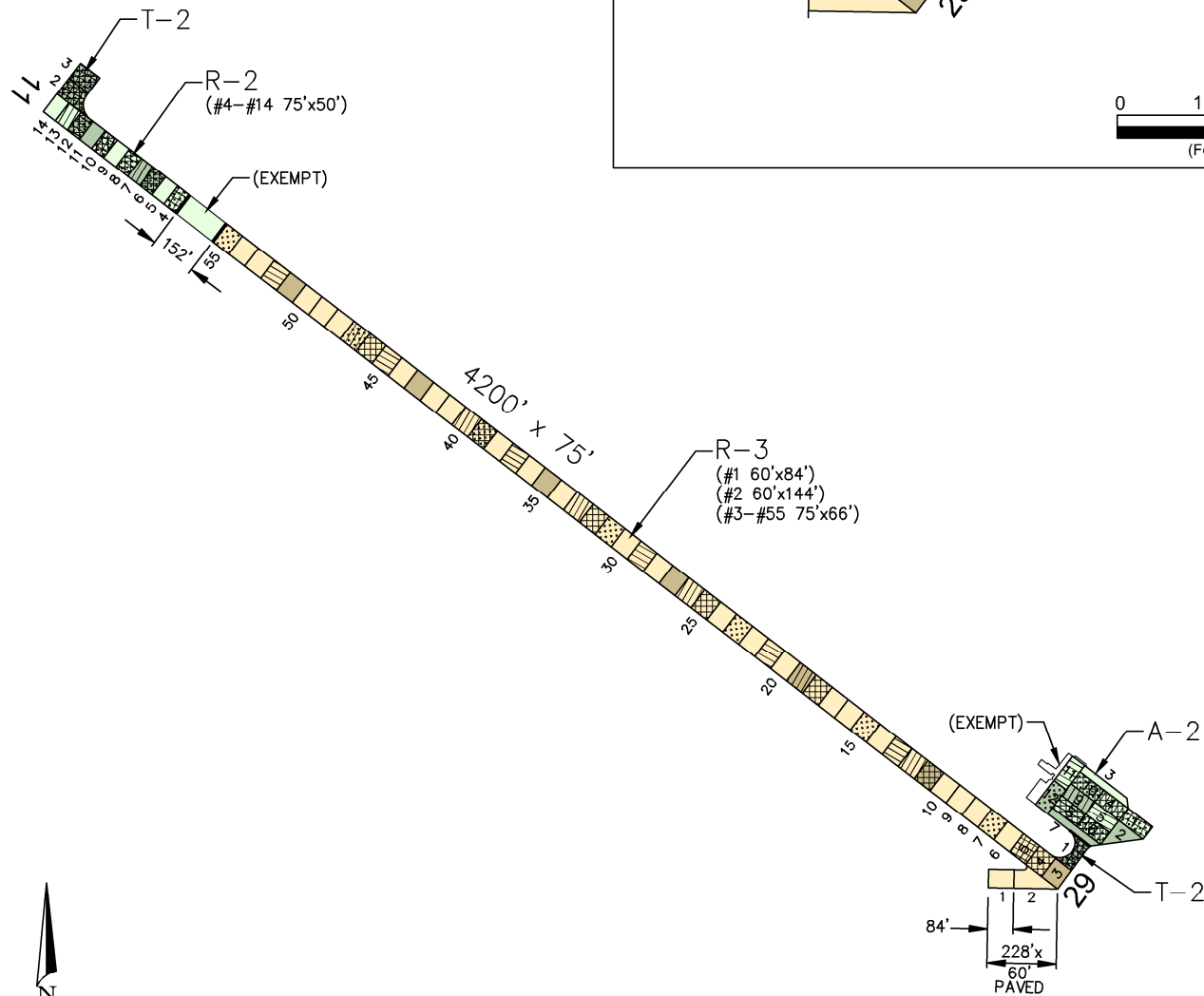
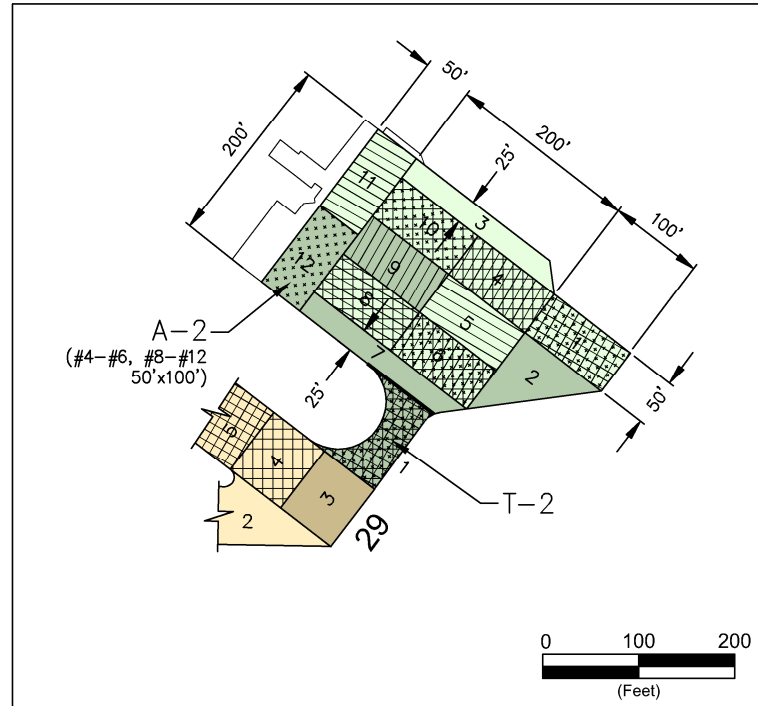


STANFORD



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.

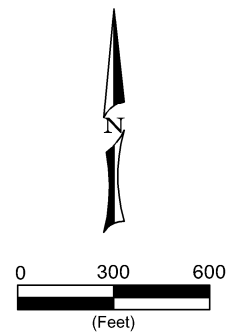
LEGEND

- 2003 SURVEY AREA
- 2006 SURVEY AREA
- 2009 SURVEY AREA
- 2012 SURVEY AREA
- 2015 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. 6, 2015
EVALUATED BY:	S. MARKWARDT
LOCATION:	STANFORD MONTANA

**MONTANA AVIATION SYSTEM PLAN
2015 UPDATE - PAVEMENT CONDITION INDEXES
STANFORD / BIGGERSTAFF FIELD
(S64)**

Date: DECEMBER 2015 Prepared For: MONTANA DEPARTMENT OF TRANSPORTATION Prepared By: RPA Robert Peccia & Associates, Inc.



STANFORD AIRPORT

10/6/2015



A-2, Overview



A-2, Surface detail with sealed cracks



R-2, Surface detail with raveling



R-2, Overview

STANFORD AIRPORT

10/6/2015



R-3, Overview



R-3, Surface detail with depression at crack



T-2, Surface detail



T-2, Overview

STANFORD AIRPORT

Branch: 20A

APRON

A-2

Length: 300 LF **Width:** 200 LF **Area:** 60,000 SF **Last Const. :** 1997 **Family:** ACAM15
From: ENTIRE APRON **To:** T-2 **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 12 **Last Inspection Date (RPA)** 10/6/2015 **PCI:** **68**

Sample # 1 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	226 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	42 LF
WEATHERING	L	100 SF
DEPRESSION	L	68 SF
RAVELING	L	50 SF
RAVELING	H	24 SF
SWELLING	L	8 SF

Sample # 6 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	343 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	69 LF
WEATHERING	L	100 SF
DEPRESSION	L	80 SF
RAVELING	L	50 SF
PATCHING	L	6 SF

Sample # 10 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	283 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	112 LF
WEATHERING	L	100 SF
DEPRESSION	L	76 SF
RAVELING	L	50 SF
OIL SPILLAGE	N	1 SF

Sample # 12 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	216 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	93 LF
WEATHERING	L	100 SF
DEPRESSION	L	70 SF
RAVELING	L	50 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	3204 LF	5.34 %	15.48
LONGITUDINAL/TRANSVERSE CRACKING	M	948 LF	1.58 %	13.94
DEPRESSION	L	882 SF	1.47 %	9.05
RAVELING	H	72 SF	0.12 %	6.79
RAVELING	L	600 SF	1.00 %	2.62
OIL SPILLAGE	N	3 SF	0.00 %	2.00
PATCHING	L	18 SF	0.03 %	2.00
SWELLING	L	24 SF	0.04 %	1.00
WEATHERING	L	1200 SF	2.00 %	0.68

* 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** 78.0 % **Climate/Durability** 22.0 % **Other**

STANFORD AIRPORT

Branch: 20R

RUNWAY

R-2

Length: 700 LF **Width:** 75 LF **Area:** 52,500 SF **Last Const. :** 1997 **Family:** ACRML15
From: STA 35+00 RWY 11-29 **To:** STA 42+00 RWY 11-29 **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 14 **Last Inspection Date (RPA)** 10/6/2015 **PCI:** 69

Sample # 4 **Area:** 3750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	267 LF
WEATHERING	L	75 SF
WEATHERING	M	50 SF
RAVELING	L	38 SF
RAVELING	H	10 SF
BLEEDING	N	6 SF

Sample # 6 **Area:** 3750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	369 LF
WEATHERING	L	75 SF
WEATHERING	M	50 SF
RAVELING	L	38 SF
DEPRESSION	L	21 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	3 LF
BLEEDING	N	2 SF

Sample # 8 **Area:** 3750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	186 LF
WEATHERING	L	75 SF
WEATHERING	M	50 SF
RAVELING	L	38 SF
BLEEDING	N	31 SF
DEPRESSION	L	23 SF

Sample # 10 **Area:** 3750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	229 LF
WEATHERING	L	75 SF
WEATHERING	M	50 SF
RAVELING	L	38 SF
DEPRESSION	L	25 SF
BLEEDING	N	5 SF

Sample # 12 **Area:** 3750 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	161 LF
WEATHERING	M	100 SF
WEATHERING	L	75 SF
RAVELING	M	38 SF
BLEEDING	N	20 SF
RAVELING	H	6 SF
OIL SPILLAGE	N	2 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	3394 LF	6.46 %	17.69
RAVELING	H	45 SF	0.09 %	6.00
RAVELING	M	106 SF	0.20 %	4.67
LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF	0.02 %	4.00
BLEEDING	N	179 SF	0.34 %	2.36
RAVELING	L	426 SF	0.81 %	2.31
DEPRESSION	L	193 SF	0.37 %	2.21
WEATHERING	M	840 SF	1.60 %	2.08
OIL SPILLAGE	N	6 SF	0.01 %	2.00
WEATHERING	L	1050 SF	2.00 %	0.68

* 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 85.0 % Climate/Durability 15.0 % Other

STANFORD AIRPORT

Branch: 20R

RUNWAY

R-3

Length: 3,500 LF **Width:** 75 LF **Area:** 262,500 SF **Last Const. :** 1997 **Family:** ACRML15
From: STA 0+00, RW 11-29 **To:** STA 35+00, RW 11-29 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 55 **Last Inspection Date (RPA)** 10/6/2015 **PCI:** **60**

Sample # 7 **Area:** 4950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	372 LF
WEATHERING	L	743 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	38 LF
RAVELING	L	50 SF
DEPRESSION	L	24 SF
BLEEDING	N	2 SF
PATCHING	L	1 SF

Sample # 15 **Area:** 4950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	394 LF
WEATHERING	L	743 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	29 LF
RAVELING	L	50 SF
DEPRESSION	L	21 SF
RAVELING	H	3 SF
SWELLING	L	3 SF

Sample # 23 **Area:** 4950 SF

Distress Description	Severity	Quantity
WEATHERING	L	743 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	199 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	132 LF
RAVELING	L	50 SF
SWELLING	L	12 SF
DEPRESSION	L	12 SF
RUTTING	L	10 SF

Sample # 31 **Area:** 4950 SF

Distress Description	Severity	Quantity
WEATHERING	L	743 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	218 LF
RAVELING	L	50 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	12 LF
DEPRESSION	L	16 SF
RAVELING	H	1 SF
OIL SPILLAGE	N	1 SF

Sample # 39 **Area:** 4950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	379 LF
WEATHERING	L	743 SF
WEATHERING	M	132 SF
DEPRESSION	L	72 SF
RAVELING	L	50 SF
RUTTING	L	18 SF

Sample # 47 **Area:** 4950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	265 LF
WEATHERING	L	743 SF
WEATHERING	M	212 SF
DEPRESSION	L	56 SF
RAVELING	L	50 SF
RUTTING	L	30 SF

STANFORD AIRPORT

Branch: 20R

RUNWAY

R-3

Sample # 55

Area: 4950 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	331 LF
WEATHERING	L	743 SF
PATCHING	M	132 SF
RAVELING	L	50 SF
DEPRESSION	L	33 SF
DEPRESSION	M	10 SF
RAVELING	H	2 SF
SWELLING	L	2 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	M	6894 LF	2.63 %	18.14
LONGITUDINAL/TRANSVERSE CRACKING	L	11053 LF	4.21 %	13.01
RUTTING	L	439 SF	0.17 %	9.47
PATCHING	M	1000 SF	0.38 %	7.71
RAVELING	H	45 SF	0.02 %	6.00
DEPRESSION	M	76 SF	0.03 %	5.20
DEPRESSION	L	1773 SF	0.68 %	4.59
RAVELING	L	2652 SF	1.01 %	2.63
WEATHERING	L	39402 SF	15.01 %	2.30
OIL SPILLAGE	N	8 SF	0.00 %	2.00
PATCHING	L	8 SF	0.00 %	2.00
WEATHERING	M	2606 SF	0.99 %	1.79
SWELLING	L	129 SF	0.05 %	1.00
BLEEDING	N	15 SF	0.01 %	0.00

* 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

12.0 % Load

71.0 % 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:** ACRML15
From: TURNAROUND & RW **To:** APRON **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 3 **Last Inspection Date (RPA)** 10/6/2015 **PCI:** 71

Sample # 1 **Area:** 3500 SF

Distress Description	Severity	Quantity
WEATHERING	L	875 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	219 LF
PATCHING	M	60 SF
RAVELING	L	49 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF
DEPRESSION	L	16 SF
BLEEDING	N	9 SF
PATCHING	L	2 SF

Sample # 2 **Area:** 4800 SF

Distress Description	Severity	Quantity
WEATHERING	L	875 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	158 LF
WEATHERING	M	100 SF
RAVELING	L	49 SF
RAVELING	H	15 SF

Sample # 3 **Area:** 4800 SF

Distress Description	Severity	Quantity
WEATHERING	L	875 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	236 LF
WEATHERING	M	300 SF
RAVELING	L	59 SF
BLEEDING	N	18 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	613 LF	4.68 %	14.07
PATCHING	M	60 SF	0.46 %	7.90
RAVELING	H	15 SF	0.11 %	6.62
LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF	0.06 %	4.00
RAVELING	L	157 SF	1.20 %	2.92
WEATHERING	L	2625 SF	20.04 %	2.81
WEATHERING	M	400 SF	3.05 %	2.68
PATCHING	L	2 SF	0.02 %	2.00
BLEEDING	N	27 SF	0.21 %	1.20
DEPRESSION	L	16 SF	0.12 %	0.32

* 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 97.0 % Climate/Durability 3.0 % Other

STANFORD AIRPORT

FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$156,210

PLAN YEAR: 2016			ESTIMATED COST:			\$1,176,792		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
T-2	Prev. & Thin AC	\$677	\$25,545			\$26,222	70	77	
R-2	Prev. & Thin AC	\$3,885	\$102,375			\$106,260	68	75	
A-2	Prev. & Seal Coat	\$5,202	\$16,800			\$22,002	66	71	
R-3	Reconstruct			\$1,022,308		\$1,022,308	57	100	

PLAN YEAR: 2017			ESTIMATED COST:			\$6,077		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
A-2	Basic Prev.	\$3,869				\$3,869	69	69	
T-2	Basic Prev.	\$371				\$371	76	76	
R-2	Basic Prev.	\$1,837				\$1,837	74	74	

PLAN YEAR: 2018			ESTIMATED COST:			\$7,972		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
A-2	Basic Prev.	\$5,347				\$5,347	67	67	
R-2	Basic Prev.	\$2,172				\$2,172	73	73	
T-2	Basic Prev.	\$453				\$453	74	74	

PLAN YEAR: 2019			ESTIMATED COST:			\$10,740		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
T-2	Basic Prev.	\$539				\$539	73	73	
R-2	Basic Prev.	\$2,542				\$2,542	71	72	
A-2	Basic Prev.	\$6,884				\$6,884	64	65	
R-3	Basic Prev.	\$775				\$775	87	88	

PLAN YEAR: 2020			ESTIMATED COST:			\$13,754		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
A-2	Basic Prev.	\$8,522				\$8,522	62	63	
T-2	Basic Prev.	\$632				\$632	72	72	
R-2	Basic Prev.	\$2,972				\$2,972	70	70	
R-3	Basic Prev.	\$1,628				\$1,628	84	85	

PLAN YEAR: 2021			ESTIMATED COST:			\$36,959		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
A-2	Prev. & Seal Coat	\$10,274	\$19,476			\$29,750	60	65	
R-2	Basic Prev.	\$4,072				\$4,072	68	68	
R-3	Basic Prev.	\$2,400				\$2,400	82	82	
T-2	Basic Prev.	\$737				\$737	70	70	

PLAN YEAR: 2022			ESTIMATED COST:			\$18,319		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
T-2	Basic Prev.	\$973				\$973	69	69	
A-2	Basic Prev.	\$8,841				\$8,841	63	63	
R-3	Basic Prev.	\$3,107				\$3,107	80	80	
R-2	Basic Prev.	\$5,398				\$5,398	66	67	

PLAN YEAR: 2023			ESTIMATED COST:			\$24,363		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
T-2	Basic Prev.	\$1,300				\$1,300	67	67	
R-2	Basic Prev.	\$7,018				\$7,018	64	64	
A-2	Basic Prev.	\$10,685				\$10,685	61	61	
R-3	Basic Prev.	\$5,360				\$5,360	78	78	

PLAN YEAR: 2024			ESTIMATED COST:			\$31,583		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
T-2	Basic Prev.	\$1,698				\$1,698	65	65	
R-2	Basic Prev.	\$9,005				\$9,005	61	62	
R-3	Basic Prev.	\$7,541				\$7,541	77	77	
A-2	Basic Prev.	\$13,339				\$13,339	58	58	

PLAN YEAR: 2025			ESTIMATED COST:			\$285,177		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after	
R-3	Basic Prev.	\$9,629				\$9,629	75	76	
A-2	Basic Prev.	\$16,452				\$16,452	56	56	
R-2	Reconstruct			\$256,912		\$256,912	58	100	
T-2	Basic Prev.	\$2,184				\$2,184	62	62	

PLAN YEAR: 2026							ESTIMATED COST:		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after		
A-2	Prev. & Seal Coat	\$19,921	\$22,578			\$42,499	54	59		
R-3	Basic Prev.	\$11,713				\$11,713	74	74		
T-2	Reconstruct			\$63,678		\$63,678	59	100		
PLAN YEAR: 2027							ESTIMATED COST:		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after		
A-2	Basic Prev.	\$17,055				\$17,055	56	56		
R-3	Basic Prev.	\$13,895				\$13,895	73	73		
PLAN YEAR: 2028							ESTIMATED COST:		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after		
A-2	Basic Prev.	\$20,711				\$20,711	54	54		
R-2	Basic Prev.	\$203				\$203	87	88		
R-3	Basic Prev.	\$16,286				\$16,286	72	72		
PLAN YEAR: 2029							ESTIMATED COST:		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after		
A-2	Basic Prev.	\$24,768				\$24,768	51	51		
T-2	Basic Prev.	\$52				\$52	87	88		
R-2	Basic Prev.	\$425				\$425	84	85		
R-3	Basic Prev.	\$18,981				\$18,981	70	70		
PLAN YEAR: 2030							ESTIMATED COST:		PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after		
T-2	Basic Prev.	\$109				\$109	84	85		
R-3	Basic Prev.	\$25,530				\$25,530	69	69		
R-2	Basic Prev.	\$626				\$626	82	82		
A-2	Reconstruct			\$474,878		\$474,878	48	100		