

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION AVIATION OFFICE

Statewide Airfield Pavement Management Program

Key West International Airport– EYW
(Primary Airport)
Key West, Florida
(District 6)



TABLE OF CONTENTS

		PAGE NO.
_		2
	cutive Summary	
1.	Introduction	
2.	Network Definition and Pavement Inventory	
3.	Pavement Condition	
4.	Pavement Condition Prediction	
5.	Maintenance Policies and costs	
6.	Pavement Rehabilitation Needs Analysis	
7.	Maintenance and Rehabilitation Plan	
8.	Visual Aids	
9.	Recommendations	34
LIS	T OF FIGURES	
Figu	re 1-1: Pavement Life Cycle	4
Figu	re 1-2: PCI Rating Scale	6
_	re 2-1: Pavement Area by Surface Type	
_	are 3-1: Network PCI Distribution by Rating Category	
	re 3-1a: Condition Rating Summary	
_	are 3-2: Percentage of Pavement Area within Each PCI Range by Pavemen	
_	re 4-1: Predicted PCI by Pavement Use	
_	re 6-1: Budget Scenario Analysis	
LIS'	T OF TABLES	
Tahl	le I: Condition Summary by Branch	3
	le II: Condition Summary by Pavement Use	
	le III: Condition Summary by Pavement Rank	
	le IV: Immediate Major M&R Needs	
	le V: 10-Year M&R Costs under Unlimited Funding Scenario	
	le 1-1: Sampling Rate for FDOT Condition Surveys	
	le 2-1: Construction Since Last Inspection & Anticipated Construction Acti	
	le 2-2: Pavement Area by Pavement Use	
	le 2-3: Branch and Section Inventory	
	le 3-1: Pavement Distresses for Asphalt Concrete Surfaces	
	le 3-3: Condition by Pavement Use	
	le 5-1: Routine Maintenance Activities for Airfield Pavements	
	le 5-2: Critical PCI for Primary / Part 139 Airports	
	le 5-3: FDOT Minimum Service Level PCI for Primary / Part 139 Airports.	
	le 5-4: M&R Activities for Primary / Part 139 Airports	
	le 5-5: Maintenance Unit Costs for FDOT	
	le 5-6: M&R Activities and Unit Costs by Condition for Primary / Part 139	
		_
	le 6-1: Summary of Immediate Major M&R Needs Option No. 1le 6-2: Summary of Immediate Major M&R Needs Option No. 2	
1 au	ic 0-2. Summary of minieurale iviajor ivicin needs Option no. 2	∠/

TABLE OF CONTENTS

		PAGE NO.
Table 6-3: Su	Immary of Year 1 Maintenance Activities	28
	immary of Year 1 Maintenance Activities (Continued)	
	&R Costs under Unlimited Funding Scenario	
APPENDIC	ES	
Appendix A	Network Definition Map	
11	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 Key West International 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 Key West International Airport, and
- ➤ Provide the estimated costs associated with the suggested immediate and future M&R activities

During May 2011, the PCI survey was performed at Key West International Airport. The results of the survey indicate that, based on a numerical scale of 0 to 100, the overall area-weighted average PCI of the airfield pavements in 2011 is 67, representing a Fair 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	PCI Range	Condition Rating	FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required
East Apron	47	34 - 64	Poor	65	65	X
West Apron	74	64 - 82	Satisfactory	65	65	X
Runway 9-27	80	79 - 82	Satisfactory	75	65	
Taxiway A	85	81 - 89	Satisfactory	70	65	
Taxiway B	76	76	Satisfactory	70	65	
Taxiway C	73	73	Satisfactory	70	65	
Taxiway D	61	38 - 89	Fair	70	65	X
Taxiway E	63	40 - 79	Fair	70	65	X

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	80	Satisfactory		
Taxiway	77	Satisfactory		
Apron	54	Poor		
All (Weighted)	67	Fair		

Table III: Condition Summary by Pavement Rank

Rank*	Average Area- Weighted PCI	Condition Rating	
Primary	67	Fair	
All (Weighted)	67	Fair	

^{*}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 Key West International Airport, include: the West Apron, East Apron, Taxiway Echo and Taxiway Delta. The pavement distresses in these areas justify either mill and overlay activity or full pavement reconstruction. The immediate needs are summarized in Table IV below.

Table IV: Immediate Major M&R Needs

Branch Name	Section ID	Surface Type	Section Area (ft²)	Rotoro		M&R Activity	PCI After M&R
West Apron	4210	AC	82,435	\$302,041.61	62	Mill and Overlay	100
East Apron	4150	AC	70,300	\$947,784.26	36	Reconstruction	100
East Apron	4145	AC	189,745	\$1,622,319.20	48	Mill and Overlay	100
East Apron	4130	AC	44,900	\$716,065.00	34	Reconstruction	100
East Apron	4125	AC	94,960	\$811,907.72	44	Mill and Overlay	100
East Apron	4120	AC	66,920	\$340,890.24	58	Mill and Overlay	100
East Apron	4115	AC	50,255	\$615,573.28	37	Reconstruction	100
East Apron	4110	AC	17,665	\$64,724.51	62	Mill and Overlay	100
East Apron	4105	AC	87,200	\$594,878.15	54	Mill and Overlay	100
Taxiway Echo	610	AAC	33,365	\$367,548.71	38	Reconstruction	100
Taxiway Delta	520	AAC	6,165	\$39,394.33	55	Mill and Overlay	100
Taxiway Delta	510	AAC	15,360	\$207,083.45	36	Reconstruction	100
Total				\$6,630,210.46	47		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	\$28,938.36	\$6,630,210.46	\$6,659,148.82
2013	\$126,432.03	\$0.00	\$126,432.03
2014	\$151,377.10	\$0.00	\$151,377.10
2015	\$177,281.55	\$0.00	\$177,281.55
2016	\$198,474.16	\$76,734.75	\$275,208.91
2017	\$238,104.12	\$0.00	\$238,104.12
2018	\$267,835.09	\$206,073.19	\$473,908.28
2019	\$243,381.45	\$894,933.77	\$1,138,315.22
2020	\$168,273.57	\$1,556,186.14	\$1,724,459.71
2021	\$178,394.33	\$278,802.74	\$457,197.07
Total	\$1,778,491.76	\$9,642,941.05	\$11,421,432.81

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 67 in 2011 to 85 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 Key West International Airport pavements in 2021 may remain near 77. 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 Key West International 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.

GOOD **SATISFACTORY** \$1.00 FOR REHABILIATION FAIR **HERE POOR** SIGNIFICANT DROP IN CONDITION **VERY POOR** WILL COST \$7.00 TO \$10.00* HERE **SERIOUS SMALL % OF PAVEMENT LIFE FAILED** TIME

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 Pavemen	ts	PCC Pavements			
N	n		NT	n		
	Runway	Others	N	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	
<u>≥</u> 51	20% but <u><</u> 20	% but <20 10% but <10		8	4	
			41-50	10	5	
			<u>≥</u> 51	20% but <u><</u> 20	10% but <u><</u> 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 nonrepresentive distresses are observed in the field, additional sample units were added.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2. NETWORK DEFINITION AND PAVEMENT INVENTORY

Key West International Airport (EYW) consists of Runway 9-27, which is 100-ft wide by 4,801-ft long. Parallel Taxiway Alpha is 50-ft wide and is used to direct traffic to and from the active runway. Currently the Airport has multiple apron tie-down spaces located along the south side of Taxiway Alpha. All Airport pavements are constructed of asphalt concrete, with exception of a few concrete pads that have been placed in the commercial apron for the larger aircraft gear to sit on such as the Boeing B-737's. This airport is designated as a Primary / Part 139 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.

The Key West aviation history began with the Augustin Parla flight to Cuba in 1913. In 1928, Pan American Airlines began scheduled flights out of Key West, with the primary runway being Meacham Field. During World War II, the Navy used the airport as an adjunct runway to the Trumbo Point Seaplane Base. After the war, control of the airport was returned to the city and it was called the Key West Municipal Airport. In January 1953, the city gave Monroe County ownership of Meacham Field, where the name was changed to the Key West International Airport.

2.1 Network Definition

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

2.1.1 Branch Section Identification

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

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

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

2.1.2 System Inventory and Network Definition Update

The System Inventory and Network Definition drawings are used to identify changes in the network since the most recent update from the 2006/2008 inspections and also to plan the field inspection activities for the 2011 survey. Prior to the field inspection process, the System

Inventory drawing was updated from the previous inspection with notes indicating recent construction projects on the various Sections of pavement throughout the airfield. This System Inventory drawing is used to update the Network Definition drawing.

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

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

The updated System Inventory and Network Definition drawings for Key West International 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 74 sample units.

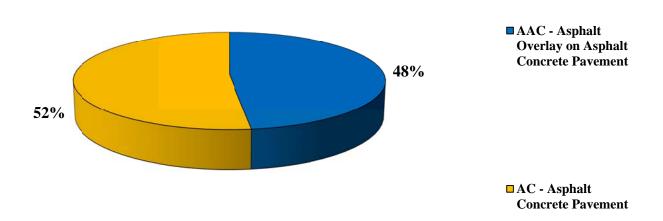
The total airfield pavement area in 2011 at Key West International Airport is 1,744,335 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

Table 2-2: Pavement Area by Pavement Use

Use	Area (ft²)	% of Total Area		
Runway	480,000	28%		
Taxiway	419,295	24%		
Apron	845,040	48%		
All (Weighted)	1,744,335	100%		

Figure 2-1 presents the breakdown of the pavement area at Key West International 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	Sample Units in Section
East Apron	AP E	4105	87,200	P	AC	1/1/2003	3	16
East Apron	AP E	4110	17,665	P	AC	1/1/2003	1	4
East Apron	AP E	4115	50,255	P	AC	1/1/2003	1	9
East Apron	AP E	4120	66,920	P	AC	1/1/2003	2	13
East Apron	AP E	4125	94,960	P	AC	1/1/2003	3	20
East Apron	AP E	4130	44,900	P	AC	1/1/2003	2	7
East Apron	AP E	4145	189,745	P	AC	1/1/2003	4	37
East Apron	AP E	4150	70,300	P	AC	1/1/2003	3	19
West Apron	AP W	4205	77,460	P	AC	1/1/2003	3	21
West Apron	AP W	4210	82,435	P	AC	1/1/2003	3	21
West Apron	AP W	4215	63,200	P	AC	1/1/2006	2	13
Runway 9-27	RW 9-27	6105	312,000	P	AAC	1/1/2003	19	96
Runway 9-27	RW 9-27	6110	168,000	P	AAC	1/1/2003	8	48
Taxiway Alpha	TW A	105	149,580	P	AAC	1/1/2003	4	30
Taxiway Alpha	TW A	107	30,035	P	AAC	1/1/2003	2	6
Taxiway Alpha	TW A	110	54,795	P	AC	1/11/2003	3	11
Taxiway Bravo	TW B	205	39,920	P	AAC	1/1/2003	2	10
Taxiway Charlie	TW C	305	20,165	P	AAC	1/1/2003	1	3
Taxiway Delta	TW D	520	6,165	P	AAC	1/1/2003	1	2
Taxiway Delta	TW D	505	11,125	P	AAC	1/1/2003	1	2
Taxiway Delta	TW D	507	7,250	P	AAC	1/1/2003	1	2
Taxiway Delta	TW D	510	15,360	P	AAC	1/1/2003	1	3
Taxiway Echo	TW E	605	51,535	P	AAC	1/1/2003	3	12
Taxiway Echo	TW E	610	33,365	P	AAC	1/1/2003	2	6

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		
Source: U.S	. Army CERL, FDOT Airfield Inspecti	on Reference Manual		

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

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

3.2 Pavement Condition Index Results

According to the 2011 survey, the overall area-weighted PCI at Key West International Airport is 67, representing a Fair overall network condition.

Overall the airport exhibited pavement distresses associated with climate and age. Asphalt Concrete pavement distresses include; weathering, raveling, longitudinal and transverse cracking, and block cracking distresses of which are common of pavements of similar age. In a few isolated locations on the commercial apron pavement slippage distresses were observed. Depressions were observed along the connectors A9 and A10 (section 4150), which were categorized as a structural distress. These connectors appear to be among the most used throughout the airfield and are not holding up well to the high traffic demand.

The Asphalt Concrete pavement on Runway 9-27 exhibited low and medium severity longitudinal and transverse cracking along with low and medium severity weathering and raveling. Isolated instances of low severity patching and oil spillage were also observed.

Taxiway Alpha exhibited very similar distresses to the runway, with mostly low severity longitudinal and transverse cracking in addition to low and medium severity weathering and raveling.

The Apron pavement was for the most part all covered with a grip flex seal coat. This pavement exhibited low severity longitudinal and transverse cracking along with low and medium severity weathering and raveling. Oil spillage and low severity patching were observed throughout the apron area. A few isolated instances of pavement slippage was also observed where the braking and turning of the aircraft's wheels cause the pavement surface to slide and deform.

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 Key West International Airport.

Good 11%

Very Poor 12%

Poor 16%

Satisfactory 46%

Fair 15%

Figure 3-1: Network PCI Distribution by Rating Category

Figure 3-1a: Condition Rating Summary

Condition Rating	Total Area (ft²)	Percent
Good	186,865	11%
Satisfactory	798,200	46%
Fair	260,385	15%
Poor	284,705	16%
Very Poor	214,180	12%
Serious	0	0%
Failed	0	0%

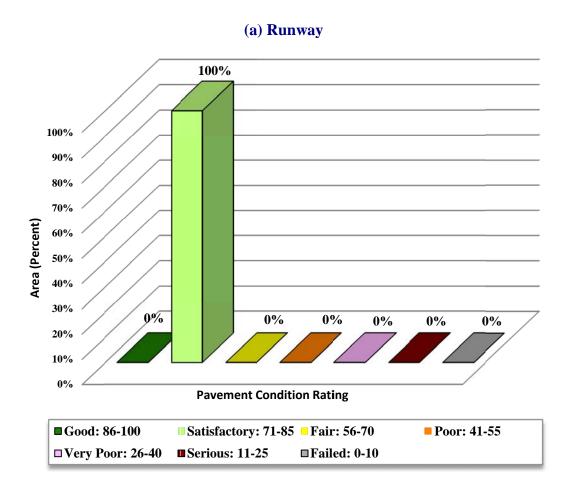
Approximately 57% of the network is in Good and Satisfactory condition while 28% of the network is in Poor and Very Poor condition. Table 3-3 illustrates the area-weighted PCI computed individually for each pavement use.

Table 3-3: Condition by Pavement Use

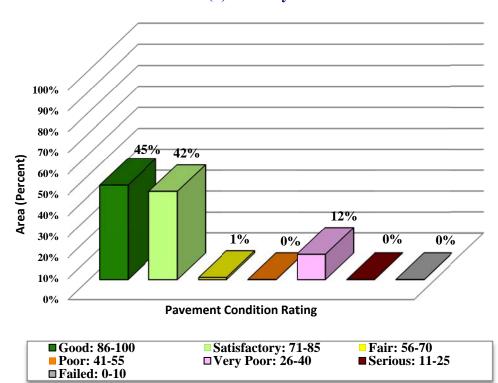
Use	Average Area- Weighted PCI	Condition Rating
Runway	80	Satisfactory
Taxiway	77	Satisfactory
Apron	54	Poor
All (Weighted)	67	Fair

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

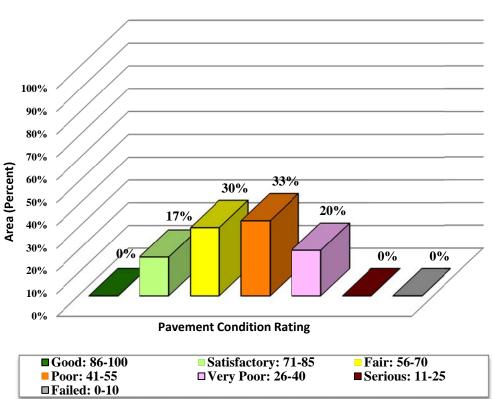
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use



(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 Key West International 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 Primary / Part 139 (PR) airports.

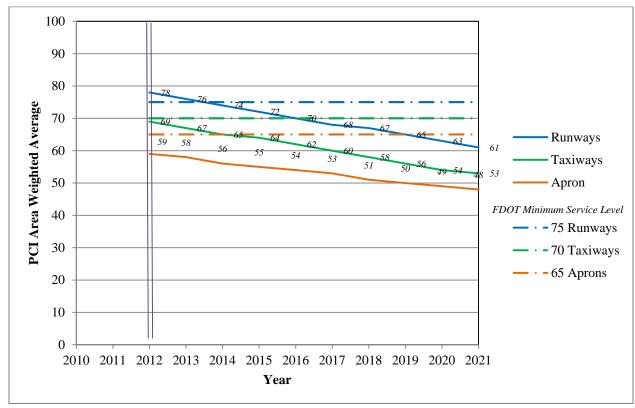


Figure 4-1: Predicted PCI by Pavement Use

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 Primary / Part 139 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
	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
AC	Oil Spillage	N/A	Patching - AC Shallow	PA-AS	SqFt
AC	Patching	M, H	Patching - AC Deep	PA-AD	SqFt
	Polished Agg.	N/A	No Localized M&R	NONE	N/A
	Danalina /	L	Surface Sealing - Rejuvenating	SS-RE	SqFt
	Raveling / Weathering	M	Surface Seal - Coal Tar	SS-CT	SqFt
	Weathering	Н	Microsurfacing	MI-AC	SqFt
	Rutting	M, H	Patching - AC Deep	PA-AD	SqFt
	Shoving	M, H	Grinding (Localized)	GR-LL	SqFt
	Slippage Crack	N/A	Patching - AC Shallow	PA-AS	SqFt
	Swelling	M, H	Patching - AC Deep	PA-AD	SqFt
	Blow-Up	L, M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Corner Break	M, H	Patching - PCC Full Depth	PA-PF	SqFt
	Linear Crack	M, H	Crack Sealing – PCC	CS-PC	Ft
	Durability Crack	Н	Slab Replacement – PCC	SL-PC	SqFt
	Durability Clack	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
PCC	Large Patch	M, H	Patching - PCC Full Depth	PA-PF	SqFt
FCC	Popouts	N/A	No Localized M&R	NONE	N/A
	Pumping	N/A	No Localized M&R	NONE	N/A
	Scaling	Н	Slab Replacement – PCC	SL-PC	SqFt
	Faulting	M, H	Grinding (Localized)	GR-PP	Ft
	Shattered Slab	M, H	Slab Replacement – PCC	SL-PC	SqFt
	Shrinkage Crack	N/A	No Localized M&R	NONE	N/A
	Joint Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt
	Corner Spall	M, H	Patching - PCC Partial Depth	PA-PP	SqFt

^{*}L = Low, M = Medium, H = High

Table 5-2: Critical PCI for Primary / Part 139 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 Primary / Part 139 Airports.

Table 5-3: FDOT Minimum Service Level PCI for Primary / Part 139
Airports

Minimum PCI						
Runway Taxiway Apron						
75	70	65				

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 Primary / Part 139 Airports based on PCI value.

Table 5-4: M&R Activities for Primary / Part 139 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 Primary / Part 139 Airports

	Activity	PCI Trigger	Cost/SqFt
Maintenance	Crack Sealing and Full-Depth Patching	90	\$0.20
Maintenance	Crack Scanng and Pun-Deput I atching	80	\$0.80
		70	\$1.40
	Mill and Overlay (AC) or Concrete Pavement Restoration (PCC)	60	\$4.23
Rehabilitation		50	\$8.55
		40	\$8.55
	Reconstruction	30	\$20.88
	Reconstruction	20	\$20.88

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 (ft ²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
West Apron	4210	AC	82,435	\$302,041.61	62	Mill and Overlay	100
East Apron	4150	AC	70,300	\$947,784.26	36	Reconstruction	100
East Apron	4145	AC	189,745	\$1,622,319.20	48	Mill and Overlay	100
East Apron	4130	AC	44,900	\$716,065.00	34	Reconstruction	100
East Apron	4125	AC	94,960	\$811,907.72	44	Mill and Overlay	100
East Apron	4120	AC	66,920	\$340,890.24	58	Mill and Overlay	100
East Apron	4115	AC	50,255	\$615,573.28	37	Reconstruction	100
East Apron	4110	AC	17,665	\$64,724.51	62	Mill and Overlay	100
East Apron	4105	AC	87,200	\$594,878.15	54	Mill and Overlay	100
Taxiway Echo	610	AAC	33,365	\$367,548.71	38	Reconstruction	100
Taxiway Delta	520	AAC	6,165	\$39,394.33	55	Mill and Overlay	100
Taxiway Delta	510	AAC	15,360	\$207,083.45	36	Reconstruction	100
	.	Total	\$6,630,210.46	47		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
West Apron	4210	AC	82,435	\$53,582.75	62	Microsurfacing	100
East Apron	4150	AC	70,300	\$947,784.26	36	Reconstruction	100
East Apron	4145	AC	189,745	\$123,334.25	48	Microsurfacing	100
East Apron	4130	AC	44,900	\$716,065.00	34	Reconstruction	100
East Apron	4125	AC	94,960	\$61,724.00	44	Microsurfacing	100
East Apron	4120	AC	66,920	\$43,498.00	58	Microsurfacing	100
East Apron	4115	AC	50,255	\$615,573.28	37	Reconstruction	100
East Apron	4110	AC	17,665	\$11,482.25	62	Microsurfacing	100
East Apron	4105	AC	87,200	\$56,680.00	54	Microsurfacing	100
Taxiway Echo	610	AAC	33,365	\$367,548.71	38	Reconstruction	100
Taxiway Delta	520	AAC	6,165	\$4,007.25	55	Microsurfacing	100
Taxiway Delta	510	AAC	15,360	\$207,083.45	36	Reconstruction	100
			Total	\$3,208,363.20	47		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	6110	WEATH/RAVEL	M	Surface Seal - Coat Tar	720.00	SqFt	\$0.40	\$288.00
Runway 9-27	RW 9-27	6110	L & T CR M		Crack Sealing - AC	366.10	Ft	\$2.25	\$823.71
Runway 9-27	RW 9-27	6110	OIL SPILLAGE	N	Patching - AC Shallow	56.00	SqFt	\$2.90	\$162.53
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,400.20	SqFt	\$0.40	\$3,360.12
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	11,242.20	SqFt	\$0.40	\$4,496.90
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	520.40	SqFt	\$0.40	\$208.17
Runway 9-27	RW 9-27	6105	OIL SPILLAGE	N	Patching - AC Shallow	145.50	SqFt	\$2.90	\$421.98
West Apron	AP W	4215	WEATH/RAVEL	M	Surface Seal - Coat Tar	335.60	SqFt	\$0.40	\$134.23
West Apron	AP W	4215	OIL SPILLAGE	N	Patching - AC Shallow	90.00	SqFt	\$2.90	\$261.08
West Apron	AP W	4205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	23,343.90	SqFt	\$0.40	\$9,337.64
West Apron	AP W	4205	OIL SPILLAGE	N	Patching - AC Shallow	90.90	SqFt	\$2.90	\$263.52
Taxiway Echo	TW E	605	OIL SPILLAGE N		Patching - AC Shallow	34.20	SqFt	\$2.90	\$99.08
Taxiway Echo	TW E	605	WEATH/RAVEL L		Surface Seal - Rejuvenating	1,619.40	SqFt	\$0.40	\$647.78
Taxiway Echo	TW E	605	WEATH/RAVEL	M	Surface Seal - Coat Tar	147.20	SqFt	\$0.40	\$58.89
Taxiway Delta	TW D	507	WEATH/RAVEL	L	Surface Seal - Rejuvenating	350.00	SqFt	\$0.40	\$140.00
Taxiway Delta	TW D	505	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,824.70	SqFt	\$0.40	\$1,529.88
Taxiway Charlie	TW C	305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	359.00	SqFt	\$0.40	\$143.60
Taxiway Bravo	TW B	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,329.30	SqFt	\$0.40	\$531.72
Taxiway Bravo	TW B	205	WEATH/RAVEL	M	Surface Seal - Coat Tar	613.50	SqFt	\$0.40	\$245.41

Table 6-3: Summary of Year 1 Maintenance Activities (Continued)

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Taxiway Alpha	TW A	110	OIL SPILLAGE	N	Patching - AC Shallow	22.20	SqFt	\$2.90	\$64.44
Taxiway Alpha	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,740.60	SqFt	\$0.40	\$2,696.25
Taxiway Alpha	TW A	107	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,201.40	SqFt	\$0.40	\$480.56
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,357.10	SqFt	\$0.40	\$2,542.86
	-	-		-		-	-	Total =	\$28,938.35

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.

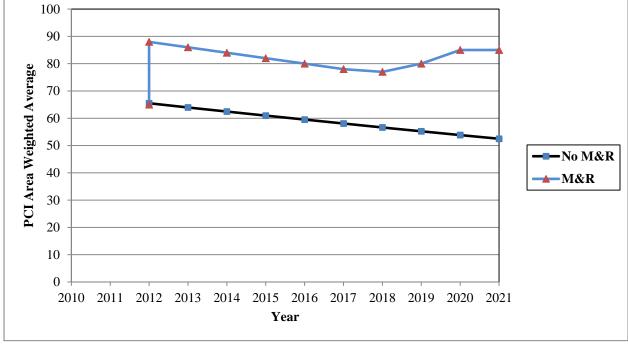


Figure 6-1: Budget Scenario Analysis

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

- The PCI will deteriorate from an average of 65 in 2012 to an average of 52 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 77 through the 10-year analysis period under the unlimited budget scenario. A 2021 PCI average of 85 with this scenario is 33 PCI points higher than a "No M&R" scenario. The total cost for Major M&R over this 10-year period is about \$9.6 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	\$28,938.36	\$6,630,210.46	\$6,659,148.82
2013	\$126,432.03	\$0.00	\$126,432.03
2014	\$151,377.10	\$0.00	\$151,377.10
2015	\$177,281.55	\$0.00	\$177,281.55
2016	\$198,474.16	\$76,734.75	\$275,208.91
2017	\$238,104.12	\$0.00	\$238,104.12
2018	\$267,835.09	\$206,073.19	\$473,908.28
2019	\$243,381.45	\$894,933.77	\$1,138,315.22
2020	\$168,273.57	\$1,556,186.14	\$1,724,459.71
2021	\$178,394.33	\$278,802.74	\$457,197.07
Total	\$1,778,491.76	\$9,642,941.05	\$11,421,432.81

Note: Costs are adjusted for inflation.

Approximately 69% of the total Major M&R cost is required in the first year (2012). According to the 2011 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- West Apron Asphalt pavement mill and overlay
- East Apron Asphalt pavement mill and overlay or full reconstruction
- **Taxiway Echo** Full reconstruction
- Taxiway Delta Asphalt pavement mill and overlay or full 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 Key West International Airport, and a 10-year M&R plan was developed based on the unlimited funding scenario.

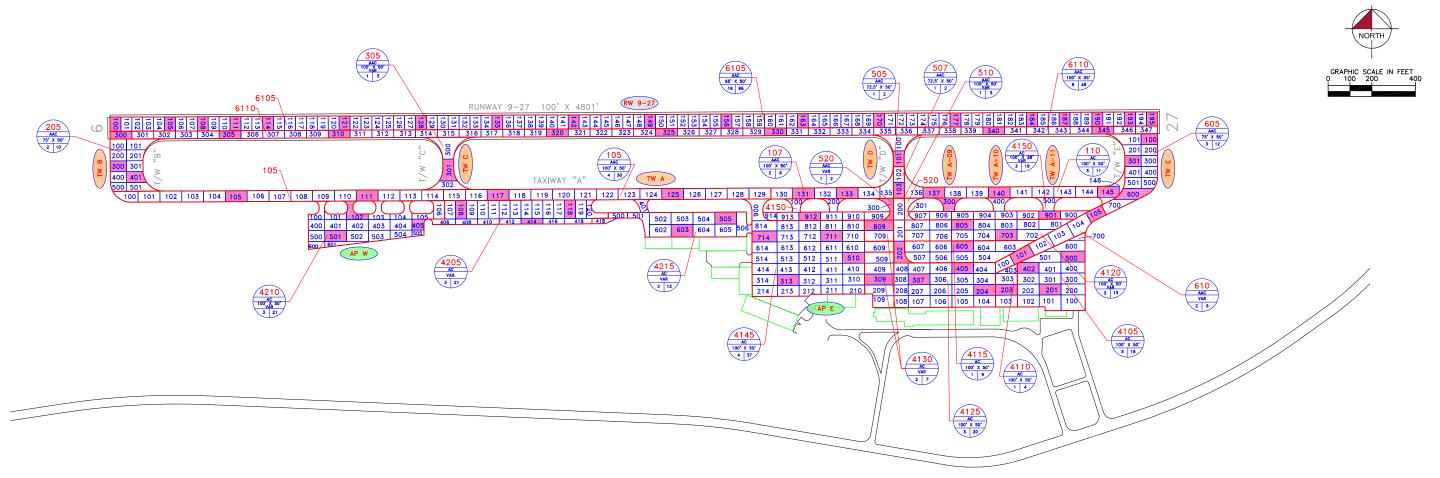
The following recommendations were made based on the 2011 condition inspection and M&R analysis results:

- West Apron Asphalt pavement mill and overlay
- East Apron Asphalt pavement mill and overlay or full reconstruction
- **Taxiway Echo** Full reconstruction
- Taxiway Delta Asphalt pavement mill and overlay or full 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



GPS (COORDINATES	- KEY WEST	INTERNATIONAL	. AIRPORT
LOCATION	SECTION	SAMPLE	LATITUDE	LONGITUDE
RW 9-27	6110	300	24.55596912	-81.76661943
RW 9-27	6110	305	24.55598377	-81.76511524
RW 9-27	6110	310	24.5559984	-81.76361105
RW 9-27	6110	320	24.55602762	-81.76060266
RW 9-27	6110	325	24.55604221	-81.75909847
RW 9-27	6110	330	24.55605678	-81.75759427
RW 9-27	6110	340	24.55608588	-81.75458588
RW 9-27	6110	345	24.55610041	-81.75308169
RW 9-27	6105	100	24.55610597	-81.76669624
RW 9-27	6105	105	24.5561133	-81.76594414
RW 9-27	6105	108	24.55611769	-81.76549289
RW 9-27	6105	111	24.55612208	-81.76504163
RW 9-27	6105	114	24.55612647	-81.76459037
RW 9-27	6105	121	24.55613671	-81.76353744
RW 9-27	6105	128	24.55614695	-81.7624845
RW 9-27	6105	135	24.55615717	-81.76143157
RW 9-27	6105	142	24,55616739	-81,76037863
RW 9-27	6105	149	24.5561776	-81.75932569
RW 9-27	6105	156	24.55618781	-81.75827276
RW 9-27	6105	163	24.556198	-81.75721982
RW 9-27	6105	170	24.55620819	-81.75616688
RW 9-27	6105	177	24.55621837	-81.75511394
RW 9-27	6105	184	24.55622855	-81.754061
RW 9-27	6105	187	24.55623291	-81.75360974
RW 9-27	6105	190	24.55623726	-81.75315849

LOCATION	SECTION	SAMPLE	LATITUDE	LONGITUDE
RW 9-27	6105	193	24.55624162	-81.75270723
RW 9-27	6105	195	24.55624452	-81.75240639
AP W	4215	505	24.55496458	-81.75827514
AP W	4215	603	24.55480329	-81.75887501
AP W	4210	102	24.55503217	-81.76339666
AP W	4210	405	24.55487029	-81.76250171
AP W	4210	501	24.55471289	-81.76365177
AP W	4205	108	24.55505232	-81.76192571
AP W	4205	118	24,55506692	-81.76042153
AP W	4205	414	24.55491116	-81.76094624
AP E	4150	300	24.55517695	-81.75519668
AP E	4150	901	24.55502568	-81.75380792
AP E	4150	912	24.55499368	-81.75711713
AP E	4145	313	24.55419007	-81,7574087
AP E	4145	510	24.55447396	-81.75650937
AP E	4145	711	24.5547462	-81.75681339
AP E	4145	714	24.55473725	-81.75773846
AP E	4130	309	24,55420221	-81.75615346
AP E	4130	809	24.55488598	-81.75616137
AP E	4125	204	24.55407868	-81.75469959
AP E	4125	307	24.55420753	-81.75560369
AP E	4125	405	24.55435093	-81.75500361
AP E	4120	703	24,55476947	-81.7544067
AP E	4120	805	24.55489711	-81.75500992
AP E	4115	605	24.55462608	-81.75500679
AP E	4110	203	24.55408158	-81.75439876

LOCATION	SECTION	SAMPLE	LATITUDE	LONGITUDE
AP E	4105	201	24.5540874	-81.75379709
AP E	4105	402	24.55435865	-81.75409915
AP E	4105	500	24.55450319	-81.75348447
TW E	610	101	24.55452368	-81.7541879
TW E	610	105	24.55504398	-81.75316909
TW E	605	100	24.55598964	-81.75244106
TW E	605	301	24.5557123	-81.75266352
TW E	605	600	24.5553009	-81.75265541
TW D	510	202	24.55452194	-81.75584273
TW D	507	103	24.55532685	-81.75588891
TW D	505	101	24.55572812	-81.75589355
TW C	305	301	24.55553583	-81.76210432
TW B	205	300	24.55557666	-81.76665247
TW B	205	401	24.55543656	-81.76641076
TW A	110	137	24.55530068	-81.75540749
TW A	110	140	24.55530927	-81.7545047
TW A	110	145	24.55532534	-81.75300481
TW A	107	131	24,55528317	-81,75720321
TW A	107	133	24.55528899	-81.75660154
TW A	105	105	24.55520725	-81.76502497
TW A	105	111	24.55522481	-81.76321995
TW A	105	117	24.55524234	-81.76141493
TW A	105	125	24,55526569	-81.75900824

LEGEND

(RW 13-3) - TYPICAL RUNWAY BRANCH ID

TW A TYPICAL TAXIWAY BRANCH ID

AP S TYPICAL APRON BRANCH ID

SECTION NUMBER

PAVEMENT TYPE

PAVEMENT TYPE

TYPICAL SAMPLE UNIT INFORMATION

FLEXIBLE (AC) PAVEMENT LENGTH & WIDTH

RIGIO (PCC) PAVEMENT NO. OF SLABS AND SLAB SIZE

NUMBER OF SAMPLE UNITS IN SECTION
NUMBER OF SAMPLE UNITS TO BE INSPECTED



SECTION NOT INSPECTED DUE TO RECENT CONSTRUCTION. SEE SYSTEM INVENTORY MAP FOR CONSTRUCTION DATES.

INSPECTED SAMPLE UNITS. GPS COORDINATES ARE AT THE CENTROID OF THE SAMPLE UNIT.

TOTAL SAMPLES INSPECTED = 74

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

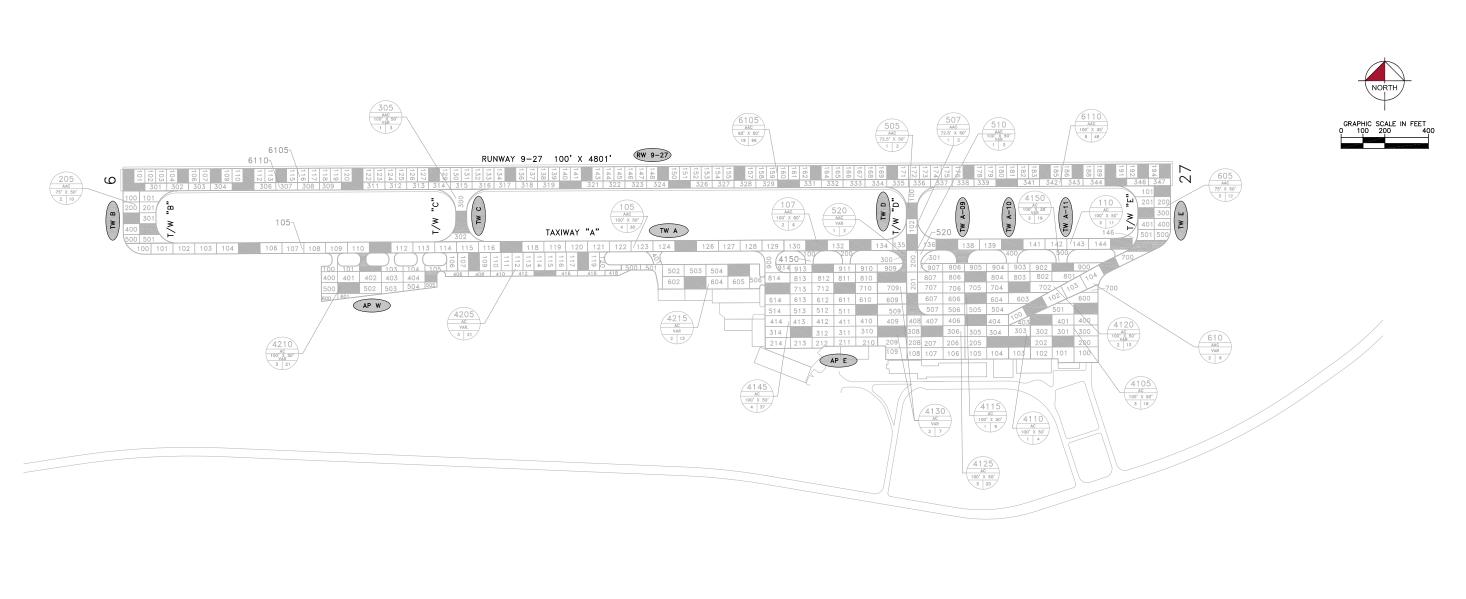
K:\WF8_Aviation\142179	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						
DESIGNED:	BAL	DRAWN:	BAL	CHECKED:	DRB	DATE:	MAY 2011
NUMBER	DATE	REVISIONS					











CONSTRUCTION SINCE LAST INSPECTION & ANTICIPATED CONSTRUCTION ACTIVITY

1A &	NTICIPATED (CONSTRUCTION ACTIVITY
CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
	. 10	TION PROVIDED
W	INFORMA	

LEGEND



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

K: \WFB_Aviation\142179	DES_ANDEDS\/AZT20005\CAZO\FLARCHETTS\(DYS\CONSTITS\(QQ2-EYNS-MANDITERY.deg) PLOTTED: March 1, 2012 - 7:54 AM, 811 Bana, Art						1
DESIGNED:	BAL	DRAWN:	BAL	CHECKED:	DRB	DATE:	MAY 2011
NUMBER	DATE		REVISIONS				





SYSTEM INVENTORY MAP

KEY WEST INTERNATIONAL AIRPORT
MONROE 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	Sample Units in Section
East Apron	AP E	APRON	4105	290	311	87,200	P	AC	1/1/2003	5/2/2011	16
East Apron	AP E	APRON	4110	175.00	100	17,665	P	AC	1/1/2003	5/2/2011	4
East Apron	AP E	APRON	4115	510.00	100	50,255	P	AC	1/1/2003	5/2/2011	9
East Apron	AP E	APRON	4120	690	97	66,920	P	AC	1/1/2003	5/2/2011	13
East Apron	AP E	APRON	4125	465	204	94,960	P	AC	1/1/2003	5/2/2011	20
East Apron	AP E	APRON	4130	350.00	135	44,900	P	AC	1/1/2003	5/2/2011	7
East Apron	AP E	APRON	4145	515	345	189,745	P	AC	1/1/2003	5/2/2011	37
East Apron	AP E	APRON	4150	1360	38	70,300	P	AC	1/1/2003	5/2/2011	19
West Apron	AP W	APRON	4205	675	110	77,460	P	AC	1/1/2003	5/2/2011	21
West Apron	AP W	APRON	4210	625	130	82,435	P	AC	1/1/2003	5/2/2011	21
West Apron	AP W	APRON	4215	500	113	63,200	P	AC	1/1/2006	5/2/2011	13
Runway 9-27	RW 9-27	RUNWAY	6105	4800	65	312,000	P	AAC	1/1/2003	5/2/2011	96
Runway 9-27	RW 9-27	RUNWAY	6110	4800	35	168,000	P	AAC	1/1/2003	5/2/2011	48
Taxiway Alpha	TW A	TAXIWAY	105	2996	50	149,580	P	AAC	1/1/2003	5/2/2011	30
Taxiway Alpha	TW A	TAXIWAY	107	562	50	30,035	P	AAC	1/1/2003	5/2/2011	6
Taxiway Alpha	TW A	TAXIWAY	110	995	50	54,795	P	AC	1/11/2003	5/2/2011	11
Taxiway Bravo	TW B	TAXIWAY	205	240	150	39,920	P	AAC	1/1/2003	5/2/2011	10
Taxiway Charlie	TW C	TAXIWAY	305	240	50	20,165	P	AAC	1/1/2003	5/2/2011	3
Taxiway Delta	TW D	TAXIWAY	520	100	31	6,165	P	AAC	1/1/2003	11/30/2007	1
Taxiway Delta	TW D	TAXIWAY	505	145	50	11,125	P	AAC	1/1/2003	5/2/2011	2
Taxiway Delta	TW D	TAXIWAY	507	145	50	7,250	P	AAC	1/1/2003	5/2/2011	2

Table A-1: Pavement Inventory (Continued)

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	Sample Units in Section
Taxiway Delta	TW D	TAXIWAY	510	297	50	15,360	P	AAC	1/1/2003	5/2/2011	3
Taxiway Echo	TW E	TAXIWAY	605	450	150	51,535	P	AAC	1/1/2003	5/2/2011	12
Taxiway Echo	TW E	TAXIWAY	610	560	50	33,365	P	AAC	1/1/2003	5/2/2011	6

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:06/16/2011

Work History Report

1 of 5 Pavement Database: (EAST APRON) Network: EYW Branch: AP E Section: 4105 Surface: AC L.C.D.: 01/01/2003 Use: APRON 290.00 Ft 311.00 Ft True Area: 87,200.00 SqF Rank P Length: Width: Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 ST-GF Surface Treatment - Grip Flex \$0 0.00 False Overlay - AC Structural 01/01/2003 OL-AS \$0 1.50 True **BUILT** 01/01/1989 **IMPORTED** 3.00 True 1989 3" P-401 6" P-211 12" P-154 Network: EYW Branch: AP E (EAST APRON) Section: 4110 Surface: AC L.C.D.: 01/01/2003 Use: APRON Rank P Length: 175.00 Ft Width: 100.00 Ft True Area: 17.665.00 SqF Work Work Work Thickness Major Cost Comments M&R Date Code Description (in) ST-GF Surface Treatment - Grip Flex False 01/01/2005 \$0 0.00 Overlay - AC Structural \$0 01/01/2003 OL-AS 1.50 True 01/01/1989 **IMPORTED REPAIR** False 1989 P-625 SEAL COAT 01/01/1980 **IMPORTED BUILT** 1980 2" P-401 8" P-211 2.00 True Network: EYW Branch: AP E (EAST APRON) Section: 4115 Surface: AC L.C.D.: 01/01/2003 Use: APRON 510.00 Ft Rank P Length: Width: 100.00 Ft True Area: 50,255.00 SqF Work Work Thickness Major Comments Cost Description Date Code (in) M&R 01/01/2005 ST-GF Surface Treatment - Grip Flex 0.00 False \$0 01/01/2003 Overlay - AC Structural 1.50 OL-AS \$0 True 01/01/1989 **IMPORTED REPAIR** False 1989 P-625 SEALCOAT 01/01/1967 **IMPORTED BUILT** 1967 2" P-401 8" P-211 True (EAST APRON) Network: EYW Branch: AP E Section: 4120 Surface: AC L.C.D.: 01/01/2003 Use: APRON True Area: 66,920.00 SqF Rank P Length: 690.00 Ft Width: 97.00 Ft Work Work Work Thickness Major Comments Cost Date Code Description M&R (in) 01/01/2005 ST-GF Surface Treatment - Grip Flex 0.00 False \$0 01/01/2003 OL-AS Overlay - AC Structural 1.50 \$0 True 01/01/1989 **IMPORTED BUILT** 1989 P-625 3" P-401 6" P-211 12" P-152 3.00 True Surface: AC Network: EYW Branch: AP E (EAST APRON) Section: 4125 L.C.D.: 01/01/2003 Use: APRON Rank P Length: 465.00 Ft Width: 204.00 Ft True Area: 94,960.00 SqF Work Work Work Thickness Major Comments Cost Description Date Code (in) M&R ST-GF 01/01/2005 Surface Treatment - Grip Flex \$0 0.00 False 01/01/2003 Overlay - AC Structural \$0 OL-AS 1.50 True 01/01/1989 **IMPORTED REPAIR** False 1989 P-625 SEALCOAT 1957 1.5" P-401 8" P-211 01/01/1957 **IMPORTED BUILT** (EAST APRON) Network: EYW Branch: AP E Section: 4130 Surface: AC L.C.D.: 01/01/2003 Use: APRON Rank P Length: True Area: 44,900.00 SqF 350.00 Ft Width: 135.00 Ft Major Work Work Work Thickness Comments Cost Description M&R Date Code (in) 01/01/2005 ST-GF Surface Treatment - Grip Flex \$0 False 0.00 01/01/2003 Overlay - AC Structural \$0 OL-AS 1.50 True 01/01/1989 **IMPORTED REPAIR** False 1989 P-625 SEALCOAT 1980 2" P-401 8" P-211 01/01/1980 **IMPORTED BUILT** 2.00 True Network: EYW Branch: AP E (EAST APRON) Section: 4145 Surface: AC L.C.D.: 01/01/2003 Use: APRON Rank P Length: 515.00 Ft 345.00 Ft True Area:189,745.00 SqF Width: Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 ST-GF Surface Treatment - Grip Flex \$0 0.00 False

Date:06/	/16/2011		story Rep	ort	2 of 5
01/01/2003 01/01/1989 01/01/1977	OL-AS IMPORTED IMPORTED	Overlay - AC Structural REPAIR BUILT	ent Database: \$0	1.50 2.00	True False 1989 P-625 SEALCOAT True 1977 2" P-401 6" P-211
Network: E'L.C.D.: 01/01	YW Br a 1/2003 Use: AF	anch: APE (EAST AF PRON Rank P Length:	PRON) 1,360.00 Ft	Width:	Section: 4150 Surface: AC 38.00 Ft True Area: 70,300.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2003	INITIAL	Initial Construction	\$0	0.00	True
Network: E'L.C.D.: 01/01	YW Br 1/2003 Use: AF	anch: APW (WEST APRON Rank P Length:	PRON) 675.00 Ft	Width:	Section: 4205 Surface: AC 110.00 Ft True Area: 77.460.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2003	INITIAL	Initial Construction	\$0	0.00	True
	1/2003 Use : AF	Trainer Longin.	625.00 Ft	Width:	Section: 4210 Surface: AC 130.00 Ft True Area: 82,435.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2005 01/01/2003	ST-GF INITIAL	Surface Treatment - Grip Flex Initial Construction	\$0 \$0	0.00 0.00	False True
Network: E'L.C.D.: 01/01	YW Br 1/2006 Use: AF	anch: APW (WEST APRON Rank P Length:	PRON) 500.00 Ft	Width:	Section: 4215 Surface: AC 113.00 Ft True Area: 63.200.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2006	ML-OL	Mill and Overlay	\$0	0.00	True
Network: E'L.C.D.: 01/01	YW Br 1/2003 Use: RU	anch: RW 9-27 (RUNWA' JNWAY Rank P Length:	Y 9-27) 4,800.00 Ft	Width:	Section: 6105 Surface: AAC 65.00 Ft True Area: 312,000.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments
01/01/2003 01/01/1979 01/01/1954 01/01/1952	OL-AS IMPORTED IMPORTED IMPORTED	Overlay - AC Structural OVERLAY OVERLAY BUILT	\$0	2.50 2.00	True True 1979 2.5" TO 6" P-401 True 1954 2" P-401 8" P-211
Network: E	YW Br				True 1952 17" P-154
	1/2003 Use: RU	anch: RW 9-27 (RUNWA` JNWAY Rank PLength:	Y 9-27) 4,800.00 Ft	Width:	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF
Work Date	1/2003 Use: RU Work Code		4,800.00 Ft	Width: Thickness (in)	Section: 6110 Surface: AAC
Work	Work	JNWAY Rank P Length: Work	4,800.00 Ft	Thickness	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major
Work Date 01/01/2003 01/01/1979 01/01/1954 Network: E	Work Code OL-AS IMPORTED IMPORTED	Work Description Overlay - AC Structural OVERLAY BUILT anch: TW A (TAXIWA)	4,800.00 Ft Cost \$0	Thickness (in) 1.50 2.50	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major M&R Comments True True 1979 2.5" P-401
Work Date 01/01/2003 01/01/1979 01/01/1954 Network: E	Work Code OL-AS IMPORTED IMPORTED	Work Description Overlay - AC Structural OVERLAY BUILT Anch: TW A (TAXIWA)	4,800.00 Ft Cost \$0 Y A) 2.996.00 Ft	1.50 2.50 2.00	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major M&R Comments True True 1979 2.5" P-401 True 1954 2" P-401 8" P-211 17" P-152 Section: 105 Surface: AAC
Work Date 01/01/2003 01/01/1979 01/01/1954 Network: E L.C.D.: 01/0	Work Code OL-AS IMPORTED IMPORTED YW Br. 1/2003 Use: TA	Work Description Overlay - AC Structural OVERLAY BUILT anch: TW A XIWAY Rank P Length: Work	4,800.00 Ft Cost \$0 Y A) 2.996.00 Ft	1.50 2.50 2.00 Width:	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major M&R Comments True 1979 2.5" P-401 True 1954 2" P-401 8" P-211 17" P-152 Section: 105 Surface: AAC 50.00 Ft True Area: 149,580.00 SqF
Work Date 01/01/2003 01/01/1979 01/01/1954 Network: E' L.C.D.: 01/0' Work Date 01/01/2003 01/01/1979 01/01/1957 Network: E'	Work Code OL-AS IMPORTED IMPORTED YW Br. 1/2003 Use: TA Work Code OL-AS IMPORTED IMPORTED	Work Description Overlay - AC Structural OVERLAY BUILT anch: TW A XIWAY Rank P CTAXIWAY Rank P Length: Work Description Overlay - AC Structural OVERLAY BUILT AC STRUCTURAL OVERLAY BUILT Anch: TW A (TAXIWAY	4,800.00 Ft Cost \$0 Y A) 2,996.00 Ft Cost \$0	Thickness (in) 1.50 2.50 2.00 Width: Thickness (in) 1.50 2.00	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major M&R Comments True 1979 2.5" P-401 True 1954 2" P-401 8" P-211 17" P-152 Section: 105 Surface: AAC 50.00 Ft True Area: 149.580.00 SqF Major M&R Comments True 1979 2" P-401
Work Date 01/01/2003 01/01/1979 01/01/1954 Network: E' L.C.D.: 01/0' Work Date 01/01/2003 01/01/1979 01/01/1957 Network: E'	Work Code OL-AS IMPORTED IMPORTED YW Br. 1/2003 Use: TA Work Code OL-AS IMPORTED IMPORTED IMPORTED	Work Description Overlay - AC Structural OVERLAY BUILT anch: TW A XIWAY Work Description Overlay - AC Structural OVERLAY BUILT AND A (TAXIWA) OVERLAY BUILT OVERLAY BUILT AND A (TAXIWA)	4,800.00 Ft Cost Y A) 2.996.00 Ft Cost \$0 Y A) 562.00 Ft	Thickness (in) 1.50 2.50 2.00 Width: Thickness (in) 1.50 2.00 8.00	Section: 6110 Surface: AAC 35.00 Ft True Area: 168,000.00 SqF Major M&R Comments True 1979 2.5" P-401 True 1954 2" P-401 8" P-211 17" P-152 Section: 105 Surface: AAC 50.00 Ft True Area: 149.580.00 SqF Major M&R Comments True 1979 2" P-401 True 1957 1.5 P-401 8" P-211 Section: 107 Surface: AAC

Date:06/	16/2011	Work His	story Re	port	3 of 5		
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True True 1979 2" P-401 True 1957 1.5" P-401 8" P-211		
Network: E\ L.C.D.: 01/11	/W Br a /2003 Use: TA	anch: TWA (TAXIWAY XIWAY Rank PLength:	995.00 Ft	Width:	Section: 110 Surface: AC 50.00 Ft True Area: 54,795.00 SqF		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/11/2003 01/01/1979	OL-AS IMPORTED	Overlay - AC Structural BUILT	\$0	1.50 2.00	True 1979 2" P-401 8" P-211 17" P-152		
Network: EYW Branch: TW B (TAXIWAY B) Section: 205 Surface: AAC L.C.D.: 01/01/2003 Use: TAXIWAY Rank P Length: 240.00 Ft Width: 150.00 Ft True Area: 39,920.00 SqF							
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True 1979 2" P-401 True 1957 1.5" P-401 8" P-211 17" P-152		
Network: E` L.C.D.: 01/01	YW Bra 1/2003 Use: TA	anch: TW C (TAXIWAY XIWAY Rank P Length:	′ C) 240.00 Ft	Width:	Section: 305 Surface: AAC 50.00 Ft True Area: 20,165.00 SqF		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True True 1979 2" P-401 True 1957 1.5" P-401 8" P-211 17" P-152		
Network: E		anch: TW D (TAXIWAY XIWAY Rank P Length:	′ D) 145.00 Ft	Width:	Section: 505 Surface: AAC 50.00 Ft True Area: 11.125.00 SqF		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True True 1979 2" P-401 True 1957 1.5" P-401 8" P-211 17" P-152		
Network: E\ L.C.D.: 01/01	/W Br a /2003 Use: TA	anch: TW D (TAXIWAY XIWAY Rank P Length:	′ D) 145.00 Ft	Width:	Section: 507 Surface: AAC 50.00 Ft True Area: 7,250.00 SqF		
Work Date	Work Code	Work Description		Thickness (in)	Major M&R Comments		
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True True 1979 2" P-401 True 1957 1.5" P-401 8" P-211 17" P-152		
Network: E\ L.C.D.: 01/01	/W Br : /2003 Use : TA	anch: TW D (TAXIWAY XIWAY Rank P Length:	′ D) 297.00 Ft	Width:	Section: 510 Surface: AAC 50.00 Ft True Area: 15,360.00 SqF		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/01/2005 01/01/2003 01/01/1985 01/01/1979 01/01/1957	ST-GF OL-AS IMPORTED IMPORTED IMPORTED	Surface Treatment - Grip Flex Overlay - AC Structural REPAIR OVERLAY BUILT	\$0 \$0	0.00 1.50 2.00 1.50	False True False 1985 SEAL COAT True 1979 2" P-401 True 1957 1.5" P-401 8" P-211 17" P-152		
Network: E\ L.C.D.: 01/01	/W Br a //2003 Use: TA	anch: TW D (TAXIWAY) XIWAY Rank P Length:	′ D) 100.00 Ft	Width:	Section: 520 Surface: AAC 31.00 Ft True Area: 6.165.00 SqF		
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R Comments		
01/01/2003	OL-AS	Overlay - AC Structural	\$0	1.50	True		

Date:06/	16/2011		story Re	•		4 of 5
01/01/1989 01/01/1989	IMPORTED IMPORTED	BUILT OVERLAY		3.00		1989 3" P-401 6" P-211 12" P-154 1989 P-625 SEAL COAT
Network: EYW Branch: TW E (TAXIWAY E) L.C.D.: 01/01/2003 Use: TAXIWAY Rank P Length: 450.00 Ft Width:						oction: 605 Surface: AAC .00 Ft True Area: 51.535.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2003 01/01/1979 01/01/1957	OL-AS IMPORTED IMPORTED	Overlay - AC Structural OVERLAY BUILT	\$0	1.50 2.00 1.50	True	1979 2" P-401 1957 1.5" P-401 8" P-211 17" P-152
Network: E` L.C.D.: 01/01	YW Br: 1/2003 Use: TA	anch: TW E (TAXIWA XIWAY Rank P Length:	•	Width:		oction: 610 Surface: AAC .00 Ft True Area: 33,365.00 SqF
Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2005 01/01/2003 01/01/1989	ST-GF OL-AS IMPORTED	Surface Treatment - Grip Flex Overlay - AC Structural REPAIR	\$0 \$0		False True False	1989 P-625 SEAL COAT
01/01/1957	IMPORTED	BUILT		1.50	True	1957 1.5" P-401 8" P-211 17" P-152

Date:06/16/2011

Work History Report

5 of 5

Pavement Database:

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	20	1,450,940.00	2.97	3.61
Initial Construction	3	230,195.00	.00	.00
Mill and Overlay	1	63,200.00	.00	
OVERLAY	12	1,123,135.00	2.09	.20
Overlay - AC Structural	20	1,450,940.00	1.50	.00
REPAIR	7	446,250.00		
Surface Treatment - Grip Flex	10	682,805.00	.00	.00

STD = Standard Deviation

APPENDIX B

2012 CONDITION MAP PAVEMENT CONDITION INDEX TABLE

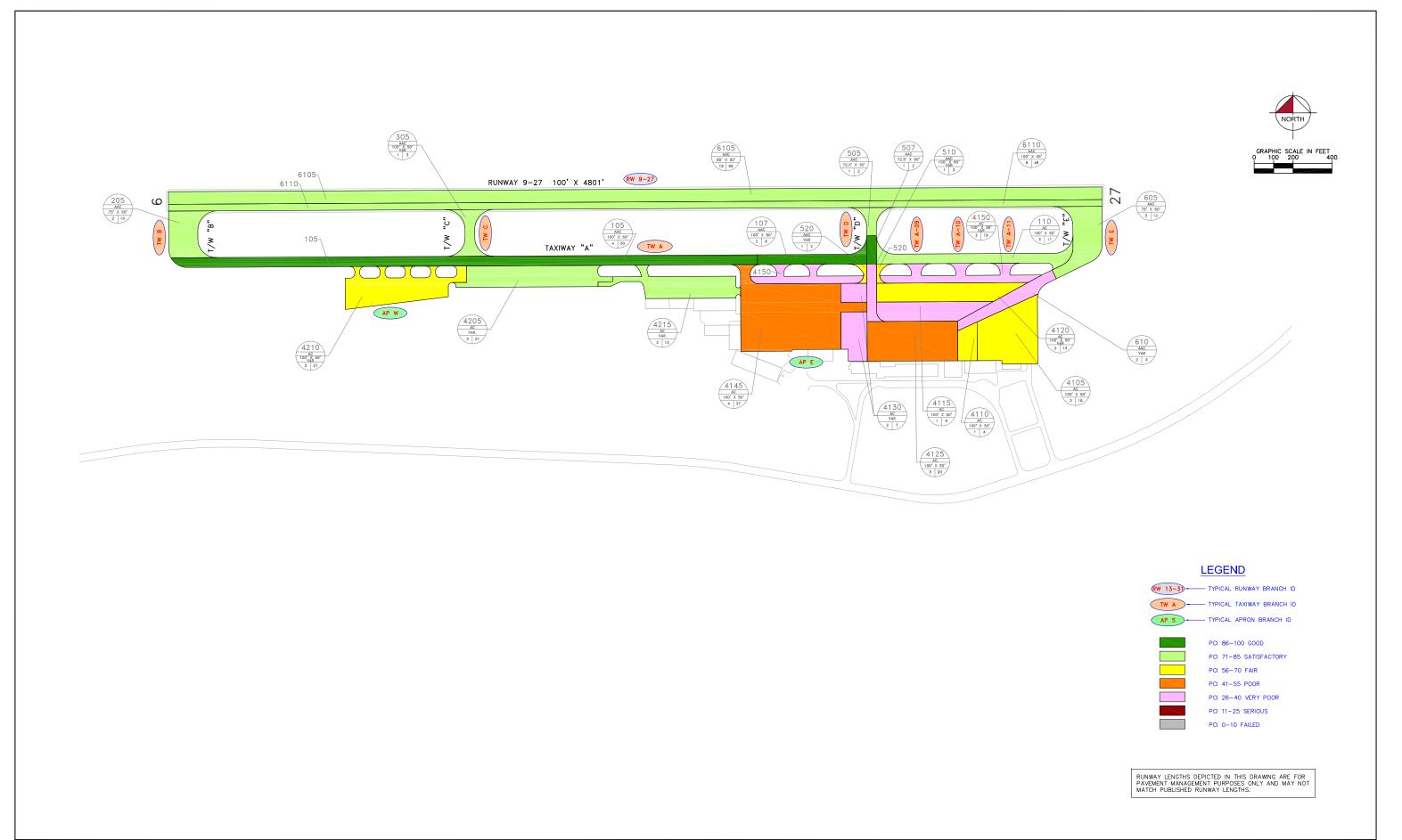








Table B-1: Pavement Condition Index

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft²)	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
East Apron	AP E	APRON	4105	87,200	P	AC	3	16	56	Fair
East Apron	AP E	APRON	4110	17,665	P	AC	1	4	64	Fair
East Apron	AP E	APRON	4115	50,255	P	AC	1	9	38	Very Poor
East Apron	AP E	APRON	4120	66,920	P	AC	2	13	60	Fair
East Apron	AP E	APRON	4125	94,960	P	AC	3	20	45	Poor
East Apron	AP E	APRON	4130	44,900	P	AC	2	7	34	Very Poor
East Apron	AP E	APRON	4145	189,745	P	AC	4	37	49	Poor
East Apron	AP E	APRON	4150	70,300	P	AC	3	19	36	Very Poor
West Apron	AP W	APRON	4205	77,460	P	AC	3	21	80	Satisfactory
West Apron	AP W	APRON	4210	82,435	P	AC	3	21	64	Fair
West Apron	AP W	APRON	4215	63,200	P	AC	2	13	82	Satisfactory
Runway 9-27	RW 9-27	RUNWAY	6105	312,000	P	AAC	19	96	82	Satisfactory
Runway 9-27	RW 9-27	RUNWAY	6110	168,000	P	AAC	8	48	79	Satisfactory
Taxiway Alpha	TW A	TAXIWAY	105	149,580	P	AAC	4	30	86	Good
Taxiway Alpha	TW A	TAXIWAY	107	30,035	P	AAC	2	6	89	Good
Taxiway Alpha	TW A	TAXIWAY	110	54,795	P	AC	3	11	81	Satisfactory
Taxiway Bravo	TW B	TAXIWAY	205	39,920	P	AAC	2	10	76	Satisfactory
Taxiway Charlie	TW C	TAXIWAY	305	20,165	P	AAC	1	3	73	Satisfactory
Taxiway Delta	TW D	TAXIWAY	520	6,165	P	AAC	1	1	64	Fair
Taxiway Delta	TW D	TAXIWAY	505	11,125	P	AAC	1	2	76	Satisfactory
Taxiway Delta	TW D	TAXIWAY	507	7,250	P	AAC	1	2	89	Good
Taxiway Delta	TW D	TAXIWAY	510	15,360	P	AAC	1	3	38	Very Poor

Table B-1: Pavement Condition Index (Continued)

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft²)	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
Taxiway Echo	TW E	TAXIWAY	605	51,535	P	AAC	3	12	79	Satisfactory
Taxiway Echo	TW E	TAXIWAY	610	33,365	P	AAC	2	6	40	Very Poor

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:

Branch Condition Report

1 of 2

Pavement Database: NetworkID: EYW

Number of Sum Section Avg Section PCI Weighted **True Area Branch ID** Average Use Sections Length Width Standard Average (SqFt) PCI PCI (Ft) (Ft) Deviation APE (EAST APRON) 8 4,355.00 166.25 621,945.00 **APRON** 47.75 10.69 47.54 APW (WEST APRON) 3 1,800.00 117.67 223,095.00 **APRON** 74.65 75.33 8.06 RW 9-27 (RUNWAY 9-27) 2 9,600.00 50.00 480,000.00 **RUNWAY** 80.50 1.50 80.95 TW A (TAXIWAY A) 3 4,553.00 50.00 234,410.00 **TAXIWAY** 3.30 85.22 85.33 TW B (TAXIWAY B) 1 240.00 150.00 39,920.00 **TAXIWAY** 76.00 0.00 76.00 TW C (TAXIWAY C) 1 240.00 50.00 20,165.00 **TAXIWAY** 73.00 0.00 73.00 TW D (TAXIWAY D) 4 687.00 45.25 39,900.00 **TAXIWAY** 66.75 18.81 61.88 TW E (TAXIWAY E) 2 1,010.00 100.00 84,900.00 **TAXIWAY** 59.50 19.50 63.67

Date:

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	11	845,040.00	55.27	15.86	54.70
RUNWAY	2	480,000.00	80.50	1.50	80.95
TAXIWAY	11	419,295.00	71.91	17.01	77.17
AII	24	1,744,335.00	65.00	18.26	67.32

STD = Standard Deviation

Date: 6 /16/2011

Section Condition Report

Pavement Database:

NetworkID: EYW

Last Age **Branch ID** Section ID Last Surface Use Rank Lanes **True Area** PCI Inspection Αt Const. (SqFt) Date Inspection Date APE (EAST APRON) **APRON** Ρ 87,200.00 05/02/2011 4105 01/01/2003 AC 0 56.00 AP E (EAST APRON) 4110 01/01/2003 AC **APRON** Ρ 0 17,665.00 05/02/2011 8 64.00 AP E (EAST APRON) 4115 01/01/2003 AC **APRON** Ρ 50,255.00 05/02/2011 38.00 APE (EAST APRON) 4120 01/01/2003 AC **APRON** 0 66,920.00 05/02/2011 8 60.00 01/01/2003 **APRON** Ρ AP E (EAST APRON) 4125 AC 0 94,960.00 05/02/2011 8 45.00 APE (EAST APRON) Р 0 4130 01/01/2003 AC **APRON** 44,900.00 05/02/2011 8 34.00 AP E (EAST APRON) 01/01/2003 AC **APRON** Р 0 189,745.00 05/02/2011 8 4145 49.00 Ρ AP E (EAST APRON) 4150 01/01/2003 AC **APRON** 0 70,300.00 05/02/2011 8 36.00 APW (WEST APRON) 01/01/2003 **APRON** Ρ 77,460.00 05/02/2011 80.00 4205 AC 0 8 APW (WEST APRON) 01/01/2003 **APRON** Р 82,435.00 05/02/2011 4210 AC 0 8 64.00 Ρ APW (WEST APRON) 4215 01/01/2006 AC **APRON** 0 63,200.00 05/02/2011 5 82.00 RW 9-27 (RUNWAY 9-27) 6105 01/01/2003 AAC **RUNWAY** Ρ 0 312,000.00 05/02/2011 8 82.00 Р RW 9-27 (RUNWAY 9-27) 01/01/2003 AAC **RUNWAY** 0 168,000.00 05/02/2011 8 79.00 6110 TW A (TAXIWAY A) 105 01/01/2003 AAC **TAXIWAY** Ρ 0 149,580.00 05/02/2011 8 86.00 TW A (TAXIWAY A) 01/01/2003 AAC **TAXIWAY** Ρ 0 30,035.00 05/02/2011 89.00 107 8 TW A (TAXIWAY A) 110 01/11/2003 AC **TAXIWAY** Р n 54,795.00 05/02/2011 8 81.00 TW B (TAXIWAY B) 205 01/01/2003 AAC **TAXIWAY** Ρ 0 39,920.00 05/02/2011 8 76.00 TW C (TAXIWAY C) 305 01/01/2003 AAC **TAXIWAY** Ρ 0 20,165.00 05/02/2011 8 73.00 01/01/2003 **TAXIWAY** Ρ 11,125.00 05/02/2011 TW D (TAXIWAY D) AAC 0 8 76.00 505 TW D (TAXIWAY D) 507 01/01/2003 AAC **TAXIWAY** Ρ 0 7,250.00 05/02/2011 8 89.00 TW D (TAXIWAY D) 510 01/01/2003 AAC **TAXIWAY** Ρ 0 15,360.00 05/02/2011 8 38.00 TW D (TAXIWAY D) 520 01/01/2003 AAC **TAXIWAY** Р 6,165.00 11/30/2007 4 64.00 Р **TAXIWAY** TW E (TAXIWAY E) 605 01/01/2003 AAC 0 51,535.00 05/02/2011 8 79.00 TW E (TAXIWAY E) 610 01/01/2003 AAC **TAXIWAY** Ρ 33,365.00 05/02/2011 40.00

1 of 2

Date: 6 /16/2011

Section Condition Report

2 of 2

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
03-05	4.50	69,365.00	2	73.00	9.00	80.40
06-10	8.00	1,674,970.00	22	64.27	18.71	66.78
All	7.71	1,744,335.00	24	65.00	18.26	67.32

APPENDIX D

PAVEMENT CONDITION PREDICTION TABLE PREDICTED PCI BY PAVEMENT USE GRAPH

Table D-1: Pavement Condition Prediction

D LN	D 1 ID	Section	Current					PCI Fo	recast				
Branch Name	Branch ID	ID	PCI	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
East Apron	AP E	4105	56	54	53	52	51	49	48	47	46	45	44
East Apron	AP E	4110	64	62	61	59	57	56	55	53	52	51	50
East Apron	AP E	4115	38	37	37	37	36	36	36	36	36	36	36
East Apron	AP E	4120	60	58	57	55	54	53	51	50	49	48	47
East Apron	AP E	4125	45	44	43	42	41	41	40	39	39	38	38
East Apron	AP E	4130	34	34	34	34	34	34	33	33	33	33	33
East Apron	AP E	4145	49	48	47	46	45	44	43	42	41	41	40
East Apron	AP E	4150	36	36	36	36	36	36	35	35	35	35	35
West Apron	AP W	4205	80	78	76	74	72	70	68	66	65	63	61
West Apron	AP W	4210	64	62	61	59	57	56	55	53	52	51	50
West Apron	AP W	4215	82	80	78	76	74	72	70	68	66	65	63
Runway 9-27	RW 9-27	6105	82	80	78	76	74	72	70	68	66	64	62
Runway 9-27	RW 9-27	6110	79	77	75	73	71	69	67	65	63	61	59
Taxiway Alpha	TW A	105	86	84	82	80	78	76	75	73	71	69	67
Taxiway Alpha	TW A	107	89	87	85	83	81	79	78	76	74	72	70
Taxiway Alpha	TW A	110	81	79	78	76	74	73	71	69	68	66	65
Taxiway Bravo	TW B	205	76	74	72	70	68	66	65	63	61	59	57
Taxiway Charlie	TW C	305	73	71	69	67	65	63	62	60	58	56	54
Taxiway Delta	TW D	505	76	74	72	70	68	66	65	63	61	59	57
Taxiway Delta	TW D	507	89	87	85	83	81	79	78	76	74	72	70
Taxiway Delta	TW D	510	38	36	34	32	30	28	27	25	23	21	19
Taxiway Delta	TW D	520	55	55	54	52	50	48	46	44	43	41	39

Table D-1: Pavement Condition Prediction (Continued)

Branch Name	Branch ID	Section	Current					PCI Fo	recast				
	Branch ID	ID	PCI	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Taxiway Echo	TW E	605	79	77	75	73	71	69	68	66	64	62	60
Taxiway Echo	TW E	610	40	38	36	34	32	30	29	27	25	23	21

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	6110	WEATH/RAVEL	M	Surface Seal - Coat Tar	720	SqFt	\$0.40	\$288.00
Runway 9-27	RW 9-27	6110	L & T CR	M	Crack Sealing - AC	366	Ft	\$2.25	\$823.71
Runway 9-27	RW 9-27	6110	OIL SPILLAGE	N	Patching - AC Shallow	56	SqFt	\$2.90	\$162.53
Runway 9-27	RW 9-27	6110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	8,400	SqFt	\$0.40	\$3,360.12
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	11,242	SqFt	\$0.40	\$4,496.90
Runway 9-27	RW 9-27	6105	WEATH/RAVEL	M	Surface Seal - Coat Tar	520	SqFt	\$0.40	\$208.17
Runway 9-27	RW 9-27	6105	OIL SPILLAGE	N	Patching - AC Shallow	146	SqFt	\$2.90	\$421.98
West Apron	AP W	4215	WEATH/RAVEL	M	Surface Seal - Coat Tar	336	SqFt	\$0.40	\$134.23
West Apron	AP W	4215	OIL SPILLAGE	N	Patching - AC Shallow	90	SqFt	\$2.90	\$261.08
West Apron	AP W	4205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	23,344	SqFt	\$0.40	\$9,337.64
West Apron	AP W	4205	OIL SPILLAGE	N	Patching - AC Shallow	91	SqFt	\$2.90	\$263.52
Taxiway Echo	TW E	605	OIL SPILLAGE	N	Patching - AC Shallow	34	SqFt	\$2.90	\$99.08
Taxiway Echo	TW E	605	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,619	SqFt	\$0.40	\$647.78
Taxiway Echo	TW E	605	WEATH/RAVEL	M	Surface Seal - Coat Tar	147	SqFt	\$0.40	\$58.89
Taxiway Delta	TW D	507	WEATH/RAVEL	L	Surface Seal - Rejuvenating	350	SqFt	\$0.40	\$140.00
Taxiway Delta	TW D	505	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,825	SqFt	\$0.40	\$1,529.88
Taxiway Charlie	TW C	305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	359	SqFt	\$0.40	\$143.60
Taxiway Bravo	TW B	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,329	SqFt	\$0.40	\$531.72
Taxiway Bravo	TW B	205	WEATH/RAVEL	M	Surface Seal - Coat Tar	614	SqFt	\$0.40	\$245.41

Table E-1: Year 1 Maintenance Activities (Continued)

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Taxiway Alpha	TW A	110	OIL SPILLAGE	N	Patching - AC Shallow	22	SqFt	\$2.90	\$64.44
Taxiway Alpha	TW A	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,741	SqFt	\$0.40	\$2,696.25
Taxiway Alpha	TW A	107	WEATH/RAVEL	L	Surface Seal - Rejuvenating	1,201	SqFt	\$0.40	\$480.56
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	6,357	SqFt	\$0.40	\$2,542.86
								Total =	\$28,938.35

APPENDIX F

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

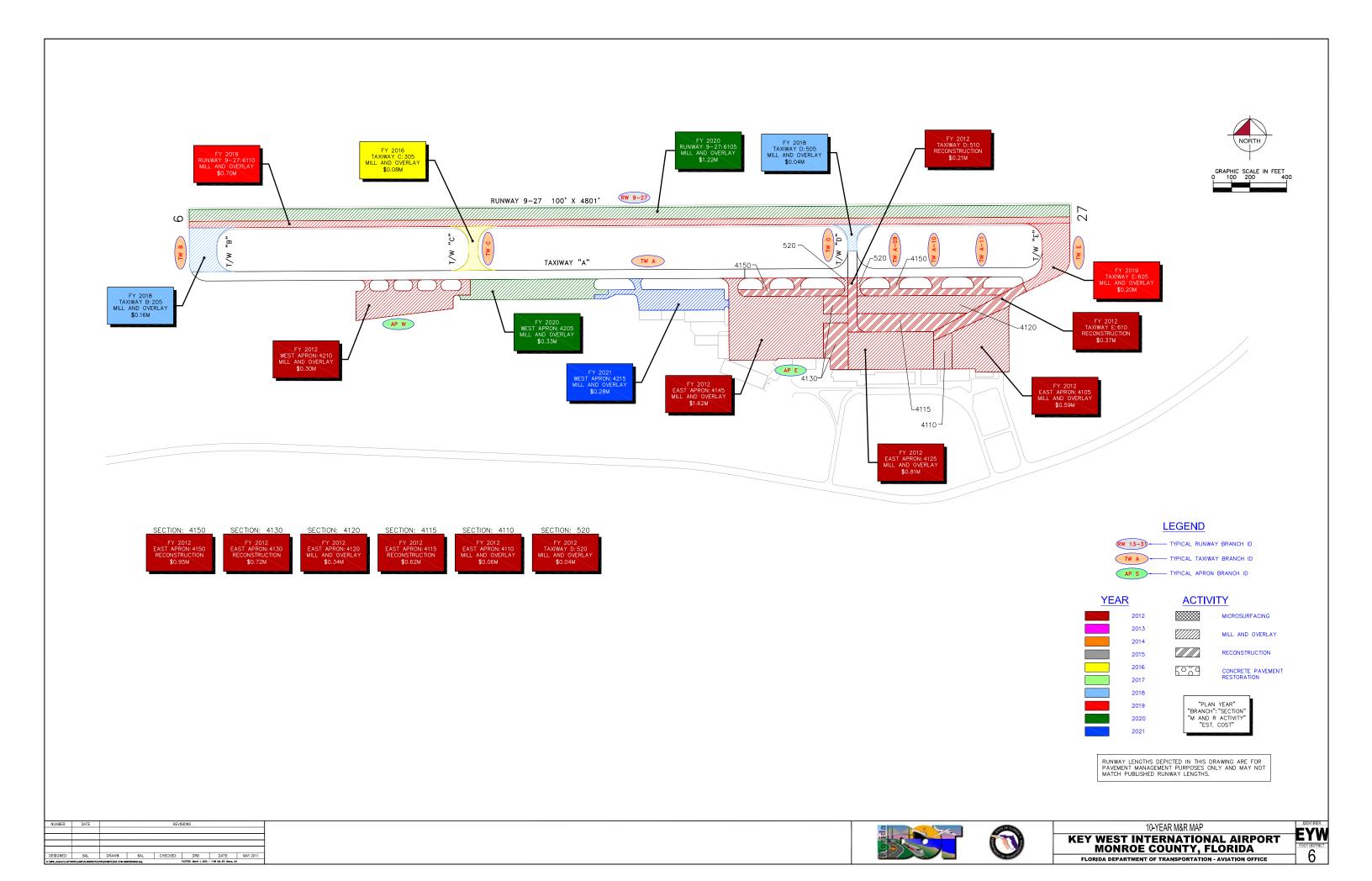
Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario

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	West Apron	4210	AC	82,435	\$302,041.61	62	Mill and Overlay	100
2012	East Apron	4150	AC	70,300	\$947,784.26	36	Reconstruction	100
2012	East Apron	4145	AC	189,745	\$1,622,319.20	48	Mill and Overlay	100
2012	East Apron	4130	AC	44,900	\$716,065.00	34	Reconstruction	100
2012	East Apron	4125	AC	94,960	\$811,907.72	44	Mill and Overlay	100
2012	East Apron	4120	AC	66,920	\$340,890.24	58	Mill and Overlay	100
2012	East Apron	4115	AC	50,255	\$615,573.28	37	Reconstruction	100
2012	East Apron	4110	AC	17,665	\$64,724.51	62	Mill and Overlay	100
2012	East Apron	4105	AC	87,200	\$594,878.15	54	Mill and Overlay	100
2012	Taxiway Echo	610	AAC	33,365	\$367,548.71	38	Reconstruction	100
2012	Taxiway Delta	520	AAC	6,165	\$39,394.33	55	Mill and Overlay	100
2012	Taxiway Delta	510	AAC	15,360	\$207,083.45	36	Reconstruction	100
2016	Taxiway Charlie	305	AAC	20,165	\$76,734.75	63	Mill and Overlay	100
2018	Taxiway Delta	505	AAC	11,125	\$44,912.61	63	Mill and Overlay	100
2018	Taxiway Bravo	205	AAC	39,920	\$161,160.58	63	Mill and Overlay	100
2019	Runway 9-27	6110	AAC	168,000	\$698,577.81	63	Mill and Overlay	100
2019	Taxiway Echo	605	AAC	51,535	\$196,355.96	64	Mill and Overlay	100
2020	Runway 9-27	6105	AAC	312,000	\$1,224,429.05	64	Mill and Overlay	100
2020	West Apron	4205	AC	77,460	\$331,757.10	63	Mill and Overlay	100
2021	West Apron	4215	AC	63,200	\$278,802.74	63	Mill and Overlay	100
				Total	\$9,642,941.06	54		100

^{*} Costs are adjusted for inflation.

APPENDIX G

10-YEAR M&R MAP



APPENDIX H

PHOTOGRAPHS



Runway 9-27, Section 6105, Sample Unit 100 – Low severity (48) Longitudinal and Transverse Cracking, low severity (52) Raveling and Weathering



Runway 9-27, Section 6110, Sample Unit 100 – Low and Medium severity (48) Longitudinal and Transverse Cracking, low severity (52) Raveling and Weathering



Runway 9-27, Section 6110, Sample Unit 100 – Low and Medium severity (48) Longitudinal and Transverse Cracking, low severity (52) Raveling and Weathering



Taxiway Alpha, Section 105, Sample Unit 105 – Low severity (48) Longitudinal and Transverse Cracking, low severity (52) Raveling and Weathering



Apron (Overflow), Section 4210, Sample Unit 501 – Low severity (50) Patch, low severity (52) Raveling and Weathering



Apron (Overflow), Section 4210, Sample Unit 501 – Low severity (50) Patch, low severity (52) Raveling and Weathering



Hangars, Section 4215, Sample Unit 505 – (49) Oil Spillage, low severity (50) Patch, Medium severity (52) Raveling and Weathering



Hangars, Section 4215, Sample Unit 505 – (49) Oil Spillage, low severity (50) Patch, Medium severity (52) Raveling and Weathering



Commercial Apron, Section 510, Sample Unit 202 – Medium severity (52) Raveling and Weathering, medium severity (55) Slippage



Commercial Apron, Section 510, Sample Unit 202 – Medium severity (52) Raveling and Weathering, medium severity (55) Slippage



Commercial Apron, Section 4115, Sample Unit 605 – Low severity (50) Patch, medium severity (52) Raveling and Weathering



Commercial Apron, Section 4115, Sample Unit 605 – Low severity (50) Patch, medium severity (52) Raveling and Weathering



Taxiway Connector A9, Section 4150, Sample Unit 300 – Low and medium severity (43) Block Cracking, low severity (45) Depression, low and medium severity (48) Longitudinal and Transverse Cracking, high severity (50) Patch, low severity (52) Raveling and Weathering



Taxiway Connector A9, Section 4150, Sample Unit 300 – Low and medium severity (43) Block Cracking, low severity (45) Depression, low and medium severity (48) Longitudinal and Transverse Cracking, high severity (50) Patch, low severity (52) Raveling and Weathering

APPENDIX I

PCI RE-INSPECTION REPORT

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APE Name: EAST APRON Use: APRON Area: 621,945.00SqFt

Section: 4105 of 8 From: - To: - Last Const.: 1/1/2003

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P Area: 87,200.00SqFt Length: 290.00Ft Width: 311.00Ft

Area: 87,200.00SqFt Length: 290.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 16 Surveyed: 3

Conditions: PCI:56.00 | Inspection Comments:

Sample Number: 201 Type: R Area: 5,000.00SqFt PCI = 43

Sample Comments:

52 WEATHERING/RAVELING M 4,999.96 SqFt Comments:

Sample Number: 402 Type: R Area: 4,975.00SqFt PCI = 53

Sample Comments:

52 WEATHERING/RAVELING M 2,486.98 SqFt Comments:

52 WEATHERING/RAVELING L 2,487.98 SqFt Comments:

Sample Number: 500 Type: R Area: 5,550.00SqFt PCI = 72

Sample Comments:
50 PATCHING L 12.00 SqFt Comments:

50 PATCHING L 3.50 SqFt Comments:

52 WEATHERING/RAVELING L 5,549.95 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APE Name: EAST APRON Use: APRON Area: 621,945.00SqFt

Section: 4110 of 8 From: - To: - Last Const.: 1/1/2003

100.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 17,665.00SqFt Length: 175.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 4 Surveyed: 1

Conditions: PCI:64.00 | Inspection Comments:

Sample Number: 203 Type: R Area: 5,000.00SqFt PCI = 64

Sample Comments:

52 WEATHERING/RAVELING L 3,749.97 Sqft Comments: 52 WEATHERING/RAVELING M 1,249.99 Sqft Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APE Name: EAST APRON Use: APRON Area: 621,945.00SqFt

Section: 4115 of 8 From: - To: - Last Const.: 1/1/2003

100.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 50,255.00SqFt Length: 510.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 9 Surveyed: 1

Conditions: PCI:38.00 | Inspection Comments:

Sample Number: 605 Type: R Area: 5,000.00SqFt PCI = 38

Sample Comments:

50 PATCHING

L 80.00 SqFt Comments:
52 WEATHERING/RAVELING

M 4,999.96 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APE Name: EAST APRON Use: APRON Area: 621,945.00SqFt

Section: 4120 of 8 From: - To: - Last Const.: 1/1/2003

97.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 66,920.00SqFt Length: 690.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 13 Surveyed: 2

Conditions: PCI:60.00 | Inspection Comments:

Sample Number: 703 Type: R Area: 5,000.00SqFt PCI = 48

Sample Comments:

52 WEATHERING/RAVELING L 2,499.98 SqFt Comments: 52 WEATHERING/RAVELING M 2,499.98 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 46.01 Ft Comments:

Sample Number: 805 Type: R Area: 4,700.00SqFt PCI = 74

Sample Comments:

52 WEATHERING/RAVELING L 4,699.96 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APE Name: EAST APRON Use: APRON Area: 621,945.00SqFt

Section: 4125 of 8 From: - To: - Last Const.: 1/1/2003

204.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 94,960.00SqFt Length: 465.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 20 Surveyed: 3

Conditions: PCI:45.00 | Inspection Comments:

Sample Number: 204 Type: Sample Comments:	R Area:	5,000.00SqFt	PCI = 41
50 PATCHING	M	500.00 SqFt	Comments:
52 WEATHERING/RAVELING	M	2,499.98 SqFt	Comments:
52 WEATHERING/RAVELING	L	2,499.98 SqFt	Comments:
49 OIL SPILLAGE	N	20.00 SqFt	Comments:
Sample Number: 307 Type:	R Area:	5,000.00SqFt	PCI = 53
Sample Comments: 52 WEATHERING/RAVELING	т	2,499.98 SaFt	Comments:
•	ч	, <u> </u>	
52 WEATHERING/RAVELING	M	2,499.98 SqFt	Comments:

Sample Number: 405 Type: R Area: 5,000.00SqFt PCI = 40

Sample Comments:

52 WEATHERING/RAVELING M 4,999.96 SqFt Comments: 49 OIL SPILLAGE N 20.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: Name: EAST APRON Use: APRON AP E Area: 621,945.00SqFt

Section: 4130 of 8 From: -To: -Last Const.: 1/1/2003

Family: FDOT-PR-AP-AC Zone: Rank: P Surface: ACCategory:

Area: 44,900.00SqFt Length: 350.00Ft Width: 135.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 7 Surveyed: 2

Conditions: PCI:34.00 | Inspection Comments:

Sample Number: 309	Type: R	Area:	5,000.00SqFt	PCI = 38
Sample Comments:				

4,999.96 SqFt 52 WEATHERING/RAVELING Μ Comments: 50 PATCHING L 3.50 SqFt Comments: 12.00 Ft Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L

Sample Number: 809	Type: R	Area:	4,700.00SqFt	PCI = 31
Sample Comments:				
52 WEATHERING/RAV	ELING	M	4,699.96 SqFt	Comments

s: 50 PATCHING L 3.50 SqFt Comments: 49 OIL SPILLAGE Ν 12.00 SqFt Comments: 240.00 SqFt 43 BLOCK CRACKING Μ Comments: 240.00 SqFt 50 PATCHING Comments: L

FDOT

Report Generated Date: 6/16/2011

Site Name:

Sample Comments:

50 PATCHING

49 OIL SPILLAGE

52 WEATHERING/RAVELING

52 WEATHERING/RAVELING

48 LONGITUDINAL/TRANSVERSE CRACKING

48 LONGITUDINAL/TRANSVERSE CRACKING

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT Use: APRON Branch: AP E Name: EAST APRON Area: 621,945.00SqFt Section: of 8 From: -To: -Last Const.: 1/1/2003 4145 Surface: Family: FDOT-PR-AP-AC Zone: Category: Rank: P ACArea: 189,745.00SqFt Length: 515.00Ft Width: 345.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Last Insp. Date5/2/2011 Total Samples: 37 Surveyed: 4 Conditions: PCI:49.00 | Inspection Comments: Sample Number: 313 Type: R PCI = 70Area: 5,000.00SqFt Sample Comments: 50 PATCHING 7.00 SqFt Comments: L 52 WEATHERING/RAVELING 4,999.96 SqFt Comments: L 6.00 SqFt 49 OIL SPILLAGE Ν Comments: Sample Number: 510 PCI = 41Type: R Area: 5,000.00SqFt Sample Comments: 52 WEATHERING/RAVELING Μ 4,999.96 SqFt Comments: 50 PATCHING L 22.00 SqFt Comments: Sample Number: 711 Type: R Area: 5,000.00SqFt PCI = 36Sample Comments: 52 WEATHERING/RAVELING Μ 4,999.96 SqFt Comments: 50 PATCHING L 14.00 SaFt Comments: 49 OIL SPILLAGE Ν 10.00 SqFt Comments: 10.00 Ft 48 LONGITUDINAL/TRANSVERSE CRACKING L Comments: Sample Number: 714 Type: R Area: 5,750.00SqFt PCI = 51

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1,899.98 SqFt

176.00 SqFt

11.00 Ft

18.00 Ft

3.50 SqFt

12.00 SqFt

Comments:

Comments:

Comments:

Comments:

Comments:

Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: Name: EAST APRON Use: APRON Area: AP E 621,945.00SqFt

Section: To: -4150 of 8 From: -Last Const.: 1/1/2003

38.00Ft

Surface: Family: FDOT-PR-AP-AC Zone: Category: Rank: P AC

Width: Area: 70,300.00SqFt Length: 1,360.00Ft Lanes: 0

Shoulder: Street Type: Grade: 0.00 Section Comments:

Last Insp. Date5/2/2011 Total Samples: 19 Surveyed: 3

Conditions: PCI:36.00 |

Inspection Comments:				
Sample Number: 300 Type: R	Area:	4,160.00SqFt	PCI = 23	
Sample Comments:				
50 PATCHING	H	899.99 SqFt	Comments:	
43 BLOCK CRACKING	M	384.00 SqFt	Comments:	
45 DEPRESSION	L	20.00 SqFt	Comments:	
43 BLOCK CRACKING	L	520.00 SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	M	100.03 Ft	Comments:	
43 BLOCK CRACKING	L	12.00 SqFt	Comments:	
52 WEATHERING/RAVELING	L	300.00 SqFt	Comments:	
Sample Number: 901 Type: R	Area:	3,800.00SqFt	PCI = 49	
Sample Comments:	_	1 000 00 0		
52 WEATHERING/RAVELING	L	1,899.98 SqFt	Comments:	
52 WEATHERING/RAVELING	M	1,899.98 SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	16.00 Ft	Comments:	
Sample Number: 912 Type: R Sample Comments:	Area:	3,800.00SqFt	PCI = 38	
52 WEATHERING/RAVELING	M	3,799.97 SqFt	Comments:	
50 PATCHING	L	1.00 SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	6.00 Ft	Comments:	

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: AP W Name: WEST APRON Use: APRON Area: 223,095.00SqFt

Section: 4205 of 3 From: - To: - Last Const.: 1/1/2003

110.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 77,460.00SqFt Length: 675.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Shoulder: Street Type: Section Comments:

Last Insp. Date5/2/2011 Total Samples: 21 Surveyed: 3

Conditions: PCI:80.00 | Inspection Comments:

Sample Number: 108 Type: R	Area:	4,225.00SqFt	PCI = 85
Sample Comments:			
48 LONGITUDINAL/TRANSVERSE CRACKING	$_{ m L}$	50.01 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	73.02 Ft	Comments:
52 WEATHERING/RAVELING	L	300.00 SqF	t Comments:
Sample Number: 118 Type: R	Area:	4,225.00SqFt	PCI = 82
Sample Comments:			
48 LONGITUDINAL/TRANSVERSE CRACKING	L	50.01 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	10.00 Ft	Comments:
50 PATCHING	L	1.00 SqF	t Comments:
52 WEATHERING/RAVELING	L	500.00 SqF	t Comments:
Sample Number: 414 Type: R	Area:	2,500.00SqFt	PCI = 67
Sample Comments:			

50 PATCHING L 31.50 SqFt Comments: 52 WEATHERING/RAVELING L 2,499.98 SqFt Comments: 49 OIL SPILLAGE N 8.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: AP W Name: WEST APRON Use: APRON Area: 223,095.00SqFt

Section: 4210 of 3 From: - To: - Last Const.: 1/1/2003

130.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 82,435.00SqFt Length: 625.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 21 Surveyed: 3

Conditions: PCI:64.00 |

Area:		4,464.00SqFt		PCI = 53	
	L	64.02	Ft	Comments:	
	M	1,200.30	SqFt	Comments:	
	L	121.00	SqFt	Comments:	
	L	25.01	Ft	Comments:	
	L	200.00	SqFt	Comments:	
Area:		2,836.00SqFt		PCI = 71	
	L	12.00	SaFt	Comments:	
	L		-	Comments:	
Area:		5,000.00SqFt		PCI = 69	
	L	6.00	SaFt	Comments:	
	L L	6.00 4,999.96	SqFt SqFt	Comments: Comments:	
	Area:	L M L L L Area:	L 64.02 M 1,200.30 L 121.00 L 25.01 L 200.00 Area: 2,836.00SqFt L 12.00 L 2,835.98	L 64.02 Ft M 1,200.30 SqFt L 121.00 SqFt L 25.01 Ft L 200.00 SqFt L 2,836.00SqFt L 12.00 SqFt L 2,835.98 SqFt Area: 5,000.00SqFt	L 64.02 Ft Comments: M 1,200.30 SqFt Comments: L 121.00 SqFt Comments: L 25.01 Ft Comments: L 200.00 SqFt Comments: Area: 2,836.00SqFt PCI = 71 L 12.00 SqFt Comments: L 2,835.98 SqFt Comments: Area: 5,000.00SqFt PCI = 69

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: APW Name: WEST APRON Use: APRON Area: 223,095.00SqFt

Section: 4215 of 3 From: - To: - Last Const.: 1/1/2006

113.00Ft

Surface: AC Family: FDOT-PR-AP-AC Zone: Category: Rank: P

Area: 63,200.00SqFt Length: 500.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 13 Surveyed: 2

Conditions: PCI:82.00 | Inspection Comments:

Sample Number: 505 Type: R	Area:	5,500.00SqFt	PC1 = 90	
Sample Comments:				
50 PATCHING	L	14.00 SqFt	Comments:	
52 WEATHERING/RAVELING	M	20.00 SqFt	Comments:	
49 OIL SPILLAGE	N	10.00 SqFt	Comments:	

	ple Number: 603	Type: R		Area:		5,800.00SqFt		PCI = 75
Samp	le Comments:							
50	PATCHING				L	600.00	SqFt	Comments:
48	LONGITUDINAL/T	RANSVERSE	CRACKING		L	100.03	Ft	Comments:
52	WEATHERING/RAV	ELING			M	40.00	SqFt	Comments:
48	LONGITUDINAL/T	RANSVERSE	CRACKING		L	1.00	Ft	Comments:

FDOT

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING

Report Generated Date: 6/16/2011

Site Name: Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT Branch: RW 9-27 Name: RUNWAY 9-27 Use: RUNWAY Area: 480,000.00SqFt Section: 2 To: -Last Const.: 1/1/2003 6105 of From: -Family: FDOT-PR-RW-AAC Zone: Category: Rank: P Surface: AAC Area: 312,000.00SqFt Length: 4,800.00Ft Width: 65.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Last Insp. Date5/2/2011 Total Samples: 96 Surveyed: 19 Conditions: PCI:82.00 | Inspection Comments: PCI = 83Sample Number: 100 Type: R Area: 3,250.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 118.03 Ft Comments: L 52 WEATHERING/RAVELING 100.00 SqFt L Comments: Sample Number: 105 Type: R Area: 3,250.00SqFt PCI = 87Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 74.02 Ft Comments: 52 WEATHERING/RAVELING 100.00 SqFt L Comments: Sample Number: 108 Type: R PCI = 77Area: 3,250.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 212.05 Ft Comments: 52 WEATHERING/RAVELING L 100.00 SqFt Comments: Sample Number: 111 Area: 3,250.00SqFt PCI = 83Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 119.03 Ft Comments: 100.00 SqFt 52 WEATHERING/RAVELING L Comments: Sample Number: 114 Type: R Area: 3,250.00SqFt PCI = 76Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 61.02 Ft L Comments: 49 OIL SPILLAGE Ν 10.00 SqFt Comments: 52 WEATHERING/RAVELING L 100.00 SqFt Comments: 52 WEATHERING/RAVELING 25.00 SqFt Comments: Μ 50.00 SaFt 52 WEATHERING/RAVELING Μ Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 26.01 Ft Comments: L Sample Number: 121 Area: 3,250.00SqFt PCI = 86Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 50.01 Ft Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 31.01 Ft L Comments: 52 WEATHERING/RAVELING 100.00 SqFt Comments: L Sample Number: 128 3,250.00SqFt PCI = 82Type: R Area: Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 92.02 Ft Comments: L 48 LONGITUDINAL/TRANSVERSE CRACKING L 50.01 Ft Comments: 52 WEATHERING/RAVELING 75.00 SqFt Comments: L Sample Number: 135 PCI = 85Area: 3,250.00SqFt Type: R

48.01 Ft

Comments:

L

FDOT

Report Generated Date: 6/16/2011

Site Name:

Site I value.						
48 LONGITUDINAL/TRANSVERSE CRACKING		L	42.01	F+	Comments:	
52 WEATHERING/RAVELING		L	50.00		Comments:	
49 OIL SPILLAGE		N		SqFt	Comments:	
TO OTH SPIHLAGE		IA	3.00	pdrc	Commencs.	
Sample Number: 142 Type: R	Area:		3,250.00SqFt		PCI = 84	
Sample Comments:	1 II Cu.		3,230.005 q 1 t		161 01	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	105.03	Ft	Comments:	
52 WEATHERING/RAVELING		L	200.00	SqFt	Comments:	
Sample Number: 149 Type: R	Area:		3,250.00SqFt		PCI = 82	
Sample Comments:			_			
50 PATCHING		L	3.00	SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	50.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	33.01	Ft	Comments:	
49 OIL SPILLAGE		N	2.00	SqFt	Comments:	
52 WEATHERING/RAVELING		L	100.00		Comments:	
-						
Sample Number: 156 Type: R	Area:		3,250.00SqFt		PCI = 84	
Sample Comments:		37	2.00	Q T.	G	
49 OIL SPILLAGE		N		SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	38.01		Comments:	
52 WEATHERING/RAVELING		L	300.00	SqFt	Comments:	
Sample Number: 163 Type: R	Area:		3,250.00SqFt		PCI = 87	
Sample Comments:		_	1 00	~		
50 PATCHING		L		SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	30.01		Comments:	
52 WEATHERING/RAVELING		L	150.00	SqFt	Comments:	
Const. March 199	Α		2.250.000 5		DCI 06	
Sample Number: 170 Type: R Sample Comments:	Area:		3,250.00SqFt		PCI = 86	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	58.01	п+	Comments:	
52 WEATHERING/RAVELING		L	100.00		Comments:	
49 OIL SPILLAGE		N		SqFt	Comments:	
49 OIL SPILLAGE		IN	1.00	Syrc	Comments:	
Sample Number: 177 Type: R	Area:		3,250.00SqFt		PCI = 83	
Sample Comments:	mea.		3,230.005q1 t		1 C1 = 03	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	75.02	Ft	Comments:	
49 OIL SPILLAGE		N	1.00	SqFt	Comments:	
50 PATCHING		L		SqFt	Comments:	
52 WEATHERING/RAVELING		L	100.00	_	Comments:	
JZ WEATHERING/RAVEDING			100.00	bqrc	Commerces :	
Sample Number: 184 Type: R	Area:		3,250.00SqFt		PCI = 82	
Sample Comments:	i ii cu.		5,200.00bq1 t		- C- C-	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	25.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	85.02		Comments:	
50 PATCHING		L		SqFt	Comments:	
52 WEATHERING/RAVELING		L	100.00		Comments:	
52 WEATHERING/RAVELLING		ш	100.00	PALL	COHUNCIICS.	
Sample Number: 187 Type: R	Area:		3,250.00SqFt		PCI = 81	
Sample Comments:	ma.		5,250.005q11		101 = 01	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	25.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING		L	98.03		Comments:	
52 WEATHERING/RAVELING		L	150.00		Comments:	
50 PATCHING		L		SqFt	Comments:	
20 IVICIIIIG		ш	1.00	PALL	COHUNICITES.	
Sample Number: 190 Type: R			2.250.00g Fr		PCI = 86	
Dumple Humber. 170 1 ypc. K	Area:		3 / 20 OOSGET			
Sample Comments:	Area:		3,250.00SqFt		1 C1 = 60	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING	Area:	L	54.01	Ft	Comments:	

FDOT

Report Generated Date: 6/16/2011

Site Name:

50 PATCHING 52 WEATHERING/RAVELING	L L	1.00	SqFt SqFt	Comments:	
Sample Number: 193 Type: R	Area:	3,250.00SqFt		PCI = 70	
Sample Comments:	111000	5,250.005 q 1 t		101 70	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	51.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	26.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	28.01	Ft	Comments:	
50 PATCHING	L	1.00	SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	31.01	Ft	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	40.01	Ft	Comments:	
52 WEATHERING/RAVELING	M	4.00	SqFt	Comments:	
52 WEATHERING/RAVELING	L	100.00	SqFt	Comments:	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	50.01	Ft	Comments:	
Sample Number: 195 Type: R	Area:	3,250.00SqFt		PCI = 79	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING	L	111.03	T+	Comments:	
52 WEATHERING/RAVELING	L	100.03		Comments:	
52 WEATHERING/RAVELING	M	24.00	-	Comments:	

FDOT

Report Generated Date: 6/16/2011

52 WEATHERING/RAVELING

52 WEATHERING/RAVELING

Site Name: Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT Branch: Name: RUNWAY 9-27 Use: RUNWAY Area: 480,000.00SqFt RW 9-27 2 To: -Last Const.: 1/1/2003 Section: 6110 of From: -Family: FDOT-PR-RW-AAC Zone: Category: Rank: P Surface: AAC Area: 168,000.00SqFt Length: 4,800.00Ft Width: 35.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Total Samples: 48 Surveyed: 8 Last Insp. Date5/2/2011 Conditions: PCI:79.00 | Inspection Comments: PCI = 68Sample Number: 300 Type: R Area: 3,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 310.08 Ft Comments: L 48 LONGITUDINAL/TRANSVERSE CRACKING 61.02 Ft Μ Comments: 52 WEATHERING/RAVELING 200.00 SqFt Comments: L PCI = 85Sample Number: 305 Type: R Area: 3,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 98.03 Ft Comments: L 52 WEATHERING/RAVELING 200.05 SqFt L Comments: Sample Number: 310 3,500.00SqFt PCI = 87Type: R Area: Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 84.02 Ft Comments: 52 WEATHERING/RAVELING L 100.00 SqFt Comments: Sample Number: 320 PCI = 81Area: 3,500.00SqFt Type: R Sample Comments: 52 WEATHERING/RAVELING Μ 50.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 33.01 Ft Comments: 49 OIL SPILLAGE 3.00 SqFt Ν Comments: 50 PATCHING 2.00 SqFt Comments: L 48 LONGITUDINAL/TRANSVERSE CRACKING L 78.02 Ft Comments: Sample Number: 325 Area: 3,500.00SqFt PCI = 77Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 44.01 Ft Comments: L 52 WEATHERING/RAVELING 200.00 SqFt Comments: L 48 LONGITUDINAL/TRANSVERSE CRACKING 71.02 Ft Comments: L 50 PATCHING 2.00 SqFt Comments: L 52 WEATHERING/RAVELING M 30.00 SqFt Comments: Sample Number: 330 PCI = 83Type: R Area: 3,500.00SqFt Sample Comments: 2.00 SqFt 49 OIL SPILLAGE Comments: Ν 110.03 Ft 48 LONGITUDINAL/TRANSVERSE CRACKING Comments: L 52 WEATHERING/RAVELING L 200.00 SqFt Comments: Sample Number: 340 PCI = 68Type: R Area: 3,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 181.05 Ft Comments: L 2.00 SqFt 50 PATCHING L Comments:

300.00 SqFt

20.00 SqFt

Comments:

Comments:

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FDOT

Report Generated Date: 6/16/2011

Site Name:

48 LONGITUDINAL/TRANSVERSE CRACKING	L	89.02 Ft	Comments:
Sample Number: 345 Type: R Sample Comments:	Area:	3,500.00SqFt	PCI = 81
48 LONGITUDINAL/TRANSVERSE CRACKING	L	97.02 Ft	Comments:
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:
52 WEATHERING/RAVELING	M	20.00 SqFt	Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 234,410.00SqFt

Section: 105 of 3 From: - To: - Last Const.: 1/1/2003

50.00Ft

200.00 SqFt

Comments:

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 149,580.00SqFt Length: 2,996.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 30 Surveyed: 4

Conditions: PCI:86.00 | Inspection Comments:

52 WEATHERING/RAVELING

Sample Number: 105 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 86
48 LONGITUDINAL/TRANSVERSE CRACKING	L	113.03 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	L	12.00 Ft	Comments:
52 WEATHERING/RAVELING	L	250.00 SqFt	Comments:
Sample Number: 111 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 84
48 LONGITUDINAL/TRANSVERSE CRACKING	L	136.03 Ft	Comments:
52 WEATHERING/RAVELING	L	200.00 SqFt	Comments:
50 PATCHING	L	2.00 SqFt	Comments:
Sample Number: 117 Type: R Sample Comments:	Area:	5,000.00SqFt	PCI = 83
48 LONGITUDINAL/TRANSVERSE CRACKING	L	186.05 Ft	Comments:

Camarla Manakani	105	True D	A	5 000 00G F:	DCI 90
Sample Number:	125	Type: R	Area:	5,000.00SqFt	PCI = 89

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING
L 59.02 Ft Comments:
52 WEATHERING/RAVELING
L 200.00 Sqft Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 234,410.00SqFt

Section: 107 of 3 From: - To: - Last Const.: 1/1/2003

50.00Ft

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 30,035.00SqFt Length: 562.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 6 Surveyed: 2

Conditions: PCI:89.00 | Inspection Comments:

Sample Number: 131 Type: R Area: 5,000.00SqFt PCI = 89

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 70.02 Ft Comments:

52 WEATHERING/RAVELING L 200.00 SqFt Comments:

Sample Number: 133 Type: R Area: 5,000.00SqFt PCI = 90 Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 27.01 Ft Comments:

52 WEATHERING/RAVELING L 200.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 234,410.00SqFt

Section: 110 of 3 From: - To: - Last Const.: 1/11/2003

50.00Ft

Surface: AC Family: FDOT-PR-TW-AC Zone: Category: Rank: P

Area: 54,795.00SqFt Length: 995.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 11 Surveyed: 3

Conditions: PCI:81.00 | Inspection Comments:

Sample Number: 137 Type: R Area: 4,960.00SqFt PCI = 83

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 181.05 Ft Comments:

52 WEATHERING/RAVELING L 400.00 SqFt Comments:

Sample Number: 140 Type: R Area: 5,000.00SqFt PCI = 83

Sample Comments:

Area. 5,000.005qri FCI = 6.

50 PATCHING L 1.00 SqFt Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 145.04 Ft Comments:

52 WEATHERING/RAVELING L 240.00 SqFt Comments:

Sample Number: 145 Type: R Area: 5,000.00SqFt PCI = 76

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 78.02 Ft Comments: 52 WEATHERING/RAVELING L 1,200.30 Sqft Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 117.03 Ft Comments:

50 PATCHING L 1.00 SqFt Comments: 49 OIL SPILLAGE N 2.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW B Name: TAXIWAY B Use: TAXIWAY Area: 39,920.00SqFt

Section: 205 of 1 From: - To: - Last Const.: 1/1/2003

150.00Ft

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 39,920.00SqFt Length: 240.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 10 Surveyed: 2

Conditions: PCI:76.00 | Inspection Comments:

Sample Number: 300 Type: R Sample Comments:	Area:	3,750.00SqFt	PCI = 78
48 LONGITUDINAL/TRANSVERSE CRACKING	L	56.01 Ft	Comments:
52 WEATHERING/RAVELING	L	150.00 SqFt	Comments:
43 BLOCK CRACKING	L	120.00 SqFt	Comments:
Comple Number: 401 Type: B	A 2001	4.050.00C-E	DCI - 72

mpie Number:	401	Type: R		Area:		4,058.00SqFt		PCI = 73
nple Comments:								
LONGITUDI	NAL/TRANS	VERSE	CRACKING	L	1	50.01	Ft	Comments:
LONGITUDI	NAL/TRANS	VERSE	CRACKING	L	1	21.01	Ft	Comments:
BLOCK CRA	CKING			L	1	80.00	SqFt	Comments:
LONGITUDI	NAL/TRANS	VERSE	CRACKING	L	ı	83.02	Ft	Comments:
WEATHERIN	G/RAVELIN	ſĠ		M	I	120.00	SqFt	Comments:
WEATHERIN	G/RAVELIN	ſĠ		L	ı	110.00	SqFt	Comments:
3	nple Comments: LONGITUDI LONGITUDI BLOCK CRA LONGITUDI LONGITUDI WEATHERIN	LONGITUDINAL/TRANS LONGITUDINAL/TRANS BLOCK CRACKING LONGITUDINAL/TRANS WEATHERING/RAVELIN	nple Comments: LONGITUDINAL/TRANSVERSE LONGITUDINAL/TRANSVERSE BLOCK CRACKING	nple Comments: B LONGITUDINAL/TRANSVERSE CRACKING B LONGITUDINAL/TRANSVERSE CRACKING B BLOCK CRACKING B LONGITUDINAL/TRANSVERSE CRACKING C WEATHERING/RAVELING	nple Comments: B LONGITUDINAL/TRANSVERSE CRACKING IS B LONGITUDINAL/TRANSVERSE CRACKING IS B BLOCK CRACKING IS LONGITUDINAL/TRANSVERSE CRACKING IS WEATHERING/RAVELING IS	nple Comments: B LONGITUDINAL/TRANSVERSE CRACKING L B LONGITUDINAL/TRANSVERSE CRACKING L B BLOCK CRACKING L B LONGITUDINAL/TRANSVERSE CRACKING L WEATHERING/RAVELING M	nple Comments: B LONGITUDINAL/TRANSVERSE CRACKING L 50.01 B LONGITUDINAL/TRANSVERSE CRACKING L 21.01 B BLOCK CRACKING L 80.00 B LONGITUDINAL/TRANSVERSE CRACKING L 83.02 C WEATHERING/RAVELING M 120.00	### Inple Comments: B LONGITUDINAL/TRANSVERSE CRACKING

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW C Name: TAXIWAY C Use: TAXIWAY Area: 20,165.00SqFt

Section: 305 of 1 From: - To: - Last Const.: 1/1/2003

5,617.00SqFt

50.00Ft

PCI = 73

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 20,165.00SqFt Length: 240.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 3 Surveyed: 1

Type: R

Conditions: PCI:73.00 | Inspection Comments:

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Sample Number: 301 Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING 95.02 Ft L Comments: 52 WEATHERING/RAVELING L 100.00 SqFt Comments: 50 PATCHING 4.00 SqFt Comments: L 43 BLOCK CRACKING 500.00 SqFt L Comments:

Area:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW D Name: TAXIWAY D Use: TAXIWAY Area: 39,900.00SqFt

Section: 505 of 4 From: - To: - Last Const.: 1/1/2003

50.00Ft

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 11,125.00SqFt Length: 145.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:76.00 | Inspection Comments:

Sample Number: 101 Type: R Area: 3,665.00SqFt PCI = 76

Sample Comments:

3.00 SqFt 50 PATCHING L Comments: 52 WEATHERING/RAVELING L 839.99 SqFt Comments: 52 WEATHERING/RAVELING 420.00 SqFt Comments: L 48 LONGITUDINAL/TRANSVERSE CRACKING 45.01 Ft L Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: Name: TAXIWAY D Use: TAXIWAY Area: TW D 39,900.00SqFt

To: -Section: 507 of 4 From: -Last Const.: 1/1/2003

Surface: Family: FDOT-PR-TW-AAC Zone: Category: Rank: P AAC 50.00Ft

Area: 7,250.00SqFt Length: 145.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:89.00 | Inspection Comments:

Sample Number: 103 Type: R Area: 3,625.00SqFt PCI = 89

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING 24.01 Ft L Comments:

52 WEATHERING/RAVELING L 175.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW D Name: TAXIWAY D Use: TAXIWAY Area: 39,900.00SqFt

Section: 510 of 4 From: - To: - Last Const.: 1/1/2003

50.00Ft

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 15,360.00SqFt Length: 297.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 3 Surveyed: 1

Conditions: PCI:38.00 | Inspection Comments:

Sample Number: 202 Type: R Area: 5,537.00SqFt PCI = 38

Sample Comments:

52 WEATHERING/RAVELING M 5,536.95 Sqft Comments: 55 SLIPPAGE CRACKING N 12.00 Sqft Comments:

31.00Ft

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW D Name: TAXIWAY D Use: TAXIWAY Area: 39,900.00SqFt

Section: 520 of 4 From: - To: - Last Const.: 1/1/2003

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 6,165.00SqFt Length: 100.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date11/30/2007 Total Samples: 1 Surveyed: 1

Conditions: PCI:64.00 | Inspection Comments:

Sample Number: 300 Type: R Area: 2,000.00SqFt PCI = 64

Sample Comments:

48 L & T CR L 339.00 Ft Comments: 52 WEATH/RAVEL L 1,000.00 SqFt Comments:

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW E Name: TAXIWAY E Use: TAXIWAY Area: 84,900.00SqFt

Section: 605 of 2 From: - To: - Last Const.: 1/1/2003

150.00Ft

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 51,535.00SqFt Length: 450.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 12 Surveyed: 3

Conditions: PCI:79.00 | Inspection Comments:

Sample Number: 100 Type: R Sample Comments:	Area:	3,750.00SqFt		PCI = 86
48 LONGITUDINAL/TRANSVERSE CRACKING	L	70.02	Ft	Comments:
52 WEATHERING/RAVELING	L	100.00	SqFt	Comments:
49 OIL SPILLAGE	N	2.00	SqFt	Comments:
Sample Number: 301 Type: R	Area:	3,750.00SqFt		PCI = 69
Sample Comments:	-	6 00	T1-	G
48 LONGITUDINAL/TRANSVERSE CRACKING	L	6.00		Comments:
50 PATCHING	L	7.00	SqFt	Comments:
43 BLOCK CRACKING	\mathbf{L}	450.00	SqFt	Comments:
43 BLOCK CRACKING	L	105.00	SqFt	Comments:
		4 - 0 - 0		~
48 LONGITUDINAL/TRANSVERSE CRACKING	$_{ m L}$	47.01	Ft	Comments:

Sample Number: 600 Type: R	Area:	6,502.00SqFt	PCI = 81
Sample Comments:			
48 LONGITUDINAL/TRANSVERSE CRACKING	L	132.03	Ft Comments:
52 WEATHERING/RAVELING	L	240.00	SqFt Comments:
52 WEATHERING/RAVELING	M	40.00	SqFt Comments:
49 OIL SPILLAGE	N	2.00	SqFt Comments:

50.00Ft

16.00 Ft

Comments:

Last Const.: 1/1/2003

FDOT

Report Generated Date: 6/16/2011

Site Name:

Network: EYW Name: KEY WEST INTERNATIONAL AIRPORT

Branch: TW E Name: TAXIWAY E Use: TAXIWAY Area: 84,900.00SqFt

Section: 610 of 2 From: - To: -

Surface: AAC Family: FDOT-PR-TW-AAC Zone: Category: Rank: P

Area: 33,365.00SqFt Length: 560.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date5/2/2011 Total Samples: 6 Surveyed: 2

48 LONGITUDINAL/TRANSVERSE CRACKING

Conditions: PCI:40.00 | Inspection Comments:

Sample Number: 101 Type: R Area: 5,439.00SqFt PCI = 43

Sample Comments:

52 WEATHERING/RAVELING M 5,438.95 SqFt Comments:

Sample Number: 105 Type: R	Area:	3,966.00SqFt	PCI = 35
Sample Comments:			
48 LONGITUDINAL/TRANSVERSE CRACKI	NG L	62.02	Ft Comments:
52 WEATHERING/RAVELING	L	100.00	SqFt Comments:
52 WEATHERING/RAVELING	M	2,989.98	SqFt Comments:
43 BLOCK CRACKING	L	20.00	SqFt Comments:

L