# FLORIDA DEPARTMENT OF TRANSPORTATION AVIATION AND SPACEPORT OFFICE



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### **EXECUTIVE SUMMARY**

In 2012, the Florida Department of Transportation (FDOT) Central Aviation Office selected a team lead by Kimley-Horn and Associates, Inc. and including their subconsultants Peneul Consulting, LLC, Roy D. McQueen & Associates, LTD, and All About Pavements, Inc., to provide services in support of FDOT in the continued efforts of updating the existing Statewide Airfield Pavement Management Program (SAPMP). This work is to be completed over the fiscal years of 2013 and 2014.

The tasks required to achieve this objective at each participating airport specifically included the following:

- Obtain recent construction history from the airport to update the Pavement Network Definition Exhibits using CADD from the previous SAPMP update.
- Update the airport pavement inventory data (construction history, geometry, identification, and classification) based on airport information provided.
- Update the FDOT SAPMP MicroPAVER database files and system tables for the purpose of analyzing field data for Pavement Condition Index (PCI) calculation of current pavement condition
- Development of pavement performance models for the approximation of future pavement performance.
- Development of a maintenance and repair plan, and a 10-year major rehabilitation program to address the pavement needs based on condition.
- Development of planning level opinions of probable costs for pavement preservation and rehabilitation.

During JUNE 2013, a PCI survey inspection was performed at La Belle Municipal Airport. The results of the inspection indicate that, based on ASTM 5340-11, the airport's airfield pavement facilities had an overall area-weighted average PCI 79, representing a SATISFACTORY overall network condition. Table I summarizes the overall condition summary by network level branch in comparison to the FDOT recommended minimum service level.

Table I: Condition Summary by Branch

Branch Name	ne Area PCI Average Condition Rating		FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required	
NORTH APRON	48	32 - 89	POOR	60	65	Х
APRON NW HANGAR	100	100	GOOD	60	65	
APRON T-HANG	75	75	SATISFACTORY	60	65	
NORTHWEST APRON	20	20	SERIOUS	60	65	Χ
RUNWAY 14-32	91	91	GOOD	75	65	
TAXIWAY A	94	91 - 95	GOOD	65	65	
TAXIWAY A1	95	95	GOOD	65	65	
TAXIWAY A2	92	92	GOOD	65	65	
TAXIWAY A3	90	90	GOOD	65	65	
TAXIWAY A4	91	91	GOOD	65	65	
TAXIWAY B	100	100	GOOD	65	65	
TAXIWAY B1	100	100	GOOD	65	65	
TAXIWAY TO NW AP	20	20	SERIOUS	65	65	Χ
SOUTH EAST TAXIWAY TO NORTH RAMP	54	54	POOR	65	65	Х
TAXIWAY TO HANGARS	55	29 - 71	POOR	65	65	Х
TAXIWAY TO RUNWAY	64	40 - 89	FAIR	65	65	Х

For project level planning and inspection development; the airfield pavement facilities have been divided at the branch level based on facility use and designation, and at the section level based on pavement construction history, composition (e.g. asphalt versus concrete), aircraft traffic operations, and pavement surface conditions. Table II provides the overall area weighted condition of the pavement based on facility branch use.



Table II: Condition Summary by Pavement Facility Use

Use	Average Area- Weighted PCI	Condition Rating
Runway	91	GOOD
Taxiway	86	GOOD
Apron	57	FAIR

Based on the inspection performed at the airport for this SAPMP update; the current conditions were determined using the collected PCI distress data. PCI values were computed and used to identify pavement facilities that were below the defined critical PCI as sections that would benefit from immediate major rehabilitation activity. These pavement sections that were determined to be below the critical PCI would most likely benefit from long-term major rehabilitative construction activity rather than localized, short-term maintenance and repairs.

The Year-1 Major Rehabilitation Needs, or projects that are recommended to be completed because the pavement is below the critical PCI, were developed on the assumption that there is an unlimited repair budget. These projects include:

- Northwest Apron Section 4160
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4135 and 4120
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4115 and 4110
  - Mill and Overlay attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Runway Section 905
  - Reconstruction attributed to distresses related to climate and age of pavement.
- Taxiway SE NR Section 705
  - Mill and Overlay attributed to distresses related to climate and age of pavement.

- Taxiway to Northwest Apron Section 605
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Hangar Section 505
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.

The section level projects that were identified as Year-1Major Rehabilitation Needs are in Table III.

Table III: Year-1 Major Rehabilitation Needs for La Belle Municipal Airport

Branch ID	Section ID	Major Rehabilitation Costs	PCI Before M&R	Rehabilitation Activity	PCI After M&R
NW AP	4160	\$ 488,325.12	19	Reconstruction	100
AP N	4135	\$ 155,400.04	32	Reconstruction	100
AP N	4120	\$ 294,675.07	34	Reconstruction	100
AP N	4115	\$ 70,850.00	54	Mill and Overlay	100
AP N	4110	\$ 1,295,249.94	51	Mill and Overlay	100
TW TO RW	905	\$ 150,000.04	38	Reconstruction	100
TW SE NR	705	\$ 164,199.99	53	Mill and Overlay	100
TW NW AP	605	\$ 141,375.03	20	Reconstruction	100
TW TO HANG	505	\$ 67,215.02	29	Reconstruction	100
	Total =	\$2,827,290.25			

The SAPMP uses historic pavement condition data from the previous inspections to develop pavement performance models. These pavement performance models are used to create PCI prediction curves to estimate future pavement conditions based on the historic trends. The section areas, prediction curves, and current condition data were used to develop a 10-year major rehabilitation program. Major rehabilitation costs for each year of the 10-year program are based on general unit costs for pavement repairs and not detailed cost estimates that are typically prepared for a construction set of bid documents. Additionally, preventative maintenance level repair budgets were estimated for a 10-year duration. Table IV provides an annual summary of the 10-year Preventative Maintenance and Major Rehabilitation planning level cost opinions for the airfield pavement facilities at the airport. Refer to Section 6 of this report for additional information.

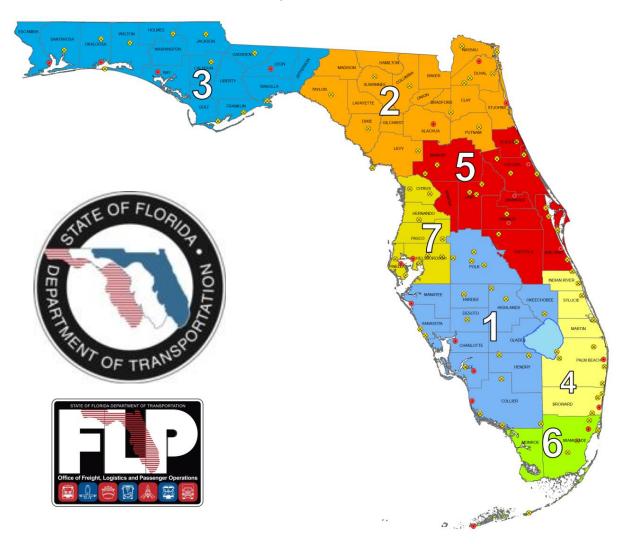
Table IV: 10-Year Preventative Maintenance and Major Rehabilitation

Year	Preventative		Major M&R		Total Year Cost	
2014	\$	37,773.71	\$	2,827,290.25	\$	2,865,063.96
2015	\$	63,978.38	\$	-	\$	63,978.38
2016	\$	104,216.13	\$	-	\$	104,216.13
2017	\$	160,345.10	\$	-	\$	160,345.10
2018	\$	218,561.88	\$	-	\$	218,561.88
2019	\$	277,048.74	\$	-	\$	277,048.74
2020	\$	325,463.86	\$	-	\$	325,463.86
2021	\$	358,183.41	\$	-	\$	358,183.41
2022	\$	386,053.10	\$	93,500.30	\$	479,553.40
2023	\$	416,809.01	\$	-	\$	416,809.01
Total	\$2,348,433.32			\$2,920,790.55	\$	5,269,223.87

The success of the repair program for your airport depends on the timely implementation of preservation, localized maintenance and repairs, and major rehabilitation work activities. If work is completed as scheduled, your airport will probably experience an improvement to the overall area-weighted average PCI. Though this analysis was performed with the assumption of an "unlimited budget", the purpose has been to identify specific projects over the course of 10-years for each pavement section where the condition is projected to fall below the critical PCI. The costs depicted in this study are intended to aid the airports in planning level budgets. Prior to construction work, it is recommended that the airport perform additional investigation at the design level to better estimate costs associated with the maintenance, repair, and major rehabilitation activity discussed.

### 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. The aviation system in Florida allows the State to capitalize on an increasingly global marketplace. Florida's system of commercial service and general aviation airports are important to businesses throughout the entire State. Air travel is essential to tourism, Florida's number one industry.



There are millions of square feet of pavement infrastructure that consists of runways, taxiways, aprons, ramps, and other areas of airports that are vital to the support and safety of aircraft operations. Timely pavement maintenance repair and major rehabilitation of these pavements will support the airport in operating safely, efficiently, economically and without excessive down time.

The Florida Department of Transportation (FDOT) Central Aviation Office implemented the Statewide Airfield Pavement Management Program (SAPMP) in 1992. In 2012, the FDOT Central Aviation Office selected a team led by Kimley-Horn and Associates, Inc. and including Peneul Consulting, LLC, Roy D. McQueen & Associates, LTD, and All About Pavements, Inc., to provide services in support of the Central Aviation Office Program Manager. The continued evaluation and update of the existing SAPMP is to be completed over fiscal years 2013 and 2014.

This individual airport airfield pavement evaluation report discusses the work performed, a summary of findings, condition analysis results, and recommendations for maintenance repair and major rehabilitation planning associated with the SAPMP update. It also briefly describes the procedures used to ensure that the appropriate engineering and scientific standards of care, quality, budget, schedules, and safety requirements were implemented during the performance of this work.

## 1.1 Purpose of Pavement Evaluation Report

The purpose of this Airfield Pavement Evaluation Report is to:

- Describe, briefly, the SAPMP goals, procedures, and responsibilities of the program's participants.
- Provide a brief technical explanation on pavement management principles, standard practices, objectives, and benefits of implementation.
- Outline procedures used to coordinate, collect, evaluate and report pavement inspection results at this airport.
- Analyze and utilize condition results for the development of maintenance, repair, and major rehabilitation based on pavement performance trends.

# 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 Florida Airports System, identify maintenance and rehabilitation needs at each airport, automate pavement infrastructure information management, and establish standards to address future needs. The 1992 SAPMP implementation provided the FDOT and the participating airports valuable information for establishing and performing timely and appropriate pavement rehabilitation.

During the 1992-1993 implementations and again during the 1998-1999 updates; the SAPMP performed the development of proprietary software for pavement



management system analysis. This development allowed for the creation of pavement management database file system populated with airport attributes and condition data. The pavement management database was used to establish maintenance, repair, and rehabilitation (M&R) policies, M&R budget costs, and the development of recommendations for performing routine pavement preservation maintenance. This system, known as AIRPAV, was initially developed during the 1992-1993 SAPMP implementation for the analysis of distress data. The AIRPAV system was used again in the 1998-1999 SAPMP update.

In 2004, the SAPMP update included the review of the AIRPAV software compared to other industry available non-proprietary software packages. As a result of this review, MicroPAVER was selected for implementation of the system update. MicroPAVER was developed by the U.S. Army Corps of Engineers Construction Engineering Research Laboratory for the purpose of pavement management. Data from the 1998-1999 FDOT SAPMP update, which was built upon the initial 1992-1993 implementation of AIRPAV, was reviewed and converted to be compatible with the MicroPAVER system. This data conversion included all documented pavement facility, classification, type, history, geometry, PCI condition data and pertinent attributes gathered from airport feedback at the time. This information was used to develop the inventory of each participating airport's pavement facilities in a consistent format. This was the development of Airfield Pavement Network Definition Exhibits. These inventory exhibits visually depicted the branch, section, and sample units that were based upon the pavement construction history and composition information provided by each airport.

In 2006-2008, the SAPMP was updated again with continued use of the MicroPAVER system. Based on the distress data collected, a maintenance repair and major rehabilitation planning program was developed for each airport. As part of this SAPMP update, the procedures for the inspection and the collection of the pavement distress data were documented, and an interactive website (<a href="http://www.dot.state.fl.us/aviation/pavement.shtm">http://www.dot.state.fl.us/aviation/pavement.shtm</a>) was established for input of data.

In 2010-2012, the SAPMP was updated using new GPS integrated technology to digitally collect pavement distress data. Interactive GIS map files were developed from updated Airfield Pavement Network Definition Maps to aid pavement condition inspectors in the collection of sample distress data. The

data collected was utilized to develop pavement performance models to predict future pavement PCI values and make recommendations for major rehabilitation.

Currently, airports participating in the Airport Improvement Program (AIP) Grant Program are required by the Federal Aviation Administration (FAA) to develop and implement a pavement maintenance program to be eligible for funding (FAA Advisory Circular 150/5380-6B Guidelines and Procedures for Maintenance of Airport Pavements). This program requires detailed inspection of airfield pavement conditions by trained personnel. The inspections are required to be performed at least once a year or every three years, if the pavement is inspected in accordance to the PCI survey procedure (such as ASTM International D 5340 Standard Test Method for Airport Pavement Condition Index Surveys). The previous 2010-2012 SAPMP update utilized the ASTM D 5340-04 released in 2004, in lieu of the 2010/2011 edition, in order to maintain consistent database integrity and benefit of pavement performance models from previous inspections.

# 1.3 Organization

# FDOT Central Aviation Office Program Manager

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

The AO-PM reports updates and milestones to the FDOT State Aviation Manager and Aviation Development Administrator.

### Consultant

The Consultant, Kimley-Horn and Associates, Inc. and their team consisting of Peneul Consulting, LLC, Roy D. McQueen & Associates, LTD, and All About Pavements, Inc. provide technical and administrative assistance to the AO-PM during the execution of the update to the SAPMP. The efforts include updating the airport pavement inventory data, performing the condition survey inspections, evaluating the airfield pavement conditions and updating the SAPMP based upon procedures outlined in the FAA Advisory Circular 150/5380-6B Guidelines and Procedures for Maintenance of Airport Pavements and ASTM D 5340.

### Airport Role

The airports are the ultimate client for each condition survey inspection performed at their respective airfields as part of the SAPMP. The 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, indicate any construction activity that has been performed since the previous inspections.

### **FDOT District Offices**

The seven FDOT District Offices, specifically the Aviation Representatives, provide vital support to the SAPMP update and the AO-PM. Each District supports the SAPMP's on-going efforts of provided representative construction trend costs and practices through the Florida Airports System. Each District Office receives copies of individual Airfield Pavement Evaluation Reports for the airport facilities located within their respective districts.

## 1.4 Introduction to Pavement Types and Pavement Management

#### **Pavement Basics**

A pavement is a prepared surface designed to provide a continuous smooth ride at all taxi, takeoff, and landing speeds and to support an estimated amount of traffic loading for a certain number of years. Pavements are composed of a combination of constructed layers of subgrade soils, subbases, base course material, and surface level courses. There are mainly two types of pavements:

- Flexible Pavement, a composition of bituminous asphalt concrete (AC) surface, base, and subbase layers.
- Rigid Pavement, a composition of Portland Cement Concrete (PCC) surface, base, and subbase layers.

Both pavement types use a combination of layered materials and thicknesses in order to support the traffic loads (both magnitude and repeated application) and protect the underlying subgrade soil. Flexible pavements dissipate applied loads from layer to layer until the load magnitude is small enough to be supported by the subgrade soil. In rigid pavements, the PCC layer supports the majority of the structural load applied, and the base or subbase layer is constructed to provide a smooth, level, and continuous platform that provides uniform support for PCC slabs.

A small percentage of airfield pavements within the Florida Airports System are composed of hybrid 'composite pavement' sections that may include both AC pavement and PCC pavement. The two known composite pavements are AC surface over PCC (APC) and PCC over AC (White Topping).

Due to the different nature of the pavement types, construction, and their materials; flexible and rigid pavements have different modes of failure and fatigue. This results in varying deterioration and distress development. Understanding the mechanics and modes of failure of the pavement types will assist the engineers in making timely, adequate, consistent, and economical maintenance repairs and major rehabilitation to the pavement structures at each airfield.

### The Concept of an Airfield Pavement Management System

The SAPMP is a program that provides the Florida Airports System an opportunity to implement and/or maintain a proactive Airfield Pavement Management System (APMS) in a consistent manner at a regular schedule. The SAPMP Airfield Pavement Management System consists of pavement inventory, pavement construction and history, condition survey inspections, pavement performance modeling, maintenance recommendations, and major rehabilitation planning. The various elements of the APMS are used by experienced engineers to identify critical pavement preservation pavements, make or rehabilitation recommendations, and approximate pavement performance. The APMS as a whole is used by an airport's stakeholders, managing agencies, engineers, and planners as a tool in decision making for future project planning, budgeting, and scheduling of activities for its airfield pavement infrastructure.

A benefit of an active APMS is it provides an understanding of an airport's pavement performance trends for the purpose of project planning. Based on the performance trend of their pavements, an airport can schedule pavement maintenance and rehabilitation prior to when the pavement section has deteriorated to a condition that would require reconstruction. The use of pavement performance trends will help airports plan M&R and Rehabilitation projects in a manner and sequence that maximizes benefit and minimizes costs. Figure 1-1, which is based upon the FAA Advisory Circular 150 5380-7A Airport Pavement Management Program, illustrates how pavement generally deteriorates over time and the relative cost of rehabilitation and reconstruction throughout its life.



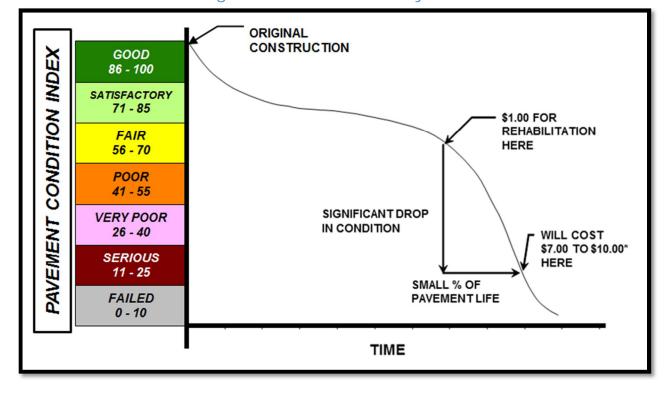


Figure 1-1: Pavement Life Cycle

Source: FAA Advisory Circular 150 5380-7A Airport Pavement Management Program

Note that during approximately the first 75% 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' and 'Satisfactory' conditions depends on how well it is proactively maintained. As the Figure 1-1 demonstrates, the cost of maintaining the pavement above critical condition before rapid deterioration occurs is much less compared to maintaining pavements after substantial deterioration has occurred.

Pavements tend to deteriorate at an accelerated rate when actual traffic loading exceeds the original design assumptions and when limited resources are available for maintenance and repair (M&R) efforts. Planned maintenance and rehabilitation, essentially preserving pavements and delaying condition deterioration, help airport (managers, agencies, and engineers) maximize the use of their budgets and prolong the life of their pavements. An APMS provides a tool to schedule planned maintenance and major rehabilitation efforts based on a consistent methodology of condition assessment. This consistent methodology of pavement condition assessment allows for the development of pavement performance models to help forecast future pavement conditions.

Part of the implementation of the APMS is the clear identification and inventorying of pavement infrastructure that needs to be managed specifically within the airport (owner, manager, and agencies) responsibility. Another aspect of the APMS is development of maintenance, repair, and major rehabilitation policies that align with the expectations of pavement performance and are based on ability to fund the types of work identified. Once there is an understanding of the cause and extent of pavement distresses, appropriate maintenance and rehabilitation can be planned. By using representative construction costs based on historic bid trends; planning level budget costs can be developed on a multiyear duration.

### Airfield Pavement Inspection Methodology for the SAPMP

Pavement condition assessment requires the application of professional judgments regarding the condition of the pavement. The SAPMP airfield pavement condition survey inspections assess pavement, comparing it to a set of standards in ASTM D 5340-11. As part of this update, SAPMP has adopted the changes made in updates to ASTM D 5340-11. These include the separation of Weathering and Raveling into two distinct flexible pavement distresses, and the addition of the Alkali-Silica Reactivity distress for rigid pavement distresses. The change in distress classification, as described in ASTM D 5340-11, may result in small variances in the PCI values from the previous inspection analysis.

The pavement condition surveys assess the functional condition of the pavement surface based on surface distresses as defined by the ASTM D 5340-11. Typically, deficiencies within a pavement structure will eventually reflect to the pavement surface as distresses described within ASTM D 5340-11. The SAPMP is specifically a visual evaluation and analysis based on the ASTM D 5340-11. The structural condition and relative support of the pavement layers can be directly quantified using non-destructive deflection testing (NDT) as well as other indepth engineering evaluation or sampling and testing methods.

For the SAPMP update, only visual surveys were performed. Further structural and geotechnical testing should be conducted to determine design level rehabilitation and/or reconstruction needs should the airport proceed to the design process.

In preparation for the PCI survey inspections, the airfield pavements for each airport are divided into branches, sections, and sample units as established by FAA Advisory Circular 150/5380-6B and ASTM D 5340. Further discussion of the process of inventorying and categorizing pavement facilities by use,

composition, and history can be found in SECTION 2 AIRFIELD PAVEMENT NETWORK DEFINITION and PAVEMENT INVENTORY.

Sample units are uniformly divided areas of pavement that are defined for inspection. Sample unit sizes are approximately  $5,000 \pm 2,000$  square feet for flexible AC pavements and  $20 \pm 8$  slabs for rigid PCC pavements. Prior to conducting the field condition survey inspections, the sampling plan was developed for the airfield pavements based on updates to the previous inspection sampling based on the available knowledge of construction updates. The sample rate adopted for the SAPMP is depicted on Table 1-1.

Table 1-1: Sampling Rate Schedule for SAPMP PCI Survey Inspections

Flexible Pavements Asphalt Concrete							
Number of Sample Units in Section	Number of Sai	Taxiways, Aprons, Others					
1 - 4	1	1					
5 - 10	2	1					
11 - 15	3	2					
16 - 30	5	3					
31 - 40	7	4					
41 - 50	8	5					
≥ 51	20% but ≤ 20	10% but ≤ 10					

Rigid Pavements Portland Cement Concrete						
	Number of Sai	mple Units to Inspect				
Number of Sample Units in Section	Runway	Taxiways, Aprons, Others				
1 - 3	1	1				
4 - 6	2	1				
7 - 10	3	2				
11 - 15	4	2				
16 - 20	5	3				
21 - 30	7	3				
31 - 40	8	4				
41 - 50	10	5				
≥ 51	20% but ≤ 20	10% but ≤ 10				

The sample units to be inspected were determined through a systematic random sampling technique to provide an unbiased representation of sample units for each pavement facility. The sample unit locations had been determined in such a way that they are distributed evenly throughout each defined pavement section area. In certain cases when no representative distresses are observed in the field, additional sample units were added.

The distress quantities and severity levels from each inspected sample unit are used to compute the PCI value and rating for each Section using the ASTM D 5340-11 and MicroPAVER software. Figures 1-2 and 1-3 depict graphical representations of the color ranges associated with PCI values and ranges with

a photograph of airfield pavement that exhibited the conditions for both flexible and rigid pavements respectively.

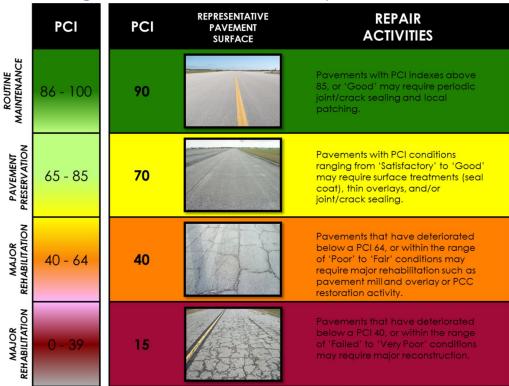


Figure 1-2: Flexible Pavement, Asphalt Concrete

REPRESENTATIVE PAVEMENT SURFACE REPAIR PCI PCI **ACTIVITIES** ROUTINE MAINTENANCE Pavements with PCI indexes above 85, or 'Good' may require periodic 90 86 - 100 joint/crack sealing and local patching. PAVEMENT PRESERVATION Pavements with PCI conditions ranging from 'Satisfactory' to 'Good' 65 - 85 70 may require surface treatments, patches, and/or joint/crack sealing. MAJOR REHABILITATION Pavements that have deteriorated below a PCI 64, or within the range 40 40 - 64 of 'Poor' to 'Fair' conditions may require major rehabilitation such as Slab replacement and PCC restoration activity. MAJOR REHABILITATION 15

Figure 1-3: Rigid Pavement, Portland Cement Concrete

Using the ASTM D 5340-11 standard seven qualitative ranges, the SAPMP provides a PCI value and a standard qualitative condition rating for the pavement facilities inspected.

# AIRFIELD PAVEMENT NETWORK DEFINITION AND PAVEMENT INVENTORY

LaBelle Municipal Airport (X14) is owned by Hendry County and is a public-use airport mostly serving for general aviation. LaBelle Municipal Airport (X14) consists of one runway, RW 14-32 which is 75-ft wide by 5,254-ft long. It is served by a parallel taxiway and several taxiway connectors which lead aircraft to the apron and hangar locations. Currently the airport has hangar facilities and tie down spots located throughout the apron areas towards the 14 end of RW 14-32. The airport runway, taxiway and apron are constructed of Asphalt Concrete pavement, with one section in front of the fuel tanks being constructed of Portland Cement Concrete.

It is important to note that the aforementioned runway data in addition to the remaining airfield pavement facilities geometric attributes may vary slightly from the geometry used in the condition exhibit in Appendix B and the major rehabilitation exhibit in Appendix F based on field measurements.

### 2.1 Network Definition

The airfield pavements within each airport network are separated into manageable units within the FDOT SAPMP MicroPAVER database system, organizing pavement data by similar use and constructive history.

### Branch and Section Identification

Each airport's airfield pavement network is generally subdivided into separate Branches (runways, taxiways, aprons/ramps, or others) that have distinctly different functional identifications and uses. Each Branch is further subdivided into Sections as defined by pavement location, composition, and construction history. A Section is typically understood to be a project level subdivision within a Branch feature. Sections are manageable units to organize data collection and are treated individually during the maintenance and major rehabilitation planning process. A pavement rank (primary, secondary, or tertiary) is assigned to each Section based on its importance and type of use to airport operations. The pavement rankings designated for each section at this airport were defined by the previous SAPMP, unless changes were communicated by the airport. These Sections are further subdivided into condition survey sample units based on the methodology described in ASTM D 5340.

### Airfield Pavement System Inventory and Network Definition Update

The Airfield Pavement System Inventory and Airfield Pavement Network Definition Exhibits are developed individually for each participating airport. Based on information requested of and provided by the airport, the airfield pavements are evaluated on designation updates, and recent or anticipated pavement construction activity. As mentioned previously, a Section is defined partially by its construction history; this variable that factored in the performance and condition of the pavement section.

The Airfield Pavement System Inventory Exhibit, Figure A-2 in Appendix A, is a snapshot of recent and anticipated airfield pavement construction activity communicated by the airport since the last SAPMP update. Construction identified include activities maintenance and repair activity, rehabilitation, and airfield pavement expansion efforts. Maintenance and repair activity may include; surface treatments, crack sealing, patching, slab replacement, and others. Both maintenance and rehabilitation activities are identified at the pavement section level. This type of work may result in an increase in overall Section PCI since the last inspection. Major rehabilitation efforts may include; asphalt milling and overlay, and full depth pavement reconstruction. This type of effort will result in a resetting of the pavement section PCI value to 100 due to the nature of the work. Lastly, airfield pavement expansions are accounted for as new inventory and assigned a section PCI of 100. Typically the new pavement sections are not inspected due to its condition; however these pavements are incorporated into the SAPMP pavement database. When possible, these changes are reflected in the Airfield Pavement Network Definition Exhibit, in Appendix A, prior to the field inspection. The updates are typically discussed and confirmed with airport personnel at the beginning and end of condition survey inspections to ensure accuracy.

The Airfield Pavement Network Definition Exhibit depicts the airport's pavement limits with Branch and Section delineations. This exhibit also includes the subdivision on Section areas into sample units and is used to identify those sample units that are to be inspected. The previous SAPMP Airfield Pavement Network Definition Exhibits were used as a base. Updates and information provided by each airport was reviewed and the exhibits were revised appropriately. Characteristics that are considered include; airfield configuration, branch designations (magnetic declination, Airport Layout Plan updates) and pavement composition. The exhibit serves not only as a primary guide for the

airfield inspectors but also allows specific distresses found in the re-inspection report to be geographically located.

Due to recent and anticipated construction efforts; pavement area sections may have been consolidated and created which will affect the total number of sample units to be inspected based upon the methods described in ASTM D 5340 and from the sampling rate schedule. Table 2-1 summarizes the recent and anticipated airfield pavement construction efforts communicated by the airport.

Table 2-1: Recent and/or Anticipated Airfield Pavement Construction

Construction Year	Section Location	Work Type/Pavement Section
2011	NORTH WEST ON RUNWAY 14	NEW TAXIWAY

### Airfield Pavement Network Definition & Geographic Information System (GIS)

As part of this SAPMP update, geographic information system (GIS), global positioning system (GPS), and digital data collection were integrated into the Pavement Inspection Methodology at each airport. Using AutoCAD Civil 3D, ArcMap, ArcPad, and FDOT Survey and Mapping Office Aerial Photography; digital navigation maps have been developed for each airport to represent the SAPMP pavement inventory attributes. These navigation maps were used with field data tablets to assist survey teams as they performed condition inspections by navigating pavement infrastructure and collecting distress data.

# 2.2 Pavement Inventory

The detailed pavement inventory database was updated to reflect the Airfield Pavement Network Definition Exhibit, in Appendix A, updates and field inspection results. Table 2-2 and Figure 2-1 provides a summary of the pavement inventory attributes at La Belle Municipal Airport-(X14) for this SAPMP update.

Table 2-2: Pavement Inventory Summary

Airfield Pavement Network Definition									
Number of Branches	16								
Number of Sections		25							
Sample Units		47							
Airfield	Airfield Pavement Use								
Use	Area (SF)	Relative Area (%)							
Runway	394,125	38%							
Taxiway	307,305	30%							
Apron	325,651	32%							
Total =	1,027,081	100%							
Airfield I	Pavement T	ype							
Туре	Area (SF)	Relative Area (%)							
Asphalt Concrete (AC)	981,714	95%							
Asphalt Overlay (AAC)	42,555	4%							
Portland Cement Concrete (PCC)	2,812	1%							
AC over PCC (APC)	0	0%							

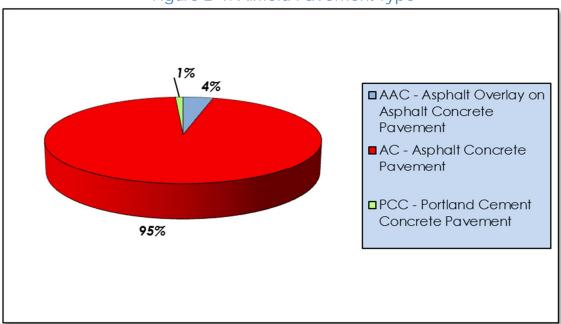


Figure 2-1: Airfield Pavement Type

Specific details to each Branch and Section such as; name, geometry, age, rank, surface type, and construction history are provided in Table 2-3.

Table 2-3: Airfield Pavement Inventory Details

Branch Name	Branch ID	Section ID	True Area (SF)	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Total Samples
RUNWAY 14-32	RW 14-32	6105	394,125	Р	AC	1/1/2005	12	53
APRON T-HANG	AP T-HANG	4310	30,550	Р	AC	1/1/2005	1	9
APRON T-HANG	AP T-HANG	4305	68,460	Р	AC	1/1/2005	3	17
APRON NW HANGAR	AP NW HANG	4205	24,659	Р	AC	3/1/2011	2	13
NORTH APRON	AP N	4180	2,813	Р	PCC	1/1/2005	1	1
NORTHWEST APRON	NW AP	4160	32,555	Р	AAC	1/1/1989	1	5
NORTH APRON	AP N	4135	10,360	Р	AC	1/1/1997	2	2
NORTH APRON	AP N	4120	19,645	Р	AC	1/1/2005	1	4
NORTH APRON	AP N	4115	7,085	Р	AC	1/1/1980	1	3
NORTH APRON	AP N	4110	129,525	T	AC	1/1/2005	6	24
Taxiway to Runway	TW TO RW	910	9,707	Р	AC	1/1/2005	1	2

Branch Name	Branch ID	Section ID	True Area (SF)	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Total Samples
TAXIWAY TO RUNWAY	TW TO RW	905	10,000	Р	AAC	1/1/1989	1	2
TAXIWAY B	TW B	810	7,419	Р	AC	3/1/2011	1	2
TAXIWAY B1	TW B1	805	7,613	Р	AC	3/1/2011	1	2
SOUTH EAST TAXIWAY TO NORTH RAMP	TW SE NR	705	16,420	Р	AC	1/1/2005	1	3
TAXIWAY TO NW AP	TW NW AP	605	9,425	Р	AC	1/1/1975	1	3
TAXIWAY TO HANGARS	TW TO HANG	510	7,381	Р	AC	1/1/2005	1	1
TAXIWAY TO HANGARS	TW TO HANG	505	4,481	Р	AC	1/1/1980	1	2
TAXIWAY A	TW A	405	33,090	Р	AC	1/1/2005	1	7
TAXIWAY A1	TW A1	305	9,140	Р	AC	1/1/2005	1	2
TAXIWAY A2	TW A2	205	8,520	Р	AC	1/1/2005	1	2
TAXIWAY A	TW A	120	8,225	Р	AC	1/1/2005	1	1
TAXIWAY A4	TW A4	115	9,140	Р	AC	1/1/2005	1	1
TAXIWAY A3	TW A3	110	9,140	Р	AC	1/1/2005	1	1
TAXIWAY A	TW A	105	157,605	Р	AC	1/1/2005	3	23

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

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

### 3. AIRFIELD PAVEMENT CONDITION

Airfield pavement distresses and condition were surveyed in accordance with the methods outlined in FAA Advisory Circular 150/5380-6B and ASTM D 5340-11. These procedures define distress type, severity, and quantity for sampling areas within each defined pavement section area to analyze and determine the PCI value and condition rating.

The program has been updated from ASTM D 5340-04, released in 2004, to ASTM D 5340-11, released in 2011, for this SAPMP update. The primary updates include the separation of certain distress types and the addition of new types with corresponding changes to PCI calculation. These changes in distress classification may result in small variances in the PCI values from the previous inspection analyses.

# 3.1 Inspection Methodology

A pavement condition survey inspection is performed by measuring the amount and severity of defined pavement distresses observed within the boundaries of sample units. These distresses, as defined by ASTM D 5340, are generally caused by traffic fatigue loading, exposure to climate and elements, and other airfield specific factors. This data is collected by field personnel experienced in pavement condition survey inspection. Data collection is then transferred into the FDOT MicroPAVER database system. MicroPAVER is used to calculate PCI values using the methodology described in ASTM D 5340-11. The values are calculated for each sample and extrapolated on a Section level to determine an area-weighted PCI value ranging from 0 to 100 and one of seven condition ratings. Tables 3-1 and 3-2 describe the distresses as defined by the ASTM D 5340-11 and adopted for the SAPMP procedures.

Table 3-1: Airfield Pavement Distresses for Asphalt Concrete

Code	Distress	Primary Mechanisms	
41	Alligator Cracking	Load / Fatigue Failure	
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	Repeated Traffic Loading	
52	Raveling	Climate / Load	
53	Rutting	Repeated Traffic Loading	
54	Shoving	PCC Pavement Growth / Movement	
55	Slippage Cracking	Load / Pavement Bond	
56	Swelling	Climate / Subgrade Quality	
57	Weathering	Climate	

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

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

Code	Distress	Primary Mechanisms	
61	Blow-up	Climate / Alkali Silica Reaction	
62	Corner Break	Load Repetition / Curling Stresses	
63	Linear Cracking	Load Repetition / Curling Stresses / Shrinkage Stresses	
64	Durability Cracking	Freeze-Thaw Cycling	
65	Joint Seal Damage	Material Deterioration / Construction Quality	
66	Small Patch	Pavement Repair	
67	Large Patch/Utility Cut	Utility / Pavement Repair	
68	Popout	Freeze-Thaw Cycling	
69	Pumping	Load Repetition / Poor Joint Sealant	
70	Scaling/Crazing	Construction Quality / Freeze- Thaw Cycling	
71	Faulting	Load Repetition / Subgrade Quality	
72	Shattered Slab	Overloading	
73	Shrinkage Cracking	Construction Quality / Load	
74	Joint Spalling	Load Repetition / Infiltration of Incompressible Material	
75	Corner Spalling	Load Repetition / Infiltration of Incompressible Material	
76	Alkali-Silica Reaction	Construction Quality / Climate	

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

# 3.2 Airfield Pavement Condition Index Rating Results

From the condition survey inspection performed in 2013 at La Belle Municipal Airport, the overall weighted average PCI value is 79 representing a condition rating of SATISFACTORY.

The airport's airfield pavements exhibited distresses typically associated with climate, age, and subgrade quality based distresses. The predominant AC and AAC pavement distresses observed include: block cracking, weathering, raveling, longitudinal/transverse cracking, and depression. The predominant PCC pavement distresses observed include: joint seal damage and corner spall.

Runway 14-32 exhibited pavement condition indices ranging from 85-95. The runway pavements are in Good condition. Typical distresses include low severity weathering and low severity raveling. A small amount of longitudinal/transverse cracking was recorded, but was not generally observed.

Parallel Taxiway A and its connectors are in Good condition. Distresses are similar in quantity and severity to those observed on Runway 14-32.

Taxiway B and the Northwest Hangar Aprons were constructed in 2011 and were not inspected. Their pavements are assumed to be at a PCI of 100 for the purposes of this report. The remaining taxiways and aprons were generally in Fair to Serious condition. Distresses include low, medium, and high severity raveling; low severity weathering; low and medium severity block cracking; low and medium severity depression; and low severity longitudinal/transverse cracking. These pavements are showing considerable climate, age, and subgrade quality based distresses.

Appendix B contains Table B-1 and an Airfield Pavement Condition Index Rating Exhibit, Figure B-1, which depicts the PCI results by Section, and Appendix C contains MicroPAVER reports of PCI results by Branch and Section. Appendix H includes detailed distress data generated by MicroPAVER for each inspected sample unit.

The pavement condition at La Belle Municipal Airport is represented in Figure 3-1 in accordance with the condition categories and PCI scale referenced in ASTM D 5340. Further detail is provided in Table 3-3 which describes the breakdown of the airport's airfield conditions according to area and use.

Appendix B contains Table B-1 summarizes the Section Condition values and the Airfield Pavement Condition Index Rating Exhibit, Figure B-1, that depicts the PCI results by Section. Appendix H is dedicated to the reporting of the specific airfield pavement distress data collected at the time of the inspection for this update.

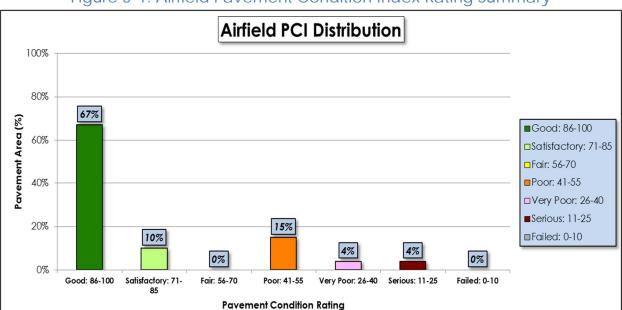


Figure 3-1: Airfield Pavement Condition Index Rating Summary

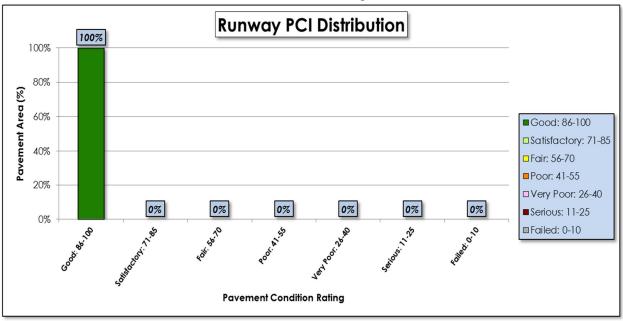
Table 3-3: Pavement Condition Index Rating Summary

Airfield Pavement Use						
Use	Average Area- Weighted PCI	Condition Rating				
Runway	91	GOOD				
Taxiway	86	GOOD				
Apron	57	FAIR				
Condition Area						
Condition Rating	Area (SF)	Relative Area (%)				
Good	681,195	52%				
Satisfactory	106,391	12%				
Fair	-	0%				
Poor	153,030	12%				
Very Poor	44,486	16%				
Serious	41,980	8%				
Failed	-	0%				

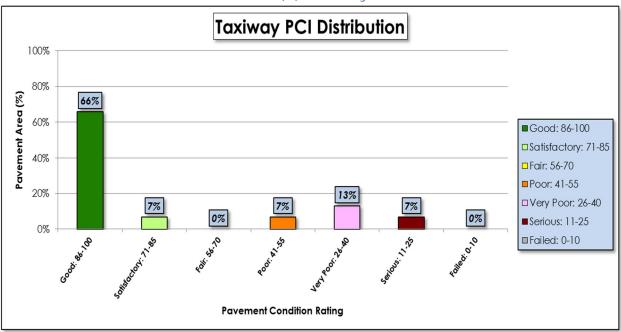
Approximately 64% of the airfield network is in Good and Satisfactory condition; while 36% of the network is in a Poor to Serious condition. Table 3-3 provides a breakdown of total area for each pavement by condition rating. Figures 3.2 a, b, c depict the condition rating of the airfield pavement by Branch Use. Photographs taken during the condition survey inspection are included in Appendix G. The photographs included are intended to be representative of the distress observed.

Figure 3-2: Percentage of Pavement Area by Condition Rating by Use

# (a) Runway

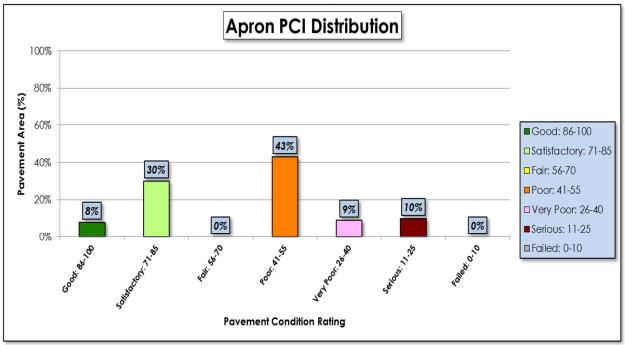


# (b) Taxiway





# (c) Apron



### PAVEMENT PERFORMANCE

Pavement performance models are developed from the distress data collected for the SAPMP for the Florida Airports System. This data is consolidated in a database and organized by inspection date, pavement type, age, pavement use, and airport category. The pavement performance models are used to develop broad prediction models, also known as pavement condition deterioration curves.

The consolidation of the Florida Airports System's pavement infrastructure within the FDOT SAPMP is based on data that have been collected in a consistent method of measurement. The historic pavement condition, or performance trend, has been compiled throughout the system with data from the inception of the SAPMP. This data is processed into models that have been analyzed and developed into prediction curves based upon pavement characteristics. These characteristics include; climate, construction material, and operations. Each model has been developed based on the following criteria:

AIRPORT TYPE (Primary, Regional Reliever, or General Aviation)

>FACILITY USE (Runway, Taxiway, or Apron)

>>FACILITY SURFACE TYPE (AC, AAC, APC, or PCC)

The historic trends of pavement performance at Florida airport facilities for all performance models are consolidated within the program database. This information is utilized in the prediction of pavement performance based on the current PCI determined from the inspections that took place between 2013 and 2014. Major rehabilitation is planned based on the predicted PCI. The intent of this is for both the individual airport and the FDOT District personnel to be aware of anticipated major rehabilitation work based on condition.

Each airport's airfield pavement section condition, for a given inspection year, is one data point that was used as the basis of each performance trend using a performance model based on pavements of similar background. Figures 4-1, 4-2, and 4-3 represent the pavement performance prediction at La Belle Municipal Airport based on pavement use. Each figure depicts the FDOT recommended Minimum Service Level PCI value for each pavement type.



Figure 4-1: Runway Pavement Performance Prediction Summary

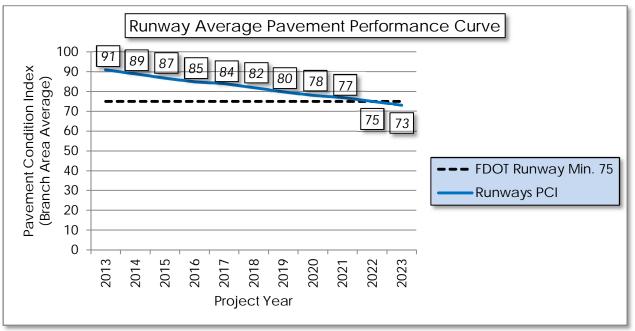
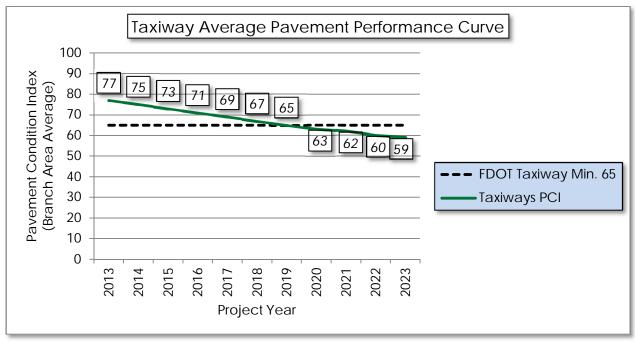


Figure 4-2: Taxiway Pavement Performance Prediction Summary





Apron Average Pavement Performance Curve Pavement Condition Index (Branch Area Average) 60 56 50 48 47 FDOT Apron Min. 60 Aprons PCI 

Figure 4-3: Apron Pavement Performance Prediction Summary

Pavement performance modeling to predict the future PCI is primarily done to predict PCI at the Section level for the purpose of planning Major Rehabilitation work. In Appendix D, Table D-1 represents the predicted area-weighted PCI by Section for the airport's airfield pavement infrastructure.

Project Year

### 5. AIRFIELD PAVEMENT MAINTENANCE POLICIES AND COSTS

#### 5.1 Policies

Airfield Pavement Maintenance policies are guidance on pavement construction methods used to develop, maintain, repair, and rehabilitate pavement infrastructure based on distresses encountered during the condition surveys.

Maintenance refers to the repair and preservation-type activities that are applied locally to specific distress types on the pavement. These activities for the SAPMP are considered preventative and corrective in nature and are highly recommended to help improve pavement performance and extend pavement life. The SAPMP maintenance policies are based on the FAA Advisory Circular 150/5380-6B and guidance provided in the FDOT Airfield Pavement Repair Manual.

For the purpose of the SAPMP; the maintenance repair needs that are identified and quantified are based solely on the pavement distresses observed and recorded at the time of the inspection. Based on a specific distress type and severity observed, a particular repair work type is recommended and quantified based on the extrapolated section distresses. The repair program identified is specific to the current distresses. Future maintenance planning budgets are based on this initial determination. Tables 5-1 and 5-2 provide the list of maintenance activities incorporated into the SAPMP MicroPAVER database to treat specific distress types and severities.

Table 5-1: Recommended AC, AAC, and APC Maintenance and Repair Policy

Surface Type	Distress Code	Distress Name	Severity	Maintenance Work Type	Work Unit
	41	Alligator Cracking	L, M, H	Full Depth Pavement Patch	Square Feet
	42	Bleeding	N/A	Partial Depth Pavement Patch	Square Feet
	43	Block Cracking	L	Seal Coat Treatment	Square Feet
	43	Block Cracking	M, H	Full Depth Pavement Patch	Square Feet
	44	Corrugation	L, M, H	Full Depth Pavement Patch	Square Feet
	45	Depression	L, M, H	Full Depth Pavement Patch	Square Feet
	46	Jet Blast Erosion	L, M, H	Full Depth Pavement Patch	Square Feet
	47	Joint Reflection Cracking	L	Crack Sealing	Linear Feet
0)	47	Joint Reflection Cracking	M, H	Full Depth Pavement Patch	Square Feet
Flexible Asphalt Concrete (AC, AAC, APC)	48	Longitudinal/Transverse Cracking	L, M, H	Crack Sealing	Linear Feet
ole Asphalt Cond (AC, AAC, APC)	49	Oil Spillage	L, M	Seal Coat Treatment	Square Feet
Aspha C, AA	49	Oil Spillage	Н	Full Depth Pavement Patch	Square Feet
exible (A(	50	Patch and Utility Patching	М	Crack Sealing	Linear Feet
FIE	50	Patch and Utility Patching	Н	Full Depth Pavement Patch	Square Feet
	51	Polished Aggregate	L, M, H	Slurry Seal Coat Treatment	Square Feet
	52	Raveling	L, M	Slurry Seal Coat Treatment	Square Feet
	52	Raveling	Н	Partial Depth Pavement Patch	Square Feet
	53	Rutting	L, M, H	Full Depth Pavement Patch	Square Feet
	54	Shoving	L, M, H	Grinding / Removal	Square Feet
	55	Slippage Cracking	L, M, H	Full Depth Pavement Patch	Square Feet
	56	Swelling	M, H	Full Depth Pavement Patch	Square Feet
	57	Weathering	M, H	Seal Coat Treatment	Square Feet

Table 5-2: Recommended PCC Maintenance and Repair Policy

Surface Type	Distress Code	Distress Name	Severity	Maintenance Work Type	Work Unit	
	61	Blowup	L, M, H	Slab Replacement / Full Depth Patch	Square Feet	
	62	Corner Break	L, M, H	Partial Patch - PCC	Square Feet	
	63	Longitudinal/Transverse/Diagonal Cracking	Н	Crack Sealing - PCC	Linear Feet	
	64	Durability Cracking	M, H	Slab Replacement / Full Depth Patch	Square Feet	
	65	Joint Seal Damage	L, M, H	Joint Seal Repair (Local)	Linear Feet	
	66	Patching, Small	M, H	Slab		
Rigid Pavement (PCC)	67	Patching, Large	M, H	Slab Replacement / Full Depth Patch	Square Feet	
igid P.	68	Popouts	L	Crack Sealing - PCC	Linear Feet	
α.	69	Pumping	L, M, H	Slab Stabilization / Slab Jacking	Square Feet	
	70	Scaling/Map Cracking/Crazing	L, M	Micro-mill and Seal - PCC	Square Feet	
	70	70 Scaling/Map Cracking/Crazing		Slab Replacement / Full Depth Patch	Square Feet	
	71	Settlement / Faulting	L	Micro-mill and Seal - PCC	Square Feet	
	71	Settlement / Faulting	M, H	Slab Stabilization / Slab Jacking	Square Feet	
	72	Shattered Slab	L, M, H	Slab Replacement / Full Depth Patch	Square Feet	

Surface Type	Distress Code	Distress Name	Severity	Maintenance Work Type	Work Unit
	73	Shrinkage Cracks	N/A	Crack Sealing - PCC	Linear Feet
	74	Longitudinal/Transverse Joint Spalling	L, M, H	Partial Patch - PCC	Square Feet
	75	Corner Spalling	L, M, H	Partial Patch - PCC	Square Feet
	76	Alkali-Silica Reaction	L	Seal Coat Treatment	Square Feet
	76	Alkali-Silica Reaction	M	Micro-mill and Seal - PCC	Square Feet
	76	Alkali-Silica Reaction	Н	Slab Replacement / Full Depth Patch	Square Feet

Though proactive pavement maintenance and preservation is highly recommended in an APMS; it is recognized that pavement that has deteriorated below a certain PCI will require a major rehabilitation rather than localized maintenance and repair work. Major rehabilitation is recommended when the pavement condition decreases below a critical point such that the deterioration is extensive or the rate of deterioration is so great that maintenance repair efforts are no longer cost-efficient. This critical point is called "Critical PCI". The critical PCI levels for different pavement and branch types were established by the FDOT and were used in this update to develop a maintenance and major rehabilitation plan for the airport. Sections that are above the "Critical PCI" levels will be recommended for maintenance, repair, and preservation treatments, assuming there are no significant load-related distresses. For those Sections below the Critical PCI, the recommended action will consist of major rehabilitation work. This approach is used for the current Section's PCI value and the predicted PCI value for future rehabilitation.

The FDOT has recommended minimum service level PCI for airports based on pavement facility use, airport type, and expected loading frequency. This minimum service level PCI is recommended to ensure the pavement provides a safe operational surface and efficiently uses maintenance and rehabilitation budgets. Separately, the Critical PCI is a value based on historic pavement performance trends and costs. It is at a PCI value of 65, for most airports, at which major rehabilitation is recommended over maintenance level efforts.



Table 5-3 identifies the FDOT recommended PCI by use and the critical PCI value for the most important pavements at the airport. This is due to the condition of the pavement and the cost effectiveness of the work. A very important concept of a good pavement management system is the proactive preservation of pavements that are above Critical PCI condition. Conversely, allowing pavement to deteriorate beyond maintenance and performing "worst first" major rehabilitation may cost much more over the life of a pavement.

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

Use	FDOT Recommended PCI	Critical PCI
Runway	75	65
Taxiway	65	65
Apron	60	65

Based on historic trends of pavement performance and industry standard practices in pavement maintenance and rehabilitation, the SAPMP included general guidance on construction activity based on condition PCI, as shown on Table 5-4. It is recommended that further investigation of underlying pavement conditions is performed at the design phase.

Table 5-4: Maintenance and Major Rehabilitation Activity Based on PCI

Category	Activity	PCI Range
Maintenance	<ul> <li>Crack Sealing (AC/PCC)</li> <li>Partial Depth Patching (AC)</li> <li>Full Depth Patching (AC/PCC)</li> <li>Surface Treatment (AC)</li> </ul>	75 - 90
Rehabilitation	<ul><li>Mill and Overlay (AC)</li><li>Concrete Pavement Restoration (PCC)</li></ul>	40 - 74
	Full Depth Pavement Reconstruction	0 - 39

The PCI standard scale ranges from a value of 0, typically representing a pavement in a failed condition, to a value of 100 which typically represents a pavement in new or good condition. Generally, airfield pavement sections with

a PCI of 75 or higher that are not exhibiting distresses due to aircraft loading will benefit from maintenance activities such as crack sealing, patching, and surface treatments. Pavement sections with PCI values within the range of 40 to 74 may require major rehabilitation, such as a mill and overlay. Lastly, pavement sections with a PCI value of 40 or less are recommended to undergo pavement reconstruction. Generally pavement reconstruction is the only practical means of restoration due to the substantial distresses observed in the pavement structure. Since PCI values are based solely on the visual determination of pavement distresses and deterioration, this method does not provide a direct measure of structural integrity.

#### 5.2 Unit Costs

The FDOT SAPMP developed and updated the maintenance and major rehabilitation costs based on public cost databases for airport and highway pavement construction. Additionally, cost data collected from FDOT and FAA sponsored projects in the Florida Airports System were utilized to identify construction cost trends across the state.

The maintenance, repair, and preservation activity costs have been updated and developed using readily available construction cost data at the time of this update. The costs depicted in this report for both maintenance and major rehabilitation are intended for planning purposes.

## 5.3 Maintenance, Repair, and Major Rehabilitation

FDOT recognizes that although pavement mill and overlay is recommended for flexible asphalt concrete pavement within a PCI range from 40 to 74, it is conceivable that airports may not have adequate funding to perform this type of major rehabilitation. A comprehensive surface treatment; such as GSB-88 and Microsurfacing, as a maintenance rehabilitation activity, can be used in lieu of asphalt concrete pavement mill and overlay. However, it should be understood that these measures provide only a short term extension of pavement life. While the cost of surface treatments are significantly lower than that of pavement mill and overlay, it is not intended or implied to be a full rehabilitative measure for long term benefit. Table 5-5 and Table 5-6 provide budget costs associated with the work types shown in the table.

Table 5-5: AC Maintenance Unit Costs

Surface Type	Maintenance Work Type	Cost	Work Unit
4)	Full Depth Pavement Patch	\$5.00	Square Feet
. Concrete APC)	Partial Depth Pavement Patch	\$3.00	Square Feet
alt Co C, APC	Seal Coat Treatment	\$0.55	Square Feet
Asph .C, AA	Crack Sealing	\$2.75	Linear Feet
Flexible Asphalt (AC, AAC, ,	Slurry Seal Coat Treatment	\$0.55	Square Feet
	Grinding / Removal	\$2.10	Square Feet

Table 5-6: PCC Maintenance Unit Costs

Surface Type	Maintenance Work Type	Cost	Work Unit
	Slab Replacement / Full Depth Patch	\$45.00	Square Feet
	Partial Patch - PCC	\$19.10	Square Feet
ment	Crack Sealing - PCC	\$4.25	Linear Feet
Rigid Pavement (PCC)	Joint Seal Repair (Local)	\$3.00	Linear Feet
Rigid	Slab Stabilization / Slab Jacking	\$45.00	Square Feet
	Micro-mill and Seal - PCC	\$1.00	Square Feet
	Seal Coat Treatment	\$1.00	Square Feet

As part of the SAPMP update, the distress data observed at each airport during the inspection is extrapolated on a section basis to make maintenance recommendations. These recommendations are a direct result of the distress types, severities, and quantities observed at the time of inspection. The

maintenance recommendations and planning costs are correlated with the airport's airfield pavement network's overall area weighted PCI and used to plan future maintenance costs. Future maintenance costs are planning budgets that are not specific to a pavement section, but are estimates for the entire airfield. Table 5-7 provides budget costs associated with the rehabilitation activities.

Table 5-7: Rehabilitation Activities and Unit Costs by Condition for General Aviation Airports

Category	Activity	PCI Range	Cost/SqFt
	Mill and Overlay (AC)	40. 74	\$8.00
Rehabilitation	<ul> <li>Concrete Pavement Restoration (PCC)</li> </ul>	40 - 74	\$10.00
	• Full Depth Pavement Reconstruction	0 - 39	\$15.00

A cost scale has been developed based on PCI to develop planning level budgets for the airfield pavements. The cost scale is adjusted by project year based on an assumed inflation rate of 3%. In Appendix E, Table E-1 summarizes the Year-1 maintenance and repair recommendations based on the most recent inspection. The summary in Table E-1 does not take into account any rehabilitation activities, but rather summarizes preventative activities for all PCI ranges, including below critical PCI sections.

### 6. MAJOR PAVEMENT REHABILITATION NEEDS

As part of the SAPMP, major pavement rehabilitation planning is developed based on current and predicted PCI in comparison with the Critical PCI. The Critical PCI has been determined based on the historic trends of pavement condition relative to the benefit of maintenance and repair activities. Pavement sections determined to have a PCI less than that of the Critical PCI are assumed to have deteriorated to a point at which maintenance and repair level activity would provide little benefit.

The objective of the major pavement rehabilitation needs analysis is to provide planning level projects within an airport's airfield pavement network. Major rehabilitation activities are recommended when a pavement section has deteriorated below the Critical PCI value from a functionality perspective. In addition, major rehabilitation is also recommended when the Section PCI is above the Critical PCI but the Section has load-related PCI distresses. However, most major rehabilitation work is recommended when the Section PCI is below the Critical PCI, which is when maintenance and repair level activities are not considered to be cost effective.

Major rehabilitation is identified within the SAPMP as major construction activity that would result in an improvement or "resetting" of the pavement section's PCI to a value of 100. Such activities could include; mill and hot-mix asphalt overlay and re-construction. This analysis was conducted with no constraints to budgets as a means to identify all pavement projects based on Critical PCI for a 10-year duration. It is recommended that the airport use this as a planning tool for future project development and prioritization. Table 6-1 depicts the major rehabilitation work identified on the pavement section level based on current and predicted pavement PCI.

Table 6-1: Summary of Major Rehabilitation

Year	Branch ID	Section ID	Major M&R Costs* PCI Before M&R		M&R Activity	PCI After M&R	
2014	NW AP	4160	\$	488,325.12	19	Reconstruction	100
2014	AP N	4135	\$	155,400.04	32	Reconstruction	100
2014	AP N	4120	\$	294,675.07	34	Reconstruction	100
2014	AP N	4115	\$	70,850.00	54	Mill and Overlay	100
2014	AP N	4110	\$	1,295,249.94	51	Mill and Overlay	100
2014	TW TO RW	905	\$	150,000.04	38	Reconstruction	100
2014	TW SE NR	705	\$	164,199.99	53	Mill and Overlay	100
2014	TW NW AP	605	\$	141,375.03	20	Reconstruction	100
2014	TW TO HANG	505	\$	67,215.02	29	Reconstruction	100
2022	TW TO HANG	510	\$	93,500.30	65	Mill and Overlay	100
_		Total =	\$	2,920,790.55	-		

<sup>\*</sup> Costs are adjusted for inflation AT 3%

OF FLORIDA

The 10-year major rehabilitation program addresses those pavement sections that have a current or project PCI that is below the Critical PCI of 65 during the 10-year analysis period. The unconstrained or "unlimited budget" Major Rehabilitation Program is compared to a "No Major Rehabilitation Program" scenario in Figure 6-1. As shown, if no major rehabilitation work is completed in the next 10 years at your airport, the average PCI may be 11 points less than a plan that provides timely repairs to the airfield pavements.

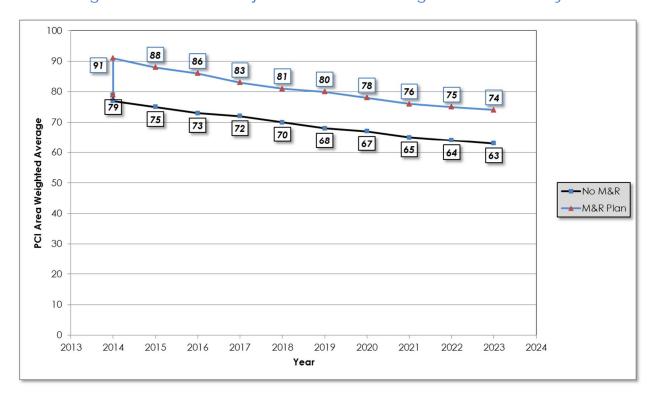


Figure 6-1: 10-Year Major Rehabilitation Budget Scenario Analysis

### 7. PREVENTATIVE AND MAJOR REHABILITATION PLANNING

The preventative and major rehabilitation results include activities that are based on distresses observed and unconstrained by budget limits. FDOT recognizes that the projects identified as Year-1 needs in 2013, based on condition, may exceed a typical annual budget level. It is recommended that each airport further evaluate each project's feasibility and desirability based on the airport's future development plans and budgeting scenarios.

In an effort to identify appropriate budget levels, the 10-year Preventative and Major Rehabilitation analysis evaluated projected budget needs based on predicted PCI of each pavement section. Table 7-1 and Figure 7-1 provides a summary of the expected preventative and major rehabilitation for each program year.

Table 7-1: 10-Year Preventative and Major Rehabilitation Summary

Program Year	Preventative		Major Rehabilitation		Total Year Costs
2014	\$	37,773.71	\$ 2,827,290.24	\$	2,865,063.95
2015	\$	63,978.38	\$ -	\$	63,978.38
2016	\$	104,216.13	\$ -	\$	104,216.13
2017	\$	160,345.10	\$ -	\$	160,345.10
2018	\$	218,561.88	\$ -	\$	218,561.88
2019	\$	277,048.74	\$ -	\$	277,048.74
2020	\$	325,463.86	\$ -	\$	325,463.86
2021	\$	358,183.41	\$ -	\$	358,183.41
2022	\$	386,053.10	\$ 93,500.30	\$	479,553.40
2023	\$	416,809.01	\$ -	\$	416,809.01
			Total =	\$	5,269,223.87

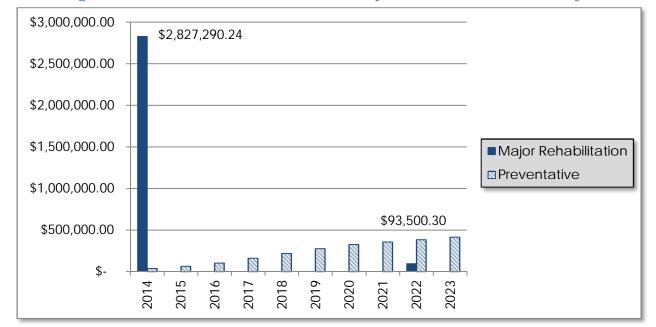


Figure 7-1: 10-Year Preventative and Major Rehabilitation Summary

According to the most recent inspections at the time of this update; the following pavement sections were identified as a Year-1 need for major rehabilitation:

- Northwest Apron Section 4160
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4135 and 4120
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4115 and 4110
  - Mill and Overlay attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Runway Section 905
  - Reconstruction attributed to distresses related to climate and age of pavement.
- Taxiway SE NR Section 705
  - Mill and Overlay attributed to distresses related to climate and age of pavement.
- Taxiway to Northwest Apron Section 605
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.

- Taxiway to Hangar Section 505
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.

Appendix E summarizes the preventative repair recommendations for Year-1 and Appendix F provides an exhibit, Airfield Pavement Major Rehabilitation, that depicts the recommended major rehabilitation on the airfield pavement network according to work type and year.

### 8. VISUAL AID EXHIBITS

#### 8.1 Airfield Pavement Network Definition Exhibit

The Airfield Pavement Network Definition Exhibit in Appendix A depicts the airfield layout in a manner that defines the airfield pavement infrastructure as branches, sections, and sample units in accordance with the ASTM D 5340-11. The exhibits are prepared and updated with information provided by the airport and from aerial imagery from the FDOT Surveying and Mapping publications.

### 8.2 Airfield Pavement System Inventory Exhibit

The Airfield Pavement System Inventory Exhibit in Appendix A depicts any recent airfield pavement construction activity reported by the airport. The exhibit is intended to identify pavement sections that may have changed in geometry and pavement composition that would affect the section delineation. The information provided in the Airport Response Form was used as the basis of the changes and confirmed with the airport personnel at the time of inspection.

### 8.3 Airfield Pavement Condition Index Rating Exhibit

The Airfield Pavement Condition Index Rating Exhibit in Appendix B has been prepared based on the section condition analysis of the distress data collected during the recent condition index rating survey. The exhibit graphically depicts the inventory with associated condition rating colors and PCI values.

## 8.4 Airfield Pavement Major Rehabilitation Exhibit

The Airfield Pavement Major Rehabilitation Exhibit in Appendix F has been prepared based on the section pavement performance model and major rehabilitation analysis. The exhibit graphically depicts the inventory with associated rehabilitation activity, program year, and the planning level costs.

### 8.5 Airfield Pavement Condition Survey Inspection Photographs

During the field condition survey inspection; inspectors photographed representative distress types observed. Select photographs are provided in Appendix G to provide visual support to special pavement conditions or distresses observed.

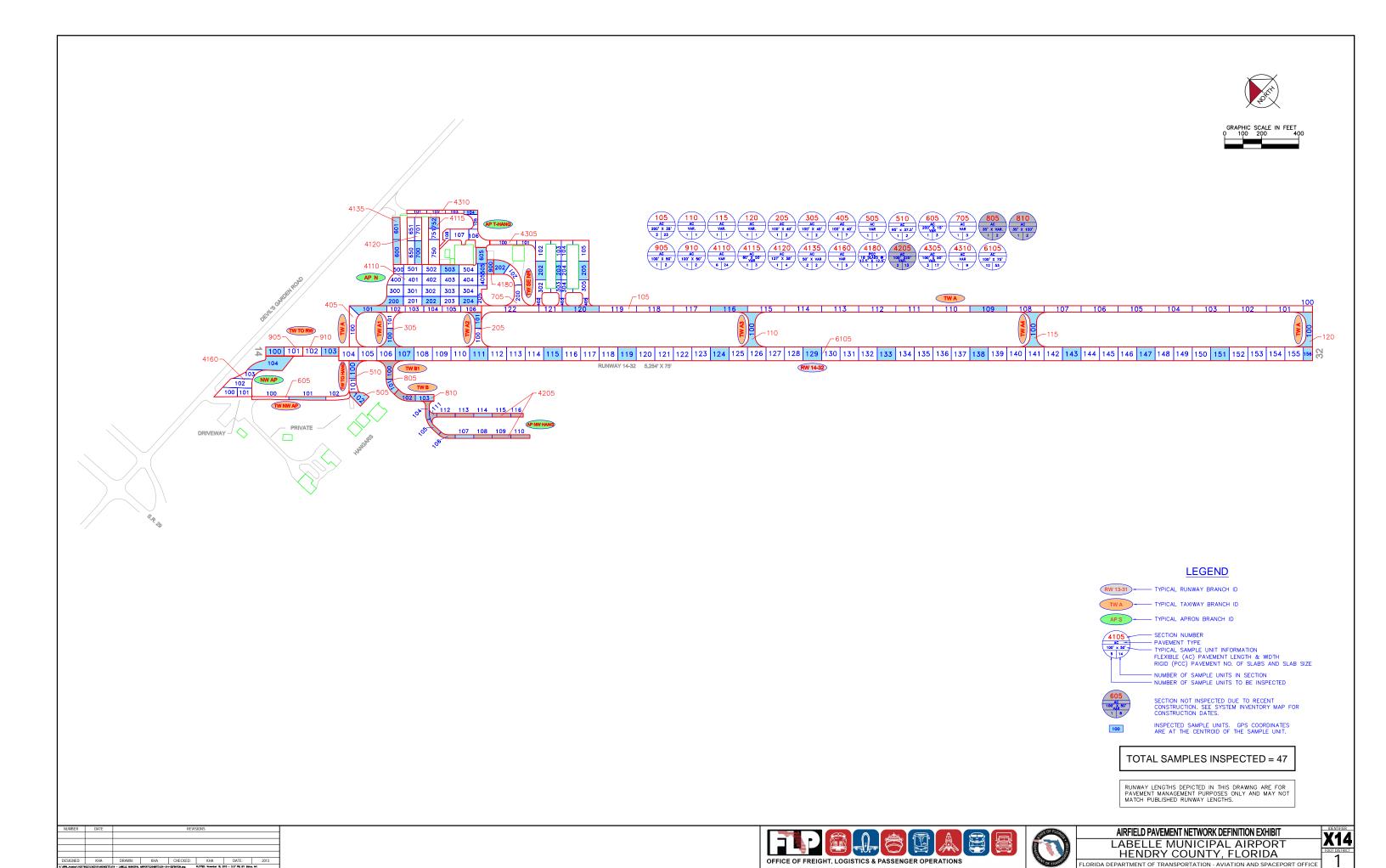
#### 9. RECOMMENDATIONS

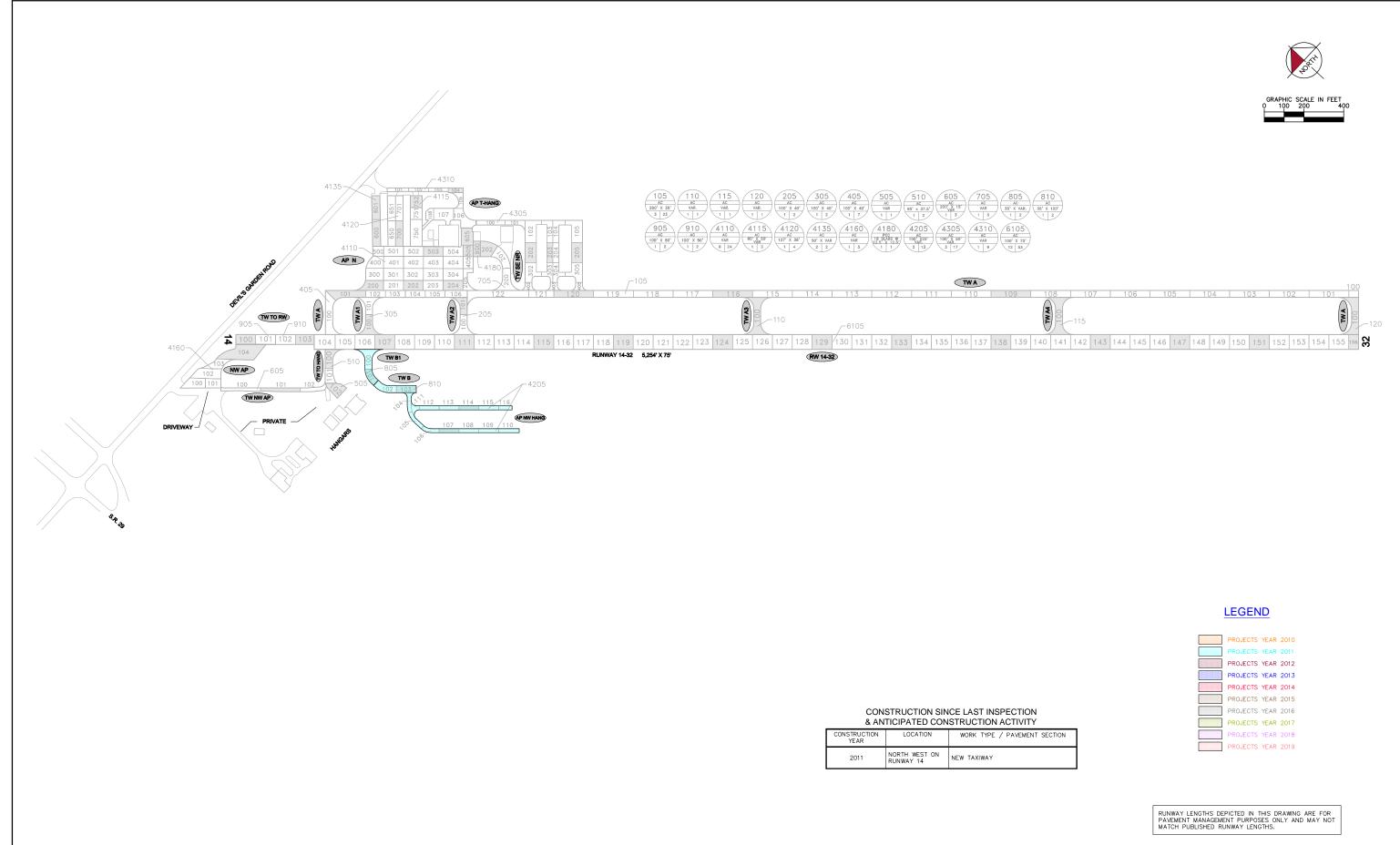
The following recommendations were made based on the 2013 condition survey inspection, condition analysis, and maintenance/rehabilitation analysis results:

- Northwest Apron Sections 4160
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4135 and 4120
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- North Apron Sections 4115 and 4110
  - Mill and Overlay attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Runway Section 905
  - Reconstruction attributed to distresses related to climate and age of pavement.
- Taxiway SE NR Section 705
  - Mill and Overlay attributed to distresses related to climate and age of pavement.
- Taxiway to Northwest Apron Section 605
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Hangar Section 505
  - Reconstruction attributed to distresses related to subgrade quality, climate, and age of pavement.
- Taxiway to Hangar Section 510
  - Mill and Overlay attributed to distresses related to climate and age of pavement.

# APPENDIX A

- AIRFIELD PAVEMENT NETWORK DEFINITION EXHIBIT
- AIRFIELD PAVEMENT SYSTEM INVENTORY EXHIBIT
- PAVEMENT GEOMETRY INVENTORY
- WORK HISTORY REPORT





ARFIELD PAVEMENT SYSTEM INVENTORY EXHIBIT

LABELLE MUNICIPAL AIRPORT

HENDRY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION AND SPACEPORT OFFICE

TOTAL STREET

ARFIELD PAVEMENT SYSTEM INVENTORY EXHIBIT

LABELLE MUNICIPAL AIRPORT

HENDRY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION AND SPACEPORT OFFICE

TOTAL STREET

TOTAL STRE

Table A-1: Pavement Geometry Inventory

Branch Name	Branch ID	Branch Use	Section ID	Length (FT)	Width (FT)	True Area (FT²)	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
RUNWAY 14-32	RW 14-32	RUNWAY	6105	5,450	75	394,125	Р	AC	1/1/2005	6/18/2013	53
APRON T-HANG	AP T-HANG	APRON	4310	800	35	30,550	Р	AC	1/1/2005	6/18/2013	9
APRON T-HANG	AP T-HANG	APRON	4305	1,570	50	68,460	Р	AC	1/1/2005	6/18/2013	17
APRON NW HANGAR	AP NW HANG	APRON	4205	700	20	24,659	Р	AC	3/1/2011	3/1/2011	13
NORTH APRON	AP N	APRON	4180	75	38	2,813	Р	PCC	1/1/2005	6/18/2013	1
NORTHWEST APRON	NW AP	APRON	4160	143	200	32,555	Р	AAC	1/1/1989	6/18/2013	5
NORTH APRON	AP N	APRON	4135	254	40	10,360	Р	AC	1/1/1997	6/18/2013	2
NORTH APRON	AP N	APRON	4120	255	78	19,645	Р	AC	1/1/2005	6/18/2013	4
NORTH APRON	AP N	APRON	4115	120	60	7,085	Р	AC	1/1/1980	6/18/2013	3
NORTH APRON	AP N	APRON	4110	540	220	129,525	T	AC	1/1/2005	6/18/2013	24
TAXIWAY TO RUNWAY	TW TO RW	TAXIWAY	910	5,450	75	9,707	Р	AC	1/1/2005	6/18/2013	2
TAXIWAY TO RUNWAY	TW TO RW	TAXIWAY	905	143	200	10,000	Р	AAC	1/1/1989	6/18/2013	2
TAXIWAY B	TW B	TAXIWAY	810	200	25	7,419	Р	AC	3/1/2011	3/1/2011	2
TAXIWAY B1	TW B1	TAXIWAY	805	160	25	7,613	Р	AC	3/1/2011	3/1/2011	2
SOUTH EAST TAXIWAY TO NORTH RAMP	TW SE NR	TAXIWAY	705	305	40	16,420	Р	AC	1/1/2005	6/18/2013	3
Taxiway to NW Ap	TW NW AP	TAXIWAY	605	550	16	9,425	Р	AC	1/1/1975	6/18/2013	3
TAXIWAY TO HANGARS	TW TO HANG	TAXIWAY	510	95	40	7,381	Р	AC	1/1/2005	6/18/2013	2
TAXIWAY TO HANGARS	TW TO HANG	TAXIWAY	505	170	48	4,481	Р	AC	1/1/1980	6/18/2013	1
TAXIWAY A	TW A	TAXIWAY	405	935	35	33,090	Р	AC	1/1/2005	6/18/2013	7
TAXIWAY A1	TW A1	TAXIWAY	305	187	35	9,140	Р	AC	1/1/2005	6/18/2013	2



Branch Name	Branch ID	Branch Use	Section ID	Length (FT)	Width (FT)	True Area (FT²)	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
TAXIWAY A2	TW A2	TAXIWAY	205	187	35	8,520	Р	AC	1/1/2005	6/18/2013	2
TAXIWAY A	TW A	TAXIWAY	120	187	35	8,225	Р	AC	1/1/2005	6/18/2013	1
TAXIWAY A4	TW A4	TAXIWAY	115	187	35	9,140	Р	AC	1/1/2005	6/18/2013	1
TAXIWAY A3	TW A3	TAXIWAY	110	187	35	9,140	Р	AC	1/1/2005	6/18/2013	1
TAXIWAY A	TW A	TAXIWAY	105	4,485	35	157,605	Р	AC	1/1/2005	6/18/2013	23

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

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

## **Work History Report**

Pavement Database:FDOT

Favement Database.FDO I

1 of 5

Network: X14 Branch: AP N (NORTH APRON) Section: 4110 Surface: AC L.C.D.: 01/01/2005 Use: APRON 540.00 Ft 220.00 Ft Rank T Length: Width: True Area:129,525.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R CR-AC 01/01/2005 Complete Reconstruction - AC \$0 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" 01/01/1992 **IMPORTED OVERLAY** PAVEMENT HISTORY IS SUSPECT -8.00 True THE 8" P-211 SHOWN ABOVE COULD BE AN 8" 01/01/1992 **IMPORTED BUILT** 1.00 True 1992: 1" P-401 SURFACE ON 8" P-211 Network: X14 Branch: AP N (NORTH APRON) Section: 4115 Surface: AC Rank P Length: L.C.D.: 01/01/1980 Use: APRON 120.00 Ft Width: 60.00 Ft True Area: 7,085.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 01/01/1980 **IMPORTED BUILT** ESTIMATE 1980 AC PAVEMENT Network: X14 Branch: AP N (NORTH APRON) Section: 4120 Surface: AC L.C.D.: 01/01/2005 Use: APRON Rank P Length: 255.00 Ft Width: 78.00 Ft True Area: 19,645.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description M&R ( in) 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 2" AC/9" Limerock/6" stab Subgrade/6" True Subgrade **IMPORTED BUILT** ESTIMATE 1970 AC PAVEMENT 01/01/1970 Branch: AP N (NORTH APRON) Network: X14 Surface: AC Section: 4135 L.C.D.: 01/01/1997 Use: APRON Rank P Length: 254.00 Ft Width: 40.00 Ft True Area: 10,360.00 SqF Work Work Work Thickness Major Comments Cost Code Description Date M&R ( in) 01/01/1997 **IMPORTED BUILT** ESTIMATE 1997 AC PAVEMENT (NORTH APRON) Network: X14 Branch: AP N Section: 4180 Surface: PCC L.C.D.: 01/01/2005 Use: APRON Rank P Length: 75.00 Ft Width: 37.50 Ft True Area: 2,812.50 SqF Work Work Work Thickness Major Comments Cost Code Description (in) Date M&R 01/01/2005 NC-PC New Construction - PCC 0.00 True Branch: AP NW HANG (APRON NW HANGAR) Network: X14 Section: 4205 Surface: AC L.C.D.: 03/01/2011 Use: APRON True Area: 24,659.00 SqF Rank P Length: 700.00 Ft Width: 20.00 Ft Work Work Major Thickness Comments Cost Description Date Code (in) M&R 03/01/2011 NU-IN New Construction - Initial 0.00 True Branch: AP T-HANG Network: X14 (APRON T-HANG) Section: 4305 Surface: AC L.C.D.: 01/01/2005 Use: APRON True Area: 68,460.00 SqF Rank P Length: 1,570.00 Ft Width: 50.00 Ft Work Thickness Work Work Major Comments Cost Date Code Description ( in) M&R 01/01/2005 NC-AC New Construction - AC \$0 0.00 True Network: X14 Branch: AP T-HANG (APRON T-HANG) Section: 4310 Surface: AC L.C.D.: 01/01/2005 Use: APRON True Area: 30.550.00 SqF Rank P Length: 800.00 Ft 35.00 Ft Width: Work Work Major Work Thickness Comments Cost Description Date Code ( in) M&R 01/01/2005 NC-AC New Construction - AC 0.00 True

## **Work History Report**

Pavement Database:FDOT

2 of 5

Network: X14 Branch: NW AP (NORTHWEST APRON) Section: 4160 Surface: AAC L.C.D.: 01/01/1989 Use: APRON 200.00 Ft Rank P Length: 143.00 Ft Width: True Area: 32,555.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R \$0 01/01/1989 NU-IN ESTIMATE 1989 AC OVERLAY New Construction - Initial 0.00 True Network: X14 Branch: RW 14-32 (RUNWAY 14-32) Section: 6105 Surface: AC L.C.D.: 01/01/2005 Use: RUNWAY Rank P Length: 5,450.00 Ft Width: 75.00 Ft True Area:394,125.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 2" AC/9" Limerock/6" stab Subgrade/6" 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 2" AC/9" Limerock/6" stab Subgrade/6" True Subgrade 01/01/1989 **IMPORTED BUILT** ESTIMATE 1989 SURFACE - ASSUME True OVERLAY ON EXISTING AC PAVEMENT Network: X14 Branch: TW A (TAXIWAY A) Section: 105 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY True Area:157.605.00 SqF Rank P Length: 4.485.00 Ft Width: 35.00 Ft Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R CR-AC 01/01/2005 Complete Reconstruction - AC \$0 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" Subgrade **IMPORTED BUILT** 01/01/1983 True ESTIMATE 1983 AC PAVEMENT Branch: TW A (TAXIWAY A) Surface: AC Network: X14 Section: 120 L.C.D.: 01/01/2005 Use: TAXIWAY Rank P Length: Width: 187.00 Ft 35.00 Ft True Area: 8,225.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description M&R ( in) 01/01/2005 INITIAL \$0 **Initial Construction** 0.00 True Network: X14 Branch: TW A (TAXIWAY A) Section: 405 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY True Area: 33,090.00 SqF Rank P Length: 935.00 Ft Width: 35.00 Ft Work Work Work Thickness Major Comments Cost Description Date Code ( in) M&R 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2" AC/9" Limerock/6" stab Subgrade/6" 2.00 True Subgrade **IMPORTED BUILT** 1992 1" P-401 SURFACE ON 8" P-401 01/01/1992 1.00 True BASE Network: X14 Branch: TW A1 (TAXIWAY A1) Section: 305 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY True Area: 9,140.00 SqF Rank P Length: 187.00 Ft Width: 35.00 Ft Work Work Work Thickness Major Comments Cost Description M&R Date Code ( in) Complete Reconstruction - AC 2" AC/9" Limerock/6" stab Subgrade/6" 01/01/2005 CR-AC \$0 2.00 True Subgrade **IMPORTED** 01/01/1970 **BUILT** ESTIMATE 1970 AC PAVEMENT Network: X14 Branch: TW A2 (TAXIWAY A2) Section: 205 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank P Length: 187.00 Ft Width: 35.00 Ft True Area: 8.520.00 SqF Work Work Work Thickness Major Comments Cost M&R Date Code Description ( in) 2" AC/9" Limerock/6" stab Subgrade/6" 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True Subgrade 01/01/1980 **IMPORTED BUILT** ESTIMATE 1980 AC PAVEMENT

## **Work History Report**

3 of 5

Pavement Database:FDOT

Network: X14 Branch: TW A3 (TAXIWAY A3) Section: 110 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY 35.00 Ft True Area: 9,140.00 SqF Rank P Length: 187.00 Ft Width: Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 01/01/2005 INITIAL True **Initial Construction** \$0 0.00 Network: X14 Branch: TW A4 (TAXIWAY A4) Surface: AC Section: 115 L.C.D.: 01/01/2005 Use: TAXIWAY Rank P Length: 187.00 Ft Width: 35.00 Ft True Area: 9.140.00 SqF Work Work Thickness Major Comments Cost Description Date Code ( in) M&R 01/01/2005 INITIAL **Initial Construction** \$0 0.00 True Network: X14 Branch: TW B (TAXIWAY B) Section: 810 Surface: AC L.C.D.: 03/01/2011 Use: TAXIWAY Rank P Length: 200.00 Ft Width: 25.00 Ft True Area: 7,418.83 SqF Work Work Work Thickness Major Comments Cost Date Code Description M&R ( in) 03/01/2011 NU-IN New Construction - Initial \$0 0.00 True Network: X14 Branch: TW B1 Section: 805 Surface: AC (TAXIWAY B1) L.C.D.: 03/01/2011 Use: TAXIWAY Rank P Length: 160.00 Ft Width: 25.00 Ft True Area: 7.613.00 SqF Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 03/01/2011 NU-IN New Construction - Initial \$0 0.00 True Branch: TW NW AP Network: X14 (TAXIWAY TO NW AP) Section: 605 Surface: AC L.C.D.: 01/01/1975 Use: TAXIWAY Rank P Length: 550.00 Ft Width: 16.00 Ft True Area: 9,425.00 SqF Work Work Work Thickness Major Comments Cost M&R Date Code Description ( in) **IMPORTED** 01/01/1975 **BUILT** True ESTIMATE 1975 AC PAVEMENT Branch: TW SE NR Surface: AC Network: X14 (SOUTH EAST TAXIWAY TO NORTH Section: 705 L.C.D.: 01/01/2005 Use: TAXIWAY Rank PRAMMETTh: 305.00 Ft Width: 40.00 Ft True Area: 16,420.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 01/01/2005 CR-AC 2" AC/9" Limerock/6" stab Subgrade/6" Complete Reconstruction - AC \$0 2.00 True Subgrade 12/25/1999 INITIAL **Initial Construction** 0.00 True Branch: TW TO HANG (TAXIWAY TO HANGARS) Section: 505 Surface: AC Network: X14 L.C.D.: 01/01/1980 Use: TAXIWAY 170.00 Ft 48.00 Ft Rank P Length: True Area: 4,481.00 SqF Width: Work Work Thickness Work Major Comments Cost Description (in) M&R Date Code 01/01/1980 IMPORTED **BUILT** ESTIMATE 1980 AC PAVEMENT True Branch: TW TO HANG (TAXIWAY TO HANGARS) Network: X14 Section: 510 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank P Length: 95.00 Ft Width: 40.00 Ft True Area: 7.381.00 SqF Work Work Work Thickness Major Comments Cost Description Date Code M&R ( in) 01/01/2005 INITIAL \$0 0.00 True **Initial Construction** (TAXIWAY TO RUNWAY) Network: X14 Branch: TW TO RW Section: 905 Surface: AAC L.C.D.: 01/01/1989 Use: TAXIWAY Rank P Length: 143.00 Ft Width: 200.00 Ft True Area: 10.000.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description ( in) M&R 01/01/1989 NU-IN New Construction - Initial \$0 0.00 True NU-IN 01/01/1989 New Construction - Initial \$0 0.00 True

Network: X14

# **Work History Report**

Pavement Database:FDOT

Branch: TW TO RW (TAXIWAY TO RUNWAY) **L.C.D.**: 01/01/2005 **Use**: TAXIWAY Rank P Length: 5,450.00 Ft

Width: 75.00 Ft Surface: AC

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Section: 910 True Area: 9,707.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	0.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	0.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	0.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	0.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
01/01/1989	NU-IN	New Construction - Initial	\$0	0.00		ESTIMATE 1989 SURFACE-ASSUME OVERLAY ON EXISTING AC
01/01/1989	NU-IN	New Construction - Initial	\$0	0.00		ESTIMATE 1989 SURFACE-ASSUME OVERLAY ON EXISTING AC

# Work History Report Pavement Database:FDOT

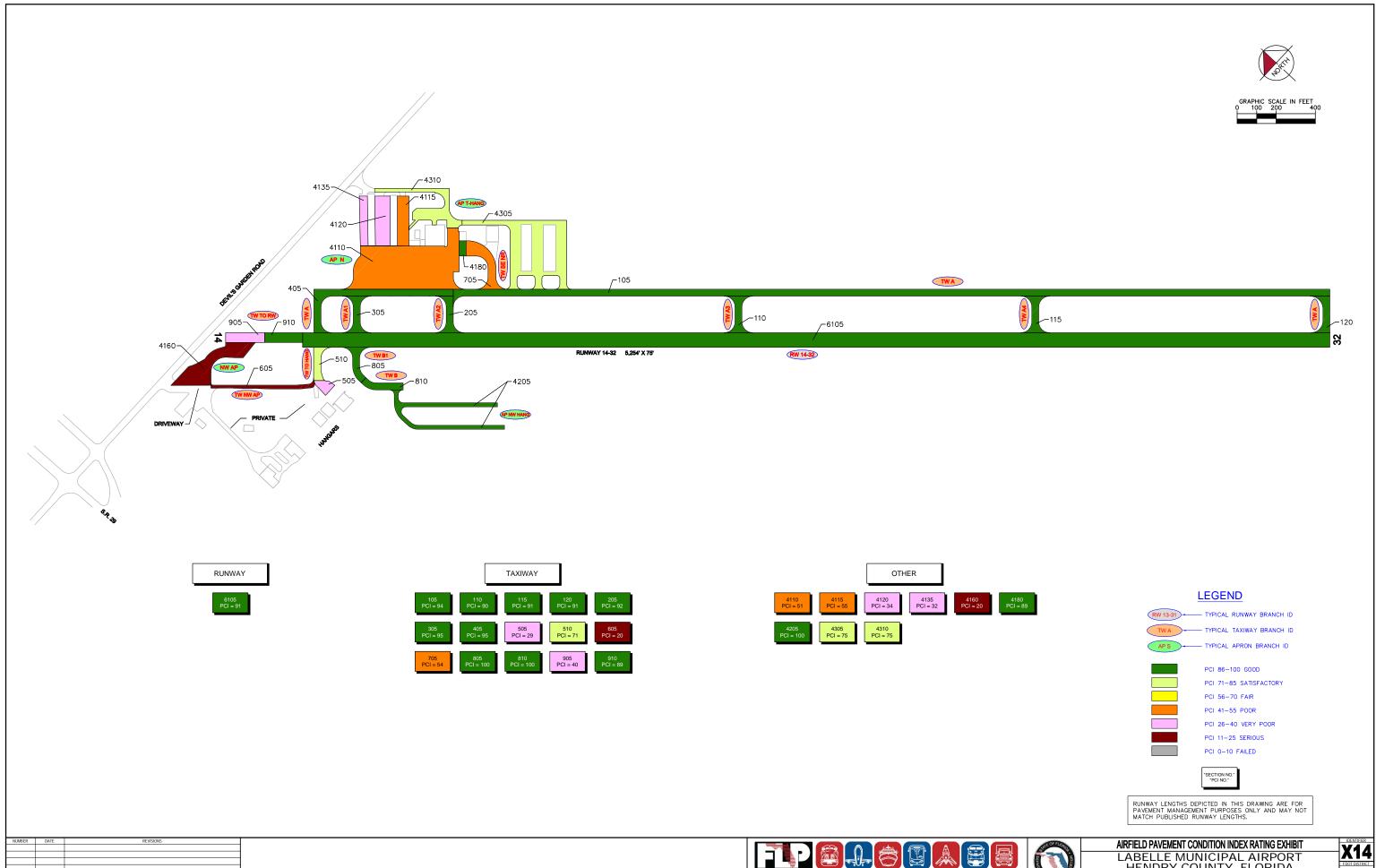
5 of 5

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	11	783,001.00	1.00	.00
Complete Reconstruction - AC	13	1,201,023.00	1.38	.96
Initial Construction	5	50,306.00	.00	.00
New Construction - AC	2	99,010.00	.00	.00
New Construction - Initial	8	111,659.83	.00	.00
New Construction - PCC	1	2,812.50	.00	
OVERLAY	1	129,525.00	8.00	

# APPENDIX B

- AIRFIELD PAVEMENT CONDITION INDEX RATING EXHIBIT
- PAVEMENT CONDITION INDEX INVENTORY





LABELLE MUNICIPAL AIRPORT HENDRY COUNTY, FLORIDA

FLORIDA DEPARTMENT OF TRANSPORTATION - AVIATION AND SPACEPORT OFFICE

Table B-1: Pavement Condition Index Inventory

Branch Name	Branch ID	Branch Use	Section ID	True Area (FT²)	Section Rank	Surface Type	PCI	PCI Category	Total Samples Inspected	Total Samples
RUNWAY 14-32	RW 14-32	RUNWAY	6105	394,125	Р	AC	91	Good	12	53
APRON T-HANG	AP T-HANG	APRON	4310	30,550	Р	AC	75	Satisfactory	1	9
APRON T-HANG	AP T-HANG	APRON	4305	68,460	Р	AC	75	Satisfactory	3	17
APRON NW HANGAR	AP NW HANG	APRON	4205	24,659	Р	AC	100	Good	2	13
NORTH APRON	AP N	APRON	4180	2,813	Р	PCC	89	Good	1	1
NORTHWEST APRON	NW AP	APRON	4160	32,555	Р	AAC	20	Serious	1	5
NORTH APRON	AP N	APRON	4135	10,360	Р	AC	32	Very Poor	2	2
NORTH APRON	AP N	APRON	4120	19,645	Р	AC	34	Very Poor	1	4
NORTH APRON	AP N	APRON	4115	7,085	Р	AC	55	Poor	1	3
NORTH APRON	AP N	APRON	4110	129,525	T	AC	51	Poor	6	24
TAXIWAY TO RUNWAY	TW TO RW	TAXIWAY	910	9,707	Р	AC	89	Good	1	2
TAXIWAY TO RUNWAY	TW TO RW	TAXIWAY	905	10,000	Р	AAC	40	Very Poor	1	2
TAXIWAY B	TW B	TAXIWAY	810	7,419	Р	AC	100	Good	1	2
TAXIWAY B1	TW B1	TAXIWAY	805	7,613	Р	AC	100	Good	1	2
SOUTH EAST TAXIWAY TO NORTH RAMP	TW SE NR	TAXIWAY	705	16,420	Р	AC	54	Poor	1	3
TAXIWAY TO NW AP	TW NW AP	TAXIWAY	605	9,425	Р	AC	20	Serious	1	3
TAXIWAY TO HANGARS	TW TO HANG	TAXIWAY	510	7,381	Р	AC	71	Satisfactory	1	2
TAXIWAY TO HANGARS	TW TO HANG	TAXIWAY	505	4,481	Р	AC	29	Very Poor	1	1
TAXIWAY A	TW A	TAXIWAY	405	33,090	Р	AC	95	Good	1	7
TAXIWAY A1	TW A1	TAXIWAY	305	9,140	Р	AC	95	Good	1	2
TAXIWAY A2	TW A2	TAXIWAY	205	8,520	Р	AC	92	Good	1	2
TAXIWAY A	TW A	TAXIWAY	120	8,225	Р	AC	91	Good	1	1
TAXIWAY A4	TW A4	TAXIWAY	115	9,140	Р	AC	91	Good	1	1

Branch Name	Branch ID	Branch Use	Section ID	True Area (FT²)	Section Rank	Surface Type	PCI	PCI Category	Total Samples Inspected	Total Samples
TAXIWAY A3	TW A3	TAXIWAY	110	9,140	Р	AC	90	Good	1	1
TAXIWAY A	TW A	TAXIWAY	105	157,605	Р	AC	94	Good	3	23

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

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

# APPENDIX C

- BRANCH CONDITION REPORT
- SECTION CONDITION REPORT

Date: 9 /27/2013

# **Branch Condition Report**

Pavement Database: FDOT NetworkID: X14

Number of Sum Section | Avg Section PCI Weighted **True Area Branch ID** Use Average **Sections** Length Width Standard Average (SqFt) PCI PCI (Ft) (Ft) Deviation APN (NORTH APRON) 5 1,244.00 87.10 169,427.50 **APRON** 20.51 48.67 52.20 AP NW HANG (APRON NW 1 700.00 20.00 24,659.00 **APRON** 100.00 0.00 100.00 HANGAR) APT-HANG (APRON T-HANG) 2,370.00 99,010.00 **APRON** 75.00 2 42.50 75.00 0.00 NW AP (NORTHWEST APRON) **APRON** 143.00 200.00 32,555.00 0.00 20.00 1 20.00 RW 14-32 (RUNWAY 14-32) 1 5,450.00 75.00 394,125.00 **RUNWAY** 91.00 0.00 91.00 TW A (TAXIWAY A) **TAXIWAY** 3 5,607.00 35.00 198,920.00 93.33 1.70 94.04 TW A1 (TAXIWAY A1) 187.00 **TAXIWAY** 1 35.00 9,140.00 95.00 0.00 95.00 TW A2 (TAXIWAY A2) 1 187.00 35.00 8,520.00 **TAXIWAY** 92.00 0.00 92.00 TW A3 (TAXIWAY A3) 187.00 35.00 9,140.00 **TAXIWAY** 90.00 0.00 90.00 1 TW A4 (TAXIWAY A4) **TAXIWAY** 1 187.00 35.00 9,140.00 91.00 0.00 91.00 TW B (TAXIWAY B) 200.00 25.00 7,418.83 **TAXIWAY** 100.00 0.00 100.00 1 TW B1 (TAXIWAY B1) 160.00 25.00 7,613.00 **TAXIWAY** 100.00 0.00 100.00 1 TW NW AP (TAXIWAY TO NW AP) 1 550.00 16.00 9,425.00 **TAXIWAY** 20.00 0.00 20.00 TW SE NR (SOUTH EAST TAXIWAY 305.00 40.00 16,420.00 **TAXIWAY** 0.00 54.00 1 54.00 TO NORTH RAMP) TW TO HANG (TAXIWAY TO 2 265.00 44.00 11,862.00 **TAXIWAY** 50.00 55.13 21.00 HANGARS) TW TO RW (TAXIWAY TO 2 5,593.00 137.50 19,707.00 **TAXIWAY** 64.50 24.50 64.14 **RUNWAY**)

1 of 2

Date: 9 /27/2013

# **Branch Condition Report**

Pavement Database: FDOT

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	9	325,651.50	59.00	25.92	57.69
RUNWAY	1	394,125.00	91.00	0.00	91.00
TAXIWAY	15	307,305.83	76.73	26.35	86.26
All	25	1,027,082.33	70.92	27.31	79.02

2 of 2

## **Section Condition Report**

Pavement Database: FDOT

NetworkID: X14

Last Age Section ID Surface Hee Branch ID Last Rank Lanes True Area PCI Inspection Αt Const. (SqFt) Date Inspection Date AP N (NORTH APRON) Т 4110 01/01/2005 AC **APRON** 129,525.00 06/18/2013 8 51.00 AP N (NORTH APRON) 4115 01/01/1980 AC **APRON** Ρ 7,085.00 06/18/2013 33 55.00 AP N (NORTH APRON) 4120 01/01/2005 AC **APRON** Ρ 0 19,645.00 06/18/2013 8 34.00 AP N (NORTH APRON) 01/01/1997 AC **APRON** 10,360.00 06/18/2013 4135 0 16 32.00 AP N (NORTH APRON) PCC **APRON** Ρ 4180 01/01/2005 0 8 89.00 2,812.50 06/18/2013 AP NW HANG (APRON NW HANGAR) **APRON** Р 4205 03/01/2011 AC 24,659.00 03/01/2011 0 100.00 0 AP T-HANG (APRON T-HANG) 4305 01/01/2005 AC **APRON** Ρ 0 68,460.00 06/18/2013 8 75.00 AP T-HANG (APRON T-HANG) 4310 01/01/2005 AC **APRON** Ρ 30,550.00 06/18/2013 8 75.00 NW AP (NORTHWEST APRON) Ρ 4160 01/01/1989 AAC **APRON** 0 32.555.00 06/18/2013 24 20.00 RW 14-32 (RUNWAY 14-32) Р 6105 01/01/2005 AC **RUNWAY** 0 394,125.00 06/18/2013 8 91.00 TW A (TAXIWAY A) AC **TAXIWAY** Ρ 105 01/01/2005 0 157,605.00 06/18/2013 8 94.00 TW A (TAXIWAY A) 120 01/01/2005 AC **TAXIWAY** Ρ 0 8,225.00 06/18/2013 8 91.00 TW A (TAXIWAY A) 405 01/01/2005 AC **TAXIWAY** Ρ 0 33,090.00 06/18/2013 8 95.00 TW A1 (TAXIWAY A1) AC **TAXIWAY** Ρ 0 9,140.00 06/18/2013 305 01/01/2005 8 95.00 TW A2 (TAXIWAY A2) AC **TAXIWAY** Ρ 0 8,520.00 06/18/2013 8 205 01/01/2005 92.00 TW A3 (TAXIWAY A3) Р 01/01/2005 AC **TAXIWAY** 0 9,140.00 06/18/2013 8 90.00 110 TW A4 (TAXIWAY A4) Ρ 115 01/01/2005 AC **TAXIWAY** 0 9,140.00 06/18/2013 8 91.00 TW B (TAXIWAY B) 810 03/01/2011 AC **TAXIWAY** Ρ 7,418.83 03/01/2011 100.00 TW B1 (TAXIWAY B1) **TAXIWAY** Ρ 805 03/01/2011 AC 0 7.613.00 03/01/2011 0 100.00 TW NW AP (TAXIWAY TO NW AP) **TAXIWAY** Р 605 01/01/1975 AC 0 9,425.00 06/18/2013 38 20.00 TW SE NR (SOUTH EAST TAXIWAY TO AC **TAXIWAY** Ρ 0 705 01/01/2005 16,420.00 06/18/2013 8 54.00 NORTH RAMP) TW TO HANG (TAXIWAY TO HANGARS) Р 505 01/01/1980 AC **TAXIWAY** 0 4,481.00 06/18/2013 33 29.00 TW TO HANG (TAXIWAY TO HANGARS) Ρ 510 01/01/2005 AC **TAXIWAY** 0 7,381.00 06/18/2013 8 71.00 TW TO RW (TAXIWAY TO RUNWAY) 01/01/1989 **TAXIWAY** Ρ 10,000.00 06/18/2013 905 AAC 40.00 TW TO RW (TAXIWAY TO RUNWAY) 910 AC **TAXIWAY** Ρ 8 01/01/2005 9,707.00 06/18/2013 89.00

1 of 2

Date: 9 /27/2013

# **Section Condition Report**

2 of 2

Pavement Database: FDOT

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	39,690.83	3	100.00	0.00	100.00
06-10	8.00	913,485.50	16	79.81	18.58	82.22
16-20	16.00	10,360.00	1	32.00	0.00	32.00
21-25	24.00	42,555.00	2	30.00	14.14	24.70
31-35	33.00	11,566.00	2	42.00	18.38	44.93
36-40	38.00	9,425.00	1	20.00	0.00	20.00
All	11.84	1,027,082.33	25	70.92	27.87	79.02

# APPENDIX D

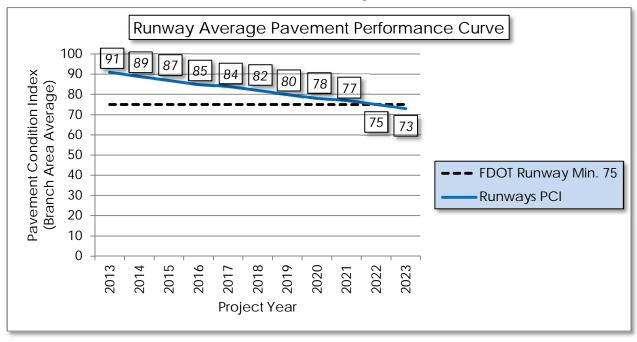
- PAVEMENT PERFORMANCE PREDICTION
- PAVEMENT PERFORMANCE BY PAVEMENT USE

Table D-1: Pavement Performance Prediction

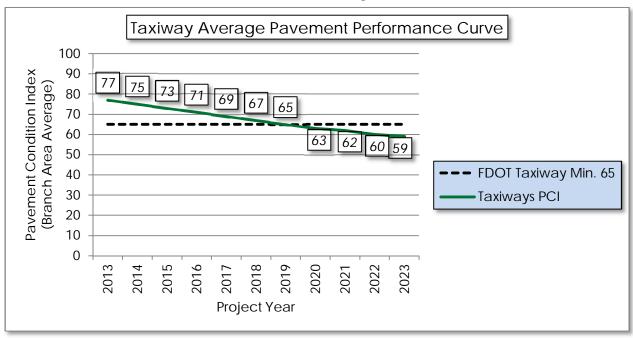
Branch	Section	Current			Paver	ment P	erform	nance	Mode	l - PCI		
ID	ID	PCI	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
RW 14-32	6105	91	90	88	86	84	82	81	79	77	76	74
AP T-HANG	4310	75	74	72	71	70	69	68	67	66	66	65
AP T-HANG	4305	75	74	72	71	70	69	68	67	66	66	65
AP NW HANG	4205	100	86	83	80	77	75	73	72	70	69	68
AP N	4180	89	87	84	81	78	76	73	70	68	66	64
NW AP	4160	20	19	17	15	13	11	9	7	6	4	2
AP N	4135	32	32	32	32	32	32	31	31	31	31	31
AP N	4120	34	34	34	34	34	34	33	33	33	33	33
AP N	4115	55	54	54	53	52	51	50	49	48	47	46
AP N	4110	51	51	50	49	48	47	46	45	45	44	43
TW TO RW	910	89	88	85	83	80	78	76	75	73	72	70
TW TO RW	905	40	38	34	30	27	23	19	16	12	8	5
TW B	810	100	92	90	87	84	82	80	78	76	74	73
TW B1	805	100	92	90	87	84	82	80	78	76	74	73
TW SE NR	705	54	53	52	51	50	49	48	46	45	44	43
TW NW AP	605	20	20	20	20	20	20	20	20	20	20	20
TW TO HANG	510	71	70	69	68	67	66	66	65	65	65	64
TW TO HANG	505	29	29	29	29	29	29	29	29	29	29	29
TW A	405	95	94	91	88	86	83	81	79	77	75	73
TW A1	305	95	94	91	88	86	83	81	79	77	75	73
TW A2	205	92	91	88	85	83	81	79	77	75	73	72
TW A	120	91	90	87	84	82	80	78	76	74	73	71
TW A4	115	91	90	87	84	82	80	78	76	74	73	71
TW A3	110	90	89	86	84	81	79	77	75	74	72	71
TW A	105	94	93	90	87	85	82	80	78	76	74	73

Figure D-1: Pavement Performance by Pavement Use

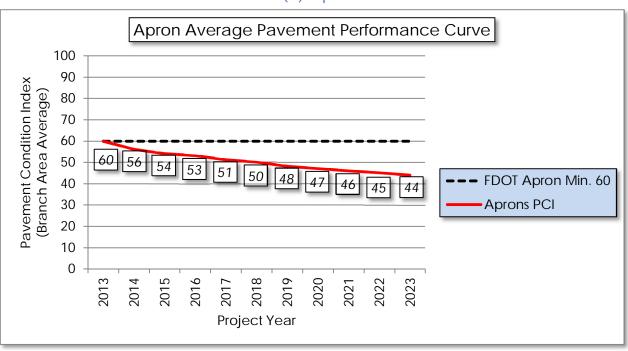
#### (a) Runway



### (b) Taxiway



## (c) Apron



# APPENDIX E

YEAR-1 PREVENTATIVE ACTIVITIES

Table E-1: Year-1 Preventative Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	V	Vork Cost
RUNWAY 14-32	RW 14-32	6105	L&TCR	L	Crack Sealing - AC	178.10	Ft	\$2.75	\$	489.65
RUNWAY 14-32	RW 14-32	6105	RAVELING	L	Surface Seal	8,823.00	SqFt	\$0.55	\$	4,852.70
APRON T-HANG	AP T-HANG	4310	L&TCR	L	Crack Sealing - AC	503.40	Ft	\$2.75	\$	1,384.30
APRON T-HANG	AP T-HANG	4310	WEATHERING	М	Surface Seal	30,550.00	SqFt	\$0.55	\$	16,802.64
APRON T-HANG	AP T- HANG	4305	DEPRESSION	L	Patching - AC Full Depth	488.40	SqFt	\$5.00	\$	2,442.05
APRON T-HANG	AP T-HANG	4305	L&TCR	L	Crack Sealing - AC	480.40	Ft	\$2.75	\$	1,321.16
APRON T-HANG	AP T-HANG	4305	RAVELING	L	Surface Seal	480.40	SqFt	\$0.55	\$	264.23
APRON T-HANG	AP T-HANG	4305	WEATHERING	М	Surface Seal	68,460.00	SqFt	\$0.55	\$	37,653.31
NORTH APRON	AP N	4180	JT SEAL DMG	M	Joint Seal - PCC	337.50	Ft	\$3.00	\$	1,012.50
NORTH APRON	AP N	4180	CORNER SPALL	M	Patching - PCC Partial Depth	2.70	SqFt	\$19.10	\$	51.40
NORTHWEST APRON	NW AP	4160	BLOCK CR	L	Surface Seal	16,277.50	SqFt	\$0.55	\$	8,952.70
NORTHWEST APRON	NW AP	4160	DEPRESSION	М	Patching - AC Full Depth	3,031.60	SqFt	\$5.00	\$	15,158.19
NORTHWEST APRON	NW AP	4160	L&TCR	L	Crack Sealing - AC	862.40	Ft	\$2.75	\$	2,371.46
NORTHWEST APRON	NW AP	4160	PATCHING	M	Crack Sealing - AC	77.40	Ft	\$2.75	\$	212.86

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
NORTHWEST APRON	NW AP	4160	RAVELING	М	Surface Seal	32,361.10	SqFt	\$0.55	\$ 17,798.75
NORTH APRON	AP N	4135	BLOCK CR	L	Surface Seal	6,405.60	SqFt	\$0.55	\$ 3,523.12
NORTH APRON	AP N	4135	L&TCR	L	Crack Sealing - AC	248.00	Ft	\$2.75	\$ 682.07
NORTH APRON	AP N	4135	RAVELING	М	Surface Seal	2,000.20	SqFt	\$0.55	\$ 1,100.12
NORTH APRON	AP N	4135	RAVELING	Н	Patching - AC Partial Depth	1,000.10	SqFt	\$3.00	\$ 3,000.29
NORTH APRON	AP N	4135	RAVELING	L	Surface Seal	6,359.60	SqFt	\$0.55	\$ 3,497.82
NORTH APRON	AP N	4120	L&TCR	L	Crack Sealing - AC	339.70	Ft	\$2.75	\$ 934.16
NORTH APRON	AP N	4120	RAVELING	М	Surface Seal	17,230.30	SqFt	\$0.55	\$ 9,476.75
NORTH APRON	AP N	4120	RAVELING	Н	Patching - AC Partial Depth	204.60	SqFt	\$3.00	\$ 613.91
NORTH APRON	AP N	4115	L&TCR	L	Crack Sealing - AC	572.10	Ft	\$2.75	\$ 1,573.39
NORTH APRON	AP N	4115	RAVELING	М	Surface Seal	1,417.00	SqFt	\$0.55	\$ 779.36
NORTH APRON	AP N	4115	RAVELING	L	Surface Seal	5,668.00	SqFt	\$0.55	\$ 3,117.43
NORTH APRON	AP N	4110	BLOCK CR	М	Patching - AC Full Depth	2,668.10	SqFt	\$5.00	\$ 13,340.56
NORTH APRON	AP N	4110	BLOCK CR	L	Surface Seal	126,856.90	SqFt	\$0.55	\$ 69,771.87
NORTH APRON	AP N	4110	DEPRESSION	L	Patching - AC Full Depth	3,270.80	SqFt	\$5.00	\$ 16,353.84

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
NORTH APRON	AP N	4110	OIL SPILLAGE	N	Surface Seal	145.50	SqFt	\$0.55	\$ 80.02
NORTH APRON	AP N	4110	RAVELING	L	Surface Seal	34,657.90	SqFt	\$0.55	\$ 19,061.99
NORTH APRON	AP N	4110	RAVELING	М	Surface Seal	9,979.00	SqFt	\$0.55	\$ 5,488.50
TAXIWAY TO RUNWAY	TW TO RW	910	WEATHERING	М	Surface Seal	970.70	SqFt	\$0.55	\$ 533.89
TAXIWAY TO RUNWAY	TW TO RW	905	BLOCK CR	L	Surface Seal	8,050.00	SqFt	\$0.55	\$ 4,427.54
TAXIWAY TO RUNWAY	TW TO RW	905	L&TCR	L	Crack Sealing - AC	210.00	Ft	\$2.75	\$ 577.50
TAXIWAY TO RUNWAY	TW TO RW	905	RAVELING	М	Surface Seal	3,000.00	SqFt	\$0.55	\$ 1,650.01
TAXIWAY TO RUNWAY	TW TO RW	905	RAVELING	L	Surface Seal	7,000.00	SqFt	\$0.55	\$ 3,850.03
SOUTH EAST TAXIWAY TO NORTH RAMP	TW SE NR	705	BLOCK CR	L	Surface Seal	16,420.00	SqFt	\$0.55	\$ 9,031.08
SOUTH EAST TAXIWAY TO NORTH RAMP	TW SE NR	705	RAVELING	L	Surface Seal	16,420.00	SqFt	\$0.55	\$ 9,031.08
TAXIWAY TO NW AP	TW NW AP	605	DEPRESSION	L	Patching - AC Full Depth	254.90	SqFt	\$5.00	\$ 1,274.49
TAXIWAY TO NW AP	TW NW AP	605	L&TCR	L	Crack Sealing - AC	1,036.00	Ft	\$2.75	\$ 2,848.92
TAXIWAY TO NW AP	TW NW AP	605	RAVELING	Н	Patching - AC Partial Depth	9,425.00	SqFt	\$3.00	\$ 28,274.97
TAXIWAY TO HANGARS	TW TO HANG	510	L&TCR	L	Crack Sealing - AC	2.00	Ft	\$2.75	\$ 5.50

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
TAXIWAY TO HANGARS	TW TO HANG	510	RAVELING	L	Surface Seal	4,210.00	SqFt	\$0.55	\$ 2,315.52
TAXIWAY TO HANGARS	TW TO HANG	505	DEPRESSION	L	Patching - AC Full Depth	1,171.70	SqFt	\$5.00	\$ 5,858.29
TAXIWAY TO HANGARS	TW TO HANG	505	L&TCR	L	Crack Sealing - AC	81.90	Ft	\$2.75	\$ 225.35
TAXIWAY TO HANGARS	TW TO HANG	505	RAVELING	Н	Patching - AC Partial Depth	102.40	SqFt	\$3.00	\$ 307.30
TAXIWAY TO HANGARS	TW TO HANG	505	RAVELING	M	Surface Seal	7,547.60	SqFt	\$0.55	\$ 4,151.20
TAXIWAY A2	TW A2	205	L&TCR	L	Crack Sealing - AC	13.80	Ft	\$2.75	\$ 37.84
TAXIWAY A	TW A	120	L&TCR	L	Crack Sealing - AC	54.00	Ft	\$2.75	\$ 148.50
TAXIWAY A4	TW A4	115	L&TCR	L	Crack Sealing - AC	2.00	Ft	\$2.75	\$ 5.50
TAXIWAY A3	TW A3	110	L&TCR	L	Crack Sealing - AC	86.00	Ft	\$2.75	\$ 236.50
TAXIWAY A	TW A	105	RAVELING	M	Surface Seal	7.50	SqFt	\$0.55	\$ 4.13
								Total =	\$ 337,958.24

# APPENDIX F

- AIRFIELD PAVEMENT 10-YEAR MAJOR REHABILITATION
   EXHIBIT
- AIRFIELD PAVEMENT 10-YEAR MAJOR REHABILITATION
   TABLE

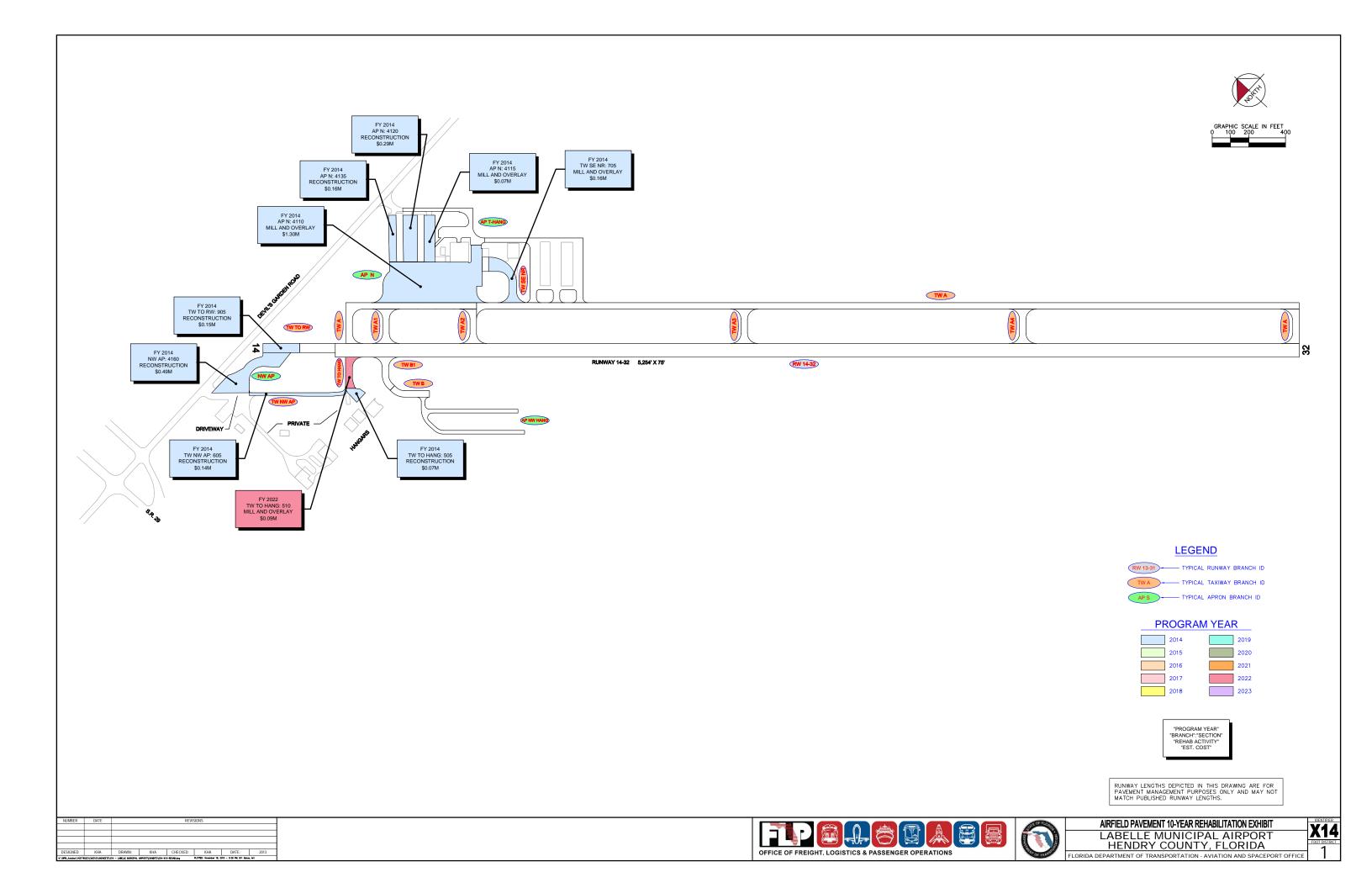


Table F-1: Airfield Pavement 10-Year Major Rehabilitation Table

Year	Branch ID	Section ID	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
2014	NW AP	4160	\$ 488,325.12	19	Reconstruction	100
2014	AP N	4135	\$ 155,400.04	32	Reconstruction	100
2014	AP N	4120	\$ 294,675.07	34	Reconstruction	100
2014	AP N	4115	\$ 70,850.00	54	Mill and Overlay	100
2014	AP N	4110	\$ 1,295,249.94	51	Mill and Overlay	100
2014	TW TO RW	905	\$ 150,000.04	38	Reconstruction	100
2014	TW SE NR	705	\$ 164,199.99	53	Mill and Overlay	100
2014	TW NW AP	605	\$ 141,375.03	20	Reconstruction	100
2014	TW TO HANG	505	\$ 67,215.02	29	Reconstruction	100
2022	TW TO HANG	510	\$ 93,500.30	65	Mill and Overlay	100
		Total =	\$2,920,790.55	_		_

<sup>\*</sup> Costs are adjusted for inflation AT 3%

# APPENDIX G

PHOTOGRAPHS



Taxiway to Hangar, Section 510, Sample Unit 100 - Low Severity (52) Raveling



Taxiway to Hangar, Section 505, Sample Unit 102 – Low Severity (48) Longitudinal and Transverse Cracking, Medium and High Severity (52) Raveling



Taxiway to Hangar, Section 505, Sample Unit 102 – Low Severity (48) Longitudinal and Transverse Cracking, Medium and High Severity (52) Raveling



Northwest Apron, Section 4160, Sample Unit 104 – Low Severity (48) Longitudinal and Transverse Cracking, Medium Severity (52) Raveling, Low Severity (43) Block Cracking



Northwest Apron, Section 4160, Sample Unit 104 – Low Severity (48) Longitudinal and Transverse Cracking, Medium Severity (52) Raveling, Medium Severity (50) Patching, Low Severity (43) Block Cracking



Northwest Apron, Section 4160, Sample Unit 104 – Low Severity (48) Longitudinal and Transverse Cracking, Medium Severity (52) Raveling, Medium Severity (45) Depression



Runway 14-32, Section 6105, Sample Unit 115 – Low Severity (48) Longitudinal and Transverse Cracking, Low Severity (52) Raveling, Low Severity (57) Weathering



Runway 14-32, Section 6105, Sample Unit 143 – Low Severity (48) Longitudinal and Transverse Cracking, Low Severity (57) Weathering



Apron North, Section 4110, Sample Unit 200 – Low Severity (43) Block Cracking, Medium Severity (52) Raveling, Low Severity (57) Weathering



Apron North, Section 4110, Sample Unit 202 – Low Severity (43) Block Cracking, Low Severity (52) Raveling, Low Severity (57) Weathering, Low Severity (45) Depression



Apron North, Section 4110, Sample Unit 505 – Low and Medium Severity (43) Block Cracking, Low Severity (52) Raveling



Apron North, Section 4180, Sample Unit 900 - Medium Severity (65) Joint Seal Damage, Medium Severity (75) Corner Spalling



Apron T-Hangar, Section 4305, Sample Unit 202 – Low Severity (48) Longitudinal and Transverse Cracking, Medium Severity (57) Weathering



Apron North, Section 4135, Sample Unit 600 – Low Severity (43) Block Cracking, Low, Medium and High Severity (52) Raveling

# APPENDIX H

DISTRESS DATA – RE-INSPECTION REPORT

#### FDOT

Report Generated Date: September 27, 2013

Network: X14 N	ame: LA BELLE MUNI	CIPAL AIRPORT			
Branch: AP N N	ame: NORTH APRON		Use: APRO	N Area:	169,427.50SqFt
Section: 4110 of Surface: AC	Family: FDOT-SAPMP		То: -	Zone:	Last Const.: 01/01/2005 Category: Rank: T
Area: 129,525.00SqFt Shoulder: Street Type:	0		Vidth: 220.00Ft		
Section Comments:					
Last Insp. Date: 06/18/2013 Toldinos: PCI: 51 Inspection Comments:	Total Samples: 24	Surveyed: 6			
Sample Number: 200 Sample Comments:	Type: R	Area:	5,262.00SqFt	PCI = 52	
52 RAVELING		M	1,173.00 Sq	qFt Comments	:
57 WEATHERING		L	4,089.00 Sc	qFt Comments	:
43 BLOCK CRACKING		L	5,262.00 Sq	qFt Comments	:
Sample Number: 202 Sample Comments:	Type: R	Area:	5,000.00SqFt	PCI = 48	
45 DEPRESSION		L	210.00 Sq	qFt Comments	:
15 DEPRESSION		L	160.00 Sq	qFt Comments	:
43 BLOCK CRACKING		L	5,000.00 Sc	qFt Comments	:
45 DEPRESSION		L	253.00 Sq	qFt Comments	:
52 RAVELING		L	567.00 Sq	qFt Comments	:
57 WEATHERING		L	5,000.00 Sq	qFt Comments	:
Sample Number: 204 Sample Comments:	Type: R	Area:	5,000.00SqFt	PCI = 59	
57 WEATHERING		L	5,000.00 Sc	qFt Comments	:
43 BLOCK CRACKING		L	5,000.00 Sq	AFt Comments	:
Sample Number: 503 Sample Comments:	Type: R	Area:	4,963.00SqFt	PCI = 59	
57 WEATHERING		L	4,963.00 Sq	qFt Comments	:
43 BLOCK CRACKING		L			
Sample Number: 505 Sample Comments:	Type: R	Area:	2,905.00SqFt	PCI = 44	
43 BLOCK CRACKING		L	2,324.00 Sc	qFt Comments	:
52 RAVELING		L			:
43 BLOCK CRACKING		M			:
Sample Number: 605 Sample Comments:	Type: R	Area:	5,075.00SqFt	PCI = 40	
43 BLOCK CRACKING		L	5,075.00 Sq	qFt Comments	:
52 RAVELING		L			
45 DEPRESSION		L			
49 OIL SPILLAGE		N	22.00 Sc		
52 RAVELING		M	1,000.00 Sc	gFt Comments	:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: AP N Name: NORTH APRON Use: APRON Area: 169,427.50SqFt Section: From: -То: -Last Const.: 01/01/1980 4115 of 5 Zone: Category: Rank: P

Width:

60.00Ft

Family: FDOT-SAPMP-GA-AP-AC Surface: AC

Area: 7,085.00SqFt Length: 120.00Ft Shoulder: Grade: 0.00 Lanes: 0 Street Type:

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: Surveyed: 1

Conditions: PCI: 55 Inspection Comments:

PCI = 55Sample Number: 752 Type: R Area: 3,554.00SqFt Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 287.00 Ft Comments: 52 RAVELING М 710.80 SqFt Comments: 52 RAVELING L 2,843.20 SqFt Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

		1	- ,							
Network:	X14	Name: 1	LA BELLE I	MUNICIPAL .	AIRPORT					
Branch:	AP N	Name: 1	NORTH API	RON			Use: APRON	Area:	169,427.50SqFt	
Section:	4120	of 5	From:				То: -		Last Const.:	01/01/2005
Surface:	AC	Family	: FDOT-SA	APMP-GA-AI	P-AC			Zone:	Category:	Rank: P
Area:	19,645.00SqFt	Lei	ngth:	255.00Ft		Width:	78.00Ft			
Shoulder:	Street Ty	pe:	Grade:	0.00	Lanes:	0				

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 4 Surveyed: 1

Conditions: PCI: 34 Inspection Comments:

Sample	Number:	700	Type: R	Area:		4,800.00SqFt		PCI = 34
Sample (	Comments:							
48 LC	NGITUD:	INAL/	TRANSVERSE CRACKING		L	83.00	Ft	Comments:
52 RA	AVELING				M	4,210.00	SqFt	Comments:
57 WE	CATHERI	1G			L	540.00	SqFt	Comments:
52 RA	AVELING				Н	50.00	SqFt	Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

Report Generated Date: Sep	tember 27, 2013					
Network: X14	Name: LA BELLE MUNICIPA	AL AIRPORT				
Branch: AP N	Name: NORTH APRON		Use: APRON	Area:	69,427.50SqFt	
Section: 4135 c	of 5 From: -		То: -		Last Const.:	01/01/1997
Surface: AC	Family: FDOT-SAPMP-GA-	-AP-AC		Zone:	Category:	Rank: P
Area: 10,360.00SqFt	Length: 254.00F	t W	idth: 40.00Ft			
Shoulder: Street Type	e: Grade: 0.00	Lanes: 0				
Section Comments:						
Conditions: PCI: 32	Total Samples: 2 S	·				
•	Type: R	Area:	5,405.00SqFt	PCI = 18		
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600	· 	Area:	5,405.00SqFt 5,405.00 SqFt	PCI = 18 Comments	:	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments:	· 					
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING 52 RAVELING	· 	L	5,405.00 SqFt 1,405.00 SqFt 2,000.00 SqFt	Comments	:	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING	· 	L L	5,405.00 SqFt 1,405.00 SqFt	Comments Comments	: :	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING 52 RAVELING	· 	L L M	5,405.00 SqFt 1,405.00 SqFt 2,000.00 SqFt	Comments Comments Comments	: :	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING 52 RAVELING 52 RAVELING 52 RAVELING 53 Sample Number: 601 Sample Comments:	Type: R	L L M H	5,405.00 SqFt 1,405.00 SqFt 2,000.00 SqFt 1,000.00 SqFt	Comments Comments Comments	:	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING 52 RAVELING 52 RAVELING 52 RAVELING Sample Number: 601 Sample Comments: 48 LONGITUDINAL/TF	Type: R  Type: R	L L M H	5,405.00 SqFt 1,405.00 SqFt 2,000.00 SqFt 1,000.00 SqFt	Comments Comments Comments Comments	:	
Conditions: PCI: 32 Inspection Comments:  Sample Number: 600 Sample Comments: 43 BLOCK CRACKING 52 RAVELING 52 RAVELING 52 RAVELING 52 RAVELING Sample Number: 601 Sample Comments: 48 LONGITUDINAL/TF	Type: R  Type: R	L M H Area:	5,405.00 SqFt 1,405.00 SqFt 2,000.00 SqFt 1,000.00 SqFt 4,954.00SqFt 248.00 Ft	Comments Comments Comments Comments Comments	:	

FDOT

Report Generated Date: September 27, 2013

Network:	X14	Name: La	A BELLE MUNICIPAL	AIRPORT				
Branch:	AP N	Name: N	ORTH APRON		Use: APRON	Area: 1	69,427.50SqFt	
Section:	4180	of 5	From: -		То: -		Last Const.:	01/01/2005
Surface:	PCC	Family:	FDOT-SAPMP-GA-RV	W-TW-PCC		Zone:	Category:	Rank: P
Area:	2,812.50SqFt	Leng	gth: 75.00Ft	Width:	37.50Ft			
Slabs: 18	S	Slab Width:	12.50Ft	Slab Length:	12.50Ft	Joint Length	: 337.50Ft	
Shoulder:	Street T	ype:	Grade: 0.00	Lanes: 0		_		

Last Insp. Date: 06/18/2013 Total Samples: 1 Surveyed: 1

Conditions: PCI: 89 Inspection Comments:

Sample Number: 900 Sample Comments:	Type: R	Area:	18.00Slabs		PCI = 89
65 JOINT SEAL DAMAG	<del>}</del> E	М	18.00	Slabs	Comments:
75 CORNER SPALLING		M	1.00	Slabs	Comments:

**FDOT** 

Report Generated Date: September 27, 2013

<NO VALID INSPECTIONS>

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: AP NW HANG Name: APRON NW HANGAR Use: APRON Area: 24,659.00SqFt Section: 4205 of From: -То: -Last Const.: 03/01/2011 1 Family: DEFAULT Rank: P Surface: AC Zone: Category: Area: 24,659.00SqFt Length: 700.00Ft Width: 20.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Total Samples: 0 Last Insp. Date: Surveyed: 0 Conditions: Sample Number: 0.00 Type: Area:

#### **FDOT**

Network:	X14	Name: LA BELLE	MUNICIPAL AIRPORT					
Branch:	AP T-HANG	Name: APRON T-F	IANG		Use: APRON	Area:	99,010.00SqFt	
Section:	4305	of 2 From:	-		То: -		Last Const.:	01/01/2005
Surface:	AC	Family: FDOT-S	APMP-GA-AP-AC			Zone:	Category:	Rank: P
Area:	68,460.00SqFt	Length:	1,570.00Ft	Wio	lth: 50.00Ft			
Shoulder:	Street T	ype: Grade:	0.00 Lanes:	0				
Section Con	nments:							
Conditions Inspection C Sample Nu	Comments:	Type: R	Area:		5,633.00SqFt	PCI = 70		
Sample Nu	Comments:  umber: 202  mments:				-			
Sample Nu Sample Con 48 LONG	Comments: umber: 202 nments: GITUDINAL/	Type: R TRANSVERSE CRA		L	100.00 Ft	Comments		
Sample Nu Sample Con 48 LONG 57 WEAT	Comments:  umber: 202  mments:			L M L	-		:	
Sample Nu Sample Con 48 LONG 57 WEA: 45 DEPI	Comments:  umber: 202  mments: GITUDINAL/ THERING RESSION  umber: 203			M	100.00 Ft 5,633.00 SqFt	Comments Comments	:	
Sample Nu Sample Con 48 LONG 57 WEA: 45 DEPI Sample Nu Sample Con	Comments:  umber: 202  mments: GITUDINAL/ THERING RESSION  umber: 203	TRANSVERSE CRA	ACKING	M	100.00 Ft 5,633.00 SqFt 84.00 SqFt	Comments Comments	:	
Sample Nu Sample Con 48 LONG 57 WEAT 45 DEPI Sample Nu Sample Con 57 WEAT	Comments:  umber: 202  nments: GITUDINAL/ THERING RESSION  umber: 203  nments: THERING	TRANSVERSE CRA	ACKING	M L	100.00 Ft 5,633.00 SqFt 84.00 SqFt 3,022.00SqFt	Comments Comments Comments	:	
Sample Nu Sample Con 48 LONG 57 WEA: 45 DEPI Sample Nu Sample Con	comments:  umber: 202 nments: GITUDINAL/ THERING RESSION  umber: 203 nments: THERING ELING  umber: 205	TRANSVERSE CRA	ACKING	M L M	100.00 Ft 5,633.00 SqFt 84.00 SqFt 3,022.00SqFt 3,022.00 SqFt	Comments Comments Comments PCI = 75 Comments	:	

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP T-HANG Name: APRON T-HANG Use: APRON Area: 99,010.00SqFt

Section: 4310 of 2 From: - To: - Last Const.: 01/01/2005

35.00Ft

Zone:

Category:

Rank: P

Surface: AC Family: FDOT-SAPMP-GA-AP-AC

Area: 30,550.00SqFt Length: 800.00Ft Width:
Shoulder: Street Type: Grade: 0.00 Lanes: 0

Substitution Subst

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 9 Surveyed: 1

Conditions: PCI: 75 Inspection Comments:

Sample Number: 104 Type: R Area: 1,760.00SqFt PCI = 75

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 29.00 Ft Comments:

57 WEATHERING M 1,760.00 SqFt Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

Network:	X14	Name: I	A BELLE N	MUNICIPAL A	AIRPORT					
Branch:	NW AP	Name: N	ORTHWES	ST APRON			Use: APRON	Area:	32,555.00SqFt	
	4160 AAC	of 1	From:	- APMP-GA-AP	-AAC		То: -	Zone:	Last Const.: Category:	01/01/1989 Rank: P
	2,555.00SqFt	,	igth:	143.00Ft	THE C	Width:	200.00Ft	Zone.	Category.	Tunk. 1

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 5 Surveyed: 1

Conditions: PCI: 20 Inspection Comments:

Sample Number: 104 Type	e: R Aı	rea:	12,760.00SqFt		PCI = 20
Sample Comments:			=		
50 PATCHING		M	76.00	SqFt	Comments:
43 BLOCK CRACKING		L	6,380.00	SqFt	Comments:
52 RAVELING		M	12,684.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVER	RSE CRACKING	L	338.00	Ft	Comments:
45 DEPRESSION		M	575.00	SqFt	Comments:
45 DEPRESSION		M	528.00	SqFt	Comments:

#### FDOT

Report Generated Date: September 27, 2013

Report Generated Date:	September 27, 2013					
Network: X14	Name: LA BELLE MUNICIPA	AL AIRPORT				
Branch: RW 14-32	Name: RUNWAY 14-32		Use: RUNWAY	Area: 39	94,125.00SqFt	
Section: 6105 Surface: AC	of 1 From: - Family: FDOT-SAPMP-GA-	-RW-AC	То: -	Zone:	Last Const.: Category:	01/01/2005 Rank: P
Area: 394,125.00SqFt	Length: 5,450.00F		Width: 75.00Ft		2 ,	
Shoulder: Street		Lanes:	0			
Section Comments:	•					
Last Insp. Date: 06/18/2 Conditions: PCI: 91 Inspection Comments:	013 Total Samples: 53 S	urveyed: 12				
Sample Number: 107	Type: R	Area:	7,500.00SqFt	PCI = 95		
Sample Comments: 57 WEATHERING			L 3,750.00 SqFt	Comments:		
Sample Number: 111 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 88		
52 RAVELING			L 104.00 SqFt	Comments:		
52 RAVELING			L 294.00 SqFt	Comments:		
57 WEATHERING		:	L 3,750.00 SqFt	Comments:		
Sample Number: 115 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 87		
	TRANSVERSE CRACKING		L 12.00 Ft	Comments:		
52 RAVELING		•	L 300.00 SqFt	Comments:		
57 WEATHERING		:	L 3,450.00 SqFt	Comments:		
Sample Number: 119 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 89		
52 RAVELING			L 300.00 SqFt	Comments:		
57 WEATHERING			L 3,450.00 SqFt	Comments:		
Sample Number: 124 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 93		
52 RAVELING			L 60.00 SqFt	Comments:		
57 WEATHERING		:	L 3,690.00 SqFt	Comments:		
Sample Number: 129 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 89		
52 RAVELING			L 300.00 SqFt	Comments:		
57 WEATHERING		:	L 3,450.00 SqFt	Comments:		
Sample Number: 133 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 89		
52 RAVELING		:	L 300.00 SqFt	Comments:		
57 WEATHERING		<u> </u>	L 3,450.00 SqFt	Comments:		
Sample Number: 138 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 90		
52 RAVELING			L 225.00 SqFt	Comments:		
57 WEATHERING		:	L 3,525.00 SqFt	Comments:		
Sample Number: 143 Sample Comments:	Type: R	Area:	7,500.00SqFt	PCI = 91		

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48 LONGITUDINAL/TRANSVERSE CRACKING		L	26.00 Ft	comments:
57 WEATHERING		L	3,750.00 Sq	qFt Comments:
Sample Number: 147 Type: R Sample Comments:	Area:		7,500.00SqFt	PCI = 95
57 WEATHERING		L	3,750.00 Sq	qFt Comments:
Sample Number: 151 Type: R Sample Comments:	Area:		7,500.00SqFt	PCI = 95
57 WEATHERING		L	3,750.00 Sq	qFt Comments:
Sample Number: 156 Type: R Sample Comments:	Area:		3,685.00SqFt	PCI = 95
57 WEATHERING		L	1,842.50 Sq	qFt Comments:

#### FDOT

Report Generated Date: September 27, 2013

Network: X14	Name: LA BELLE MUNIC	CIPAL AIRPORT				
Branch: TW A	Name: TAXIWAY A		Use: TAXIWAY	Area:	198,920.00SqFt	
Section: 105	of 3 From: -		То: -		Last Const.:	01/01/2005
Surface: AC	Family: FDOT-SAPMP-			Zone:	Category:	Rank: P
Area: 157,605.00SqFt	Length: 4,485.	00Ft Widt	h: 35.00Ft			
Shoulder: Street T	Type: Grade: 0.00	Lanes: 0				
Section Comments:						
Conditions: PCI: 94						
Inspection Comments:  Sample Number: 109	Type: R	Area:	7,000.00SqFt	PCI = 95		
•	Type: R	Area:	7,000.00SqFt 3,500.00 SqFt	PCI = 95 Comments	3:	
Sample Number: 109 Sample Comments: 57 WEATHERING Sample Number: 116	Type: R Type: R	L	•		3:	
Sample Number: 109 Sample Comments: 57 WEATHERING		L	3,500.00 SqFt	Comments		
Sample Number: 109 Sample Comments: 57 WEATHERING  Sample Number: 116 Sample Comments: 57 WEATHERING  Sample Number: 120		L Area:	3,500.00 SqFt 7,000.00SqFt	Comments PCI = 95		
Sample Number: 109 Sample Comments: 57 WEATHERING  Sample Number: 116 Sample Comments: 57 WEATHERING	Type: R	L Area:	3,500.00 SqFt 7,000.00SqFt 3,500.00 SqFt	Comments PCI = 95 Comments	3:	

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 198,920.00SqFt

Section: 120 of 3 From: - To: - Last Const.: 01/01/2005 Surface: AC Family: FDOT-SAPMP-GA-TW-AC Zone: Category: Rank: P

Area: 8,225.00SqFt Length: 187.00Ft Width: 35.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 1 Surveyed: 1

Conditions: PCI: 91 Inspection Comments:

Sample Number: 100 Type: R Area: 8,225.00SqFt PCI = 91

Sample Comments:

57 WEATHERING L 4,112.50 SqFt Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 54.00 Ft Comments:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW A Name: TAXIWAY A Use: TAXIWAY Area: 198,920.00SqFt

Section: 405 of 3 From: - To: - Last Const.: 01/01/2005

Section: 405 of 3 From: - To: - Last Const.: 01/01/2005 Surface: AC Family: FDOT-SAPMP-GA-TW-AC Zone: Category: Rank: P

Area: 33,090.00SqFt Length: 935.00Ft Width: 35.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 7 Surveyed: 1

Conditions: PCI: 95 Inspection Comments:

Sample Number: 101 Type: R Area: 6,770.00SqFt PCI = 95

Sample Comments:

57 WEATHERING L 3,385.00 SqFt Comments:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW A1 Name: TAXIWAY A1 Use: TAXIWAY Area: 9,140.00SqFt

Section: 305 of 1 From: - To: - Last Const.: 01/01/2005

Zone:

Category:

Rank: P

Surface: AC Family: FDOT-SAPMP-GA-TW-AC

Area: 9,140.00SqFt Length: 187.00Ft Width: 35.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 2 Surveyed: 1

Conditions: PCI: 95 Inspection Comments:

Sample Number: 100 Type: R Area: 4,800.00SqFt PCI = 95

Sample Comments:

57 WEATHERING L 2,400.00 SqFt Comments:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW A2 Name: TAXIWAY A2 Use: TAXIWAY Area: 8,520.00SqFt

Section: 205 of 1 From: - To: - Last Const.: 01/01/2005

Zone:

Category:

Rank: P

Surface: AC Family: FDOT-SAPMP-GA-TW-AC

Area: 8,520.00SqFt Length: 187.00Ft Width: 35.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 2 Surveyed: 1

Conditions: PCI: 92 Inspection Comments:

Sample Number: 101 Type: R Area: 3,715.00SqFt PCI = 92

Sample Comments:

57 WEATHERING L 1,857.50 SqFt Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 6.00 Ft Comments:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW A3 Name: TAXIWAY A3 Use: TAXIWAY Area: 9,140.00SqFt

Section: 110 of 1 From: - To: - Last Const.: 01/01/2005

Zone:

Category:

Rank: P

Surface: AC Family: FDOT-SAPMP-GA-TW-AC

Area: 9,140.00SqFt Length: 187.00Ft Width: 35.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 1 Surveyed: 1

Conditions: PCI: 90 Inspection Comments:

Sample Number: 100 Type: R Area: 9,140.00SqFt PCI = 90

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 86.00 Ft Comments:

57 WEATHERING L 4,570.00 SqFt Comments:

#### **FDOT**

Area:

Report Generated Date: September 27, 2013

9,140.00SqFt

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: TW A4 Name: TAXIWAY A4 Use: TAXIWAY Area: 9,140.00SqFt Section: From: -То: -Last Const.: 01/01/2005 115 of 1 Family: FDOT-SAPMP-GA-TW-AC Surface: Zone: Category: Rank: P ACWidth:

35.00Ft

Shoulder: Grade: 0.00 Lanes: 0 Street Type:

Length:

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: Surveyed: 1

Conditions: PCI:91 Inspection Comments:

9,140.00SqFt PCI = 91Sample Number: 100 Type: R Area: Sample Comments: 50 PATCHING L 2.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 2.00 Ft Comments: 57 WEATHERING L 4,570.00 SqFt Comments:

187.00Ft

FDOT

Report Generated Date: September 27, 2013

<NO VALID INSPECTIONS>

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: TW B Name: TAXIWAY B Use: TAXIWAY Area: 7,418.83SqFt Section: 810 of From: -То: -Last Const.: 03/01/2011 1 Family: DEFAULT Rank: P Surface: Zone: Category: ACArea: 7,418.83SqFt Length: 200.00Ft Width: 25.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Total Samples: 0 Last Insp. Date: Surveyed: 0 Conditions: Sample Number: 0.00 Type: Area:

FDOT

Report Generated Date: September 27, 2013

<NO VALID INSPECTIONS>

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: TW B1 Name: TAXIWAY B1 Use: TAXIWAY Area: 7,613.00SqFt Section: 805 of From: -То: -Last Const.: 03/01/2011 1 Family: DEFAULT Rank: P Surface: Zone: Category: ACArea: 7,613.00SqFt Length: 160.00Ft Width: 25.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Total Samples: 0 Last Insp. Date: Surveyed: 0 Conditions: Sample Number: 0.00 Type: Area:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW NW AP Name: TAXIWAY TO NW AP Use: TAXIWAY Area: 9,425.00SqFt

Section: 605 of 1 From: - To: - Last Const.: 01/01/1975 Surface: AC Family: FDOT-SAPMP-GA-TW-AC Zone: Category: Rank: P

Surface: AC Family: FDOT-SAPMP-GA-TW-AC

Area: 9,425.00SqFt Length: 550.00Ft Width: 16.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 3 Surveyed: 1

Conditions: PCI: 20 Inspection Comments:

Sample Number: 101 Type: R Area: 3,630.00SqFt PCI = 20

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 399.00 Ft Comments: 52 RAVELING H 3,630.00 SqFt Comments:

45 DEPRESSION L 75.00 SqFt Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

Network:	X14	Name:	LA BELLE N	MUNICIPAL A	AIRPORT					
Branch:	TW SE NR	Name:	SOUTH EAS	T TAXIWAY	TO NOR		Use: TAXIWAY	Area:	16,420.00SqFt	
Section:	705	of 1	From:	-			То: -		Last Const.:	01/01/2005
Surface:	AC	Family	: FDOT-SA	APMP-GA-TV	V-AC			Zone:	Category:	Rank: P
Area:	16,420.00SqFt	Le	ngth:	305.00Ft		Width:	40.00Ft			
Shoulder:	Street Ty	/pe:	Grade:	0.00	Lanes:	0				

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 3 Surveyed: 1

Conditions: PCI: 54 Inspection Comments:

Sample Number: 202	Type: R	Area:	5,270.00SqFt	PCI = 54
Sample Comments:				
43 BLOCK CRACKING		$_{ m L}$	5,270.00 SqFt	Comments:
52 RAVELING		L	5,270.00 SqFt	Comments:
57 WEATHERING		L	5,270.00 SqFt	Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

Network:	X14	Name: LA BELLE	MUNICIPAL A	IRPORT					
Branch:	TW TO HANG	Name: TAXIWAY	TO HANGARS	1		Use: TAXIWAY	Area:	11,862.00SqFt	
Section:	505	of 2 From				То: -	-	Last Const.:	01/01/1980
Surface:	AC	Family: FDOT-S	APMP-GA-TW	-AC			Zone:	Category:	Rank: P
Area:	4,481.00SqFt	Length:	170.00Ft		Width:	48.00Ft			
Shoulder:	Street Ty	pe: Grade:	0.00	Lanes:	0				

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 2 Surveyed: 1

Conditions: PCI: 29 Inspection Comments:

Sample Number: Sample Comments:	102	Type: R	Area:		4,481.00SqFt		PCI = 29
52 RAVELING				M	4,421.00	SqFt	Comments:
52 RAVELING				Η	60.00	SqFt	Comments:
48 LONGITUD	NAL/	TRANSVERSE CRACKING		L	48.00	Ft	Comments:
45 DEPRESSION	NC			L	296.00	SqFt	Comments:
45 DEPRESSION	N			L	312.00	SqFt	Comments:

**FDOT** 

Surface:

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW TO HANG Name: TAXIWAY TO HANGARS Use: TAXIWAY Area: 11,862.00SqFt

Section: From: -То: -Last Const.: 01/01/2005 510 of 2

Zone:

Category:

Rank: P

Family: FDOT-SAPMP-GA-TW-AC Area: 7,381.00SqFt Length: 95.00Ft Width: 40.00Ft

Shoulder: Grade: 0.00 Lanes: 0 Street Type:

Section Comments:

AC

Last Insp. Date: 06/18/2013 Total Samples: Surveyed: 1

Conditions: PCI:71 Inspection Comments:

4,210.00SqFt PCI = 71Sample Number: Type: R Area:

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING  $_{\rm L}$ 2.00 Ft Comments: 52 RAVELING L 120.00 SqFt Comments:

52 RAVELING L 4,090.00 SqFt Comments:

#### **FDOT**

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: TW TO RW Name: TAXIWAY TO RUNWAY Use: TAXIWAY Area: 19,707.00SqFt Section: 905 2 From: -То: -Last Const.: 01/01/1989 of Family: DEFAULT Surface: Zone: Category: Rank: P AAC

200.00Ft

Area: 10,000.00SqFt Length: 143.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 2 Surveyed: 1

Conditions: PCI: 40 Inspection Comments:

Sample Number: 100 Type: R	Area:	5,000.00SqFt	PCI = 40
Sample Comments:			
43 BLOCK CRACKING	I	_ 4,025.00 SqF	t Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	I	105.00 Ft	Comments:
52 RAVELING	I	1 1,500.00 SqF	t Comments:
52 RAVELING	I	3,500.00 SqF	t Comments:

**FDOT** 

Report Generated Date: September 27, 2013

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: TW TO RW Name: TAXIWAY TO RUNWAY Use: TAXIWAY Area: 19,707.00SqFt Section: 2 From: -То: -Last Const.: 01/01/2005 910 of Family: DEFAULT Surface: Zone: Category: Rank: P AC

75.00Ft

Area: 9,707.00SqFt Length: 5,450.00Ft Width:

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date: 06/18/2013 Total Samples: 2 Surveyed: 1

Conditions: PCI: 89 Inspection Comments:

Sample Number: 103 Type: R Area: 4,707.00SqFt PCI = 89

Sample Comments:

57 WEATHERING L 4,236.30 SqFt Comments: 57 WEATHERING M 470.70 SqFt Comments: