STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

AVIATION OFFICE

Statewide Airfield Pavement Management Program

Keystone Airpark – 42J
(General Aviation)
Keystone Heights, Florida
(District 2)

May 2011

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

TABLE OF CONTENTS

SECTION **PAGE NO.**

APPENDICES

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, 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 Statewide Airfield Pavement Management Program (SAPMP) to be completed over fiscal years 2011 and 2012.

The tasks required to achieve this objective at Keystone Airpark 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 Keystone Airpark, and
- Provide the estimated costs associated with the suggested immediate and future M&R activities

During March 2011, the PCI survey was performed at Keystone Airpark. 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 66, 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	Condition Rating	FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required
Apron	39	Very Poor	60	65	X
Apron Holding Areas RW 28 & 10	29	Very Poor	60	65	X
Apron T-Hangars	79	Satisfactory	60	65	
Runway 11-29	57	Fair	75	65	X
Runway 5-23	95	Good	75	65	
Taxiway Alpha	45	Poor	65	65	X
Taxiway Bravo & Midfield	55	Poor	65	65	X
Taxiway Echo - Connector to T-Hangar	61	Fair	65	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	79	Satisfactory
Taxiway	51	Poor
Apron	53	Poor
All (Weighted)	**66**	Fair

Table III: Condition Summary by Pavement Rank

Rank*	Average Area-Weighted PCI	Condition Rating
Primary	68	Fair
Secondary	57	Fair
All (Weighted)	**66**	**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 Keystone Airpark, include: Apron, Apron Holding Areas RW 28 & 10, Apron T-Hangars, Runway 11-29, Runway 5-23, Taxiway Alpha, Taxiway Bravo & Midfield, and Taxiway Echo – Connector to T-Hangar. Asphalt pavement conditions in these areas justify mill and overlay rehabilitation activity. While Portland Cement Concrete pavement conditions would benefit from PCC restoration 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 (ft^2)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	PCC	164,325	$1,756,306.11	34	Reconstruction	100
Apron	4110	AC	42,812	$170,991.22	58	Mill and Overlay	100
Apron Holding Areas RW 28 & 10	5210	PCC	20,650	$235,843.73	33	Reconstruction	100
Apron Holding Areas RW 28 & 10	5225	PCC	30,000	$408,600.13	25	Reconstruction	100
Apron T-Hangars	4505	PCC	26,000	$354,120.11	0	Reconstruction	100
Runway 11-29	6205	PCC	16,875	$53,105.66	61	PCC Restoration	100
Runway 11-29	6210	PCC	5,508	$23,579.76	57	PCC Restoration	100
Runway 11-29	6215	AC	333,750	$1,237,212.00	59	Mill and Overlay	100
Runway 11-29	6220	PCC	22,500	$306,450.10	28	Reconstruction	100
Runway 5-23	6105	PCC	30,000	$86,220.06	62	PCC Restoration	100
Runway 5-23	6130	PCC	27,281	$63,510.21	64	PCC Restoration	100
Taxiway Alpha	105	AAC	192,500	$1,210,825.10	45	Mill and Overlay	100
Taxiway Bravo & Midfield	205	AAC	16,450	$89,307.07	53	Mill and Overlay	100
Taxiway Bravo & Midfield	210	AC	73,500	$462,315.04	50	Mill and Overlay	100
Taxiway Bravo & Midfield	215	AC	91,000	$311,220.22	60	Mill and Overlay	100
Taxiway Bravo & Midfield	220	AC	11,550	$49,445.57	57	Mill and Overlay	100
Taxiway Echo - Connector to T-Hangar	505	AC	30,000	$94,410.07	61	Mill and Overlay	100
			Total	**$6,913,462.16**	**47**		**100**

A forecast of Major M&R needs for a 10-year period, starting from 2011, 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
2011	$0.00	$6,913,462.16	$6,913,462.16
2012	$4,677.50	$0.00	$4,677.50
2013	$9,316.93	$0.00	$9,316.93
2014	$14,663.53	$0.00	$14,663.53
2015	$20,004.05	$0.00	$20,004.05
2016	$45,924.66	$0.00	$45,924.66
2017	$71,337.96	$0.00	$71,337.96
2018	$107,034.54	$0.00	$107,034.54
2019	$155,591.18	$0.00	$155,591.18
2020	$195,481.13	$0.00	$195,481.13
Total	**$624,031.48**	**$6,913,462.16**	**$7,537,493.64**

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 66 in 2011 to 81 in 2020. 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 Keystone Airpark pavements in 2020 may remain near 81. 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 Keystone Airpark 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 (MACTEC Engineering and Consulting and All About Pavements, Inc.) provide technical and administrative assistance to the AO-PM during the execution of this program, which involves the continuing evaluation of airport pavements and updating of the SAPMP based upon procedures outlined in FAA Advisory Circular 150/5380-6B "Guidelines and Procedures for Maintenance of Airport Pavements" and ASTM D 5340 "Standard Test Method for Airport Pavement Condition Index Surveys" (2004).

1.3.3 *Airport Role*

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

1.4 Pavement Types and Pavement Management

1.4.1 *Pavement basics*

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

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

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

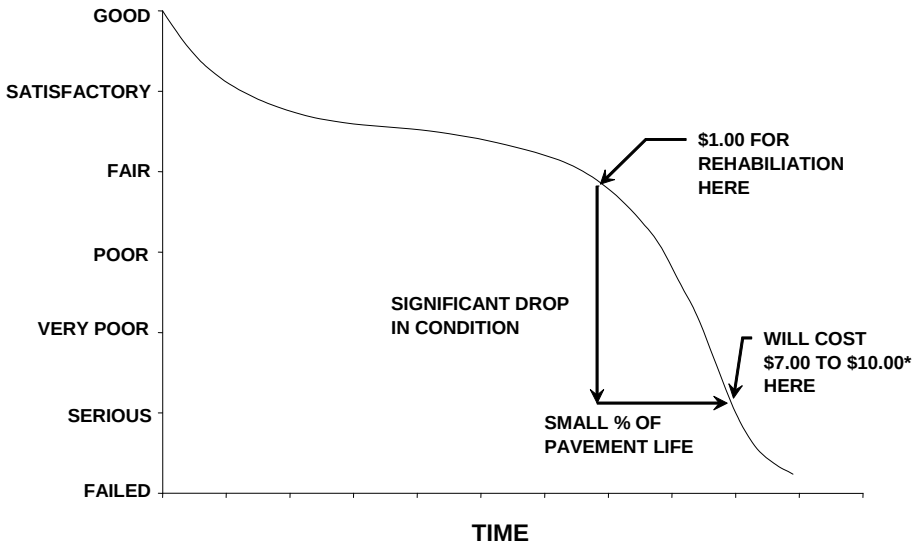
A small percentage of the airport pavements in Florida are composed of asphalt concrete surface over Portland Cement Concrete (APC). This pavement type is known as “composite” pavement.

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

1.4.2 *Pavement Management System Concept*

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

Figure 1-1: Pavement Life Cycle



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

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

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

1.4.3 *Pavement Inspection Methodology for the SAPMP*

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

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

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

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

Table 1-1: Sampling Rate for FDOT Condition Surveys

AC Pavements			PCC Pavements		
N	**n**		**N**	**n**	
	Runway	**Others**		**Runway**	**Others**
1-4	1	1	1-3	1	1
5-10	2	1	4-6	2	1
11-15	3	2	7-10	3	2
16-30	5	3	11-15	4	2
31-40	7	4	16-20	5	3
41-50	8	5	21-30	7	3
≥51	20% but ≤20	10% but ≤10	31-40	8	4
			41-50	10	5
			≥51	20% but ≤20	10% but ≤10

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

The sample units to inspect are determined by a systematic random sampling technique. This means that the locations are determined such that they are distributed evenly throughout the Section. In the case when 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Pavement Surface Type - The surface of pavement is identified as one of four types:

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

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

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

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

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

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

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

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

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

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

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

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

2. NETWORK DEFINITION AND PAVEMENT INVENTORY

Keystone Airpark (42J) is located approximately 5 miles west of the City of Keystone Heights, Florida. The Airpark is the only public general aviation airport in Clay and Bradford Counties and is directly regulated by the Keystone Airpark Authority. Keystone Airpark focuses primarily on serving recreational and business-related general aviation, as well as military operations conducted by Camp Blanding, and is served by two converging runways. These runways are Runway 5-23 and Runway 11-29. Runway 5-23 has a full-length parallel taxiway, while Runway 11-29 has a partial parallel taxiway.

Based on field measurements, it is important to note that the runway data and other pavement facilities geometric dimensions may vary slightly from the geometry used in the condition and M&R analysis.

The airfield was opened in 1942 as the Keystone Army Airfield. The airfield was turned over to the city of Keystone Heights in 1947. From the time of its opening the airfield has been used by various branches of the military for various training exercises.

Keystone Airpark is designated as a General Aviation (GA) airport and is located in District 2 of the Florida Department of Transportation.

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.

The updated System Inventory and Network Definition drawings for Keystone Airpark 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
1991	Runway 11-29	Resurfaced
2010	Runway 5-23	Rehabilitate concrete ends and mill and resurface asphalt
2011-2012	Runway 5-23	1000 ft extension

2.2 Pavement Inventory

The detailed pavement inventory was updated to reflect the network definition update and field inspection results.

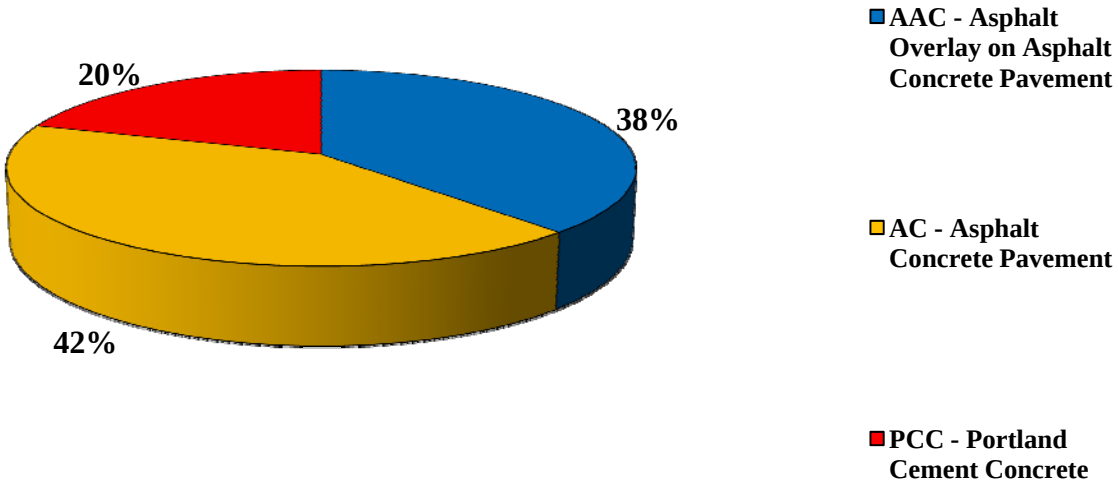
The total airfield pavement area in 2011 at Keystone Airpark is 1,695,909 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

Table 2-2: Pavement Area by Pavement Use

Use	Area (ft^2)	% of Total Area
Runway	875,914	52%
Taxiway	415,000	24%
Apron	404,995	24%
All	**1,695,909**	**100%**

Figure 2-1 presents the breakdown of the pavement area at Keystone Airpark 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 (ft^2)	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Total Samples
Apron	AP	4105	164,325	P	PCC	1/1/1943	4	35
Apron	AP	4110	42,812	P	AC	1/1/1990	1	6
Apron Holding Areas RW 28 & 10	AP HOLD	5210	20,650	P	PCC	1/1/1942	1	4
Apron Holding Areas RW 28 & 10	AP HOLD	5225	30,000	P	PCC	1/1/1942	1	4
Apron T-Hangars	AP T-HANG	4505	26,000	P	PCC	1/1/1943	1	6
Apron T-Hangars	AP T-HANG	4510	43,814	P	AC	1/1/2004	1	10
Apron T-Hangars	AP T-HANG	4515	15,023	P	AC	1/1/2008	0	6
Apron T-Hangars	AP T-HANG	4520	62,371	P	AC	1/1/2009	0	14
Runway 11-29	RW 11-29	6205	16,875	S	PCC	1/1/1942	2	5
Runway 11-29	RW 11-29	6210	5,508	S	PCC	1/1/1942	1	1
Runway 11-29	RW 11-29	6215	333,750	S	AC	1/1/1991	17	88
Runway 11-29	RW 11-29	6220	22,500	S	PCC	1/1/1942	1	3
Runway 5-23	RW 5-23	6105	30,000	P	PCC	1/1/1943	2	6
Runway 5-23	RW 5-23	6115	264,000	P	AAC	7/1/2010	0	44
Runway 5-23	RW 5-23	6120	88,000	P	AAC	7/1/2010	0	22
Runway 5-23	RW 5-23	6125	88,000	P	AAC	7/1/2010	0	22
Runway 5-23	RW 5-23	6130	27,281	P	PCC	1/1/1943	2	6
Taxiway Alpha	TW A	105	192,500	P	AAC	1/1/1987	6	55
Taxiway Bravo & Midfield	TW B & MDF	205	16,450	P	AAC	1/1/1987	2	5
Taxiway Bravo & Midfield	TW B & MDF	210	73,500	P	AC	1/1/1997	4	21
Taxiway Bravo & Midfield	TW B & MDF	215	91,000	P	AC	1/1/1997	6	26
Taxiway Bravo & Midfield	TW B & MDF	220	11,550	P	AC	1/1/1997	1	4
Taxiway Echo - Connector to T-Hangar	TW E	505	30,000	P	AC	1/1/1990	3	11

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. Tables 3-1 and 3-2 below list the pavement distress types and related causes for asphalt concrete (AC) and Portland Cement Concrete (PCC), respectively.

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 Inspection Reference Manual

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

Code	Distress	Mechanism
61	Blow-up	Climate
62	Corner Break	Load
63	Linear Cracking	Load
64	Durability Cracking	Climate
65	Joint Seal Damage	Climate
66	Small Patch	Pavement Repair
67	Large Patch/Utility Cut	Utility / Pavement Repair
68	Popout	Climate
69	Pumping	Load
70	Scaling/Crazing	Construction Quality
71	Faulting	Subgrade Quality
72	Shattered Slab	Load
73	Shrinkage Cracking	Construction Quality / Load
74	Joint Spalling	Load
75	Corner Spalling	Load
Source: U.S. Army CERL, FDOT Airfield Inspection 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 Keystone Airpark were performed in March 2011. Data were 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 Keystone Airpark is 66, representing a Fair overall network condition.

The Asphalt Concrete pavement in Runway 11-29 exhibited low to medium severity weathering and raveling, and low to medium severity longitudinal and transversal cracking. While the PCC pavement of both Runways exhibited low to high severity spalling, low to medium severity joint seal damage, low to medium severity linear cracking, low severity scaling, low severity shattered slabs, and low severity patching (both large and small).

Taxiways throughout the airfield exhibited low to medium severity longitudinal and transversal cracking, low to high severity weathering and raveling, and medium to high severity shoving. Low severity patching was also observed mostly in Taxiway Bravo & Midfield.

The Asphalt Concrete pavement in Apron T-Hangar exhibited low severity longitudinal and transverse cracking. The PCC pavement section suffered from high severity shattered slabs and high severity joint seal damage distresses.

The PCC pavement sections in Apron and Apron Holding Areas RW 28 & 10 were in very poor conditions, with low to high severity linear cracking, low to high severity spalling, low to high severity large patching, and medium severity joint seal damage. The AC pavement in the Apron suffered mostly of low to medium severity weathering and raveling and low severity longitudinal and transverse cracking.

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

Figure 3-1 provides the PCI distribution by rating category for Keystone Airpark.

Figure 3-1: Network PCI Distribution by Rating Category

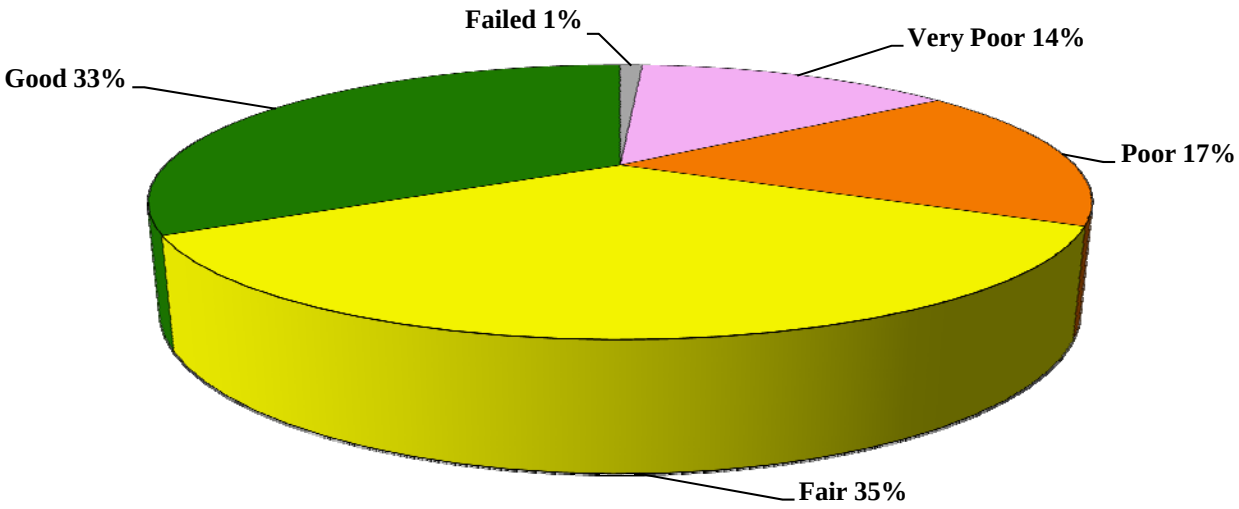


Figure 3-1a: Condition Rating Summary

Condition Rating	Total Area (ft^2)	Percent
Good	561,208	33%
Satisfactory	0	0%
Fair	588,776	35%
Poor	282,450	17%
Very Poor	237,475	14%
Serious	0	0%
Failed	26,000	1%

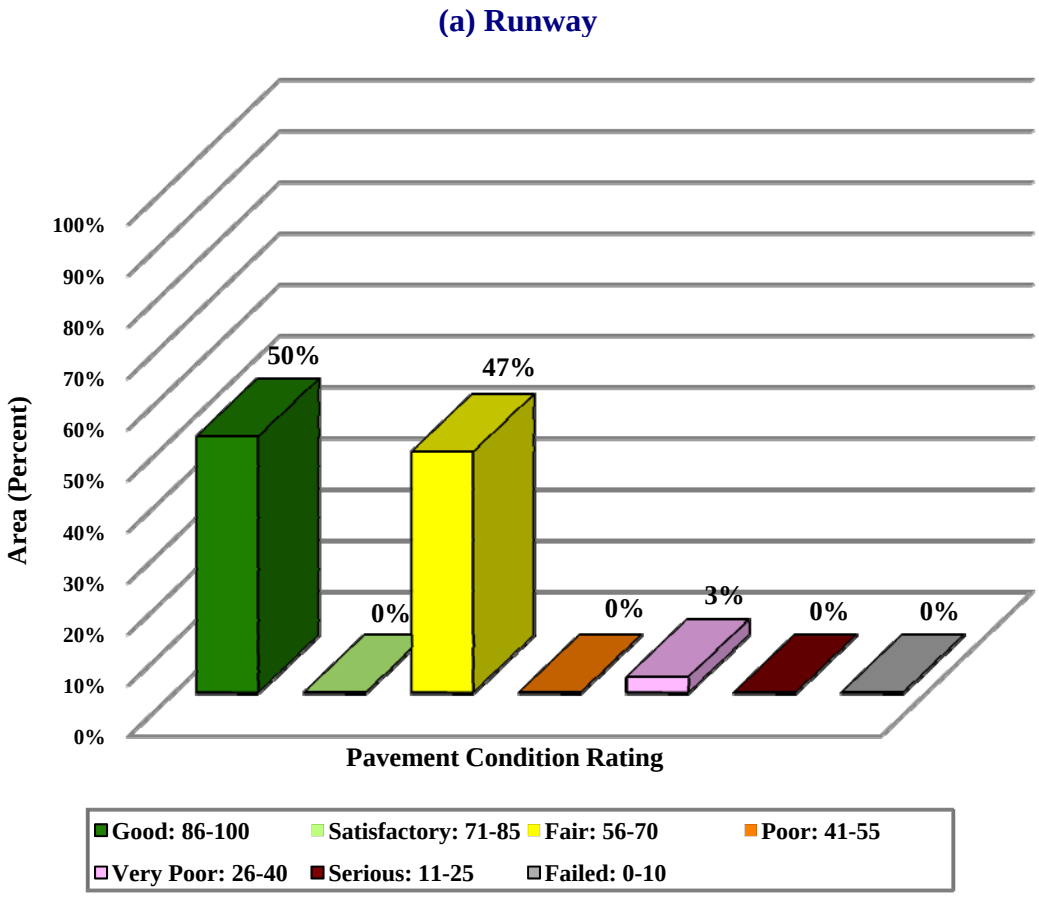
Approximately 68% of the network is in Good and Fair condition while 15% of the network is in Very Poor and Failed condition. Table 3-3 illustrates the area-weighted PCI computed individually for each pavement use.

Table 3-3: Condition by Pavement Use

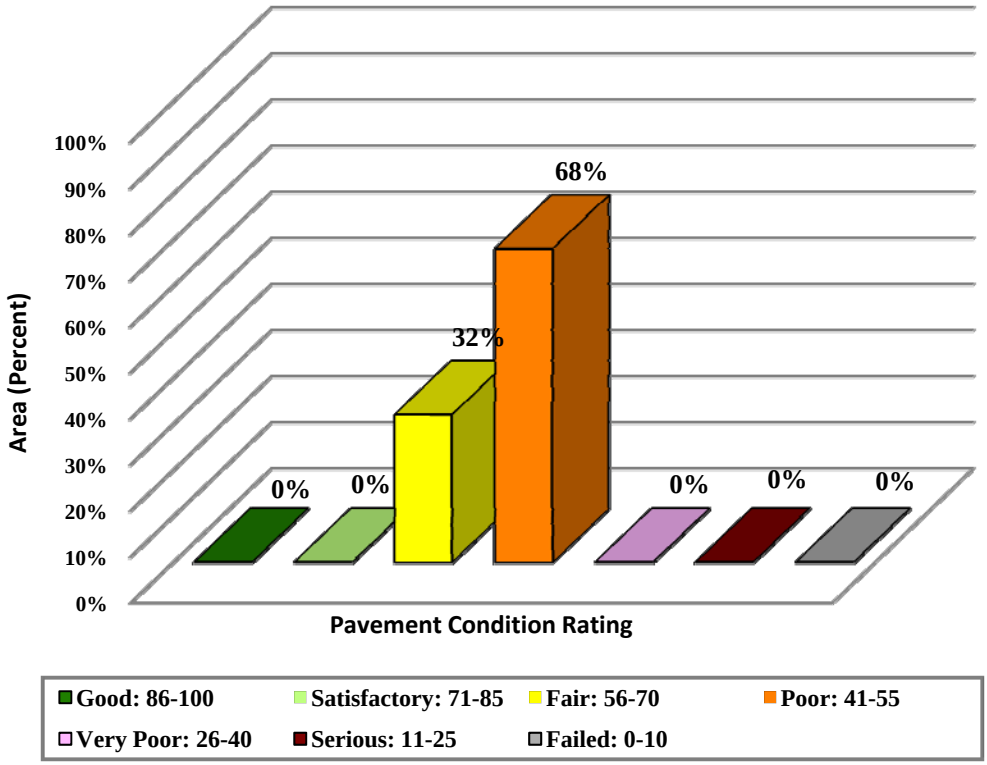
Use	Average Area-Weighted PCI	Condition Rating
Runway	79	Satisfactory
Taxiway	51	Poor
Apron	53	Poor
All (Weighted)	**66**	Fair

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

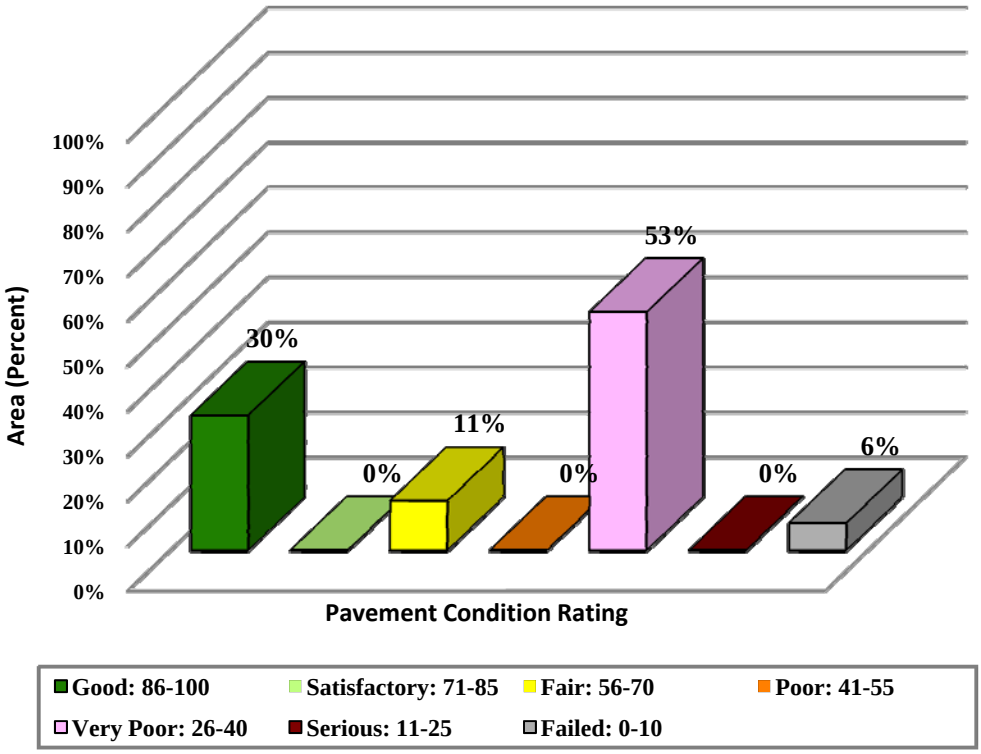
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use



(b) Taxiway



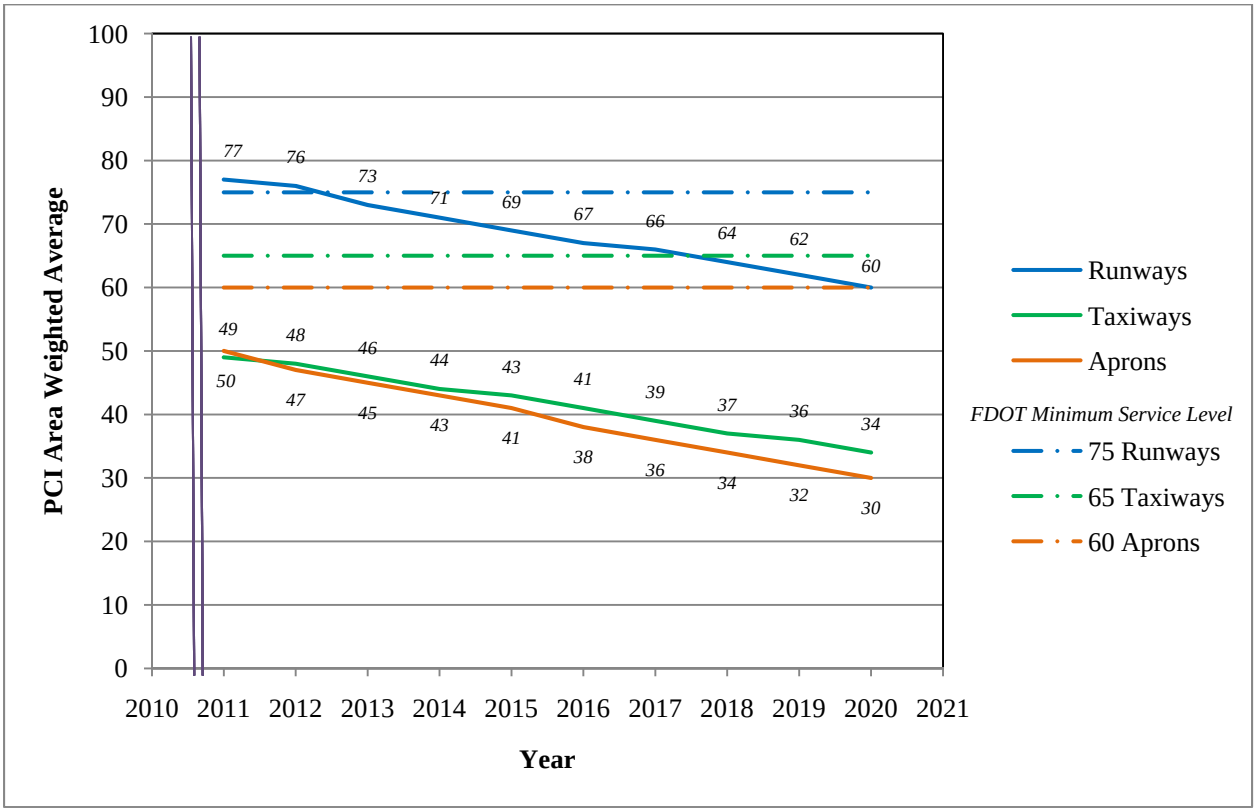
(c) Apron



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 Keystone Airpark based on current condition, age since last construction and the deterioration model appropriate for the type of pavement. The figure presents the forecast for each pavement use and displays the FDOT minimum service level for General Aviation (GA) airports.

Figure 4-1: Predicted PCI by Pavement Use



Appendix D presents the tabular summary of the predicted Section PCI for each year from 2011 to 2020.

5. MAINTENANCE POLICIES AND COSTS

5.1 Policies

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

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

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

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

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

Table 5-1: Routine Maintenance Activities for Airfield Pavements

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

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

Table 5-2: Critical PCI for General Aviation Airports

Use	Critical PCI
Runway	65
Taxiway	65
Apron	65

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

Table 5-3: FDOT Minimum Service Level PCI for General Aviation Airports

Minimum PCI		
Runway	**Taxiway**	**Apron**
75	65	60

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

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

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

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

5.2 Unit Costs

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

5.3 M&R Activities

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

Table 5-5: Maintenance Unit Costs for FDOT

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

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

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

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

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

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

6. PAVEMENT REHABILITATION NEEDS ANALYSIS

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

The objective of the M&R analysis is to observe the effect of different fiscal scenarios on the network condition, over a period of ten years, starting from 2011. 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
Apron	4105	PCC	164,325	$1,756,306.11	34	Reconstruction	100
Apron	4110	AC	42,812	$170,991.22	58	Mill and Overlay	100
Apron Holding Areas RW 28 & 10	5210	PCC	20,650	$235,843.73	33	Reconstruction	100
Apron Holding Areas RW 28 & 10	5225	PCC	30,000	$408,600.13	25	Reconstruction	100
Apron T-Hangars	4505	PCC	26,000	$354,120.11	0	Reconstruction	100
Runway 11-29	6205	PCC	16,875	$53,105.66	61	PCC Restoration	100
Runway 11-29	6210	PCC	5,508	$23,579.76	57	PCC Restoration	100
Runway 11-29	6215	AC	333,750	$1,237,212.00	59	Mill and Overlay	100
Runway 11-29	6220	PCC	22,500	$306,450.10	28	Reconstruction	100
Runway 5-23	6105	PCC	30,000	$86,220.06	62	PCC Restoration	100
Runway 5-23	6130	PCC	27,281	$63,510.21	64	PCC Restoration	100
Taxiway Alpha	105	AAC	192,500	$1,210,825.10	45	Mill and Overlay	100
Taxiway Bravo & Midfield	205	AAC	16,450	$89,307.07	53	Mill and Overlay	100
Taxiway Bravo & Midfield	210	AC	73,500	$462,315.04	50	Mill and Overlay	100
Taxiway Bravo & Midfield	215	AC	91,000	$311,220.22	60	Mill and Overlay	100
Taxiway Bravo & Midfield	220	AC	11,550	$49,445.57	57	Mill and Overlay	100
Taxiway Echo - Connector to T-Hangar	505	AC	30,000	$94,410.07	61	Mill and Overlay	100
			Total	**$6,913,462.16**	**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 (ft^2)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
Apron	4105	PCC	164,325	$1,756,306.11	34	Reconstruction	100
Apron	4110	AC	42,812	$27,827.80	58	Microsurfacing	100
Apron Holding Areas RW 28 & 10	5210	PCC	20,650	$235,843.73	33	Reconstruction	100
Apron Holding Areas RW 28 & 10	5225	PCC	30,000	$408,600.13	25	Reconstruction	100
Apron T-Hangars	4505	PCC	26,000	$354,120.11	0	Reconstruction	100
Runway 11-29	6205	PCC	16,875	$53,105.66	61	PCC Restoration	100
Runway 11-29	6210	PCC	5,508	$23,579.76	57	PCC Restoration	100
Runway 11-29	6215	AC	333,750	$216,937.50	59	Microsurfacing	100
Runway 11-29	6220	PCC	22,500	$306,450.10	28	Reconstruction	100
Runway 5-23	6105	PCC	30,000	$86,220.06	62	PCC Restoration	100
Runway 5-23	6130	PCC	27,281	$63,510.21	64	PCC Restoration	100
Taxiway Alpha	105	AAC	192,500	$125,125.00	45	Microsurfacing	100
Taxiway Bravo & Midfield	205	AAC	16,450	$10,692.50	53	Microsurfacing	100
Taxiway Bravo & Midfield	210	AC	73,500	$47,775.00	50	Microsurfacing	100
Taxiway Bravo & Midfield	215	AC	91,000	$59,150.00	60	Microsurfacing	100
Taxiway Bravo & Midfield	220	AC	11,550	$7,507.50	57	Microsurfacing	100
Taxiway Echo - Connector to T-Hangar	505	AC	30,000	$19,500.00	61	Microsurfacing	100
			Total	**$3,802,251.17**	**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
Apron	AP	4105	LINEAR CR	H	Crack Sealing - PCC	154.10	Ft	$4.24	$653.39
Apron	AP	4105	CORNER SPALL	M	Patching - PCC Partial Depth	44.20	SqFt	$19.06	$843.08
Apron	AP	4105	JOINT SPALL	M	Patching - PCC Partial Depth	159.20	SqFt	$19.06	$3,035.09
Apron	AP	4105	JOINT SPALL	H	Patching - PCC Partial Depth	132.70	SqFt	$19.06	$2,529.24
Apron	AP	4105	LARGE PATCH	H	Patching - PCC Full Depth	2,022.30	SqFt	$38.11	$77,071.00
Apron	AP	4105	SMALL PATCH	M	Patching - PCC Partial Depth	22.10	SqFt	$19.06	$421.54
Apron	AP	4105	JT SEAL DMG	M	Joint Seal (Localized)	17,205.20	Ft	$2.00	$34,410.57
Apron	AP	4105	LINEAR CR	M	Crack Sealing - PCC	1,541.00	Ft	$4.24	$6,533.92
Apron	AP	4110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	40,330.10	SqFt	$0.40	$16,132.19
Apron	AP	4110	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,481.90	SqFt	$0.40	$992.75
Apron Holding Areas RW 28 & 10	AP HOLD	5210	CORNER SPALL	H	Patching - PCC Partial Depth	9.90	SqFt	$19.06	$188.06
Apron Holding Areas RW 28 & 10	AP HOLD	5210	JT SEAL DMG	M	Joint Seal (Localized)	1,947.60	Ft	$2.00	$3,895.29
Apron Holding Areas RW 28 & 10	AP HOLD	5210	LINEAR CR	M	Crack Sealing - PCC	275.00	Ft	$4.24	$1,166.00
Apron Holding Areas RW 28 & 10	AP HOLD	5210	JOINT SPALL	M	Patching - PCC Partial Depth	47.40	SqFt	$19.06	$902.70
Apron Holding Areas RW 28 & 10	AP HOLD	5225	JOINT SPALL	H	Patching - PCC Partial Depth	43.10	SqFt	$19.06	$820.64
Apron Holding Areas RW 28 & 10	AP HOLD	5225	LINEAR CR	M	Crack Sealing - PCC	500.00	Ft	$4.24	$2,120.01
Apron T-Hangars	AP T-HANG	4505	JT SEAL DMG	H	Joint Seal (Localized)	2,543.90	Ft	$2.00	$5,087.76
Apron T-Hangars	AP T-HANG	4505	SHAT. SLAB	H	Slab Replacement - PCC	25,937.50	SqFt	$39.11	$1,014,415.54
Runway 11-29	RW 11-29	6205	JOINT SPALL	M	Patching - PCC Partial Depth	58.10	SqFt	$19.06	$1,107.86
Runway 11-29	RW 11-29	6205	JT SEAL DMG	M	Joint Seal (Localized)	1,200.00	Ft	$2.00	$2,400.01

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

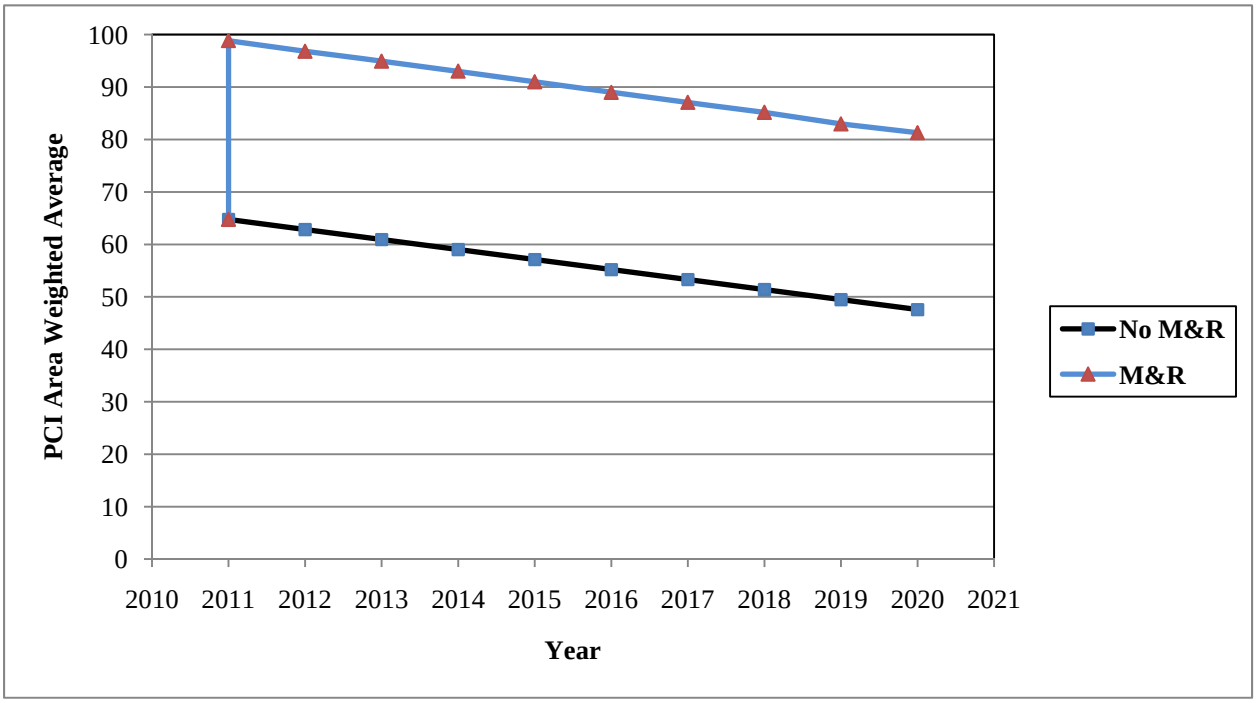
Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Runway 11-29	RW 11-29	6210	LINEAR CR	M	Crack Sealing - PCC	11.30	Ft	$4.24	$47.70
Runway 11-29	RW 11-29	6215	L & T CR	M	Crack Sealing - AC	858.60	Ft	$2.25	$1,931.83
Runway 11-29	RW 11-29	6215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	280,716.50	SqFt	$0.40	$112,287.52
Runway 11-29	RW 11-29	6215	WEATH/RAVEL	M	Surface Seal - Coat Tar	53,033.50	SqFt	$0.40	$21,213.59
Runway 11-29	RW 11-29	6220	JOINT SPALL	M	Patching - PCC Partial Depth	58.10	SqFt	$19.06	$1,107.86
Runway 11-29	RW 11-29	6220	JOINT SPALL	H	Patching - PCC Partial Depth	24.20	SqFt	$19.06	$461.61
Runway 11-29	RW 11-29	6220	JT SEAL DMG	M	Joint Seal (Localized)	2,325.00	Ft	$2.00	$4,650.01
Runway 11-29	RW 11-29	6220	LINEAR CR	M	Crack Sealing - PCC	393.80	Ft	$4.24	$1,669.50
Taxiway Alpha	TW A	105	L & T CR	M	Crack Sealing - AC	275.00	Ft	$2.25	$618.75
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	111,833.30	SqFt	$0.40	$44,733.71
Taxiway Alpha	TW A	105	WEATH/RAVEL	M	Surface Seal - Coat Tar	71,500.00	SqFt	$0.40	$28,600.24
Taxiway Bravo & Midfield	TW B & MDF	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,452.50	SqFt	$0.40	$5,781.05
Taxiway Bravo & Midfield	TW B & MDF	205	WEATH/RAVEL	M	Surface Seal - Coat Tar	1,997.50	SqFt	$0.40	$799.01
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	H	Microsurfacing - AC	787.50	SqFt	$0.65	$511.87
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	60,585.00	SqFt	$0.40	$24,234.20
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	M	Surface Seal - Coat Tar	12,127.50	SqFt	$0.40	$4,851.04
Taxiway Bravo & Midfield	TW B & MDF	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	83,026.70	SqFt	$0.40	$33,210.94
Taxiway Bravo & Midfield	TW B & MDF	215	WEATH/RAVEL	M	Surface Seal - Coat Tar	7,973.30	SqFt	$0.40	$3,189.36
Taxiway Bravo & Midfield	TW B & MDF	220	WEATH/RAVEL	M	Surface Seal - Coat Tar	990.00	SqFt	$0.40	$396.00

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 Bravo & Midfield	TW B & MDF	220	WEATH/RAVEL	L	Surface Seal - Rejuvenating	10,560.00	SqFt	$0.40	$4,224.04
Taxiway Echo - Connector to T-Hangar	TW E	505	SHOVING	M	Grinding(Localized)	69.50	SqFt	$2.10	$145.86
Taxiway Echo - Connector to T-Hangar	TW E	505	WEATH/RAVEL	L	Surface Seal - Rejuvenating	27,840.00	SqFt	$0.40	$11,136.09
Taxiway Echo - Connector to T-Hangar	TW E	505	WEATH/RAVEL	M	Surface Seal - Coat Tar	1,840.00	SqFt	$0.40	$736.01
Taxiway Echo - Connector to T-Hangar	TW E	505	SHOVING	H	Grinding(Localized)	61.50	SqFt	$2.10	$129.08
								Total =	$1,481,393.51

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 66 in 2011 to 48 in ten years if no M&R activities are performed.
- The PCI will remain at or above 81 through the 10-year analysis period under the unlimited budget scenario. A 2020 PCI of 81 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 $6.9 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
2011	$0.00	$6,913,462.16	$6,913,462.16
2012	$4,677.50	$0.00	$4,677.50
2013	$9,316.93	$0.00	$9,316.93
2014	$14,663.53	$0.00	$14,663.53
2015	$20,004.05	$0.00	$20,004.05
2016	$45,924.66	$0.00	$45,924.66
2017	$71,337.96	$0.00	$71,337.96
2018	$107,034.54	$0.00	$107,034.54
2019	$155,591.18	$0.00	$155,591.18
2020	$195,481.13	$0.00	$195,481.13
Total	**$624,031.48**	**$6,913,462.16**	**$7,537,493.64**

Note: Costs are adjusted for inflation.

Approximately 100% of the total Major M&R cost is required in the first year (2011). According to the 2011 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- **Apron** – Asphalt pavement mill and overlay activity per the FAA P-401 specification. Reconstruction of PCC pavement per the FAA P-501 specification.
- **Apron Holding Areas RW 28 & 10** – Reconstruction of PCC pavement per the FAA P-501 specification.
- **Apron T-Hangars** – Reconstruction of PCC pavement per the FAA P-501 specification.
- **Runway 11-29** – Asphalt pavement mill and overlay activity per the FAA P-401 specification. Restoration and reconstruction of PCC pavement per the FAA P-501 specification.
- **Runway 5-23** – Restoration of PCC pavement per the FAA P-501 specification.

- **Taxiway Alpha** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.
- **Taxiway Bravo & Midfield** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.
- **Taxiway Echo – Connector to T-Hangar** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.

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 Keystone Airpark, and a 10-year M&R plan was developed based on the unlimited funding scenario.

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

- **Apron** – Asphalt pavement mill and overlay activity per the FAA P-401 specification. Reconstruction of PCC pavement per the FAA P-501 specification.
- **Apron Holding Areas RW 28 & 10** – Reconstruction of PCC pavement per the FAA P-501 specification.
- **Apron T-Hangars** – Reconstruction of PCC pavement per the FAA P-501 specification.
- **Runway 11-29** – Asphalt pavement mill and overlay activity per the FAA P-401 specification. Restoration and reconstruction of PCC pavement per the FAA P-501 specification.
- **Runway 5-23** – Restoration of PCC pavement per the FAA P-501 specification.
- **Taxiway Alpha** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.
- **Taxiway Bravo & Midfield** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.
- **Taxiway Echo – Connector to T-Hangar** – Asphalt pavement mill and overlay activity per the FAA P-401 specification.

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

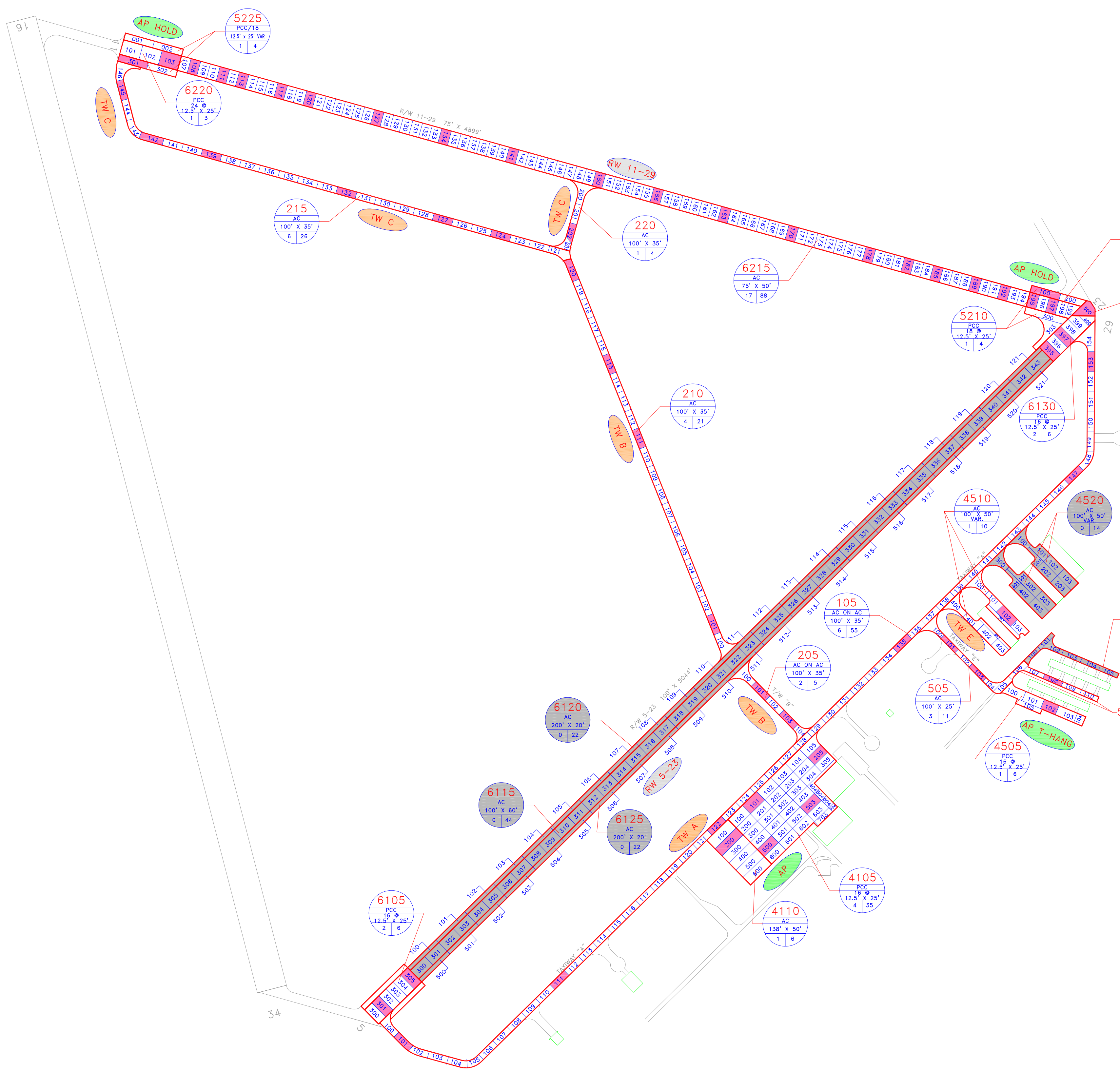
SYSTEM INVENTORY MAP

PAVEMENT INVENTORY TABLE

WORK HISTORY REPORT

GPS COORDINATES - KEYSTONE AIRPARK				
LOCATION	SECTION	SAMPLE	LATITUDE	LONGITUDE
AP T-HANG	4505	102	29.84090751	-82.04142152
AP T-HANG	4510	102	29.84215615	-82.04211192
AP T-HANG	4515	104	29.84150255	-82.0407897
AP T-HANG	4520	202	29.84276048	-82.04148937
AP T-HANG	4520	403	29.84226472	-82.04161203
AP	4105	101	29.83955723	-82.04607591
AP	4105	205	29.84022071	-82.04507198
AP	4105	500	29.83896529	-82.04584291
AP	4105	503	29.83954856	-82.04517392
AP	4110	200	29.83901557	-82.04645423
RW 5-23	6105	301	29.83671193	-82.05189276
RW 5-23	6105	305	29.8371008	-82.0514468
RW 5-23	6115	302	29.83763632	-82.05083454
RW 5-23	6115	307	29.83860848	-82.04971962
RW 5-23	6115	312	29.83958062	-82.04860468
RW 5-23	6115	318	29.84074719	-82.04726672
RW 5-23	6115	326	29.84230259	-82.04548273
RW 5-23	6115	332	29.84346912	-82.0441447
RW 5-23	6115	337	29.84444122	-82.04302965
RW 5-23	6115	342	29.84541332	-82.04191458
RW 5-23	6120	101	29.8378113	-82.05081225
RW 5-23	6120	105	29.83936674	-82.04902836
RW 5-23	6120	111	29.84169987	-82.04635244
RW 5-23	6120	115	29.84325526	-82.04456841
RW 5-23	6120	120	29.84519946	-82.0423383
RW 5-23	6125	502	29.83804464	-82.05018787
RW 5-23	6125	507	29.83998893	-82.04795799
RW 5-23	6125	513	29.84232203	-82.04528202
RW 5-23	6125	516	29.84348857	-82.04394399
RW 5-23	6125	521	29.84545597	-82.04168723
RW 5-23	6130	395	29.84579693	-82.04146755
RW 5-23	6130	397	29.84599135	-82.04124453
RW 5-23	6210	500	29.84638854	-82.04089559
RW 11-29	5210	100	29.84659631	-82.04155005
RW 11-29	5225	301	29.84965661	-82.05595488
RW 11-29	6205	195	29.84648583	-82.04174617
RW 11-29	6205	197	29.84641446	-82.04144231
RW 11-29	6215	108	29.84958916	-82.0549961
RW 11-29	6215	111	29.84948217	-82.05453919
RW 11-29	6215	113	29.84941084	-82.05423459
RW 11-29	6215	117	29.84926817	-82.05362538
RW 11-29	6215	120	29.84916117	-82.05316848
RW 11-29	6215	127	29.8489115	-82.05210237
RW 11-29	6215	134	29.84866182	-82.05103627
RW 11-29	6215	141	29.84841213	-82.04997017
RW 11-29	6215	156	29.84787705	-82.04768569
RW 11-29	6215	163	29.84762733	-82.04661961
RW 11-29	6215	170	29.8473776	-82.04555354
RW 11-29	6215	178	29.84709219	-82.04433517
RW 11-29	6215	182	29.84694948	-82.04372599
RW 11-29	6215	185	29.84684245	-82.0432691
RW 11-29	6215	189	29.84669973	-82.04265993
RW 11-29	6215	192	29.84659269	-82.04220304
RW 11-29	6220	103	29.8496789	-82.05537682
RW 11-29	6215	150	29.84809109	-82.04859948
TW A	105	101	29.83623185	-82.0515572
TW A	105	111	29.8370971	-82.0491044
TW A	105	122	29.8392358	-82.04665152
TW A	105	135	29.84176444	-82.0437543
TW A	105	147	29.84409746	-82.04107819
TW A	105	153	29.84565553	-82.04081882
TW B	205	101	29.84109085	-82.04597969
TW B	205	103	29.84070203	-82.04553367
TW B	210	101	29.84200167	-82.04673322
TW B	210	111	29.84454613	-82.04792825
TW B	210	115	29.84556392	-82.04840627
TW B	210	120	29.8468469	-82.04901435
TW C	215	124	29.84731691	-82.0501393
TW C	215	127	29.84752995	-82.05105338
TW C	215	132	29.847885	-82.05257687
TW C	215	139	29.84838205	-82.05470977
TW C	215	142	29.84860605	-82.05565062
TW C	215	145	29.84926662	-82.05612295
TW C	220	202	29.84735477	-82.04903598
TW E	505	101	29.84176265	-82.04300929
TW E	505	103	29.84137382	-82.04256327
TW E	505	108	29.84127543	-82.04137331

NOTE: GEODETICS REPRESENT DECIMAL DEGREES WGS84 (DERIVED FROM NAD 83 FLORIDA STATE PLANES, NORTH ZONE, US FOOT). ALL GPS COORDINATES ARE AT THE CENTROID OF THE SAMPLE UNITS.



NORTH

GRAPHIC SCALE IN FEET
0 150 300 600

LEGEND

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

4105 — SECTION NUMBER
AC — PAVEMENT TYPE
100' X 50' — TYPICAL SAMPLE UNIT INFORMATION: FLEXIBLE (AC) PAVEMENT LENGTH & WIDTH; RIGID (PCC) PAVEMENT NO. OF SLABS AND SLAB SIZE
5 — NUMBER OF SAMPLE UNITS IN SECTION
14 — NUMBER OF SAMPLE UNITS TO BE INSPECTED

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

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

TOTAL SAMPLES INSPECTED = 56

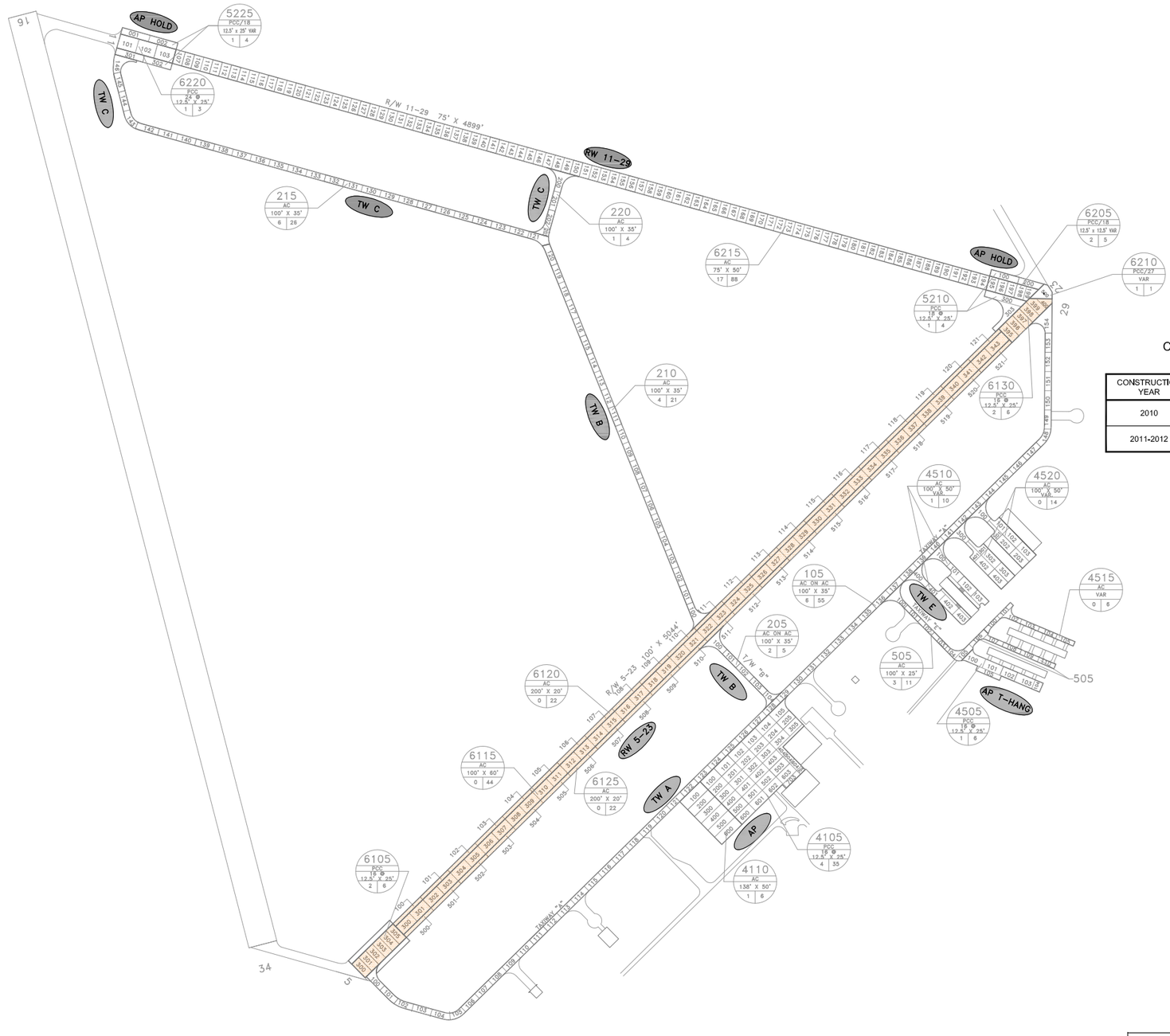
RUNWAY LENGTHS DEPICTED IN THIS DRAWING ARE FOR PAVEMENT MANAGEMENT PURPOSES ONLY AND MAY NOT MATCH PUBLISHED RUNWAY LENGTHS.

NUMBER	DATE	REVISIONS

DESIGNED: FL | DRAWN: GB | CHECKED: | DATE: MAY 2011

NETWORK DEFINITION MAP
KEYSTONE AIRPARK
CLAY COUNTY, FLORIDA
FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

IDENTIFIER: 42J
FDOT DISTRICT: 2



CONSTRUCTION SINCE LAST INSPECTION & ANTICIPATED CONSTRUCTION ACTIVITY

CONSTRUCTION YEAR	LOCATION	WORK TYPE / PAVEMENT SECTION
2010	RUNWAY 4-22	REHABILITATE CONCRETE ENDS AND MILL AND RESURFACE ASPHALT
2011-2012	RUNWAY 5-23	1000' EXTENSION

LEGEND

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

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

NUMBER	DATE	REVISIONS

DESIGNED:	FL	DRAWN:	GB	CHECKED:		DATE:	MAY 2011

P:\Dan_Burns\FDOT Aviation 2010-2017\2010-2011-Phase F\CADD\Keystone\y2010-42J-INVENTORY.dwg PLOTTED: July 14, 2011 – 3:57 PM, BY: Burton, George

SYSTEM INVENTORY MAP

KEYSTONE AIRPARK
CLAY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

IDENTIFIER **42J**

FDOT DISTRICT **2**

Table A-1: Pavement Inventory

Branch Name	Branch ID	Branch Use	Section ID	Length (ft)	Width (ft)	True Area (ft^2)	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
Apron	AP	APRON	4105	500	300	164,325	P	PCC	1/1/1943	3/24/2011	35
Apron	AP	APRON	4110	300	138	42,812	P	AC	1/1/1990	3/24/2011	6
Apron Holding Areas RW 28 & 10	AP HOLD	APRON	5210	400	50	20,650	P	PCC	1/1/1942	3/24/2011	4
Apron Holding Areas RW 28 & 10	AP HOLD	APRON	5225	600	50	30,000	P	PCC	1/1/1942	3/24/2011	4
Apron T-Hangars	AP T-HANG	APRON	4505	520	50	26,000	P	PCC	1/1/1943	3/24/2011	6
Apron T-Hangars	AP T-HANG	APRON	4510	780	100	43,814	P	AC	1/1/2004	3/24/2011	10
Apron T-Hangars	AP T-HANG	APRON	4515	500	30	15,023	P	AC	1/1/2008	1/1/2008	6
Apron T-Hangars	AP T-HANG	APRON	4520	765	80	62,371	P	AC	1/1/2009	1/1/2009	14
Runway 11-29	RW 11-29	RUNWAY	6205	225	75	16,875	S	PCC	1/1/1942	3/24/2011	5
Runway 11-29	RW 11-29	RUNWAY	6210	43	100	5,508	S	PCC	1/1/1942	3/24/2011	1
Runway 11-29	RW 11-29	RUNWAY	6215	4450	75	333,750	S	AC	1/1/1991	3/24/2011	88
Runway 11-29	RW 11-29	RUNWAY	6220	300	75	22,500	S	PCC	1/1/1942	3/24/2011	3
Runway 5-23	RW 5-23	RUNWAY	6105	300	100	30,000	P	PCC	1/1/1943	3/24/2011	6
Runway 5-23	RW 5-23	RUNWAY	6115	4400	60	264,000	P	AAC	7/1/2010	7/1/2010	44
Runway 5-23	RW 5-23	RUNWAY	6120	4400	20	88,000	P	AAC	7/1/2010	7/1/2010	22
Runway 5-23	RW 5-23	RUNWAY	6125	4400	20	88,000	P	AAC	7/1/2010	7/1/2010	22
Runway 5-23	RW 5-23	RUNWAY	6130	300	100	27,281	P	PCC	1/1/1943	3/24/2011	6
Taxiway Alpha	TW A	TAXIWAY	105	5500	35	192,500	P	AAC	1/1/1987	3/24/2011	55
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	205	470	35	16,450	P	AAC	1/1/1987	3/24/2011	5
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	210	2100	35	73,500	P	AC	1/1/1997	3/24/2011	21
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	215	2600	35	91,000	P	AC	1/1/1997	3/24/2011	26
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	220	330	35	11,550	P	AC	1/1/1997	3/24/2011	4
Taxiway Echo - Connector to T-Hangar	TW E	TAXIWAY	505	1200	25	30,000	P	AC	1/1/1990	3/24/2011	11

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.

Network: 42J **Branch:** AP (APRON) **Section:** 4105 **Surface:** PCC
L.C.D.: 01/01/1943 **Use:** APRON **Rank:** P **Length:** 500.00 Ft **Width:** 300.00 Ft **True Area:** 164,325.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1943	IMPORTED	OVERLAY			True	SOIL: SP-SM
01/01/1943	IMPORTED	BUILT		8.00	True	1943: 8" PCC

Network: 42J **Branch:** AP (APRON) **Section:** 4110 **Surface:** AC
L.C.D.: 01/01/1990 **Use:** APRON **Rank:** P **Length:** 300.00 Ft **Width:** 138.00 Ft **True Area:** 42,812.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	BUILT		2.00	True	1990: 2" P-401 ON 6" P-211

Network: 42J **Branch:** AP HOLD (APRON HOLDING AREAS RW 28 & 10) **Section:** 5210 **Surface:** PCC
L.C.D.: 01/01/1942 **Use:** APRON **Rank:** P **Length:** 400.00 Ft **Width:** 50.00 Ft **True Area:** 20,650.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	REPAIR			False	1990: SEAL CRACKS/JOINTS
01/01/1942	IMPORTED	BUILT		8.00	True	1942: 8" PCC PAVEMENT
01/01/1942	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** AP HOLD (APRON HOLDING AREAS RW 28 & 10) **Section:** 5225 **Surface:** PCC
L.C.D.: 01/01/1942 **Use:** APRON **Rank:** P **Length:** 600.00 Ft **Width:** 50.00 Ft **True Area:** 30,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	REPAIR			False	1990: SEAL JOINTS/CRACKS
01/01/1942	IMPORTED	OVERLAY			True	SOIL: SP-SM
01/01/1942	IMPORTED	BUILT		8.00	True	1942: 8" PCC PAVEMENT

Network: 42J **Branch:** AP T-HANG (APRON T-HANGARS) **Section:** 4505 **Surface:** PCC
L.C.D.: 01/01/1943 **Use:** APRON **Rank:** P **Length:** 520.00 Ft **Width:** 50.00 Ft **True Area:** 26,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1943	IMPORTED	BUILT		8.00	True	1943: 8" PCC
01/01/1943	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** AP T-HANG (APRON T-HANGARS) **Section:** 4510 **Surface:** AC
L.C.D.: 01/01/2004 **Use:** APRON **Rank:** P **Length:** 780.00 Ft **Width:** 100.00 Ft **True Area:** 43,814.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2004	NC-AC	New Construction - AC	$0	0.00	True	

Network: 42J **Branch:** AP T-HANG (APRON T-HANGARS) **Section:** 4515 **Surface:** AC
L.C.D.: 01/01/2008 **Use:** APRON **Rank:** P **Length:** 500.00 Ft **Width:** 30.00 Ft **True Area:** 15,023.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2008	NC-AC	New Construction - AC	$0	0.00	True	

Network: 42J **Branch:** AP T-HANG (APRON T-HANGARS) **Section:** 4520 **Surface:** AC
L.C.D.: 01/01/2009 **Use:** APRON **Rank:** P **Length:** 765.00 Ft **Width:** 80.00 Ft **True Area:** 62,371.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2009	NC-AC	New Construction - AC	$0	0.00	True	

Network: 42J **Branch:** RW 11-29 (RUNWAY 11-29) **Section:** 6205 **Surface:** PCC
L.C.D.: 01/01/1942 **Use:** RUNWAY **Rank:** S **Length:** 225.00 Ft **Width:** 75.00 Ft **True Area:** 16,875.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	REPAIR			False	1990: SEAL CRACKS/JOINTS
01/01/1942	IMPORTED	BUILT		8.00	True	1942: 8" PCC PAVEMENT
01/01/1942	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** RW 11-29 (RUNWAY 11-29) **Section:** 6210 **Surface:** PCC
L.C.D.: 01/01/1942 **Use:** RUNWAY **Rank:** S **Length:** 42.75 Ft **Width:** 100.00 Ft **True Area:** 5.508.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1942	IMPORTED	BUILT		8.00	True	EST 1942 8" PCC PAVEMENT SECTION UNKNOWN

Network: 42J **Branch:** RW 11-29 (RUNWAY 11-29) **Section:** 6215 **Surface:** AC
L.C.D.: 01/01/1991 **Use:** RUNWAY **Rank:** S **Length:** 4,450.00 Ft **Width:** 75.00 Ft **True Area:** 333,750.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1991	IMPORTED	BUILT		2.00	True	1991: 2" P-401 ON 6" CRUSH & MIX
01/01/1991	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** RW 11-29 (RUNWAY 11-29) **Section:** 6220 **Surface:** PCC
L.C.D.: 01/01/1942 **Use:** RUNWAY **Rank:** S **Length:** 300.00 Ft **Width:** 75.00 Ft **True Area:** 22,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	REPAIR			False	1990: SEAL JOINTS/CRACKS
01/01/1942	IMPORTED	BUILT		8.00	True	1942: 8" PCC PAVEMENT
01/01/1942	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** RW 5-23 (RUNWAY 5-23) **Section:** 6105 **Surface:** PCC
L.C.D.: 01/01/1943 **Use:** RUNWAY **Rank:** P **Length:** 300.00 Ft **Width:** 100.00 Ft **True Area:** 30.000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
07/01/2010	PA-PCC	Patching - PCC	$0	0.00	False	
01/01/1943	IMPORTED	BUILT		8.00	True	1943: 8" PCC PAVEMENT
01/01/1943	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** RW 5-23 (RUNWAY 5-23) **Section:** 6115 **Surface:** AAC
L.C.D.: 07/01/2010 **Use:** RUNWAY **Rank:** P **Length:** 4.400.00 Ft **Width:** 60.00 Ft **True Area:** 264.000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
07/01/2010	ML-OL	Mill and Overlay	$0	0.00	True	
01/01/1984	IMPORTED	OVERLAY		2.00	True	1984: 2" P-401 OVERLAY
01/01/1984	IMPORTED	OVERLAY			True	SOIL: SP-SM
01/01/1943	IMPORTED	BUILT		2.00	True	1943: 2" AC ON 6" LIME ROCK BASE

Network: 42J **Branch:** RW 5-23 (RUNWAY 5-23) **Section:** 6120 **Surface:** AAC
L.C.D.: 07/01/2010 **Use:** RUNWAY **Rank:** P **Length:** 4.400.00 Ft **Width:** 20.00 Ft **True Area:** 88.000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
07/01/2010	ML-OL	Mill and Overlay	$0	0.00	True	
01/01/1984	IMPORTED	OVERLAY		2.00	True	1984: 2" MAX. TAPERING P-401 OVERLAY
01/01/1943	IMPORTED	BUILT		2.00	True	1943: 2" AC ON 6" LIME ROCK BASE

Network: 42J **Branch:** RW 5-23 (RUNWAY 5-23) **Section:** 6125 **Surface:** AAC
L.C.D.: 07/01/2010 **Use:** RUNWAY **Rank:** P **Length:** 4,400.00 Ft **Width:** 20.00 Ft **True Area:** 88,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
07/01/2010	ML-OL	Mill and Overlay	$0	0.00	True	
01/01/1984	IMPORTED	OVERLAY		2.00	True	1984: 2" MAX. P-401 TAPERING OVERLAY
01/01/1943	IMPORTED	BUILT		2.00	True	1943: 2" AC ON 6" LIME ROCK BASE

Network: 42J **Branch:** RW 5-23 (RUNWAY 5-23) **Section:** 6130 **Surface:** PCC
L.C.D.: 01/01/1943 **Use:** RUNWAY **Rank:** P **Length:** 300.00 Ft **Width:** 100.00 Ft **True Area:** 27,281.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
07/01/2010	PA-PCC	Patching - PCC	$0	0.00	False	
01/01/1943	IMPORTED	BUILT		8.00	True	1943: 8" PCC PAVEMENT
01/01/1943	IMPORTED	OVERLAY			True	SOIL: SP-SM

Network: 42J **Branch:** TW A (TAXIWAY A) **Section:** 105 **Surface:** AAC
L.C.D.: 01/01/1987 **Use:** TAXIWAY **Rank:** P **Length:** 5,500.00 Ft **Width:** 35.00 Ft **True Area:** 192,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1987	IMPORTED	OVERLAY			True	SOIL: SP-SM
01/01/1987	IMPORTED	BUILT			True	1987: AC OVERLAY PLACED ON EXISTING AC PAVEMENT

Network: 42J **Branch:** TW B & MDF (TAXIWAY B & MIDFIELD) **Section:** 205 **Surface:** AAC
L.C.D.: 01/01/1987 **Use:** TAXIWAY **Rank:** P **Length:** 470.00 Ft **Width:** 35.00 Ft **True Area:** 16,450.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1987	IMPORTED	BUILT			True	1987: AC OVERLAY PLACED ON EXISTING AC PAVEMENT

Network: 42J **Branch:** TW B & MDF (TAXIWAY B & MIDFIELD) **Section:** 210 **Surface:** AC
L.C.D.: 01/01/1997 **Use:** TAXIWAY **Rank:** P **Length:** 2,100.00 Ft **Width:** 35.00 Ft **True Area:** 73,500.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1997	IMPORTED	BUILT			True	1997 AC PAVEMENT

Network: 42J **Branch:** TW B & MDF (TAXIWAY B & MIDFIELD) **Section:** 215 **Surface:** AC
L.C.D.: 01/01/1997 **Use:** TAXIWAY **Rank:** P **Length:** 2,600.00 Ft **Width:** 35.00 Ft **True Area:** 91,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1997	IMPORTED	BUILT			True	1997 AC PAVEMENT

Network: 42J **Branch:** TW B & MDF (TAXIWAY B & MIDFIELD) **Section:** 220 **Surface:** AC
L.C.D.: 01/01/1997 **Use:** TAXIWAY **Rank:** P **Length:** 330.00 Ft **Width:** 35.00 Ft **True Area:** 11,550.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1997	IMPORTED	BUILT			True	1997 AC PAVEMENT

Network: 42J **Branch:** TW E (TAXIWAY E - CONNECTOR TO T-HANGAR) **Section:** 505 **Surface:** AC
L.C.D.: 01/01/1990 **Use:** TAXIWAY **Rank:** P **Length:** 1,200.00 Ft **Width:** 25.00 Ft **True Area:** 30,000.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1990	IMPORTED	BUILT		2.00	True	1990: 2" P-401 ON 6" LIME ROCK ON MINIMUM 12" STABILIZED SUBBASE
01/01/1990	IMPORTED	OVERLAY			True	SOIL: SP-SM

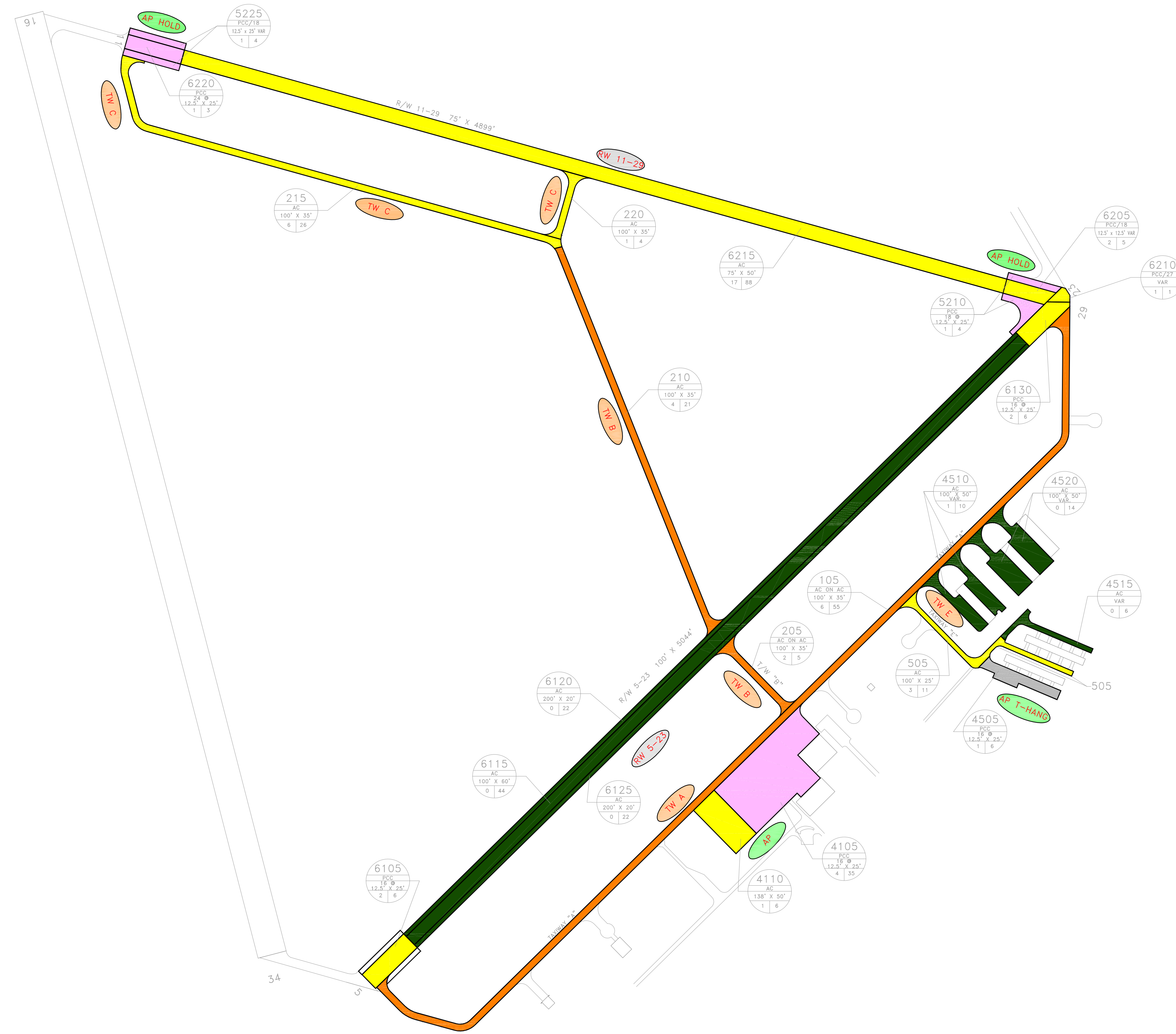
Summary:

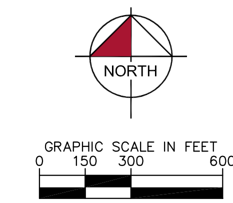
Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	20	1,574,701.00	5.60	3.04
Mill and Overlay	3	440,000.00	.00	.00
New Construction - AC	3	121,208.00	.00	.00
OVERLAY	15	1,597,881.00	2.00	.00
Patching - PCC	2	57,281.00	.00	.00
REPAIR	4	90,025.00		

STD = Standard Deviation

APPENDIX B

2011 CONDITION MAP
PAVEMENT CONDITION INDEX TABLE





LEGEND

RW 13-31	TYPICAL RUNWAY BRANCH ID
TW A	TYPICAL TAXIWAY BRANCH ID
AP S	TYPICAL APRON BRANCH ID
	PCI 86-100 GOOD
	PCI 71-85 SATISFACTORY
	PCI 56-70 FAIR
	PCI 41-55 POOR
	PCI 26-40 VERY POOR
	PCI 11-25 SERIOUS
	PCI 0-10 FAILED

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

NUMBER	DATE	REVISIONS

DESIGNED: FL DRAWN: GB CHECKED: DATE: MAY 2011

2011 CONDITION MAP

KEYSTONE AIRPARK
CLAY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

IDENTIFIER **42J**

FDOT DISTRICT **2**

Table B-1: Pavement Condition Index

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft^2)	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
Apron	AP	APRON	4105	164,325	P	PCC	4	35	35	Very Poor
Apron	AP	APRON	4110	42,812	P	AC	1	6	58	Fair
Apron Holding Areas RW 28 & 10	AP HOLD	APRON	5210	20,650	P	PCC	1	4	34	Very Poor
Apron Holding Areas RW 28 & 10	AP HOLD	APRON	5225	30,000	P	PCC	1	4	26	Very Poor
Apron T-Hangars	AP T-HANG	APRON	4505	26,000	P	PCC	1	6	0	Failed
Apron T-Hangars	AP T-HANG	APRON	4510	43,814	P	AC	1	10	89	Good
Apron T-Hangars	AP T-HANG	APRON	4515	15,023	P	AC	0	6	100	Good
Apron T-Hangars	AP T-HANG	APRON	4520	62,371	P	AC	0	14	100	Good
Runway 11-29	RW 11-29	RUNWAY	6205	16,875	S	PCC	2	5	62	Fair
Runway 11-29	RW 11-29	RUNWAY	6210	5,508	S	PCC	1	1	58	Fair
Runway 11-29	RW 11-29	RUNWAY	6215	333,750	S	AC	17	88	59	Fair
Runway 11-29	RW 11-29	RUNWAY	6220	22,500	S	PCC	1	3	29	Very Poor
Runway 5-23	RW 5-23	RUNWAY	6105	30,000	P	PCC	2	6	63	Fair
Runway 5-23	RW 5-23	RUNWAY	6115	264,000	P	AAC	0	44	100	Good
Runway 5-23	RW 5-23	RUNWAY	6120	88,000	P	AAC	0	22	100	Good
Runway 5-23	RW 5-23	RUNWAY	6125	88,000	P	AAC	0	22	100	Good
Runway 5-23	RW 5-23	RUNWAY	6130	27,281	P	PCC	2	6	65	Fair
Taxiway Alpha	TW A	TAXIWAY	105	192,500	P	AAC	6	55	45	Poor
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	205	16,450	P	AAC	2	5	53	Poor
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	210	73,500	P	AC	4	21	50	Poor
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	215	91,000	P	AC	6	26	60	Fair
Taxiway Bravo & Midfield	TW B & MDF	TAXIWAY	220	11,550	P	AC	1	4	57	Fair
Taxiway Echo - Connector to T-Hangar	TW E	TAXIWAY	505	30,000	P	AC	3	11	61	Fair

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

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

APPENDIX C

BRANCH CONDITION REPORT
SECTION CONDITION REPORT

Branch Condition Report

Pavement Database: NetworkID: 42J

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	PCI Standard Deviation	Weighted Average PCI
AP (APRON)	2	800.00	219.00	207,137.00	APRON	46.50	11.50	39.75
AP HOLD (APRON HOLDING AREAS RW 28 & 10)	2	1,000.00	50.00	50,650.00	APRON	30.00	4.00	29.26
AP T-HANG (APRON T-HANGARS)	4	2,565.00	65.00	147,208.00	APRON	72.25	41.95	79.06
RW 11-29 (RUNWAY 11-29)	4	5,017.75	81.25	378,633.00	RUNWAY	52.00	13.36	57.34
RW 5-23 (RUNWAY 5-23)	5	13,800.00	60.00	497,281.00	RUNWAY	85.60	17.65	95.85
TW A (TAXIWAY A)	1	5,500.00	35.00	192,500.00	TAXIWAY	45.00	0.00	45.00
TW B & MDF (TAXIWAY B & MIDFIELD)	4	5,500.00	35.00	192,500.00	TAXIWAY	55.00	3.81	55.40
TW E (TAXIWAY E - CONNECTOR TO T-HANGAR)	1	1,200.00	25.00	30,000.00	TAXIWAY	61.00	0.00	61.00

Branch Condition Report

Pavement Database:

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	8	404,995.00	55.25	35.22	52.73
RUNWAY	9	875,914.00	70.67	23.05	79.20
TAXIWAY	6	415,000.00	54.33	5.65	50.98
All	23	1,695,909.00	61.04	26.59	65.97

STD = Standard Deviation

Date: 6 /14/2011

Section Condition Report

Pavement Database: *NetworkID: 42J*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
AP (APRON)	4105	01/01/1943	PCC	APRON	P	0	164,325.00	03/24/2011	68	35.00
AP (APRON)	4110	01/01/1990	AC	APRON	P	0	42,812.00	03/24/2011	21	58.00
AP HOLD (APRON HOLDING AREAS RW 28 & 10)	5210	01/01/1942	PCC	APRON	P	0	20,650.00	03/24/2011	69	34.00
AP HOLD (APRON HOLDING AREAS RW 28 & 10)	5225	01/01/1942	PCC	APRON	P	0	30,000.00	03/24/2011	69	26.00
AP T-HANG (APRON T-HANGARS)	4505	01/01/1943	PCC	APRON	P	0	26,000.00	03/24/2011	68	0.00
AP T-HANG (APRON T-HANGARS)	4510	01/01/2004	AC	APRON	P	0	43,814.00	03/24/2011	7	89.00
AP T-HANG (APRON T-HANGARS)	4515	01/01/2008	AC	APRON	P	0	15,023.00	01/01/2008	0	100.00
AP T-HANG (APRON T-HANGARS)	4520	01/01/2009	AC	APRON	P	0	62,371.00	01/01/2009	0	100.00
RW 11-29 (RUNWAY 11-29)	6205	01/01/1942	PCC	RUNWAY	S	0	16,875.00	03/24/2011	69	62.00
RW 11-29 (RUNWAY 11-29)	6210	01/01/1942	PCC	RUNWAY	S	0	5,508.00	03/24/2011	69	58.00
RW 11-29 (RUNWAY 11-29)	6215	01/01/1991	AC	RUNWAY	S	0	333,750.00	03/24/2011	20	59.00
RW 11-29 (RUNWAY 11-29)	6220	01/01/1942	PCC	RUNWAY	S	0	22,500.00	03/24/2011	69	29.00
RW 5-23 (RUNWAY 5-23)	6105	01/01/1943	PCC	RUNWAY	P	0	30,000.00	03/24/2011	68	63.00
RW 5-23 (RUNWAY 5-23)	6115	07/01/2010	AAC	RUNWAY	P	0	264,000.00	07/01/2010	0	100.00
RW 5-23 (RUNWAY 5-23)	6120	07/01/2010	AAC	RUNWAY	P	0	88,000.00	07/01/2010	0	100.00
RW 5-23 (RUNWAY 5-23)	6125	07/01/2010	AAC	RUNWAY	P	0	88,000.00	07/01/2010	0	100.00
RW 5-23 (RUNWAY 5-23)	6130	01/01/1943	PCC	RUNWAY	P	0	27,281.00	03/24/2011	68	65.00
TW A (TAXIWAY A)	105	01/01/1987	AAC	TAXIWAY	P	0	192,500.00	03/24/2011	24	45.00
TW B & MDF (TAXIWAY B & MIDFIELD)	205	01/01/1987	AAC	TAXIWAY	P	0	16,450.00	03/24/2011	24	53.00
TW B & MDF (TAXIWAY B & MIDFIELD)	210	01/01/1997	AC	TAXIWAY	P	0	73,500.00	03/24/2011	14	50.00
TW B & MDF (TAXIWAY B & MIDFIELD)	215	01/01/1997	AC	TAXIWAY	P	0	91,000.00	03/24/2011	14	60.00
TW B & MDF (TAXIWAY B & MIDFIELD)	220	01/01/1997	AC	TAXIWAY	P	0	11,550.00	03/24/2011	14	57.00
TW E (TAXIWAY E - CONNECTOR TO T-HANGAR)	505	01/01/1990	AC	TAXIWAY	P	0	30,000.00	03/24/2011	21	61.00

Section Condition Report

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
0-02	0.00	517,394.00	5	100.00	0.00	100.00
06-10	7.00	43,814.00	1	89.00	0.00	89.00
11-15	14.00	176,050.00	3	55.67	4.19	55.63
16-20	20.00	333,750.00	1	59.00	0.00	59.00
21-25	22.50	281,762.00	4	54.25	6.06	49.15
over 40	68.56	343,139.00	9	41.33	20.88	37.64
All	33.74	1,695,909.00	23	61.04	26.59	65.97

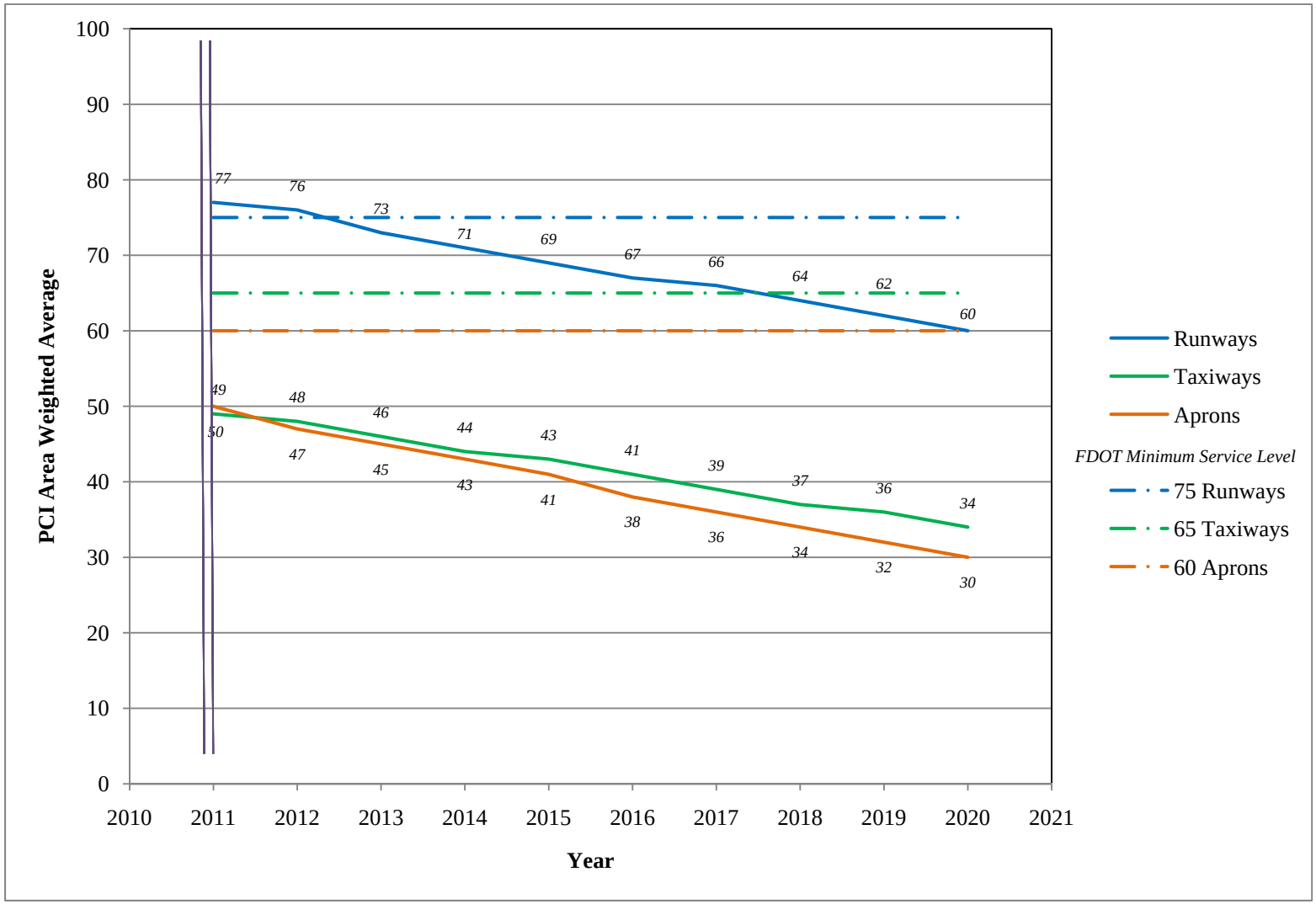
APPENDIX D

PAVEMENT CONDITION PREDICTION TABLE
PREDICTED PCI BY PAVEMENT USE GRAPH

Table D-1: Pavement Condition Prediction

Branch Name	Branch ID	Section ID	Current PCI	PCI Forecast									
				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Apron	AP	4105	35	34	32	29	27	24	21	19	16	14	11
Apron	AP	4110	58	58	56	55	53	52	50	49	47	46	45
Apron Holding Areas RW 28 & 10	AP HOLD	5210	34	33	31	28	26	23	20	18	15	13	10
Apron Holding Areas RW 28 & 10	AP HOLD	5225	26	25	23	20	18	15	12	10	7	5	2
Apron T-Hangars	AP T-HANG	4505	0	0	0	0	0	0	0	0	0	0	0
Apron T-Hangars	AP T-HANG	4510	89	89	87	86	84	83	81	80	78	77	76
Apron T-Hangars	AP T-HANG	4515	100	90	87	84	81	78	75	72	69	66	63
Apron T-Hangars	AP T-HANG	4520	100	93	90	87	84	81	78	75	72	69	66
Runway 11-29	RW 11-29	6205	62	61	59	56	54	51	48	46	43	41	38
Runway 11-29	RW 11-29	6210	58	57	55	52	50	47	44	42	39	37	34
Runway 11-29	RW 11-29	6215	59	59	57	56	54	53	51	50	48	47	45
Runway 11-29	RW 11-29	6220	29	28	26	23	21	18	15	13	10	8	5
Runway 5-23	RW 5-23	6105	63	62	60	57	55	52	49	47	44	42	39
Runway 5-23	RW 5-23	6115	100	98	96	94	92	90	88	86	84	82	80
Runway 5-23	RW 5-23	6120	100	98	96	94	92	90	88	86	84	82	80
Runway 5-23	RW 5-23	6125	100	98	96	94	92	90	88	86	84	82	80
Runway 5-23	RW 5-23	6130	65	64	62	59	57	54	51	49	46	44	41
Taxiway Alpha	TW A	105	45	45	43	41	39	38	36	34	32	31	29
Taxiway Bravo & Midfield	TW B & MDF	205	53	53	51	49	47	46	44	42	40	39	37
Taxiway Bravo & Midfield	TW B & MDF	210	50	50	48	46	44	43	41	39	38	36	34
Taxiway Bravo & Midfield	TW B & MDF	215	60	60	58	56	54	53	51	49	48	46	44
Taxiway Bravo & Midfield	TW B & MDF	220	57	57	55	53	51	50	48	46	45	43	41
Taxiway Echo - Connector to T-Hangar	TW E	505	61	61	59	57	55	54	52	50	49	47	45

Figure D-1: Predicted PCI by Pavement Use



APPENDIX E

YEAR 1 MAINTENANCE ACTIVITIES TABLE

Table E-1: Year 1 Maintenance Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Apron	AP	4105	LINEAR CR	H	Crack Sealing - PCC	154.10	Ft	$4.24	$653.39
Apron	AP	4105	CORNER SPALL	M	Patching - PCC Partial Depth	44.20	SqFt	$19.06	$843.08
Apron	AP	4105	JOINT SPALL	M	Patching - PCC Partial Depth	159.20	SqFt	$19.06	$3,035.09
Apron	AP	4105	JOINT SPALL	H	Patching - PCC Partial Depth	132.70	SqFt	$19.06	$2,529.24
Apron	AP	4105	LARGE PATCH	H	Patching - PCC Full Depth	2,022.30	SqFt	$38.11	$77,071.00
Apron	AP	4105	SMALL PATCH	M	Patching - PCC Partial Depth	22.10	SqFt	$19.06	$421.54
Apron	AP	4105	JT SEAL DMG	M	Joint Seal (Localized)	17,205.20	Ft	$2.00	$34,410.57
Apron	AP	4105	LINEAR CR	M	Crack Sealing - PCC	1,541.00	Ft	$4.24	$6,533.92
Apron	AP	4110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	40,330.10	SqFt	$0.40	$16,132.19
Apron	AP	4110	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,481.90	SqFt	$0.40	$992.75
Apron Holding Areas RW 28 & 10	AP HOLD	5210	CORNER SPALL	H	Patching - PCC Partial Depth	9.90	SqFt	$19.06	$188.06
Apron Holding Areas RW 28 & 10	AP HOLD	5210	JT SEAL DMG	M	Joint Seal (Localized)	1,947.60	Ft	$2.00	$3,895.29
Apron Holding Areas RW 28 & 10	AP HOLD	5210	LINEAR CR	M	Crack Sealing - PCC	275.00	Ft	$4.24	$1,166.00
Apron Holding Areas RW 28 & 10	AP HOLD	5210	JOINT SPALL	M	Patching - PCC Partial Depth	47.40	SqFt	$19.06	$902.70
Apron Holding Areas RW 28 & 10	AP HOLD	5225	JOINT SPALL	H	Patching - PCC Partial Depth	43.10	SqFt	$19.06	$820.64
Apron Holding Areas RW 28 & 10	AP HOLD	5225	LINEAR CR	M	Crack Sealing - PCC	500.00	Ft	$4.24	$2,120.01
Apron T-Hangars	AP T-HANG	4505	JT SEAL DMG	H	Joint Seal (Localized)	2,543.90	Ft	$2.00	$5,087.76
Apron T-Hangars	AP T-HANG	4505	SHAT. SLAB	H	Slab Replacement - PCC	25,937.50	SqFt	$39.11	$1,014,415.54
Runway 11-29	RW 11-29	6205	JOINT SPALL	M	Patching - PCC Partial Depth	58.10	SqFt	$19.06	$1,107.86
Runway 11-29	RW 11-29	6205	JT SEAL DMG	M	Joint Seal (Localized)	1,200.00	Ft	$2.00	$2,400.01
Runway 11-29	RW 11-29	6210	LINEAR CR	M	Crack Sealing - PCC	11.30	Ft	$4.24	$47.70
Runway 11-29	RW 11-29	6215	L & T CR	M	Crack Sealing - AC	858.60	Ft	$2.25	$1,931.83
Runway 11-29	RW 11-29	6215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	280,716.50	SqFt	$0.40	$112,287.52
Runway 11-29	RW 11-29	6215	WEATH/RAVEL	M	Surface Seal - Coat Tar	53,033.50	SqFt	$0.40	$21,213.59

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
Runway 11-29	RW 11-29	6220	JOINT SPALL	M	Patching - PCC Partial Depth	58.10	SqFt	$19.06	$1,107.86
Runway 11-29	RW 11-29	6220	JOINT SPALL	H	Patching - PCC Partial Depth	24.20	SqFt	$19.06	$461.61
Runway 11-29	RW 11-29	6220	JT SEAL DMG	M	Joint Seal (Localized)	2,325.00	Ft	$2.00	$4,650.01
Runway 11-29	RW 11-29	6220	LINEAR CR	M	Crack Sealing - PCC	393.80	Ft	$4.24	$1,669.50
Taxiway Alpha	TW A	105	L & T CR	M	Crack Sealing - AC	275.00	Ft	$2.25	$618.75
Taxiway Alpha	TW A	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	111,833.30	SqFt	$0.40	$44,733.71
Taxiway Alpha	TW A	105	WEATH/RAVEL	M	Surface Seal - Coat Tar	71,500.00	SqFt	$0.40	$28,600.24
Taxiway Bravo & Midfield	TW B & MDF	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	14,452.50	SqFt	$0.40	$5,781.05
Taxiway Bravo & Midfield	TW B & MDF	205	WEATH/RAVEL	M	Surface Seal - Coat Tar	1,997.50	SqFt	$0.40	$799.01
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	H	Microsurfacing - AC	787.50	SqFt	$0.65	$511.87
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	L	Surface Seal - Rejuvenating	60,585.00	SqFt	$0.40	$24,234.20
Taxiway Bravo & Midfield	TW B & MDF	210	WEATH/RAVEL	M	Surface Seal - Coat Tar	12,127.50	SqFt	$0.40	$4,851.04
Taxiway Bravo & Midfield	TW B & MDF	215	WEATH/RAVEL	L	Surface Seal - Rejuvenating	83,026.70	SqFt	$0.40	$33,210.94
Taxiway Bravo & Midfield	TW B & MDF	215	WEATH/RAVEL	M	Surface Seal - Coat Tar	7,973.30	SqFt	$0.40	$3,189.36
Taxiway Bravo & Midfield	TW B & MDF	220	WEATH/RAVEL	M	Surface Seal - Coat Tar	990.00	SqFt	$0.40	$396.00
Taxiway Bravo & Midfield	TW B & MDF	220	WEATH/RAVEL	L	Surface Seal - Rejuvenating	10,560.00	SqFt	$0.40	$4,224.04
Taxiway Echo - Connector to T-Hangar	TW E	505	SHOVING	M	Grinding(Localized)	69.50	SqFt	$2.10	$145.86
Taxiway Echo - Connector to T-Hangar	TW E	505	WEATH/RAVEL	L	Surface Seal - Rejuvenating	27,840.00	SqFt	$0.40	$11,136.09
Taxiway Echo - Connector to T-Hangar	TW E	505	WEATH/RAVEL	M	Surface Seal - Coat Tar	1,840.00	SqFt	$0.40	$736.01
Taxiway Echo - Connector to T-Hangar	TW E	505	SHOVING	H	Grinding(Localized)	61.50	SqFt	$2.10	$129.08
								Total =	$1,481,393.51

APPENDIX F

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

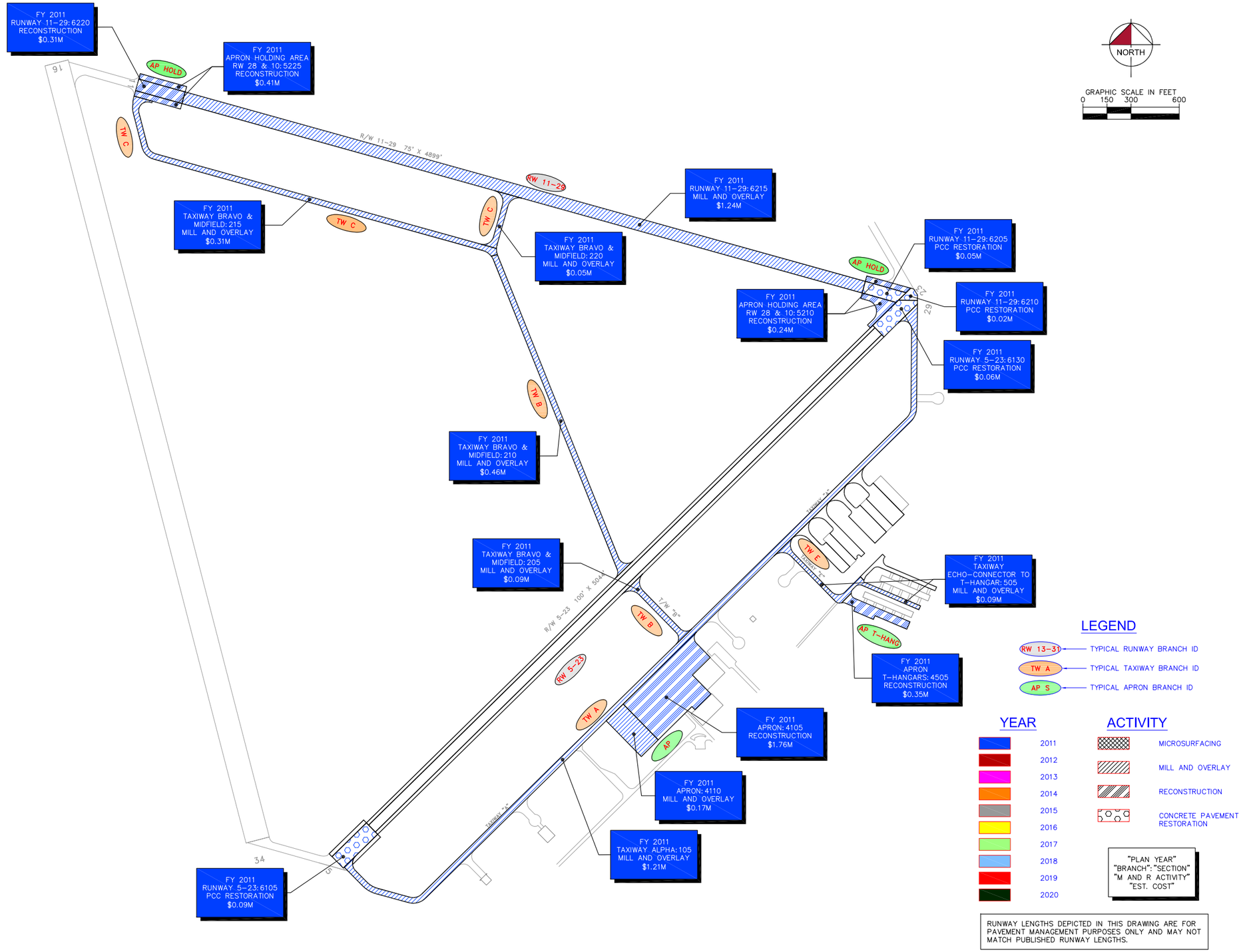
Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario

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
Apron	4105	PCC	164,325. SqFt	$1,756,306.11	34	Reconstruction	100
Apron	4110	AC	42,812. SqFt	$170,991.22	58	Mill and Overlay	100
Apron Holding Areas RW 28 & 10	5210	PCC	20,650. SqFt	$235,843.73	33	Reconstruction	100
Apron Holding Areas RW 28 & 10	5225	PCC	30,000. SqFt	$408,600.13	25	Reconstruction	100
Apron T-Hangars	4505	PCC	26,000. SqFt	$354,120.11	0	Reconstruction	100
Runway 11-29	6205	PCC	16,875. SqFt	$53,105.66	61	PCC Restoration	100
Runway 11-29	6210	PCC	5,508. SqFt	$23,579.76	57	PCC Restoration	100
Runway 11-29	6215	AC	333,750. SqFt	$1,237,212.00	59	Mill and Overlay	100
Runway 11-29	6220	PCC	22,500. SqFt	$306,450.10	28	Reconstruction	100
Runway 5-23	6105	PCC	30,000. SqFt	$86,220.06	62	PCC Restoration	100
Runway 5-23	6130	PCC	27,281. SqFt	$63,510.21	64	PCC Restoration	100
Taxiway Alpha	105	AAC	192,500. SqFt	$1,210,825.10	45	Mill and Overlay	100
Taxiway Bravo & Midfield	205	AAC	16,450. SqFt	$89,307.07	53	Mill and Overlay	100
Taxiway Bravo & Midfield	210	AC	73,500. SqFt	$462,315.04	50	Mill and Overlay	100
Taxiway Bravo & Midfield	215	AC	91,000. SqFt	$311,220.22	60	Mill and Overlay	100
Taxiway Bravo & Midfield	220	AC	11,550. SqFt	$49,445.57	57	Mill and Overlay	100
Taxiway Echo - Connector to T-Hangar	505	AC	30,000. SqFt	$94,410.07	61	Mill and Overlay	100
			Total	**$6,913,462.16**	**47**		**100**

* Costs are adjusted for inflation.

APPENDIX G

10-YEAR M&R MAP



NUMBER	DATE	REVISIONS
DESIGNED: FL	DRAWN: GB	CHECKED:	DATE: MAY 2011

P:\Com_Shared\FDOT Aviation 2010-2011\2010-2011-Phase II\CAD\Keystone\J06-42J-MAINTENANCE.dwg PLOTTED: July 14, 2011 — 3:52 PM, BY: Barlow, George

10-YEAR M & R MAP

KEYSTONE AIRPARK
CLAY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION OFFICE

IDENTIFIER
42J
FDOT DISTRICT
2

APPENDIX H

PHOTOGRAPHS

Runway 5-23, Section 6105, Sample Unit 301 − Low severity (62) Corner Break, low severity (63) Linear Cracking, low severity (65) Joint Seal Damage, low severity (67) Large Patch, low severity (70) Scaling, low severity (74) Joint Spalling.

Runway 5-23, Section 6105, Sample Unit 305 − Low severity (62) Corner Break, low severity (63) Linear Cracking, low severity (65) Joint Seal Damage, low severity (67) Large Patch, low severity (70) Scaling.

Runway 5-23, Section 6105, Sample Unit 301 − Low severity (62) Corner Break, low severity (63) Linear Cracking, low severity (65) Joint Seal Damage, low severity (67) Large Patch, low severity (70) Scaling, low severity (74) Joint Spalling.

Taxiway Alpha, Section 105, Sample Unit 101 – Low and medium severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling.

Apron, Section 4110, Sample Unit 200 – Low severity (48) Longitudinal and Transverse Cracking, low severity (54) Shoving, low and medium severity (52) Weathering and Raveling.

Runway 5-23, Section 6210, Sample Unit 500 − Low severity (62) Corner Break, low and medium severity (63) Linear Cracking, low severity (65) Joint Seal Damage, low severity (70) Scaling, low severity (72) Shattered Slabs, low severity (75) Corner Spall.

Runway 5-23, Section 6210, Sample Unit 500 − Low severity (62) Corner Break, low and medium severity (63) Linear Cracking, low severity (65) Joint Seal Damage, low severity (70) Scaling, low severity (72) Shattered Slabs, low severity (75) Corner Spall.

APPENDIX I

PCI RE-INSPECTION REPORT

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP Name: APRON Use: APRON Area: 207,137.00SqFt

Section: 4105 of 2 From: - To: - Last Const.: 1/1/1943
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 164,325.00SqFt Length: 500.00Ft Width: 300.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 35 Surveyed: 4
Conditions: PCI:35.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 16.00Slabs PCI = 22
Sample Comments:

67 LARGE PATCH	H	2.00	Slabs	Comments:
63 LINEAR CR	H	1.00	Slabs	Comments:
67 LARGE PATCH	L	3.00	Slabs	Comments:
63 LINEAR CR	L	13.00	Slabs	Comments:
65 JT SEAL DMG	M	16.00	Slabs	Comments:
70 SCALING	L	16.00	Slabs	Comments:
63 LINEAR CR	M	2.00	Slabs	Comments:

Sample Number: 205 Type: R Area: 16.00Slabs PCI = 36
Sample Comments:

63 LINEAR CR	L	10.00	Slabs	Comments:
66 SMALL PATCH	L	2.00	Slabs	Comments:
70 SCALING	L	16.00	Slabs	Comments:
65 JT SEAL DMG	M	16.00	Slabs	Comments:
63 LINEAR CR	M	6.00	Slabs	Comments:

Sample Number: 500 Type: R Area: 16.00Slabs PCI = 47
Sample Comments:

74 JOINT SPALL	M	2.00	Slabs	Comments:
70 SCALING	L	16.00	Slabs	Comments:
73 SHRINKAGE CR	L	3.00	Slabs	Comments:
63 LINEAR CR	L	14.00	Slabs	Comments:
65 JT SEAL DMG	M	16.00	Slabs	Comments:
66 SMALL PATCH	L	1.00	Slabs	Comments:
75 CORNER SPALL	M	1.00	Slabs	Comments:
66 SMALL PATCH	M	1.00	Slabs	Comments:
75 CORNER SPALL	L	1.00	Slabs	Comments:

Sample Number: 503 Type: R Area: 16.00Slabs PCI = 34
Sample Comments:

63 LINEAR CR	L	6.00	Slabs	Comments:
63 LINEAR CR	M	2.00	Slabs	Comments:
74 JOINT SPALL	H	2.00	Slabs	Comments:
74 JOINT SPALL	L	2.00	Slabs	Comments:
70 SCALING	L	16.00	Slabs	Comments:
65 JT SEAL DMG	M	16.00	Slabs	Comments:
75 CORNER SPALL	M	1.00	Slabs	Comments:
74 JOINT SPALL	M	1.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP Name: APRON Use: APRON Area: 207,137.00SqFt

Section: 4110 of 2 From: - To: - Last Const.: 1/1/1990
Surface: AC Family: FDOT-GA-AP-AC Zone: Category: Rank: P
Area: 42,812.00SqFt Length: 300.00Ft Width: 138.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 6 Surveyed: 1
Conditions: PCI:58.00 |
Inspection Comments:

Sample Number: 200 Type: R Area: 6,900.00SqFt PCI = 58
Sample Comments:

54 SHOVING	L	11.00	SqFt	Comments:
48 L & T CR	L	725.00	Ft	Comments:
52 WEATH/RAVEL	M	400.00	SqFt	Comments:
52 WEATH/RAVEL	L	6,500.00	SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP HOLD Name: APRON HOLDING AREAS RW 28 Use: APRON Area: 50,650.00SqFt

Section: 5210 of 2 From: - To: - Last Const.: 1/1/1942
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 20,650.00SqFt Length: 400.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 4 Surveyed: 1
Conditions: PCI:34.00 |
Inspection Comments:

Sample Number: 100 Type: R Area: 18.00Slabs PCI = 34
Sample Comments:

74 JOINT SPALL	M	2.00	Slabs	Comments:
63 LINEAR CR	M	4.00	Slabs	Comments:
65 JT SEAL DMG	M	18.00	Slabs	Comments:
70 SCALING	L	18.00	Slabs	Comments:
66 SMALL PATCH	L	4.00	Slabs	Comments:
62 CORNER BREAK	L	4.00	Slabs	Comments:
63 LINEAR CR	L	8.00	Slabs	Comments:
73 SHRINKAGE CR	L	1.00	Slabs	Comments:
75 CORNER SPALL	H	1.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP HOLD Name: APRON HOLDING AREAS RW 28 Use: APRON Area: 50,650.00SqFt

Section: 5225 of 2 From: - To: - Last Const.: 1/1/1942
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 30,000.00SqFt Length: 600.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 4 Surveyed: 1
Conditions: PCI:26.00 |
Inspection Comments:

Sample Number: 301 Type: R Area: 18.00Slabs PCI = 26
Sample Comments:

73 SHRINKAGE CR	L	2.00	Slabs	Comments:
62 CORNER BREAK	L	5.00	Slabs	Comments:
67 LARGE PATCH	L	2.00	Slabs	Comments:
74 JOINT SPALL	H	1.00	Slabs	Comments:
63 LINEAR CR	L	13.00	Slabs	Comments:
65 JT SEAL DMG	L	18.00	Slabs	Comments:
70 SCALING	L	18.00	Slabs	Comments:
74 JOINT SPALL	L	1.00	Slabs	Comments:
63 LINEAR CR	M	5.00	Slabs	Comments:
66 SMALL PATCH	L	3.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP T-HANG Name: APRON T-HANGARS Use: APRON Area: 147,208.00SqFt

Section: 4505 of 4 From: - To: - Last Const.: 1/1/1943
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 26,000.00SqFt Length: 520.00Ft Width: 50.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 6 Surveyed: 1
Conditions: PCI:0.00 |
Inspection Comments:

Sample Number: 102 Type: R Area: 4.00Slabs PCI = 0
Sample Comments:

72 SHAT. SLAB	H	4.00 Slabs	Comments:
65 JT SEAL DMG	H	4.00 Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP T-HANG Name: APRON T-HANGARS Use: APRON Area: 147,208.00SqFt

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Section: 4510 of 4 From: - To: - Last Const.: 1/1/2004
Surface: AC Family: FDOT-GA-AP-AC Zone: Category: Rank: P
Area: 43,814.00SqFt Length: 780.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 6 Surveyed: 1
Conditions: PCI:89.00 |
Inspection Comments:

Sample Number: 102 Type: R Area: 5,000.00SqFt PCI = 89
Sample Comments:

48 L & T CR	L	55.00 Ft	Comments:
56 SWELLING	L	22.00 SqFt	Comments:
50 PATCHING	L	50.00 SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP T-HANG Name: APRON T-HANGARS Use: APRON Area: 147,208.00SqFt

Section: 4515 of 4 From: - To: - Last Const.: 1/1/2008
Surface: AC Family: DEFAULT Zone: Category: Rank: P
Area: 15,023.00SqFt Length: 500.00Ft Width: 30.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date1/1/2008 Total Samples: 0 Surveyed: 0
Conditions: PCI:100.00 |
Inspection Comments: Construction/Major M&R inspection record.

Sample Number: Type: Area: 0.00
<NO SAMPLE RECORDS>

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: AP T-HANG Name: APRON T-HANGARS Use: APRON Area: 147,208.00SqFt

Section: 4520 of 4 From: - To: - Last Const.: 1/1/2009
Surface: AC Family: DEFAULT Zone: Category: Rank: P
Area: 62,371.00SqFt Length: 765.00Ft Width: 80.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date1/1/2009 Total Samples: 0 Surveyed: 0
Conditions: PCI:100.00 |
Inspection Comments: Construction/Major M&R inspection record.

Sample Number: Type: Area: 0.00
<NO SAMPLE RECORDS>

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 11-29 Name: RUNWAY 11-29 Use: RUNWAY Area: 378,633.00SqFt

Section: 6205 of 4 From: - To: - Last Const.: 1/1/1942
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: S
Area: 16,875.00SqFt Length: 225.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 5 Surveyed: 2
Conditions: PCI:62.00 |
Inspection Comments:

Sample Number: 195 Type: R Area: 12.00Slabs PCI = 56
Sample Comments:

63 LINEAR CR	L	8.00	Slabs	Comments:
74 JOINT SPALL	M	2.00	Slabs	Comments:
74 JOINT SPALL	L	1.00	Slabs	Comments:
65 JT SEAL DMG	M	12.00	Slabs	Comments:
70 SCALING	L	12.00	Slabs	Comments:

Sample Number: 197 Type: R Area: 12.00Slabs PCI = 67
Sample Comments:

70 SCALING	L	6.00	Slabs	Comments:
67 LARGE PATCH	L	1.00	Slabs	Comments:
63 LINEAR CR	L	3.00	Slabs	Comments:
65 JT SEAL DMG	L	12.00	Slabs	Comments:
62 CORNER BREAK	L	1.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 11-29 Name: RUNWAY 11-29 Use: RUNWAY Area: 378,633.00SqFt

Section: 6210 of 4 From: - To: - Last Const.: 1/1/1942
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: S
Area: 5,508.00SqFt Length: 42.75Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 1 Surveyed: 1
Conditions: PCI:58.00 |
Inspection Comments:

Sample Number: 500 Type: R Area: 30.00Slabs PCI = 58
Sample Comments:

70 SCALING	L	24.00 Slabs	Comments:
63 LINEAR CR	L	12.00 Slabs	Comments:
62 CORNER BREAK	L	1.00 Slabs	Comments:
65 JT SEAL DMG	L	30.00 Slabs	Comments:
72 SHAT. SLAB	L	1.00 Slabs	Comments:
63 LINEAR CR	M	1.00 Slabs	Comments:
75 CORNER SPALL	L	1.00 Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 11-29 Name: RUNWAY 11-29 Use: RUNWAY Area: 378,633.00SqFt

Section: 6215 of 4 From: - To: - Last Const.: 1/1/1991
Surface: AC Family: FDOT-GA-RW-AC Zone: Category: Rank: S
Area: 333,750.00SqFt Length: 4,450.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 88 Surveyed: 17
Conditions: PCI:59.00 |
Inspection Comments:

Sample Number: 108 Type: R Area: 3,750.00SqFt PCI = 60
Sample Comments:

48 L & T CR	M	50.00 Ft	Comments:
52 WEATH/RAVEL	M	400.00 SqFt	Comments:
48 L & T CR	L	111.00 Ft	Comments:
52 WEATH/RAVEL	L	3,350.00 SqFt	Comments:

Sample Number: 111 Type: R Area: 3,750.00SqFt PCI = 56
Sample Comments:

48 L & T CR	M	50.00 Ft	Comments:
52 WEATH/RAVEL	M	800.00 SqFt	Comments:
52 WEATH/RAVEL	L	2,950.00 SqFt	Comments:
48 L & T CR	L	159.00 Ft	Comments:

Sample Number: 113 Type: R Area: 3,750.00SqFt PCI = 53
Sample Comments:

52 WEATH/RAVEL	L	2,900.00 SqFt	Comments:
48 L & T CR	L	150.00 Ft	Comments:
48 L & T CR	M	15.00 Ft	Comments:
50 PATCHING	L	0.25 SqFt	Comments:
52 WEATH/RAVEL	M	850.00 SqFt	Comments:

Sample Number: 117 Type: R Area: 3,750.00SqFt PCI = 62
Sample Comments:

52 WEATH/RAVEL	M	500.00 SqFt	Comments:
48 L & T CR	L	185.00 Ft	Comments:
52 WEATH/RAVEL	L	3,250.00 SqFt	Comments:

Sample Number: 120 Type: R Area: 3,750.00SqFt PCI = 60
Sample Comments:

52 WEATH/RAVEL	M	400.00 SqFt	Comments:
48 L & T CR	L	278.00 Ft	Comments:
52 WEATH/RAVEL	L	3,350.00 SqFt	Comments:

Sample Number: 127 Type: R Area: 3,750.00SqFt PCI = 62
Sample Comments:

52 WEATH/RAVEL	M	350.00 SqFt	Comments:
52 WEATH/RAVEL	L	3,400.00 SqFt	Comments:
50 PATCHING	L	0.25 SqFt	Comments:
48 L & T CR	L	186.00 Ft	Comments:

Sample Number: 134 Type: R Area: 3,750.00SqFt PCI = 61
Sample Comments:

48 L & T CR	L	153.00 Ft	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

52 WEATH/RAVEL	L	3,050.00	SqFt	Comments:
52 WEATH/RAVEL	M	700.00	SqFt	Comments:

Sample Number: 141 Type: R Area: 3,750.00SqFt PCI = 59
Sample Comments:

52 WEATH/RAVEL	L	3,050.00	SqFt	Comments:
48 L & T CR	L	210.00	Ft	Comments:
52 WEATH/RAVEL	M	700.00	SqFt	Comments:

Sample Number: 150 Type: R Area: 3,750.00SqFt PCI = 62
Sample Comments:

52 WEATH/RAVEL	L	3,300.00	SqFt	Comments:
52 WEATH/RAVEL	M	450.00	SqFt	Comments:
48 L & T CR	L	192.00	Ft	Comments:

Sample Number: 156 Type: R Area: 3,750.00SqFt PCI = 58
Sample Comments:

48 L & T CR	L	235.00	Ft	Comments:
52 WEATH/RAVEL	L	3,100.00	SqFt	Comments:
52 WEATH/RAVEL	M	650.00	SqFt	Comments:

Sample Number: 163 Type: R Area: 3,750.00SqFt PCI = 57
Sample Comments:

52 WEATH/RAVEL	L	2,900.00	SqFt	Comments:
48 L & T CR	L	202.00	Ft	Comments:
52 WEATH/RAVEL	M	850.00	SqFt	Comments:

Sample Number: 170 Type: R Area: 3,750.00SqFt PCI = 48
Sample Comments:

52 WEATH/RAVEL	L	3,050.00	SqFt	Comments:
48 L & T CR	L	132.00	Ft	Comments:
52 WEATH/RAVEL	M	700.00	SqFt	Comments:
48 L & T CR	M	49.00	Ft	Comments:
55 SLIPPAGE CR	L	79.00	SqFt	Comments:

Sample Number: 178 Type: R Area: 3,750.00SqFt PCI = 63
Sample Comments:

48 L & T CR	L	252.00	Ft	Comments:
52 WEATH/RAVEL	M	250.00	SqFt	Comments:
52 WEATH/RAVEL	L	3,500.00	SqFt	Comments:

Sample Number: 182 Type: R Area: 3,750.00SqFt PCI = 57
Sample Comments:

52 WEATH/RAVEL	L	2,850.00	SqFt	Comments:
52 WEATH/RAVEL	M	900.00	SqFt	Comments:
48 L & T CR	L	215.00	Ft	Comments:

Sample Number: 185 Type: R Area: 3,750.00SqFt PCI = 62
Sample Comments:

48 L & T CR	L	111.00	Ft	Comments:
52 WEATH/RAVEL	M	700.00	SqFt	Comments:
52 WEATH/RAVEL	L	3,050.00	SqFt	Comments:

Sample Number: 189 Type: R Area: 3,750.00SqFt PCI = 61
Sample Comments:

48 L & T CR	L	136.00	Ft	Comments:
52 WEATH/RAVEL	M	600.00	SqFt	Comments:
50 PATCHING	L	0.50	SqFt	Comments:
52 WEATH/RAVEL	L	3,150.00	SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Sample Number: 192 Type: R Area: 3,750.00SqFt PCI = 64
Sample Comments:

48 L & T CR	L	190.00	Ft	Comments:
52 WEATH/RAVEL	L	3,420.00	SqFt	Comments:
52 WEATH/RAVEL	M	330.00	SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 11-29 Name: RUNWAY 11-29 Use: RUNWAY Area: 378,633.00SqFt

Section: 6220 of 4 From: - To: - Last Const.: 1/1/1942
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: S
Area: 22,500.00SqFt Length: 300.00Ft Width: 75.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 3 Surveyed: 1
Conditions: PCI:29.00 |
Inspection Comments:

Sample Number: 103 Type: R Area: 24.00Slabs PCI = 29
Sample Comments:

75 CORNER SPALL	L	4.00 Slabs	Comments:
63 LINEAR CR	L	15.00 Slabs	Comments:
62 CORNER BREAK	L	1.00 Slabs	Comments:
70 SCALING	L	24.00 Slabs	Comments:
63 LINEAR CR	M	7.00 Slabs	Comments:
74 JOINT SPALL	L	1.00 Slabs	Comments:
65 JT SEAL DMG	M	24.00 Slabs	Comments:
74 JOINT SPALL	H	1.00 Slabs	Comments:
74 JOINT SPALL	M	3.00 Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 5-23 Name: RUNWAY 5-23 Use: RUNWAY Area: 497,281.00SqFt

Section: 6105 of 5 From: - To: - Last Const.: 1/1/1943
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 30,000.00SqFt Length: 300.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 6 Surveyed: 2
Conditions: PCI:63.00 |
Inspection Comments:

Sample Number: 301 Type: R Area: 17.00Slabs PCI = 57
Sample Comments:

62 CORNER BREAK	L	1.00	Slabs	Comments:
67 LARGE PATCH	L	2.00	Slabs	Comments:
70 SCALING	L	15.00	Slabs	Comments:
74 JOINT SPALL	L	1.00	Slabs	Comments:
65 JT SEAL DMG	L	17.00	Slabs	Comments:
63 LINEAR CR	L	11.00	Slabs	Comments:

Sample Number: 305 Type: R Area: 26.00Slabs PCI = 67
Sample Comments:

70 SCALING	L	15.00	Slabs	Comments:
67 LARGE PATCH	L	2.00	Slabs	Comments:
63 LINEAR CR	L	8.00	Slabs	Comments:
65 JT SEAL DMG	L	26.00	Slabs	Comments:
62 CORNER BREAK	L	1.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 5-23 Name: RUNWAY 5-23 Use: RUNWAY Area: 497,281.00SqFt

Section: 6115 of 5 From: - To: - Last Const.: 7/1/2010
Surface: AAC Family: FDOT-GA-RW-AAC Zone: Category: Rank: P
Area: 264,000.00SqFt Length: 4,400.00Ft Width: 60.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

NOTE: * Pre-Construction PCI *****
Last Insp. Date1/29/2008 Total Samples: 44 Surveyed: 8
Conditions: PCI:68.00 |
Inspection Comments:

Sample Number: 302 Type: R Area: 6,000.00SqFt PCI = 76
Sample Comments:

56 SWELLING	L	350.00 SqFt	Comments:
48 L & T CR	L	114.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
50 PATCHING	L	0.25 SqFt	Comments:

Sample Number: 307 Type: R Area: 6,000.00SqFt PCI = 71
Sample Comments:

56 SWELLING	L	620.00 SqFt	Comments:
52 WEATH/RAVEL	L	175.00 SqFt	Comments:
50 PATCHING	L	0.25 SqFt	Comments:
48 L & T CR	L	362.00 Ft	Comments:

Sample Number: 312 Type: R Area: 6,000.00SqFt PCI = 71
Sample Comments:

56 SWELLING	L	575.00 SqFt	Comments:
48 L & T CR	L	371.00 Ft	Comments:
50 PATCHING	L	0.25 SqFt	Comments:
52 WEATH/RAVEL	L	350.00 SqFt	Comments:

Sample Number: 318 Type: R Area: 6,000.00SqFt PCI = 63
Sample Comments:

52 WEATH/RAVEL	H	0.25 SqFt	Comments:
50 PATCHING	L	0.50 SqFt	Comments:
48 L & T CR	L	464.00 Ft	Comments:
52 WEATH/RAVEL	L	320.00 SqFt	Comments:
56 SWELLING	L	580.00 SqFt	Comments:

Sample Number: 326 Type: R Area: 6,000.00SqFt PCI = 57
Sample Comments:

48 L & T CR	L	317.00 Ft	Comments:
52 WEATH/RAVEL	L	150.00 SqFt	Comments:
56 SWELLING	L	2,400.00 SqFt	Comments:

Sample Number: 332 Type: R Area: 6,000.00SqFt PCI = 72
Sample Comments:

50 PATCHING	L	1.50 SqFt	Comments:
56 SWELLING	L	930.00 SqFt	Comments:
48 L & T CR	L	327.00 Ft	Comments:

Sample Number: 337 Type: R Area: 6,000.00SqFt PCI = 63
Sample Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

48 L & T CR	L	427.00	Ft	Comments:
56 SWELLING	L	1,700.00	SqFt	Comments:
52 WEATH/RAVEL	L	100.00	SqFt	Comments:

Sample Number: 342 Type: R Area: 6,000.00SqFt PCI = 73
Sample Comments:

56 SWELLING	L	600.00	SqFt	Comments:
52 WEATH/RAVEL	L	200.00	SqFt	Comments:
48 L & T CR	L	314.00	Ft	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 5-23 Name: RUNWAY 5-23 Use: RUNWAY Area: 497,281.00SqFt

Section: 6120 of 5 From: - To: - Last Const.: 7/1/2010
Surface: AAC Family: FDOT-GA-RW-AAC Zone: Category: Rank: P
Area: 88,000.00SqFt Length: 4,400.00Ft Width: 20.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

NOTE: * Pre-Construction PCI *****
Last Insp. Date1/29/2008 Total Samples: 22 Surveyed: 5
Conditions: PCI:68.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 4,000.00SqFt PCI = 87
Sample Comments:

56 SWELLING	L	4.00 SqFt	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
48 L & T CR	L	5.00 Ft	Comments:

Sample Number: 105 Type: R Area: 4,000.00SqFt PCI = 71
Sample Comments:

52 WEATH/RAVEL	L	400.00 SqFt	Comments:
56 SWELLING	L	800.00 SqFt	Comments:

Sample Number: 111 Type: R Area: 4,000.00SqFt PCI = 57
Sample Comments:

56 SWELLING	L	1,600.00 SqFt	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
48 L & T CR	L	103.00 Ft	Comments:

Sample Number: 115 Type: R Area: 4,000.00SqFt PCI = 55
Sample Comments:

48 L & T CR	L	134.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
56 SWELLING	L	1,800.00 SqFt	Comments:

Sample Number: 120 Type: R Area: 4,000.00SqFt PCI = 72
Sample Comments:

48 L & T CR	L	64.00 Ft	Comments:
56 SWELLING	L	450.00 SqFt	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 5-23 Name: RUNWAY 5-23 Use: RUNWAY Area: 497,281.00SqFt

Section: 6125 of 5 From: - To: - Last Const.: 7/1/2010
Surface: AAC Family: FDOT-GA-RW-AAC Zone: Category: Rank: P
Area: 88,000.00SqFt Length: 4,400.00Ft Width: 20.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

NOTE: * Pre-Construction PCI *****
Last Insp. Date1/29/2008 Total Samples: 22 Surveyed: 5
Conditions: PCI:66.00 |
Inspection Comments:

Sample Number: 502 Type: R Area: 4,000.00SqFt PCI = 73
Sample Comments:

56 SWELLING	L	435.00 SqFt	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
48 L & T CR	L	52.00 Ft	Comments:

Sample Number: 507 Type: R Area: 4,000.00SqFt PCI = 56
Sample Comments:

48 L & T CR	L	206.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
56 SWELLING	L	1,700.00 SqFt	Comments:

Sample Number: 513 Type: R Area: 4,000.00SqFt PCI = 55
Sample Comments:

48 L & T CR	L	140.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
56 SWELLING	L	1,800.00 SqFt	Comments:

Sample Number: 516 Type: R Area: 4,000.00SqFt PCI = 64
Sample Comments:

56 SWELLING	L	915.00 SqFt	Comments:
48 L & T CR	L	253.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:

Sample Number: 521 Type: R Area: 4,000.00SqFt PCI = 80
Sample Comments:

48 L & T CR	L	15.00 Ft	Comments:
52 WEATH/RAVEL	L	400.00 SqFt	Comments:
56 SWELLING	L	226.00 SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: RW 5-23 Name: RUNWAY 5-23 Use: RUNWAY Area: 497,281.00SqFt

Section: 6130 of 5 From: - To: - Last Const.: 1/1/1943
Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P
Area: 27,281.00SqFt Length: 300.00Ft Width: 100.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 6 Surveyed: 2
Conditions: PCI:65.00 |
Inspection Comments:

Sample Number: 395 Type: R Area: 21.00Slabs PCI = 65
Sample Comments:

63 LINEAR CR	L	9.00	Slabs	Comments:
62 CORNER BREAK	L	1.00	Slabs	Comments:
67 LARGE PATCH	L	1.00	Slabs	Comments:
66 SMALL PATCH	L	1.00	Slabs	Comments:
65 JT SEAL DMG	L	21.00	Slabs	Comments:
70 SCALING	L	12.00	Slabs	Comments:

Sample Number: 397 Type: R Area: 16.00Slabs PCI = 65
Sample Comments:

63 LINEAR CR	L	6.00	Slabs	Comments:
67 LARGE PATCH	L	2.00	Slabs	Comments:
70 SCALING	L	16.00	Slabs	Comments:
65 JT SEAL DMG	L	16.00	Slabs	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 192,500.00SqFt

Section: 105 of 1 From: - To: - Last Const.: 1/1/1987
Surface: AAC Family: FDOT-GA-TW-AAC Zone: Category: Rank: P
Area: 192,500.00SqFt Length: 5,500.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 55 Surveyed: 6
Conditions: PCI:45.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 3,500.00SqFt PCI = 43
Sample Comments:

48 L & T CR	M	10.00 Ft	Comments:
52 WEATH/RAVEL	L	2,250.00 SqFt	Comments:
52 WEATH/RAVEL	M	1,250.00 SqFt	Comments:
48 L & T CR	L	438.00 Ft	Comments:

Sample Number: 111 Type: R Area: 3,500.00SqFt PCI = 37
Sample Comments:

52 WEATH/RAVEL	M	2,000.00 SqFt	Comments:
48 L & T CR	L	639.00 Ft	Comments:
52 WEATH/RAVEL	L	1,500.00 SqFt	Comments:
48 L & T CR	M	20.00 Ft	Comments:

Sample Number: 122 Type: R Area: 3,500.00SqFt PCI = 41
Sample Comments:

52 WEATH/RAVEL	L	1,700.00 SqFt	Comments:
50 PATCHING	L	0.50 SqFt	Comments:
48 L & T CR	L	559.00 Ft	Comments:
52 WEATH/RAVEL	M	1,800.00 SqFt	Comments:

Sample Number: 135 Type: R Area: 3,500.00SqFt PCI = 43
Sample Comments:

52 WEATH/RAVEL	M	1,100.00 SqFt	Comments:
48 L & T CR	L	595.00 Ft	Comments:
50 PATCHING	L	0.25 SqFt	Comments:
52 WEATH/RAVEL	L	2,400.00 SqFt	Comments:

Sample Number: 147 Type: R Area: 3,500.00SqFt PCI = 56
Sample Comments:

48 L & T CR	L	362.00 Ft	Comments:
52 WEATH/RAVEL	M	600.00 SqFt	Comments:
52 WEATH/RAVEL	L	1,900.00 SqFt	Comments:

Sample Number: 153 Type: R Area: 3,500.00SqFt PCI = 49
Sample Comments:

52 WEATH/RAVEL	M	1,050.00 SqFt	Comments:
48 L & T CR	L	402.00 Ft	Comments:
52 WEATH/RAVEL	L	2,450.00 SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW B & MDF Name: TAXIWAY B & MIDFIELD Use: TAXIWAY Area: 192,500.00SqFt

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Section: 205 of 4 From: - To: - Last Const.: 1/1/1987
Surface: AAC Family: FDOT-GA-TW-AAC Zone: Category: Rank: P
Area: 16,450.00SqFt Length: 470.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 5 Surveyed: 2
Conditions: PCI:53.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 3,500.00SqFt PCI = 51
Sample Comments:

52 WEATH/RAVEL	L	3,000.00	SqFt	Comments:
48 L & T CR	L	539.00	Ft	Comments:
52 WEATH/RAVEL	M	500.00	SqFt	Comments:

Sample Number: 103 Type: R Area: 3,500.00SqFt PCI = 55
Sample Comments:

50 PATCHING	L	0.50	SqFt	Comments:
52 WEATH/RAVEL	M	350.00	SqFt	Comments:
48 L & T CR	L	401.00	Ft	Comments:
52 WEATH/RAVEL	L	3,150.00	SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW B & MDF Name: TAXIWAY B & MIDFIELD Use: TAXIWAY Area: 192,500.00SqFt

Section: 210 of 4 From: - To: - Last Const.: 1/1/1997
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P
Area: 73,500.00SqFt Length: 2,100.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 21 Surveyed: 4
Conditions: PCI:50.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 3,500.00SqFt PCI = 50
Sample Comments:

50 PATCHING	L	1.25	SqFt	Comments:
52 WEATH/RAVEL	L	2,800.00	SqFt	Comments:
48 L & T CR	L	407.00	Ft	Comments:
52 WEATH/RAVEL	M	700.00	SqFt	Comments:

Sample Number: 111 Type: R Area: 3,500.00SqFt PCI = 39
Sample Comments:

52 WEATH/RAVEL	H	150.00	SqFt	Comments:
52 WEATH/RAVEL	L	2,700.00	SqFt	Comments:
50 PATCHING	L	0.25	SqFt	Comments:
48 L & T CR	L	173.00	Ft	Comments:
52 WEATH/RAVEL	M	650.00	SqFt	Comments:

Sample Number: 115 Type: R Area: 3,500.00SqFt PCI = 55
Sample Comments:

48 L & T CR	L	365.00	Ft	Comments:
52 WEATH/RAVEL	L	3,020.00	SqFt	Comments:
52 WEATH/RAVEL	M	480.00	SqFt	Comments:

Sample Number: 120 Type: R Area: 3,500.00SqFt PCI = 56
Sample Comments:

52 WEATH/RAVEL	M	480.00	SqFt	Comments:
48 L & T CR	L	346.00	Ft	Comments:
52 WEATH/RAVEL	L	3,020.00	SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW B & MDF Name: TAXIWAY B & MIDFIELD Use: TAXIWAY Area: 192,500.00SqFt

Section: 215 of 4 From: - To: - Last Const.: 1/1/1997
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P
Area: 91,000.00SqFt Length: 2,600.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 26 Surveyed: 6
Conditions: PCI:60.00 |
Inspection Comments:

Sample Number: 124 Type: R Area: 3,500.00SqFt PCI = 64
Sample Comments:

48 L & T CR	L	203.00 Ft	Comments:
52 WEATH/RAVEL	M	190.00 SqFt	Comments:
52 WEATH/RAVEL	L	3,310.00 SqFt	Comments:

Sample Number: 127 Type: R Area: 3,500.00SqFt PCI = 64
Sample Comments:

52 WEATH/RAVEL	L	3,250.00 SqFt	Comments:
48 L & T CR	L	213.00 Ft	Comments:
52 WEATH/RAVEL	M	250.00 SqFt	Comments:

Sample Number: 132 Type: R Area: 3,500.00SqFt PCI = 61
Sample Comments:

52 WEATH/RAVEL	L	3,130.00 SqFt	Comments:
52 WEATH/RAVEL	M	370.00 SqFt	Comments:
48 L & T CR	L	227.00 Ft	Comments:

Sample Number: 139 Type: R Area: 3,500.00SqFt PCI = 62
Sample Comments:

48 L & T CR	L	275.00 Ft	Comments:
52 WEATH/RAVEL	M	250.00 SqFt	Comments:
52 WEATH/RAVEL	L	3,250.00 SqFt	Comments:

Sample Number: 142 Type: R Area: 3,500.00SqFt PCI = 58
Sample Comments:

50 PATCHING	L	0.25 SqFt	Comments:
52 WEATH/RAVEL	M	380.00 SqFt	Comments:
52 WEATH/RAVEL	L	3,120.00 SqFt	Comments:
48 L & T CR	L	270.00 Ft	Comments:

Sample Number: 145 Type: R Area: 3,500.00SqFt PCI = 53
Sample Comments:

48 L & T CR	L	530.00 Ft	Comments:
52 WEATH/RAVEL	M	400.00 SqFt	Comments:
52 WEATH/RAVEL	L	3,100.00 SqFt	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW B & MDF Name: TAXIWAY B & MIDFIELD Use: TAXIWAY Area: 192,500.00SqFt

Section: 220 of 4 From: - To: - Last Const.: 1/1/1997
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P
Area: 11,550.00SqFt Length: 330.00Ft Width: 35.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 4 Surveyed: 1
Conditions: PCI:57.00 |
Inspection Comments:

Sample Number: 202 Type: R Area: 3,500.00SqFt PCI = 57
Sample Comments:

52 WEATH/RAVEL	L	3,200.00	SqFt	Comments:
50 PATCHING	L	0.25	SqFt	Comments:
52 WEATH/RAVEL	M	300.00	SqFt	Comments:
48 L & T CR	L	360.00	Ft	Comments:

Re-inspection Report

FDOT
Report Generated Date: 6/14/2011
Site Name:

Network: 42J Name: KEYSTONE AIRPARK

Branch: TW E Name: TAXIWAY E - CONNECTOR TO Use: TAXIWAY Area: 30,000.00SqFt

Section: 505 of 1 From: - To: - Last Const.: 1/1/1990
Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P
Area: 30,000.00SqFt Length: 1,200.00Ft Width: 25.00Ft
Shoulder: Street Type: Grade: 0.00 Lanes: 0
Section Comments:

Last Insp. Date3/24/2011 Total Samples: 11 Surveyed: 3
Conditions: PCI:61.00 |
Inspection Comments:

Sample Number: 101 Type: R Area: 2,500.00SqFt PCI = 64
Sample Comments:

52 WEATH/RAVEL	M	200.00	SqFt	Comments:
48 L & T CR	L	109.00	Ft	Comments:
52 WEATH/RAVEL	L	2,300.00	SqFt	Comments:

Sample Number: 103 Type: R Area: 2,500.00SqFt PCI = 64
Sample Comments:

52 WEATH/RAVEL	L	2,360.00	SqFt	Comments:
52 WEATH/RAVEL	M	140.00	SqFt	Comments:
48 L & T CR	L	162.00	Ft	Comments:

Sample Number: 108 Type: R Area: 2,500.00SqFt PCI = 54
Sample Comments:

54 SHOVING	H	8.50	SqFt	Comments:
54 SHOVING	M	10.00	SqFt	Comments:
52 WEATH/RAVEL	L	2,300.00	SqFt	Comments:
48 L & T CR	L	126.00	Ft	Comments:
52 WEATH/RAVEL	M	120.00	SqFt	Comments: