Alaska DOT&PF

Statewide Design and Engineering Services
Pavement Management and Preservation Office
5800 East Tudor Road, Anchorage AK 99507-1286

Pavement Inspection Report
Sitka Airport

Airport Name	IATA	ICAO	Latitude	Longitude	Elevation (ft)
Sitka Airport	SIT	PASI	57° 2.81'N	135° 21.66'W	26.5

Please refer all questions or for further information about this report, please contact the AKDOT&PF Pavement Management and Preservation Office as follows:

Point of Contact	Phone	Email	Date Inspected	Date Published
Mr. Andrew Pavey, Pavement Management Engineer	(907) 269 6213	andrew.pavey@alaska.gov	October 2022	October 2023

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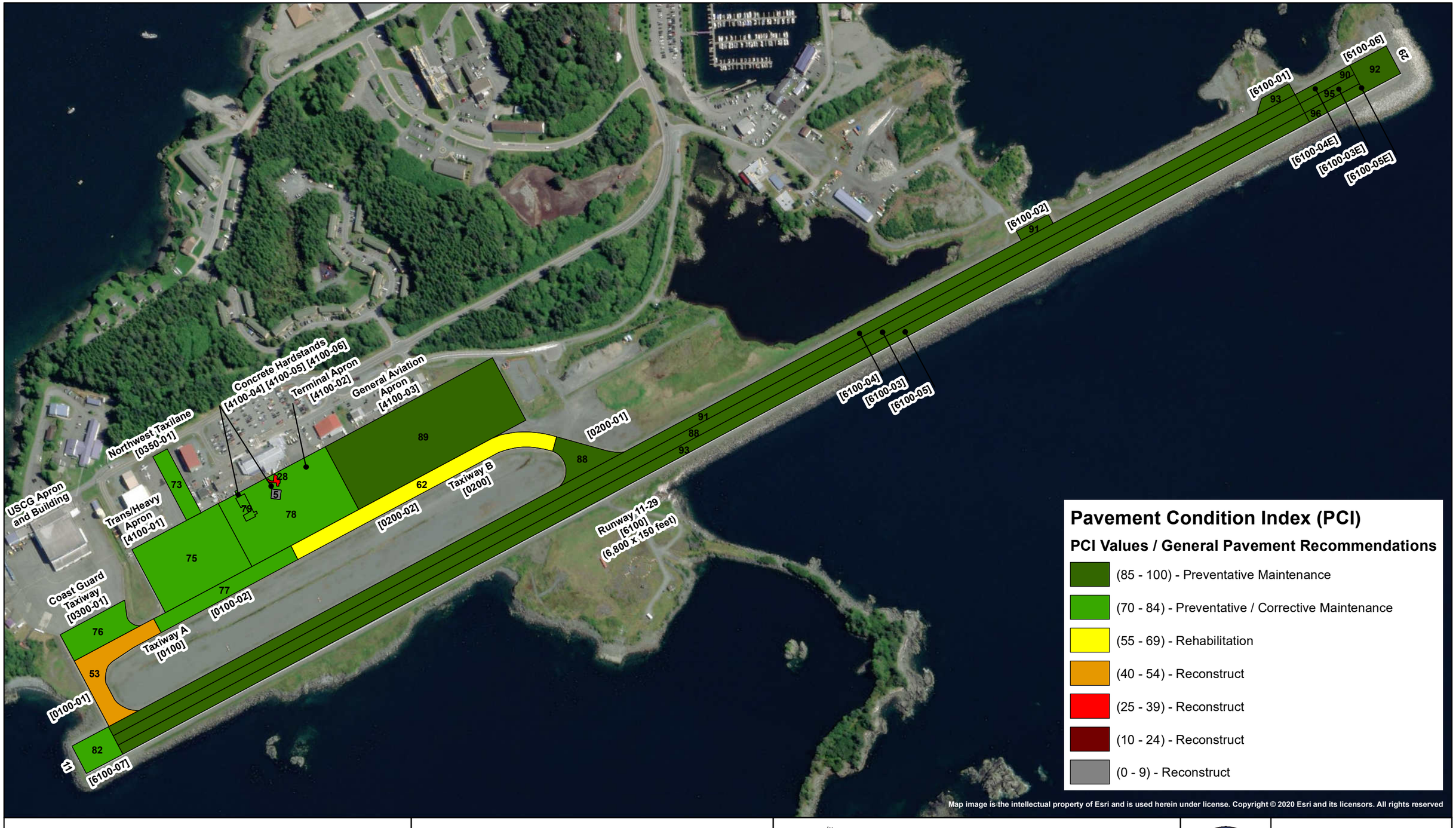


Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

Pavement Condition Index (PCI)

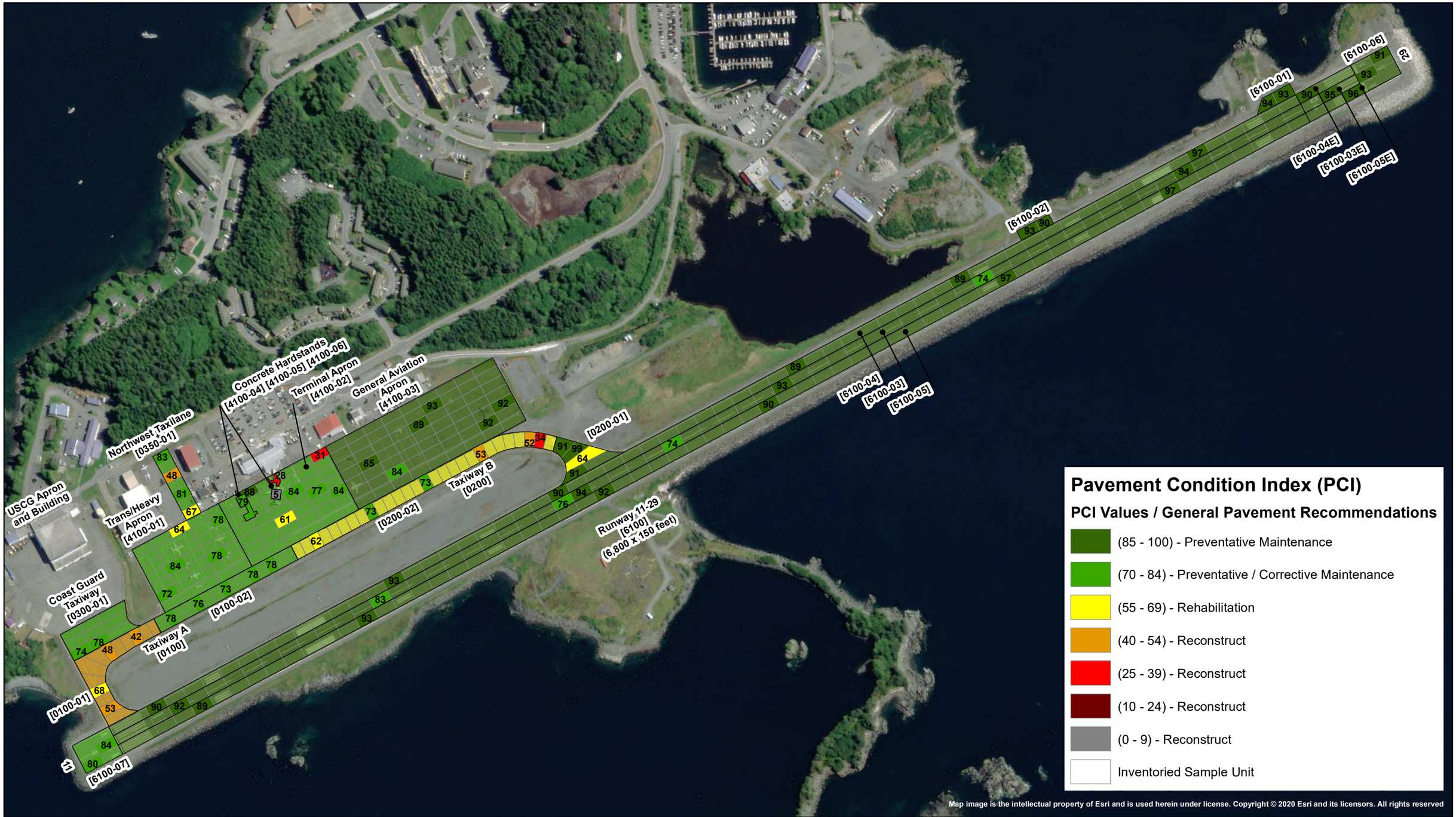
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 1 of 6



Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

Sample Unit
Pavement Condition Index (PCI)

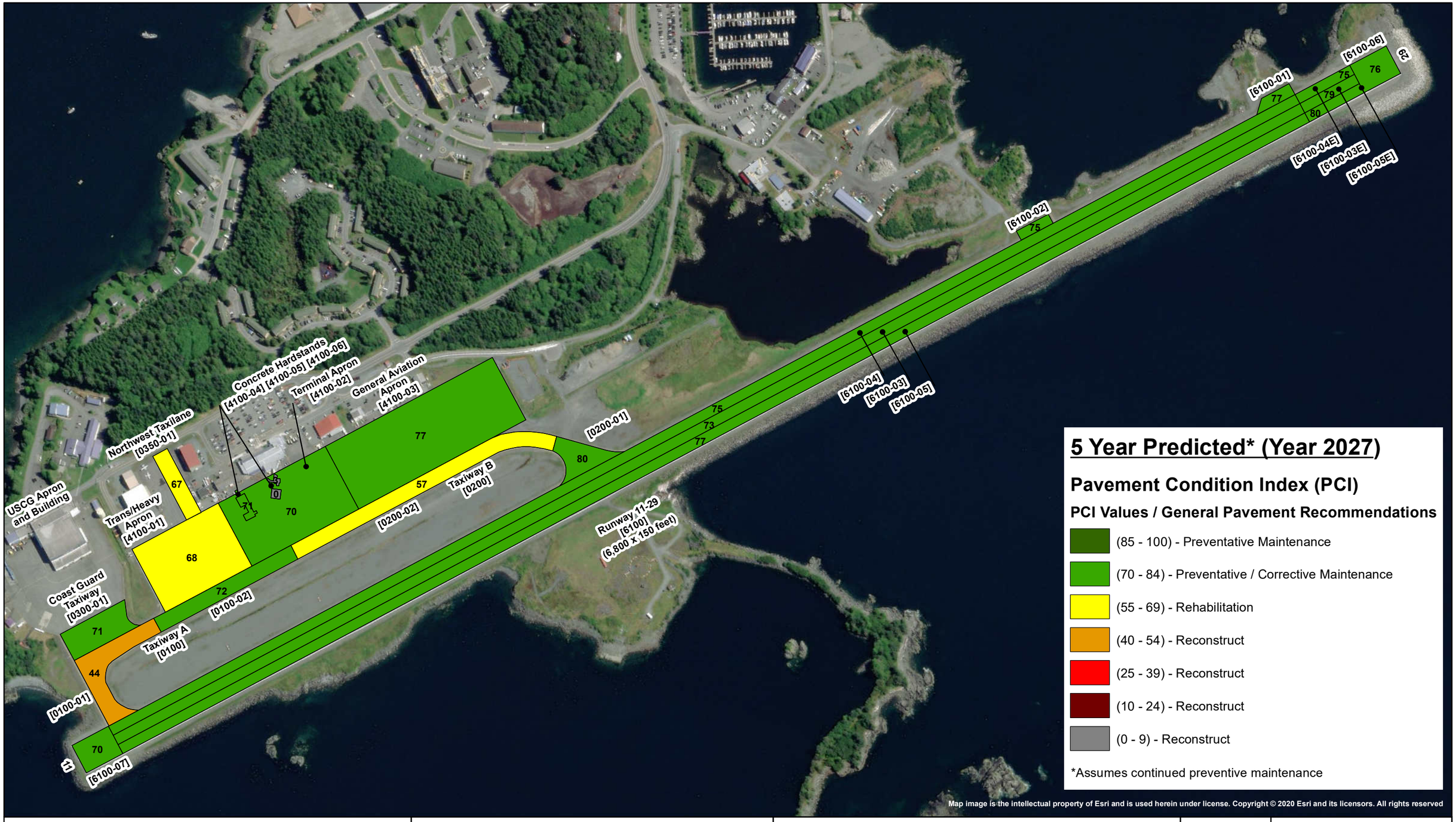
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 2 of 6



5 Year Predicted* (Year 2027)

Pavement Condition Index (PCI)

PCI Values / General Pavement Recommendations

- (85 - 100) - Preventative Maintenance
- (70 - 84) - Preventative / Corrective Maintenance
- (55 - 69) - Rehabilitation
- (40 - 54) - Reconstruct
- (25 - 39) - Reconstruct
- (10 - 24) - Reconstruct
- (0 - 9) - Reconstruct

*Assumes continued preventive maintenance

Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

5 Year Predicted Pavement Condition Index (PCI)

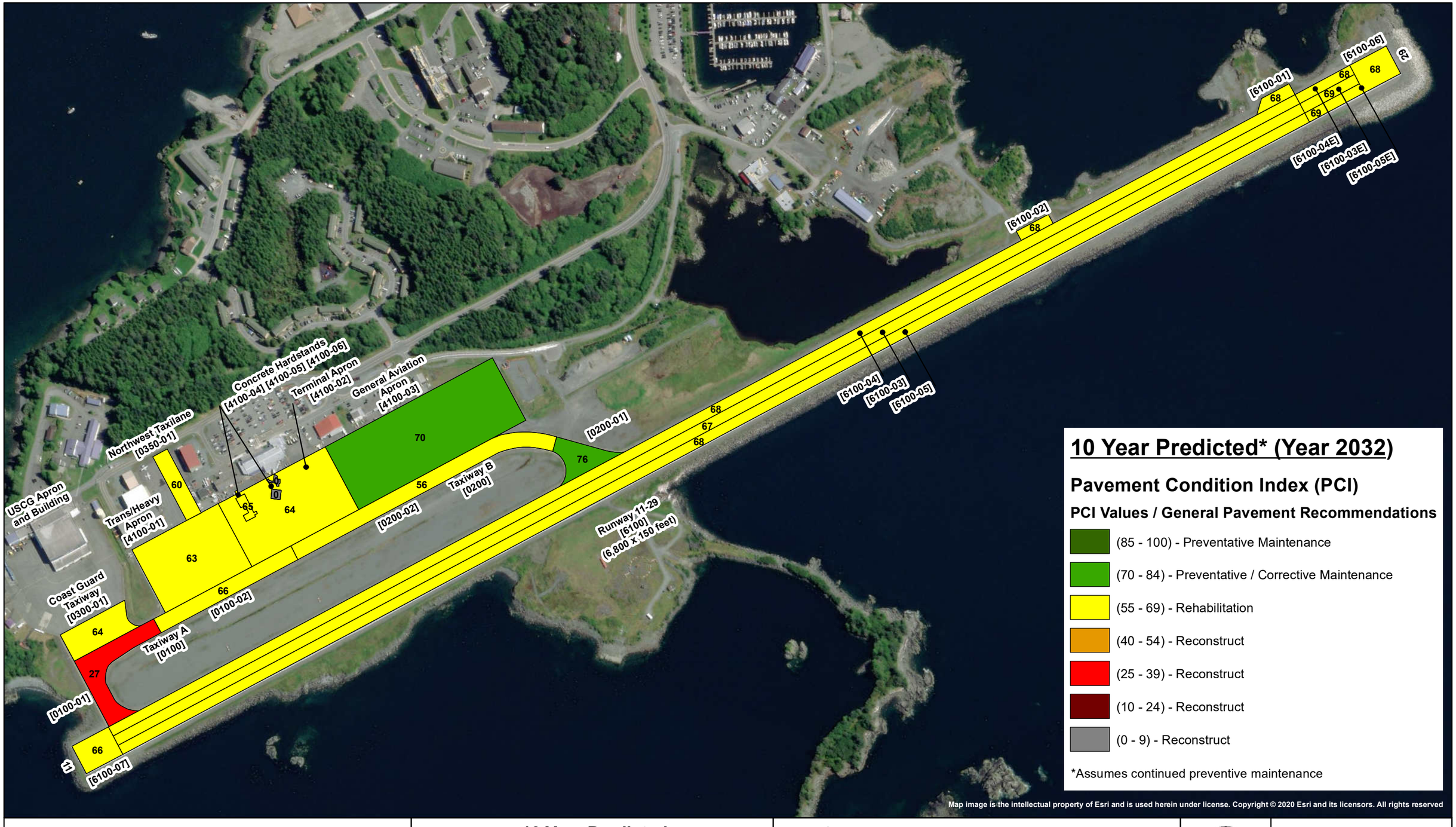
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 3 of 6



Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

10 Year Predicted Pavement Condition Index (PCI)

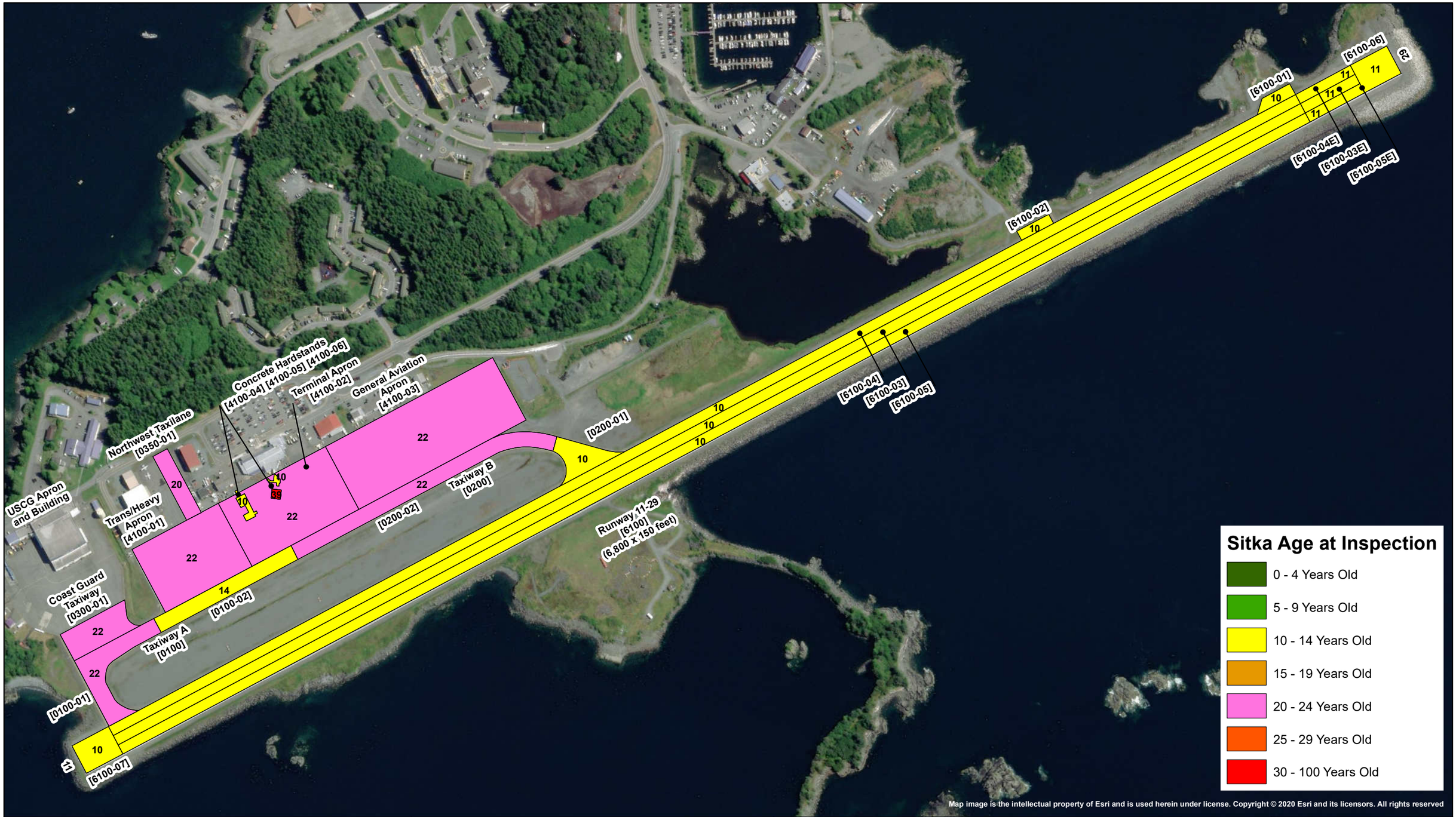
Target PCI Range for Runways: 70 to 100
Target PCI Range for Taxiways and Aprons: 60 to 100

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 4 of 6



Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

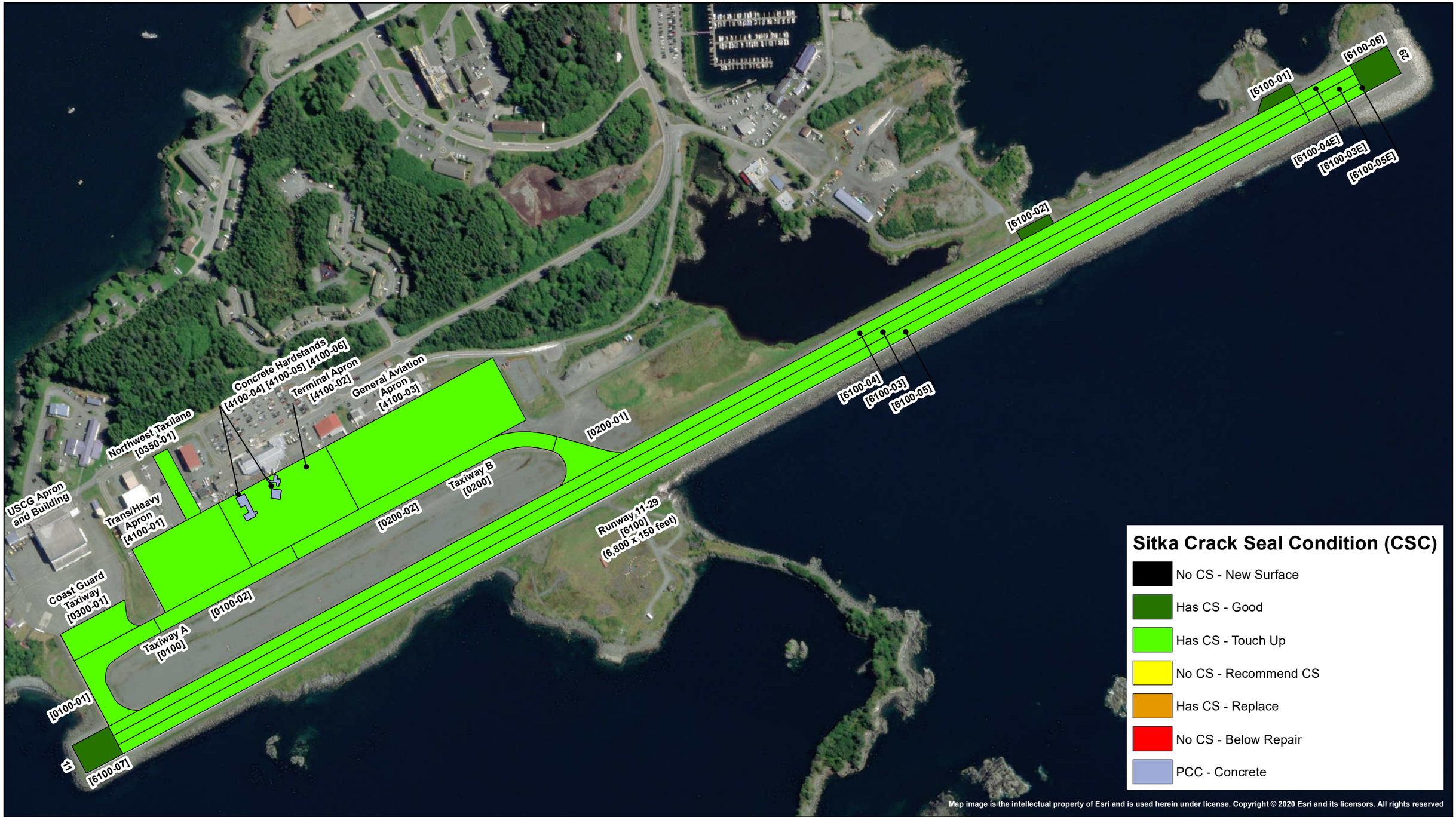
Pavement Age at Inspection

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering
for AK DOT&PF

Map 5 of 6



Sitka Airport

Airport Code: SIT
Site Number: 50703.*A

Pavement Crack Seal Condition (CSC)

2022 Pavement Inspection Results

0 150 300 600 900
Feet

Map Created by Duval Engineering for AK DOT&PF

Map 6 of 6

AIRPORT PAVEMENT INSPECTION NOTES BY BRANCH

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0100	Taxiway A	Taxiway	2	119,474	64

Taxiway A was constructed in 1983 and reconstructed of with four inches of AC in 2000. Section 2 received a 1.5-inch mill and overlay in 2008. Section 01 has a PCI of 53 while Section 2 has a PCI of 77. The most common distresses observed are low severity alligator cracking, low severity longitudinal and transverse cracking, low to medium to high severity raveling, and low severity weathering. Field personnel observed the degradation of the longitudinal joints, causing cracking and raveling. We also observed the development of alligator cracking on the taxiway where it joins Runway 11-29.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0200	Taxiway B	Taxiway	2	142,923	69

Taxiway B was constructed in 1983 and received a 2-inch overlay in 2000. Section 1 received a 3.5-inch overlay in 2012 and has a PCI of 88. Section 2 has a PCI of 62. The most common distresses observed are low severity alligator cracking, low to medium severity depression, low severity longitudinal and transverse cracking, low to medium to high severity raveling, and low severity weathering. Degradation of the longitudinal joints is causing cracking and raveling. We observed alligator cracking in one sample unit on the taxiway. Large depressions with standing water were observed on the south end of the taxiway near the shoulder.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0300	Coast Guard TW	Taxiway	1	48,870	76

The Coast Guard Taxiway was constructed in 2000 and has not received any major work since. The most common distresses observed are low severity depression, low severity longitudinal and transverse cracking, low to medium severity raveling, and low severity weathering. Field observations include the development of widespread dimpling across the taxiway leading to areas of standing water. Most of the dimples contained less than ½-inch of standing water and thus the distress was not recorded (per ASTM D5340).

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
0350	Northwest Taxi Lane	Taxiway	1	28,000	73

The Northwest Taxi Lane was constructed in 2002 and has not received any major work since. The most common distresses observed are low to medium severity depression, low severity longitudinal and transverse cracking, and low severity raveling. Field observations include the degradation of the paving joints causing longitudinal cracking and raveling. In addition, we observed a number of large areas of depressions, as evidenced by significant areas of standing water.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
4100	Apron	Apron	6	678,678	82

AC Sections 4100-01 (75 PCI) / 4100-02 (78 PCI) / 4100-03 (89 PCI)

The main apron consists of six sections, three constructed of AC and three constructed of PCC. The three AC sections were constructed in 1983 received a 2-inch overlay in 2000. The most common distresses observed are low severity depression, low severity longitudinal and transverse cracking, low to medium severity raveling, and low severity weathering. Degradation of the paving joints is causing longitudinal cracking and raveling to develop. Widespread dimpling was observed across the apron, leading to large areas of standing water. Standing water was measured to be less than ½-inch deep, thus the distress was not recorded (per ASTM D5340).

PCC Sections 4100-04 (5 PCI) / 4100-05 (28 PCI) / 4100-06 (79 PCI)

The three PCC sections consist of three separate hardstands. Section 4 was constructed in 1983 and Sections 5 and 6 were constructed in 2012. No major work has been conducted on these PCC sections. The most common distresses observed are medium to high severity joint and corner spalling, low to high severity scaling, and high severity joint seal damage. The concrete is showing its age at nearly 40 years old with numerous high severity distresses.

Branch ID	Branch Name	Branch Use	No. of Sections	Area (sf)	Weight Average PCI
6100	Runway 11-29	Runway	10	1,099,381	91




Runway 11/29 was constructed in 1984 at a length of 6,500 ft. In 2011 the runway was lengthened to 6,800 ft. The most recent rehabilitation was a thin overlay in 2012. The most common distresses observed are low severity longitudinal and transverse cracking, low to medium severity raveling, and low severity weathering. We observed an increased loss of the fine aggregate which is exposing the coarse aggregate (weathering). In some areas the distress has progressed to the loss of coarse aggregate (raveling). The west side of the runway has been damaged by waves resulting from the deterioration of the sea wall. Patching has been performed to mitigate the wave damage.

BRANCH CONDITION REPORT

Branch ID	No. of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (Sq Ft)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
0100	2	1,420	77	119,474	TAXIWAY	65.00	12.00	64.31
0200	2	1,620	75	142,923	TAXIWAY	75.00	13.00	68.99
0300	1	145	332	48,870	TAXIWAY	76.00	0.00	76.00
0350	1	350	80	28,000	TAXIWAY	73.00	0.00	73.00
4100	6	2,182	193	678,678	APRON	59.00	31.08	82.06
6100	10	21,184	71	1,099,381	RUNWAY	91.10	3.75	90.61

Note: the dimensions in the Branch Condition Report are derived from area calculations and may not reflect actual dimensions of individual sections. Refer to the maps for actual section dimensions.

BRANCH USE CONDITION REPORT

Use Category	No. of Sections	Total Area (Sq Ft)	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
APRON	6	678,678	59.00	31.08	82.06
RUNWAY	10	1,099,381	91.10	3.75	90.61
TAXIWAY	6	339,267	71.50	11.24	68.68
ALL	22	2,117,326	77.00	22.16	84.36

SECTION CONDITION REPORT

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	True Area (Sq Ft)	Last Inspection Date	Age At Inspection	PCI
0100	0100-01	9/1/2000	AC	TAXIWAY	P	63,175.00	10/19/2022	22	53
0100	0100-02	6/1/2008	AAC	TAXIWAY	P	56,299.00	10/19/2022	14	77
0200	0200-01	6/2/2012	AAC	TAXIWAY	P	38,413.00	10/19/2022	10	88
0200	0200-02	9/1/2000	AC	TAXIWAY	P	104,510.00	10/19/2022	22	62
0300	0300-01	8/1/2000	AC	TAXIWAY	P	48,870.00	10/19/2022	22	76
0350	0350-01	10/1/2002	AC	TAXIWAY	P	28,000.00	10/19/2022	20	73
4100	4100-01	9/1/2000	AAC	APRON	P	163,315.00	10/19/2022	22	75
4100	4100-02	9/1/2000	AAC	APRON	P	192,530.00	10/19/2022	22	78
4100	4100-03	9/1/2000	AAC	APRON	P	313,950.00	10/19/2022	22	89
4100	4100-04	9/1/1983	PCC	APRON	P	2,025.00	10/19/2022	39	5
4100	4100-05	9/1/2012	PCC	APRON	P	1,370.00	10/19/2022	10	28
4100	4100-06	9/1/2012	PCC	APRON	P	5,488.00	10/19/2022	10	79
6100	6100-01	9/1/2012	AAC	RUNWAY	P	10,631.00	10/19/2022	10	93
6100	6100-02	9/1/2012	AAC	RUNWAY	P	8,750.00	10/19/2022	10	91
6100	6100-03	9/1/2012	AAC	RUNWAY	P	325,000.01	10/19/2022	10	88
6100	6100-03E	9/1/2011	AC	RUNWAY	P	15,000.00	10/19/2022	11	95
6100	6100-04	9/1/2012	AAC	RUNWAY	P	325,000.01	10/19/2022	10	91
6100	6100-04E	9/1/2011	AC	RUNWAY	P	15,000.00	10/19/2022	11	90
6100	6100-05	9/1/2012	AAC	RUNWAY	P	325,000.01	10/19/2022	10	93
6100	6100-05E	9/1/2011	AC	RUNWAY	P	15,000.00	10/19/2022	11	96
6100	6100-06	9/1/2011	AC	RUNWAY	P	30,000.00	10/19/2022	11	92
6100	6100-07	9/1/2012	AAC	RUNWAY	P	30,000.00	10/19/2022	10	82

SECTION CONDITION REPORT (SUMMARY BY AGE CATEGORY)

Age Category	Average Age at Inspection	Total Area (Sq Ft)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
06-10	10	1,069,652	9	81.44	19.43	90.21
11-15	11.6	131,299	5	90.00	6.84	86.14
16-20	20	28,000	1	73.00	0.00	73.00
21-25	22	886,350	6	72.17	11.62	77.56
36-40	39	2,025	1	5.00	0.00	5.00
ALL	15	2,117,326	22	77.00	22.16	84.36

Work History Report

Pavement Database: Alaska

Network: Sitka Rocky Gutierrez **Branch:** 0100 Taxiway A **Section:** 0100-01 **Surface:**AC
L.C.D. 9/1/2000 **Use:** TAXIWAY **Rank:** P **Length:** 670.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 63175.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	Realined and relocated, (Funded via A
9/1/1983	NU-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 0100 Taxiway A **Section:** 0100-02 **Surface:**AAC
L.C.D. 6/1/2008 **Use:** TAXIWAY **Rank:** P **Length:** 750.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 56299.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/1/2008	SR-AC	Surface Reconstruction - AC	0.00	1.50	☑	mill and overlay, (Funded via AIP)
9/1/2000	CR-AC	Complete Reconstruction - AC	0.00	4.00	☑	Realigned and relocated, (Funded via
9/1/1983	NU-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 0200 Taxiway B **Section:** 0200-01 **Surface:**AAC
L.C.D. 6/2/2012 **Use:** TAXIWAY **Rank:** P **Length:** 220.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 38413.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
6/2/2012	OL-AS	Overlay - AC Structural	0.00	3.50	☑	(Funded via AIP)
9/1/2000	OL-AS	Overlay - AC Structural	0.00	2.00	☑	(Funded via AIP)
9/1/1983	NU-IN	New Construction - Initial	0.00	3.00	☑	est. thickness, (Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 0200 Taxiway B **Section:** 0200-02 **Surface:**AC
L.C.D. 9/1/2000 **Use:** TAXIWAY **Rank:** P **Length:** 1,400.00 (Ft) **Width:** 75.00 (Ft) **True Area:** 104510.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	NC-AC	New Construction - AC	0.00	2.00	☑	(Funded via AIP)
9/1/1983	NU-IN	New Construction - Initial	0.00	3.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 0300 Coast Guard TW **Section:** 0300-01 **Surface:**AC
L.C.D. 8/1/2000 **Use:** TAXIWAY **Rank:** P **Length:** 145.00 (Ft) **Width:** 332.00 (Ft) **True Area:** 48870.00001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
8/1/2000	NU-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 0350 Northwest Taxilan **Section:** 0350-01 **Surface:**AC
L.C.D. 10/1/2002 **Use:** TAXIWAY **Rank:** P **Length:** 350.00 (Ft) **Width:** 80.00 (Ft) **True Area:** 28000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
10/1/2002	NU-IN	New Construction - Initial	0.00	2.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-01 **Surface:**AAC
L.C.D. 9/1/2000 **Use:** APRON **Rank:** P **Length:** 470.00 (Ft) **Width:** 345.00 (Ft) **True Area:** 163315.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	SR-AC	Surface Reconstruction - AC	0.00	2.00	☑	some overlay, some new -split, (Funde
9/1/1983	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-02 **Surface:**AAC
L.C.D. 9/1/2000 **Use:** APRON **Rank:** P **Length:** 585.00 (Ft) **Width:** 345.00 (Ft) **True Area:** 192530.0000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	OL-AS	Overlay - AC Structural	0.00	2.00	☑	(Funded via AIP)
9/1/1983	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-03 **Surface:**AAC
L.C.D. 9/1/2000 **Use:** APRON **Rank:** P **Length:** 910.00 (Ft) **Width:** 345.00 (Ft) **True Area:** 313950.0039 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	OL-AS	Overlay - AC Structural	0.00	2.00	☑	(Funded via AIP)
9/1/1983	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-04 **Surface:**PCC
L.C.D. 9/1/1983 **Use:** APRON **Rank:** P **Length:** 45.00 (Ft) **Width:** 45.00 (Ft) **True Area:** 2025.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2000	PA-PP	Patching - PCC Partial Depth	0.00	4.00	☐	check material PCC or AC?, (Funded
9/1/1983	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-05 **Surface:**PCC
L.C.D. 9/1/2012 **Use:** APRON **Rank:** P **Length:** 50.00 (Ft) **Width:** 30.00 (Ft) **True Area:** 1370.000000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Sitka Rocky Gutierrez **Branch:** 4100 Apron **Section:** 4100-06 **Surface:**PCC
L.C.D. 9/1/2012 **Use:** APRON **Rank:** P **Length:** 122.00 (Ft) **Width:** 48.00 (Ft) **True Area:** 5488.000001 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-01 **Surface:**AAC
L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 209.00 (Ft) **Width:** 59.00 (Ft) **True Area:** 10631.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-02 **Surface:**AAC
L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 175.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 8750.000218 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-03 **Surface:**AAC
L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0081 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-03E **Surface:**AC
L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 300.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 15000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-04 **Surface:**AAC
L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0081 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-04E **Surface:**AC
L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 300.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 15000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-05 **Surface:**AAC
L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 6,500.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 325000.0081 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/2000	PA-AD	Patching - AC Deep	0.00	4.00	☐	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-05E **Surface:**AC
L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 300.00 (Ft) **Width:** 50.00 (Ft) **True Area:** 15000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NU-IN	New Construction - Initial	0.00	0.00	☑	

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-06 **Surface:**AC
L.C.D. 9/1/2011 **Use:** RUNWAY **Rank:** P **Length:** 200.00 (Ft) **Width:** 150.00 (Ft) **True Area:** 30000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2011	NU-IN	New Construction - Initial	0.00	0.00	☑	

Work History Report

Pavement Database: Alaska

Network: Sitka Rocky Gutierrez **Branch:** 6100 11/29 **Section:** 6100-07 **Surface:**AAC

L.C.D. 9/1/2012 **Use:** RUNWAY **Rank:** P **Length:** 200.00 (Ft) **Width:** 150.00 (Ft) **True Area:** 30000.00000 (SqFt

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major M&R	Comments
9/1/2012	OL-AT	Overlay - AC Thin	0.00	0.00	☑	(Funded via AIP)
9/1/1984	NU-IN	New Construction - Initial	0.00	0.00	☑	(Funded via AIP)

Work History Report

Pavement Database: Alaska

Summary:

Work Description	Section Count	Area Total (SqFt)	Thickness Avg (in)	Thickness STD (in)
Complete Reconstruction - AC	2	119,474.00	4.00	0.00
New Construction - AC	1	104,510.00	2.00	0.00
New Construction - Initial	22	2,117,326.03	0.64	1.07
Overlay - AC Structural	4	583,306.00	2.37	0.65
Overlay - AC Thin	6	1,024,381.02	0.00	0.00
Patching - AC Deep	1	325,000.01	4.00	0.00
Patching - PCC Partial Depth	1	2,025.00	4.00	0.00
Surface Reconstruction - AC	2	219,614.00	1.75	0.25

PHYSICAL PROPERTY DATA

		Pavement		Base		Subbase		Subgrade	
Branch ID	**Section ID**	**Thick (in)**	**Type**	**Thick (in)**	**Type**	**Thick (in)**	**Type**	**Type**	**CBR**
Taxiway A 0100	0100-01	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
	0100-02	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
Taxiway B 0200	0200-01	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
	0200-02	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
Coast Guard Taxiway 0300	0300-01	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
NW Taxilane 0350	0350-01	3.0 4.0	P-401 P-401	12	P-209	-	-	GP	12
Parking Apron 4100	4100-01	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
	4100-02	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
	4100-03	4.0 3.0	P-401 P-401	4	P-209	6	P-154	GP	12
	4100-04	UNK	PCC	UNK	UNK	UNK	UNK	UNK	UNK
	4100-05	UNK	PCC	UNK	UNK	UNK	UNK	UNK	UNK
	4100-06	UNK	PCC	UNK	UNK	UNK	UNK	UNK	UNK

		Pavement		Base		Subbase		Subgrade	
Branch ID	**Section ID**	**Thick (in)**	**Type**	**Thick (in)**	**Type**	**Thick (in)**	**Type**	**Type**	**CBR**
Runway 11-29 6100	6100-01	7.0	P-401	6	P-209	6	P-154	GP	12
	6100-02	7.0	P-401	6	P-209	6	P-154	GP	12
	6100-03	7.0	P-401	6	P-209	6	P-154	GP	12
	6100-04	7.0	P-401	6	P-209	6	P-154	GP	12
	6100-05	7.0	P-401	6	P-209	6	P-154	GP	12
	6100-03E	7.5	P-401	8	P-209	24	P-154	GP	12
	6100-04E	7.5	P-401	8	P-209	24	P-154	GP	12
	6100-05E	7.5	P-401	8	P-209	24	P-154	GP	12
	6100-06	7.5	P-401	9	P-209	24	P-154	GP	12
	6100-07	7.5	P-401	8	P-209	6	P-154	GP	12

AIRCRAFT FLEET MIX

No.	Aircraft	Gross Wt (lb)	% Gross Wt on Main Gear	Tire Pressure (psi)	Annual Departures	20 Yr Coverages
1	S-3	1,800	95.00	30	275	832
2	Cessna 206 Stationair	3,612	95.00	52	90	312
3	S-5	5,100	95.00	51	99	369
4	PA-32-300	3,400	95.00	50	15	52
5	S-15	17,637	95.00	59	4	21
6	Cessna 208B	8,750	95.00	75	962	3,745
7	S-10	10,450	95.00	52	1,798	8,039
8	PA-31-325 Navajo C/R	6,536	95.00	66	1,059	3,962
9	D-15	17,120	95.00	63	851	6,041
10	Beech King Air B200	12,590	95.00	98	2	13
11	Saab 340B	29,000	95.00	55	2	17
12	D-50	50,706	95.00	81	324	3,127
13	D-100	99,500	95.00	139	2	20
14	Q100/Dash 8	34,700	94.40	131	6	46
15	Learjet 35/36/35A/36A	21,500	95.00	204	6	40
16	CRJ700	73,000	95.00	142	212	1,880
17	B737-300	140,000	90.80	201	2	18
18	B737-400	150,500	93.80	185	1,563	15,118
19	B737-7 MAX	177,500	93.60	204	1,352	12,973
20	CRJ900	85,000	95.00	162	40	357
21	EMB-175 STD	83,026	95.00	136	180	1,634
22	B737-800	174,700	93.60	204	896	8,555
23	B737-900	174,700	94.60	204	25	240
24	B737-900 ER	188,200	94.60	220	99	948
25	C-130	155,000	95.00	105	9	119
26	C-17A	585,000	95.00	138	5	120

PAVEMENT CLASSIFICATION RATING

Runway	Critical Aircraft	Max Allowable Wt (lb)	Subgrade Mr (psi)	Evaluation Thickness (in)	Pass to Traffic Cycle Ratio	PCR
11-29	B737-900ER	155,869	18,000	19.0	1.0	461/F/B/X/T

PCR CALCULATION NOTES

- 1% traffic growth assumed.
- SWL-2, S-5, S-10 and S-15 refer to "generic" single gear aircraft as modeled in FAARFIELD.
- D-15, D-20, D-50 and D-100 refer to "generic" dual gear aircraft as modeled in FAARFIELD.
- Due to satisfactory historical performance of RW 11-29 pavement in support of the aircraft listed above in the fleet mix, the PCR for RW 11-29 is determined to be the ACR of the B737-900ER, which is the critical aircraft determined by FAARFIELD analysis.

REFERENCES

Year	Project No.	Document Title
2012	3-02-0268-028, 029, 69652	Runway Overlay, As-Built
2010	3-02-0268-026-2010, 69298	RSA, As-Builts
2008	3-02-0200-052-2005, 68919	Apron, Taxiway and Runway Repairs
2008	3-02-200-060-2007, 68972	Apron, Taxiway and Runway Repairs
2001	3-02-0268-1101, 68039	Apron and Taxilane IV, As-Built
2000	3-02-0268-0799, 72200	Apron and Taxilane Reconstruction
1998	3-02-0268-02, 69612	Runway Paving
1998	72200	Geotechnical Report—Reconstruct Rd & Lease Lot Development
1981	6-02-0268-03, 81-375-01	Heavy Apron
1981		Sitka Airport Improvements, Soils Report, Airport GA Apron
1973		Geotechnical Report—Proposed Runway Extension and Quarry Site Inspection