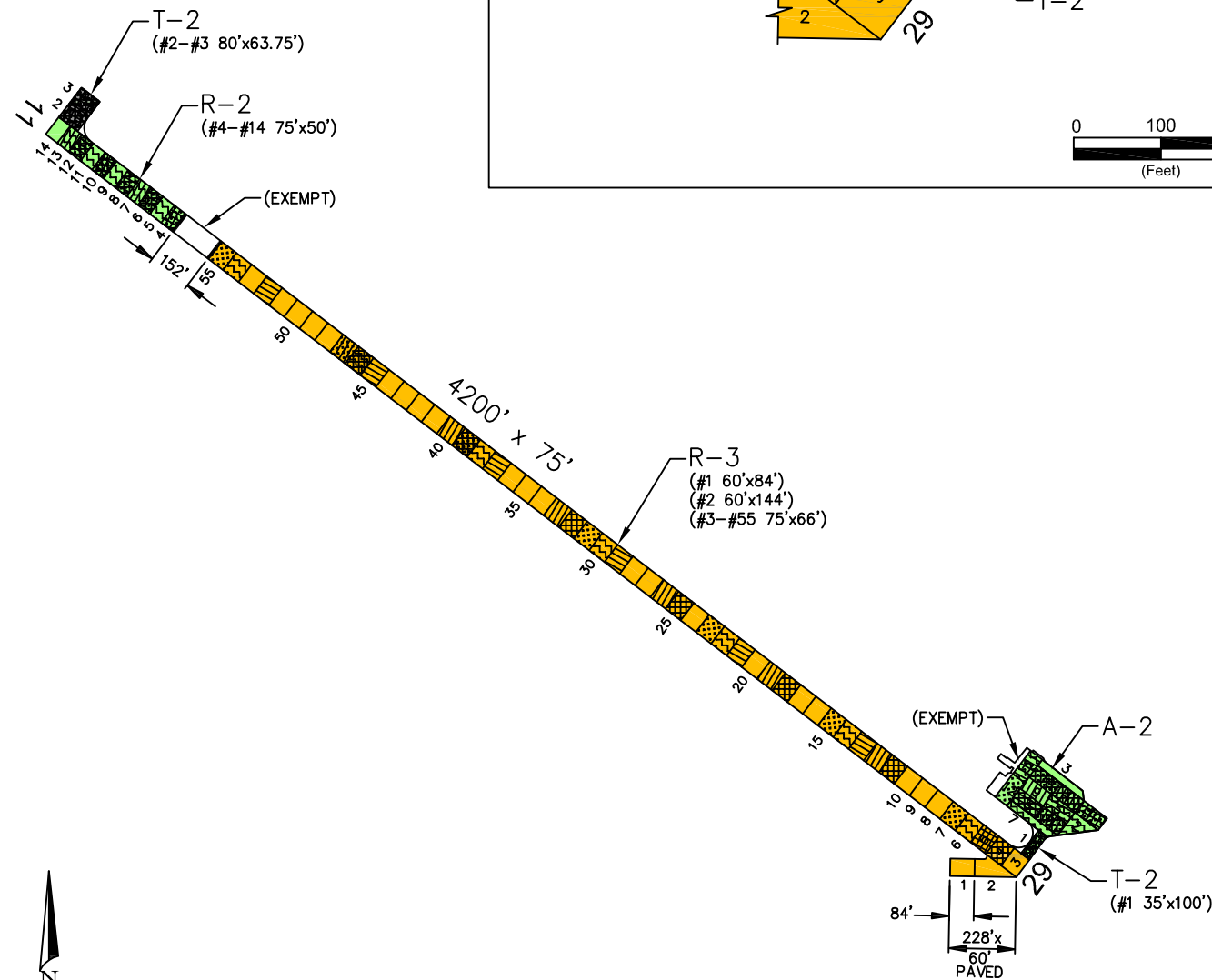
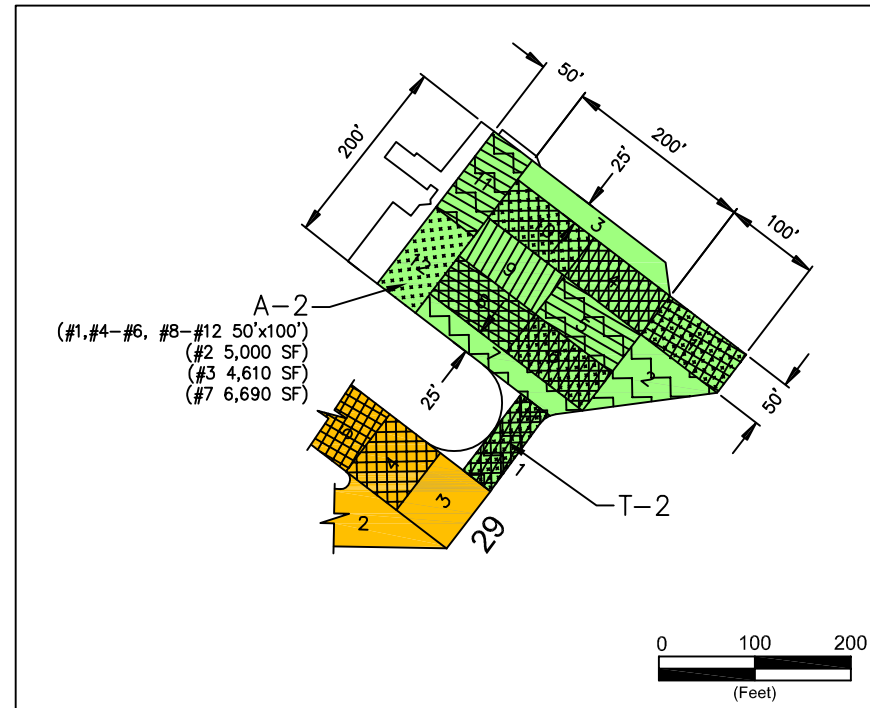


STANFORD



PAVEMENT STRENGTH SURVEY/PAVEMENT CONDITION SURVEY

PAVE. IDENT.	SOIL CLASS	SUB GRADE CLASS	SUBBASE COURSE	BASE COURSE	SURFACE COURSE	OVERLAY	PAVEMENT STRENGTH			REMARKS
							MAX. GROSS LOAD (LBS)			
							SINGLE	DUAL	DUAL TAN.	
RUNWAYS										
R-2	CBR=1.0		12" P-152	12"P-208	P-609	3"P-401,P-609	12,500			1,2,3,4,5
R-3	E-7	F7		8"P-207	3"P-401	P-609	12,500			2,3,4,5
TAXIWAYS										
T-2	E-7	F7		8"P-207	3"P-401	P-609	12,500			2,3,4,5
APRONS										
A-2	E-7	F7		8"P-207	3"P-401	P-609	12,500			2,3,4,5

REMARKS:

1. AIP-02, 1986, RUNWAY EXTENSION AND CHIP SEAL.
2. AIP-03, 1997, PULVERIZE AND RECONSTRUCT ALL PAVEMENTS EXCEPT RUNWAY EXTENSION (R-2); OVERLAY RUNWAY R-2.
3. AIP-004-2005, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS.
4. AIP-006-2009, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS [INSPECTED AFTER MAINTENANCE PROJECT].
5. AIP-008-2014, CRACK SEAL, FOG SEAL, AND REMARK PAVEMENTS.

LEGEND

- 2006 SURVEY AREA
- 2009 SURVEY AREA
- 2012 SURVEY AREA
- 2015 SURVEY AREA
- 2018 SURVEY AREA
- MAINTAIN: PCI > 60
- TRANSITION: PCI 45 TO 60
- RECONSTRUCT: PCI < 45

DATE OF PAVEMENT STRENGTH SURVEY:	
EVALUATED BY:	
DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	OCT. 1, 2018
EVALUATED BY:	S. BROWN
LOCATION:	STANFORD MONTANA

**MONTANA AVIATION SYSTEM PLAN
2018 UPDATE - PAVEMENT CONDITION INDEXES
STANFORD / BIGGERSTAFF FIELD
(S64)**

Date: Prepared For: Prepared By:

DECEMBER 2018





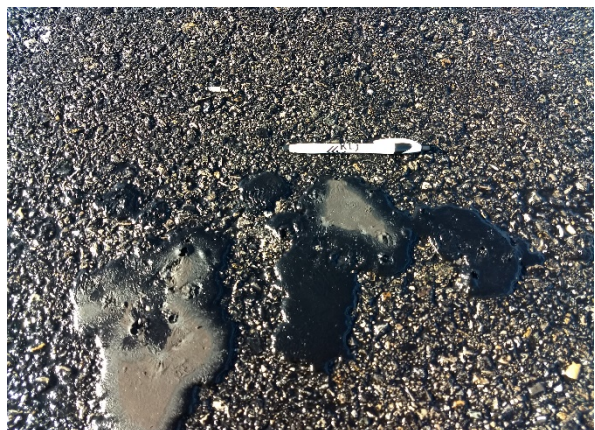
A-2, Alligator Cracking



A-2, Depression



R-2, Overview



R-2, Bleeding



R-3, Overview



R-1, Crack and Depression



T-2, Overview



T-2, Depression

STANFORD AIRPORT

Branch: 20A **APRON**

A-2

Length: 300 LF **Width:** 200 LF **Area:** 60,000 SF **Last Const:** 1997 **Family:** ACAM
From: ENTIRE APRON **To:** T-2 **Surface:**

Inspections

Samples Surveyed: 4 **Total Samples:** 12 **Last Inspection Date:** 10/1/2018 **PCI:** 61

Sample # 2 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	H	2 LF
WEATHERING	L	5000 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	241 LF
PATCHING	L	0.09 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	86 LF

Sample # 5 **Area:** 5,000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	155 LF
WEATHERING	L	5000 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	78 LF
PATCHING	L	22 SF
LONGITUDINAL/TRANSVERSE CRACKING	H	1 LF
RAVELING	L	720 SF

Sample # 7 **Area:** 4,690 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	63 LF
WEATHERING	L	4690 SF
DEPRESSION	L	36 SF
PATCHING	M	0.14 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	259 LF

Sample # 11 **Area:** 5,000 SF

Distress Description	Severity	Quantity
DEPRESSION	L	98 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	175 LF
PATCHING	L	0.27 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	280 LF
WEATHERING	L	5000 SF
ALLIGATOR	L	122 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
ALLIGATOR	L	372 SF	0.62%	16.23
DEPRESSION	L	408 SF	0.68%	4.63
LONGITUDINAL/TRANSVERSE CRACKING	H	9 LF	0.02%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	L	2,849 LF	4.75%	14.22
LONGITUDINAL/TRANSVERSE CRACKING	M	1,225 LF	2.04%	15.88
PATCHING	L	68 SF	0.11%	2.00
PATCHING	M	0 SF	0.00%	6.20
RAVELING	L	2,194 SF	3.66%	5.70
WEATHERING	L	60,000 SF	100.00%	5.96

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

21.0 % Load 73.0 % Climate/Durability 6.0 % Other

STANFORD AIRPORT

Branch: 20R RUNWAY

R-2

Length: 700 LF **Width:** 100 LF **Area:** 70,000 SF **Last Const:** 1997 **Family:** ACRML
From: 35+00 R/W 11-29 **To:** 42+00 R/W 11-29 **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 14 **Last Inspection Date:** 10/1/2018 **PCI:** 79

Sample # 5	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING WEATHERING BLEEDING</p>	<p>Severity L L NA</p>	<p>Quantity 190 LF 3750 SF 14.2 SF</p>	Area: 3,750 SF
Sample # 7	<p>Distress Description WEATHERING LONGITUDINAL/TRANSVERSE CRACKING RAVELING BLEEDING</p>	<p>Severity L L H NA</p>	<p>Quantity 3750 SF 119 LF 1.33 SF 8 SF</p>	Area: 3,750 SF
Sample # 9	<p>Distress Description BLEEDING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING</p>	<p>Severity NA L L</p>	<p>Quantity 12.3 SF 154 LF 3750 SF</p>	Area: 3,750 SF
Sample # 11	<p>Distress Description BLEEDING LONGITUDINAL/TRANSVERSE CRACKING RAVELING WEATHERING</p>	<p>Severity NA L H L</p>	<p>Quantity 14 SF 106 LF 0.44 SF 3750 SF</p>	Area: 3,750 SF
Sample # 13	<p>Distress Description WEATHERING BLEEDING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L NA L</p>	<p>Quantity 3750 SF 33.33 SF 91 LF</p>	Area: 3,750 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLEEDING	N/A	229 SF	0.44%	2.85
LONGITUDINAL/TRANSVERSE CRACKING	L	1,848 LF	3.52%	11.36
RAVELING	H	5 SF	0.01%	6.00
WEATHERING	L	52,500 SF	100.00%	5.96

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load 89.0 % Climate/Durability 11.0 % Other

STANFORD AIRPORT

Branch: 20R RUNWAY

R-3

Length: 3,500 LF **Width:** 75 LF **Area:** 262,500 SF **Last Const:** 1997 **Family:** ACRML
From: 0+00 R/W 11-29 **To:** 35+00 R/W 11-29 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 55 **Last Inspection Date:** 10/1/2018 **PCI:** 66

Sample # 6 **Area:** 4,950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	338 LF
WEATHERING	L	4950 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	48 LF
SWELL	L	0.35 SF
BLEEDING	NA	1.1 SF

Sample # 14 **Area:** 4,950 SF

Distress Description	Severity	Quantity
SWELL	L	0.2 SF
DEPRESSION	L	45 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	359 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	139 LF
DEPRESSION	L	105 SF
WEATHERING	L	4950 SF

Sample # 22 **Area:** 4,950 SF

Distress Description	Severity	Quantity
DEPRESSION	L	66 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	244 LF
WEATHERING	L	4950 SF
RUTTING	L	64 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	76 LF

Sample # 30 **Area:** 4,950 SF

Distress Description	Severity	Quantity
WEATHERING	L	4950 SF
DEPRESSION	L	45 SF
DEPRESSION	L	5 SF
LONGITUDINAL/TRANSVERSE CRACKING	H	1 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	233 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	53 LF

Sample # 38 **Area:** 4,950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	371 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	54 LF
DEPRESSION	L	40 SF
WEATHERING	L	4950 SF

Sample # 46 **Area:** 4,950 SF

Distress Description	Severity	Quantity
DEPRESSION	L	76 SF
WEATHERING	L	66 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	4950 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	310 LF

Sample # 54 **Area:** 4,950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	380 LF
DEPRESSION	L	104 SF
WEATHERING	L	4950 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	39 LF

STANFORD AIRPORT

Branch: 20R

RUNWAY

R-3

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLEEDING	N/A	8 SF	0.00%	0.00
DEPRESSION	L	4,182 SF	1.59%	9.60
LONGITUDINAL/TRANSVERSE CRACKING	H	8 LF	0.00%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	L	16,932 LF	6.45%	17.66
LONGITUDINAL/TRANSVERSE CRACKING	M	3,424 LF	1.30%	12.70
RUTTING	L	485 SF	0.18%	9.70
SWELL	L	4 SF	0.00%	1.00
WEATHERING	L	262,500 SF	100.00%	5.96

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

15.0 % Load

68.0 % Climate/Durability

17.0 % Other

STANFORD AIRPORT

Branch: 20T TAXIWAY

T-2

Length: 220 LF **Width:** 80 LF **Area:** 13,100 SF **Last Const:** 1997 **Family:** ACRML
From: TURNAROUND & R/W **To:** APRON **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 3 **Last Inspection Date:** 10/1/2018 **PCI:** 77

Sample # 1 **Area:** 3,500 SF

Distress Description	Severity	Quantity
WEATHERING	L	3500 SF
DEPRESSION	L	27 SF
PATCHING	L	0.18 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	28 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	152 LF

Sample # 2 **Area:** 4,800 SF

Distress Description	Severity	Quantity
WEATHERING	L	4800 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	138 LF
BLEEDING	NA	0.3 SF
DEPRESSION	L	30 SF

Sample # 3 **Area:** 4,800 SF

Distress Description	Severity	Quantity
BLEEDING	NA	0.02 SF
DEPRESSION	L	1 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	91 LF
RAVELING	H	1 SF
WEATHERING	L	4800 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	4 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLEEDING	N/A	0 SF	0.00%	0.00
DEPRESSION	L	58 SF	0.44%	2.84
LONGITUDINAL/TRANSVERSE CRACKING	L	381 LF	2.91%	9.81
LONGITUDINAL/TRANSVERSE CRACKING	M	32 LF	0.24%	5.78
PATCHING	L	0 SF	0.00%	2.00
RAVELING	H	1 SF	0.01%	6.00
WEATHERING	L	13,100 SF	100.00%	5.96

* Multiple deduct values are scaled down from their algebraic sum to keep the model consistent with experimental data.

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load 91.0 % Climate/Durability 9.0 % Other

STANFORD AIRPORT (20)

FIFTEEN YEAR PROJECTIONS							ESTIMATED AVERAGE ANNUAL COST:		\$115,551
Plan Year: 2019							Estimated Cost:	\$158,070	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive + Global MR	\$5,850	\$20,400	\$0	\$0	\$26,250	61	66	
R-2	Preventive + Global MR	\$792	\$17,850	\$0	\$0	\$18,641	79	82	
R-3	Preventive + Global MR	\$18,954	\$89,249	\$0	\$0	\$108,203	66	70	
T-2	Preventive + Global MR	\$318	\$4,658	\$0	\$0	\$4,976	77	80	
Plan Year: 2020							Estimated Cost:	\$20,014	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$4,713	\$0	\$0	\$0	\$4,713	64	64	
R-2	Preventive	\$485	\$0	\$0	\$0	\$485	81	81	
R-3	Preventive	\$14,620	\$0	\$0	\$0	\$14,620	69	69	
T-2	Preventive	\$196	\$0	\$0	\$0	\$196	79	79	
Plan Year: 2021							Estimated Cost:	\$22,692	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$5,238	\$0	\$0	\$0	\$5,238	63	63	
R-2	Preventive	\$571	\$0	\$0	\$0	\$571	80	80	
R-3	Preventive	\$16,630	\$0	\$0	\$0	\$16,630	67	67	
T-2	Preventive	\$254	\$0	\$0	\$0	\$254	78	78	
Plan Year: 2022							Estimated Cost:	\$25,465	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$5,757	\$0	\$0	\$0	\$5,757	61	61	
R-2	Preventive	\$773	\$0	\$0	\$0	\$773	79	79	
R-3	Preventive	\$18,624	\$0	\$0	\$0	\$18,624	66	66	
T-2	Preventive	\$311	\$0	\$0	\$0	\$311	77	77	
Plan Year: 2023							Estimated Cost:	\$210,332	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Major Below Critical	\$0	\$0	\$188,370	\$0	\$188,370	59	100	
R-2	Preventive	\$974	\$0	\$0	\$0	\$974	78	78	
R-3	Preventive	\$20,619	\$0	\$0	\$0	\$20,619	64	64	
T-2	Preventive	\$369	\$0	\$0	\$0	\$369	76	76	
Plan Year: 2024							Estimated Cost:	\$135,986	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	None	\$0	\$0	\$0	\$0	\$0	97	97	
R-2	Preventive + Global MR	\$1,176	\$17,850	\$0	\$0	\$19,026	77	80	
R-3	Preventive + Global MR	\$22,626	\$89,249	\$0	\$0	\$111,876	63	68	
T-2	Preventive + Global MR	\$426	\$4,658	\$0	\$0	\$5,084	75	78	
Plan Year: 2025							Estimated Cost:	\$19,354	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	None	\$0	\$0	\$0	\$0	\$0	94	94	
R-2	Preventive	\$752	\$0	\$0	\$0	\$752	79	79	
R-3	Preventive	\$18,298	\$0	\$0	\$0	\$18,298	66	66	
T-2	Preventive	\$305	\$0	\$0	\$0	\$305	77	77	
Plan Year: 2026							Estimated Cost:	\$21,605	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	None	\$0	\$0	\$0	\$0	\$0	91	91	
R-2	Preventive	\$953	\$0	\$0	\$0	\$953	78	78	
R-3	Preventive	\$20,290	\$0	\$0	\$0	\$20,290	65	65	
T-2	Preventive	\$362	\$0	\$0	\$0	\$362	76	76	
Plan Year: 2027							Estimated Cost:	\$23,978	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$120	\$0	\$0	\$0	\$120	88	88	
R-2	Preventive	\$1,153	\$0	\$0	\$0	\$1,153	77	77	
R-3	Preventive	\$22,285	\$0	\$0	\$0	\$22,285	63	63	
T-2	Preventive	\$420	\$0	\$0	\$0	\$420	75	75	
Plan Year: 2028							Estimated Cost:	\$26,416	PCI
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$290	\$0	\$0	\$0	\$290	85	85	
R-2	Preventive	\$1,354	\$0	\$0	\$0	\$1,354	76	76	
R-3	Preventive	\$24,294	\$0	\$0	\$0	\$24,294	61	62	
T-2	Preventive	\$477	\$0	\$0	\$0	\$477	74	74	

STANFORD AIRPORT (20)

FIFTEEN YEAR PROJECTIONS **ESTIMATED AVERAGE ANNUAL COST: \$115,551**

Plan Year: 2029		Estimated Cost:					\$813,740	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$459	\$0	\$0	\$0	\$459	82	83	
R-2	Preventive + Global MR	\$1,558	\$17,850	\$0	\$0	\$19,408	75	78	
R-3	Major Below Critical	\$0	\$0	\$788,680	\$0	\$788,680	60	100	
T-2	Preventive + Global MR	\$535	\$4,658	\$0	\$0	\$5,193	73	76	
Plan Year: 2030		Estimated Cost:					\$2,260	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$715	\$0	\$0	\$0	\$715	80	80	
R-2	Preventive	\$1,132	\$0	\$0	\$0	\$1,132	77	77	
R-3	None	\$0	\$0	\$0	\$0	\$0	97	97	
T-2	Preventive	\$413	\$0	\$0	\$0	\$413	75	75	
Plan Year: 2031		Estimated Cost:					\$3,198	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$1,394	\$0	\$0	\$0	\$1,394	77	77	
R-2	Preventive	\$1,333	\$0	\$0	\$0	\$1,333	76	76	
R-3	None	\$0	\$0	\$0	\$0	\$0	94	94	
T-2	Preventive	\$471	\$0	\$0	\$0	\$471	74	74	
Plan Year: 2032		Estimated Cost:					\$4,136	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive	\$2,074	\$0	\$0	\$0	\$2,074	74	74	
R-2	Preventive	\$1,535	\$0	\$0	\$0	\$1,535	75	75	
R-3	None	\$0	\$0	\$0	\$0	\$0	91	91	
T-2	Preventive	\$528	\$0	\$0	\$0	\$528	73	73	
Plan Year: 2033		Estimated Cost:					\$134,601	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-2	Preventive + Global MR	\$2,753	\$129,000	\$0	\$0	\$131,752	71	86	
R-2	Preventive	\$1,739	\$0	\$0	\$0	\$1,739	74	74	
R-3	Preventive	\$524	\$0	\$0	\$0	\$524	88	88	
T-2	Preventive	\$586	\$0	\$0	\$0	\$586	72	72	