

**STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
AVIATION OFFICE**

**Statewide Airfield Pavement
Management Program**

**Dade-Collier Training and Transition Airport– TNT
(General Aviation)
Miami, Florida
(District 6)**



May 2012

TABLE OF CONTENTS

	PAGE NO.
Executive Summary	iii
1. Introduction.....	1
2. Network Definition and Pavement Inventory	10
3. Pavement Condition.....	14
4. Pavement Condition Prediction	19
5. Maintenance Policies and costs	20
6. Pavement Rehabilitation Needs Analysis	26
7. Maintenance and Rehabilitation Plan	30
8. Visual Aids.....	31
9. Recommendations.....	32

LIST OF FIGURES

Figure 1-1: Pavement Life Cycle.....	4
Figure 1-2: PCI Rating Scale	6
Figure 2-1: Pavement Area by Surface Type.....	12
Figure 3-1: Network PCI Distribution by Rating Category	16
Figure 3-1a: Condition Rating Summary.....	16
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use.....	17
Figure 4-1: Predicted PCI by Pavement Use	19
Figure 6-1: Budget Scenario Analysis	29

LIST OF TABLES

Table I: Condition Summary by Branch.....	iv
Table II: Condition Summary by Pavement Use	iv
Table III: Condition Summary by Pavement Rank.....	iv
Table IV: Immediate Major M&R Needs	v
Table V: 10-Year M&R Costs under Unlimited Funding Scenario	v
Table 1-1: Sampling Rate for FDOT Condition Surveys	5
Table 2-1: Construction Since Last Inspection & Anticipated Construction Activity	11
Table 2-2: Pavement Area by Pavement Use	11
Table 2-3: Branch and Section Inventory	13
Table 3-1: Pavement Distresses for Asphalt Concrete Surfaces.....	14
Table 3-2: Condition by Pavement Use	16
Table 5-1: Routine Maintenance Activities for Airfield Pavements	21
Table 5-2: Critical PCI for General Aviation Airports	22
Table 5-3: FDOT Minimum Service Level PCI for General Aviation Airports.....	22
Table 5-4: M&R Activities for General Aviation Airports	23
Table 5-5: Maintenance Unit Costs for FDOT	24
Table 5-6: M&R Activities and Unit Costs by Condition for General Aviation Airports...	25
Table 6-1: Summary of Immediate Major M&R Needs Option No. 1	26
Table 6-2: Summary of Immediate Major M&R Needs Option No. 2.....	26

TABLE OF CONTENTS

	<u>PAGE NO.</u>
Table 6-3: Summary of Year 1 Maintenance Activities	28
Table 7-1: M&R Costs under Unlimited Funding Scenario	30

APPENDICES

Appendix A	Network Definition Map
	System Inventory Map
	Pavement Inventory Table
	Work History Report
Appendix B	2012 Condition Map
	Pavement Condition Index Table
Appendix C	Branch Condition Report
	Section Condition Report
Appendix D	Pavement Condition Prediction Table
	Predicted PCI by Pavement Use Graph
Appendix E	Year 1 Maintenance Activities Table
Appendix F	Major M&R Plan by Year under Unlimited Funding Scenario Table
Appendix G	10-Year M&R Map
Appendix H	Photographs
Appendix I	PCI Re-inspection Report

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 Dade-Collier Training and Transition 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 Dade-Collier Training and Transition Airport, and
- Provide the estimated costs associated with the suggested immediate and future M&R activities

During April 2012, the PCI survey was performed at Dade-Collier Training and Transition 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 2012 is 74, representing a Satisfactory overall network condition.

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

Table I: Condition Summary by Branch

Branch Name	Area Weighted PCI	Area Weighted PCI Range	Condition Rating	FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required
North Apron	64	64	Fair	60	65	X
Runway 9-27	70	69 - 72	Fair	75	65	
Taxiway Alpha	78	78 - 81	Satisfactory	65	65	
Taxiway A-1	45	38 - 85	Poor	65	65	X
Taxiway A-2	90	90	Good	65	65	
Taxiway A-3	85	85	Satisfactory	65	65	
Taxiway A-4	83	83	Satisfactory	65	65	
Taxiway A-5	82	82	Satisfactory	65	65	
Taxiway A-6	68	67 - 80	Fair	65	65	
Taxiway Bravo	71	68 - 74	Satisfactory	65	65	

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

Table II: Condition Summary by Pavement Use

Use	Average Area-Weighted PCI	Condition Rating
Runway	70	Fair
Taxiway	78	Satisfactory
Apron	64	Fair
All (Weighted)	74	Satisfactory

Table III: Condition Summary by Pavement Rank

Rank*	Average Area-Weighted PCI	Condition Rating
Primary	74	Satisfactory
All (Weighted)	74	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 Dade-Collier Training and

Transition Airport, include: the North Apron and Taxiway A-1. The immediate needs are summarized in Table IV below.

Table IV: Immediate Major M&R Needs

Branch Name	Section ID	Surface Type	Section Area (ft ²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4105	AAC	49,500	\$115,236.07	64	Mill and Overlay	100
Taxiway A-1	120	AC	67,736	\$525,361.47	38	Reconstruction	100
				\$640,597.54	51		100

* 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	\$665,866.87	\$640,597.54	\$1,306,464.41
2013	\$564,025.87	\$0.00	\$564,025.87
2014	\$611,402.34	\$293,675.75	\$905,078.09
2015	\$395,453.64	\$2,984,293.91	\$3,379,747.55
2016	\$427,881.02	\$33,346.98	\$461,228.00
2017	\$335,666.32	\$1,416,865.66	\$1,752,531.98
2018	\$357,467.48	\$269,552.81	\$627,020.29
2019	\$405,876.77	\$21,294.15	\$427,170.92
2020	\$206,992.89	\$2,162,749.43	\$2,369,742.32
2021	\$236,858.50	\$251,087.03	\$487,945.53
Total	\$4,207,491.70	\$8,073,463.26	\$12,280,954.96

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 74 in 2012 to 87 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 Dade-Collier Training and Transition Airport pavements in 2021 may remain near 73. 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 Dade-Collier Training and Transition 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.

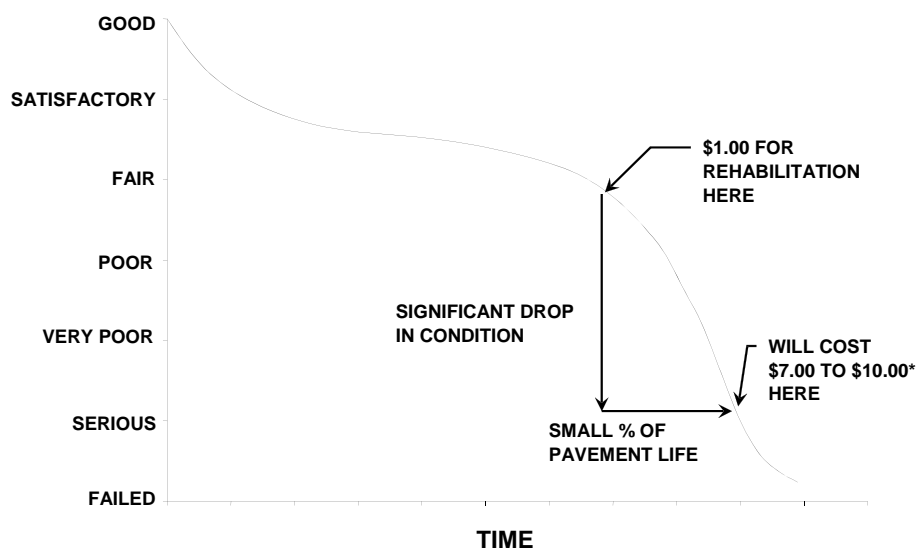
A small percentage of the airport pavements in Florida are composed of asphalt concrete surface over Portland Cement Concrete (APC). This pavement type is known as “composite” pavement.

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 occurs is much less compared to maintaining pavements after substantial 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 ± 2000 square feet for AC-surfaced pavements and 20 ± 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.

Table 1-1: Sampling Rate for FDOT Condition Surveys

AC Pavements			PCC Pavements		
N	n		N	n	
	Runway	Others		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 ≤20	10% but ≤10	31-40	8	4
			41-50	10	5
			≥51	20% but ≤20	10% but ≤10

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 nonrepresentative 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.

Figure 1-2: PCI Rating Scale

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

1.5 Definitions

Aviation Office - 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.

Base Course - 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.

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

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

Category - 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).

Critical PCI - 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.

Distress Type - 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.

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

Global M&R - 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.

Major M&R (e.g. Rehabilitation) - 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.

MicroPAVER - 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.

Minimum Condition Level - 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.

Network Definition - 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.

Pavement Condition Index (PCI) - 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.

Pavement Evaluation - 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.

Pavement Management System (PMS) - 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.

Pavement Surface Type - 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.

Rank - 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.

Reconstruction - 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.

Rehabilitation - 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.

Sample Unit - 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 ± 8 slabs for PCC-surfaced pavements.

Section - 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.

Section ID - 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.

Statewide Airfield Pavement Management Program (SAPMP) – 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.

System Inventory - 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.

Use - 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

Dade-Collier Training and Transition Airport (TNT) consists of one runway, designated as Runway 9-27, which is 10,499-ft long by 150-ft wide. Parallel Taxiway Alpha, which is 75-ft wide, and its associated taxiway connectors are used to navigate throughout the airfield. Taxiway Bravo leads north from Taxiway Alpha to the airport's North Apron. All of the airfield pavements are constructed out of asphalt concrete pavement. This airport is designated as a General Aviation airport and is located in District 6 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.

Dade-Collier Training and Transition Airport was established in 1968 as Everglades Jetport. The primary purpose of this airport is to provide a precision instrument landing and training facility in Southern Florida for commercial pilots, private training, and a small number of military touch and-goes. Commercial jet aircraft are the largest class of airplanes that use the airport on a regular basis.

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 2012 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 Dade-Collier Training and Transition 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 Construction Activity

Construction Year	Location	Work Type/Pavement Section
No recent activity information provided		

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 99 sample units.

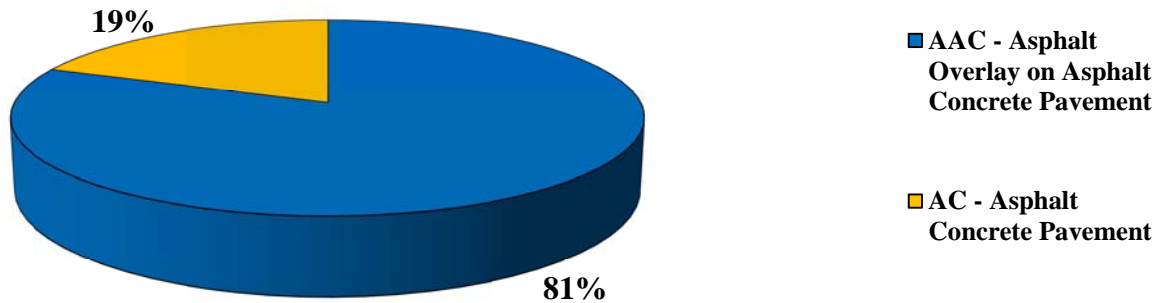
The total airfield pavement area in 2012 at Dade-Collier Training and Transition Airport is 3,398,587 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

Table 2-2: Pavement Area by Pavement Use

Use	Area (ft ²)	% of Total Area
Runway	1,575,000	46%
Taxiway	1,774,087	52%
Apron	49,500	1%
All (Weighted)	3,398,587	100%

Figure 2-1 presents the breakdown of the pavement area at Dade-Collier Training and Transition 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.

Table 2-3: Branch and Section Inventory

Branch Name	Branch ID	Section ID	True Area (ft²)	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Total Samples
North Apron	AP N	4105	49,500	P	AAC	1/1/1991	2	13
Runway 9-27	RW 9-27	6105	525,000	P	AC	1/1/1991	20	105
Runway 9-27	RW 9-27	6110	1,050,000	P	AAC	1/1/1991	20	210
Taxiway Alpha	TW A	105	733,373	P	AAC	1/1/1991	15	196
Taxiway Alpha	TW A	110	75,225	P	AAC	1/1/1991	3	14
Taxiway Alpha	TW A	180	75,225	P	AAC	1/1/1991	3	14
Taxiway A-1	TW A1	120	67,736	P	AC	1/1/1968	3	15
Taxiway A-1	TW A1	123	7,437	P	AAC	1/1/1991	1	2
Taxiway A-1	TW A1	126	7,437	P	AAC	1/1/1991	1	2
Taxiway A-2	TW A2	130	107,503	P	AAC	1/1/1991	4	28
Taxiway A-3	TW A3	140	187,363	P	AAC	1/1/1991	5	42
Taxiway A-4	TW A4	150	187,363	P	AAC	1/1/1991	5	41
Taxiway A-5	TW A5	160	107,503	P	AAC	1/1/1991	4	28
Taxiway A-6	TW A6	170	67,736	P	AC	1/1/1968	3	13
Taxiway A-6	TW A6	173	7,437	P	AAC	1/1/1991	1	2
Taxiway A-6	TW A6	176	7,437	P	AAC	1/1/1991	1	2
Taxiway Bravo	TW B	205	86,792	P	AAC	1/1/1991	4	22
Taxiway Bravo	TW B	210	5,290	P	AAC	1/1/1991	1	1
Taxiway Bravo	TW B	215	43,228	P	AAC	1/1/1991	3	12

Note: If a 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. Table 3-1 below lists the pavement distress types and related causes for asphalt concrete (AC).

Table 3-1: Pavement Distresses for Asphalt Concrete Surfaces

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
<i>Source: U.S. Army CERL, FDOT Airfield Inspection Reference Manual</i>		

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 Dade-Collier Training and Transition Airport were performed in April 2012. 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 2012 survey, the overall area-weighted PCI at Dade-Collier Training and Transition Airport is 74, representing a Satisfactory overall network condition.

Overall, the airport exhibited pavement distresses associated with climate and age. The asphalt concrete pavement distresses that were most commonly observed include weathering and raveling, longitudinal and transverse cracking, and swelling. Also observed were block cracking and patching. Rutting, which is a structural distress typically caused by repeated traffic loading or inadequate pavement strength, was found in one isolated area on Taxiway Alpha.

Runway 9-27 is surfaced with asphalt concrete and exhibited low to medium severity weathering and raveling; low severity longitudinal and transverse cracking; and low severity swelling. Runway 9-27 has an average PCI of 70 with a condition rating of Fair. It is currently above the FAA minimum PCI level, although it is below the FDOT minimum PCI level.

The taxiways are all surfaced with asphalt concrete pavement and exhibited similar distresses. Weathering and raveling and longitudinal and transverse cracking were found on all taxiway pavements and typically were low severity, although medium severity weathering and raveling was present throughout Taxiway A-1. Low severity swelling was found on the majority of the taxiways, and low severity block cracking was found in isolated areas. One isolated area of rutting was recorded on Taxiway Alpha.

Similarly to the paved surfaces throughout the airfield, the North Apron is surfaced with asphalt concrete. Low severity weathering and raveling, longitudinal and transverse cracking, and patching were observed on the North Apron.

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 Dade-Collier Training and Transition Airport.

Figure 3-1: Network PCI Distribution by Rating Category

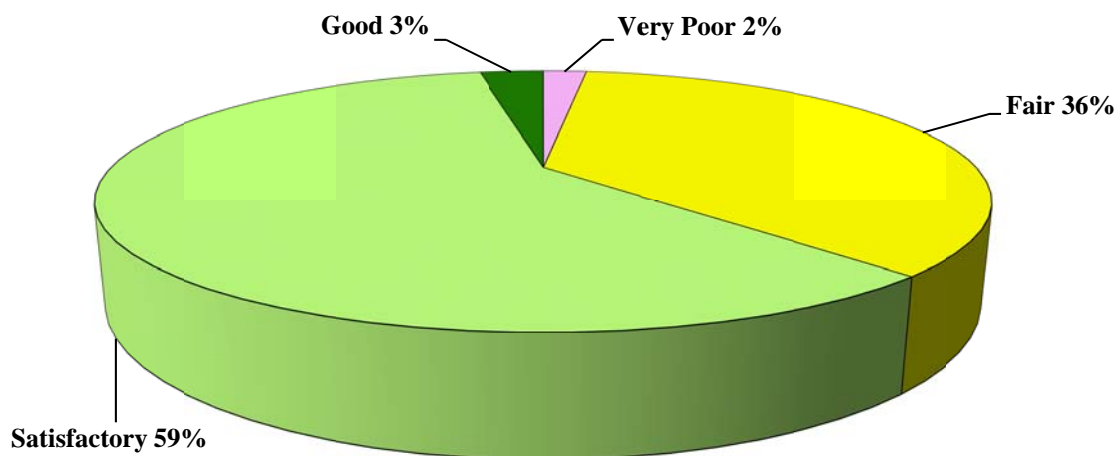


Figure 3-1a: Condition Rating Summary

Condition Rating	Total Area (ft ²)	Percent
Good	107,503	3%
Satisfactory	2,012,884	59%
Fair	1,210,465	36%
Poor	0	0%
Very Poor	67,736	2%
Serious	0	0%
Failed	0	0%

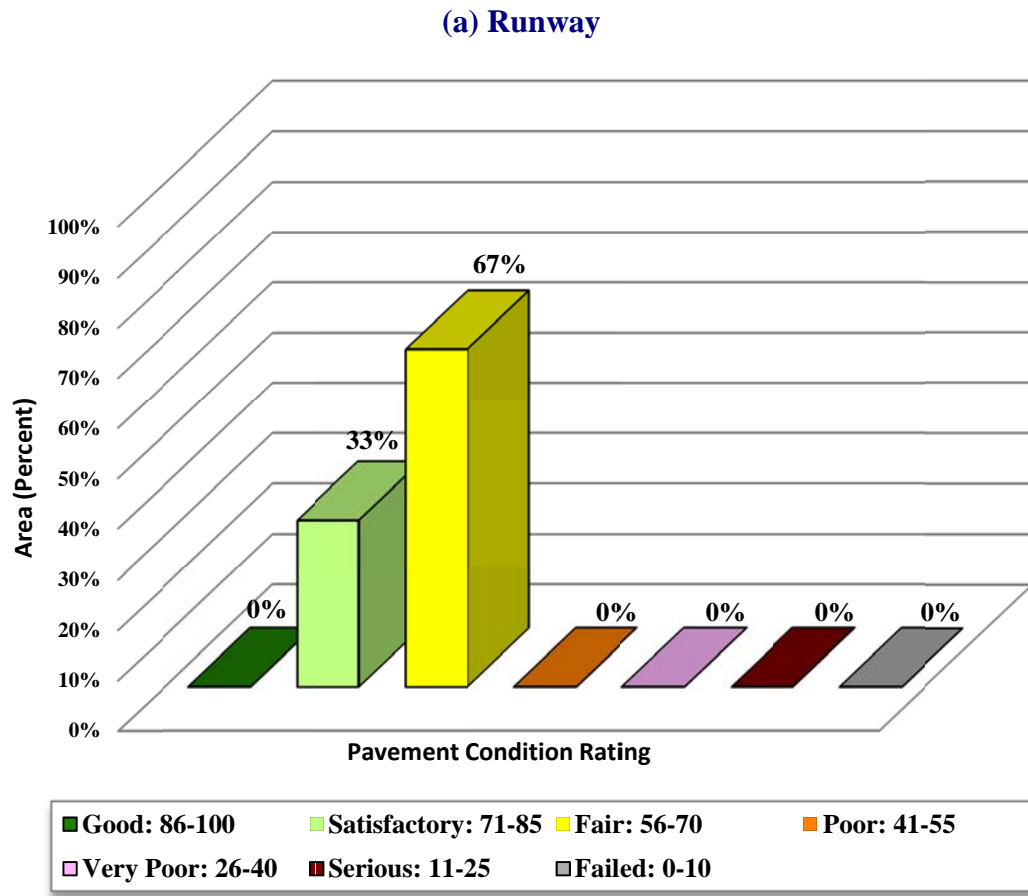
Approximately 62% of the network is in Good and Satisfactory condition while the remaining 38% of the network is in Fair and Very Poor condition. Table 3-2 illustrates the area-weighted PCI computed individually for each pavement use.

Table 3-2: Condition by Pavement Use

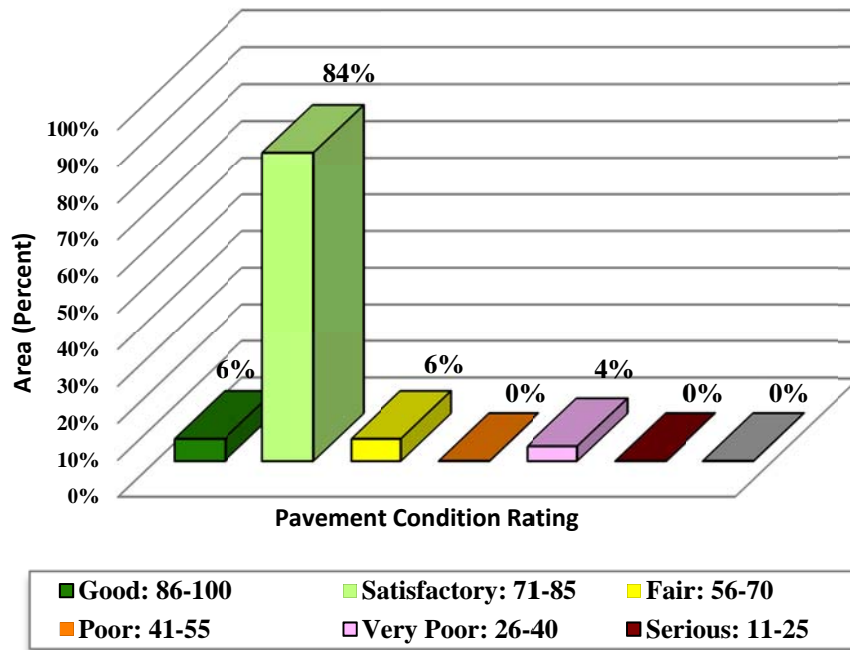
Use	Average Area-Weighted PCI	Condition Rating
Runway	70	Fair
Taxiway	78	Satisfactory
Apron	64	Fair
All (Weighted)	74	Satisfactory

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

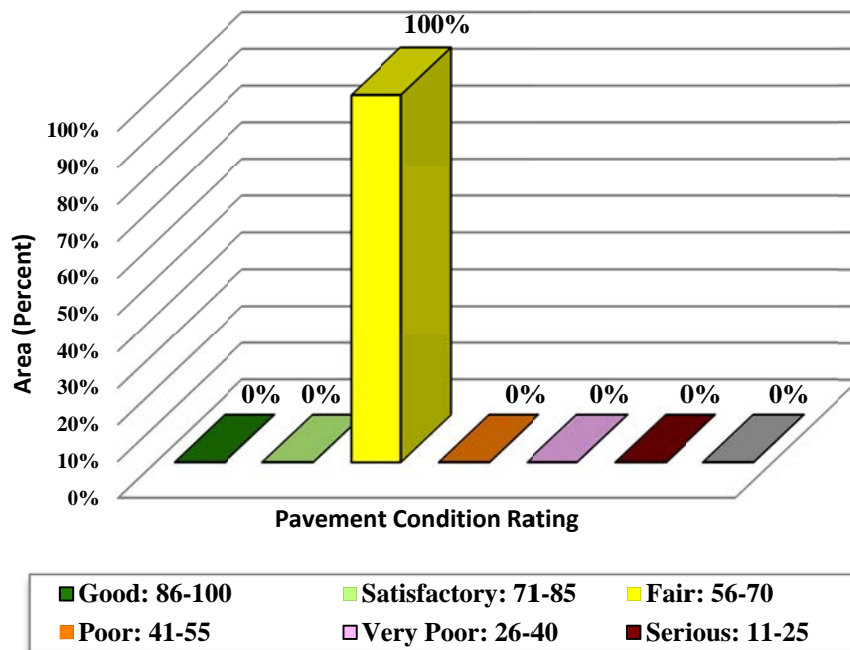
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use



(b) Taxiway



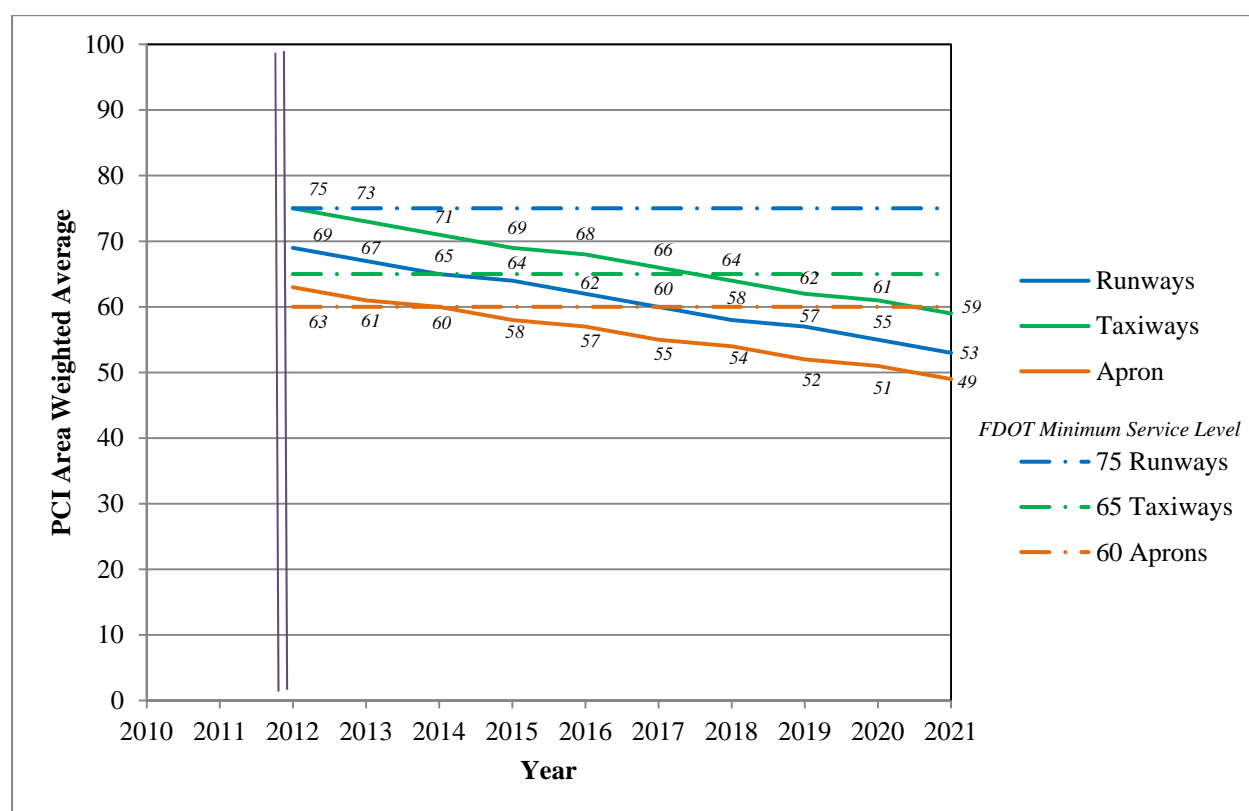
(c) Apron



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 Dade-Collier Training and Transition 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.

Table 5-1: Routine Maintenance Activities for Airfield Pavements

Surface	Distress	Severity*	Work Type	Code	Work Unit
AC	Alligator Crack	M, H	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
	Oil Spillage	N/A	Patching - AC Shallow	PA-AS	SqFt
	Patching	M, H	Patching - AC Deep	PA-AD	SqFt
	Polished Agg.	N/A	No Localized M&R	NONE	N/A
	Raveling / Weathering	L	Surface Sealing - Rejuvenating	SS-RE	SqFt
		M	Surface Seal - Coal Tar	SS-CT	SqFt
		H	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
PCC	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	M, H	Crack Sealing – PCC	CS-PC	Ft
	Durability Crack	H	Slab Replacement – PCC	SL-PC	SqFt
		M	Patching - PCC Full Depth	PA-PF	SqFt
	Jt. Seal Damage	M, H	Joint Seal (Localized)	JS-LC	Ft
	Small Patch	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
	Large Patch	M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Popouts	N/A	No Localized M&R	NONE	N/A
	Pumping	N/A	No Localized M&R	NONE	N/A
	Scaling	H	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

*L = Low, M = Medium, H = High

Table 5-2: Critical PCI for General Aviation Airports

Use	Critical PCI
Runway	65
Taxiway	65
Apron	65

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 Aviation Airports

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.

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

	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

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.

Table 5-5: Maintenance Unit Costs for FDOT

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

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
		80	\$0.24
Rehabilitation	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	70	\$3.00
		60	\$3.42
		50	\$6.29
		40	\$6.29
	Reconstruction	30	\$13.62
		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.

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

Branch Name	Section ID	Surface Type	Section Area (ft²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4105	AAC	49,500	\$115,236.07	64	Mill and Overlay	100
Taxiway A-1	120	AC	67,736	\$525,361.47	38	Reconstruction	100
				\$640,597.54	51		100

* 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.

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

Branch Name	Section ID	Surface Type	Section Area (ft²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4105	AAC	49,500	\$32,175.00	64	Microsurfacing	100
Taxiway A-1	120	AC	67,736	\$525,361.47	38	Reconstruction	100
				\$557,536.47	51		100

* 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

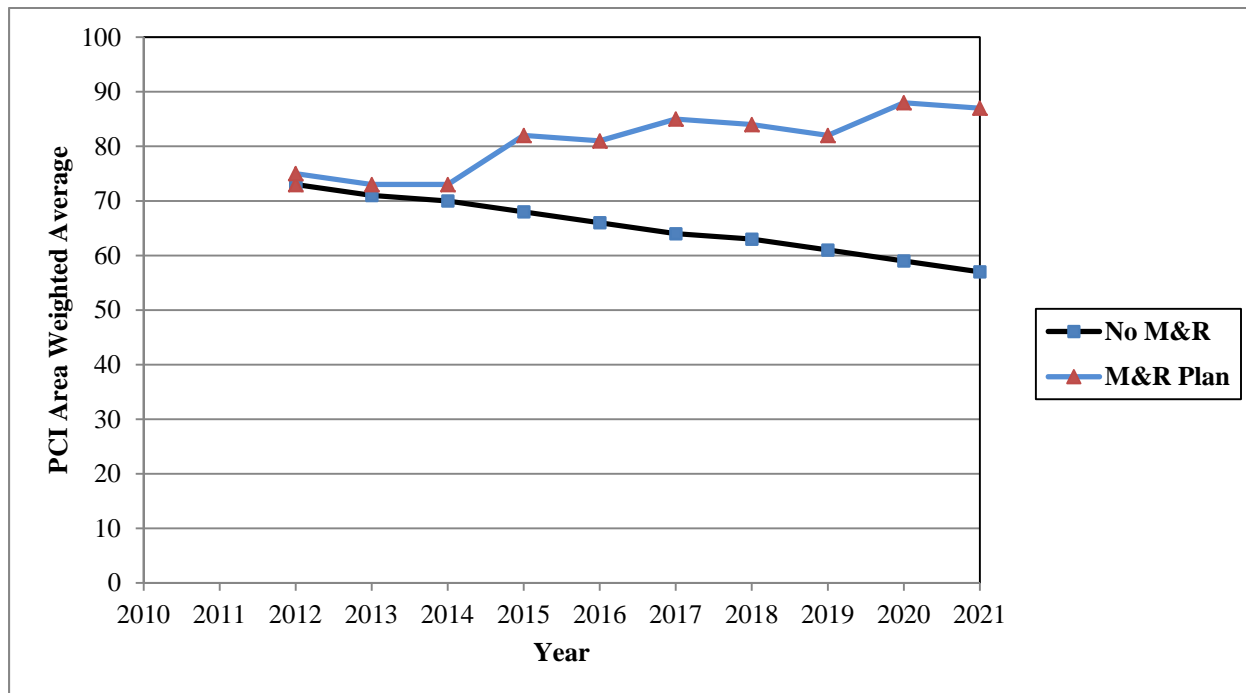
work, which is intended to treat specific distress types. A more detailed table is provided in Appendix E.

Table 6-3: Summary of Year 1 Maintenance Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	471,446.10	SqFt	\$0.40	\$188,580.00
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	3,675.00	SqFt	\$0.40	\$1,470.00
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	979,116.90	SqFt	\$0.40	\$391,650.00
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,625.00	SqFt	\$0.40	\$1,050.00
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	32,594.10	SqFt	\$0.40	\$13,037.75
Taxiway Alpha	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,006.00	SqFt	\$0.40	\$802.40
Taxiway Alpha	TW A	180	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,504.50	SqFt	\$0.40	\$601.80
Taxiway A-1	TW A1	123	WEATH/RAVEL	L	Surface Seal - Rejuvenating	197.20	SqFt	\$0.40	\$78.86
Taxiway A-1	TW A1	126	WEATH/RAVEL	L	Surface Seal - Rejuvenating	202.90	SqFt	\$0.40	\$81.17
Taxiway A-2	TW A2	130	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,583.40	SqFt	\$0.40	\$1,433.38
Taxiway A-3	TW A3	140	WEATH/RAVEL	L	Surface Seal - Rejuvenating	13,467.40	SqFt	\$0.40	\$5,386.99
Taxiway A-4	TW A4	150	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,710.20	SqFt	\$0.40	\$6,684.16
Taxiway A-5	TW A5	160	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,333.60	SqFt	\$0.40	\$5,733.50
Taxiway A-6	TW A6	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	67,735.60	SqFt	\$0.40	\$27,094.45
Taxiway A-6	TW A6	173	WEATH/RAVEL	L	Surface Seal - Rejuvenating	608.80	SqFt	\$0.40	\$243.52
Taxiway A-6	TW A6	176	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,717.70	SqFt	\$0.40	\$1,487.09
Taxiway Bravo	TW B	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	5,786.10	SqFt	\$0.40	\$2,314.45
Taxiway Bravo	TW B	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,115.00	SqFt	\$0.40	\$846.00
Taxiway Bravo	TW B	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	43,228.10	SqFt	\$0.40	\$17,291.36
Total =									\$665,866.88

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 74 in 2012 to an average of 57 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 73 through the 10-year analysis period under the unlimited budget scenario. A 2021 PCI average of 87 with this scenario is 30 PCI points higher than a “No M&R” scenario. The total cost for Major M&R over this 10-year period is about \$8.1 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.

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

Year	Preventative	Major M&R	Total Year Cost
2012	\$665,866.87	\$640,597.54	\$1,306,464.41
2013	\$564,025.87	\$0.00	\$564,025.87
2014	\$611,402.34	\$293,675.75	\$905,078.09
2015	\$395,453.64	\$2,984,293.91	\$3,379,747.55
2016	\$427,881.02	\$33,346.98	\$461,228.00
2017	\$335,666.32	\$1,416,865.66	\$1,752,531.98
2018	\$357,467.48	\$269,552.81	\$627,020.29
2019	\$405,876.77	\$21,294.15	\$427,170.92
2020	\$206,992.89	\$2,162,749.43	\$2,369,742.32
2021	\$236,858.50	\$251,087.03	\$487,945.53
Total	\$4,207,491.70	\$8,073,463.26	\$12,280,954.96

Note: Costs are adjusted for inflation.

Approximately 8% of the total Major M&R cost is required in the first year (2012). According to the 2012 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- **North Apron** – Asphalt pavement mill and overlay
- **Taxiway A-1** – Asphalt pavement reconstruction

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 Dade-Collier Training and Transition Airport, and a 10-year M&R plan was developed based on the unlimited funding scenario.

The following recommendations were made based on the 2012 condition inspection and M&R analysis results:

- **North Apron** – Asphalt pavement mill and overlay
- **Taxiway A-1** – Asphalt pavement reconstruction

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.

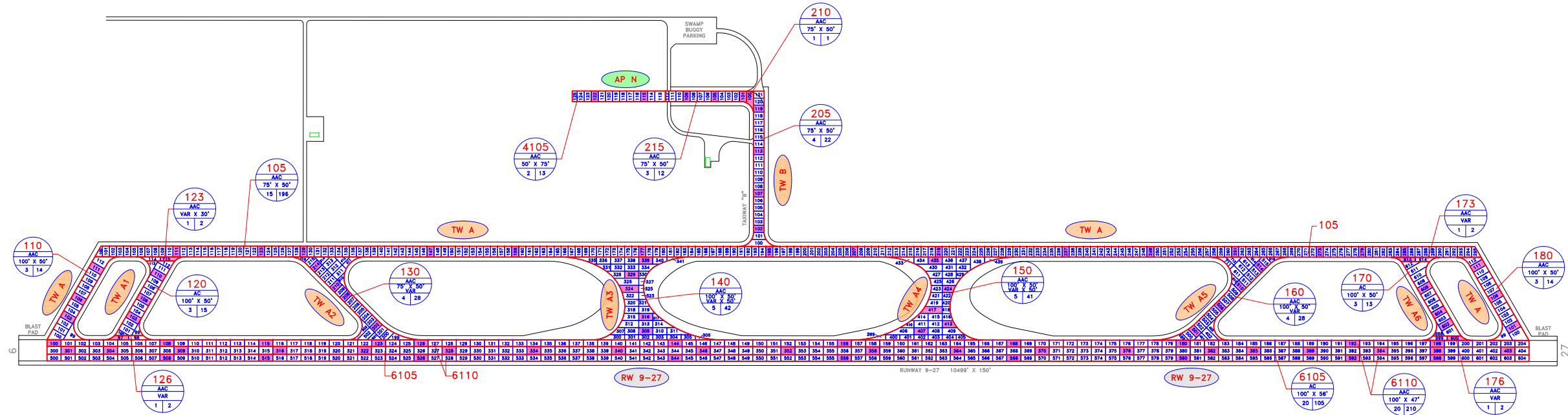
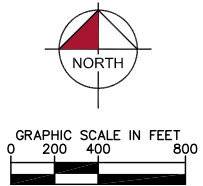
APPENDIX A

NETWORK DEFINITION MAP

SYSTEM INVENTORY MAP

PAVEMENT INVENTORY TABLE

WORK HISTORY REPORT



LEGEND

- TYPICAL RUNWAY BRANCH ID
- TYPICAL TAXIWAY BRANCH ID
- TYPICAL APRON BRANCH ID
- SECTION NUMBER
PAVEMENT TYPE
TYPICAL SAMPLE UNIT INFORMATION
FLEXIBLE (AC) PAVEMENT LENGTH & WIDTH
RIGID (PCC) PAVEMENT NO. OF SLABS AND SLAB SIZE
NUMBER OF SAMPLE UNITS IN SECTION
NUMBER OF SAMPLE UNITS TO BE INSPECTED
- INSPECTED SAMPLE UNITS. GPS COORDINATES ARE AT THE CENTROID OF THE SAMPLE UNIT.

TOTAL SAMPLES INSPECTED = 99

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

NUMBER	DATE	REVISIONS
DESIGNED: KHA	DRAWN: KHA	CHECKED: KHA
DATE:	DATE:	DATE:



NETWORK DEFINITION MAP
DADE-COLLIER TRAINING & TRANSITION AIRPORT
MIAMI-DADE COUNTY, FLORIDA
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

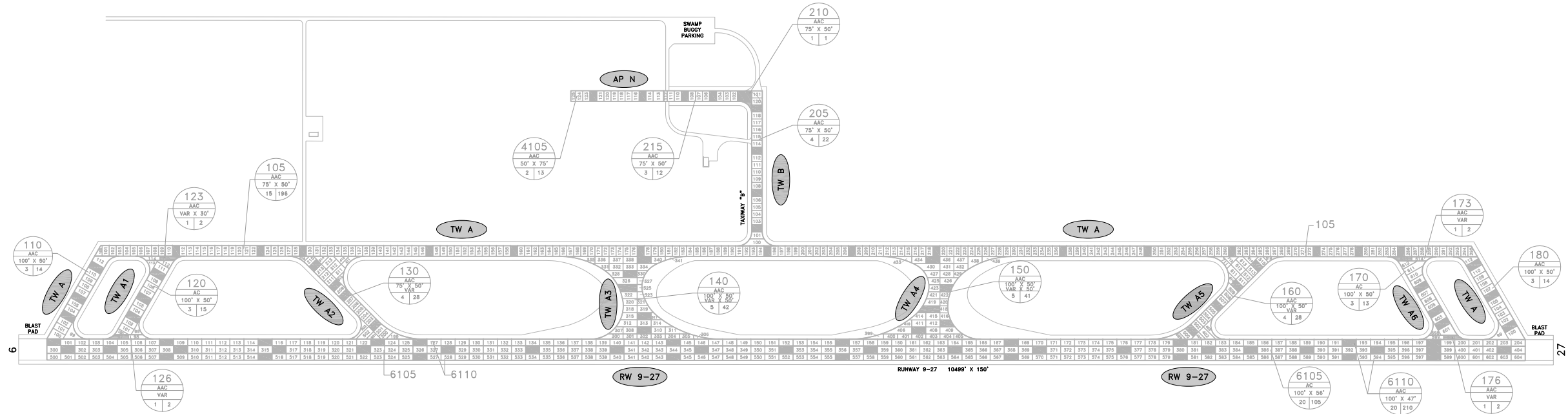
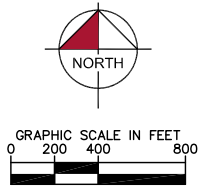
Sample Unit Centroid Coordinates

Branch	Section	Sample	Latitude	Longitude
RW 9-27	6110	100	25.8619549	-80.9128023
RW 9-27	6110	108	25.8619525	-80.9103694
RW 9-27	6110	115	25.8619503	-80.9082407
RW 9-27	6110	123	25.8619478	-80.9058079
RW 9-27	6110	126	25.8619469	-80.9048955
RW 9-27	6110	144	25.8619410	-80.8994216
RW 9-27	6110	156	25.8619370	-80.8957724
RW 9-27	6110	168	25.8619329	-80.8921231
RW 9-27	6110	180	25.8619287	-80.8884739
RW 9-27	6110	192	25.8619245	-80.8848246
RW 9-27	6110	198	25.8619223	-80.8830000
RW 9-27	6110	508	25.8616691	-80.9103698
RW 9-27	6110	515	25.8616669	-80.9082410
RW 9-27	6110	526	25.8616635	-80.9048959
RW 9-27	6110	544	25.8616576	-80.8994220
RW 9-27	6110	556	25.8616536	-80.8957728
RW 9-27	6110	568	25.8616495	-80.8921235
RW 9-27	6110	580	25.8616454	-80.8884743
RW 9-27	6110	592	25.8616411	-80.8848250
RW 9-27	6110	598	25.8616389	-80.8830004
RW 9-27	6105	301	25.8618129	-80.9124983
RW 9-27	6105	304	25.8618120	-80.9115860
RW 9-27	6105	309	25.8618105	-80.9100655
RW 9-27	6105	316	25.8618083	-80.9079368
RW 9-27	6105	322	25.8618064	-80.9061121
RW 9-27	6105	328	25.8618045	-80.9042875
RW 9-27	6105	334	25.8618026	-80.9024629
RW 9-27	6105	340	25.8618006	-80.9006383
RW 9-27	6105	346	25.8617987	-80.8988136
RW 9-27	6105	352	25.8617967	-80.8969890
RW 9-27	6105	358	25.8617947	-80.8951644
RW 9-27	6105	364	25.8617926	-80.8933397
RW 9-27	6105	370	25.8617905	-80.8915151
RW 9-27	6105	376	25.8617885	-80.8896905
RW 9-27	6105	382	25.8617863	-80.8878659
RW 9-27	6105	385	25.8617853	-80.8869535
RW 9-27	6105	389	25.8617839	-80.8857371

Branch	Section	Sample	Latitude	Longitude
RW 9-27	6105	394	25.8617821	-80.8842166
RW 9-27	6105	398	25.8617806	-80.8830002
RW 9-27	6105	403	25.8617788	-80.8814797
AP N	4105	115	25.8667526	-80.9000822
AP N	4105	122	25.8667537	-80.9011466
TW B	215	101	25.8667449	-80.8979506
TW B	215	105	25.8667509	-80.8985616
TW B	215	109	25.8667516	-80.8991698
TW B	215	119	25.8665092	-80.8976115
TW B	210	100	25.8666708	-80.8977839
TW B	205	102	25.8641705	-80.8976147
TW B	205	107	25.8648583	-80.8976137
TW B	205	113	25.8656837	-80.8976126
TW A	180	101	25.8622460	-80.8813649
TW A	180	106	25.8628421	-80.8817442
TW A	180	111	25.8634383	-80.8821234
TW A6	176	600	25.8620172	-80.8825419
TW A6	173	613	25.8635735	-80.8837151
TW A6	170	602	25.8622938	-80.8828094
TW A6	170	604	25.8625323	-80.8829611
TW A6	170	608	25.8630092	-80.8832645
TW A5	160	501	25.8621684	-80.8882219
TW A5	160	506	25.8626508	-80.8876770
TW A5	160	510	25.8630394	-80.8872464
TW A5	160	514	25.8634280	-80.8868157
TW A4	150	407	25.8621718	-80.8941223
TW A4	150	413	25.8623011	-80.8935199
TW A4	150	417	25.8625771	-80.8938904
TW A4	150	424	25.8630022	-80.8935306
TW A4	150	435	25.8635472	-80.8938163
TW A3	140	309	25.8621783	-80.9000524
TW A3	140	316	25.8624535	-80.9000520
TW A3	140	324	25.8630085	-80.9004036
TW A3	140	329	25.8632792	-80.9003550
TW A3	140	339	25.8635540	-80.9000506
TW A2	130	202	25.8622820	-80.9058682
TW A2	130	208	25.8628660	-80.9065135

Sample Unit Centroid Coordinates

Branch	Section	Sample	Latitude	Longitude
TW A2	130	210	25.8630608	-80.9067283
TW A2	130	214	25.8634504	-80.9071579
TW A1	126	97	25.8620490	-80.9114354
TW A1	123	115	25.8636025	-80.9102635
TW A1	120	103	25.8624486	-80.9110881
TW A1	120	106	25.8628058	-80.9108596
TW A1	120	110	25.8632821	-80.9105549
TW A	110	103	25.8624589	-80.9124976
TW A	110	106	25.8628161	-80.9122691
TW A	110	111	25.8634115	-80.9118882
TW A	105	111	25.8637366	-80.9101620
TW A	105	123	25.8637347	-80.9083373
TW A	105	129	25.8637338	-80.9074250
TW A	105	147	25.8637309	-80.9046880
TW A	105	159	25.8637290	-80.9028633
TW A	105	177	25.8637261	-80.9001264
TW A	105	195	25.8637231	-80.8973894
TW A	105	207	25.8637211	-80.8955647
TW A	105	219	25.8637191	-80.8937401
TW A	105	237	25.8637160	-80.8910031
TW A	105	249	25.8637139	-80.8891784
TW A	105	261	25.8637117	-80.8873538
TW A	105	273	25.8637096	-80.8855291
TW A	105	279	25.8637085	-80.8846168
TW A	105	285	25.8637074	-80.8837044



LEGEND

- PROJECTS YEAR 2006
- PROJECTS YEAR 2007
- PROJECTS YEAR 2008
- PROJECTS YEAR 2009
- PROJECTS YEAR 2010
- PROJECTS YEAR 2011
- PROJECTS YEAR 2012
- PROJECTS YEAR 2013
- PROJECTS YEAR 2014
- PROJECTS YEAR 2015
- PROJECTS YEAR 2016
- PROJECTS YEAR 2017

CONSTRUCTION SINCE LAST INSPECTION
& ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
NO INFORMATION PROVIDED		

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

NUMBER	DATE	REVISIONS
DESIGNED: KHA	DRAWN: KHA	CHECKED: KHA



SYSTEM INVENTORY MAP
DADE-COLLIER TRAINING & TRANSITION AIRPORT
MIAMI-DADE COUNTY, FLORIDA
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

Table A-1: Pavement Inventory

Branch Name	Branch ID	Branch Use	Section ID	Length (ft)	Width (ft)	True Area (ft²)	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
North Apron	AP N	APRON	4105	660	75	49,500	P	AAC	1/1/1991	4/2/2012	13
Runway 9-27	RW 9-27	RUNWAY	6105	10,500	50	525,000	P	AC	1/1/1991	4/2/2012	105
Runway 9-27	RW 9-27	RUNWAY	6110	21,000	50	1,050,000	P	AAC	1/1/1991	4/2/2012	210
Taxiway Alpha	TW A	TAXIWAY	105	9,750	75	733,373	P	AAC	1/1/1991	4/2/2012	196
Taxiway Alpha	TW A	TAXIWAY	110	750	100	75,225	P	AAC	1/1/1991	4/2/2012	14
Taxiway Alpha	TW A	TAXIWAY	180	750	100	75,225	P	AAC	1/1/1991	4/2/2012	14
Taxiway A-1	TW A1	TAXIWAY	120	670	100	67,736	P	AC	1/1/1968	4/2/2012	15
Taxiway A-1	TW A1	TAXIWAY	123	280	25	7,437	P	AAC	1/1/1991	4/2/2012	2
Taxiway A-1	TW A1	TAXIWAY	126	280	25	7,437	P	AAC	1/1/1991	4/2/2012	2
Taxiway A-2	TW A2	TAXIWAY	130	1,000	100	107,503	P	AAC	1/1/1991	4/2/2012	28
Taxiway A-3	TW A3	TAXIWAY	140	800	150	187,363	P	AAC	1/1/1991	4/2/2012	42
Taxiway A-4	TW A4	TAXIWAY	150	800	150	187,363	P	AAC	1/1/1991	4/2/2012	41
Taxiway A-5	TW A5	TAXIWAY	160	1,000	100	107,503	P	AAC	1/1/1991	4/2/2012	28
Taxiway A-6	TW A6	TAXIWAY	170	670	100	67,736	P	AC	1/1/1968	4/2/2012	13
Taxiway A-6	TW A6	TAXIWAY	173	140	50	7,437	P	AAC	1/1/1991	4/2/2012	2
Taxiway A-6	TW A6	TAXIWAY	176	140	50	7,437	P	AAC	1/1/1991	4/2/2012	2
Taxiway Bravo	TW B	TAXIWAY	205	1,140	75	86,792	P	AAC	1/1/1991	4/2/2012	22
Taxiway Bravo	TW B	TAXIWAY	210	100	50	5,290	P	AAC	1/1/1991	4/2/2012	1
Taxiway Bravo	TW B	TAXIWAY	215	570	75	43,228	P	AAC	1/1/1991	4/2/2012	12

Note: If a 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:04/05/2012

Work History Report

1 of 4

Pavement Database:

Network: TNT **Branch:** AP N (APRON NORTH) **Section:** 4105 **Surface:** AAC
L.C.D.: 01/01/1991 **Use:** APRON **Rank P Length:** 660.00 Ft **Width:** 75.00 Ft **True Area:** 49,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE

Network: TNT **Branch:** RW 9-27 (RUNWAY 9-27) **Section:** 6105 **Surface:** AC
L.C.D.: 01/01/1991 **Use:** RUNWAY **Rank P Length:** 10,500.00 Ft **Width:** 50.00 Ft **True Area:** 525,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY			True	1991: P-609 WAS PLACED ON LIME ROCK PRIOR TO PAVING
01/01/1991	IMPORTED	OVERLAY		2.50	True	1991: MILLED 2.5" (2" EXISTING AC + .5" EXISTING LIME ROCK) PRIOR TO P
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-402 ON 2.875" P-401
01/01/1968	IMPORTED	BUILT		11.50	True	1968: 11.5" LIME ROCK BASE

Network: TNT **Branch:** RW 9-27 (RUNWAY 9-27) **Section:** 6110 **Surface:** AAC
L.C.D.: 01/01/1991 **Use:** RUNWAY **Rank P Length:** 21,000.00 Ft **Width:** 50.00 Ft **True Area:** 050,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P402 ON .75" P-401
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" P-401 ON 12" P-211

Network: TNT **Branch:** TW A (TAXIWAY A) **Section:** 105 **Surface:** AAC
L.C.D.: 01/01/1991 **Use:** TAXIWAY **Rank P Length:** 9,750.00 Ft **Width:** 75.00 Ft **True Area:** 733,373.41 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO 1991 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE

Network: TNT **Branch:** TW A (TAXIWAY A) **Section:** 110 **Surface:** AAC
L.C.D.: 01/01/1991 **Use:** TAXIWAY **Rank P Length:** 750.00 Ft **Width:** 100.00 Ft **True Area:** 75,224.70 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO 1991 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE

Network: TNT **Branch:** TW A (TAXIWAY A) **Section:** 180 **Surface:** AAC
L.C.D.: 01/01/1991 **Use:** TAXIWAY **Rank P Length:** 750.00 Ft **Width:** 100.00 Ft **True Area:** 75,224.70 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY

Date:04/05/2012

Work History Report

2 of 4

Pavement Database:

01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
Network: TNT Branch: TW A1 (TAXIWAY A1) Section: 120 Surface: AC L.C.D.: 01/01/1968 Use: TAXIWAY Rank P Length: 670.00 Ft Width: 100.00 Ft True Area: 67,736.12 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" P-401 ON 12" P-211
Network: TNT Branch: TW A1 (TAXIWAY A1) Section: 123 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 280.00 Ft Width: 25.00 Ft True Area: 7,437.32 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY			True	1991: FEATHERED P-401 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" P-401 ON 12" P-211
Network: TNT Branch: TW A1 (TAXIWAY A1) Section: 126 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 280.00 Ft Width: 25.00 Ft True Area: 7,437.32 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY			True	1991: FEATHERED P-401 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" P-401 ON 12" P-211
Network: TNT Branch: TW A2 (TAXIWAY A2) Section: 130 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 1,000.00 Ft Width: 100.00 Ft True Area: 107,503.13 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO PLACING THE 1991
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
Network: TNT Branch: TW A3 (TAXIWAY A3) Section: 140 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 800.00 Ft Width: 150.00 Ft True Area: 187,363.33 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
Network: TNT Branch: TW A4 (TAXIWAY A4) Section: 150 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 800.00 Ft Width: 150.00 Ft True Area: 187,363.33 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		1.00	True	1991: 1" P-401 OVERLAY
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
Network: TNT Branch: TW A5 (TAXIWAY A5) Section: 160 Surface: AAC L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 1,000.00 Ft Width: 100.00 Ft True Area: 107,503.13 SqF						
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments

Date:04/05/2012

Work History Report

3 of 4

Pavement Database:

01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY 1991: 1" P-401 OVERLAY 1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
01/01/1991	IMPORTED	OVERLAY		1.00	True	
01/01/1968	IMPORTED	BUILT		2.00	True	

Network: TNT Branch: TW A6 (TAXIWAY A6) Section: 170 Surface: AC
 L.C.D.: 01/01/1968 Use: TAXIWAY Rank P Length: 670.00 Ft Width: 100.00 Ft True Area: 67.736.12 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1968	IMPORTED	BUILT		2.00	True	1968: 2" P-401 ON 12" P-211

Network: TNT Branch: TW A6 (TAXIWAY A6) Section: 173 Surface: AAC
 L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 140.00 Ft Width: 50.00 Ft True Area: 7,437.32 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		2.00	True	1991: FEATHERED P-401 OVERLAY
01/01/1968	IMPORTED	BUILT			True	1968: 2" P-401 ON 12" P-211

Network: TNT Branch: TW A6 (TAXIWAY A6) Section: 176 Surface: AAC
 L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 140.00 Ft Width: 50.00 Ft True Area: 7,437.32 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		2.00	True	1991: FEATHERED P-401 OVERLAY
01/01/1968	IMPORTED	BUILT			True	1968: 2" P-401 ON 12" P-211

Network: TNT Branch: TW B (TAXIWAY B) Section: 205 Surface: AAC
 L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 1,140.00 Ft Width: 75.00 Ft True Area: 86.792.04 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY 1991: 1" P-401 OVERLAY 1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
01/01/1991	IMPORTED	OVERLAY		1.00	True	
01/01/1968	IMPORTED	BUILT		2.00	True	

Network: TNT Branch: TW B (TAXIWAY B) Section: 210 Surface: AAC
 L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 100.00 Ft Width: 50.00 Ft True Area: 5,289.63 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY 1991: 1" P-401 OVERLAY 1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
01/01/1991	IMPORTED	OVERLAY		1.00	True	
01/01/1968	IMPORTED	BUILT		2.00	True	

Network: TNT Branch: TW B (TAXIWAY B) Section: 215 Surface: AAC
 L.C.D.: 01/01/1991 Use: TAXIWAY Rank P Length: 570.00 Ft Width: 75.00 Ft True Area: 43,228.41 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	OVERLAY		0.37	True	3/8" MAX. OF EXISTING SURFACE WAS TEXTURIZED PRIOR TO THE 1991 OVERLAY 1991: 1" P-401 OVERLAY 1968: 2" BIT. SURFACE ON 12" LIME ROCK BASE
01/01/1991	IMPORTED	OVERLAY		1.00	True	
01/01/1968	IMPORTED	BUILT		2.00	True	

Date:04/05/2012

Work History Report

4 of 4

Pavement Database:

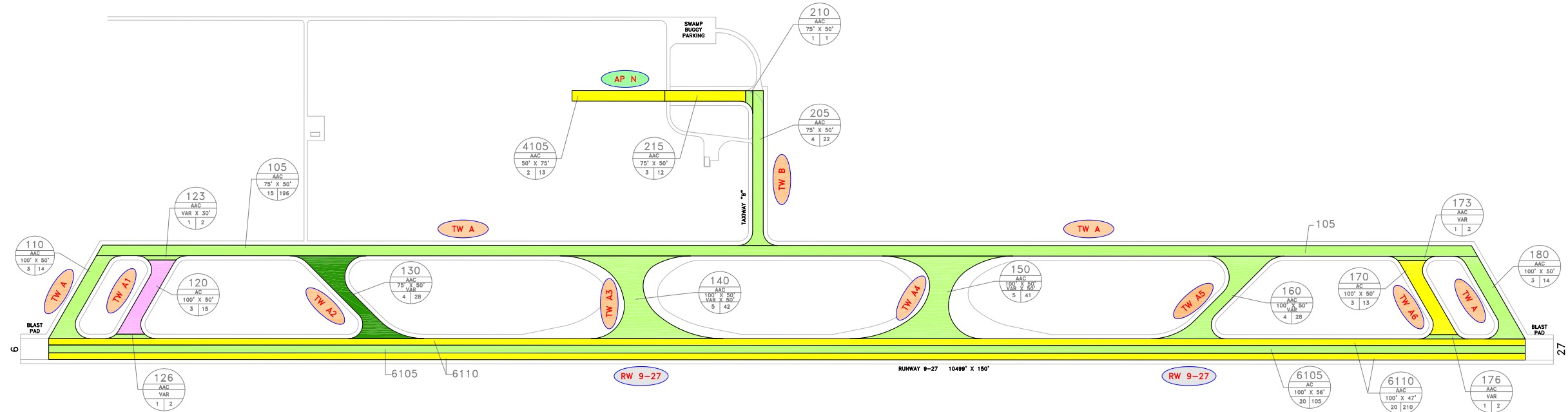
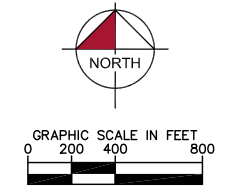
Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	19	3,398,587.33	2.50	2.18
OVERLAY	31	7,021,480.90	.77	.47

STD = Standard Deviation

APPENDIX B

2012 CONDITION MAP PAVEMENT CONDITION INDEX TABLE



LEGEND

- Runway Branch ID**
RW 13-31
RW 9-27
- Taxiway Branch ID**
TW A
TW B
- Apron Branch ID**
AP S
AP N
- PCI Condition Legend**
- | | |
|-------------|------------------------|
| Dark Green | PCI 86-100 GOOD |
| Light Green | PCI 71-85 SATISFACTORY |
| Yellow | PCI 56-70 FAIR |
| Orange | PCI 41-55 POOR |
| Pink | PCI 26-40 VERY POOR |
| Red | PCI 11-25 SERIOUS |
| Grey | PCI 0-10 FAILED |

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

NUMBER	DATE	REVISIONS
DESIGNED: KHA	DRAWN: KHA	CHECKED: KHA



2012 CONDITION MAP
DADE-COLLIER TRAINING & TRANSITION AIRPORT
MIAMI-DADE COUNTY, FLORIDA
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

IDENTIFIER
TNT
FOOT DISTRICT
6

Table B-1: Pavement Condition Index

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft ²)	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
North Apron	AP N	APRON	4105	49,500	P	AAC	2	13	64	Fair
Runway 9-27	RW 9-27	RUNWAY	6105	525,000	P	AC	20	105	72	Satisfactory
Runway 9-27	RW 9-27	RUNWAY	6110	1,050,000	P	AAC	20	210	69	Fair
Taxiway Alpha	TW A	TAXIWAY	105	733,373	P	AAC	15	196	78	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	110	75,225	P	AAC	3	14	81	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	180	75,225	P	AAC	3	14	80	Satisfactory
Taxiway A-1	TW A1	TAXIWAY	120	67,736	P	AC	3	15	38	Very Poor
Taxiway A-1	TW A1	TAXIWAY	123	7,437	P	AAC	1	2	77	Satisfactory
Taxiway A-1	TW A1	TAXIWAY	126	7,437	P	AAC	1	2	85	Satisfactory
Taxiway A-2	TW A2	TAXIWAY	130	107,503	P	AAC	4	28	90	Good
Taxiway A-3	TW A3	TAXIWAY	140	187,363	P	AAC	5	42	85	Satisfactory
Taxiway A-4	TW A4	TAXIWAY	150	187,363	P	AAC	5	41	83	Satisfactory
Taxiway A-5	TW A5	TAXIWAY	160	107,503	P	AAC	4	28	82	Satisfactory
Taxiway A-6	TW A6	TAXIWAY	170	67,736	P	AC	3	13	67	Fair
Taxiway A-6	TW A6	TAXIWAY	173	7,437	P	AAC	1	2	80	Satisfactory
Taxiway A-6	TW A6	TAXIWAY	176	7,437	P	AAC	1	2	71	Satisfactory
Taxiway Bravo	TW B	TAXIWAY	205	86,792	P	AAC	4	22	74	Satisfactory
Taxiway Bravo	TW B	TAXIWAY	210	5,290	P	AAC	1	1	71	Satisfactory
Taxiway Bravo	TW B	TAXIWAY	215	43,228	P	AAC	3	12	68	Fair

Note: If a 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**

Date: 4 /5/2012

Branch Condition Report

1 of 2

Pavement Database: NetworkID: TNT

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 N (APRON NORTH)	1	660.00	75.00	49,500.00	APRON	64.00	0.00	64.00
RW 9-27 (RUNWAY 9-27)	2	31,500.00	50.00	1,575,000.00	RUNWAY	70.50	1.50	70.00
TW A (TAXIWAY A)	3	11,250.00	91.67	883,822.81	TAXIWAY	79.67	1.25	78.43
TW A1 (TAXIWAY A1)	3	1,230.00	50.00	82,610.76	TAXIWAY	66.67	20.53	45.74
TW A2 (TAXIWAY A2)	1	1,000.00	100.00	107,503.13	TAXIWAY	90.00	0.00	90.00
TW A3 (TAXIWAY A3)	1	800.00	150.00	187,363.33	TAXIWAY	85.00	0.00	85.00
TW A4 (TAXIWAY A4)	1	800.00	150.00	187,363.33	TAXIWAY	83.00	0.00	83.00
TW A5 (TAXIWAY A5)	1	1,000.00	100.00	107,503.13	TAXIWAY	82.00	0.00	82.00
TW A6 (TAXIWAY A6)	3	950.00	66.67	82,610.76	TAXIWAY	72.67	5.44	68.53
TW B (TAXIWAY B)	3	1,810.00	66.67	135,310.08	TAXIWAY	71.00	2.45	71.97

Date: 4 /5/2012

Branch Condition Report

2 of 2

Pavement Database:

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	1	49,500.00	64.00	0.00	64.00
RUNWAY	2	1,575,000.00	70.50	1.50	70.00
TAXIWAY	16	1,774,087.33	75.63	11.58	78.05
All	19	3,398,587.33	74.47	11.03	74.11

STD = Standard Deviation

Date: 4 /5/2012

Section Condition Report

1 of 2

Pavement Database: NetworkID: TNT

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP N (APRON NORTH)	4105	01/01/1991	AAC	APRON	P	0	49,500.00	04/02/2012	21	64.00
RW 9-27 (RUNWAY 9-27)	6105	01/01/1991	AC	RUNWAY	P	0	525,000.00	04/02/2012	21	72.00
RW 9-27 (RUNWAY 9-27)	6110	01/01/1991	AAC	RUNWAY	P	0	1,050,000.00	04/02/2012	21	69.00
TW A (TAXIWAY A)	105	01/01/1991	AAC	TAXIWAY	P	0	733,373.41	04/02/2012	21	78.00
TW A (TAXIWAY A)	110	01/01/1991	AAC	TAXIWAY	P	0	75,224.70	04/02/2012	21	81.00
TW A (TAXIWAY A)	180	01/01/1991	AAC	TAXIWAY	P	0	75,224.70	04/02/2012	21	80.00
TW A1 (TAXIWAY A1)	120	01/01/1968	AC	TAXIWAY	P	0	67,736.12	04/02/2012	44	38.00
TW A1 (TAXIWAY A1)	123	01/01/1991	AAC	TAXIWAY	P	0	7,437.32	04/02/2012	21	77.00
TW A1 (TAXIWAY A1)	126	01/01/1991	AAC	TAXIWAY	P	0	7,437.32	04/02/2012	21	85.00
TW A2 (TAXIWAY A2)	130	01/01/1991	AAC	TAXIWAY	P	0	107,503.13	04/02/2012	21	90.00
TW A3 (TAXIWAY A3)	140	01/01/1991	AAC	TAXIWAY	P	0	187,363.33	04/02/2012	21	85.00
TW A4 (TAXIWAY A4)	150	01/01/1991	AAC	TAXIWAY	P	0	187,363.33	04/02/2012	21	83.00
TW A5 (TAXIWAY A5)	160	01/01/1991	AAC	TAXIWAY	P	0	107,503.13	04/02/2012	21	82.00
TW A6 (TAXIWAY A6)	170	01/01/1968	AC	TAXIWAY	P	0	67,736.12	04/02/2012	44	67.00
TW A6 (TAXIWAY A6)	173	01/01/1991	AAC	TAXIWAY	P	0	7,437.32	04/02/2012	21	80.00
TW A6 (TAXIWAY A6)	176	01/01/1991	AAC	TAXIWAY	P	0	7,437.32	04/02/2012	21	71.00
TW B (TAXIWAY B)	205	01/01/1991	AAC	TAXIWAY	P	0	86,792.04	04/02/2012	21	74.00
TW B (TAXIWAY B)	210	01/01/1991	AAC	TAXIWAY	P	0	5,289.63	04/02/2012	21	71.00
TW B (TAXIWAY B)	215	01/01/1991	AAC	TAXIWAY	P	0	43,228.41	04/02/2012	21	68.00

Date: 4 /5/2012

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
21-25	21.00	3,263,115.09	17	77.06	6.92	75.01
over 40	44.00	135,472.24	2	52.50	14.50	52.50
All	23.42	3,398,587.33	19	74.47	11.03	74.11

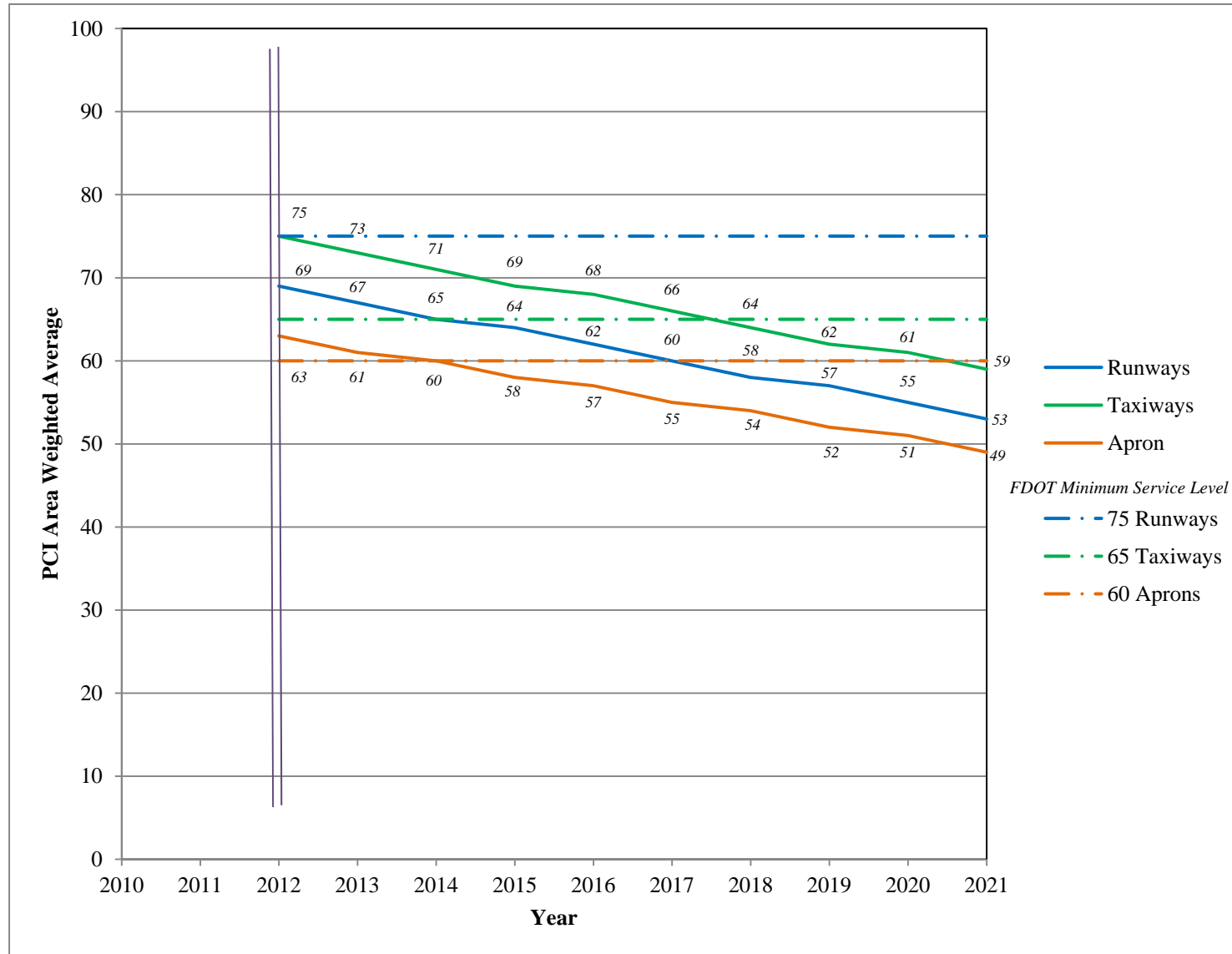
APPENDIX D

PAVEMENT CONDITION PREDICTION TABLE PREDICTED PCI BY PAVEMENT USE GRAPH

Table D-1: Pavement Condition Prediction

Branch Name	Branch ID	Section ID	Current PCI	PCI Forecast									
				2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
North Apron	AP N	4105	64	64	62	60	59	57	56	54	53	51	50
Runway 9-27	RW 9-27	6105	72	72	70	69	67	66	64	63	61	60	58
Runway 9-27	RW 9-27	6110	69	69	67	65	63	61	59	57	55	53	51
Taxiway Alpha	TW A	105	78	78	76	74	72	71	69	67	65	64	62
Taxiway Alpha	TW A	110	81	81	79	77	75	74	72	70	68	67	65
Taxiway Alpha	TW A	180	80	80	78	76	74	73	71	69	67	66	64
Taxiway A-1	TW A1	120	38	38	36	34	32	31	29	27	26	24	22
Taxiway A-1	TW A1	123	77	77	75	73	71	70	68	66	64	63	61
Taxiway A-1	TW A1	126	85	85	83	81	79	78	76	74	72	71	69
Taxiway A-2	TW A2	130	90	90	88	86	84	83	81	79	77	76	74
Taxiway A-3	TW A3	140	85	85	83	81	79	78	76	74	72	71	69
Taxiway A-4	TW A4	150	83	83	81	79	77	76	74	72	70	69	67
Taxiway A-5	TW A5	160	82	82	80	78	76	75	73	71	69	68	66
Taxiway A-6	TW A6	170	67	67	65	63	61	60	58	56	55	53	51
Taxiway A-6	TW A6	173	80	80	78	76	74	73	71	69	67	66	64
Taxiway A-6	TW A6	176	71	71	69	67	65	64	62	60	58	57	55
Taxiway Bravo	TW B	205	74	74	72	70	68	67	65	63	61	60	58
Taxiway Bravo	TW B	210	71	71	69	67	65	64	62	60	58	57	55
Taxiway Bravo	TW B	215	68	68	66	64	62	61	59	57	55	54	52

Figure D-1: Predicted PCI by Pavement Use



APPENDIX E

YEAR 1 MAINTENANCE ACTIVITIES TABLE

Table E-1: Year 1 Maintenance Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	471,446.10	SqFt	\$0.40	\$188,580.00
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	3,675.00	SqFt	\$0.40	\$1,470.00
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	979,116.90	SqFt	\$0.40	\$391,650.00
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,625.00	SqFt	\$0.40	\$1,050.00
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	32,594.10	SqFt	\$0.40	\$13,037.75
Taxiway Alpha	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,006.00	SqFt	\$0.40	\$802.40
Taxiway Alpha	TW A	180	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,504.50	SqFt	\$0.40	\$601.80
Taxiway A-1	TW A1	123	WEATH/RAVEL	L	Surface Seal - Rejuvenating	197.20	SqFt	\$0.40	\$78.86
Taxiway A-1	TW A1	126	WEATH/RAVEL	L	Surface Seal - Rejuvenating	202.90	SqFt	\$0.40	\$81.17
Taxiway A-2	TW A2	130	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,583.40	SqFt	\$0.40	\$1,433.38
Taxiway A-3	TW A3	140	WEATH/RAVEL	L	Surface Seal - Rejuvenating	13,467.40	SqFt	\$0.40	\$5,386.99
Taxiway A-4	TW A4	150	WEATH/RAVEL	L	Surface Seal - Rejuvenating	16,710.20	SqFt	\$0.40	\$6,684.16
Taxiway A-5	TW A5	160	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,333.60	SqFt	\$0.40	\$5,733.50
Taxiway A-6	TW A6	170	WEATH/RAVEL	L	Surface Seal - Rejuvenating	67,735.60	SqFt	\$0.40	\$27,094.45
Taxiway A-6	TW A6	173	WEATH/RAVEL	L	Surface Seal - Rejuvenating	608.80	SqFt	\$0.40	\$243.52
Taxiway A-6	TW A6	176	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,717.70	SqFt	\$0.40	\$1,487.09
Taxiway Bravo	TW B	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	5,786.10	SqFt	\$0.40	\$2,314.45
Taxiway Bravo	TW B	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,115.00	SqFt	\$0.40	\$846.00
Taxiway Bravo	TW B	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	43,228.10	SqFt	\$0.40	\$17,291.36
Total =									\$665,866.88

APPENDIX F

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

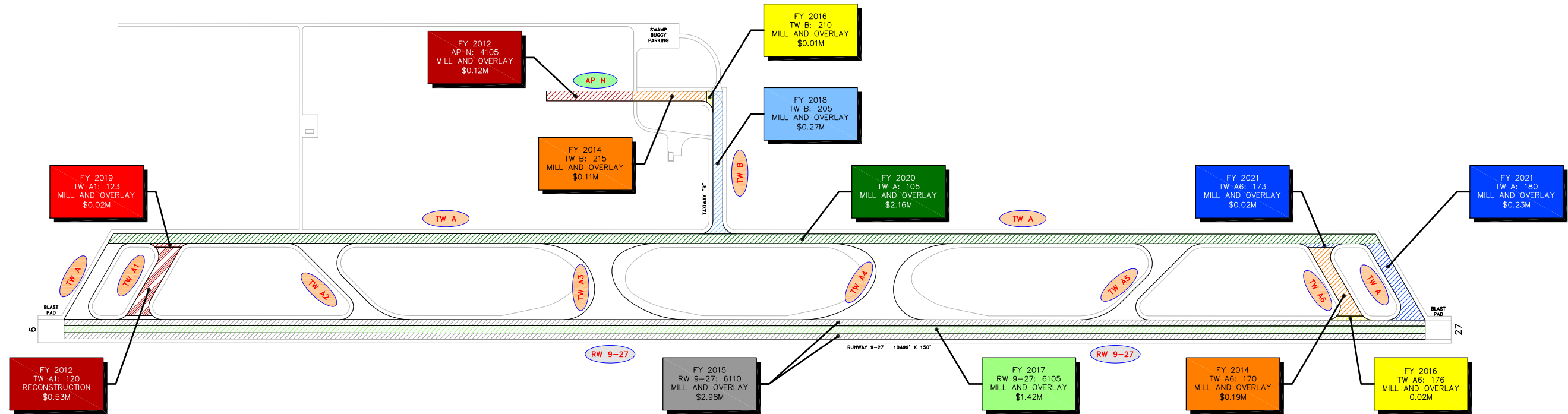
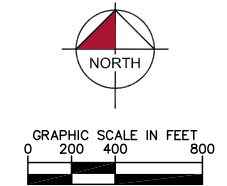
Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario

Year	Branch Name	Section ID	Surface Type	Section Area (ft ²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
2012	North Apron	4105	AAC	49,500	\$115,236.07	64	Mill and Overlay	100
2012	Taxiway A-1	120	AC	67,736	\$525,361.47	38	Reconstruction	100
2014	Taxiway A-6	170	AC	67,736	\$186,911.23	63	Mill and Overlay	100
2014	Taxiway Bravo	215	AAC	43,228	\$106,764.52	64	Mill and Overlay	100
2015	Runway 9-27	6110	AAC	1,050,000	\$2,984,293.91	63	Mill and Overlay	100
2016	Taxiway A-6	176	AAC	7,437	\$19,487.16	64	Mill and Overlay	100
2016	Taxiway Bravo	210	AAC	5,290	\$13,859.82	64	Mill and Overlay	100
2017	Runway 9-27	6105	AC	525,000	\$1,416,865.66	64	Mill and Overlay	100
2018	Taxiway Bravo	205	AAC	86,792	\$269,552.81	63	Mill and Overlay	100
2019	Taxiway A-1	123	AAC	7,437	\$21,294.15	64	Mill and Overlay	100
2020	Taxiway Alpha	105	AAC	733,373	\$2,162,749.43	64	Mill and Overlay	100
2021	Taxiway Alpha	180	AAC	75,225	\$228,496.07	64	Mill and Overlay	100
2021	Taxiway A-6	173	AAC	7,437	\$22,590.96	64	Mill and Overlay	100
Total					\$8,073,463.26	62		100

* Costs are adjusted for inflation.

APPENDIX G

10-YEAR M&R MAP



LEGEND

- RW 13-31 TYPICAL RUNWAY BRANCH ID
- TW A TYPICAL TAXIWAY BRANCH ID
- AP S TYPICAL APRON BRANCH ID

YEAR

- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021

ACTIVITY

- MICROSURFACING
- MILL AND OVERLAY
- RECONSTRUCTION
- CONCRETE PAVEMENT RESTORATION

"PLAN YEAR"
"BRANCH"; "SECTION"
"M AND R ACTIVITY"
"EST. COST"

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

NUMBER	DATE	REVISIONS
DESIGNED: KHA	DRAWN: KHA	CHECKED: KHA

PLOTTED: May 3, 2015 - 3:18 PM BY: KHA, KHA



APPENDIX H

PHOTOGRAPHS



Runway 9-27, Section 6105, Sample Unit 304 – Low severity (52) Weathering and Raveling



Runway 9-27, Section 6110, Sample Unit 198 – Low to medium severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking; low severity (56) Swelling



Taxiway Alpha, Section 105, Sample Unit 237 – Low severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking; low severity (56) Swelling; low severity (53) Rutting



Taxiway Alpha, Section 180, Sample Unit 111 – Low severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking; low severity (56) Swelling



Taxiway A-4, Section 150, Sample Unit 417 – Low severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking; low severity (56) Swelling



Taxiway A-6, Section 170, Sample Unit 608 – Low severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking



Taxiway A-6, Section 176, Sample Unit 600 – Low severity (52) Weathering and Raveling; low severity (48) Longitudinal and Transverse Cracking; low severity (56) Swelling

APPENDIX I

PCI RE-INSPECTION REPORT

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: AP N Name: APRON NORTH Use: APRON Area: 49,500.00SqFt

Section: 4105 of 1 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 49,500.00SqFt Length: 660.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 13 Surveyed: 2

Conditions: PCI: 64.00 |

Inspection Comments:

Sample Number: 115 Type: R Area: 3,750.00SqFt PCI = 62

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	126.03 Ft	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	300.08 Ft	Comments:
52	WEATHERING/RAVELING	L	2,999.98 SqFt	Comments:
50	PATCHING	L	350.00 SqFt	Comments:

Sample Number: 122 Type: R Area: 3,750.00SqFt PCI = 66

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	350.09 Ft	Comments:
52	WEATHERING/RAVELING	L	2,999.98 SqFt	Comments:
50	PATCHING	L	105.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT		Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT							
Branch:	RW 9-27	Name: RUNWAY 9-27			Use: RUNWAY		Area:	1,575,000.00SqFt	
Section:	6105	of	2	From: -	To: -	Last Const.: 1/1/1991			
Surface:	AC	Family: DEFAULT			Zone:	Category:	Rank: P		
Area:	525,000.00SqFt	Length: 10,500.00Ft			Width:	50.00Ft			
Shoulder:	Street Type:		Grade: 0.00		Lanes: 0				
Section Comments:									
Last Insp. Date4/2/2012 Total Samples: 105 Surveyed: 20									
Conditions: PCI:72.00									
Inspection Comments:									
Sample Number: 301 Type: R Area: 5,000.00SqFt PCI = 70									
Sample Comments:									
52 WEATHERING/RAVELING				L	4,499.96	SqFt	Comments:		
52 WEATHERING/RAVELING				M	500.00	SqFt	Comments:		
Sample Number: 304 Type: R Area: 5,000.00SqFt PCI = 74									
Sample Comments:									
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 309 Type: R Area: 5,000.00SqFt PCI = 71									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	77.02	Ft	Comments:		
52 WEATHERING/RAVELING				L	3,999.97	SqFt	Comments:		
Sample Number: 316 Type: R Area: 5,000.00SqFt PCI = 73									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	60.02	Ft	Comments:		
52 WEATHERING/RAVELING				L	2,999.98	SqFt	Comments:		
Sample Number: 322 Type: R Area: 5,000.00SqFt PCI = 73									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	13.00	Ft	Comments:		
52 WEATHERING/RAVELING				L	2,999.98	SqFt	Comments:		
48 LONGITUDINAL/TRANSVERSE CRACKING				L	51.01	Ft	Comments:		
Sample Number: 328 Type: R Area: 5,000.00SqFt PCI = 72									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	53.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	3,499.97	SqFt	Comments:		
Sample Number: 334 Type: R Area: 5,000.00SqFt PCI = 71									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	57.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	3,999.97	SqFt	Comments:		
Sample Number: 340 Type: R Area: 5,000.00SqFt PCI = 69									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	55.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 346 Type: R Area: 5,000.00SqFt PCI = 71									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	51.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	3,999.97	SqFt	Comments:		

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Sample Number: 352	Type: R	Area:	5,000.00SqFt	PCI = 69
Sample Comments:				
48 LONGITUDINAL/TRANSVERSE CRACKING		L	82.02 Ft	Comments:
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 358	Type: R	Area:	5,000.00SqFt	PCI = 74
Sample Comments:				
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 364	Type: R	Area:	5,000.00SqFt	PCI = 69
Sample Comments:				
48 LONGITUDINAL/TRANSVERSE CRACKING		L	28.01 Ft	Comments:
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 370	Type: R	Area:	5,000.00SqFt	PCI = 74
Sample Comments:				
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 376	Type: R	Area:	5,000.00SqFt	PCI = 74
Sample Comments:				
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 382	Type: R	Area:	5,000.00SqFt	PCI = 74
Sample Comments:				
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 385	Type: R	Area:	5,000.00SqFt	PCI = 69
Sample Comments:				
48 LONGITUDINAL/TRANSVERSE CRACKING		L	86.02 Ft	Comments:
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 389	Type: R	Area:	5,000.00SqFt	PCI = 69
Sample Comments:				
48 LONGITUDINAL/TRANSVERSE CRACKING		L	86.02 Ft	Comments:
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 394	Type: R	Area:	5,000.00SqFt	PCI = 76
Sample Comments:				
52 WEATHERING/RAVELING		L	3,999.97 SqFt	Comments:
Sample Number: 398	Type: R	Area:	5,000.00SqFt	PCI = 74
Sample Comments:				
52 WEATHERING/RAVELING		L	4,999.96 SqFt	Comments:
Sample Number: 403	Type: R	Area:	5,000.00SqFt	PCI = 69
Sample Comments:				
52 WEATHERING/RAVELING		M	200.00 SqFt	Comments:
52 WEATHERING/RAVELING		L	4,799.96 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT		Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT							
Branch:	RW 9-27	Name: RUNWAY 9-27			Use: RUNWAY		Area:	1,575,000.00SqFt	
Section:	6110	of	2	From: -	To: -		Last Const.: 1/1/1991		
Surface:	AAC	Family: DEFAULT			Zone:	Category:	Rank: P		
Area:	1,050,000.00SqFt		Length: 21,000.00Ft		Width:	50.00Ft			
Shoulder:	Street Type:		Grade: 0.00		Lanes: 0				
Section Comments:									
Last Insp. Date4/2/2012 Total Samples: 210 Surveyed: 20									
Conditions: PCI:69.00									
Inspection Comments:									
Sample Number: 100 Type: R Area: 5,000.00SqFt PCI = 74									
Sample Comments:									
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 108 Type: R Area: 5,000.00SqFt PCI = 70									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	6.00	Ft	Comments:		
56 SWELLING				L	2.00	SqFt	Comments:		
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 115 Type: R Area: 5,000.00SqFt PCI = 71									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	2.00	Ft	Comments:		
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 123 Type: R Area: 5,000.00SqFt PCI = 74									
Sample Comments:									
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 126 Type: R Area: 5,000.00SqFt PCI = 73									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	10.00	Ft	Comments:		
52 WEATHERING/RAVELING				L	3,999.97	SqFt	Comments:		
Sample Number: 144 Type: R Area: 5,000.00SqFt PCI = 67									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	42.01	Ft	Comments:		
56 SWELLING				L	24.00	SqFt	Comments:		
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
Sample Number: 156 Type: R Area: 5,000.00SqFt PCI = 71									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	23.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	4,499.96	SqFt	Comments:		
Sample Number: 168 Type: R Area: 5,000.00SqFt PCI = 67									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	57.01	Ft	Comments:		
52 WEATHERING/RAVELING				L	4,999.96	SqFt	Comments:		
56 SWELLING				L	27.00	SqFt	Comments:		
Sample Number: 180 Type: R Area: 5,000.00SqFt PCI = 70									
Sample Comments:									
48 LONGITUDINAL/TRANSVERSE CRACKING				L	15.00	Ft	Comments:		

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

52 WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:
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Sample Number: 192	Type: R	Area: 5,000.00SqFt	PCI = 66
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	53.01	Ft	Comments:
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52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
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56 SWELLING	L	124.00	SqFt	Comments:
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Sample Number: 198	Type: R	Area: 5,000.00SqFt	PCI = 62
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	75.02	Ft	Comments:
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52 WEATHERING/RAVELING	L	4,749.96	SqFt	Comments:
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52 WEATHERING/RAVELING	M	250.00	SqFt	Comments:
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56 SWELLING	L	18.00	SqFt	Comments:
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Sample Number: 508	Type: R	Area: 5,000.00SqFt	PCI = 70
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	17.00	Ft	Comments:
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56 SWELLING	L	16.00	SqFt	Comments:
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52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
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Sample Number: 515	Type: R	Area: 5,000.00SqFt	PCI = 70
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	49.01	Ft	Comments:
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52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
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56 SWELLING	L	6.00	SqFt	Comments:
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Sample Number: 526	Type: R	Area: 5,000.00SqFt	PCI = 70
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	25.01	Ft	Comments:
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56 SWELLING	L	16.00	SqFt	Comments:
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52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
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Sample Number: 544	Type: R	Area: 5,000.00SqFt	PCI = 70
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	46.01	Ft	Comments:
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56 SWELLING	L	2.00	SqFt	Comments:
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52 WEATHERING/RAVELING	L	3,999.97	SqFt	Comments:
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Sample Number: 556	Type: R	Area: 5,000.00SqFt	PCI = 71
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	7.00	Ft	Comments:
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52 WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:
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Sample Number: 568	Type: R	Area: 5,000.00SqFt	PCI = 68
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	28.01	Ft	Comments:
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52 WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:
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56 SWELLING	L	17.00	SqFt	Comments:
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Sample Number: 580	Type: R	Area: 5,000.00SqFt	PCI = 66
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	105.03	Ft	Comments:
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52 WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:
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56 SWELLING	L	42.00	SqFt	Comments:
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Sample Number: 592	Type: R	Area: 5,000.00SqFt	PCI = 67
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Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	27.01	Ft	Comments:
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Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

52	WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:
56	SWELLING	L	48.00	SqFt	Comments:

Sample Number: 598 Type: R Area: 5,000.00SqFt PCI = 69

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	45.01	Ft	Comments:
52	WEATHERING/RAVELING	L	4,999.96	SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT		Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT					
Branch:	TW A	Name: TAXIWAY A		Use: TAXIWAY		Area:	883,822.81SqFt
Section:	105	of	3	From: -	To: -	Last Const.: 1/1/1991	
Surface:	AAC	Family: DEFAULT		Zone:	Category:	Rank: P	
Area:	733,373.41SqFt	Length: 9,750.00Ft		Width:	75.00Ft		
Shoulder:	Street Type:		Grade: 0.00	Lanes: 0			
Section Comments:							
Last Insp. Date: 4/2/2012		Total Samples: 196		Surveyed: 15			
Conditions: PCI:78.00							
Inspection Comments:							
Sample Number: 111		Type: R		Area: 3,750.00SqFt		PCI = 81	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	156.04 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
56	SWELLING			L	7.00 SqFt	Comments:	
Sample Number: 123		Type: R		Area: 3,750.00SqFt		PCI = 81	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	168.04 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
Sample Number: 129		Type: R		Area: 3,750.00SqFt		PCI = 67	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	317.08 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
43	BLOCK CRACKING			L	222.00 SqFt	Comments:	
48	LONGITUDINAL/TRANSVERSE CRACKING			L	17.00 Ft	Comments:	
56	SWELLING			L	13.00 SqFt	Comments:	
Sample Number: 147		Type: R		Area: 3,750.00SqFt		PCI = 79	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	198.05 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
56	SWELLING			L	3.00 SqFt	Comments:	
Sample Number: 159		Type: R		Area: 3,750.00SqFt		PCI = 73	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	292.07 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
56	SWELLING			L	17.00 SqFt	Comments:	
Sample Number: 177		Type: R		Area: 3,750.00SqFt		PCI = 72	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	333.09 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
56	SWELLING			L	4.00 SqFt	Comments:	
Sample Number: 195		Type: R		Area: 3,750.00SqFt		PCI = 74	
Sample Comments:							
48	LONGITUDINAL/TRANSVERSE CRACKING			L	274.07 Ft	Comments:	
52	WEATHERING/RAVELING			L	200.00 SqFt	Comments:	
56	SWELLING			L	9.00 SqFt	Comments:	

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Sample Number:	207	Type: R	Area:	3,750.00SqFt	PCI = 74
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	264.07 Ft	Comments:
56	SWELLING		L	23.00 SqFt	Comments:
52	WEATHERING/RAVELING		L	200.00 SqFt	Comments:

Sample Number:	219	Type: R	Area:	3,750.00SqFt	PCI = 83
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	131.03 Ft	Comments:
52	WEATHERING/RAVELING		L	200.00 SqFt	Comments:
56	SWELLING		L	3.00 SqFt	Comments:

Sample Number:	237	Type: R	Area:	3,750.00SqFt	PCI = 68
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	276.07 Ft	Comments:
52	WEATHERING/RAVELING		L	100.00 SqFt	Comments:
56	SWELLING		L	31.00 SqFt	Comments:
53	RUTTING		L	54.00 SqFt	Comments:

Sample Number:	249	Type: R	Area:	3,750.00SqFt	PCI = 83
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	130.03 Ft	Comments:
52	WEATHERING/RAVELING		L	100.00 SqFt	Comments:
56	SWELLING		L	8.00 SqFt	Comments:

Sample Number:	261	Type: R	Area:	3,750.00SqFt	PCI = 82
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	124.03 Ft	Comments:
52	WEATHERING/RAVELING		L	100.00 SqFt	Comments:
56	SWELLING		L	21.00 SqFt	Comments:

Sample Number:	273	Type: R	Area:	3,750.00SqFt	PCI = 84
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	111.03 Ft	Comments:
56	SWELLING		L	16.00 SqFt	Comments:
52	WEATHERING/RAVELING		L	100.00 SqFt	Comments:

Sample Number:	279	Type: R	Area:	3,750.00SqFt	PCI = 85
Sample Comments:					
56	SWELLING		L	27.00 SqFt	Comments:
52	WEATHERING/RAVELING		L	100.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	80.02 Ft	Comments:

Sample Number:	285	Type: R	Area:	3,750.00SqFt	PCI = 80
Sample Comments:					
48	LONGITUDINAL/TRANSVERSE	CRACKING	L	162.04 Ft	Comments:
52	WEATHERING/RAVELING		L	200.00 SqFt	Comments:
56	SWELLING		L	16.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 883,822.81SqFt

Section: 110 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 75,224.70SqFt Length: 750.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 14 Surveyed: 3

Conditions: PCI: 81.00 |

Inspection Comments:

Sample Number: 103 Type: R Area: 5,000.00SqFt PCI = 81

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 209.05 Ft Comments:
52 WEATHERING/RAVELING L 200.00 SqFt Comments:
56 SWELLING L 4.00 SqFt Comments:

Sample Number: 106 Type: R Area: 5,000.00SqFt PCI = 82

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 229.06 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Sample Number: 111 Type: R Area: 5,000.00SqFt PCI = 81

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 267.07 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 883,822.81SqFt

Section: 180 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 75,224.70SqFt Length: 750.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 14 Surveyed: 3

Conditions: PCI:80.00 |

Inspection Comments:

Sample Number: 101 Type: R Area: 5,000.00SqFt PCI = 82

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 173.04 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:
56 SWELLING L 35.00 SqFt Comments:

Sample Number: 106 Type: R Area: 5,000.00SqFt PCI = 83

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 177.05 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:
56 SWELLING L 8.00 SqFt Comments:

Sample Number: 111 Type: R Area: 5,000.00SqFt PCI = 75

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 361.09 Ft Comments:
56 SWELLING L 34.00 SqFt Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A1 Name: TAXIWAY A1 Use: TAXIWAY Area: 82,610.76SqFt

Section: 120 of 3 From: - To: - Last Const.: 1/1/1968
Surface: AC Family: DEFAULT Zone: Category: Rank: P
Area: 67,736.12SqFt Length: 670.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 15 Surveyed: 3

Conditions: PCI: 38.00 |

Inspection Comments:

Sample Number: 103 Type: R Area: 5,000.00SqFt PCI = 38

Sample Comments:

52 WEATHERING/RAVELING M 4,999.96 SqFt Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 123.03 Ft Comments:

Sample Number: 106 Type: R Area: 5,000.00SqFt PCI = 38

Sample Comments:

52 WEATHERING/RAVELING M 4,999.96 SqFt Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 71.02 Ft Comments:

Sample Number: 110 Type: R Area: 5,000.00SqFt PCI = 38

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 59.02 Ft Comments:
52 WEATHERING/RAVELING M 4,999.96 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A1 Name: TAXIWAY A1 Use: TAXIWAY Area: 82,610.76SqFt

Section: 123 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 7,437.32SqFt Length: 280.00Ft Width: 25.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 2 Surveyed: 1
Conditions: PCI: 77.00 |
Inspection Comments:

Sample Number: 115 Type: R Area: 3,772.38SqFt PCI = 77

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	249.06 Ft	Comments:
52	WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A1 Name: TAXIWAY A1 Use: TAXIWAY Area: 82,610.76SqFt

Section: 126 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 7,437.32SqFt Length: 280.00Ft Width: 25.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 2 Surveyed: 1
Conditions: PCI:85.00 |
Inspection Comments:

Sample Number: 97 Type: R Area: 3,664.93SqFt PCI = 85

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	112.03 Ft	Comments:
52	WEATHERING/RAVELING	L	100.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A2 Name: TAXIWAY A2 Use: TAXIWAY Area: 107,503.13SqFt

Section: 130 of 1 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 107,503.13SqFt Length: 1,000.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 28 Surveyed: 4

Conditions: PCI:90.00 |

Inspection Comments:

Sample Number: 202 Type: R Area: 3,750.00SqFt PCI = 91

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 33.01 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Sample Number: 208 Type: R Area: 3,750.00SqFt PCI = 93

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 1.00 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Sample Number: 210 Type: R Area: 3,750.00SqFt PCI = 88

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 67.02 Ft Comments:
52 WEATHERING/RAVELING L 200.00 SqFt Comments:

Sample Number: 214 Type: R Area: 3,750.00SqFt PCI = 88

Sample Comments:

50 PATCHING L 2.00 SqFt Comments:
50 PATCHING L 2.00 SqFt Comments:
50 PATCHING L 1.00 SqFt Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 49.01 Ft Comments:
52 WEATHERING/RAVELING L 100.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A3 Name: TAXIWAY A3 Use: TAXIWAY Area: 187,363.33SqFt

Section: 140 of 1 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 187,363.33SqFt Length: 800.00Ft Width: 150.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 42 Surveyed: 5

Conditions: PCI: 85.00 |

Inspection Comments:

Sample Number: 309 Type: R Area: 5,000.00SqFt PCI = 82

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 127.03 Ft Comments:
52 WEATHERING/RAVELING L 799.99 SqFt Comments:
56 SWELLING L 4.00 SqFt Comments:

Sample Number: 316 Type: R Area: 5,000.00SqFt PCI = 87

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 109.03 Ft Comments:
52 WEATHERING/RAVELING L 300.00 SqFt Comments:

Sample Number: 324 Type: R Area: 6,433.33SqFt PCI = 87

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 138.04 Ft Comments:
52 WEATHERING/RAVELING L 200.00 SqFt Comments:

Sample Number: 329 Type: R Area: 5,000.00SqFt PCI = 83

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 182.05 Ft Comments:
52 WEATHERING/RAVELING L 300.00 SqFt Comments:

Sample Number: 339 Type: R Area: 5,000.00SqFt PCI = 86

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 82.02 Ft Comments:
52 WEATHERING/RAVELING L 300.00 SqFt Comments:
56 SWELLING L 6.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A4 Name: TAXIWAY A4 Use: TAXIWAY Area: 187,363.33SqFt

Section: 150 of 1 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 187,363.33SqFt Length: 800.00Ft Width: 150.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 41 Surveyed: 5

Conditions: PCI: 83.00 |

Inspection Comments:

Sample Number: 407 Type: R Area: 5,000.00SqFt PCI = 83

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 145.04 Ft Comments:
56 SWELLING L 19.00 SqFt Comments:
52 WEATHERING/RAVELING L 200.00 SqFt Comments:

Sample Number: 413 Type: R Area: 4,530.64SqFt PCI = 81

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 22.01 Ft Comments:
50 PATCHING L 16.50 SqFt Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 117.03 Ft Comments:
52 WEATHERING/RAVELING L 500.00 SqFt Comments:
56 SWELLING L 7.00 SqFt Comments:

Sample Number: 417 Type: R Area: 6,988.22SqFt PCI = 81

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 286.07 Ft Comments:
52 WEATHERING/RAVELING L 999.99 SqFt Comments:
56 SWELLING L 8.00 SqFt Comments:

Sample Number: 424 Type: R Area: 4,269.63SqFt PCI = 87

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 84.02 Ft Comments:
56 SWELLING L 3.00 SqFt Comments:
52 WEATHERING/RAVELING L 200.00 SqFt Comments:

Sample Number: 435 Type: R Area: 5,000.00SqFt PCI = 84

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 160.04 Ft Comments:
52 WEATHERING/RAVELING L 400.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A5 Name: TAXIWAY A5 Use: TAXIWAY Area: 107,503.13SqFt

Section: 160 of 1 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 107,503.13SqFt Length: 1,000.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 28 Surveyed: 4

Conditions: PCI: 82.00 |

Inspection Comments:

Sample Number: 501 Type: R Area: 3,750.00SqFt PCI = 81

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 181.05 Ft Comments:
52 WEATHERING/RAVELING L 500.00 SqFt Comments:

Sample Number: 506 Type: R Area: 3,750.00SqFt PCI = 84

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 66.02 Ft Comments:
52 WEATHERING/RAVELING L 500.00 SqFt Comments:

Sample Number: 510 Type: R Area: 3,750.00SqFt PCI = 82

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 159.04 Ft Comments:
52 WEATHERING/RAVELING L 500.00 SqFt Comments:

Sample Number: 514 Type: R Area: 3,750.00SqFt PCI = 84

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 128.03 Ft Comments:
52 WEATHERING/RAVELING L 500.00 SqFt Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A6 Name: TAXIWAY A6 Use: TAXIWAY Area: 82,610.76SqFt

Section: 170 of 3 From: - To: - Last Const.: 1/1/1968
Surface: AC Family: DEFAULT Zone: Category: Rank: P
Area: 67,736.12SqFt Length: 670.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 13 Surveyed: 3

Conditions: PCI: 67.00 |

Inspection Comments:

Sample Number: 602 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	104.03 Ft	Comments:
52	WEATHERING/RAVELING	L	4,999.96 SqFt	Comments:
43	BLOCK CRACKING	L	462.00 SqFt	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	115.03 Ft	Comments:

Sample Number: 604 Type: R Area: 5,000.00SqFt PCI = 69

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	394.10 Ft	Comments:
52	WEATHERING/RAVELING	L	4,999.96 SqFt	Comments:

Sample Number: 608 Type: R Area: 5,000.00SqFt PCI = 68

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	471.12 Ft	Comments:
52	WEATHERING/RAVELING	L	4,999.96 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A6 Name: TAXIWAY A6 Use: TAXIWAY Area: 82,610.76SqFt

Section: 173 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 7,437.32SqFt Length: 140.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 2 Surveyed: 1
Conditions: PCI:80.00 |
Inspection Comments:

Sample Number: 613 Type: R Area: 3,664.93SqFt PCI = 80

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	188.05 Ft	Comments:
52	WEATHERING/RAVELING	L	300.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW A6 Name: TAXIWAY A6 Use: TAXIWAY Area: 82,610.76SqFt

Section: 176 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 7,437.32SqFt Length: 140.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 2 Surveyed: 1
Conditions: PCI: 71.00 |
Inspection Comments:

Sample Number: 600 Type: R Area: 3,664.93SqFt PCI = 71

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	252.06 Ft	Comments:
52	WEATHERING/RAVELING	L	1,831.98 SqFt	Comments:
56	SWELLING	L	47.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW B Name: TAXIWAY B Use: TAXIWAY Area: 135,310.08SqFt

Section: 205 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 86,792.04SqFt Length: 1,140.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 22 Surveyed: 4

Conditions: PCI: 74.00 |

Inspection Comments:

Sample Number: 102 Type: R Area: 3,750.00SqFt PCI = 75

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	263.07 Ft	Comments:
52	WEATHERING/RAVELING	L	200.00 SqFt	Comments:
56	SWELLING	L	6.00 SqFt	Comments:

Sample Number: 107 Type: R Area: 3,750.00SqFt PCI = 76

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	275.07 Ft	Comments:
52	WEATHERING/RAVELING	L	200.00 SqFt	Comments:

Sample Number: 113 Type: R Area: 3,750.00SqFt PCI = 73

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	194.05 Ft	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	150.04 Ft	Comments:
52	WEATHERING/RAVELING	L	300.00 SqFt	Comments:

Sample Number: 119 Type: R Area: 3,750.00SqFt PCI = 72

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	250.06 Ft	Comments:
48	LONGITUDINAL/TRANSVERSE CRACKING	L	127.03 Ft	Comments:
52	WEATHERING/RAVELING	L	300.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW B Name: TAXIWAY B Use: TAXIWAY Area: 135,310.08SqFt

Section: 210 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 5,289.63SqFt Length: 100.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 1 Surveyed: 1
Conditions: PCI: 71.00 |
Inspection Comments:

Sample Number: 100 Type: R Area: 5,289.63SqFt PCI = 71

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	376.10 Ft	Comments:
52	WEATHERING/RAVELING	L	2,114.98 SqFt	Comments:
56	SWELLING	L	196.00 SqFt	Comments:
56	SWELLING	L	21.00 SqFt	Comments:

Re-inspection Report

FDOT_COMB

Report Generated Date: 4/5/2012

Site Name:

Network: TNT Name: DADE-COLLIER TRAINING AND TRANSITION AIRPORT

Branch: TW B Name: TAXIWAY B Use: TAXIWAY Area: 135,310.08SqFt

Section: 215 of 3 From: - To: - Last Const.: 1/1/1991
Surface: AAC Family: DEFAULT Zone: Category: Rank: P
Area: 43,228.41SqFt Length: 570.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date: 4/2/2012 Total Samples: 12 Surveyed: 3

Conditions: PCI:68.00 |

Inspection Comments:

Sample Number: 101 Type: R Area: 3,853.41SqFt PCI = 68

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	24.01 Ft	Comments:
52	WEATHERING/RAVELING	L	3,853.38 SqFt	Comments:
56	SWELLING	L	14.00 SqFt	Comments:

Sample Number: 105 Type: R Area: 3,750.00SqFt PCI = 68

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	8.00 Ft	Comments:
52	WEATHERING/RAVELING	L	3,749.97 SqFt	Comments:
56	SWELLING	L	34.00 SqFt	Comments:

Sample Number: 109 Type: R Area: 3,750.00SqFt PCI = 69

Sample Comments:

48	LONGITUDINAL/TRANSVERSE CRACKING	L	6.00 Ft	Comments:
52	WEATHERING/RAVELING	L	3,749.97 SqFt	Comments:
56	SWELLING	L	17.00 SqFt	Comments: