

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION AVIATION OFFICE

Statewide Airfield Pavement Management Program

La Belle Municipal Airport– X14 (General Aviation) La Belle, Florida (District 1)



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EXECUTIVE SUMMARY

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

The tasks required to achieve this objective at La Belle Municipal Airport included:

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

During March 2011, the PCI survey was performed at La Belle Municipal Airport. The results of the survey indicate that, based on a numerical scale of 0 to 100, the overall area-weighted average PCI of the airfield pavements in 2011 is 70, representing a Fair overall network condition.

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

Table I: Condition Summary by Branch

Branch Name	Area Weighted PCI	Condition Rating	FDOT Minimum Service Level	MicroPAVER Minimum PCI	Action Required
North Apron	44	Poor	60	65	X
Apron T-Hangars	69	Fair	60	65	
Runway 14-32	79	Satisfactory	75	65	
Taxiway Connector A3, A4 and Alpha South	76	Satisfactory	65	65	
Taxiway Connector Alpha North	81	Satisfactory	65	65	
Taxiway Connector A1	81	Satisfactory	65	65	
Taxiway to North West Apron	26	Very Poor	65	65	X
Taxiway Alpha	84	Satisfactory	65	65	
Taxiway Connector A2	84	Satisfactory	65	65	`
Taxiway to Fuel Ramp	53	Poor	65	65	X
Taxiway to Hangars	67	Fair	65	65	

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

Table II: Condition Summary by Pavement Use

Use	Average Area- Weighted PCI	Condition Rating		
Runway	79	Satisfactory		
Taxiway	78	Satisfactory		
Apron	52	Poor		
All (Weighted)	70	Fair		

Table III: Condition Summary by Pavement Rank

Rank*	Rank* Average Area- Weighted PCI	
Primary	74	Satisfactory
Tertiary	51	Poor
All (Weighted)	70	Fair

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

The immediate M&R needs, or needs that have been programmed to be completed in the first year of the 10-year M&R plan based on an unlimited budget at La Belle Municipal Airport, include: North Apron, Runway 14-32 extension at 14 end, Taxiway to NW Apron, SE Taxiway to North Ramp and Taxiway to Hangars. These pavement areas exhibited low and medium severity distresses such as block cracking, longitudinal and transverse cracking, weathering and raveling. Due to the extent of these distresses, these pavement areas justified either mill and overlay rehabilitation or full pavement reconstruction. The immediate needs are summarized in Table IV below.

Table IV: Immediate Major M&R Needs

Branch Name	Section ID	Surface Type	Section Area (ft²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4110	AC	129,525	\$777,538.65	51	Mill and Overlay	100
North Apron	4115	AC	7,085	\$40,497.87	52	Mill and Overlay	100
North Apron	4120	AC	19,645	\$253,165.19	31	Mill and Overlay	100
North Apron	4135	AC	10,360	\$141,103.25	27	Reconstruction	100
North Apron	4160	AAC	32,555	\$443,399.24	24	Reconstruction	100
Runway 14-32 (Extension at 14 end)	6110	AC	10,000	\$92,220.02	36	Mill and Overlay	100
Taxiway to NW Apron	605	AC	9,425	\$128,368.54	26	Reconstruction	100
SE Taxiway to North Ramp	705	AC	16,420	\$89,144.20	53	Mill and Overlay	100
Taxiway to Hangars	505	AC	7,650	\$32,749.67	57	Mill and Overlay	100
			Total	\$1,998,186.63	40		100

^{*} Costs are adjusted for inflation.

A forecast of Major M&R needs for a 10-year period, starting from 2011, was developed using an unlimited budget. The analysis identified ongoing maintenance needs and major M&R during that interval. The results of this analysis are provided in Table V below.

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

Year	Preventative	Major M&R	Total Year Cost
2011	\$121,722.70	\$1,998,186.63	\$2,119,909.33
2012	\$96,029.89	\$0.00	\$96,029.89
2013	\$113,202.82	\$0.00	\$113,202.82
2014	\$104,954.17	\$251,868.57	\$356,822.74
2015	\$119,744.97	\$0.00	\$119,744.97
2016	\$138,254.65	\$0.00	\$138,254.65
2017	\$155,415.74	\$28,386.39	\$183,802.13
2018	\$171,731.44	\$23,549.39	\$195,280.83
2019	\$65,943.04	\$1,217,866.12	\$1,283,809.16
2020	\$77,557.72	\$0.00	\$77,557.72
Total	\$1,164,557.14	\$3,519,857.10	\$4,684,414.24

Note: Costs are adjusted for inflation.

The implementation of the 10-Year major M&R plan is expected to provide an improvement in the overall condition of the airfield pavement, where the area-weighted PCI would increase from 70 in 2011 to 87 in 2020. Appendix F lists the major M&R for the 10-Year program. Appendix G graphically depicts the activity.

It is important to note that although preventative and some major M&R activities would have to be conducted over several years, the area-weighted PCI value for all La Belle Municipal Airport pavements in 2020 may remain near 87. The airport manager should realize that what is most important is that the pavement repair work (preventative and major M&R) that has been identified for La Belle Municipal Airport is conducted at some point in the 10-year plan.

1. INTRODUCTION

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

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

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

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

1.1 Purpose

This Florida Airport Pavement Evaluation Report is intended to:

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

1.2 FDOT Statewide Airfield Pavement Management Program

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

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

performed in 1992 and 1993. The SAPMP was updated with additional surveys in 1998 and 1999.

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

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

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

1.3 Organization

1.3.1 Aviation Office Program Manager Role

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

1.3.2 Consultant Role

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

1.3.3 Airport Role

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

1.4 Pavement Types and Pavement Management

1.4.1 Pavement basics

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

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

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

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

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

1.4.2 Pavement Management System Concept

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

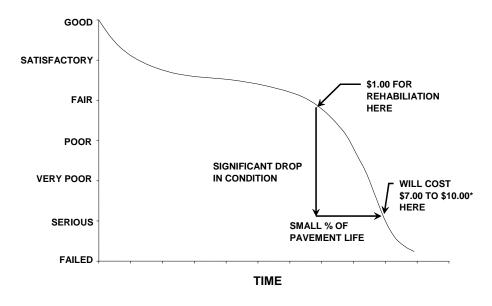


Figure 1-1: Pavement Life Cycle

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

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

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

1.4.3 Pavement Inspection Methodology for the SAPMP

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

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

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

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

Table 1-1: Sampling Rate for FDOT Condition Surveys

	AC Pavemen	ts		PCC Paveme	nts	
NT	n		NI	n		
N	Runway	Others	N	Runway	Others	
1-4	1	1	1-3	1	1	
5-10	2	1	4-6	2	1	
11-15	3	2	7-10	3	2	
16-30	5	3	11-15	4	2	
31-40	7	4	16-20	5	3	
41-50	8	5	21-30	7	3	
≥51	20% but ≤20	10% but ≤10	31-40	8	4	
			41-50	10	5	
			<u>></u> 51	20% but <u><</u> 20	10% but <u><</u> 10	

Where

N = total number of sample units in Section

n = number of sample units to inspect

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

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

Figure 1-2: PCI Rating Scale

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

1.5 Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2. NETWORK DEFINITION AND PAVEMENT INVENTORY

La Belle Municipal Airport (X14) is owned by Hendry County and is a public-use airport mostly serving for general aviation. La Belle Municipal Airport consists of one runway, RW 14-32 which is 75-ft wide by 5,254-ft long and 50-ft wide by 500-ft long, for a total combined length of 5,650-ft. 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 is 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 dimensions may vary slightly from the geometry used in the condition and M&R analysis based on field measurements.

This airport is designated as a General Aviation airport and is located in District 1 of the Florida Department of Transportation.

2.1 Network Definition

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

2.1.1 Branch Section Identification

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

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

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

2.1.2 System Inventory and Network Definition Update

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

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

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

Table 2-1: Construction Since Last Inspection & Anticipated Construction Activity

Construction Year	Location	Work Type / Pavement Section
2010	North West on Runway 14	New Taxiway

2.2 Pavement Inventory

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

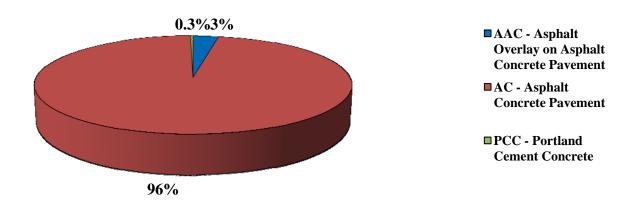
The total airfield pavement area in 2011 at La Belle Municipal Airport is 987,388 square feet. The breakdown of pavement area for each pavement use is provided in Table 2-2.

Table 2-2: Pavement Area by Pavement Use

Use	Area (ft²)	% of Total Area		
Runway	413,830	42%		
Taxiway	272,565	28%		
Apron	300,993	30%		
All (Weighted)	987,388	100%		

Figure 2-1 presents the breakdown of the pavement area at La Belle Municipal Airport by surface type.

Figure 2-1: Pavement Area by Surface Type



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

Table 2-3: Branch and Section Inventory

Branch Name	Branch ID	Section ID	True Area (ft²)	Section Rank	Surface Type	Last Const. Date	Total Samples Inspected	Sample Units in Section
North Apron	AP N	4115	7,085	P	AC	1/1/1980	1	2
North Apron	AP N	4160	32,555	P	AAC	1/1/1989	1	5
North Apron	AP N	4135	10,360	P	AC	1/1/1997	2	2
North Apron	AP N	4120	19,645	P	AC	1/1/2005	1	4
North Apron	AP N	4180	2,813	P	PCC	1/1/2005	1	1
North Apron	AP N	4110	129,525	T	AC	1/1/2005	6	25
Apron T-Hang	AP T-HANG	4305	68,460	P	AC	1/1/2005	3	17
Access Drive	AP T-HANG	4310	30,550	P	AC	1/1/2005	1	9
Runway 14-32	RW 14-32	6105	403,830	P	AC	1/1/2005	13	55
Runway 14-32	RW 14-32	6110	10,000	P	AC	1/1/2005	1	2
Taxiway Connector Alpha 3	TW CONN	110	9,140	P	AC	1/1/2005	1	1
Taxiway Connector Alpha 4	TW CONN	115	9,140	P	AC	1/1/2005	1	1
Taxiway Connector Alpha South	TW CONN	120	8,225	P	AC	1/1/2005	1	1
Taxiway Connector Alpha North	TW CONN N	405	33,090	P	AC	1/1/2005	1	7
Taxiway Connector Alpha 1	TW N NRAMP	305	9,140	P	AC	1/1/2005	1	2
Taxiway to NW Apron	TW NW AP	605	9,425	P	AC	1/1/1975	1	3
Taxiway Alpha	TW PARALL	105	157,605	P	AC	1/1/2005	3	23
Taxiway Connector Alpha 2	TW S NRAMP	205	8,520	P	AC	1/1/2005	1	2
Taxiway to Fuel Ramp	TW SE NR	705	16,420	P	AC	1/1/2005	1	3
Taxiway to Hangars	TW TO HANG	505	7,650	P	AC	1/1/1980	1	2
Taxiway to Hangars	TW TO HANG	510	4,210	P	AC	1/1/2005	1	1

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

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey. Section 805 was sectioned, however no inspection was performed.

3. PAVEMENT CONDITION

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

3.1 Inspection Methodology

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

Table 3-1: Pavement Distresses for Asphalt Concrete Surfaces

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

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

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

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

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

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

3.2 Pavement Condition Index Results

According to the 2011 survey, the overall area-weighted PCI at La Belle Municipal Airport is 70, representing a Fair overall network condition.

Overall the airport exhibited pavement distresses associated with climate and age distresses. Asphalt Concrete pavement distresses include; weathering, raveling, block cracking, and longitudinal and transverse cracking and swelling.

Runway 14-32 exhibited low severity weathering and raveling in addition to low severity longitudinal and transverse cracking. The 500-ft pavement section at the 14 end of RW 14-32 exhibited a higher quantity of higher severity distresses, which decreased the overall PCI for the

entire runway. Overall, the runway appeared to be in good overall condition with minimal amounts of distress evident.

The pavement throughout the hangars and apron exhibited low and medium severity weathering and raveling along with low to medium severity longitudinal and transverse cracking. Low severity block cracking was also observed. These areas of pavement seemed to be the oldest pavement throughout the airport and showed the most distress due to its age.

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

Figure 3-1 provides the PCI distribution by rating category for La Belle Municipal Airport.

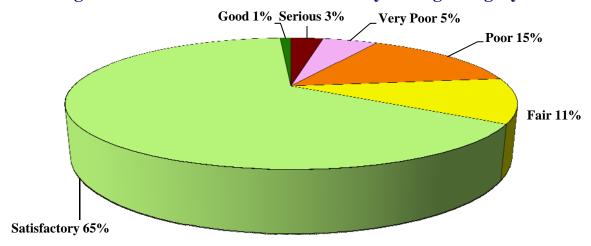


Figure 3-1: Network PCI Distribution by Rating Category

Figure 3-1a: Condition Rating Summary

Condition Rating	Total Area (ft²)	Percent	
Good	7,023	1%	
Satisfactory	638,690	65%	
Fair	106,660	11%	
Poor	153,030	15%	
Very Poor	49,430	5%	
Serious	32,555	3%	
Failed	0	0%	

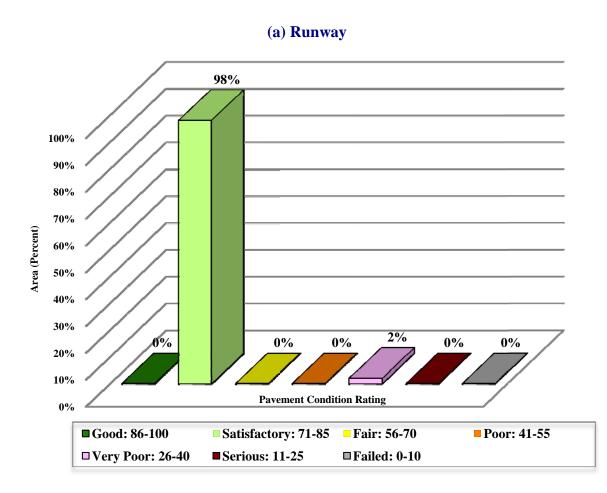
Approximately 66% of the network is in Good and Satisfactory condition while 8% of the network is in Very Poor and Serious condition. Table 3-3 illustrates the area-weighted PCI computed individually for each pavement use.

Table 3-3: Condition by Pavement Use

Use	Area-Weighted PCI	Condition Rating	
Runway	79	Satisfactory	
Taxiway	78	Satisfactory	
Apron	52	Poor	
All (Weighted)	70	Fair	

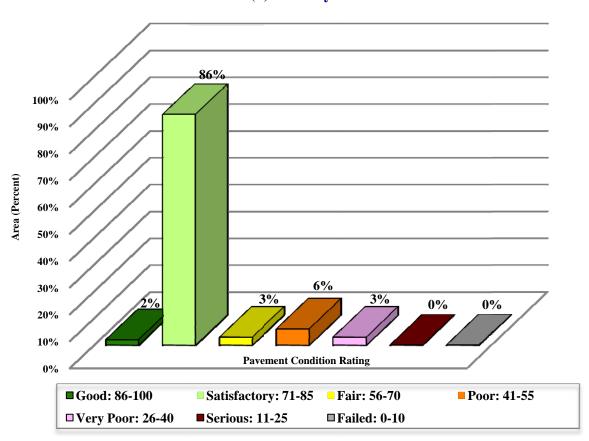
Figure 3-2 presents the breakdown of PCI by range for each pavement use.

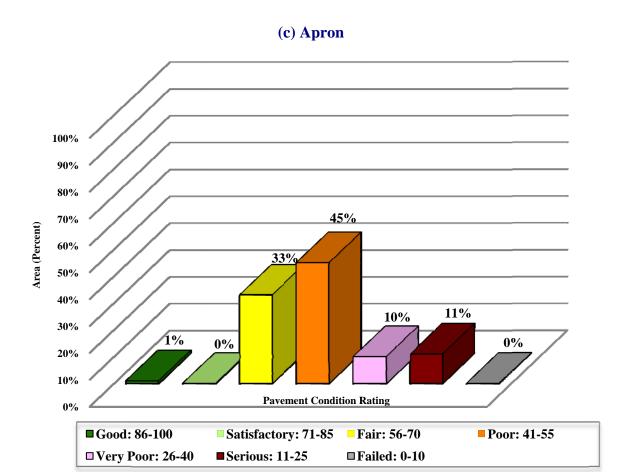
Figure 3-2: Percentage of Pavement Area within Each PCI Range by Pavement Use



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(b) Taxiway





4. PAVEMENT CONDITION PREDICTION

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

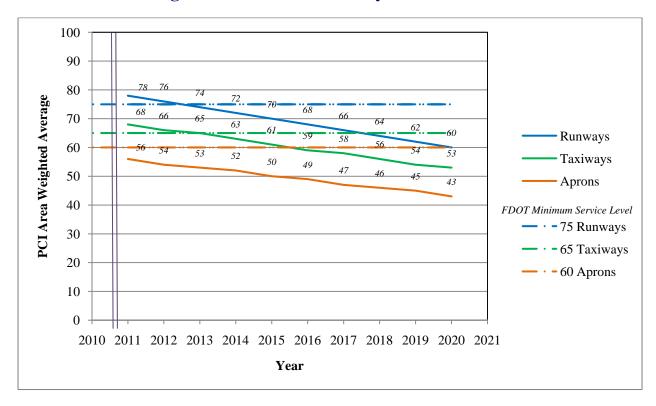


Figure 4-1: Predicted PCI by Pavement Use

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

5. MAINTENANCE POLICIES AND COSTS

5.1 Policies

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

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

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

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

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

Table 5-1: Routine Maintenance Activities for Airfield Pavements

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

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

Table 5-2: Critical PCI for General Aviation Airports

Use	Critical PCI
Runway	65
Taxiway	65
Apron	65

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

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

Minimum PCI					
Runway Taxiway Apron					
75	65	60			

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

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

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

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

5.2 Unit Costs

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

5.3 M&R Activities

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

Table 5-5: Maintenance Unit Costs for FDOT

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

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

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

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

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

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

6. PAVEMENT REHABILITATION NEEDS ANALYSIS

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

The objective of the M&R analysis is to observe the effect of different fiscal scenarios on the network condition, over a period of ten years, starting from 2011. The analysis was conducted using an unlimited budget. An unlimited budget allows all M&R needs to be identified along with the associated cost regardless of priority.

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

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

Branch Name	Section ID	Surface Type	Section Area (ft²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4110	AC	129,525	\$777,538.65	51	Mill and Overlay	100
North Apron	4115	AC	7,085	\$40,497.87	52	Mill and Overlay	100
North Apron	4120	AC	19,645	\$253,165.19	31	Mill and Overlay	100
North Apron	4135	AC	10,360	\$141,103.25	27	Reconstruction	100
North Apron	4160	AAC	32,555	\$443,399.24	24	Reconstruction	100
Runway 14-32	6110	AC	10,000	\$92,220.02	36	Mill and Overlay	100
Taxiway to NW Apron	605	AC	9,425	\$128,368.54	26	Reconstruction	100
SE Taxiway to North Ramp	705	AC	16,420	\$89,144.20	53	Mill and Overlay	100
Taxiway to Hangars	505	AC	7,650	\$32,749.67	57	Mill and Overlay	100
			Total	\$1,998,186.63	40		100

^{*} Costs are adjusted for inflation.

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

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

Branch Name	Section ID	Surface Type	Section Area (ft²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
North Apron	4110	AC	129,525	\$84,191.25	51	Microsurfacing	100
North Apron	4115	AC	7,085	\$4,605.25	52	Microsurfacing	100
North Apron	4120	AC	19,645	\$12,769.25	31	Microsurfacing	100
North Apron	4135	AC	10,360	\$141,103.25	27	Reconstruction	100
North Apron	4160	AAC	32,555	\$443,399.24	24	Reconstruction	100
Runway 14-32	6110	AC	10,000	\$6,500.00	36	Microsurfacing	100
Taxiway to NW Apron	605	AC	9,425	\$128,368.54	26	Reconstruction	100
SE Taxiway to North Ramp	705	AC	16,420	\$10,673.00	53	Microsurfacing	100
Taxiway to Hangars	505	AC	7,650	\$4,972.50	57	Microsurfacing	100
			Total	\$836,582.28	40		100

^{*} Costs are adjusted for inflation.

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

Table 6-3: Summary of Year 1 Maintenance Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Runway 14-32	RW 14-32	6105	OIL SPILLAGE	N	Patching - AC Shallow	38.70	SqFt	\$2.90	\$112.34
Runway 14-32	RW 14-32	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	140,331.00	SqFt	\$0.40	\$56,132.87
Apron T-Hangars	AP T-HANG	4310	WEATH/RAVEL	L	Surface Seal - Rejuvenating	30,549.70	SqFt	\$0.40	\$12,220.00
Apron T-Hangars	AP T-HANG	4305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	54,768.00	SqFt	\$0.40	\$21,907.39
Apron T-Hangars	AP T-HANG	4305	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,858.50	SqFt	\$0.40	\$1,143.40
Apron T-Hangars	AP T-HANG	4305	OIL SPILLAGE	N	Patching - AC Shallow	33.70	SqFt	\$2.90	\$97.71
Taxiway to Hangars	TW TO HANG	510	WEATH/RAVEL	L	Surface Seal - Rejuvenating	842.00	SqFt	\$0.40	\$336.80
Taxiway W Connector to N Ramp	TW CONN N	405	WEATH/RAVEL	L	Surface Seal - Rejuvenating	9,922.10	SqFt	\$0.40	\$3,968.88
Northern Taxiway to N Ramp	TW N NRAMP	305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,742.00	SqFt	\$0.40	\$1,096.81
East Taxiway to N Ramp	TW S NRAMP	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,557.10	SqFt	\$0.40	\$1,022.87
Taxiway Connector	TW CONN	120	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,701.00	SqFt	\$0.40	\$1,480.41
Taxiway Connector	TW CONN	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,742.00	SqFt	\$0.40	\$1,096.81
Taxiway Connector	TW CONN	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	5,484.00	SqFt	\$0.40	\$2,193.62
Taxiway Parallel	TW PARALL	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	47,281.60	SqFt	\$0.40	\$18,912.78
								Total =	\$121,722.69

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

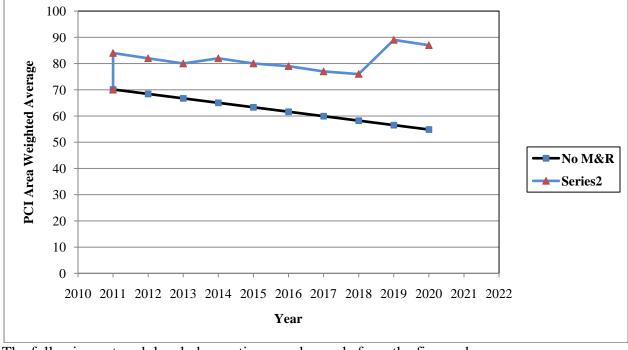


Figure 6-1: Budget Scenario Analysis

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

- The PCI will deteriorate from 70 in 2011 to 54 in ten years if no M&R activities are performed.
- The PCI will remain at or above 87 through the 10-year analysis period under the unlimited budget scenario. A 2020 PCI of 87 with this scenario is 33 PCI points higher than a "No M&R" scenario. The total cost for Major M&R over this 10-year period is about \$3.5 million.

7. MAINTENANCE AND REHABILITATION PLAN

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

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

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

Year	Preventative	Major M&R	Total Year Cost
2011	\$121,722.70	\$1,998,186.63	\$2,119,909.33
2012	\$96,029.89	\$0.00	\$96,029.89
2013	\$113,202.82	\$0.00	\$113,202.82
2014	\$104,954.17	\$251,868.57	\$356,822.74
2015	\$119,744.97	\$0.00	\$119,744.97
2016	\$138,254.65	\$0.00	\$138,254.65
2017	\$155,415.74	\$28,386.39	\$183,802.13
2018	\$171,731.44	\$23,549.39	\$195,280.83
2019	\$65,943.04	\$1,217,866.12	\$1,283,809.16
2020	\$77,557.72	\$0.00	\$77,557.72
Total	\$1,164,557.14	\$3,519,857.10	\$4,684,414.24

Note: Costs are adjusted for inflation.

Approximately 56% of the total Major M&R cost is required in the first year (2011). According to the 2011 inspections, the following pavement sections were in immediate need of Major M&R Activity:

- **North Apron** Asphalt Pavement mill and overlay and reconstruction activity per the FAA P-401 Specification.
- Runway 14-32 (Extension at 14 end) Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway to NW Apron** Asphalt Pavement reconstruction activity per the FAA P-401 Specification.
- **SE Taxiway to North Ramp** Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway to Hangars** Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.

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

Appendix F provides details of M&R plan by year under the unlimited funding scenario, and the map of the 10-year M&R plan is provided in Appendix G. It is important to understand that the SAPMP is a network level tool and the M&R costs provided in this report are only for planning purposes.

8. VISUAL AIDS

8.1 System Inventory and Network Definition Drawings

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

8.2 Condition Map

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

8.3 10-Year M&R Map

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

8.4 Photographs

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

9. RECOMMENDATIONS

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

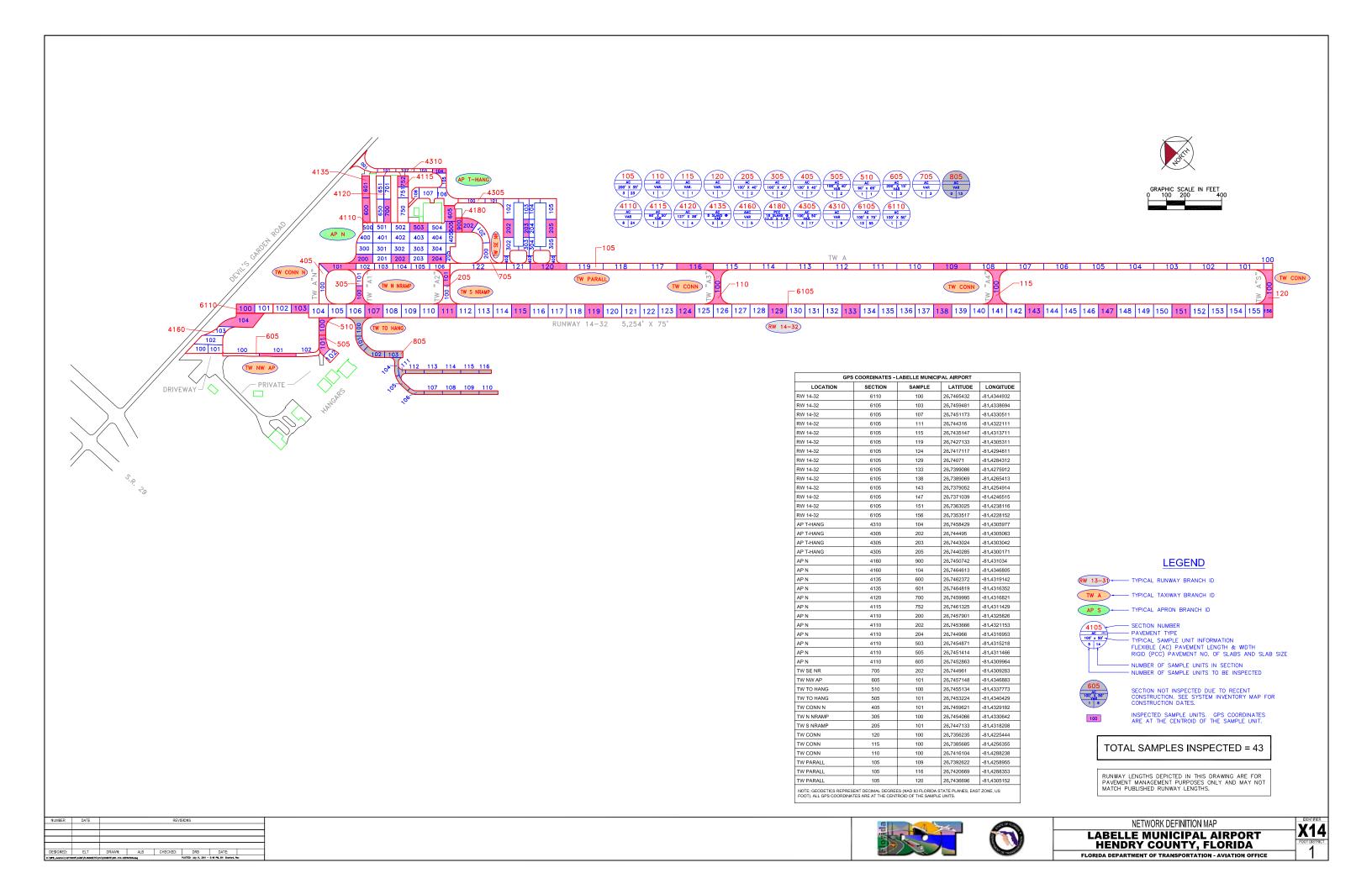
The following recommendations were made based on the 2011 condition inspection and M&R analysis results:

- **North Apron** Asphalt Pavement mill and overlay and reconstruction activity per the FAA P-401 Specification.
- Runway 14-32 (Extension at 14 end) Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway to NW Apron** Asphalt Pavement reconstruction activity per the FAA P-401 Specification.
- **SE Taxiway to North Ramp** Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.
- **Taxiway to Hangars** Asphalt Pavement mill and overlay activity per the FAA P-401 Specification.

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

APPENDIX A

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



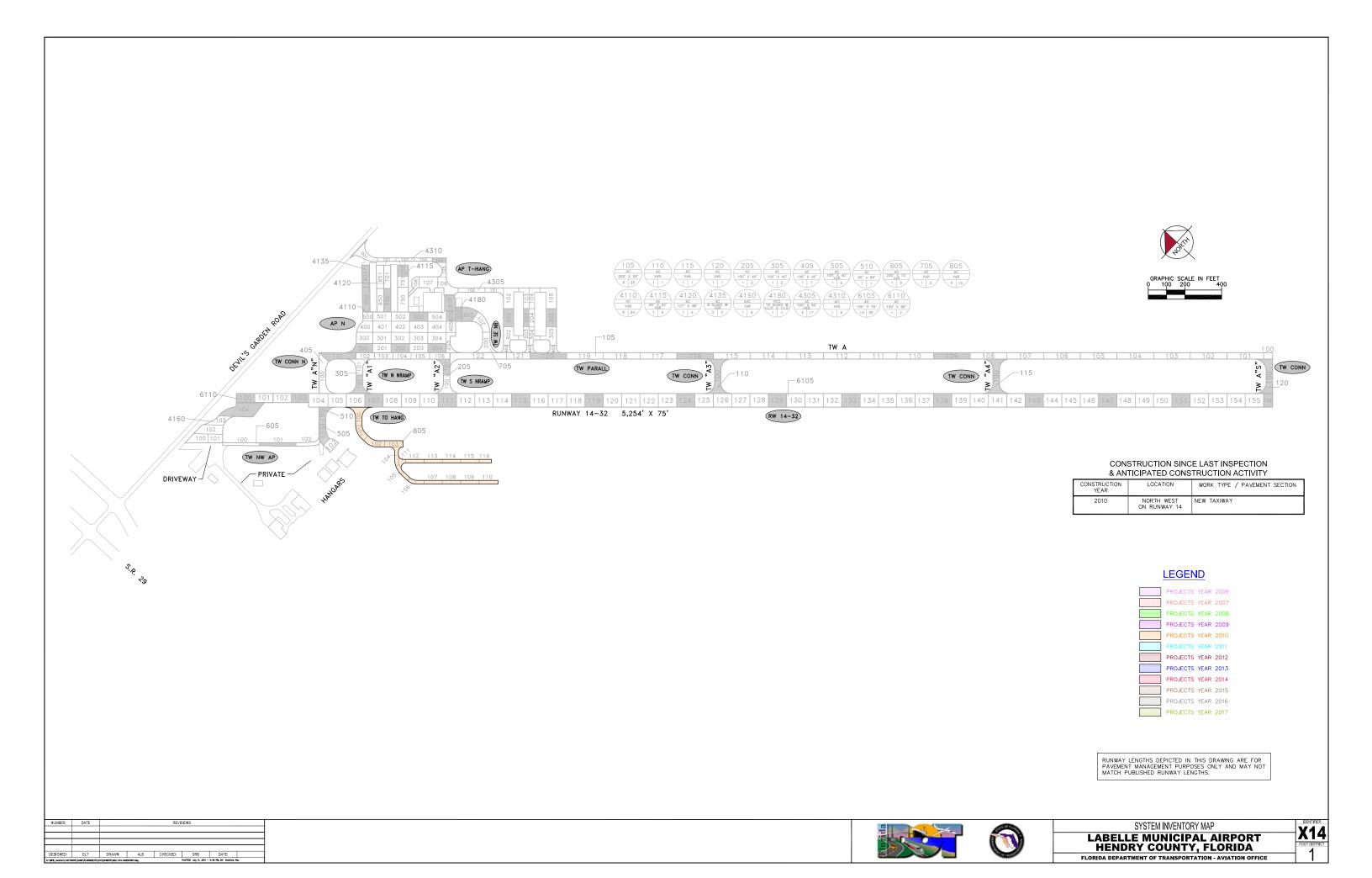


Table A-1: Pavement Inventory

Branch Name	Branch ID	Branch Use	Section ID	Length (ft)	Width (ft)	True Area (ft²)	Section Rank	Surface Type	Last Const. Date	Last Insp. Date	Total Samples
North Apron	AP N	APRON	4115	120	60	7,085	P	AC	1/1/1980	3/22/2011	2
North Apron	AP N	APRON	4160	144	200	32,555	P	AAC	1/1/1989	3/22/2011	5
North Apron	AP N	APRON	4135	254	40	10,360	P	AC	1/1/1997	3/22/2011	2
North Apron	AP N	APRON	4120	255	78	19,645	P	AC	1/1/2005	3/22/2011	4
North Apron	AP N	APRON	4180	75	38	2,813	P	PCC	1/1/2005	3/22/2011	1
North Apron	AP N	APRON	4110	540	220	129,525	T	AC	1/1/2005	3/22/2011	25
Apron T-Hang	AP T-HANG	APRON	4305	1,570	50	68,460	P	AC	1/1/2005	3/22/2011	17
Access Drive	AP T-HANG	APRON	4310	800	35	30,550	P	AC	1/1/2005	3/22/2011	9
Runway 14-32	RW 14-32	RUNWAY	6105	5,450	75	403,830	P	AC	1/1/2005	3/22/2011	55
Runway 14-32	RW 14-32	RUNWAY	6110	200	50	10,000	P	AC	1/1/2005	3/22/2011	2
Taxiway Connector Alpha 3	TW CONN	TAXIWAY	110	187	35	9,140	P	AC	1/1/2005	3/22/2011	1
Taxiway Connector Alpha 4	TW CONN	TAXIWAY	115	187	35	9,140	P	AC	1/1/2005	3/22/2011	1
Taxiway Connector Alpha South	TW CONN	TAXIWAY	120	187	35	8,225	P	AC	1/1/2005	3/22/2011	1
Taxiway Connector Alpha North	TW CONN N	TAXIWAY	405	935	35	33,090	P	AC	1/1/2005	3/22/2011	7
Taxiway Connector Alpha 1	TW N NRAMP	TAXIWAY	305	187	35	9,140	P	AC	1/1/2005	3/22/2011	2
Taxiway to NW Apron	TW NW AP	TAXIWAY	605	550	16	9,425	P	AC	1/1/1975	3/22/2011	3
Taxiway Alpha	TW PARALL	TAXIWAY	105	4,485	35	157,605	P	AC	1/1/2005	3/22/2011	23
Taxiway Connector Alpha 2	TW S NRAMP	TAXIWAY	205	187	35	8,520	P	AC	1/1/2005	3/22/2011	2
Taxiway to Fuel Ramp	TW SE NR	TAXIWAY	705	305	40	16,420	P	AC	1/1/2005	3/22/2011	3
Taxiway to Hangars	TW TO HANG	TAXIWAY	505	170	48	7,650	P	AC	1/1/1980	3/22/2011	2
Taxiway to Hangars	TW TO HANG	TAXIWAY	510	95	40	4,210	P	AC	1/1/2005	3/22/2011	1

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

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey. Section 805 was sectioned, however no inspection was performed.

L.C.D.: 01/01/2005 Use: APRON

Branch: AP N

Network: X14

01/01/1997

01/01/2005

IMPORTED

NC-PC

BUILT

New Construction - PCC

Work History Report

Pavement Database:

(NORTH APRON) Section: 4110 Surface: AC

220.00 Ft

Width:

1 of 4

True Area: 129,525.00 SqF

True ESTIMATE 1997 AC PAVEMENT

Work Work Work Thickness Major Comments Cost Description Date Code (in) M&R 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" Subgrade PAVEMENT HISTORY IS SUSPECT -01/01/1992 **IMPORTED OVERLAY** 8.00 True THE 8" P-211 SHOWN ABOVE COULD BE AN 8" 1992: 1" P-401 SURFACE ON 8" P-211 01/01/1992 **IMPORTED BUILT** 1.00 True Network: X14 Branch: AP N (NORTH APRON) Section: 4115 Surface: AC L.C.D.: 01/01/1980 Use: APRON Rank: P Length: 120.00 Ft Width: 60.00 Ft True Area: 7.085.00 SqF

540.00 Ft

Date Code Description Cost (in) M&R Comments

O1/01/1980 IMPORTED BUILT

True ESTIMATE 1980 AC PAVEMENT

Rank: T Length:

 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 Thickness Major Comments Cost Description Date Code (in) M&R 01/01/2005 2" AC/9" Limerock/6" stab Subgrade/6" CR-AC Complete Reconstruction - AC \$0 2.00 True Subgrade 01/01/1970 **IMPORTED BUILT** ESTIMATE 1970 AC PAVEMENT True

 Network:
 X14
 Branch:
 AP N
 (NORTH APRON)
 Section:
 4135
 Surface:
 AC

 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 Date Code Description Cost Thickness Major M&R Comments

 Network:
 X14
 Branch:
 AP N
 (NORTH APRON)
 Section:
 4160
 Surface:
 AAC

 L.C.D.:
 01/01/1989
 Use:
 APRON
 Rank:
 P Length:
 143.75
 Ft
 Width:
 200.00
 Ft
 True Area:
 32,555.00
 SqF

Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/1989 **IMPORTED BUILT** ESTIMATE 1989 AC OVERLAY True

 Network:
 X14
 Branch:
 AP N
 (NORTH APRON)
 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 Code Description Cost Thickness (in) M&R Comments

 Network:
 X14
 Branch:
 AP T-HANG
 (APRON T-HANG)
 Section:
 4305
 Surface:
 AC

 L.C.D.:
 01/01/2005
 Use:
 APRON
 Rank:
 P Length:
 1.570.00
 Ft
 Width:
 50.00
 Ft
 True Area:
 68.460.00
 SqF

0.00

True

\$0

Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 \$0 NC-AC New Construction - AC 0.00 True

 Network:
 X14
 Branch:
 AP T-HANG
 (APRONT-HANG)
 Section:
 4310
 Surface:
 AC

 L.C.D.:
 01/01/2005
 Use:
 APRON
 Rank:
 P Length:
 800.00
 Ft
 Width:
 35.00
 Ft
 True Area:
 30.550.00
 SqF

Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R NC-AC 0.00 01/01/2005 New Construction - AC \$0 True

Work History Report

2 of 4 Pavement Database: (RUNWAY 14-32) Network: X14 Branch: RW 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: 403,830.00 SqF Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" 2" AC/9" Limerock/6" stab Subgrade/6" 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True Subgrade ESTIMATE 1989 SURFACE - ASSUME 01/01/1989 **IMPORTED BUILT** OVERLAY ON EXISTING AC PAVEMENT Network: X14 Branch: RW 14-32 (RUNWAY 14-32) Section: 6110 Surface: AC L.C.D.: 01/01/2005 Use: RUNWAY Rank: P Length: 200.00 Ft 50.00 Ft True Area: 10,000.00 SqF Width: Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 INITIAL **Initial Construction** 0.00 True Network: X14 Branch: TW CONN (CONNECTOR TAXIWAY) Section: 110 Surface: AC 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 Date Code Description (in) M&R 01/01/2005 INITIAL True **Initial Construction** 0.00 (CONNECTOR TAXIWAY) Network: X14 Branch: TW CONN Section: 115 Surface: AC 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 Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 INITIAL \$0 0.00 True Initial Construction Branch: TW CONN (CONNECTOR TAXIWAY) Network: X14 Section: 120 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank: P Length: 187.00 Ft Width: 35.00 Ft True Area: 8.225.00 SaF Work Work Work Thickness Maior Comments Cost Code Description Date (in) M&R 01/01/2005 \$0 0.00 INITIAL **Initial Construction** True Branch: TW CONN N Network: X14 (TAXIWAY W CONNECTOR TO N RAMP) Section: 405 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank: P Length: 935.00 Ft Width: 35.00 Ft True Area: 33.090.00 SqF

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	2.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
01/01/1992	IMPORTED	BUILT		1.00		1992 1" P-401 SURFACE ON 8" P-401 BASE

Branch: TW N NRAMP (NORTHERN TAXIWAY TO N RAMP) Surface: AC Network: X14 Section: 305 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 Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
	01/01/2005	CR-AC	Complete Reconstruction - AC	\$0	2.00		2" AC/9" Limerock/6" stab Subgrade/6" Subgrade
l	01/01/1970	IMPORTED	BUILT			True	ESTIMATE 1970 AC PAVEMENT

Network: X14 Branch: TW NW AP (TAXIWAY TO NW AP) Section: 605 Surface: AC L.C.D.: 01/01/1975 Use: TAXIWAY Rank: P Length: True Area: 9.425.00 SaF 550.00 Ft Width: 16.00 Ft

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
01/01/1975	IMPORTED	BUILT			True	ESTIMATE 1975 AC PAVEMENT

Work

Work

Work History Report

Pavement Database:

3 of 4

Branch: TW PARALL (PARALLEL TAXIWAY) Network: X14 Section: 105 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank: P Length: 4,485.00 Ft Width: 35.00 Ft True Area: 157,605.00 SqF

Work Work Work Thickness Major Comments Cost Date Code Description (in) M&R 01/01/2005 CR-AC \$0 Complete Reconstruction - AC 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" **IMPORTED** 01/01/1983 **BUILT** ESTIMATE 1983 AC PAVEMENT True

Branch: TW S NRAMP (EAST TAXIWAY TO N RAMP) Network: X14 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 SaF

Work Work Work Major Thickness Comments Date Code Description Cost M&R (in) 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 2" AC/9" Limerock/6" stab Subgrade/6" True 01/01/1980 **IMPORTED BUILT** ESTIMATE 1980 AC PAVEMENT

Branch: TW SE NR (SOUTH EAST TAXIWAY TO NORTH Surface: AC Network: X14 Section: 705 True Area: 16,420.00 SqF L.C.D.: 01/01/2005 Use: TAXIWAY Rank: PRAMBth: 305.00 Ft Width: 40.00 Ft

Work Work Work Thickness Major Comments Cost (in) Date Code Description M&R 01/01/2005 CR-AC Complete Reconstruction - AC \$0 2.00 True 2" AC/9" Limerock/6" stab Subgrade/6" Subgrade 12/25/1999 INITIAL **Initial Construction** \$0 0.00 True

Network: X14 Branch: TW TO HANG (TAXIWAY TO HANGARS) Section: 505 Surface: AC L.C.D.: 01/01/1980 Use: TAXIWAY Rank: P Length: Width: 48.00 Ft 170.00 Ft True Area: 7.650.00 SqF

Thickness

Major Comments Cost Date Code Description (in) M&R 01/01/1980 **IMPORTED BUILT** ESTIMATE 1980 AC PAVEMENT

Work

Network: X14 Branch: TW TO HANG (TAXIWAY TO HANGARS) Section: 510 Surface: AC L.C.D.: 01/01/2005 Use: TAXIWAY Rank: P Length: Width: 95.00 Ft 40.00 Ft True Area: 4.210.00 SqF

Work Work Work Thickness Major Comments Cost Date Code Description M&R (in) 01/01/2005 INITIAL **Initial Construction** \$0 0.00 True

Work History Report

Pavement Database:

4 of 4

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
BUILT	12	828,430.00	1.00	.00
Complete Reconstruction - AC	9	1,181,605.00	2.00	.00
Initial Construction	6	57,135.00	.00	.00
New Construction - AC	2	99,010.00	.00	.00
New Construction - PCC	1	2,812.50	.00	
OVERLAY	1	129,525.00	8.00	

STD = Standard Deviation

APPENDIX B

2011 CONDITION MAP PAVEMENT CONDITION INDEX TABLE

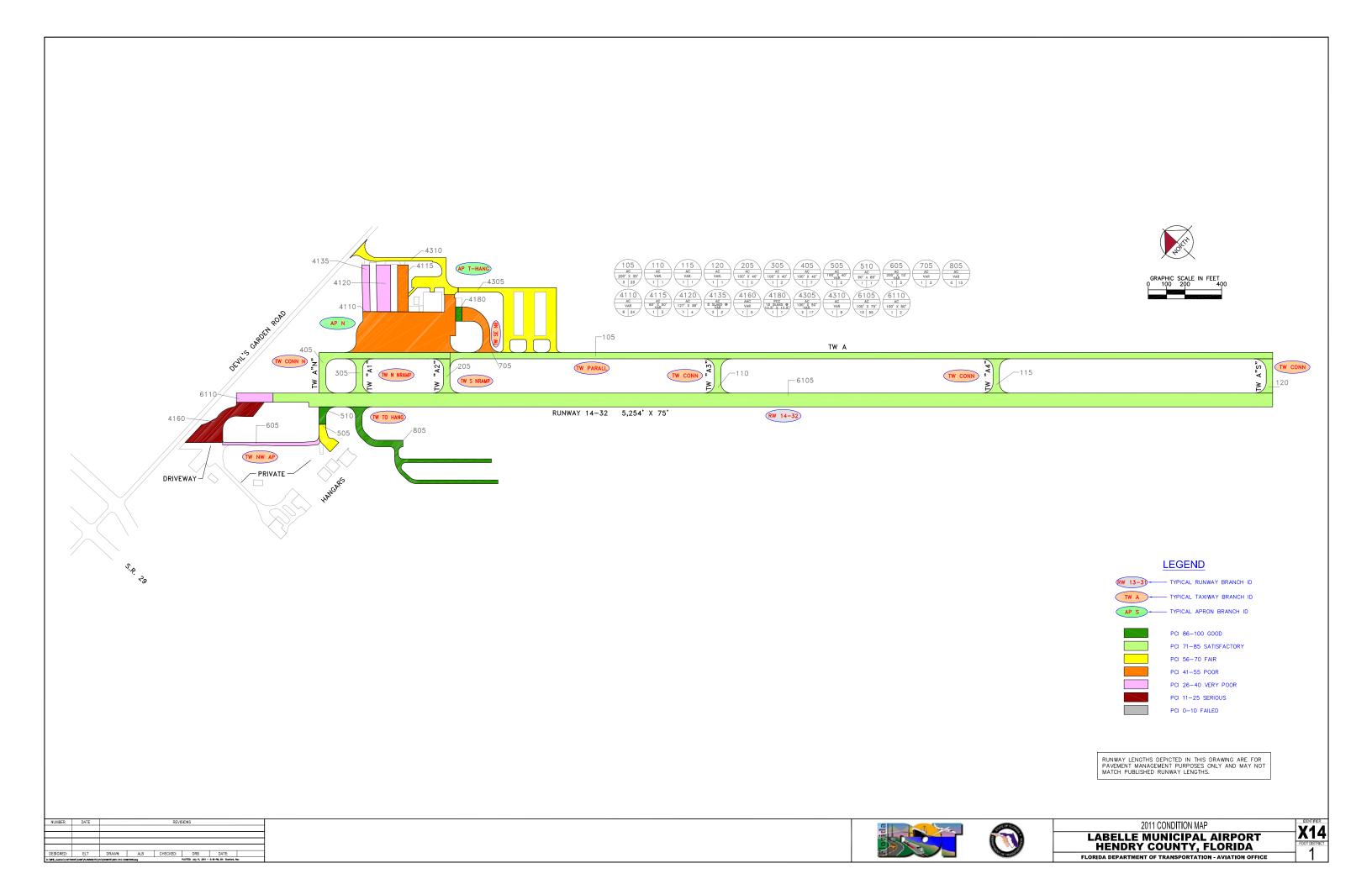


Table B-1: Pavement Condition Index

Branch Name	Branch ID	Branch Use	Section ID	True Area (ft²)	Section Rank	Surface Type	Total Samples Inspected	Total Samples	PCI	PCI Category
North Apron	AP N	APRON	4115	7,085	P	AC	1	2	52	Poor
North Apron	AP N	APRON	4160	32,555	P	AAC	1	5	24	Serious
North Apron	AP N	APRON	4135	10,360	P	AC	2	2	27	Very Poor
North Apron	AP N	APRON	4120	19,645	P	AC	1	4	31	Very Poor
North Apron	AP N	APRON	4180	2,813	P	PCC	1	1	94	Good
North Apron	AP N	APRON	4110	129,525	T	AC	6	25	51	Poor
Apron T-Hang	AP T-HANG	APRON	4305	68,460	P	AC	3	17	69	Fair
Access Drive	AP T-HANG	APRON	4310	30,550	P	AC	1	9	69	Fair
Runway 14-32	RW 14-32	RUNWAY	6105	403,830	P	AC	13	55	80	Satisfactory
Runway 14-32	RW 14-32	RUNWAY	6110	10,000	P	AC	1	2	37	Very Poor
Taxiway Connector Alpha 3	TW CONN	TAXIWAY	110	9,140	P	AC	1	1	74	Satisfactory
Taxiway Connector Alpha 4	TW CONN	TAXIWAY	115	9,140	P	AC	1	1	78	Satisfactory
Taxiway Connector Alpha South	TW CONN	TAXIWAY	120	8,225	P	AC	1	1	76	Satisfactory
Taxiway Connector Alpha North	TW CONN N	TAXIWAY	405	33,090	P	AC	1	7	81	Satisfactory
Taxiway Connector Alpha 1	TW N NRAMP	TAXIWAY	305	9,140	P	AC	1	2	81	Satisfactory
Taxiway to NW Apron	TW NW AP	TAXIWAY	605	9,425	P	AC	1	3	26	Very Poor
Taxiway Alpha	TW PARALL	TAXIWAY	105	157,605	P	AC	3	23	84	Satisfactory
Taxiway Connector Alpha 2	TW S NRAMP	TAXIWAY	205	8,520	P	AC	1	2	84	Satisfactory
Taxiway to Fuel Ramp	TW SE NR	TAXIWAY	705	16,420	P	AC	1	3	53	Poor
Taxiway to Hangars	TW TO HANG	TAXIWAY	505	7,650	P	AC	1	2	57	Fair
Taxiway to Hangars	TW TO HANG	TAXIWAY	510	4,210	P	AC	1	1	86	Good

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

Sections not surveyed due to reasons such as re-sectioning, no escort, not accessible at the time of survey. Section 805 was sectioned, however no inspection was performed.

APPENDIX C

BRANCH CONDITION REPORT SECTION CONDITION REPORT

Branch Condition Report

Pavement Database: NetworkID: X14

Number of Sum Section Avg Section PCI Weighted True Area Average **Branch ID** Use Average PCI Sections Width Standard Length (SqFt) PCI (Ft) (Ft) Deviation AP N (NORTH APRON) 6 1,387.75 105.92 **APRON** 201,982.50 46.50 23.92 44.11 AP T-HANG (APRON T-HANG) 2 2,370.00 42.50 99,010.00 **APRON** 69.00 0.00 69.00 RW 14-32 (RUNWAY 14-32) 2 5,650.00 413,830.00 RUNWAY 78.96 62.50 58.50 21.50 **TAXIWAY** TW CONN (CONNECTOR TAXIWAY) 3 561.00 35.00 26,505.00 76.00 1.63 76.00 TW CONN N (TAXIWAY W 1 935.00 35.00 33,090.00 **TAXIWAY** 81.00 0.00 81.00 CONNECTOR TO N RAMP) TW N NRAMP (NORTHERN 9,140.00 **TAXIWAY** 1 187.00 35.00 81.00 0.00 81.00 TAXIWAY TO N RAMP) TW NW AP (TAXIWAY TO NW AP) 550.00 9,425.00 **TAXIWAY** 0.00 1 16.00 26.00 26.00 TW PARALL (PARALLEL TAXIWAY) 1 4,485.00 35.00 157,605.00 **TAXIWAY** 84.00 0.00 84.00 TW S NRAMP (EAST TAXIWAY TO N 187.00 8,520.00 **TAXIWAY** 1 35.00 84.00 0.00 84.00 RAMP) TW SE NR (SOUTH EAST TAXIWAY 305.00 **TAXIWAY** 1 40.00 16,420.00 53.00 0.00 53.00 TO NORTH RAMP) TW TO HANG (TAXIWAY TO **TAXIWAY** 2 265.00 44.00 11,860.00 71.50 14.50 67.29 HANGARS)

1 of 2

Branch Condition Report

2 of 2

Pavement Database:

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	8	300,992.50	52.13	22.89	52.29
RUNWAY	2	413,830.00	58.50	21.50	78.96
TAXIWAY	11	272,565.00	70.91	17.56	78.16
All	21	987,387.50	62.57	22.02	70.61

STD = Standard Deviation

Section Condition Report

Pavement Database:

NetworkID: X14

Last Age **Branch ID** Section ID Last **Surface** Use Rank Lanes **True Area PCI** Inspection Αt Const. (SqFt) **Date** Inspection **Date** AP N (NORTH APRON) **APRON** Т 129,525.00 03/22/2011 4110 01/01/2005 AC 0 6 51.00 AP N (NORTH APRON) 4115 01/01/1980 AC **APRON** Ρ 7,085.00 03/22/2011 31 52.00 AP N (NORTH APRON) 4120 01/01/2005 AC **APRON** Р 0 19,645.00 03/22/2011 6 31.00 AP N (NORTH APRON) 01/01/1997 APRON Ρ 0 10,360.00 03/22/2011 4135 AC 14 27 00 AP N (NORTH APRON) APRON Р 4160 01/01/1989 AAC 0 32,555.00 03/22/2011 22 24.00 Р AP N (NORTH APRON) 4180 01/01/2005 PCC APRON 0 2,812.50 03/22/2011 6 94.00 AP T-HANG (APRON T-HANG) 01/01/2005 **APRON** Р 0 68,460.00 03/22/2011 6 4305 AC. 69.00 AP T-HANG (APRON T-HANG) APRON Р 4310 01/01/2005 AC n 30,550.00 03/22/2011 6 69.00 RW 14-32 (RUNWAY 14-32) **RUNWAY** Р 403,830.00 03/22/2011 6105 01/01/2005 AC 0 6 80.00 RW 14-32 (RUNWAY 14-32) 01/01/2005 AC RUNWAY Ρ 0 10.000.00 03/22/2011 6 37.00 6110 TW CONN (CONNECTOR 110 01/01/2005 AC **TAXIWAY** Ρ 0 9,140.00 03/22/2011 6 74.00 TAXIWAY) TW CONN (CONNECTOR Ρ 115 01/01/2005 AC **TAXIWAY** 0 9,140.00 03/22/2011 6 78.00 TAXIWAY) TW CONN (CONNECTOR Р 6 120 01/01/2005 AC **TAXIWAY** 0 8,225.00 03/22/2011 76.00 TAXIWAY) TW CONN N (TAXWAY W 405 01/01/2005 AC **TAXIWAY** Р 0 33,090.00 03/22/2011 6 81.00 CONNECTOR TO N RAMP) TW N NRAMP (NORTHERN 305 01/01/2005 AC **TAXIWAY** Р 0 9,140.00 03/22/2011 6 81.00 TAXIWAY TO N RAMP) TW NW AP (TAXIWAY TO NW AP) **TAXIWAY** Ρ 605 01/01/1975 AC 0 9,425.00 03/22/2011 36 26.00 TW PARALL (PARALLEL **TAXIWAY** Р 157,605.00 03/22/2011 105 01/01/2005 AC 0 6 84.00 TAXIWAY) TW S NRAMP (EAST TAXIWAY 205 01/01/2005 AC **TAXIWAY** Р 0 8,520.00 03/22/2011 6 84.00 TO N RAMP) TW SE NR (SOUTH EAST 705 01/01/2005 AC **TAXIWAY** Ρ 0 16,420.00 03/22/2011 6 53.00 TAXIWAY TO NORTH RAMP) TW TO HANG (TAXIWAY TO 505 01/01/1980 AC **TAXIWAY** Ρ 0 7.650.00 03/22/2011 31 57.00 HANGARS) TW TO HANG (TAXIWAY TO 510 01/01/2005 AC **TAXIWAY** Р n 4,210.00 03/22/2011 6 86.00 HANGARS)

1 of 2

Section Condition Report

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
06-10	6.00	920,312.50	16	70.50	17.57	73.46
11-15	14.00	10,360.00	1	27.00	0.00	27.00
21-25	22.00	32,555.00	1	24.00	0.00	24.00
31-35	31.00	14,735.00	2	54.50	2.50	54.60
36-40	36.00	9,425.00	1	26.00	0.00	26.00
All	10.95	987,387.50	21	62.57	22.02	70.61

2 of 2

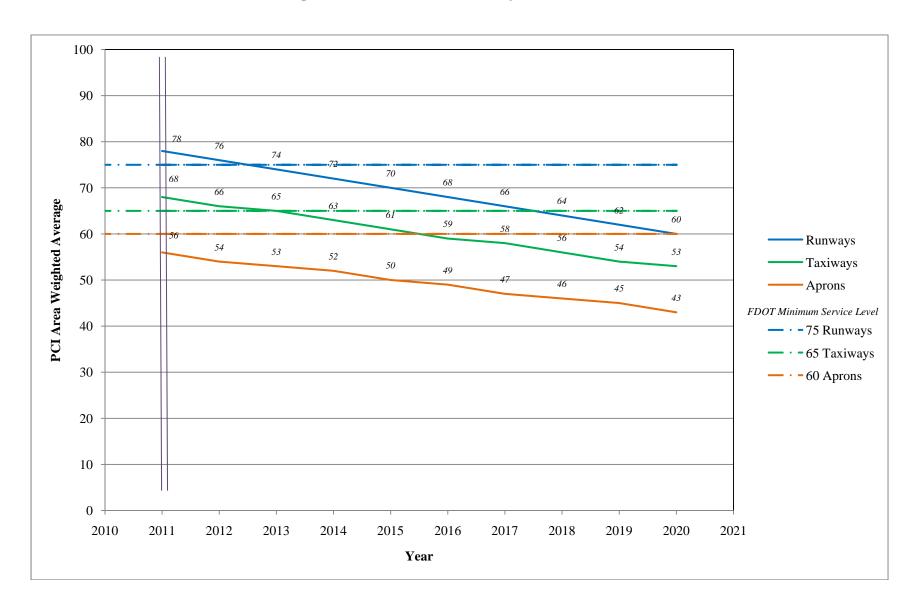
APPENDIX D

PAVEMENT CONDITION PREDICTION TABLE PREDICTED PCI BY PAVEMENT USE GRAPH

Table D-1: Pavement Condition Prediction

D 1.37	D 17D	Section	Current					PCI Fo	recast				
Branch Name	Branch ID	ID	PCI	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North Apron	AP N	4110	51	51	49	48	46	45	43	42	40	39	38
North Apron	AP N	4115	52	52	50	49	47	46	44	43	41	40	39
North Apron	AP N	4120	31	31	29	28	26	25	23	22	20	19	18
North Apron	AP N	4135	27	27	25	24	22	21	19	18	16	15	14
North Apron	AP N	4160	24	24	23	23	23	22	22	22	22	21	21
North Apron	AP N	4180	94	93	91	88	86	83	80	78	75	73	70
Apron T-Hangars	AP T-HANG	4305	69	69	67	66	64	63	61	60	58	57	56
Apron T-Hangars	AP T-HANG	4310	69	69	67	66	64	63	61	60	58	57	56
Runway 14-32	RW 14-32	6105	80	79	78	76	74	72	70	68	66	64	62
Runway 14-32	RW 14-32	6110	37	36	35	33	31	29	27	25	23	21	19
Taxiway Connector	TW CONN	110	74	74	72	70	68	67	65	63	62	60	58
Taxiway Connector	TW CONN	115	78	78	76	74	72	71	69	67	66	64	62
Taxiway Connector	TW CONN	120	76	76	74	72	70	69	67	65	64	62	60
Taxiway Connector to North Apron	TW CONN N	405	81	81	79	77	75	74	72	70	69	67	65
Taxiway to North Apron	TW N NRAMP	305	81	81	79	77	75	74	72	70	69	67	65
Taxiway to NW Apron	TW NW AP	605	26	26	24	22	20	19	17	15	14	12	10
Taxiway Parallel	TW PARALL	105	84	84	82	80	78	77	75	73	72	70	68
East Taxiway to North Ramp	TW S NRAMP	205	84	84	82	80	78	77	75	73	72	70	68
SE Taxiway to North Ramp	TW SE NR	705	53	53	51	49	47	46	44	42	41	39	37
Taxiway to Hangar	TW TO HANG	505	57	57	55	53	51	50	48	46	45	43	41
Taxiway to Hangar	TW TO HANG	510	86	86	84	82	80	79	77	75	74	72	70

Figure D-1: Predicted PCI by Pavement Use



APPENDIX E

YEAR 1 MAINTENANCE ACTIVITIES TABLE

Table E-1: Year 1 Maintenance Activities

Branch Name	Branch ID	Section ID	Distress Description	Distress Severity	Work Description	Work Quantity	Work Unit	Unit Cost	Work Cost
Runway 14-32	RW 14-32	6105	OIL SPILLAGE	N	Patching - AC Shallow	38.70	SqFt	\$2.90	\$112.34
Runway 14-32	RW 14-32	6105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	140,331.00	SqFt	\$0.40	\$56,132.87
Apron T-Hangars	AP T-HANG	4310	WEATH/RAVEL	L	Surface Seal - Rejuvenating	30,549.70	SqFt	\$0.40	\$12,220.00
Apron T-Hangars	AP T-HANG	4305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	54,768.00	SqFt	\$0.40	\$21,907.39
Apron T-Hangars	AP T-HANG	4305	WEATH/RAVEL	M	Surface Seal - Coat Tar	2,858.50	SqFt	\$0.40	\$1,143.40
Apron T-Hangars	AP T-HANG	4305	OIL SPILLAGE	N	Patching - AC Shallow	33.70	SqFt	\$2.90	\$97.71
Taxiway to Hangars	TW TO HANG	510	WEATH/RAVEL	L	Surface Seal - Rejuvenating	842.00	SqFt	\$0.40	\$336.80
Taxiway W Connector to N Ramp	TW CONN N	405	WEATH/RAVEL	L	Surface Seal - Rejuvenating	9,922.10	SqFt	\$0.40	\$3,968.88
Northern Taxiway to N Ramp	TW N NRAMP	305	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,742.00	SqFt	\$0.40	\$1,096.81
East Taxiway to N Ramp	TW S NRAMP	205	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,557.10	SqFt	\$0.40	\$1,022.87
Taxiway Connector	TW CONN	120	WEATH/RAVEL	L	Surface Seal - Rejuvenating	3,701.00	SqFt	\$0.40	\$1,480.41
Taxiway Connector	TW CONN	115	WEATH/RAVEL	L	Surface Seal - Rejuvenating	2,742.00	SqFt	\$0.40	\$1,096.81
Taxiway Connector	TW CONN	110	WEATH/RAVEL	L	Surface Seal - Rejuvenating	5,484.00	SqFt	\$0.40	\$2,193.62
Taxiway Parallel	TW PARALL	105	WEATH/RAVEL	L	Surface Seal - Rejuvenating	47,281.60	SqFt	\$0.40	\$18,912.78
						-		Total =	\$121,722.69

APPENDIX F

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

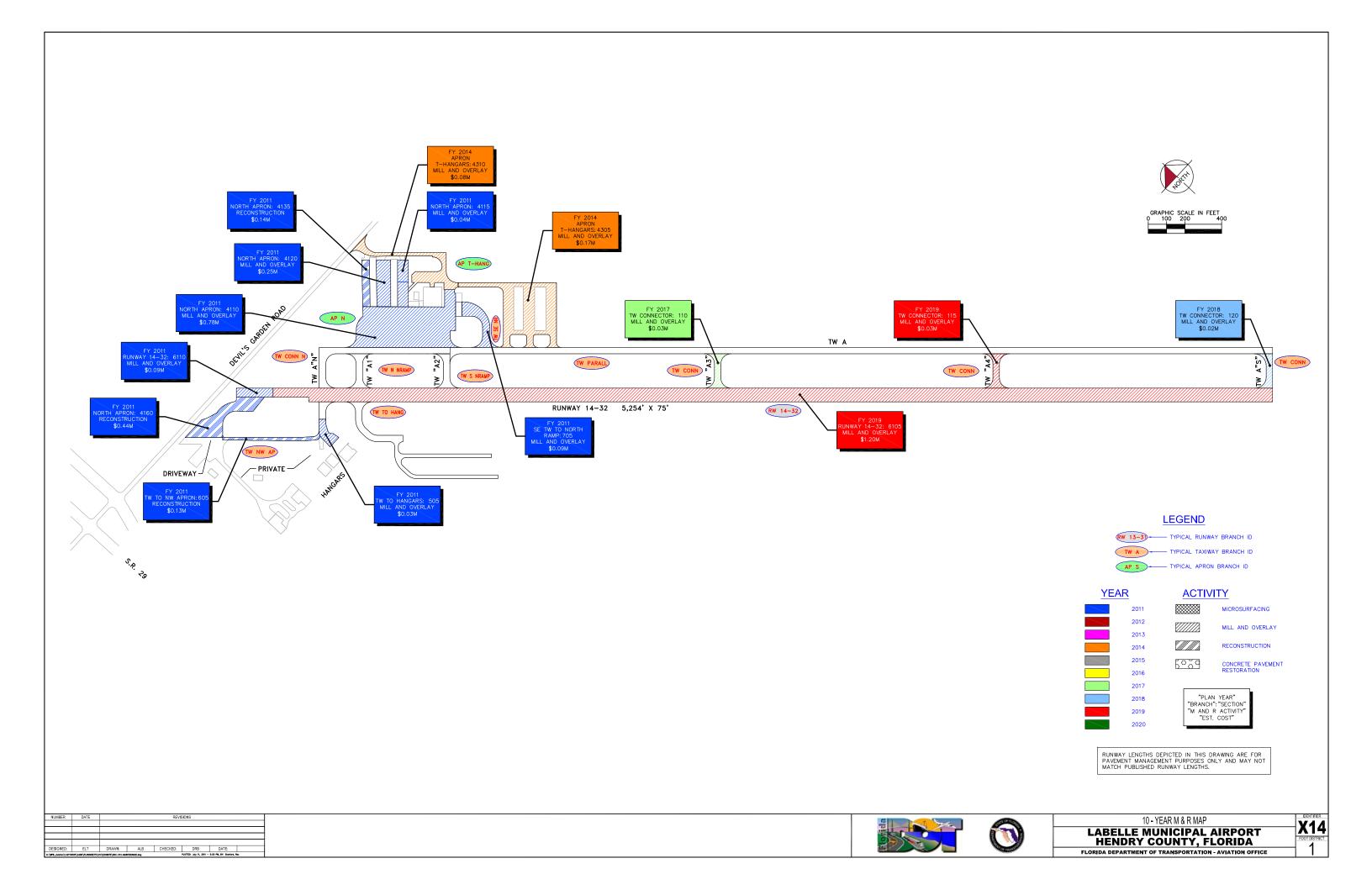
Table F-1: Major M&R Plan by Year under Unlimited Funding Scenario

Year	Branch Name	Section ID	Surface Type	Section Area (ft ²)	Major M&R Costs*	PCI Before M&R	M&R Activity	PCI After M&R
2011	North Apron	4110	AC	129,525	\$777,538.65	51	Mill and Overlay	100
2011	North Apron	4115	AC	7,085	\$40,497.87	52	Mill and Overlay	100
2011	North Apron	4120	AC	19,645	\$253,165.19	31	Mill and Overlay	100
2011	North Apron	4135	AC	10,360	\$141,103.25	27	Reconstruction	100
2011	North Apron	4160	AAC	32,555	\$443,399.24	24	Reconstruction	100
2011	Runway 14-32	6110	AC	10,000	\$92,220.02	36	Mill and Overlay	100
2011	Taxiway to NW Apron	605	AC	9,425	\$128,368.54	26	Reconstruction	100
2011	SE Taxiway to North Ramp	705	AC	16,420	\$89,144.20	53	Mill and Overlay	100
2011	Taxiway to Hangars	505	AC	7,650	\$32,749.67	57	Mill and Overlay	100
2014	Apron T-Hangars	4305	AC	68,460	\$174,153.34	64	Mill and Overlay	100
2014	Apron T-Hangars	4310	AC	30,550	\$77,715.23	64	Mill and Overlay	100
2017	Taxiway Connector	110	AC	9,140	\$28,386.39	63	Mill and Overlay	100
2018	Taxiway Connector	120	AC	8,225	\$23,549.39	64	Mill and Overlay	100
2019	Runway 14-32	6105	AC	403,830	\$1,190,911.87	64	Mill and Overlay	100
2019	Taxiway Connector	115	AC	9,140	\$26,954.25	64	Mill and Overlay	100
				Total	\$3,519,857.10	49		100

^{*} Costs are adjusted for inflation.

APPENDIX G

10-YEAR M&R MAP



APPENDIX H

PHOTOGRAPHS



Taxiway NW Apron, Section 605, Sample Unit 101 – Low severity (43) Block Cracking, low severity (48) Longitudinal and Transverse Cracking, medium and high severity (52) Weathering and Raveling, low severity (56) Swell



Taxiway NW Apron, Section 605, Sample Unit 101 – Low severity (43) Block Cracking, low severity (48) Longitudinal and Transverse Cracking, medium and high severity (52) Weathering and Raveling, low severity (56) Swell



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



Taxiway Alpha, Section 105, Sample Unit 109 – Low severity (52) Weathering and Raveling



Hangars, Section 4305, Sample Unit 202 – Low severity (45) Depression, low severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling



Hangars, Section 4305, Sample Unit 202 – Low severity (45) Depression, low severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling



Apron, Section 4110, Sample Unit 505 – Low and medium severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling



Apron, Section 4110, Sample Unit 505 – Low and medium severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling



Hangars, Section 4135, Sample Unit 601 – Low severity (43) Block Cracking, low severity (48) Longitudinal and Transverse Cracking, low and medium severity (52) Weathering and Raveling



Hangars, Section 4135, Sample Unit 601 – Low severity (43) Block Cracking, low severity (48) Longitudinal and Transverse Cracking, (49) Oil Spillage, low and medium severity (52) Weathering and Raveling

APPENDIX I

PCI RE-INSPECTION REPORT

FDOT

Report Generated Date: 5/9/2011 Site Name:

Site Name:					
Network: X14 Name: LA BELLE MUNICIPAL A	AIRPORT				
Branch: AP N Name: NORTH APRON		Use: AP	RON	Area: 201,	982.50SqFt
Section: 4110 of 6 From: - Surface: AC Family: FDOT-GA-AP-AC Area: 129,525.00SqFt Length: 540.00Ft Shoulder: Street Type: Grade: 0.00 Section Comments:		To: - one: Categ Vidth: 220.00	gory:	Rank: T	Last Const.: 1/1/2005
Last Insp. Date3/22/2011 Total Samples: 25 Sur Conditions: PCI:51.00 Inspection Comments: KHA	veyed: 6				
Sample Number: 200 Type: R	Area:	5,262.00SqFt		PCI = 44	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 43 BLOCK CRACKING 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING 50 PATCHING	L L M L	52.00 20.00 3,683.00 1,579.00 1,150.00	SqFt SqFt SqFt	Comments: Comments: Comments: Comments: Comments:	
Sample Number: 202 Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING 50 PATCHING	Area: L L M L	5,000.00SqFt 29.00 3,500.00 1,500.00 351.00	SqFt SqFt	PCI = 52 Comments: Comments: Comments: Comments:	
Sample Number: 204 Type: R Sample Comments: 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING	Area:	5,000.00SqFt 3,500.00 1,500.00		PCI = 61 Comments: Comments:	
Sample Number: 503 Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING	Area:	4,963.00SqFt 19.00 3,474.00 1,489.00	SqFt	PCI = 57 Comments: Comments: Comments:	
Sample Number: 505 Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 48 LONGITUDINAL/TRANSVERSE CRACKING 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING	Area: L M L M	2,905.00SqFt 252.00 7.00 2,034.00 871.00	Ft SqFt	PCI = 48 Comments: Comments: Comments: Comments:	
Sample Number: 605 Type: R Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 52 WEATHERING/RAVELING 52 WEATHERING/RAVELING 50 PATCHING 49 OIL SPILLAGE 45 DEPRESSION	Area: L L M L N L	5,075.00SqFt 147.00 3,045.00 2,030.00 5.00 20.00 40.00	SqFt SqFt SqFt SqFt	PCI = 42 Comments: Comments: Comments: Comments: Comments: Comments:	

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP N Name: NORTH APRON Use: APRON Area: 201,982.50SqFt

Section: 4115 of 6 From: - To: - Last Const.: 1/1/1980

60.00Ft

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

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

Section Comments:

Last Insp. Datc3/22/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:52.00 | Inspection Comments: KHA

Sample Number: 752 Type: R Area: 3,554.00SqFt PCI = 52

Sample Comments: 50 PATCHING L 884.00 SqFt Comments: 52 WEATHERING/RAVELING 3,543.97 SqFt \mathbf{L} Comments: 43 BLOCK CRACKING \mathbb{L} 1,200.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 13.00 Ft Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP N Name: NORTH APRON Use: APRON Area: 201,982.50SqFt

Section: 4120 of 6 From: - To: - Last Const.: 1/1/2005

78.00Ft

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

Area: 19,645.00SqFt Length: 255.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Datc3/22/2011 Total Samples: 4 Surveyed: 1

Conditions: PCI:31.00 | Inspection Comments: KHA

Sample Number: 700 Type: R Area: 4,800.00SqFt PCI = 31 Sample Comments:

50 PATCHING L 936.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 141.00 Ft \mathbf{L} Comments: 52 WEATHERING/RAVELING Μ 4,320.00 SqFt Comments: 52 WEATHERING/RAVELING Η 48.00 SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP N Name: NORTH APRON Use: APRON Area: 201,982.50SqFt

Section: 4135 of 6 From: -To: -Last Const.: 1/1/1997

Family: FDOT-GA-AP-AC Zone: Surface: AC Category: Rank: P 40.00Ft

Length: Width: Area: 254.00Ft 10,360.00SqFt

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 2 Surveyed: 2

Conditions: PCI:27.00 | Inspection Comments: KHA

Sample Number: 600 Type: R Sample Comments:	Area:	5,405.00SqFt	PCI = 13
48 LONGITUDINAL/TRANSVERSE CRACKING	L	192.00 Ft	Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING	M	57.00 Ft	Comments:
52 WEATHERING/RAVELING	M	3,243.00 SqFt	Comments:
52 WEATHERING/RAVELING	L	55.00 SqFt	Comments:
52 WEATHERING/RAVELING	Н	1,622.00 SqFt	Comments:
43 BLOCK CRACKING	L	4,324.00 SqFt	Comments:
Sample Number: 601 Type: R	A = 20:	4.054.000 Ft	PCI = 42
bampic ramoci, our Type, K	Area:	4,954.00SqFt	FC1 - 42
Sample Comments:	Alea.	4,954.008qFt	FCI - 42
	Area.	1,486.00 SqFt	Comments:
Sample Comments:		, 1	
Sample Comments: 43 BLOCK CRACKING	L	1,486.00 SqFt	Comments:
Sample Comments: 43 BLOCK CRACKING 52 WEATHERING/RAVELING	L L	1,486.00 SqFt 2,972.00 SqFt	Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP N Name: NORTH APRON Use: APRON Area: 201,982.50SqFt

Section: 4160 of 6 From: - To: - Last Const.: 1/1/1989

Surface: AAC Family: FDOT-GA-AP-AAC Zone: Category: Rank: P

Area: 32,555.00SqFt Length: 143.75Ft Width: 200.00Ft

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Dat 63/22/2011 Total Samples: 5 Surveyed: 1

Conditions: PCI:24.00 | Inspection Comments: KHA

Sample Number: 104 Type Sample Comments:	: R	Area:	12,760.00SqFt		PCI = 24
52 WEATHERING/RAVELING		М	8,932.00	SqFt	Comments:
52 WEATHERING/RAVELING		L	3,828.00	SqFt	Comments:
50 PATCHING		L	2.00	SqFt	Comments:
50 PATCHING		M	72.00	SqFt	Comments:
48 LONGITUDINAL/TRANSVER	SE CRACKING	L	7,972.00	Ft	Comments:
43 BLOCK CRACKING		L	2,740.00	SqFt	Comments:
49 OIL SPILLAGE		N	6.00	SqFt	Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: AP N Name: NORTH APRON Use: APRON Area: 201,982.50SqFt

Section: of 6 To: -4180 From: -Last Const.: 1/1/2005

37.50Ft

Surface: PCC Family: FDOT-GA-PCC Zone: Category: Rank: P Width:

Area: Length: 2,812.50SqFt Lanes: 0

Shoulder: Street Type: Grade: 0.00

Section Comments:

Total Samples: 1 Surveyed: 1 Last Insp. Date3/22/2011

Conditions: PCI:94.00 | Inspection Comments: KHA

PCI = 94Type: R Sample Number: 900 Area: 18.00Slabs

Sample Comments: 75 CORNER SPALLING L 1.00 Slabs Comments: 74 JOINT SPALLING L 1.00 Slabs Comments: 18.00 Slabs 65 JOINT SEAL DAMAGE L Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

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

Section: 4305 of 2 To: -From: -Last Const.: 1/1/2005

Family: FDOT-GA-AP-AC Surface: AC Zone: Category: Rank: P Length: Width: 50.00Ft

Area: 1,570.00Ft 68,460.00SqFt Lanes: 0

Shoulder: Street Type: Grade: 0.00

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 17 Surveyed: 3

Conditions: PCI:69.00 | Inspection Comments: KHA

52 WEATHERING/RAVELING

Sample Number: 202 Sample Comments:	Type: R	Area:	5,633.00SqFt		PCI = 63
48 LONGITUDINAL/TR	ANSVERSE CRACKING	I	4.00	Ft	Comments:
52 WEATHERING/RAVE	LING	I	4,506.00	SqFt	Comments:
52 WEATHERING/RAVE	LING	M	563.00	SqFt	Comments:
45 DEPRESSION		I	72.00	SqFt	Comments:
Sample Number: 203 Sample Comments:	Type: R	Area:	3,022.00SqFt		PCI = 71
52 WEATHERING/RAVE	LING	I	2,418.00	SqFt	Comments:
52 WEATHERING/RAVE	LING	M	32.00	SqFt	Comments:
Sample Number: 205 Sample Comments:	Type: R	Area:	5,595.00SqFt		PCI = 74
49 OIL SPILLAGE		N	3.00	SqFt	Comments:

4,476.00 SqFt

Comments:

L

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

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

Section: of 2 To: -4310 From: -Last Const.: 1/1/2005

Surface: AC Family: FDOT-GA-AP-AC Zone: Category: Rank: P Width: 35.00Ft

Area: Length: 800.00Ft 30,550.00SqFt Lanes: 0

Shoulder: Street Type: Grade: 0.00

Section Comments:

Total Samples: 9 Surveyed: 1 Last Insp. Date3/22/2011

Conditions: PCI:69.00 | Inspection Comments: KHA

PCI = 69Sample Number: 104 Type: R Area: 1,760.00SqFt

Sample Comments:

48 LONGITUDINAL/TRANSVERSE CRACKING L 20.00 Ft Comments: 52 WEATHERING/RAVELING 1,759.99 SqFt \mathbf{L} Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT Branch: RW 14-32 Name: RUNWAY 14-32 Use: RUNWAY Area: 413,830.00SqFt Section: 6105 of 2 From: -To: -Last Const.: 1/1/2005 Family: FDOT-GA-RW-AAC Zone: Category: Rank: P Surface: AC Area: 403,830.00SqFt Width: 75.00Ft Length: 5,450.00Ft Shoulder: Street Type: Grade: 0.00 Lanes: 0 Section Comments: Last Insp. Date3/22/2011 Total Samples: 55 Surveyed: 13 Conditions: PCI:80.00 | Inspection Comments: KHA Sample Number: 103 Type: R Area: 4,707.00SqFt PCI = 81Sample Comments: 52 WEATHERING/RAVELING L 1,883.00 SqFt Comments: Type: R Sample Number: 107 7,500.00SqFt PCI = 84Area: Sample Comments: 52 WEATHERING/RAVELING 2,250.00 SqFt Comments: \mathbf{L} Sample Number: 111 PCI = 84Type: R Area: 7,500.00SqFt Sample Comments: 52 WEATHERING/RAVELING 2,250.00 SqFt Comments: Sample Number: 115 Type: R Area: 7,500.00SqFt PCI = 81Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 7.00 Ft L Comments: 52 WEATHERING/RAVELING 2,346.00 SqFt L Comments: PCI = 81Sample Number: 119 Type: R Area: 7,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 9.00 Ft Comments: 52 WEATHERING/RAVELING L 2,250.00 SqFt Comments: Sample Number: 124 Area: PCI = 77Type: R 7,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 3.00 Ft Comments: 52 WEATHERING/RAVELING 3,000.00 SqFt L Comments: 49 OIL SPILLAGE Ν 4.00 SqFt Comments: PCI = 79Sample Number: 129 Type: R Area: 7,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 1.00 Ft Comments: 52 WEATHERING/RAVELING 3,000.00 SqFt Comments: Sample Number: 133 Type: R Area: 7,500.00SqFt PCI = 81Sample Comments: 52 WEATHERING/RAVELING L 3,000.00 SqFt Comments: Sample Number: 138 PCI = 79Type: R Area: 7,500.00SqFt Sample Comments: 52 WEATHERING/RAVELING 3,000.00 SqFt L Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING 13.00 Ft Comments: Τ. PCI = 77Sample Number: 143 Type: R Area: 7,500.00SqFt Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 37.00 Ft Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

52 WEATHERING/RAVELING	L	3,000.00 SqFt	Comments:	
Sample Number: 147 Type: R	Area:	7,500.00SqFt	PCI = 81	
Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING	L	1.00 Ft	Comments:	
52 WEATHERING/RAVELING	L	2,250.00 SqFt	Comments:	
Sample Number: 151 Type: R Sample Comments:	Area:	7,500.00SqFt	PCI = 80	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	19.00 Ft	Comments:	
52 WEATHERING/RAVELING	L	2,250.00 SqFt	Comments:	
Sample Number: 156 Type: R Sample Comments:	Area:	3,685.00SqFt	PCI = 79	
48 LONGITUDINAL/TRANSVERSE CRACKING	L	21.00 Ft	Comments:	
52 WEATHERING/RAVELING	L	1,106.00 SqFt	Comments:	

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: RW 14-32 Name: RUNWAY 14-32 Use: RUNWAY Area: 413,830.00SqFt

Last Const.: 1/1/2005 Section: of 2 To: -6110 From: -

Family: FDOT-GA-RW-AAC Zone: Surface: AC Category: Rank: P 50.00Ft

Length: Width: Area: 200.00Ft 10,000.00SqFt Grade: 0.00 Lanes: 0

Shoulder: Street Type: Section Comments:

Last Insp. Date3/22/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:37.00 | Inspection Comments: KHA

Sample Number: 100	Type: R	Area:	5,000.00SqFt		PCI = 37
Sample Comments:					
48 LONGITUDINAL/	TRANSVERSE CRACKING	L	202.00	Ft	Comments:
48 LONGITUDINAL/	TRANSVERSE CRACKING	M	64.00	Ft	Comments:
52 WEATHERING/RA	VELING	L	3,000.00	SqFt	Comments:
52 WEATHERING/RA	VELING	M	2,000.00	SqFt	Comments:
43 BLOCK CRACKIN	IG	L	3,500.00	SaFt	Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Name: CONNECTOR TAXIWAY Branch: TW CONN Use: TAXIWAY Area: 26,505.00SqFt

Section: of 3 To: -110 From: -Last Const.: 1/1/2005

Surface: ACFamily: FDOT-GA-TW-AC Zone: Category: Rank: P 35.00Ft

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

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 1 Surveyed: 1

Conditions: PCI:74.00 | Inspection Comments: KHA

PCI = 74Sample Number: 100 Type: R Area: 9,140.00SqFt

Sample Comments:

52 WEATHERING/RAVELING L 5,484.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 38.00 Ft Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW CONN Name: CONNECTOR TAXIWAY Use: TAXIWAY Area: 26,505.00SqFt

Section: 115 of 3 From: - To: - Last Const.: 1/1/2005

35.00Ft

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

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

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Datc3/22/2011 Total Samples: 1 Surveyed: 1

Conditions: PCI:78.00 | Inspection Comments: KHA

Sample Number: 100 Type: R Area: 9,140.00SqFt PCI = 78

Sample Comments:

50 PATCHING

L 2.00 SqFt Comments:

52 WHATHERING (PANELING)

52 WEATHERING/RAVELING L 2,742.00 SqFt Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 26.00 Ft Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Name: CONNECTOR TAXIWAY Branch: TW CONN Use: TAXIWAY Area: 26,505.00SqFt

Section: of 3 To: -120 From: -Last Const.: 1/1/2005

Surface: ACFamily: FDOT-GA-TW-AC Zone: Category: Rank: P Width: 35.00Ft

Area: Length: 187.00Ft 8,225.00SqFt

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 1 Surveyed: 1

Conditions: PCI:76.00 | Inspection Comments: KHA

PCI = 76Sample Number: 100 Type: R Area: 8,225.00SqFt

Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING

L 51.00 Ft Comments: 52 WEATHERING/RAVELING 3,701.00 SqFt \mathbf{L} Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW CONN N Name: TAXIWAY W CONNECTOR TO N Use: TAXIWAY Area: 33,090.00SqFt

Section: of To: -405 1 From: -Last Const.: 1/1/2005

35.00Ft

Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P Width:

Length: 935.00Ft Area: 33,090.00SqFt Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Total Samples: 7 Surveyed: 1 Last Insp. Date3/22/2011

Conditions: PCI:81.00 | Inspection Comments: KHA

PCI = 81Sample Number: 101 Type: R Area: 6,770.00SqFt

Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING

L 1.00 Ft Comments: 52 WEATHERING/RAVELING L 2,030.00 SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

TW N NRAMP Name: NORTHERN TAXIWAY TO N RAM Branch: Use: TAXIWAY Area: 9,140.00SqFt

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

35.00Ft

Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P Width:

Area: Length: 187.00Ft 9,140.00SqFt

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Total Samples: 2 Surveyed: 1 Last Insp. Date3/22/2011

Conditions: PCI:81.00 | Inspection Comments: KHA

Sample Number: 100 PCI = 81Type: R Area: 4,800.00SqFt

Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L

2.00 Ft Comments: 52 WEATHERING/RAVELING 1,440.00 SqFt L Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

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.: 1/1/1975

Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P Area: 9,425.00SqFt Length: 550.00Ft Width: 16.00Ft

Area: 9,425.00SqFt Length: 550.00Ft V Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Dat 63/22/2011 Total Samples: 3 Surveyed: 1

Conditions: PCI:26.00 | Inspection Comments: KHA

Sample Number: 101 Type: R Sample Comments:	Area:	3,630.00SqFt	PCI = 26
48 LONGITUDINAL/TRANSVERSE CRACKING	L	174.00	Ft Comments:
43 BLOCK CRACKING	L	640.00	SqFt Comments:
52 WEATHERING/RAVELING	M	3,598.00	SqFt Comments:
52 WEATHERING/RAVELING	Н	32.00	SqFt Comments:
56 SWELLING	L	28.00	SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW PARALL Name: PARALLEL TAXIWAY Use: TAXIWAY Area: 157,605.00SqFt

Section: 105 of 1 From: - To: - Last Const.: 1/1/2005

35.00Ft

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

Area: 157,605.00SqFt Length: 4,485.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Dat63/22/2011 Total Samples: 23 Surveyed: 3

Conditions: PCI:84.00 | Inspection Comments: KHA

Sample Number: 109 Type: R Area: 7,000.00SqFt PCI = 84

Sample Comments:

52 WEATHERING/RAVELING L 2,100.00 SqFt Comments:

Sample Number: 116 Type: R Area: 7,000.00SqFt PCI = 84

Sample Comments:

52 WEATHERING/RAVELING L 2,100.00 SqFt Comments:

Sample Number: 120 Type: R Area: 7,000.00SqFt PCI = 84

Sample Comments:

52 WEATHERING/RAVELING L 2,100.00 SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Name: EAST TAXIWAY TO N RAMP Branch: TW S NRAMP Use: TAXIWAY Area: 8,520.00SqFt

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

Family: FDOT-GA-TW-AC Surface: ACZone: Category: Rank: P Width: 35.00Ft

Area: Length: 187.00Ft 8,520.00SqFt

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:84.00 | Inspection Comments: KHA

PCI = 84Type: R Sample Number: 101 Area: 3,715.00SqFt

Sample Comments:

52 WEATHERING/RAVELING L 1,115.00 SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW SE NR Name: SOUTH EAST TAXIWAY TO NOR Use: TAXIWAY Area: 16,420.00SqFt

Section: 705 of 1 From: - To: - Last Const.: 1/1/2005

Surface: AC Family: FDOT-GA-TW-AC Zone: Category: Rank: P
Area: 16,420.00SqFt Length: 305.00Ft Width: 40.00Ft

Area: 16,420.00SqFt Length: 305.00Ft V Shoulder: Street Type: Grade: 0.00 Lanes: 0

Shoulder: Street Type: Section Comments:

Last Insp. Datc3/22/2011 Total Samples: 3 Surveyed: 1

Conditions: PCI:53.00 | Inspection Comments: KHA

Sample Number: 202 Type: R Area: 5,270.00SqFt PCI = 53

Sample Comments:
48 LONGITUDINAL/TRANSVERSE CRACKING L 26.00 Ft (

48 LONGITUDINAL/TRANSVERSE CRACKING L 26.00 Ft Comments: 52 WEATHERING/RAVELING L 3,162.00 SqFt Comments: 52 WEATHERING/RAVELING M 2,108.00 SqFt Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW TO HANG Name: TAXIWAY TO HANGARS Use: TAXIWAY Area: 11,860.00SqFt

Section: 505 of 2 From: - To: - Last Const.: 1/1/1980

48.00Ft

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

Area: 7,650.00SqFt Length: 170.00Ft Width: Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Dat63/22/2011 Total Samples: 2 Surveyed: 1

Conditions: PCI:57.00 | Inspection Comments: KHA

Sample Number: 101 Type: R Area: 4,407.00SqFt PCI = 57

Sample Comments: 48 LONGITUDINAL/TRANSVERSE CRACKING L 51.00 Ft Comments: 52 WEATHERING/RAVELING Н 22.00 SqFt Comments: 52 WEATHERING/RAVELING Μ 881.00 SqFt Comments: 1,322.00 SqFt 52 WEATHERING/RAVELING \mathbf{L} Comments:

FDOT

Report Generated Date: 5/9/2011

Site Name:

Network: X14 Name: LA BELLE MUNICIPAL AIRPORT

Branch: TW TO HANG Name: TAXIWAY TO HANGARS Use: TAXIWAY Area: 11,860.00SqFt

Section: of 2 To: -510 From: -Last Const.: 1/1/2005

Family: FDOT-GA-TW-AC Surface: ACZone: Category: Rank: P 40.00Ft

Width: Area: Length: 95.00Ft 4,210.00SqFt

Shoulder: Street Type: Grade: 0.00 Lanes: 0

Section Comments:

Last Insp. Date3/22/2011 Total Samples: 1 Surveyed: 1

Conditions: PCI:86.00 | Inspection Comments: KHA

PCI = 86Type: R Sample Number: 100 Area: 4,210.00SqFt

Sample Comments:

52 WEATHERING/RAVELING L 842.00 SqFt Comments: