2022
Pavement Condition Index Report

Charleston Executive Airport

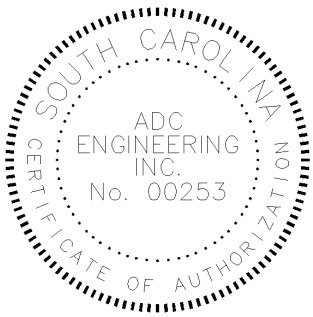
For The

Charleston County Aviation Authority

Issued: December 15, 2023

ADC ENGINEERING

SILENT FALCON™ UAS TECHNOLOGIES



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EXECUTIVE SUMMARY

ADC Engineering, Inc. was commissioned by the Charleston County Aviation Authority (CCAA) to conduct the tri-annual Pavement Condition Index (PCI) Survey for all three of the CCAA owned airports. The PCI Survey is conducted to determine the present condition of the airfield pavements, provide an index for comparing the condition and performance of pavements within a network as well as provide a rational basis for justification, planning and budgeting of pavement repair project.

For the 2022 inspections, ADC Engineering contracted with Silent Falcon UAS Technologies to perform the PCI Surveys utilizing drone technology to collect photogrammetry of nearly 100% of all pavements. Silent Falcon UAS then processed the data collected through proprietary Artificial Intelligence software to quantify pavement distresses in accordance with ASTM D 5340. Silent Falcon's data analysists and pavement engineers then verified the results from the AI analysis to confirm PCI ratings for each network, branch and section.

Partnering with Silent Falcon provided a comprehensive inspection of each airport in lieu of the typical ASTM D 5340 procedure where only 25% - 50% of each section are inspected.

Reports for this year's PCI Survey have been generated for each airport. These reports will include both the results of the PCI survey for each airport. This document reports the results of the 2022 PCI survey for the Charleston Executive Airport (JZI). The Pavement Management Program (PMP) for JZI is provided in an associated report.

The 2022 PCI survey for JZI concludes the following:

1. The condition of the airfield sections varies from very poor to good.
2. Major distresses in the asphaltic concrete pavement include high severity raveling and patching, medium severity alligator cracking and longitudinal and transverse cracking.
3. Major distresses in the concrete pavement include high severity joint seal damage (in isolated locations), high and medium severity shattered slabs (Mid-Field Apron Section 01 and the Mosquito Abatement Taxiway), medium severity corner breaks, linear cracking, patching, corner spalls, and joint spalls.
4. The lowest rated pavements are the Mosquito Abatement Taxiway, Mid-Field Apron Section 01, the Private Hangar Taxiways, and the T-Hangar Taxiways. Furthermore, Taxiways A, B, C (Section 01), D, F & G are experiencing increased weathering most likely due to the asphalt rejuvenator placed in 2019 wearing off.

Additional details on the condition of all pavements at this airport are contained within this report.

I. INTRODUCTION

A. Intent

The Pavement Condition Index (PCI) procedure provides a systematic method of visually inspecting and evaluating both asphaltic concrete and plain jointed portland cement concrete pavements. Specific objectives of a PCI analysis of a pavement network or networks include:

- Determination of the present condition of pavements in terms of apparent structural integrity and operational surface condition.
- Provide a common index for comparing the condition and performance of pavements within a network or networks.
- Provide feedback on the performance of each type of pavement.
- Provide a rational basis for justification, planning, and budgeting of pavement repair projects.

B. PCI Concept

The basic principle of the PCI procedure is to visually inspect random samples of each pavement section and quantify distresses or defects within each random sample. The quantified distresses result in a reduction in the condition rating for the pavement. Condition ratings for each random sample within a pavement section are averaged to yield an overall condition rating for the pavement section. Condition ratings for each pavement section within a pavement network or facility can then be compiled and compared on an objective basis for evaluation of performance and for planning for pavement repair projects.

Utilizing Silent Falcon's drone technology, nearly 100% inspection coverage has been provided for 2022 PCI Survey. With near 100% coverage, one sample unit is needed to analyze each section with the branch and network.

C. PCI Ratings

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

*Rating system is in accordance with ASTM D 5340.

D. PCI Procedure

1. Divide the pavement facilities in accordance with the following guidelines:

   Network: Facility Level (i.e. County Airport, City of Charleston, etc.)
   Branch: Function Level (i.e. Taxiway C, River Road, etc.)
   Section: Usage and Type Level (i.e. Low usage area, concrete area, etc.)

Airport Example:	Roadway Example:
Network = Charleston Executive Airport	Network = City of Charleston
Branch = Taxiway C	Branch = River Road
Section = 1 (asphalt taxiway)	Section = 1 (intersections)
Section = 2 (concrete taxiway)	Section = 2 (non-intersection areas)

2. Measure each Section and calculate area.

3. Quantify and record all distresses within each inspected sample unit. Assess each distress for type and severity (low, medium, high). A few typical distress types are:

   Typical Distresses Types

Asphalt Pavement	Concrete Pavement
Alligator Cracking	Spalling
Rutting	Cracking
Longitudinal Cracking	Joint Sealant Damage
Patching	Scaling
Weathering/Raveling	Corner Breaks

4. Calculate the PCI rating for each sample unit inspected. Each sample unit begins with a PCI rating = 100. Based on the quantity and severity of distresses within the sample unit, reductions are made to yield the actual PCI rating for the sample unit.

5. PCI ratings for Sections, Branches and Networks are calculated as follows:

   Section PCI = area weighted average of sample unit PCI ratings within the Section
   Branch PCI = area weighted average of Section PCI ratings within the Branch
   Network PCI = area weighted average of Branch PCI ratings within the Network

In accordance with ASTM D 5340, each section is divided into sample units. For asphalt pavement, these sample units are typically 5,000 sf for airfields and 2,500 sf for roadways. Concrete pavement sample units are typically 20 slabs for airfields and roadways. **Using Silent Falcon's drone technology, sections were not broken up into sample units for this PCI Survey as nearly 100% of all areas were surveyed.**

II. PAVEMENT CONDITION INDEX REPORT – CHARLESTON EXECUTIVE AIRPORT (JZI)

A. 2022 PCI Rating

The Network PCI rating for the 2022 Survey of Charleston Executive Airport is **79 - Satisfactory**.

The following is JZI network rating for the previous and current PCI studies.

TABLE II.1: JZI Network PCI Rating Summary

Network Summary	2012 PCI	2015 PCI	2019 PCI	**2022 PCI**
JZI	85 SATISFACTORY	84 SATISFACTORY	83 SATISFACTORY	**79 SATISFACTORY**

Figure II.1 – JZI Section PCI Ratings shows a pictorial overview of the branches and sections with PCI ratings. Refer to Table II.1 for the individual branch/section PCI ratings, and Table II.2 for a network pavement inventory.

B. Construction Since the Last Survey

Approximately 12 slabs were replaced in TWY C Section 02. These repairs brought the PCI for this section up six points.

Subsequent to this inspection, an asphalt rejuvenator has been applied to the North GA Apron and a patch was constructed in Taxiway Alpha Section 01.

C. Pavement Inventory Updates Since the Last Report

Since the last PCI Survey conducted in 2019, the shoulders of Runway 09-27 have been combined into one section, RWY 09-27 Section 01S. Several changes have been made to the pavement inventory to include updating projects and known pavement sections.

D. Future Projects

No major maintenance or repair projects are forecast for the immediate future.

E. PCI Rating Analysis

The PCI indicates the condition of the pavement at the time of inspection. As the pavement ages, it is expected that the PCI value will drop at a greater rate than when a pavement is new. For example, a recently constructed pavement will most likely see a one to two point drop between PCI inspections where a pavement that is fifteen years old may see a drop of ten points or greater between inspections.

The majority of the pavement at JZI has deteriorated at a reasonable rate. The average drop in PCI rating for the network is -7 points. This average can be attributed to the wide range of ages on the various pavements.

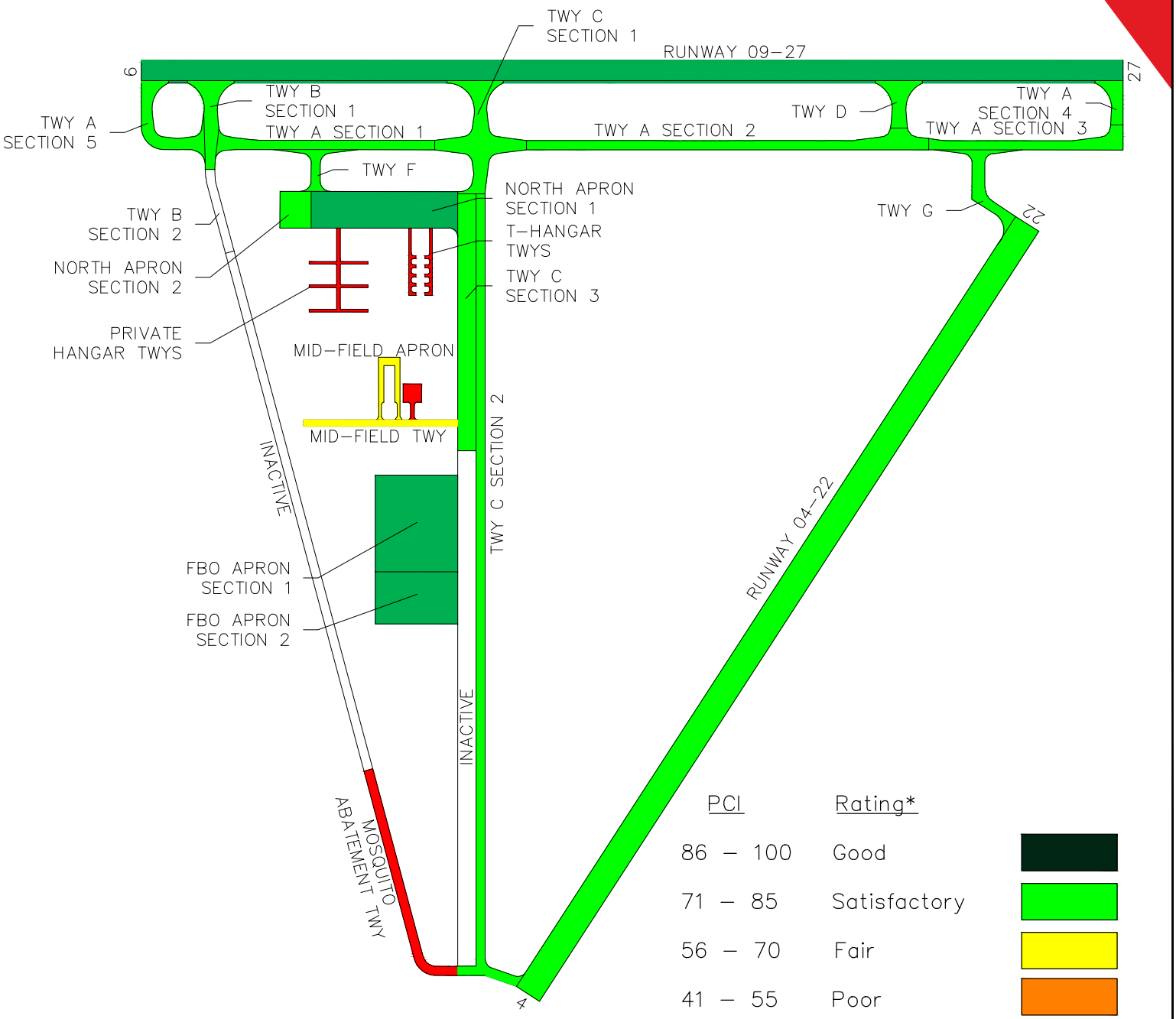
The largest PCI reductions were seen in the North GA Apron Expansion (N-APRON Section 02), Taxiway A (TWY-A Sections 01, 03, 04 & 05), Taxiway B (TWY-B Section 01), Taxiway D, Taxiway F and Taxiway G. The distress that was most evident in this inspection that was not apparent in the past is low-severity weathering. These pavements had asphalt rejuvenator applied in 2019. Over the last five years, the rejuvenator is wearing off and the underlying weathering distress is beginning to appear. For this reason, these sections' ratings were reduced from good to satisfactory.

A few sections of the network have also had their rating drop since the 2019 inspection. The Mosquito Abatement Taxiway (MA-TWY), Mid-Field Apron (MF-Apron Section 01), and the Private Hangar Taxiways (PVT-TWY) ratings were changed from poor to very poor. In addition, the Mid-Field Taxiway (MF-TWY) was changed from satisfactory to fair and Taxiway B (TWY-B Section 02) was changed from fair to poor. These pavements described above that have ratings of poor to very poor are relatively low use pavements. However, due to their condition, maintenance should be considered in the near future.

Refer to the Pavement Management Program for JZI for Maintenance and Repair recommendations.

F. Maintenance and Repair Recommendations

Refer to the Pavement Management Program for JZI for Maintenance and Repair recommendations.



PCI	Rating*
86 – 100	Good
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* Rating System IAW ASTM D 5340.

800 1 inch = 800 ft. 0 400 800

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SECTION PCI RATINGS

CHARLESTON EXECUTIVE AIRPORT

FIG II-1

DATE: 12/15/2023 | CHARLESTON, SOUTH CAROLINA | REF: | ADC PROJECT#: 22409.2

TABLE II-1: BRANCH / SECTION PCI RATINGS										
Pavement Name	PAVER Branch ID	PAVER Section ID	Type	2010 PCI	2012 PCI	2015 PCI	2019 PCI	**2022 PCI**	**Change in PCI From 2019 to 2022**	**2022 PCI Rating**
Atlantic Aviation Apron	FBO-APRON	01	PCC	97	94	93	92	**89**	**-3**	**Good**
Atlantic Aviation Apron Expansion	FBO-APRON	02		N/A	98	97	94	**89**	**-5**	**Good**
Mosquito Abatement Taxiway	MA-TWY	01	PCC	48	46	44	41	**35**	**-6**	**Very Poor**
Mid-Field Apron (Concrete)	MF-APRON	01	PCC	61	61	54	41	**33**	**-8**	**Very Poor**
Mid-Field Apron (Asphalt)	MF-APRON	02		N/A	N/A	69	62	**59**	**-3**	**Fair**
Mid-Field Taxiway	MF-TWY	01		94	91	84	72	**68**	**-4**	**Fair**
North GA Apron	N-APRON	01		61	53	N/A	95	**91**	**-3**	**Good**
North GA Apron Expansion	N-APRON	02		97	98	96	95	**85**	**-10**	**Satisfactory**
Private Hangar Taxiways	PVT-TWY	01		51	47	45	44	**40**	**-4**	**Very Poor**
Runway 04-22	RWY 04-22	01	PCC	83	79	78	76	**74**	**-2**	**Satisfactory**
Runway 09/27	RWY 09-27	01	PCC	N/A	99	97	96	**91**	**-5**	**Good**
Runway 09/27 Shoulders *[1]	RWY 09-27	01S		N/A	99	94	90	**87**	**-3**	**Good**
T-Hangar Taxiways	TH-TWY	01		57	48	41	36	**35**	**-1**	**Very Poor**
Taxiway A	TWY-A	01		97	98	90	89	**75**	**-14**	**Satisfactory**
	TWY-A	02		97	96	92	91	**85**	**-6**	**Satisfactory**
	TWY-A	03		97	95	95	90	**72**	**-18**	**Satisfactory**
	TWY-A	04		N/A	N/A	96	95	**84**	**-11**	**Satisfactory**
	TWY A	05		N/A	N/A	N/A	94	**81**	**-13**	**Satisfactory**

TABLE II-1: BRANCH / SECTION PCI RATINGS										
Pavement Name	PAVER Branch ID	PAVER Section ID	Type	2010 PCI	2012 PCI	2015 PCI	2019 PCI	**2022 PCI**	**Change in PCI From 2019 to 2022**	**2022 PCI Rating**
Taxiway B (asphalt)	TWY B	01		N/A	100	99	93	**76**	**-17**	**Satisfactory**
Taxiway B *[2]	TWY B	02	PCC	70	59	58	56	**N/I**		
Taxiway C (asphalt)	TWY C	01		N/A	N/A	94	91	**83**	**-8**	**Satisfactory**
Taxiway C	TWY C	02	PCC	85	80	70	67	**73**	**+6**	**Satisfactory**
	TWY C	03	PCC	85	84	78	75	**73**	**-2**	**Satisfactory**
Taxiway D	TWY D	01		N/A	100	99	95	**85**	**-10**	**Satisfactory**
Taxiway F	TWY F	01		N/A	N/A	97	90	**72**	**-18**	**Satisfactory**
Taxiway G	TWY G	01		N/A	98	97	92	**82**	**-10**	**Satisfactory**

Section Rating Notes:

1. The 2015 and 2019 PCI values for RWY 09-27 Section 01S have been recalculated to treat the runway shoulders as one section.
2. N/I – Not Inspected. Taxiway B Section 2 was not surveyed inadvertently by Silent Falcon UAS. This section will be manually surveyed at a later date.

TABLE II-2: JZI PAVEMENT INVENTORY *3					
Pavement Name	PAVER Branch ID	PAVER Section ID	Construction Period (Approximate)	Type	Remarks
Atlantic Aviation Apron	FBO-APRON	01	4/2008	PCC	**Original Construction (10" PCC/6" SCBC) *1**
Atlantic Aviation Apron Expansion	FBO-APRON	02	8/2010	PCC	**Original Construction (10" PCC/6" SCBC) *1**
Mosquito Abatement Taxiway	MA-TWY	01	1/1943	PCC	**Original Construction (6" PCC w/ 9" keyed thickened edges) *2**
Mid-Field Apron (Concrete)	MF-APRON	01	1/1996	PCC	**Original Construction (unknown pavement section)**
Mid-Field Apron (Asphalt)	MF-APRON	02	**1/1999**	AC	**Original Construction (unknown pavement section)**
Mid-Field Taxiway	MF-TWY	01	2/1995	AC	**Original Construction (6" AC/8" CABC) *1**
North GA Apron	N-APRON	01	UNKNOWN 12/2016	AC	**Original Construction (3.75" AC± / 7.75" ABC±) *3** **Mill and Overlay (2" AC)**
North GA Apron Expansion	N-APRON	02	8/2007	AC	**Original Construction (4" AC/10" CABC) *1**
Private Hangar Taxiways	PVT-TWY	01	1/1982 1/1999	AC	**Original Construction (unknown pavement section)** **Expansion for T-Hangars (2" AC/6" CTB) *1**
Runway 04-22	RWY 04-22	01	1/1943	PCC	**Original Construction (6" PCC w/ 9" keyed thickened edges) *2**
Runway 09/27	RWY 09-27	01	1/1943 2/2001	PCC	**Original Construction (6" PCC w/ 9" keyed thickened edges) *2** **Runway Reconstruction (11" PCC/Base), (11" PCC/AC Leveling Course/8" Base), (11" PCC/AC Leveling Course/7" ± Original PCC) *1, 4**
Runway 09/27 (Shoulders)	RWY 09-27	01S	**2/2011**	AC	**Runway Reconstruction (2" AC/8" Base) *1**
T-Hangar Taxiways	TH-TWY	01	1/1975	AC	**Original Construction (unknown pavement section)**

TABLE II-2: JZI PAVEMENT INVENTORY *3					
Pavement Name	PAVER Branch ID	PAVER Section ID	Construction Period (Approximate)	Type	Remarks
Taxiway A	TWY-A	01	**Unknown** **8/2007**	AC	**Original Construction (unknown pavement section)** **Reconstruction (4" AC/10" CABC) *1**
	TWY-A	02	**8/1983** **2/2009** **9/2019**	AC	**Original Construction (3" AC/6" LRBC) *1** **Overlay and Widening (2" ± AC Overlay, 4" ± AC/10" CABC) *1** **Seal Coat**
	TWY-A	03	**2/2009** **9/2019**	AC	**Original Construction (4" AC/10" CABC) *1** **Seal Coat**
	TWY-A	04	**2/2009** **2/2011** **9/2019**	AC	**Original Construction (4" AC/10" CABC) *1** **Re-Construction (w/ RWY 09-27) (4" AC/13" CABC) *1** **Seal Coat**
	TWY A	05	**2/2011** **9/2019**	AC	**Original Construction (w/ RWY 09-27) (4" AC/13" CABC) *1** **Seal Coat (minor M&R)**
Taxiway B (asphalt)	TWY B	01	**8/2007** **2/2011** **9/2019**	AC	**Original Construction (replacement of PCC taxiway) (4" AC/10" CABC) *1** **Re-Construction (w/ RWY 09-27) (4" AC/13" CABC) *1** **Seal Coat (minor M&R)**
Taxiway B (concrete)	TWY B	02	1/1943	PCC	**Original Construction (6" PCC w/ 9" keyed thickened edges) *2**
Taxiway C (asphalt)	TWY C	01	**2/2011** **9/2019**	AC	**Original Construction (w/ RWY 09-27) (4" AC/13" CABC) *1** **Seal Coat (minor M&R)**
Taxiway C (concrete)	TWY C	02	1/1943 **6/2022**	PCC	**Original Construction (formerly RWY 18-36)** **(6" PCC w/ 9" keyed thickened edges) *2** **Randon slab replacements.**
	TWY C	03	1/1943	PCC	**Original Construction (formerly RWY 18-36)** **(6" PCC w/ 9" keyed thickened edges) *2**
Taxiway D	TWY D	01	**8/1983** **2/2009** **2/2011** **9/2019**	AC	**Original Construction (3" AC/6" LRBC) *1** **Overlay and Widening (2" ± AC Overlay, 4" ± AC/10" CABC) *1** **Re-Construction (w/ RWY 09-27) (4" AC/13" CABC) *1** **Seal Coat**

TABLE II-2: JZI PAVEMENT INVENTORY *3					
Pavement Name	PAVER Branch ID	PAVER Section ID	Construction Period (Approximate)	Type	Remarks
Taxiway F	TWY F	01	**8/2007** **9/2019**	AC	**Original Construction (4" AC/10" CABC) *1** **Seal Coat (minor M&R)**
Taxiway G	TWY G	01	**2/2009** **9/2019**	AC	**Original Construction (4" AC/10" CABC) *1** **Seal Coat (minor M&R)**

Pavement Inventory Notes:

BOLD indicates updates to the inventory.

1. SCBC = Soil Cement Base Course
   CABC = Crushed Aggregate Base Course
   ABC = Aggregate Base Course
   CTB = Cement Treated Base Course
   Base = Either Crushed Aggregate Base Course or Recycled Concrete Base Course
   LRBC = Lime Rock Base Course
2. Pavement information taken from record drawings for the Runway Pavement Rehabilitation project dated 8/8/1991.
3. The inventory shown has been taken from record drawings of previous projects.

G. Photographs – Charleston Executive Airport

JZI – Atlantic Aviation Apron (FBO-Apron Section 01) Photographs

Photograph 1: Typical Linear Crack (low-severity)

Photograph 2: Typical Joint Spall (low-severity) and Corner Spall (low-severity)

JZI – Atlantic Aviation Apron Expansion (FBO-Apron Section 02) Photographs

Photograph 3: Typical Linear Crack (low-severity)

Photograph 4: Typical Joint Sealant Damage (low-severity)

JZI – Mosquito Abatement Taxiway (MA-TWY Section 01) Photographs

Photograph 5: Shattered Slab (high-severity)

Photograph 6: Typical Corner Break (medium-severity)

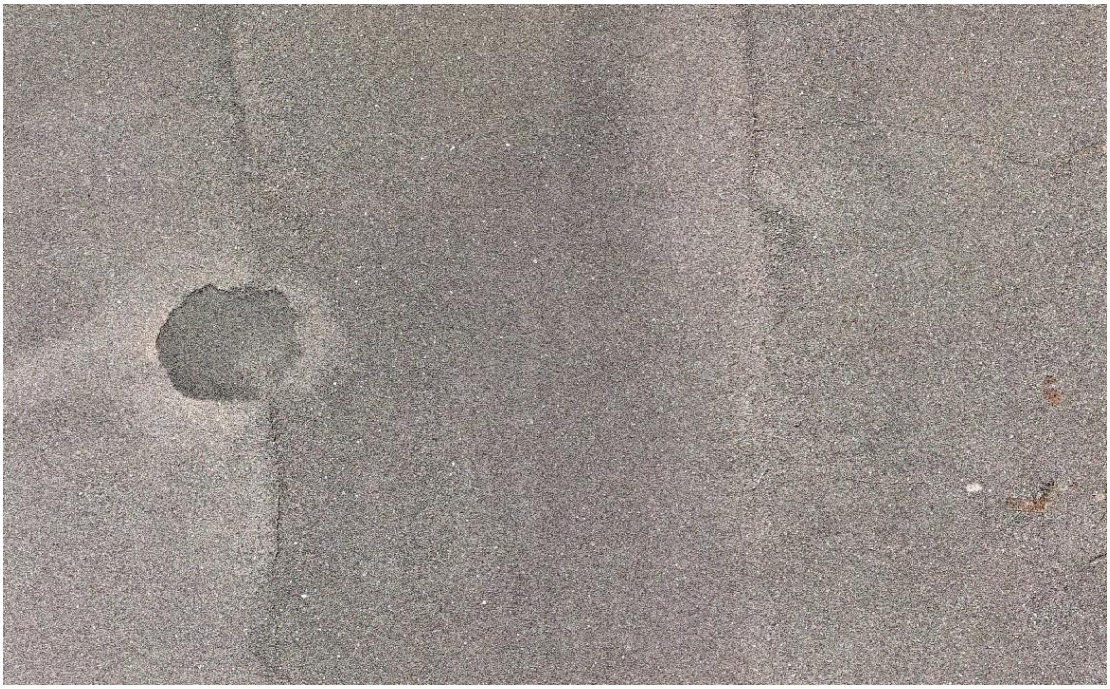
JZI – Mid-Field Apron (MF-APRON Section 01) Photographs

Photograph 7: Typical Shattered Slab (medium-severity)

Photograph 8: Typical Linear Crack (medium-severity)

JZI – Mid-Field Apron (MF-APRON Section 02) Photographs

Photograph 9: Alligator Cracking (Low-Severity)



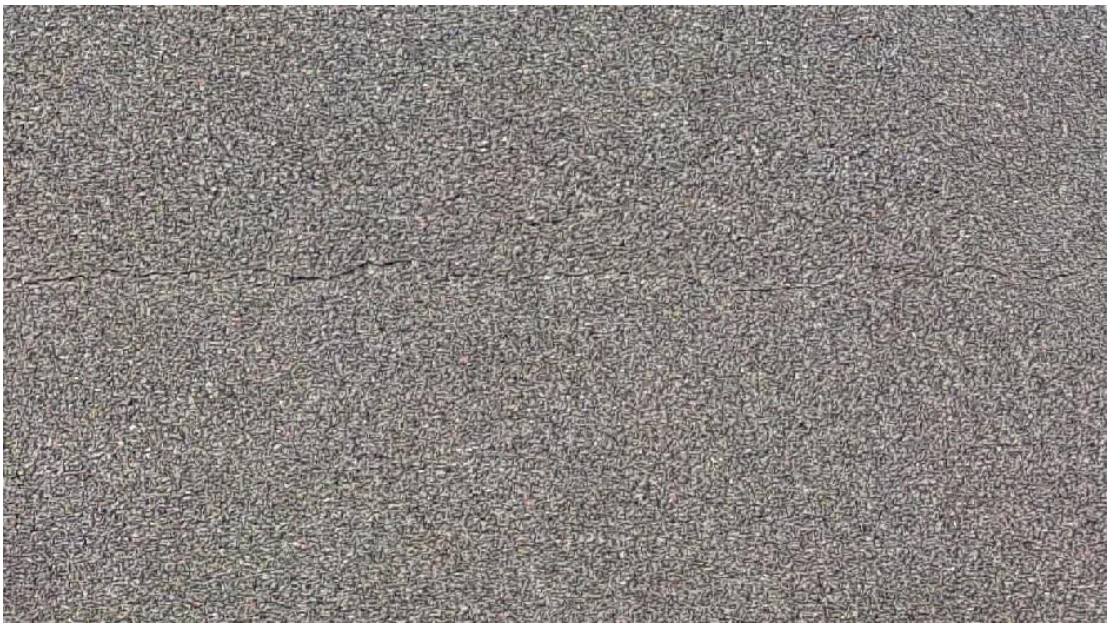
Photograph 10: Patching (Low-Severity) and Longitudinal and Transverse Cracking (Low and Medium-Severity)

JZI – Mid-Field Taxiway (MF-TWY Section 01) Photographs

Photograph 11: Typical Longitudinal and Transverse Cracking (Medium-Severity)

Photograph 12: Alligator Cracking (Low-Severity) and Weather (Low-Severity)

JZI – North GA Apron (N-APRON Section 01) Photographs



Photograph 13: Typical Longitudinal Cracking (Low-Severity) and Weathering (Low-Severity)

Photograph 14: Typical Longitudinal Cracking (Low-Severity) and Weathering (Low-Severity)

JZI – North GA Apron Expansion (N-APRON Section 02) Photographs

Photograph 15: Typical Longitudinal Cracking (Medium-Severity) and Weathering (Low-Severity)

Photograph 16: Typical Longitudinal Cracking (Low-Severity) and Weathering (Low-Severity)

JZI – Private Hangar Taxiways (PVT-TWY Section 01) Photographs

Photograph 17: Alligator Cracking (Medium-Severity)

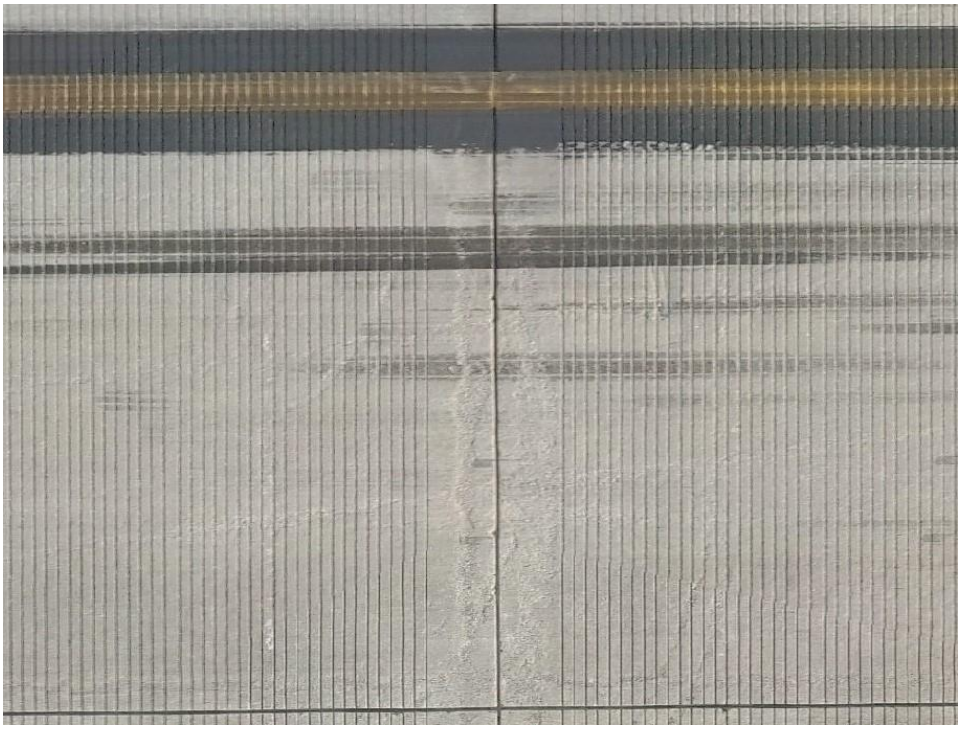
Photograph 18: Raveling (High-Severity)

JZI – Runway 04-22 (RWY 04-22 Section 01) Photographs

Photograph 19: Typical Small Patch at Spall Repair (medium-severity)

Photograph 20: Typical Linear Crack (low-severity)

JZI – Runway 09-27 (RWY 09-27 Section 01) Photographs

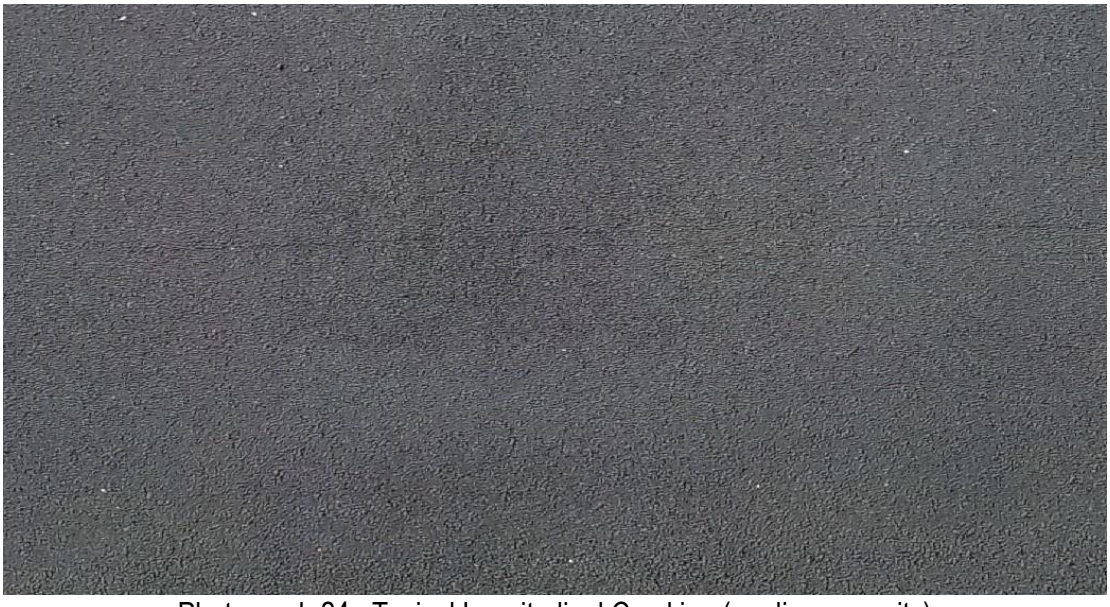


Photograph 21: Typical Scaling (low-severity)

Photograph 22: Typical Shrinkage Cracking (low-severity)

JZI – Runway 09-27 Shoulders (RWY 09-27 Section 01S) Photographs

Photograph 23: Typical Transverse Cracking (medium-severity)



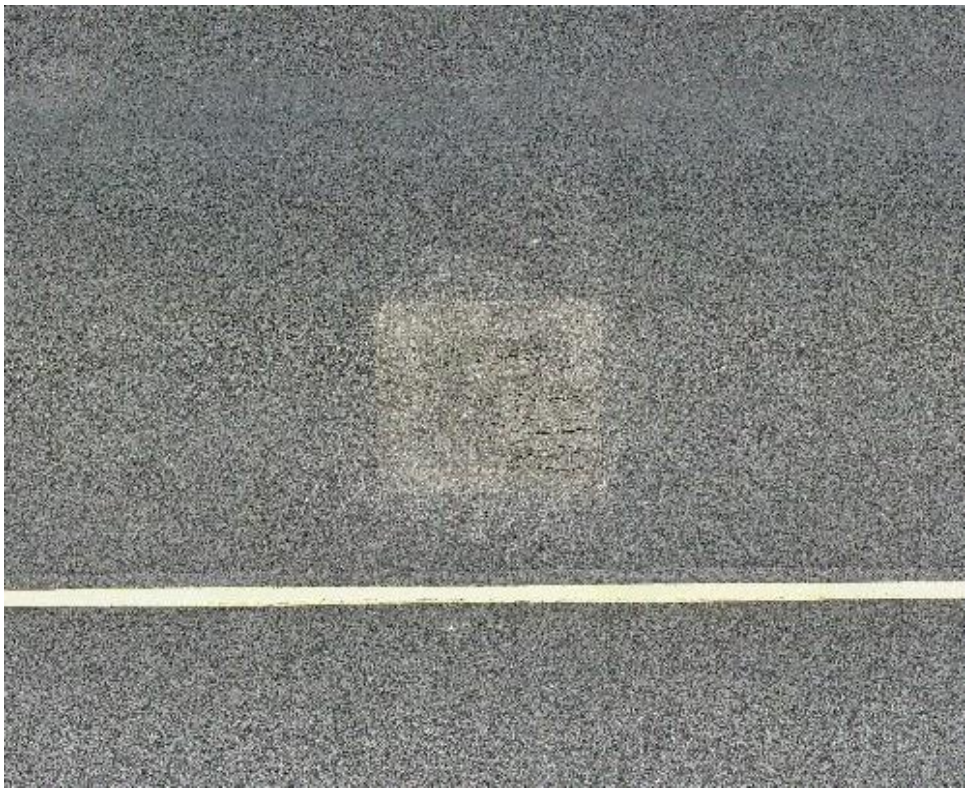
Photograph 24: Typical Longitudinal Cracking (medium-severity)

JZI – T-Hangar Taxiways (TH-TWY Section 01) Photographs

Photograph 25: Raveling (high-severity)

Photograph 26: Typical Transverse Cracking (low-severity)

JZI – Taxiway A (TWY-A Section 01) Photographs



Photograph 27: Patching (medium-severity)

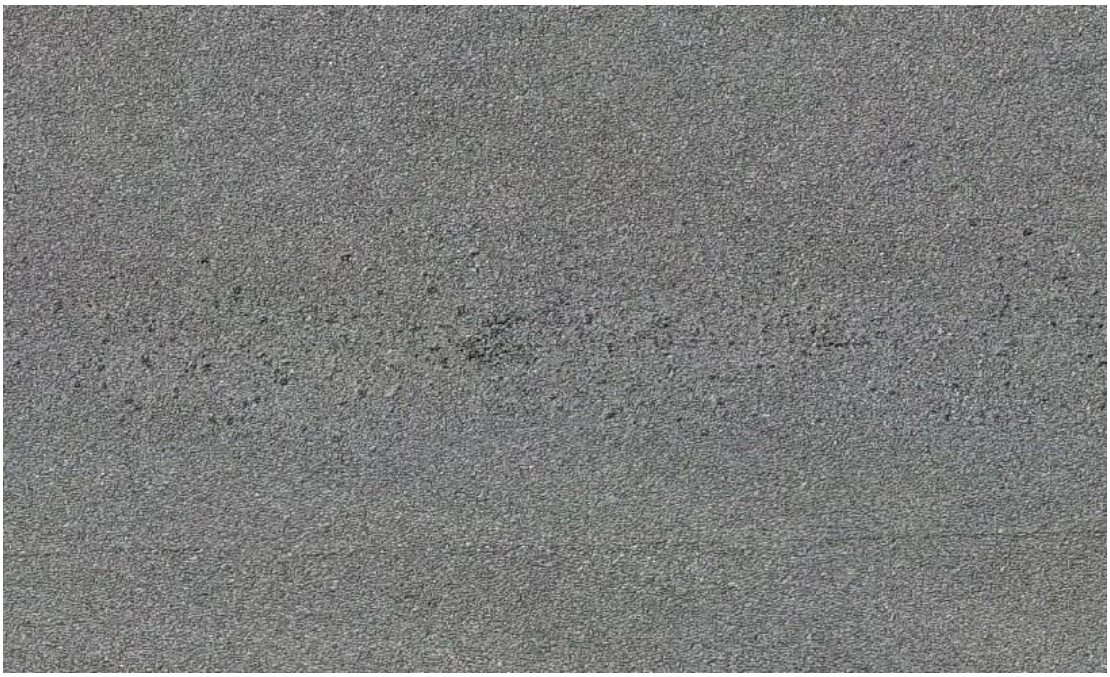
Photograph 28: Typical Longitudinal Cracking (medium-severity)

JZI – Taxiway A (TWY-A Section 02) Photographs

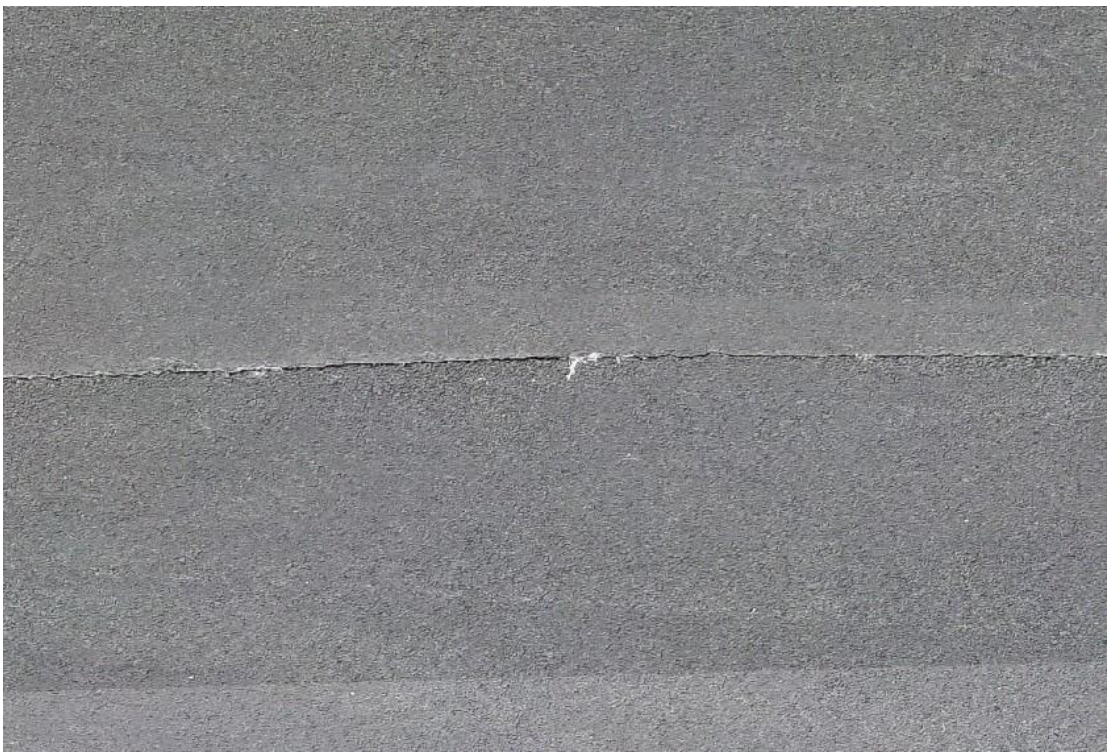
Photograph 29: Typical Longitudinal Cracking (medium-severity)

Photograph 30: Typical Longitudinal Cracking (low-severity)

JZI – Taxiway A (TWY-A Section 03) Photographs



Photograph 31: Raveling (medium-severity)



Photograph 32: Typical Longitudinal Cracking (medium-severity)

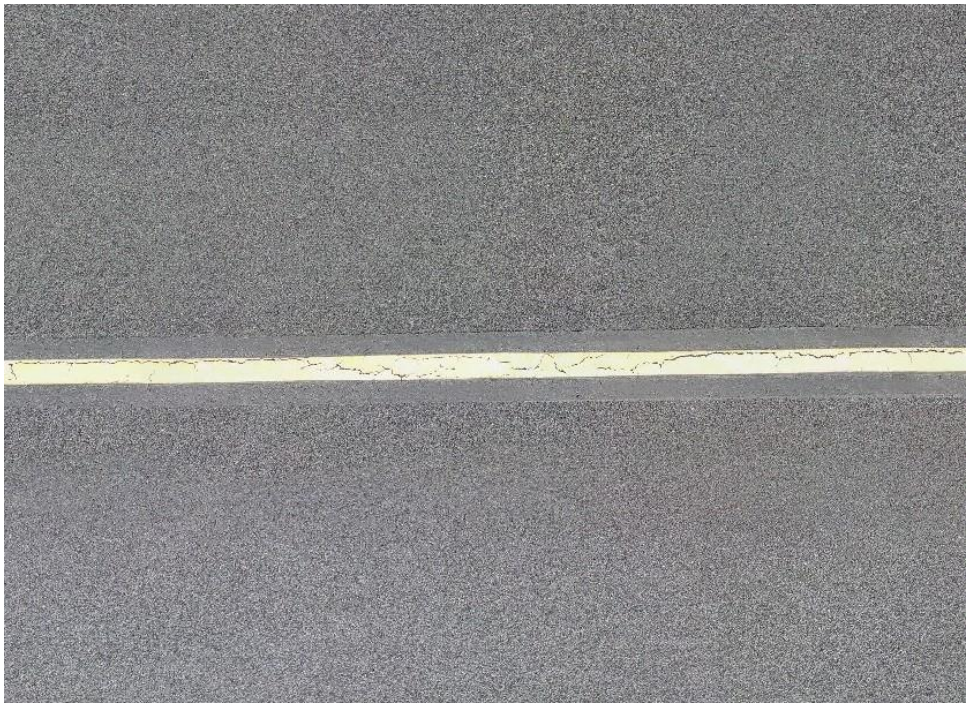
JZI – Taxiway A (TWY-A Section 04) Photographs

Photograph 33: Typical Transverse Cracking (medium-severity)

Photograph 34: Typical Transverse Cracking (low-severity)

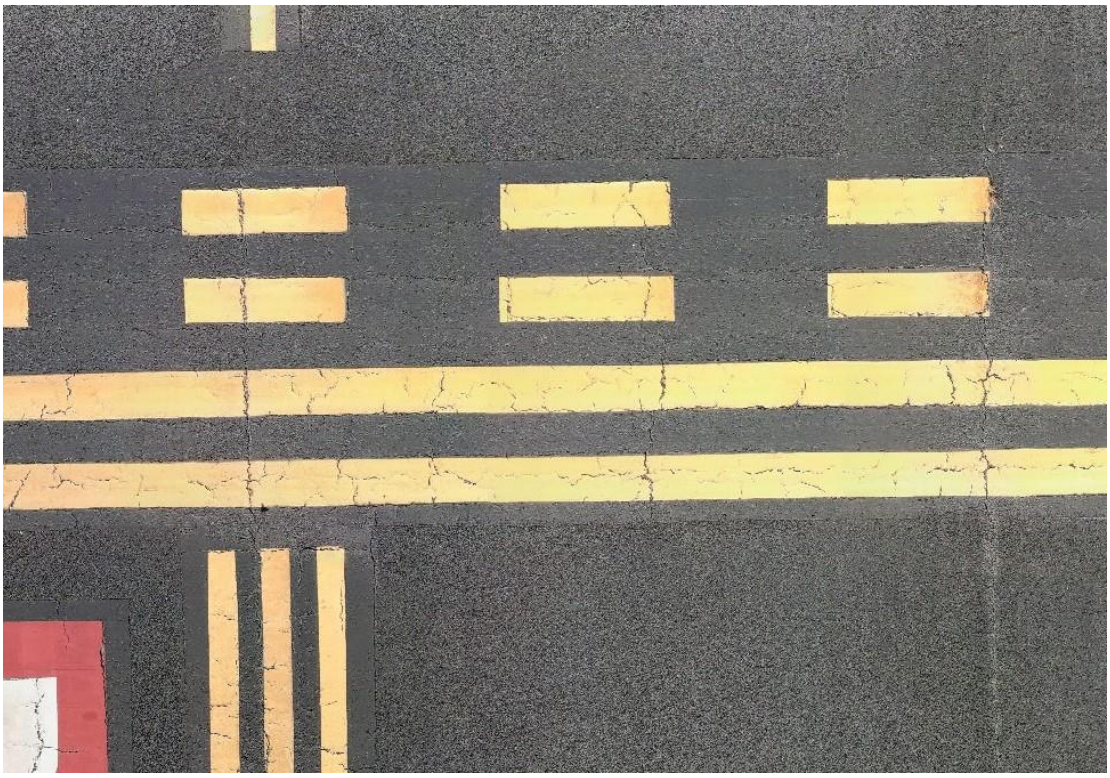
JZI – Taxiway A (TWY-A Section 05) Photographs

Photograph 35: Typical Longitudinal Cracking (low-severity)



Photograph 36: Typical Longitudinal Cracking (low-severity)

JZI – Taxiway B (TWY-B Section 01) Photographs



Photograph 37: Typical Longitudinal Cracking (medium-severity)

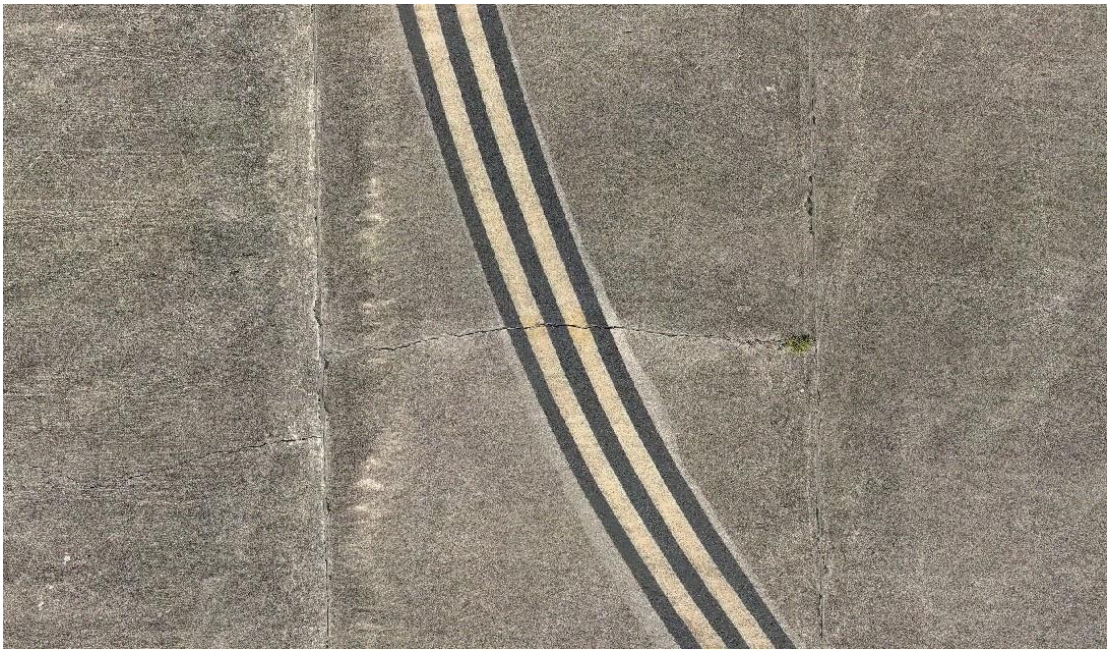
Photograph 38: Typical Longitudinal Cracking (low-severity)

JZI – Taxiway C (TWY-C Section 01) Photographs

Photograph 39: Typical Longitudinal Cracking (low-severity)

Photograph 40: Typical Longitudinal Cracking (low-severity)

JZI – Taxiway C (TWY-C Section 02) Photographs

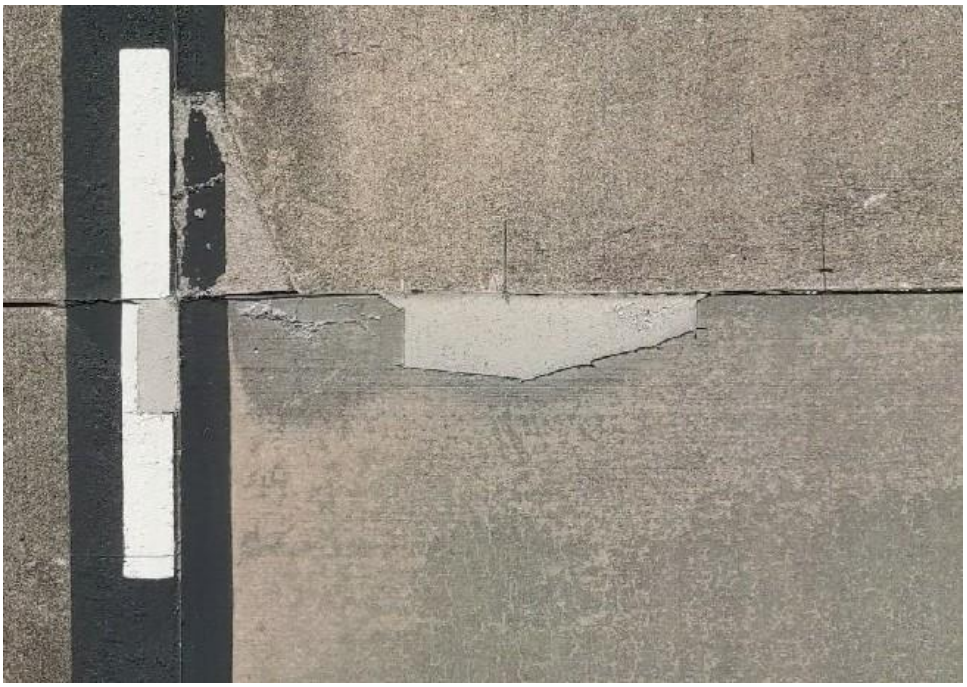


Photograph 41: Typical Linear Crack (medium-severity)

Photograph 42: Typical Small Patch (low-severity) Adjacent to a Replaced Slab

JZI – Taxiway C (TWY-C Section 03) Photographs

Photograph 43: Typical Linear Crack (medium-severity)



Photograph 44: Typical Joint Spall (medium-severity) Adjacent to a Repaired Joint Spall

JZI – Taxiway D (TWY-D Section 01) Photographs

Photograph 45: Typical Longitudinal Cracking (medium-severity)

Photograph 46: Typical Longitudinal Cracking (low and medium-severity)

JZI – Taxiway F (TWY-F Section 01) Photographs

Photograph 47: Typical Longitudinal Cracking (medium-severity)

Photograph 48: Typical Joint Spall (medium-severity) Adjacent to a Repaired Joint Spall

JZI – Taxiway G (TWY-G Section 01) Photographs

Photograph 49: Typical Longitudinal Cracking (medium-severity)

Photograph 50: Typical Transverse Cracking (medium-severity)

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APPENDIX A – SECTION DISTRESSES AND SECTION PCI VALUES

Branch	Section	Material	Distress	Level	Distress Quantity (Sq. Ft.)	Distress Quantity (Lin. Ft.)	PCC Distress Quantity (# of Slabs)	Pavement Quantity (Sq. Ft. for Asphalt) (# of Slabs for Concrete)	Percent Density	Section PCI
FBO-APRON	01	Concrete	Joint Seal Damage	M			7	1,036	0.68%	89
FBO-APRON	01	Concrete	Joint Seal Damage	H			113		10.91%	
FBO-APRON	01	Concrete	Patching Small	L			1		0.10%	
FBO-APRON	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			3		0.29%	
FBO-APRON	01	Concrete	Shrinkage Cracking	N/A			2		0.19%	
FBO-APRON	01	Concrete	Spalling (Transverse and Longitudinal Joint)	L			14		1.35%	
FBO-APRON	01	Concrete	Spalling (Corner)	L			1		0.10%	
FBO-APRON	02	Concrete	Joint Seal Damage	L			1	690	0.14%	89
FBO-APRON	02	Concrete	Joint Seal Damage	M			43		6.23%	
FBO-APRON	02	Concrete	Joint Seal Damage	H			42		6.09%	
FBO-APRON	02	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			2		0.29%	
FBO-APRON	02	Concrete	Shrinkage Cracking	NULL			161		23.33%	
MA-TWY	01	Concrete	Joint Seal Damage	L			9	256	3.52%	35
MA-TWY	01	Concrete	Joint Seal Damage	H			150		58.59%	
MA-TWY	01	Concrete	Patching Small	L			8		3.13%	
MA-TWY	01	Concrete	Shattered Slab/Intersecting Cracks	H			1		0.39%	
MA-TWY	01	Concrete	Corner Break	M			1		0.39%	
MA-TWY	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			9		3.52%	
MA-TWY	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	M			17		6.64%	
MA-TWY	01	Concrete	Shrinkage Cracking	N/A			5		1.95%	
MA-TWY	01	Concrete	Spalling (Transverse and Longitudinal Joint)	L			9		3.52%	
MA-TWY	01	Concrete	Spalling (Corner)	L			6		2.34%	
MF-APRON	01	Concrete	Shattered Slab/Intersecting Cracks	M			25	35	71.43%	33
MF-APRON	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	M			7		20.00%	
MF-APRON	02	Asphalt	Longitudinal and Transverse Cracking	L		819		20,114	4.07%	59
MF-APRON	02	Asphalt	Longitudinal and Transverse Cracking	M		93			0.46%	
MF-APRON	02	Asphalt	Weathering	L	20,114				100.00%	
MF-APRON	02	Asphalt	Alligator Cracking	M	111				0.55%	
MF-APRON	02	Asphalt		L	9				0.04%	
MF-TWY	01	Asphalt	Longitudinal and Transverse Cracking	L		940		29,400	3.20%	68
MF-TWY	01	Asphalt	Longitudinal and Transverse Cracking	M		310			1.05%	
MF-TWY	01	Asphalt	Alligator Cracking	L	210				0.71%	
MF-TWY	01	Asphalt	Weathering	L	29,400				100.00%	
N-APRON	01	Asphalt	Longitudinal and Transverse Cracking	L		247		172,723	0.14%	91
N-APRON	01	Asphalt	Weathering	L	172,723				100.00%	
N-APRON	02	Asphalt	Longitudinal and Transverse Cracking	L		268		34,000	0.79%	83
N-APRON	02	Asphalt	Longitudinal and Transverse Cracking	M		130			0.38%	
N-APRON	02	Asphalt	Weathering	L	33,481				98.47%	

Branch	Section	Material	Distress	Level	Distress Quantity (Sq. Ft.)	Distress Quantity (Lin. Ft.)	PCC Distress Quantity (# of Slabs)	Pavement Quantity (Sq. Ft. for Asphalt) (# of Slabs for Concrete)	Percent Density	Section PCI
PVT-TWY	01	Asphalt	Longitudinal and Transverse Cracking	L		1,135		51,422	2.21%	40
PVT-TWY	01	Asphalt	Longitudinal and Transverse Cracking	M		1,921			3.73%	
PVT-TWY	01	Asphalt	Weathering	L	51,422				100.00%	
PVT-TWY	01	Asphalt	Raveling	H	140				0.27%	
PVT-TWY	01	Asphalt	Alligator Cracking	M	271				0.53%	
PVT-TWY	01	Asphalt	Raveling	M	17				0.03%	
PVT-TWY	01	Asphalt	Alligator Cracking	L	76				0.15%	
PVT-TWY	01	Asphalt	Patching and Utility Cut Patch	H	37				0.07%	
PVT-TWY	01	Asphalt	Depression	L	1,113				2.16%	
PVT-TWY	01	Asphalt	Depression	H	12				0.02%	
RWY 04-22	01	Concrete	Joint Seal Damage	L			20	2,400	0.83%	74
RWY 04-22	01	Concrete	Joint Seal Damage	H			580		24.17%	
RWY 04-22	01	Concrete	Patching Small	L			601		25.04%	
RWY 04-22	01	Concrete	Patching Small	M			31		1.29%	
RWY 04-22	01	Concrete	Patching Large	L			19		0.79%	
RWY 04-22	01	Concrete	Pumping	N/A			23		0.96%	
RWY 04-22	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			66		2.75%	
RWY 04-22	01	Concrete	Longitudinal, Transverse and Diagonal Cracking	M			3		0.13%	
RWY 04-22	01	Concrete	Shrinkage Cracking	N/A			106		4.42%	
RWY 04-22	01	Concrete	Spalling (Corner)	M			6		0.25%	
RWY 09-27	01	Concrete	Joint Seal Damage	H			4	2,888	0.14%	91
RWY 09-27	01	Concrete	Scaling	L			2		0.07%	
RWY 09-27	01	Concrete	Shrinkage Cracking				84		2.91%	
RWY 09-27	01	Concrete	Spalling (Transverse and Longitudinal Joint)	L			2		0.07%	
RWY 09-27	01	Concrete	Spalling (Corner)	L			1		0.03%	
RWY 09-27	01S	Asphalt	Longitudinal and Transverse Cracking	L		65		103,185	0.06%	94
RWY 09-27	01S	Asphalt	Longitudinal and Transverse Cracking	M		45			0.04%	
TH-TWY	01	Asphalt	Weathering	L	12,503			14,276	87.58%	35
TH-TWY	01	Asphalt	Raveling	M	846				5.93%	
TH-TWY	01	Asphalt	Longitudinal and Transverse Cracking	M		38			0.27%	
TH-TWY	01	Asphalt	Patching and Utility Cut Patch	M	29				0.20%	
TH-TWY	01	Asphalt	Raveling	H	559				3.91%	
TH-TWY	01	Asphalt	Longitudinal and Transverse Cracking	L		28			0.19%	
TWY-A	01	Asphalt	Longitudinal and Transverse Cracking	L		2,115		61,912	3.42%	75
TWY-A	01	Asphalt	Weathering	L	61,875				99.94%	
TWY-A	01	Asphalt	Longitudinal and Transverse Cracking	M		8			0.01%	
TWY-A	01	Asphalt	Patching and Utility Cut Patch	M	38				0.06%	
TWY-A	02	Asphalt	Longitudinal and Transverse Cracking	L		1,951		126,267	1.54%	86
TWY-A	02	Asphalt	Weathering	L	121,256				96.03%	
TWY-A	02	Asphalt	Longitudinal and Transverse Cracking	M		38			0.03%	

Branch	Section	Material	Distress	Level	Distress Quantity (Sq. Ft.)	Distress Quantity (Lin. Ft.)	PCC Distress Quantity (# of Slabs)	Pavement Quantity (Sq. Ft. for Asphalt) (# of Slabs for Concrete)	Percent Density	Section PCI
TWY-A	03	Asphalt	Longitudinal and Transverse Cracking	L		1,665		57,091	2.92%	71
TWY-A	03	Asphalt	Longitudinal and Transverse Cracking	M		71			0.12%	
TWY-A	03	Asphalt	Weathering	L	57,085				99.99%	
TWY-A	03	Asphalt	Patching and Utility Cut Patch	M	3				0.01%	
TWY-A	03	Asphalt	Raveling	L	50				0.09%	
TWY-A	03	Asphalt	Raveling	M	5				0.01%	
TWY-A	04	Asphalt	Longitudinal and Transverse Cracking	L		200		19,974	1.00%	84
TWY-A	04	Asphalt	Longitudinal and Transverse Cracking	M		38			0.19%	
TWY-A	04	Asphalt	Weathering	L	19,974				100.00%	
TWY-A	05	Asphalt	Longitudinal and Transverse Cracking	L		2,333		47,777	4.88%	80
TWY-A	05	Asphalt	Weathering	L	47,777				100.00%	
TWY-B	01	Asphalt	Longitudinal and Transverse Cracking	L		2,182		43,380	5.03%	76
TWY-B	01	Asphalt	Weathering	L	43,380				100.00%	
TWY-B	01	Asphalt	Longitudinal and Transverse Cracking	M		28			0.07%	
TWY-C	01	Asphalt	Longitudinal and Transverse Cracking	L		2,171		95,516	2.27%	84
TWY-C	01	Asphalt	Weathering	L	95,516				100.00%	
TWY-C	01	Asphalt	Longitudinal and Transverse Cracking	M		5			0.01%	
TWY-C	02	Concrete	Joint Seal Damage	H			156	728	21.43%	77
TWY-C	02	Concrete	Patching Small	L			320		43.96%	
TWY-C	02	Concrete	Patching Small	M			3		0.41%	
TWY-C	02	Concrete	Pumping	N/A			4		0.55%	
TWY-C	02	Concrete	Intersecting Cracks	L			1		0.14%	
TWY-C	02	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			11		1.51%	
TWY-C	02	Concrete	Longitudinal, Transverse and Diagonal Cracking	M			5		0.69%	
TWY-C	02	Concrete	Shrinkage Cracking	N/A			20		2.75%	
TWY-C	02	Concrete	Spalling (Transverse and Longitudinal Joint)	L			6		0.82%	
TWY-C	03	Concrete	Joint Seal Damage	H			130	792	16.41%	74
TWY-C	03	Concrete	Patching Small	L			383		48.36%	
TWY-C	03	Concrete	Pumping	N/A			76		9.60%	
TWY-C	03	Concrete	Longitudinal, Transverse and Diagonal Cracking	L			1		0.13%	
TWY-C	03	Concrete	Longitudinal, Transverse and Diagonal Cracking	M			4		0.51%	
TWY-C	03	Concrete	Shrinkage Cracking	N/A			12		1.52%	
TWY-C	03	Concrete	Spalling (Transverse and Longitudinal Joint)	L			13		1.64%	
TWY-C	03	Concrete	Spalling (Transverse and Longitudinal Joint)	M			1		0.13%	
TWY-C	03	Concrete	Spalling (Corner)	L			5		0.63%	
TWY-D	01	Asphalt	Longitudinal and Transverse Cracking	L		336		21,793	1.54%	85
TWY-D	01	Asphalt	Weathering	L	21,793				100.00%	
TWY-D	01	Asphalt	Longitudinal and Transverse Cracking	M		32			0.15%	
TWY-F	01	Asphalt	Longitudinal and Transverse Cracking	L		1,327		18,925	7.01%	72
TWY-F	01	Asphalt	Longitudinal and Transverse Cracking	M		15			0.08%	
TWY-F	01	Asphalt	Weathering	L	18,925				100.00%	
TWY-G	01	Asphalt	Longitudinal and Transverse Cracking	M		144		38,906	0.37%	82
TWY-G	01	Asphalt	Weathering	L	38,906				100.00%	
TWY-G	01	Asphalt	Longitudinal and Transverse Cracking	L		912			2.34%	

APPENDIX B – BRANCH AND SECTION RATINGS

Branch Condition Report

Pavement Database: CCAA-JZI

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
FBO-APRO	2	900.00	405.00	364,500.00	APRON	88.95	0.45	89.08
MA-TWY	1	1,267.00	50.00	63,350.00	TAXIWAY	34.60	0.00	34.60
MF-APRON	2	200.00	100.00	30,114.00	APRON	46.30	13.00	50.67
MF-TWY	1	840.00	35.00	29,400.00	TAXIWAY	67.50	0.00	67.50
N-APRON	2	970.00	200.00	206,723.00	APRON	87.25	4.15	90.03
PVT-TWY	1	2,650.00	20.00	51,422.00	TAXIWAY	39.50	0.00	39.50
RWY 04-22	1	5,000.00	150.00	750,000.00	RUNWAY	73.60	0.00	73.60
RWY 09-27	2	10,700.00	56.00	638,185.00	RUNWAY	89.30	1.90	90.59
TH-TWY	1	367.00	39.00	14,276.00	TAXIWAY	42.80	0.00	42.80
TWY-A	5	5,234.00	62.40	313,021.00	TAXIWAY	79.28	5.02	79.82
TWY-B	2	902.00	50.00	64,380.00	TAXIWAY	65.10	11.10	68.96
TWY-C	3	6,753.00	66.67	443,766.00	TAXIWAY	76.70	4.39	75.67
TWY-D	1	255.00	50.00	29,360.00	TAXIWAY	85.10	0.00	85.10
TWY-F	1	227.00	50.00	18,925.00	TAXIWAY	72.30	0.00	72.30
TWY-G	1	481.00	50.00	38,906.00	TAXIWAY	81.70	0.00	81.70

Pavement Database: CCAA-JZI

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average STD PCI	Weighted Average PCI
APRON	6	601,337.00	74.17	21.23	87.49
RUNWAY	3	1,388,185.00	84.07	7.56	81.41
TAXIWAY	17	1,066,806.00	69.42	15.97	72.06
ALL	26	3,056,328.00	72.21	17.31	79.34

Pavement Database: CCAA-JZI *NetworkId: JZI*

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
FBO-APRON	01	4/16/2008	PCC	APRON	P	0	236,250.00	11/2/2022	14	89.4
FBO-APRON	02	8/27/2010	PCC	APRON	P	0	128,250.00	11/2/2022	12	88.5
MA-TWY	01	1/1/1943	PCC	TAXIWAY	T	0	63,350.00	11/2/2022	79	34.6
MF-APRON	01	1/1/1996	PCC	APRON	T	0	10,000.00	11/2/2022	26	33.3
MF-APRON	02	1/1/1999	AC	APRON	T	0	20,114.00	11/2/2022	23	59.3
MF-TWY	01	2/1/1995	AC	TAXIWAY	T	0	29,400.00	11/2/2022	27	67.5
N-APRON	01	12/1/2016	AC	APRON	P	0	172,723.00	11/2/2022	6	91.4
N-APRON	02	8/31/2007	AC	APRON	P	0	34,000.00	11/2/2022	15	83.1
PVT-TWY	01	3/12/1999	AC	TAXIWAY	P	0	51,422.00	11/2/2022	23	39.5
RWY 04-22	01	1/1/1943	PCC	RUNWAY	P	0	750,000.00	11/2/2022	79	73.6
RWY 09-27	01	2/14/2011	PCC	RUNWAY	P	0	535,000.00	11/2/2022	11	91.2
RWY 09-27	01S	2/14/2011	AC	RUNWAY	P	0	103,185.00	11/2/2022	11	87.4
TH-TWY	01	1/1/1975	AC	TAXIWAY	T	0	14,276.00	11/2/2022	47	42.8
TWY-A	01	8/31/2007	AC	TAXIWAY	P	0	61,912.00	11/2/2022	15	74.9
TWY-A	02	2/28/2009	AC	TAXIWAY	P	0	126,267.00	11/2/2022	13	84.8
TWY-A	03	2/28/2009	AC	TAXIWAY	P	0	57,091.00	11/2/2022	13	72.1
TWY-A	04	2/14/2011	AC	TAXIWAY	P	0	19,974.00	11/2/2022	11	84.1
TWY-A	05	2/14/2011	AC	TAXIWAY	P	0	47,777.00	11/2/2022	11	80.5
TWY-B	01	2/14/2011	AC	TAXIWAY	P	0	43,380.00	11/2/2022	11	76.2
TWY-B	02	1/1/1943	PCC	TAXIWAY	S	0	21,000.00	7/31/2019	76	54
TWY-C	01	2/14/2011	AC	TAXIWAY	P	0	95,516.00	11/2/2022	11	82.9
TWY-C	02	1/1/1943	PCC	TAXIWAY	P	0	223,250.00	11/2/2023	80	73.9
TWY-C	03	1/1/1943	PCC	TAXIWAY	S	0	125,000.00	11/2/2022	79	73.3
TWY-D	01	2/14/2011	AC	TAXIWAY	S	0	29,360.00	11/2/2022	11	85.1
TWY-F	01	8/31/2007	AC	TAXIWAY	S	0	18,925.00	11/2/2022	15	72.3
TWY-G	01	2/28/2009	AC	TAXIWAY	P	0	38,906.00	11/2/2022	13	81.7

Pavement Database: CCAA-JZI

Age Category	Average Age at Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
06-10	6	172,723.00	1	91.40	0.00	91.40
11-15	12	1,575,793.00	15	82.28	5.84	86.54
21-25	23	71,536.00	2	49.40	9.90	45.07
26-30	27	39,400.00	2	50.40	17.10	58.82
41-50	47	14,276.00	1	42.80	0.00	42.80
50+	79	1,182,600.00	5	61.88	15.61	71.19
ALL	28	3,056,328.00	26	72.21	17.31	79.34