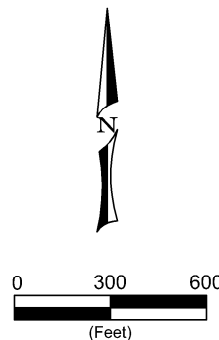
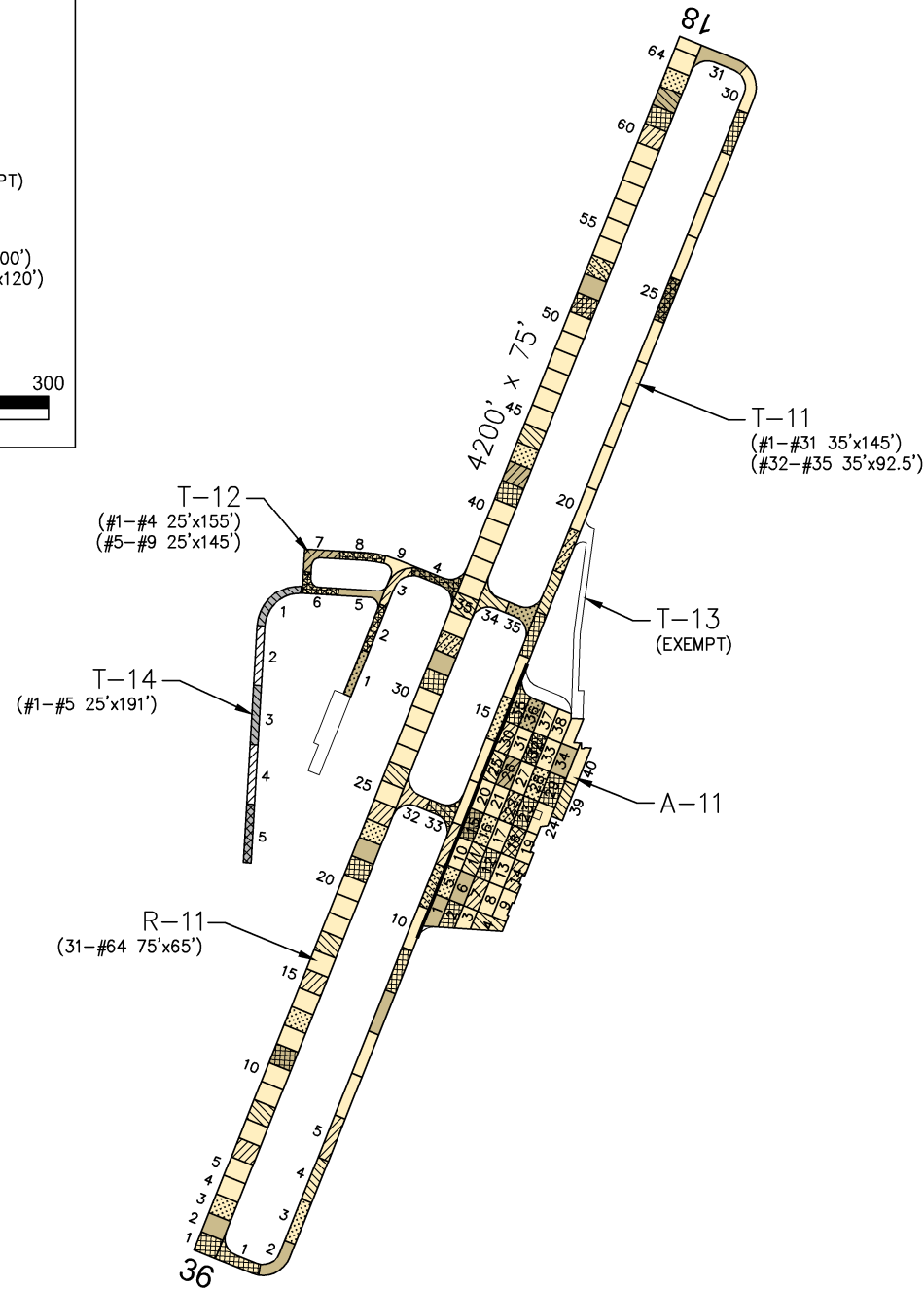
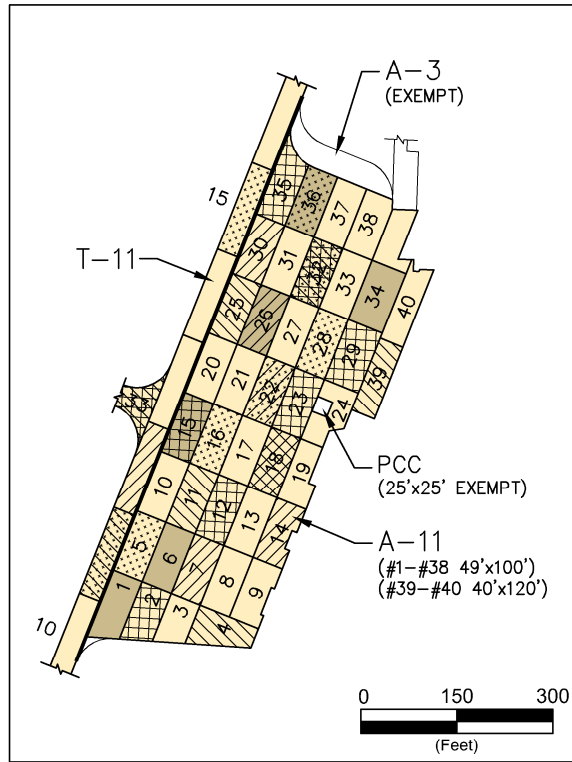


# POLSON



## 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.	
<b>RUNWAYS</b>										
R-11	E-6	F6, CBR=4	9" COMP. P-152, FILTER FABRIC	13" P-207/P-208	3" P-401	P-608	12,500			1,3,5
<b>TAXIWAYS</b>										
T-11	E-6	F6, CBR=4	FILTER FABRIC	13" P-208	3" P-401	P-608	12,500			2,3,5
T-12	E-6	F6, CBR=4	FILTER FABRIC	13" P-208	3" P-401	P-608	12,500			2,3,5
T-13				UNKNOWN						
T-14	E-6		FILTER FABRIC	12" P-208	3" P-401	P-608	12,500			3,5
<b>APRONS</b>										
A-11	E-6	F6, CBR=4		12" P-207/P-208	3" P-401	P-608	12,500			1,3,5
A-3	E-6	F6, CBR=4		12" P-208	3" P-403		12,500			4

**REMARKS:**

- FAAP-01, 1966
- AIP-01, 1983, OVERLAY AND EXTEND RUNWAY 18/36; CONSTRUCT TURNAROUNDS; OVERLAY AND EXPAND CONNECTING TAXIWAY AND APRON.
- 1. AIP-02, 1998, REHABILITATE AND WIDEN RUNWAY; REHABILITATE CONNECTING TAXIWAY AND PORTION OF APRON.
- 2. AIP-03, 1999, CONSTRUCT PARALLEL, CONNECTING AND HANGAR ACCESS TAXIWAYS (T-11, T-12).
- 3. AIP-004, 2003, CONSTRUCT HANGAR TAXIWAY E (T-14); CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- 4. AIP-005-2007, CONSTRUCT SELF-FUELING APRON (A-3).
- 5. AIP-007-2015, CRACK SEAL, SEAL COAT, AND REMARK ALL PAVEMENTS [INSPECTED PRIOR TO PROJECT].

**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:

EVALUATED BY:

LOCATION:

SEPT. 21, 2015

D. SCHANDEL

POLSON MONTANA

**MONTANA AVIATION SYSTEM PLAN  
2015 UPDATE - PAVEMENT CONDITION INDEXES**

**POLSON AIRPORT  
(8S1)**

Date: DECEMBER 2015

Prepared For:



Prepared By:



---

# POLSON AIRPORT

---

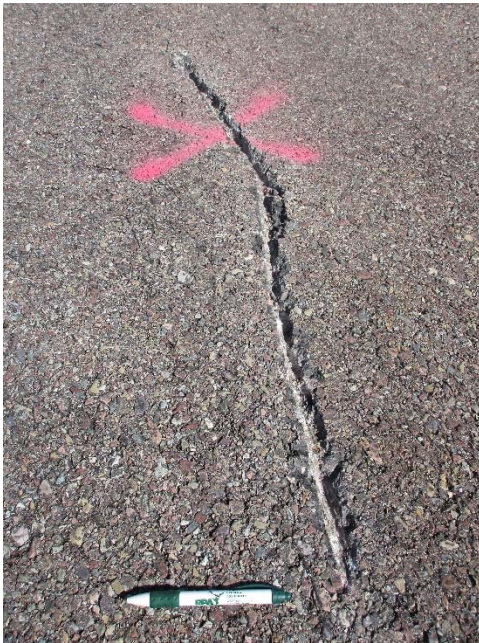
9/21/2015



**A-11**, Overview



**A-11**, Surface detail with swell



**R-11**, Surface detail with routed, but unsealed crack



**R-11**, Overview

---

# POLSON AIRPORT

---

9/21/2015



**T-11, Overview**



**T-11, Surface detail with raveling**



**T-12, Overview**



**T-12, Surface detail with high raveling**

**POLSON AIRPORT**

Branch: 03A

APRON

**A-11**

**Length:** 775 LF **Width:** 245 LF **Area:** 199,475 SF **Last Const. :** 1998 **Family:** ACAM15  
**From:** ENTIRE APRON **To:** **Surface:** AC

**Inspections**

**Samples Surveyed:** 6 **Total Samples:** 40 **Last Inspection Date (RPA)** 9/21/2015 **PCI:** 47

**Sample # 5** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	801 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	15 LF
PATCHING	L	28 SF
DEPRESSION	H	7 SF
RAVELING	H	5 SF
OIL SPILLAGE	N	1 SF

**Sample # 16** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	744 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	12 LF
SWELLING	L	14 SF
RAVELING	H	5 SF
DEPRESSION	M	2 SF
OIL SPILLAGE	N	2 SF

**Sample # 22** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	888 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
RAVELING	H	4 SF

**Sample # 28** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	1114 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
SWELLING	L	23 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	5 LF
RAVELING	H	4 SF
PATCHING	L	4 SF
DEPRESSION	H	1 SF

**Sample # 32** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	708 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	10 LF
PATCHING	L	24 SF
DEPRESSION	H	6 SF
RAVELING	H	4 SF

**Sample # 36** **Area:** 4900 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	688 LF
WEATHERING	L	735 SF
RAVELING	L	490 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	12 LF
PATCHING	L	16 SF
RAVELING	H	5 SF
DEPRESSION	H	4 SF
OIL SPILLAGE	N	1 SF

**Extrapolated Distress Quantities\***

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	33538 LF	16.81 %	30.45
DEPRESSION	H	122 SF	0.06 %	12.00
RAVELING	L	19948 SF	10.00 %	9.83

**POLSON AIRPORT**

Branch: 03A

**APRON**

**A-11**

**Extrapolated Distress Quantities\***

<b>Distress Description</b>	<b>Severity</b>	<b>Quantity</b>	<b>Density</b>	<b>Deduct</b>
RAVELING	H	183 SF	0.09 %	6.00
DEPRESSION	M	14 SF	0.01 %	5.20
LONGITUDINAL/TRANSVERSE CRACKING	M	366 LF	0.18 %	4.90
WEATHERING	L	29921 SF	15.00 %	2.30
PATCHING	L	489 SF	0.24 %	2.05
OIL SPILLAGE	N	27 SF	0.01 %	2.00
SWELLING	L	251 SF	0.13 %	1.24

\* 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

73.0 % Climate/Durability

27.0 % Other

**POLSON AIRPORT**

Branch: 03R

**RUNWAY**

**R-11**

**Length:** 4,200 LF    **Width:** 75 LF    **Area:** 315,000 SF    **Last Const. :** 1998    **Family:** ACRMU15  
**From:** STA 10+00    **To:** STA 52+00    **Surface:** AC

**Inspections**

**Samples Surveyed:** 7    **Total Samples:** 64    **Last Inspection Date (RPA)** 9/21/2015    **PCI:** 56

**Sample # 3**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	797 LF
RAVELING	L	244 SF
RAVELING	H	12 SF

**Sample # 13**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	664 LF
RAVELING	L	244 SF

**Sample # 23**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	692 LF
RAVELING	L	244 SF
RAVELING	M	45 SF

**Sample # 33**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	599 LF
RAVELING	L	244 SF
RAVELING	M	45 SF
SWELLING	L	5 SF
BLEEDING	N	5 SF
DEPRESSION	L	3 SF

**Sample # 43**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	518 LF
RAVELING	L	244 SF
RAVELING	M	40 SF
SWELLING	L	10 SF

**Sample # 53**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	599 LF
RAVELING	L	244 SF
RAVELING	M	45 SF
SWELLING	L	17 SF
RAVELING	H	2 SF

**Sample # 63**    **Distress Description**    **Severity**    **Quantity**    **Area:** 4875 SF

WEATHERING	L	3656 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	964 LF
RAVELING	L	244 SF
RAVELING	M	62 SF
SWELLING	L	4 SF

**Extrapolated Distress Quantities\***

<b>Distress Description</b>	<b>Severity</b>	<b>Quantity</b>	<b>Density</b>	<b>Deduct</b>
LONGITUDINAL/TRANSVERSE CRACKING	L	44612 LF	14.16 %	28.06
RAVELING	M	2188 SF	0.69 %	6.89
RAVELING	L	15766 SF	5.01 %	6.81
RAVELING	H	129 SF	0.04 %	6.00
WEATHERING	L	236234 SF	74.99 %	5.61
SWELLING	L	332 SF	0.11 %	1.06
DEPRESSION	L	28 SF	0.01 %	0.30
BLEEDING	N	46 SF	0.01 %	0.00

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

**POLSON AIRPORT**

Branch: 03R

**RUNWAY**

**R-11**

**Percent of Deduct Values Based on Distress Mechanism**

0.0 % **Load**

98.0 % **Climate/Durability**

2.0 % **Other**

**POLSON AIRPORT**

Branch: 03T

**TAXIWAY**

**T-11**

**Length:** 4,870 LF **Width:** 35 LF **Area:** 170,450 SF **Last Const. :** 1999 **Family:** ACRMU15  
**From:** R-11 PARALLEL TW **To:** A-11 **Surface:** AC

**Inspections**

**Samples Surveyed:** 5 **Total Samples:** 35 **Last Inspection Date (RPA)** 9/21/2015 **PCI:** 54

**Sample # 3** **Area:** 5075 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	602 LF
WEATHERING	L	1269 SF
RAVELING	L	251 SF
RUTTING	M	55 SF
ALLIGATOR CRACKING	L	5 SF
SWELLING	L	2 SF

**Sample # 11** **Area:** 5075 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	765 LF
WEATHERING	L	1269 SF
RAVELING	L	251 SF
RAVELING	M	55 SF
RAVELING	H	1 SF
OIL SPILLAGE	N	1 SF

**Sample # 15** **Area:** 5075 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	1077 LF
WEATHERING	L	1269 SF
RAVELING	L	251 SF
DEPRESSION	L	15 SF
OIL SPILLAGE	N	3 SF
SWELLING	L	2 SF

**Sample # 19** **Area:** 5075 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	472 LF
WEATHERING	L	1269 SF
RAVELING	L	251 SF
RAVELING	M	55 SF

**Sample # 35** **Area:** 3238 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	694 LF
WEATHERING	L	810 SF
RAVELING	L	162 SF
RAVELING	M	95 SF
DEPRESSION	L	22 SF
RAVELING	H	15 SF

**Extrapolated Distress Quantities\***

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	26142 LF	15.34 %	29.17
RUTTING	M	398 SF	0.23 %	16.26
RAVELING	M	1485 SF	0.87 %	7.48
ALLIGATOR CRACKING	L	36 SF	0.02 %	7.00
RAVELING	L	8444 SF	4.95 %	6.77
RAVELING	H	116 SF	0.07 %	6.00
WEATHERING	L	42623 SF	25.01 %	3.26
OIL SPILLAGE	N	29 SF	0.02 %	2.00
SWELLING	L	29 SF	0.02 %	1.00
DEPRESSION	L	268 SF	0.16 %	0.48

\* 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**

29.0 % Load 67.0 % Climate/Durability 4.0 % Other



**POLSON AIRPORT**

Branch: 03T

**TAXIWAY**

**T-12**

**Length:** 1,317 LF    **Width:** 25 LF    **Area:** 32,925 SF    **Last Const. :** 1999    **Family:** ACRMU15  
**From:** R-11    **To:** HANGARS    **Surface:** AC

**Inspections**

**Samples Surveyed:** 4    **Total Samples:** 9    **Last Inspection Date (RPA)** 9/21/2015    **PCI:** 48

**Sample # 1**    **Area:** 3875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	613 LF
WEATHERING	L	969 SF
RAVELING	L	388 SF
WEATHERING	H	44 SF
RUTTING	L	21 SF
RAVELING	H	6 SF

**Sample # 4**    **Area:** 3875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	1136 LF
WEATHERING	L	969 SF
RAVELING	L	442 SF
RAVELING	H	58 SF
DEPRESSION	L	24 SF
OIL SPILLAGE	N	5 SF
PATCHING	L	2 SF

**Sample # 6**    **Area:** 3625 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	431 LF
WEATHERING	L	906 SF
RAVELING	L	300 SF
DEPRESSION	L	17 SF
RAVELING	H	4 SF
OIL SPILLAGE	N	4 SF

**Sample # 8**    **Area:** 3625 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	804 LF
WEATHERING	L	906 SF
RAVELING	L	388 SF
DEPRESSION	L	17 SF
RAVELING	H	15 SF

**Extrapolated Distress Quantities\***

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	6550 LF	19.89 %	32.77
RAVELING	H	182 SF	0.55 %	11.60
RAVELING	L	3332 SF	10.12 %	9.88
RUTTING	L	46 SF	0.14 %	9.09
WEATHERING	H	97 SF	0.29 %	4.96
WEATHERING	L	8231 SF	25.00 %	3.26
DEPRESSION	L	127 SF	0.39 %	2.37
OIL SPILLAGE	N	20 SF	0.06 %	2.00
PATCHING	L	4 SF	0.01 %	2.00

\* 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    82.0 % Climate/Durability    6.0 % Other

## POLSON AIRPORT

**FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$407,622**

PLAN YEAR: 2016			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Prev. & Thin AC	\$73,190	\$614,249			\$687,440	55	64
T-11	Prev. & Seal Coat	\$45,025	\$47,726			\$92,751	52	56
T-12	Reconstruct			\$185,022		\$185,022	46	100
A-11	Reconstruct			\$1,165,234		\$1,165,234	44	100

PLAN YEAR: 2017			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$42,730				\$42,730	62	62
T-11	Basic Prev.	\$40,662				\$40,662	55	55

PLAN YEAR: 2018			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$47,116				\$47,116	53	53
R-11	Basic Prev.	\$49,526				\$49,526	60	60

PLAN YEAR: 2019			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$59,326				\$59,326	59	59
T-11	Basic Prev.	\$54,424				\$54,424	51	51
A-11	Basic Prev.	\$612				\$612	87	87

PLAN YEAR: 2020			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$70,147				\$70,147	57	57
T-11	Reconstruct			\$1,011,301		\$1,011,301	48	100
A-11	Basic Prev.	\$1,377				\$1,377	84	84
T-12	Basic Prev.	\$115				\$115	87	87

PLAN YEAR: 2021			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$82,056				\$82,056	55	55
A-11	Basic Prev.	\$2,116				\$2,116	81	81
T-12	Basic Prev.	\$227				\$227	84	84

PLAN YEAR: 2022			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$4,249				\$4,249	78	78
R-11	Basic Prev.	\$95,234				\$95,234	53	53
T-12	Basic Prev.	\$340				\$340	81	81

PLAN YEAR: 2023			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-12	Basic Prev.	\$603				\$603	79	79
R-11	Basic Prev.	\$110,005				\$110,005	51	51
A-11	Basic Prev.	\$6,926				\$6,926	75	76

PLAN YEAR: 2024			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-12	Basic Prev.	\$1,028				\$1,028	76	76
R-11	Reconstruct			\$2,067,591		\$2,067,591	49	100
A-11	Basic Prev.	\$9,592				\$9,592	73	73
T-11	Basic Prev.	\$672				\$672	87	87

PLAN YEAR: 2025			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-12	Basic Prev.	\$1,454				\$1,454	74	74
T-11	Basic Prev.	\$1,322				\$1,322	84	84
A-11	Basic Prev.	\$12,264				\$12,264	71	71

PLAN YEAR: 2026			ESTIMATED COST:			PCI		
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-12	Basic Prev.	\$1,880				\$1,880	72	72
T-11	Basic Prev.	\$1,981				\$1,981	81	81
A-11	Basic Prev.	\$17,371				\$17,371	69	69

PLAN YEAR: 2027			ESTIMATED COST:			\$29,643	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-12	Basic Prev.	\$2,356				\$2,356	70	70
T-11	Basic Prev.	\$3,512				\$3,512	79	79
A-11	Basic Prev.	\$23,775				\$23,775	66	67
PLAN YEAR: 2028			ESTIMATED COST:			\$41,207	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$5,988				\$5,988	76	76
R-11	Basic Prev.	\$1,398				\$1,398	87	87
A-11	Basic Prev.	\$30,488				\$30,488	64	64
T-12	Basic Prev.	\$3,333				\$3,333	68	68
PLAN YEAR: 2029			ESTIMATED COST:			\$53,158	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-11	Basic Prev.	\$37,613				\$37,613	62	62
T-12	Basic Prev.	\$4,323				\$4,323	66	66
T-11	Basic Prev.	\$8,472				\$8,472	74	74
R-11	Basic Prev.	\$2,750				\$2,750	84	84
PLAN YEAR: 2030			ESTIMATED COST:			\$65,626	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-11	Basic Prev.	\$10,953				\$10,953	72	72
A-11	Basic Prev.	\$45,228				\$45,228	60	60
T-12	Basic Prev.	\$5,324				\$5,324	64	64
R-11	Basic Prev.	\$4,121				\$4,121	81	81