC	1/1/2001	11/29/2011	1
Taxiway Alpha	TW A	TAXIWAY	164	100	35	3,873	Р	AC	1/1/2001	11/29/2011	1
Taxiway Alpha	TW A	TAXIWAY	174	100	40	4,218	Р	AC	1/1/2001	11/29/2011	1
Taxiway Alpha	TW A	TAXIWAY	115	700	40	34,041	Р	AC	1/1/2001	11/29/2011	2

Branch Name	Branch ID	Branch Use	Section ID	Length (ft)	Width (ft)	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
T-Hangars Taxiway	TW T-HANG	TAXIWAY	710	300	20	5,895	Р	AAC	1/1/1986	11/29/2011	2
T-Hangars Taxiway	TW T-HANG	TAXIWAY	720	323	20	6,460	Р	AC	1/1/1986	11/29/2011	2
T-Hangars Taxiway	TW T-HANG	TAXIWAY	705	435	30	13,043	Р	AAC	1/1/1992	11/29/2011	3
T-Hangars Taxiway	TW T-HANG	TAXIWAY	715	500	20	10,224	Р	AC	1/1/1997	11/29/2011	1
T-Hangars Taxiway	TW T-HANG	TAXIWAY	725	600	20	13,183	Р	AAC	1/1/1997	11/29/2011	1

\* Note: If new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

\*Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.

Date:12/	19/2011		<b>story Re</b> nent Database:	port	1 of 4
Network: P0 L.C.D.: 01/01	CM Bra //1986 Use: AP	anch: AP (APRON) RON <b>Rank</b> : P Length:	360.00 Ft	Width:	<b>Section:</b> 4105 <b>Surface:</b> AC 320.00 Ft <b>True Area:</b> 101,891.79 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/1986	IMPORTED	BUILT		1.50	True 1986 1.5" SI SURFACE 9" FDOT 270 6" STAB BASE
Network: P0 L.C.D.: 01/01	CM Bra 1/1992 Use: AP	anch: AP (APRON) RON Rank: P Length:	320.00 Ft	Width:	Section: 4110 Surface: AAC 100.00 Ft True Area: 45.436.72 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/1992 01/01/1970	IMPORTED IMPORTED	OVERLAY BUILT		1.00 1.00	True         1992 1" P-401 OL           True         1970 1" TYPE 1 BIT 6" LIMEROCK
<b>Network:</b> P0 <b>L.C.D.:</b> 01/01	CM Bra 1/1992 Use: AP	anch: AP (APRON) RON <b>Rank</b> : P Length:	300.00 Ft	Width:	Section: 4120 Surface: AAC 140.00 Ft True Area: 46.434.32 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/1992	IMPORTED	BUILT		1.00	True 1992 1" P-401 OL
Network: P0 L.C.D.: 01/01	CM Bra 1/1986 Use: AP	anch: AP (APRON) RON Rank:P Length:	300.00 Ft	Width:	<b>Section:</b> 4130 <b>Surface:</b> AC 250.00 Ft <b>True Area:</b> 80.014.00 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/1986	IMPORTED	BUILT		1.50	True 1986 1.5" TYPE S-1 BIT 9" LIMEROCK 6" STAB BASE
Network: P0 L.C.D.: 01/01	CM Bra 1/2008 Use: AP	anch: AP (APRON) RON Rank: P Length:	305.00 Ft	Width:	Section: 4135 Surface: AC 132.00 Ft True Area: 40.260.00 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2008	INITIAL	Initial Construction	\$0	0.00	True
Network: PC L.C.D.: 01/01	CM Bra	anch: AP (APRON) RON Rank: P Length:	50.00 Ft	Width:	<b>Section:</b> 4140 <b>Surface:</b> PCC 50.00 Ft <b>True Area:</b> 2,500.00 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2010	INITIAL	Initial Construction	\$0	0.00	True
Network: P( L.C.D.: 01/01	CM Bra 1/2002 Use: RU	anch: RW 10-28 (RUNWA NWAY Rank:P Length:	Y 10-28) 250.00 Ft	Width:	<b>Section:</b> 6103 <b>Surface:</b> AC 75.00 Ft <b>True Area:</b> 18.855.83 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2002 01/01/1976 01/01/1900	OL-AT IMPORTED INITIAL	Overlay - AC Thin OVERLAY Initial Construction	\$0 \$0 \$0		True 1.5" AC Ovly True 1976 6" LIMEROCK True
Network: P0 L.C.D.: 01/01	CM Bra 1/1983 Use: RL	anch: RW 10-28 (RUNWA NWAY Rank:P Length:	Y 10-28) 3.050.61 Ft	Width:	<b>Section:</b> 6115 <b>Surface:</b> AAC 75.00 Ft <b>True Area:</b> 228.795.75 SaF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/1983 01/01/1976 01/01/1960 01/01/1948	IMPORTED IMPORTED IMPORTED IMPORTED	OVERLAY OVERLAY OVERLAY BUILT	\$0	1.50 6.00 0.75 6.00	True         1983 1.5" BIT OL           True         1976 6" LIMEROCK           True         1960 .75" BIT OL           True         1948 6" LIMEROCK

Date:12/	Date:12/19/2011 Work History Report 2 of 4										
<b>Network:</b> P(	CM Br	anch: RW 10-28 (RUNWA)	Y 10-28)	Width:	<b>Section:</b> 6120 <b>Surface:</b> AC						
<b>L.C.D.:</b> 01/01	1/2002 Use: RL	JNWAY Rank:P Length:	700.00 Ft		75.00 Ft <b>True Area:</b> 52.500.00 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2002	INITIAL	Initial Construction	\$0	3.00	True3" AC /6" Limerock / 4" Stab SubbaseTrue1976 6" LIMEROCK						
01/01/1976	IMPORTED	OVERLAY	\$0	6.00							
Network:         PCM         Branch:         TW A         (TAXIWAY A)         Section:         110         Surface:         AC           L.C.D.:         01/01/2001         Use:         TAXIWAY         Rank:         P Length:         2.500.00         Ft         Width:         40.00         Ft         True Area:         131.334.35         SaF											
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001 01/01/1993 01/01/1963	ol-at Imported Imported	Overlay - AC Thin REPAIR BUILT	\$0	1.00 1.00	True         1" AC Ovly           False         1993 P-625 SEAL COAT           True         1963 1" P-401 6" P-211 28" GRANULAR           SUB         SUB						
Network: P(	CM Br	anch: TW A (TAXIWA	YA)	Width:	<b>Section:</b> 115 <b>Surface:</b> AC						
L.C.D.: 01/01	/2001 Use: TA	XIWAY Rank:P Length:	700.00 Ft		40.00 Ft <b>True Area:</b> 34.041.02 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001	NC-AC	New Construction - AC	\$0	3.00	True     3" AC /6" Limerock / 4" Stab Subbase       True     1" AC Ovly						
01/01/2001	OL-AT	Overlay - AC Thin	\$0	1.00							
Network: P(	CM Bra	anch: TW A (TAXIWA	YA)	Width:	Section: 150 Surface: AC						
L.C.D.: 01/01	1/2001 Use: TA	XIWAY Rank: P Length:	120.00 Ft		35.00 Ft True Area: 4.772.66 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001 01/01/1993 01/01/1963	OL-AT IMPORTED IMPORTED	Overlay - AC Thin REPAIR BUILT	\$0	1.00 1.00	True         1" AC Ovly           False         1993 P-625 SEAL COAT           True         1963 1" P-401 6" P-211 28" GRANULAR						
Network: P(	CM Br	anch: TW A (TAXIWA	YA)	Width:	<b>Section:</b> 160 <b>Surface:</b> AC						
L.C.D.: 01/01	//2001 Use: TA	XIWAY Rank:P Length:	125.00 Ft		40.00 Ft <b>True Area:</b> 5.382.81 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001 01/01/1993 01/01/1986 01/01/1986	OL-AT IMPORTED IMPORTED IMPORTED	Overlay - AC Thin REPAIR BUILT OVERLAY	\$0	1.00 1.50 6.00	True         1" AC Ovly           False         1993 P-625 SEAL COAT           True         1986 1.5" TYPE S1 BIT           True         1986 6" TYPE 3 BASE 6" STAB BASE						
Network: P0	CM Bra	anch: TW A (TAXIWA	YA)	Width:	<b>Section:</b> 164 <b>Surface:</b> AC						
L.C.D.: 01/01	1/2001 Use: TA	XIWAY Rank: P Length:	100.00 Ft		35.00 Ft <b>True Area:</b> 3.873.01 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001	INITIAL	Initial Construction	\$0	0.00	True						
Network: P(	CM Bra	anch: TW A (TAXIWA	Y A)	Width:	Section: 165 Surface: AC						
L.C.D.: 01/01	1/2001 Use: TA	XIWAY Rank:P Length:	65.00 Ft		35.00 Ft True Area: 2.323.29 SaF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001	INITIAL	Initial Construction	\$0	0.00	True						
<b>Network:</b> P(	CM Br	anch: TW A (TAXIWA	Y A)	Width:	Section: 170 Surface: AC						
<b>L.C.D.:</b> 01/01	1/2001 Use: TA	XIWAY Rank: P Length:	125.00 Ft		40.00 Ft True Area: 4.869.58 SqF						
Work	Work	Work	Cost	Thickness	Major						
Date	Code	Description		(in)	M&R Comments						
01/01/2001	OL-AT	Overlay - AC Thin	\$0	1.00	True 1" AC Ovly						

Date:12/	19/2011		istory Re	port	3 of 4				
01/01/1993 01/01/1963	IMPORTED IMPORTED	REPAIR BUILT		1.00	False 1993 P-625 SEAL COAT True 1963 1" P-401 6" P-211 28" GRANULAR				
<b>Network:</b> P( <b>L.C.D.:</b> 01/0 <sup>2</sup>	CM Bra 1/2001 Use: TA	anch: TW A (TAXIWA XIWAY Rank:P Length:		Width:	Section: 174 Surface: AC 40.00 Ft True Area: 4.218.21 SaF				
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments				
01/01/2001	INITIAL	Initial Construction	\$0	0.00	True				
Network:         PCM         Branch:         TW A         (TAXIWAY A)         Section:         175         Surface:         AAC           L.C.D.:         01/01/2001         Use:         TAXIWAY         Rank:         P Length:         70.00         Ft         Width:         40.00         Ft         True Area:         3.191.31         SqF									
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments				
01/01/2001 01/01/1992 01/01/1960 01/01/1948	OL-AT IMPORTED IMPORTED IMPORTED	Overlay - AC Thin OVERLAY OVERLAY BUILT	\$0	1.00 1.00 1.00 6.00	True         1" AC Ovly           True         1992 1" P-401 OL           True         1960 1" P-401           True         1948 6" LIMEROCK				
<b>Network:</b> Pe <b>L.C.D.:</b> 01/07	CM Bra 1/1992 Use: TA	•	ARS TAXIWAY) 435.00 Ft	Width:	Section: 705 Surface: AAC 30.00 Ft True Area: 13.043.23 SaF				
Work	Work	Work		Thickness	Major				
Date	Code	Description	Cost	( in)	M&R Comments				
Date 01/01/1992	Code IMPORTED	Description BUILT	Cost	( in)	M&R         Comments           True         1992 BIT OL SECTION UNKNOWN				
01/01/1992 Network: P	IMPORTED	BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY)	( in) Width:	M&R				
01/01/1992 Network: P	IMPORTED	BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY)		True 1992 BIT OL SECTION UNKNOWN Section: 710 Surface: AAC				
01/01/1992 Network: Po L.C.D.: 01/07 Work	IMPORTED CM Bra 1/1986 Use: TA Work	BUILT anch: TW T-HANG (T-HANG XIWAY Rank:P Length: Work	ARS TAXIWAY) 300.00 Ft	Width: Thickness	Midk       Image: Section and the sect				
01/01/1992 Network: Pr L.C.D.: 01/07 Work Date 01/01/1986 Network: Pr	IMPORTED CM Bra 1/1986 Use: TA Work Code IMPORTED	BUILT anch: TW T-HANG (T-HANG XIWAY Rank:P Length: Work Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost	Width: Thickness	Mide       True     1992 BIT OL SECTION UNKNOWN       Section:     710       20.00 Ft     True Area:       5.895.13 SaF       Major M&R				
01/01/1992 Network: Pr L.C.D.: 01/07 Work Date 01/01/1986 Network: Pr	IMPORTED CM Br: 1/1986 Use: TA Work Code IMPORTED CM Br:	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost	Width: Thickness ( in)	Midik       Initial State         True       1992 BIT OL SECTION UNKNOWN         Section:       710       Surface: AAC         20.00       Ft       True Area:       5.895.13         Major M&R       Comments       Initial State       Initial State         True       1986 BIT OL SECTION UNKNOWN       Section:       715       Surface:       AC				
01/01/1992 Network: Pi L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1986 Network: Pi L.C.D.: 01/0 <sup>-7</sup> Work Date	IMPORTED CM Bra 1/1986 Use: TA Work Code IMPORTED CM Bra 1/1997 Use: TA Work	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft	Width: Thickness ( in) Width: Thickness ( in)	Midik     Image: Section:     710     Surface:     AAC       20.00     Ft     True Area:     5.895.13     SoF       Major M&R     Comments     Section:     715     Surface:     AC       20.00     Ft     True Area:     10.223.58     SoF				
01/01/1992 Network: Pr L.C.D.: 01/02 Work Date 01/01/1986 Network: Pr L.C.D.: 01/02 Work Date 01/01/1997 Network: Pr	IMPORTED CM Bra 1/1986 Use: TA Work Code IMPORTED CM Bra 1/1997 Use: TA Work Code IMPORTED	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft Cost	Width: Thickness ( in) Width: Thickness ( in)	Midik       Image: Additional stress of the st				
01/01/1992 Network: Pr L.C.D.: 01/02 Work Date 01/01/1986 Network: Pr L.C.D.: 01/02 Work Date 01/01/1997 Network: Pr	IMPORTED CM Bra 1/1986 Use: TA Code IMPORTED CM Bra 1/1997 Use: TA Work Code IMPORTED CM Bra	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft Cost Cost ARS TAXIWAY) 323.00 Ft	Width: Thickness ( in) Width: Thickness ( in)	Midik       Image: Antiperature         True       1992 BIT OL SECTION UNKNOWN         Section:       710       Surface: AAC         20.00 Ft       True Area:       5.895.13         Major       Comments         True       1986 BIT OL SECTION UNKNOWN         Section:       715         Section:       715         Surface:       AC         20.00 Ft       True Area:         1986 BIT OL SECTION UNKNOWN         Section:       715         Surface:       AC         20.00 Ft       True Area:         10.223.58       SaF         Major       Comments         True       1997 AC PAVEMENT         Section:       720       Surface:				
01/01/1992 Network: P4 L.C.D.: 01/0 <sup>-1</sup> Work Date 01/01/1986 Network: P4 L.C.D.: 01/0 <sup>-1</sup> Work 01/01/1997 Network: P4 L.C.D.: 01/0 <sup>-1</sup> Work	IMPORTED CM Bra 1/1986 Use: TA Work Code IMPORTED CM Bra 1/1997 Use: TA Work Code IMPORTED CM Bra 1/1986 Use: TA	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: XIWAY Rank: P Length:	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft Cost ARS TAXIWAY) 323.00 Ft	Width: Thickness ( in) Width: Thickness ( in) Width: Thickness	Midik         Image           True         1992 BIT OL SECTION UNKNOWN           Section:         710         Surface:         AAC           20.00         Ft         True Area:         5.895.13         SaF           Major M&R         Comments         Saf         Saf           True         1986 BIT OL SECTION UNKNOWN         Saf         Saf           Section:         715         Surface:         AC           20.00         Ft         True Area:         10.223.58         SaF           Major M&R         Comments         Saf         Saf         Saf           True         1997 AC PAVEMENT         Saf         Saf         Saf           Section:         720         Surface:         AC         AC           20.00         Ft         True Area:         6.460.00         Saf           Major         Comments         Saf         Saf         Saf         Saf				
01/01/1992 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1986 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1997 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1986 Network: Pr	IMPORTED CM Br. 1/1986 Use: TA Work Code IMPORTED CM Br. 1/1997 Use: TA Work Code IMPORTED CM Br. 1/1986 Use: TA Work Code IMPORTED	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft Cost ARS TAXIWAY) 323.00 Ft Cost Cost	Width: Thickness ( in) Width: Thickness ( in) Width: Thickness	MidikTrue1992 BIT OL SECTION UNKNOWNSection:710Surface:20.00 FtTrue Area:5.895.13Major M&RCommentsTrue1986 BIT OL SECTION UNKNOWNSection:715Surface:AC 20.00 FtTrue Area:10.223.58SoftTrue Area:10.223.58Major M&RCommentsTrue1997 AC PAVEMENTSection:720Surface:Section:720Surface:AC 20.00 FtTrue Area:6.460.00 SaFMajor M&RComments				
01/01/1992 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1986 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1997 Network: Pr L.C.D.: 01/0 <sup>-7</sup> Work Date 01/01/1986 Network: Pr	IMPORTED CM Br. 1/1986 Use: TA Code IMPORTED CM Br. 1/1997 Use: TA Work Code IMPORTED CM Br. 1/1986 Use: TA Work Code IMPORTED CM Br. Code IMPORTED CM Br. Code IMPORTED CM Br. Code IMPORTED	BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG XIWAY Rank: P Length: Work Description BUILT anch: TW T-HANG (T-HANG	ARS TAXIWAY) 300.00 Ft Cost ARS TAXIWAY) 500.00 Ft Cost ARS TAXIWAY) 323.00 Ft Cost Cost ARS TAXIWAY) 600.00 Ft	Width: Thickness ( in) Width: Thickness ( in) Width: Thickness ( in)	Make         Image           True         1992 BIT OL SECTION UNKNOWN           Section:         710         Surface:         AAC           20.00         Ft         True Area:         5.895.13         SaF           Major M&R         Comments         Saf         Saf           True         1986 BIT OL SECTION UNKNOWN         Section:         715         Surface:         AC           20.00         Ft         True Area:         10.223.58         SaF           Major M&R         Comments         Saf         Saf           True         1997 AC PAVEMENT         Saf         Saf           Section:         720         Surface:         AC           20.00         Ft         True Area:         6.460.00         Saf           Major M&R         Comments         Saf         Saf         Saf           True         1996 UNKNOWN AC SECTION         Saf         Saf         Saf				

# Work History Report

Pavement Database:

## Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	14	687,745.23	2.15	2.04
Initial Construction	8	137,713.38	.38	1.06
New Construction - AC	1	34,041.02	3.00	
OVERLAY	9	814,945.23	3.25	2.62
Overlay - AC Thin	7	202,447.56	1.07	.19
REPAIR	4	146,359.40		

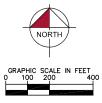
STD = Standard Deviation

# **APPENDIX B**

# 2012 CONDITION MAP PAVEMENT CONDITION INDEX TABLE



NUMBER	DA	REVISIONS	e e
DESIGNED	): BA	BAL CHECKED: EVV DATE:	





RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.



Branch Name	Branch ID	Branch Use	Section ID	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
Apron	AP	APRON	4130	80,014	Р	AC	3	19	79	Satisfactory
Apron	AP	APRON	4105	101,892	Р	AC	3	29	63	Fair
Apron	AP	APRON	4120	46,434	Р	AAC	1	13	84	Satisfactory
Apron	AP	APRON	4110	45,437	Р	AAC	2	11	87	Good
Apron	AP	APRON	4135	40,260	Р	AC	1	1	85	Satisfactory
Apron	AP	APRON	4140	2,500	Р	PCC	1	1	100	Good
Runway 10-28	RW 10-28	RUNWAY	6115	228,796	Р	AAC	13	47	80	Satisfactory
Runway 10-28	RW 10-28	RUNWAY	6103	18,856	Р	AC	2	2	59	Fair
Runway 10-28	RW 10-28	RUNWAY	6120	52,500	Р	AC	3	3	82	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	175	3,191	Р	AAC	1	1	95	Good
Taxiway Alpha	TW A	TAXIWAY	150	4,773	Р	AC	1	1	53	Poor
Taxiway Alpha	TW A	TAXIWAY	160	5,383	Р	AC	1	2	64	Fair
Taxiway Alpha	TW A	TAXIWAY	170	4,870	Р	AC	1	2	68	Fair
Taxiway Alpha	TW A	TAXIWAY	110	131,334	Р	AC	6	25	72	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	165	2,323	Р	AC	1	1	38	Very Poor
Taxiway Alpha	TW A	TAXIWAY	164	3,873	Р	AC	1	1	33	Very Poor
Taxiway Alpha	TW A	TAXIWAY	174	4,218	Р	AC	1	1	80	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	115	34,041	Р	AC	2	2	81	Satisfactory

## **Table B-1: Pavement Condition Index**

Table B-1: Pavement	t Condition Index	(Continued)
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Branch Name	Branch ID	Branch Use	Section ID	True Area (ft <sup>2</sup> )	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
T-Hangars Taxiway	TW T-HANG	TAXIWAY	710	5,895	Р	AAC	1	2	62	Fair
T-Hangars Taxiway	TW T-HANG	TAXIWAY	720	6,460	Р	AC	1	2	69	Fair
T-Hangars Taxiway	TW T-HANG	TAXIWAY	705	13,043	Р	AAC	1	3	82	Satisfactory
T-Hangars Taxiway	TW T-HANG	TAXIWAY	715	10,224	Р	AC	1	1	71	Satisfactory
T-Hangars Taxiway	TW T-HANG	TAXIWAY	725	13,183	Р	AAC	1	1	63	Fair

Note: If new construction, then survey date = last construction date and PCI is set to 100 by MicroPAVER.

\* Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey.

# **APPENDIX C**

## **BRANCH CONDITION REPORT SECTION CONDITION REPORT**

# **Branch Condition Report**

Pavement Database: NetworkID: PCM

1 of 2

					-			
Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	PCI Standard Deviation	Weighted Average PCI
AP (APRON)	6	1,635.00	165.33	316,536.83	APRON	83.00	11.00	76.66
RW 10-28 (RUNWAY 10-28)	3	4,000.61	75.00	300,151.58	RUNWAY	73.67	10.40	79.03
TW A (TAXIWAY A)	9	3,905.00	38.33	194,006.24	TAXIWAY	64.89	19.26	72.16
TW T-HANG (T-HANGARS TAXWAY)	5	2,158.00	22.00	48,804.98	TAXIWAY	69.40	7.17	70.43

Date: 12 /19/2011

# **Branch Condition Report**

Pavement Database:

Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
6	316,536.83	83.00	11.00	76.66
3	300,151.58	73.67	10.40	79.03
14	242,811.22	66.50	16.17	71.81
23	859,499.63	71.74	15.97	76.12
	of Sections 6 3 14	of Sections         Area (SqFt)           6         316,536.83           3         300,151.58           14         242,811.22	Number of Sections         Total Area (SqFt)         Average PCI           6         316,536.83         83.00           3         300,151.58         73.67           14         242,811.22         66.50	Number of Sections         Total Area (SqFt)         Average PCI         PCI STD.           6         316,536.83         83.00         11.00           3         300,151.58         73.67         10.40           14         242,811.22         66.50         16.17

STD = Standard Deviation

2 of 2

Date: 12 /19/2011			Sectio	on Conc		n Ro	•		1 of	2
Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP (APRON)	4105	01/01/1986	AC	APRON	Р	0	101,891.79	11/29/2011	25	63.00
AP (APRON)	4110	01/01/1992	AAC	APRON	Р	0	45,436.72	11/29/2011	19	87.00
AP (APRON)	4120	01/01/1992	AAC	APRON	Р	0	46,434.32	11/29/2011	19	84.00
AP (APRON)	4130	01/01/1986	AC	APRON	Р	0	80,014.00	11/29/2011	25	79.00
AP (APRON)	4135	01/01/2008	AC	APRON	Р	0	40,260.00	11/29/2011	3	85.00
AP (APRON)	4140	01/01/2010	PCC	APRON	Р	0	2,500.00	11/29/2011	1	100.00
RW 10-28 (RUNWAY 10-28)	6103	01/01/2002	AC	RUNWAY	Р	0	18,855.83	11/29/2011	9	59.00
RW 10-28 (RUNWAY 10-28)	6115	01/01/1983	AAC	RUNWAY	Р	0	228,795.75	11/29/2011	28	80.00
RW 10-28 (RUNWAY 10-28)	6120	01/01/2002	AC	RUNWAY	Р	0	52,500.00	11/29/2011	9	82.00
TW A (TAXIWAY A)	110	01/01/2001	AC	TAXIWAY	Р	0	131,334.35	11/29/2011	10	72.00
TW A (TAXIWAY A)	115	01/01/2001	AC	TAXIWAY	Р	0	34,041.02	11/29/2011	10	81.00
TW A (TAXIWAY A)	150	01/01/2001	AC	TAXIWAY	Р	0	4,772.66	11/29/2011	10	53.00
TW A (TAXIWAY A)	160	01/01/2001	AC	TAXIWAY	Р	0	5,382.81	11/29/2011	10	64.00
TW A (TAXIWAY A)	164	01/01/2001	AC	TAXIWAY	Р	0	3,873.01	11/29/2011	10	33.00
TW A (TAXIWAY A)	165	01/01/2001	AC	TAXIWAY	Р	0	2,323.29	11/29/2011	10	38.00
TW A (TAXIWAY A)	170	01/01/2001	AC	TAXIWAY	Р	0	4,869.58	11/29/2011	10	68.00
TW A (TAXIWAY A)	174	01/01/2001	AC	TAXIWAY	Р	0	4,218.21	11/29/2011	10	80.00
TW A (TAXIWAY A)	175	01/01/2001	AAC	TAXIWAY	Р	0	3,191.31	11/29/2011	10	95.00
TW T-HANG (T-HANGARS TAXIWAY)	705	01/01/1992	AAC	TAXIWAY	Р	0	13,043.23	11/29/2011	19	82.00
TW T-HANG (T-HANGARS TAXIWAY)	710	01/01/1986	AAC	TAXIWAY	Р	0	5,895.13	11/29/2011	25	62.00
TW T-HANG (T-HANGARS -TAXIWAY)	715	01/01/1997	AC	TAXIWAY	Р	0	10,223.58	11/29/2011	14	71.00
TW T-HANG (T-HANGARS TAXIWAY)	720	01/01/1986	AC	TAXIWAY	Р	0	6,460.00	11/29/2011	25	69.00
TW T-HANG (T-HANGARS TAXIWAY)	725	01/01/1997	AAC	TAXIWAY	Р	0	13,183.04	11/29/2011	14	63.00

Date: 12 /19/2011

# Section Condition Report

2 of 2

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
0-02	1.00	2,500.00	1	100.00	0.00	100.00
03-05	3.00	40,260.00	1	85.00	0.00	85.00
06-10	9.82	265,362.07	11	65.91	18.22	73.17
11-15	14.00	23,406.62	2	67.00	4.00	66.49
16-20	19.00	104,914.27	3	84.33	2.05	85.05
21-25	25.00	194,260.92	4	68.25	6.76	69.76
26-30	28.00	228,795.75	1	80.00	0.00	80.00
All	14.13	859,499.63	23	71.74	15.97	76.12

# **APPENDIX D**

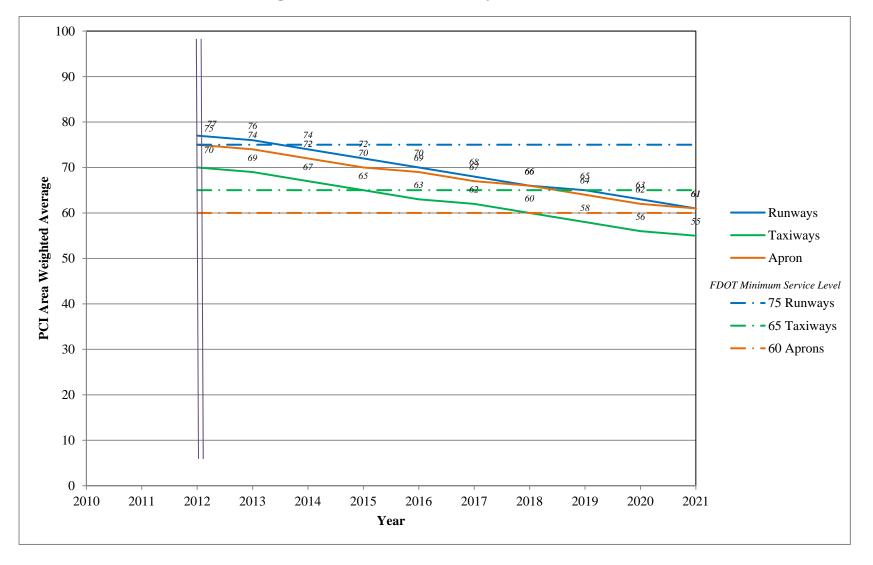
## PAVEMENT CONDITION PREDICTION TABLE PREDICTED PCI BY PAVEMENT USE GRAPH

	Branch ID	Section	Current		PCI Forecast								
Branch Name	Dranch ID	ID	PCI	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Apron	AP	4105	63	62	61	59	58	56	55	53	52	51	49
Apron	AP	4110	87	86	84	82	80	78	76	74	72	70	68
Apron	AP	4120	84	83	81	79	77	75	73	71	69	68	66
Apron	AP	4130	79	78	77	75	74	72	71	69	68	67	65
Apron	AP	4135	85	84	83	81	80	78	77	75	74	73	71
Apron	AP	4140	100	98	96	93	91	88	86	83	81	78	75
Runway 10-28	RW 10-28	6103	59	58	57	55	54	52	51	49	48	46	45
Runway 10-28	RW 10-28	6115	80	79	77	75	73	71	69	67	65	63	61
Runway 10-28	RW 10-28	6120	82	81	80	78	77	75	74	72	71	69	68
Taxiway Alpha	TW A	110	72	71	69	68	66	64	62	61	59	57	56
Taxiway Alpha	TW A	115	81	80	78	77	75	73	71	70	68	66	65
Taxiway Alpha	TW A	150	53	52	50	49	47	45	43	42	40	38	37
Taxiway Alpha	TW A	160	64	63	61	60	58	56	54	53	51	49	48
Taxiway Alpha	TW A	164	33	32	30	29	27	25	23	22	20	18	17
Taxiway Alpha	TW A	165	38	37	36	34	33	31	30	28	26	25	23
Taxiway Alpha	TW A	170	68	67	65	64	62	60	58	57	55	53	52
Taxiway Alpha	TW A	174	80	79	77	76	74	72	70	69	67	65	64
Taxiway Alpha	TW A	175	95	94	92	90	89	87	85	83	82	80	78

## **Table D-1: Pavement Condition Prediction**

Branch Name	Bronch ID	PCI Forecast											
	Branch ID	ID	PCI	2012	2013	2014	2015	2016 20	2017	2018	2019	2020	2021
T-Hangars Taxiway	TW T-HANG	705	82	81	79	77	76	74	72	70	69	67	65
T-Hangars Taxiway	TW T-HANG	710	62	61	59	57	56	54	52	50	49	47	45
T-Hangars Taxiway	TW T-HANG	715	71	70	68	67	65	63	61	60	58	56	55
T-Hangars Taxiway	TW T-HANG	720	69	68	66	65	63	61	59	58	56	54	53
T-Hangars Taxiway	TW T-HANG	725	63	62	60	58	57	55	53	51	50	48	46

## Table D-1: Pavement Condition Prediction (Continued)



## Figure D-1: Predicted PCI by Pavement Use

# **APPENDIX E**

## YEAR 1 MAINTENANCE ACTIVITIES TABLE

Table E-1: Year 1	Maintenance	Activities
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Branch Name	NameBranch IDSection IDDistress Description			Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Apron	AP	4110	OIL SPILLAGE	N	Patching - AC Shallow	852.20	SqFt	\$2.90	\$2,471.43
Apron	AP	4135	WEATH/RAVEL	L	Surface Seal - Rejuvenating	161.00	SqFt	\$0.40	\$64.42
Runway 10-28	RW 10-28	6115	WEATH/RAVEL	М	Surface Seal - Coat Tar	2,224.60	SqFt	\$0.40	\$889.84
Runway 10-28	RW 10-28	6115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	46,002.80	SqFt	\$0.40	\$18,401.28
Runway 10-28	RW 10-28	6120	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,969.30	SqFt	\$0.40	\$3,587.73
Taxiway A	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	39,400.00	SqFt	\$0.40	\$15,760.12
Taxiway A	TW A	110	WEATH/RAVEL	М	Surface Seal - Coat Tar	853.70	SqFt	\$0.40	\$341.47
Taxiway A	TW A	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	7,455.70	SqFt	\$0.40	\$2,982.29
Taxiway A	TW A	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	4,869.50	SqFt	\$0.40	\$1,947.83
T-Hangars TW	TW T-HANG	715	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,325.90	SqFt	\$0.40	\$3,330.37
T-Hangars TW	TW T-HANG	720	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,459.90	SqFt	\$0.40	\$2,584.00
								Total =	\$52,360.78

# **APPENDIX F**

## MAJOR M&R PLAN BY YEAR UNDER UNLIMITED FUNDING SCENARIO TABLE

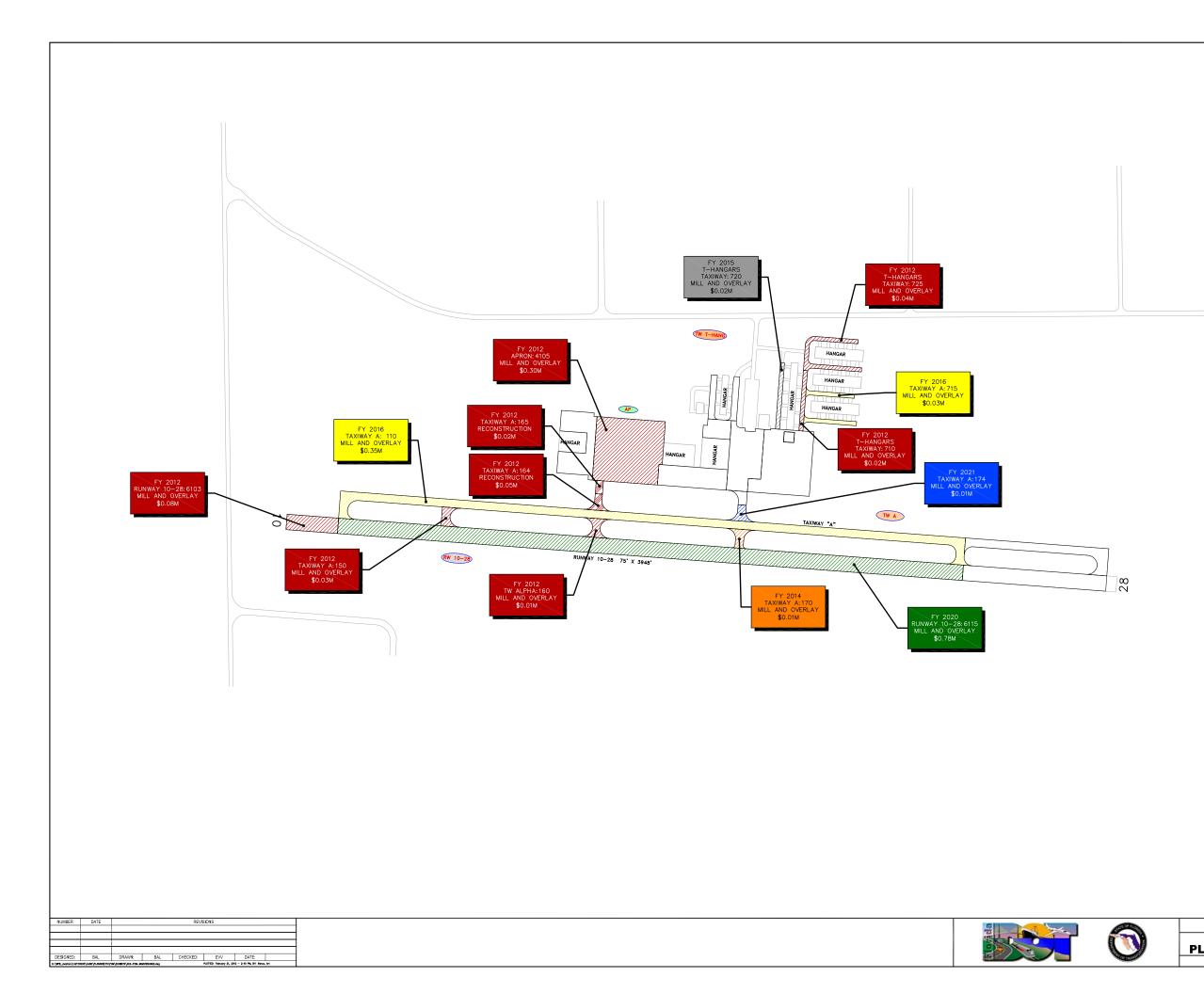
Table F-1: Major M&R	Plan by Year under	<b>Unlimited Funding Scenario</b>
J		0

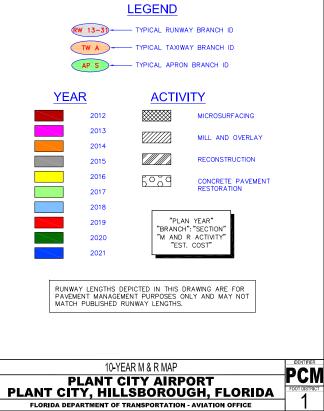
Year	Branch Name	Section ID	Surface Type	Section Area (ft <sup>2</sup> )	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
2012	Apron	4105	AC	101,892	\$301,622.32	62	Mill and Overlay	100
2012	Runway 10-28	6103	AC	18,856	\$77,569.53	58	Mill and Overlay	100
2012	Taxiway A	150	AC	4,773	\$28,098.94	52	Mill and Overlay	100
2012	Taxiway A	160	AC	5,383	\$14,420.72	63	Mill and Overlay	100
2012	Taxiway A	164	AC	3,873	\$48,484.76	32	Reconstruction	100
2012	Taxiway A	165	AC	2,323	\$20,314.09	37	Reconstruction	100
2012	T-Hangars Taxiway	710	AAC	5,895	\$19,108.55	61	Mill and Overlay	100
2012	T-Hangars Taxiway	725	AAC	13,183	\$39,024.72	62	Mill and Overlay	100
2014	Taxiway A	170	AC	4,870	\$12,387.58	64	Mill and Overlay	100
2015	T-Hangars Taxiway	720	AC	6,460	\$18,911.33	63	Mill and Overlay	100
2016	Taxiway A	110	AC	131,334	\$354,444.06	64	Mill and Overlay	100
2016	Taxiway A	715	AC	10,224	\$30,826.89	63	Mill and Overlay	100
2020	Runway 10-28	6115	AAC	228,796	\$776,468.06	63	Mill and Overlay	100
2021	Taxiway A	174	AC	4,218	\$13,197.26	64	Mill and Overlay	100
				Total	\$1,754,878.81	58		100

\* Costs are adjusted for inflation.

# **APPENDIX G**

10-YEAR M&R MAP





1

GRAPHIC SCALE IN FEET 100 200 400

# **APPENDIX H**

PHOTOGRAPHS



Runway 10-28, Section 6120, Sample Unit 362 - Low severity (48) Longitudinal and Transverse Cracking, (52) Raveling and Weathering



Runway 10-28, Section 6115, Sample Unit 316 - Low severity (52) Raveling and Weathering

Pavement Evaluation Report –Plant City Airport Florida Statewide Airfield Pavement Management Program January 2012



Taxiway Alpha, Section 110, Sample Unit 130 – Low severity (43) Block Cracking, (48) Longitudinal and Transverse Cracking, (52) Raveling and Weathering

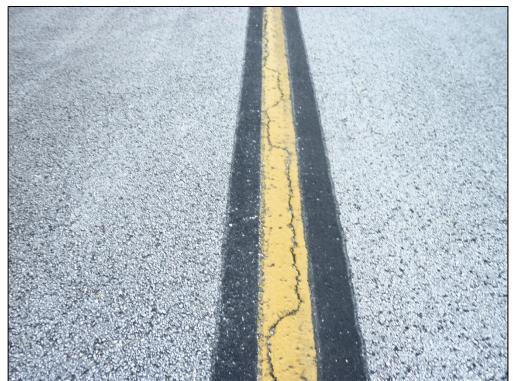


Taxiway Connector Alpha, Section 170, Sample Unit 400 – Low severity (48) Longitudinal and Transverse Cracking, (52) Raveling and Weathering

Pavement Evaluation Report –Plant City Airport Florida Statewide Airfield Pavement Management Program January 2012



Apron, Section 4105, Sample Unit 300 - Low severity (43) Block Cracking, (52) Raveling and Weathering



Taxiway T-Hangar, Section 710, Sample Unit 200 - Low severity (48) Longitudinal and Transverse Cracking, (52) Raveling and Weathering

# APPENDIX I

PCI RE-INSPECTION REPORT

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: AP	Name: APRON		Use: APRON	Area: 3	16,536.83SqFt
Section: 4105 Surface: AC Area: 101,891.79SqFt Shoulder: Street Ty Section Comments:	of 6 From: - Family: FDOT-GA-AP-AC Length: 360.00Ft ype: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 320.00Ft	Rank: P	Last Const.: 1/1/1986
Last Insp. Date11/29/2011 Conditions: PCI:63.00   Inspection Comments:	Total Samples: 29 Sur	veyed: 3			
Sample Number: 102 Sample Comments:	Type: R	Area: 6,711	.48SqFt	PCI = 64	
43 BLOCK CRACKING	5	L 6	,711.42 SqFt	Comments:	
Sample Number: 300 Sample Comments:	Туре: к	Area: 4,188	3.52SqFt	PCI = 59	
43 BLOCK CRACKING	5	L 4	,187.97 SqFt	Comments:	
52 WEATHERING/RAV	ELING	L	500.00 SqFt	Comments:	
Sample Number: 502 Sample Comments:	Туре: к	Area: 5,000	0.00SqFt	PCI = 64	
43 BLOCK CRACKING	7	L 4	,999.96 SqFt	Comments:	

Network: PCM	Name: PLANT CITY AIRPORT					
Branch: AP	Name: APRON		Use: AI	PRON	Area:	316,536.83SqFt
Section: 4110 Surface: AAC Area: 45,436.72SqFt Shoulder: Street Ty Section Comments:	of 6 From: - Family: FDOT-GA-AP-AAC Length: 320.00Ft pe: Grade: 0.00		Vidth: 100.00	gory:	Rank: P	Last Const.: 1/1/1992
Conditions: PCI:87.00	Total Samples: 11 Sur	veyed: 2				
Conditions: PCI:87.00   Inspection Comments: Sample Number: 105	Total Samples: 11 Sur Type: R	rveyed: 2 Area:	5,000.00SqFt		PCI = 95	
Conditions: PCI:87.00   Inspection Comments: Sample Number: 105 Sample Comments:	-	- 	, <b>1</b>	Ft	PCI = 95 Comment	.s:
Last Insp. Date11/29/2011 Conditions: PCI:87.00   Inspection Comments: Sample Number: 105 Sample Comments: 48 LONGITUDINAL/T: Sample Number: 606 Sample Comments:	Туре: к	Area:	, <b>1</b>	Ft		:s:

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: AP	Name: APRON		Use: APRON	Area:	316,536.83SqFt
Section: 4120 Surface: AAC Area: 46,434.32Sq Shoulder: Stre Section Comments:	of 6 From: - Family: FDOT-GA-AP-AAC Ft Length: 300.00Ft eet Type: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 140.00Ft	Rank: P	Last Const.: 1/1/1992
Last Insp. Date11/29/ Conditions: PCI:84.00 Inspection Comments:	1	rveyed: 1			
Sample Number: 20 Sample Comments:	07 Type: R AL/TRANSVERSE CRACKING	Area: 4,666.	14SqFt	PCI = 84	

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: AP	Name: APRON		Use: APRON	Area: 3	16,536.83SqFt
Section: 4130 Surface: AC Area: 80,014.00SqFt Shoulder: Street T Section Comments:	of 6 From: - Family: FDOT-GA-AP-AC Length: 300.00Ft Ype: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 250.00Ft	Rank: P	Last Const.: 1/1/1986
Last Insp. Date11/29/2011 Conditions: PCI:79.00   Inspection Comments:	Total Samples: 19 Sur	veyed: 3			
Sample Number: 108	Туре: к	Area: 5,11	2.85SqFt	PCI = 79	
Sample Comments: 48 LONGITUDINAL/	TRANSVERSE CRACKING	L	421.11 Ft	Comments:	
	Туре: к	Area: 5,00	0.00SqFt	PCI = 85	
Sample Comments:	Type: r TRANSVERSE CRACKING	Area: 5,00 L	0.00SqFt 252.06 Ft	PCI = 85 Comments:	
Sample Number: 209 Sample Comments: 48 LONGITUDINAL/ Sample Number: 610 Sample Comments:		L	Ĩ		

Network: PCM	Name: PLANT CITY AIRPOR	Т			
Branch: AP	Name: APRON		Use: APRON	Area:	316,536.83SqFt
Section: 4135 Surface: AC Area: 40,260.00SqFt Shoulder: Street	of 6 From: - Family: FDOT-GA-AP-AC Length: 305.00F Type: Grade: 0.00	Zone: t Width: Lanes: 0	To: - Category: 132.00Ft	Rank: P	Last Const.: 1/1/2008
Section Comments: Last Insp. Dat(11/29/201 Conditions: PCI:85.00   Inspection Comments:	1 Total Samples: 1 S	urveyed: 1			
Last Insp. Date11/29/201 Conditions: PCI:85.00   Inspection Comments: Sample Number: 111	1 Total Samples: 1 S Type: R		).00SqFt	PCI = 85	
Last Insp. Dat(11/29/201 Conditions: PCI:85.00   Inspection Comments:	-		).00SqFt 330.00 SqFt	PCI = 85 Comments	5:
Last Insp. Dat(11/29/201 Conditions: PCI:85.00   Inspection Comments: Sample Number: 111 Sample Comments:	-	Area: 5,000	Ĩ		

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: AP	Name: APRON		Use: APRON	Area:	316,536.83SqFt
Section: 4140 Surface: PCC Area: 2,500.00 Shoulder: Si Section Comments:	of 6 From: - Family: FDOT-GA-PCC SqFt Length: 50.00Ft treet Type: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 50.00Ft	Rank: P	Last Const.: 1/1/2010
Last Insp. Date11/2 Conditions: PCI:10 Inspection Comments:	1	urveyed: 1			
Sample Number: Sample Comments: <no distress<="" td=""><td></td><td>Area: 16.</td><td>00Slabs</td><td>PCI = 100</td><td></td></no>		Area: 16.	00Slabs	PCI = 100	

Network: PCM Name: PLANT CITY AIRPORT				
Branch: RW 10-28 Name: RUNWAY 10-28		Use: RUNWAY	Area: 30	0,151.58SqFt
Section: 6103 of 3 From: - Surface: AC Family: FDOT-GA-RW-AC Area: 18,855.83SqFt Length: 250.00Ft Shoulder: Street Type: Grade: 0.00 Section Comments:	Zone: Width Lanes: 0	To: - Category: : 75.00Ft	Rank: P	Last Const.: 1/1/2002
Last Insp. Date11/29/2011 Total Samples: 2 Sur	eveyed: 2			
Conditions: PCI:59.00   nspection Comments:				
Sample Number: 296 Type: R		250.00SqFt	PCI = 50	
Sample Number: 296 Type: R Sample Comments:	Area: 3,7	Ĩ		
Ample Number: 296 Type: R Type: R Type: R Type: R Type: R Type: R Type: R Type: R		/50.00SqFt 43.01 Ft 152.04 Ft	PCI = 50 Comments: Comments:	
Sample Number: 296 Type: R Sample Comments:	Area: 3,7 M L	43.01 Ft	Comments:	
Ample Number: 296 Type: R Sample Comments: 18 LONGITUDINAL/TRANSVERSE CRACKING 18 LONGITUDINAL/TRANSVERSE CRACKING	Area: 3,7 M L	43.01 Ft 152.04 Ft	Comments: Comments:	
nspection Comments: Sample Number: 296 Type: R Sample Comments: 18 LONGITUDINAL/TRANSVERSE CRACKING 18 LONGITUDINAL/TRANSVERSE CRACKING 19 WEATHERING/RAVELING 20 WEATHERING/RAVELING Sample Number: 298 Type: R	Area: 3,7 M L M L	43.01 Ft 152.04 Ft 1,249.99 SqFt	Comments: Comments: Comments:	
nspection Comments: Sample Number: 296 Type: R Sample Comments: 18 LONGITUDINAL/TRANSVERSE CRACKING 18 LONGITUDINAL/TRANSVERSE CRACKING 20 WEATHERING/RAVELING 21 WEATHERING/RAVELING	Area: 3,7 M L M L	43.01 Ft 152.04 Ft 1,249.99 SqFt 2,499.98 SqFt	Comments: Comments: Comments: Comments:	

Network: PCM Name: PLANT CITY AIRPORT						
Branch: RW 10-28 Name: RUNWAY 10-28			Use: RI	JNWAY	Area:	300,151.58SqFt
Section: 6115 of 3 From: - Surface: AAC Family: FDOT-GA-RW-AAC Area: 228,795.75SqFt Length: 3,050.61Ft Shoulder: Street Type: Grade: 0.00 Section Comments:	Lanes:	Zone: Width: 0	To: - Categ 75.00	gory:	Rank: P	Last Const.: 1/1/1983
Last Insp. Date11/29/2011 Total Samples: 47 Sur- Conditions: PCI:80.00   nspection Comments:	veyed: 13	3				
Sample Number: 301 Type: R Sample Comments:	Area:	3,750.	00SqFt		PCI = 81	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	104.03	Ft	Comments	:
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments	:
56 SWELLING		L	8.00	SqFt	Comments	:
Sample Number: 306 Type: R Sample Comments:	Area:	3,750.	00SqFt		PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	74.02	Ft	Comments	:
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments	:
Sample Number: 311 Type: R Sample Comments:	Area:	3,750.	00SqFt		PCI = 71	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	113.03	Ft	Comments	:
52 WEATHERING/RAVELING		М	16.00	SqFt	Comments	:
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments	:
52 WEATHERING/RAVELING		М	300.00	SqFt	Comments	:
Sample Number: 316 Type: R Sample Comments:	Area:	3,750.	00SqFt		PCI = 76	
52 WEATHERING/RAVELING		М	150.00		Comments	:
52 WEATHERING/RAVELING		L	624.99		Comments	
52 WEATHERING/RAVELING		M	8.00	-	Comments	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	70.02	Ft	Comments	:
Sample Number: 321 Type: R	Area:	3,750.	00SqFt		PCI = 74	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING		L	39.01	Ft	Comments	:
52 WEATHERING/RAVELING			499.99		Comments	
52 WEATHERING/RAVELING		L ,	624.99		Comments	
Sample Number: 326 Type: R Sample Comments:	Area:	3,750.	00SqFt		PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	55.01	Ft	Comments	:
52 WEATHERING/RAVELING		L	20.00	SqFt	Comments	:
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments	:
Sample Number: 331 Type: R Sample Comments:	Area:	3,750.	00SqFt	_	PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	52.01		Comments	:
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments	:
Sample Number: 336 Type: R Sample Comments:	Area:	3,750.	00SqFt	_	PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	91.02	Ft	Comments	:

52 WEATHERING/RAVELING		L	624.99	SaFt	Comments:	
52 WEATHERING/RAVELING		L	36.00	-	Comments:	
				-		
Sample Number: 342 Type: R	Area:		3,750.00SqFt		PCI = 82	
Sample Comments:			, <b>1</b>			
48 LONGITUDINAL/TRANSVERSE CRACKING		L	44.01	-	Comments:	
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments:	
Sample Number: 346 Type: R	Area:		3,750.00SqFt		PCI = 83	
Sample Comments: 52 WEATHERING/RAVELING		L	30.00	SaFt	Comments:	
52 WEATHERING/RAVELING		L	624.99		Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	19.00	-	Comments:	
		-	19.00	10		
Sample Number: 351 Type: R Sample Comments:	Area:		3,750.00SqFt		PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	74.02	Ft	Comments:	
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments:	
Sample Number: 356 Type: R	Area:		3,750.00SqFt		PCI = 82	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING		L	119.03	<del>।</del> न्य	Comments:	
52 WEATHERING/RAVELING		L	624.99	-	Comments:	
			021.99	bqrc		
Sample Number: 360 Type: R Sample Comments:	Area:		3,750.00SqFt		PCI = 82	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	91.02	Ft	Comments:	
52 WEATHERING/RAVELING		L	624.99	SqFt	Comments:	
52 WEATHERING/RAVELING		L	85.00		Comments:	
52 WEATHERING/RAVELING		L		SqFt	Comments:	
				-		

Network: PCM	Name: PLANT CITY AIRPORT						
Branch: RW 10-28	Name: RUNWAY 10-28			Use: RI	JNWAY	Area:	300,151.58SqFt
Section: 6120 o Surface: AC Area: 52,500.00SqFt Shoulder: Street Typ Section Comments:	Family: FDOT-GA-RW-AC Length: 700.00Ft	Lanes:	Zone: Width: 0	To: - Categ 75.00	gory:	Rank: P	Last Const.: 1/1/2002
Last Insp. Date11/29/2011 Conditions: PCI:82.00   Inspection Comments:	Total Samples: 3 Sur	eveyed: 3					
Sample Number: 362	Type: R	Area:	3,750.0	0SqFt		PCI = 82	
Sample Comments: 48 LONGITUDINAL/TR	ANSVERSE CRACKING		L	81.02	Ft	Comments	5:
52 WEATHERING/RAVE			L (	524.99		Comments	5:
Sample Number: 366 Sample Comments:	Туре: к	Area:	3,750.0	0SqFt		PCI = 82	
48 LONGITUDINAL/TR	ANSVERSE CRACKING		L	39.01	Ft	Comments	5:
52 WEATHERING/RAVE	LING		L (	524.99	SqFt	Comments	5:
Sample Number: 370 Sample Comments:	Туре: к	Area:	3,750.0	0SqFt		PCI = 82	
52 WEATHERING/RAVE			L	27.00		Comments	5:
48 LONGITUDINAL/TR			L	76.02	-	Comments	
52 WEATHERING/RAVE 52 WEATHERING/RAVE			L T. (	20.00		Comments	

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: TWA	Name: TAXIWAY A		Use: TAXIWAY	Area:	218,006.24SqFt
Section: 105 Surface: AC Area: 24,000.00SqFt Shoulder: Street Section Comments:	of 10 From: - Family: FDOT-GA-TW-AC Length: 600.00Ft Type: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 40.00Ft	Rank: P	Last Const.: 1/1/2001
NOTE: *** Pre-Const Last Insp. Dat(3/12/1999 Conditions: PCI:66.00   nspection Comments: IMPOR	Total Samples: 6 Su	rveyed: 2			
Sample Number: 101 Sample Comments:	Туре: к	Area: 4,000	.00SqFt	PCI = 68	
	Туре: к		.00SqFt ,000.00 SqFt 375.00 Ft	PCI = 68 Comments Comments	
Sample Comments: 52 WEATH/RAVEL	Туре: к Туре: к	L 4 L	,000.00 SqFt	Comments	

Network: PCM Name: PLANT CITY AIRPORT				
Branch: TWA Name: TAXIWAY A		Use: TAXIWAY	Area: 2	18,006.24SqFt
Section:110of10From: -Surface:ACFamily:FDOT-GA-TW-ACArea:131,334.35SqFtLength:2,500.00FtShoulder:Street Type:Grade:0.00Section Comments:Grade:0.00		To: - Cone: Category: Width: 40.00Ft	Rank: P	Last Const.: 1/1/2001
Last Insp. Datc11/29/2011 Total Samples: 25 Sur Conditions: PCI:72.00   Inspection Comments:	rveyed: 6			
Sample Number: 101 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 73	
48 LONGITUDINAL/TRANSVERSE CRACKING	I	241.06 Ft	Comments:	:
52 WEATHERING/RAVELING	I	, <sub>1</sub>		:
52 WEATHERING/RAVELING	Ι	1 156.00 SqFt	Comments:	:
Sample Number: 105 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 79	
48 LONGITUDINAL/TRANSVERSE CRACKING	I	214.05 Ft	Comments:	:
52 WEATHERING/RAVELING	I	1,199.99 SqFt	Comments:	
Sample Number: 107 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 76	
48 LONGITUDINAL/TRANSVERSE CRACKING	I	287.07 Ft	Comments:	:
52 WEATHERING/RAVELING	1	1,199.99 SqFt	Comments:	:
Sample Number: 115 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 79	
48 LONGITUDINAL/TRANSVERSE CRACKING	1		Comments	
52 WEATHERING/RAVELING	]	1,199.99 SqFt	Comments:	
Sample Number: 123 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 66	
50 PATCHING	I	1	Comments:	:
48 LONGITUDINAL/TRANSVERSE CRACKING	I		Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	I		Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	I		Comments:	
52 WEATHERING/RAVELING	1	1,199.99 SqFt	Comments:	
Sample Number: 130 Type: R Sample Comments:	Area:	4,000.00SqFt	PCI = 62	
43 BLOCK CRACKING	I		Comments:	:
48 LONGITUDINAL/TRANSVERSE CRACKING	1		Comments:	
52 WEATHERING/RAVELING	1	1,199.99 SqFt	Comments:	:

Branch: TW A Name: TAXIWAY A		Use: TAX	KIWAY Area:	218,006.24SqFt
Section:115of10From: -Surface:ACFamily:FDOT-GA-TW-ACArea:34,041.02SqFtLength:700.00FtShoulder:Street Type:Grade:0.00Section Comments:Last Insp. Dat(11/29/2011Total Samples:2	V Lanes: 0	To: - one: Catego Vidth: 40.00F	•	Last Const.: 1/1/2001
Bust hisp. Dutti 12/2011 Total Sumples. 2 Su	rveyed: 2			
Conditions: PCI:81.00	rveyed: 2			
Conditions: PCI:81.00   Inspection Comments: Sample Number: 135 Type: R	Area:	4,000.00SqFt	PCI = 79	
Conditions: PCI:81.00   Inspection Comments: Sample Number: 135 Type: R Sample Comments:		, <b>1</b>		cs:
Conditions: PCI:81.00   Inspection Comments: Sample Number: 135 Type: R Sample Comments:	Area:	, <b>1</b>	SqFt Comment	
Conditions: PCI:81.00   Inspection Comments: Sample Number: 135 Type: R Sample Comments: 52 WEATHERING/RAVELING 48 LONGITUDINAL/TRANSVERSE CRACKING Sample Number: 600 Type: R	Area:	1,199.99 \$	SqFt Comment	
Conditions: PCI:81.00   Inspection Comments: Sample Number: 135 Type: R Sample Comments: 52 WEATHERING/RAVELING 48 LONGITUDINAL/TRANSVERSE CRACKING	Area:	1,199.99 s 34.01 s	SqFt Comment Ft Comment PCI = 82	s:

Network: PCM Nai	me: PLANT CITY AIRPORT				
Branch: TWA Nat	me: TAXIWAY A		Use: TAXIWAY	Area:	218,006.24SqFt
Section: 150 of Surface: AC F Area: 4,772.66SqFt Shoulder: Street Type:	10 From: - Camily: FDOT-GA-TW-AC Length: 120.00Ft Grade: 0.00	Zor Wi Lanes: 0	To: - ne: Category: idth: 35.00Ft	Rank: P	Last Const.: 1/1/2001
Last Insp. Date11/29/2011 To Conditions: PCI:53.00	tal Samples: 1 Sur	veyed: 1			
Section Comments: Last Insp. Dat(11/29/2011 To Conditions: PCI:53.00   Inspection Comments: Sample Number: 200 Sample Comments:	tal Samples: 1 Sur Type: R	veyed: 1 Area:	4,772.66SqFt	PCI = 53	

Network: PCM Name: PLANT CITY AIRPORT				
Branch: TW A Name: TAXIWAY A		Use: TAXIWAY	Area:	218,006.24SqFt
Section:160of10From: -Surface:ACFamily:FDOT-GA-TW-ACArea:5,382.81SqFtLength:125.00FtShoulder:Street Type:Grade:0.00	Zone: Width: Lanes: 0	To: - Category: 40.00Ft	Rank: P	Last Const.: 1/1/2001
Last Insp. Date11/29/2011 Total Samples: 2 Su Conditions: PCI:64.00	rveyed: 1			
Section Comments: Last Insp. Date:11/29/2011 Total Samples: 2 Su: Conditions: PCI:64.00   Inspection Comments: Sample Number: 300 Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING		.81SqFt 243.06 Ft	PCI = 64 Comments	

Network: PCM Name: PLANT CITY AIRPORT				
Branch: TWA Name: TAXIWAY A		Use: TAXIWAY	Area:	218,006.24SqFt
Section: 164 of 10 From: - Surface: AC Family: FDOT-GA-TW-AC Area: 3,873.01SqFt Length: 100.00Ft Shoulder: Street Type: Grade: 0.00 Section Comments:	Zone: Width: Lanes: 0	To: - Category: 35.00Ft	Rank: P	Last Const.: 1/1/2001
	rveyed: 1			
	rveyed: 1			

Network: PC	СМ	Name: PLANT CITY AIRPORT					
Branch: TV	WA	Name: TAXIWAY A			Use: TAXIWAY	Area:	218,006.24SqFt
Shoulder:		of 10 From: - Family: FDOT-RL-TW-AC Length: 65.00Ft ype: Grade: 0.00	Lanes	Zone: Width:	To: - Category: 35.00Ft	Rank: P	Last Const.: 1/1/2001
Section Commen	nts:						
Section Commen Last Insp. Da Conditions: F Inspection Comm	ate11/29/2011 PCI:38.00	Total Samples: 1 Su	irveyed:	I			
Last Insp. Da Conditions: F	atc11/29/2011 PCI:38.00   ments:	Total Samples: 1 Su Type: R	rveyed:		29SqFt	PCI = 38	

Network: PCM	Name: PLANT CITY AIRPORT	Г				
Branch: TW A	Name: TAXIWAY A			Use: TAXIWAY	Area:	218,006.24SqFt
Section: 170	of 10 From: -			То: -		Last Const.: 1/1/2001
Surface: AC	Family: FDOT-GA-TW-AC		Zone:	Category:	Rank: P	
Area: 4,869.585	qFt Length: 125.00Ft		Width:	40.00Ft		
Shoulder: Str	ceet Type: Grade: 0.00	Lanes:	0			
	Grade: 0.00	Lanes.	0			
Section Comments:	Grade: 0.00	Lanes.	0			
Section Comments: Last Insp. Datc11/29 Conditions: PCI:68.0	9/2011 Total Samples: 2 Su	urveyed: 1				
Section Comments: Last Insp. Date11/29 Conditions: PCI:68.0 Inspection Comments: Sample Number: 4	9/2011 Total Samples: 2 Su 00			58SqFt	PCI = 68	
Section Comments: Last Insp. Date11/29 Conditions: PCI:68.( Inspection Comments: Sample Number: 4 Sample Comments:	9/2011 Total Samples: 2 Su 00	urveyed: 1	4,869.:	588qFt 435.11 Ft	PCI = 68 Comments	3:

Network: PC	СМ	Name: PLANT CITY AIR	PORT				
Branch: T	W A	Name: TAXIWAY A			Use: TAXIWAY	Area:	218,006.24SqFt
Surface: A	C 218.21SqFt	0	.00Ft	Zone: Width	To: - Category: n: 40.00Ft	Rank: P	Last Const.: 1/1/2001
Shouldel. Section Commer	Street Ty	pe: Grade: 0.00	Lan	ies: 0			
	nts: pate11/29/2011 PCI:80.00	Total Samples: 1	Lan Surveyed:				

Network:	PCM	Name: PI	LANT CITY AIR	PORT				
Branch:	TW A	Name: T.	AXIWAY A			Use: TAXIWAY	Area:	218,006.24SqFt
Section: Surface: Area: Shoulder: Section Com		Len	From: - FDOT-GA-TW gth: 70 Grade: 0.00	.00Ft	Zone: Width: es: 0	To: - Category: 40.00Ft	Rank: P	Last Const.: 1/1/2001
-	. Date11/29/2011 as: PCI:95.00   omments:	Total Sa	mples: 1	Surveyed:	1			
Sample N Sample Com	umber: 402	Туре	e: R	Area	: 3,19	1.31SqFt	PCI = 95	

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: TW T-HANG	Name: T-HANGARS TAXIWAY		Use: TAXIWAY	Area:	48,804.98SqFt
Section: 705 Surface: AAC Area: 13,043.23SqFt Shoulder: Street Section Comments:	of 5 From: - Family: FDOT-GA-TW-AAC Length: 435.00Ft Type: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 30.00Ft	Rank: P	Last Const.: 1/1/1992
Last Insp. Date11/29/20 Conditions: PCI:82.00   Inspection Comments:	11 Total Samples: 3 Sur	veyed: 1			
Sample Number: 100 Sample Comments:	Type: R /TRANSVERSE CRACKING	Area: 3,000.0	00SqFt 194.05 Ft	PCI = 82 Comments	

Network: PCM Name: PLANT	T CITY AIRPORT				
Branch: TW T-HANG Name: T-HAN	NGARS TAXIWAY		Use: TAXIWAY	Area:	48,804.98SqFt
Surface:AACFamily: FDArea:5,895.13SqFtLength:	From: - OT-GA-TW-AAC : 300.00Ft Grade: 0.00 Lane	Zone: Width: es: 0	To: - Category: 20.00Ft	Rank: P	Last Const.: 1/1/1986
Last Insp. Date11/29/2011 Total Sample Conditions: PCI:62.00   Inspection Comments:	es: 2 Surveyed:	1			

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: TW T-HANG	Name: T-HANGARS TAXIWAY		Use: TAXIWAY	Area:	48,804.98SqFt
Section: 715 Surface: AC Area: 10,223.58SqFt Shoulder: Street 7 Section Comments:	of 5 From: - Family: FDOT-GA-TW-AC Length: 500.00Ft Type: Grade: 0.00	Zon Wi Lanes: 0	To: - e: Category: dth: 20.00Ft	Rank: P	Last Const.: 1/1/1997
Last Insp. Date11/29/2011 Conditions: PCI:71.00   Inspection Comments:	1 Total Samples: 1 Sur	veyed: 1			
Conditions: PCI:71.00	1 Total Samples: 1 Sur Type: R	veyed: 1 Area:	4,911.68SqFt	PCI = 71	

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: TW T-HANG	Name: T-HANGARS TAXIWAY		Use: TAXIWAY	Area:	48,804.98SqFt
Section: 720 Surface: AC Area: 6,460.00SqFt Shoulder: Street T Section Comments:	of 5 From: - Family: FDOT-GA-TW-AC Length: 323.00Ft Sype: Grade: 0.00	Zone Wid Lanes: 0	0.0	Rank: P	Last Const.: 1/1/1986
Section Comments.					
Last Insp. Date11/29/2011 Conditions: PCI:69.00   Inspection Comments:	Total Samples: 2 Sur	veyed: 1			
Last Insp. Date11/29/2011 Conditions: PCI:69.00	Total Samples: 2 Sur Type: R		4,000.00SqFt	PCI = 69	

Network: PCM	Name: PLANT CITY AIRPORT				
Branch: TW T-HANG	Name: T-HANGARS TAXIWAY		Use: TAXIWAY	Area:	48,804.98SqFt
Section: 725 Surface: AAC Area: 13,183.04SqFt Shoulder: Street 7	of 5 From: - Family: FDOT-GA-TW-AAC Length: 600.00Ft Type: Grade: 0.00	Zone: Width: Lanes: 0	To: - Category: 20.00Ft	Rank: P	Last Const.: 1/1/1997
Section Comments:					
Section Comments: Last Insp. Dat(11/29/2011 Conditions: PCI:63.00   Inspection Comments:	Total Samples: 1 Sur	rveyed: 1			