

## Network Pavement Management System - Phase VII

2019 PCI REPORT for Soda Springs (Allen H. Tigert) Airport (U78)

#### EXECUTIVE SUMMARY

The Division of Aeronautics (AERO), City, and Airport Consultant staff make frequent decisions regarding the timing and type of maintenance and rehabilitation (M&R) activities that should be completed at Soda Springs (Allen H. Tigert) Airport (U78) to maintain an acceptable operational condition of the pavement network. In order to maintain a reasonable M&R schedule and 5-year Capital Improvement Plan (CIP), decision makers must know the relative condition of its pavements to make informed decision.

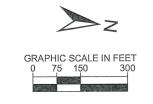
#### **ES.1 Current Pavement Condition**

The Pavement Condition Index (PCI) is a number ranging from 0 to 100 which indicates the apparent structural integrity and surface operational condition of the pavement, with "100" indicating a pavement in new condition and "0" indicating a failed pavement section as graphically depicted in Figure ES.1-1.

Figure ES.1-1 **PCI** Rating

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

In July 2019, approximately 471 thousand square feet of pavements were identified for the airside pavements at U78. Generally speaking, the airfield pavements at U78 are in *Poor* condition having an area-weighted PCI of 48. The area-weighted PCIs of the aprons, runways, and taxiways are 43, 49, and 57, respectively. Figure ES.1-2 summarizes the current PCIs for U78.



PCI 86-100 Good

PCI 56-70 Fair

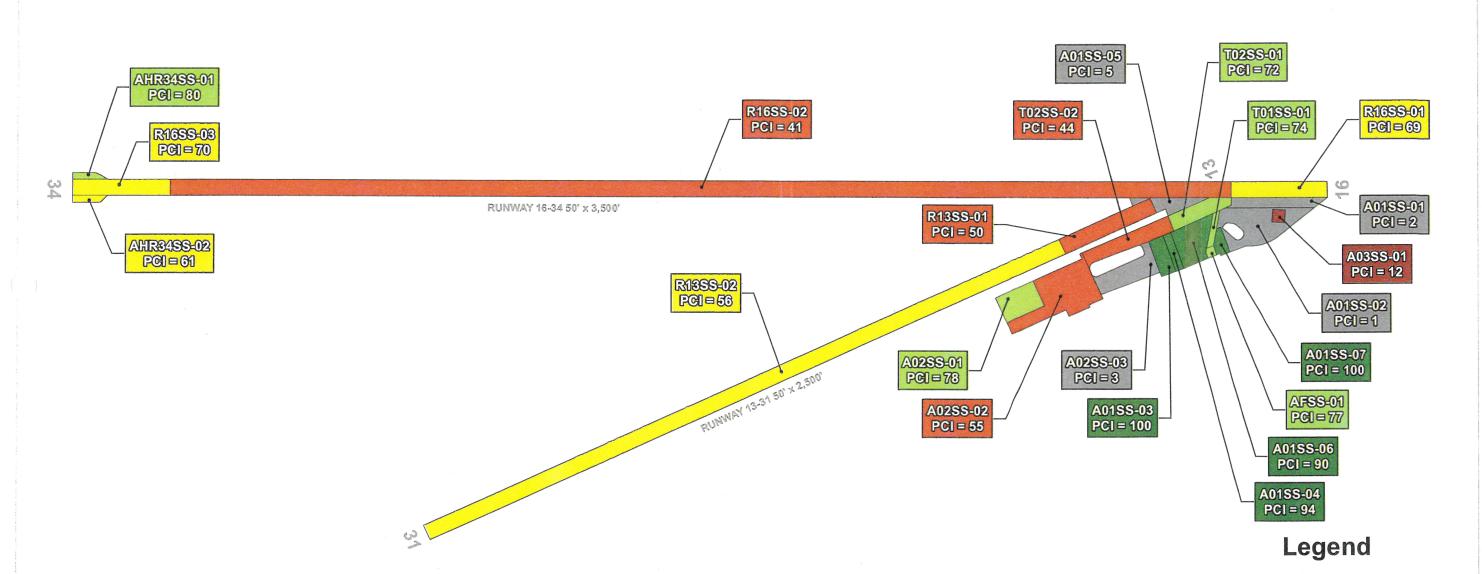
PCI 41-55 Poor

PCI 26-40 Very Poor

PCI 11-25 Serious

PCI 0-10 Failed

PCI 71-85 Satisfactory





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### ES.2 Recommended 5-Year Capital Improvement Plan

The 5-year recommended Capital Improvement Plan (CIP) presented for U78 is for the 2021 -2025 planning period given that AERO has already established the CIPs for 2019 and 2020.

Decisions related to the timing for M&R, thus the development of the CIP is based on the Critical PCI methodology. A pavement is considered to have reached the end of its functional life when its surface condition, i.e. PCI, has deteriorated to the point where applying preventative maintenance activities are no longer cost effective and major rehabilitation is required to return the pavement safe operational condition. Table ES.2-1 summarizes the critical PCI values by branch use and airport classification established for the Idaho NPMS.

Table ES.2-1 Critical PCI Values by Branch Use and Airport Classification

Airport	Branch Use						
Classification	Runway	Taxiway	Apron				
NPIAS	65	60	50				
Non-NPIAS	50	45	40				

The PAVER pavement management software program was used to analyze the data for U78 and to provide a baseline for the development of a 5-year CIP; however, such a program has limitations. In an effort to provide the most logical CIP recommendations and costs it was necessary to consider other factors such as construction phasing, operational impacts, and currently planned rehabilitation projects when developing the recommended CIP. In order to develop realistic project specific cost estimates that AERO and U78 can trust for future planning purposes realistic cost estimates were developed outside of the PAVER program to include additional construction items and soft costs including items such as airfield electrical improvements / upgrades, costs for unknown utilities, future planned underground drainage improvements, construction costs (including quality control and construction administration), general administration costs, and professional services for design and construction.

The 5-year CIP for U78 is summarized in Table ES.2-2 and graphically in Figures ES.2-1 and ES.2-2 for major rehabilitation and surface treatments, respectively.



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Table ES.2-2 U78 Recommended 5-Year CIP Summary Table

PART OF THE PART O			n Area (SF)	PCI at Treatment	Recommended Treatment	PAVER Output		Soft Costs					
	Branch ID	Section ID				Unit Cost	Total Cost	Drainage/ Elec./Misc.	QA/QC Testing	Construction Administration	Admin Costs	Design Fee	Total Cost
2021	A01SS	01	9,034	0	Complete Reconstruction - 2" AC / 6" Agg Base	\$3.15	\$28,460	\$2,277	\$922	\$3,166	\$348	\$3,483	\$38,656
2021	A01SS	02	22,475	0	Complete Reconstruction - 2" AC / 6" Agg Base	\$3.15	\$70,804	\$5,664	\$2,294	\$7,876	\$866	\$8,664	\$96,169
2021	A01SS	03	5,657	87	Surface Treatment	\$0.48	\$2,715			\$272	\$30	\$299	\$3,315
2021	A01SS	04	3,120	81	Surface Treatment	\$0.48	\$1,498			\$150	\$16	\$165	\$1,829
2021	A01SS	05	6,728	0	Complete Reconstruction - 2" AC / 6" Agg Base	\$3.15	\$21,196	\$1,696	\$687	\$2,358	\$259	\$2,594	\$28,789
2021	A01SS	06	13,599	79	Surface Treatment	\$0.48	\$6,528			\$653	\$72	\$718	\$7,970
2021	A01SS	07	2,949	87	Surface Treatment	\$0.48	\$1,416			\$142	\$16	\$156	\$1,728
2021	A02SS	01	11,180	73	Surface Treatment	\$0.48	\$5,366			\$537	\$59	\$590	\$6,552
2021	A02SS	02	29,390	50	Surface Treatment	\$0.48	\$14,107			\$1,411	\$155	\$1,552	\$17,225
2021	A02SS	03	13,335	0	Complete Reconstruction - 2" AC / 6" Agg Base	\$3.15	\$42,010	\$3,361	\$1,361	\$4,673	\$514	\$5,140	\$57,059
2021	A03SS	01	1,600	8	Complete Reconstruction - 6" PCC / 6" Agg Base	\$13.58	\$21,727	\$1,738	\$704	\$2,417	\$266	\$2,659	\$29,511
2021	R13SS	01	15,600	47	Surface Treatment	\$0.48	\$7,488			\$749	\$82	\$824	\$9,143
2021	R13SS	02	109,172	54	Surface Treatment	\$0.48	\$52,403			\$5,240	\$576	\$5,764	\$63,984
2021	R16SS	02	166,500	37	2" Mill and Replace	\$1.73	\$288,045		\$8,641	\$29,669	\$3,264	\$32,635	\$362,254
2021	R16SS	03	15,250	66	2" Mill and Replace	\$1.73	\$26,383		\$791	\$2,717	\$299	\$2,989	\$33,179
2021	T01SS	01	2,253	71	Surface Treatment	\$0.48	\$1,081			\$108	\$12	\$119	\$1,320
2021	T02SS	01	9,580	69	Surface Treatment	\$0.48	\$4,598			\$460	\$51	\$506	\$5,615
2021	T02SS	02	13,589	40	2" Mill and Replace	\$1.73	\$23,509		\$705	\$2,421	\$266	\$2,664	\$29,566
												Total for 2021:	\$793,864
2026	A01SS	01	9,034	N/A	Surface Treatment	\$0.48	\$4,336			\$434	\$48	\$477	\$5,295
2026	A01SS	02	22,475	N/A	Surface Treatment	\$0.48	\$10,788			\$1,079	\$119	\$1,187	\$13,172
2026	A01SS	05	6,728	N/A	Surface Treatment	\$0.48	\$3,229			\$323	\$36	\$355	\$3,943
2026	A02SS	03	13,335	N/A	Surface Treatment	\$0.48	\$6,401			\$640	\$70	\$704	\$7,815

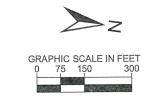
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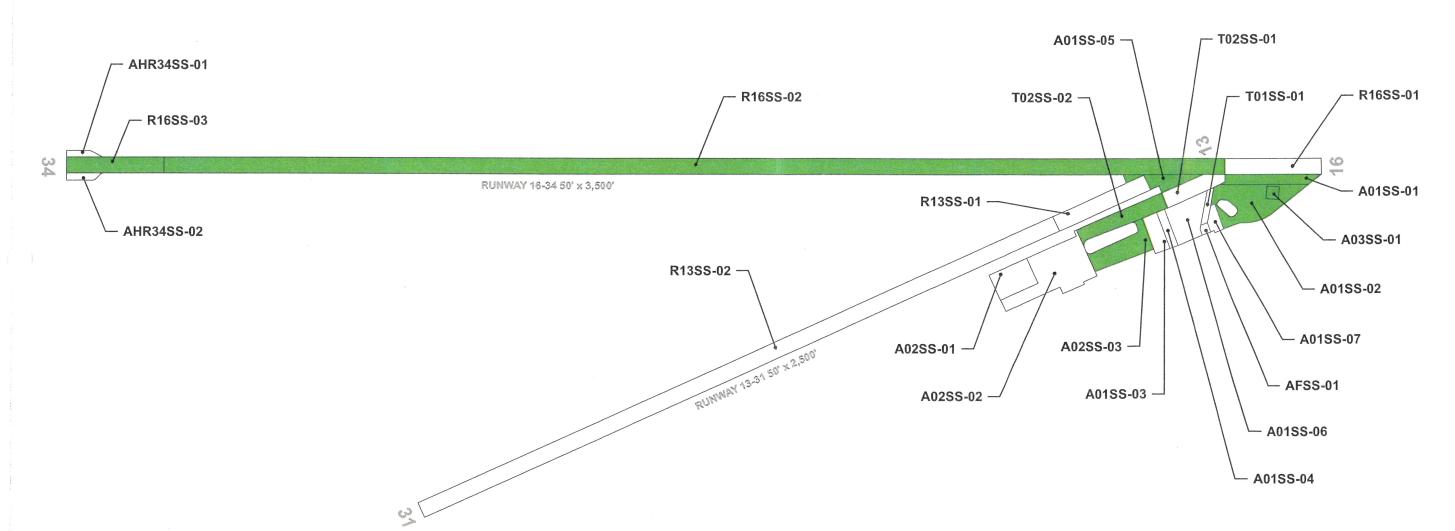


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### Table ES.2-2 (cont.) U78 Recommended 5-Year CIP Summary Table

	Branch	Section	tion Area	PCI at		PAVER Output		Soft Costs					
	Treatment	Doggmanded Treatment	Unit Cost	Total Cost	Drainage/ Elec./Misc.	QA/QC Testing	Construction Administration	Admin Costs	Design Fee	Total Cost			
2026	A03SS	01	1,600	N/A	Surface Treatment	\$0.48	\$768			\$77		004	e wald the Alexander School
2026	R16SS	02	166,500	N/A	Surface Treatment	\$0.48	\$79.920				\$8	\$84	\$938
2026	R16SS	03	15,250	N/A	Surface Treatment	\$0.48	\$7.320			\$7,992	\$879	\$8,791	\$97,583
2026	T02SS	02	13,589	N/A		4.0	Section of the sectio			\$732	\$81	\$805	\$8,938
	10200		10,000	IVA	Surface Treatment	\$0.48	\$6,523			\$652	\$72	\$718	\$7,964
												Total for 2026:	\$145,648





# Legend

2021 Major Rehabilitation

2022 Major Rehabilitation

2023 Major Rehabilitation

2024 Major Rehabilitation

2025 Major Rehabilitation

No Rehabilitation