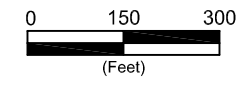
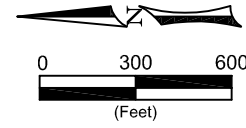
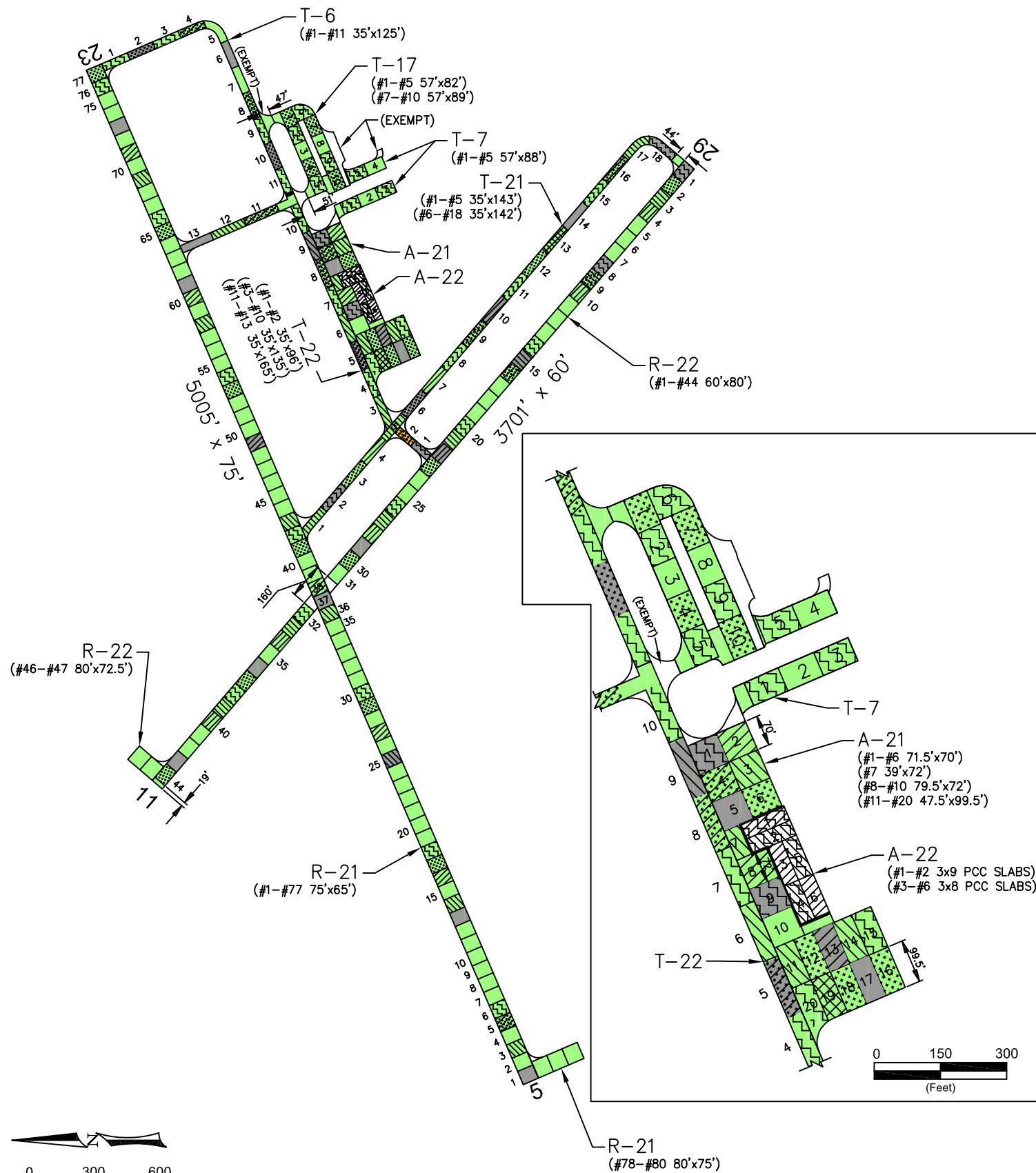


SHELBY



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-21	E-7	CBR=1.9	18" P-154	14"P-207/208	3" P-401	P-609	12,500			2,3
R-22	E-7	CBR=1.9	18" P-154	14"P-207/208	3" P-401	P-609	12,500			2,3
TAXIWAYS										
T-6	E-7	CBR=1.9	8" P-154	4" P-208	3" P-401	2" P-401	12,500			1,4
T-7		CBR=2	18" P-154	4" P-209	3" P-401		12,500			4
T-17		CBR=2	18" P-154	4" P-209	3" P-401		12,500			4
T-21	E-7	CBR=1.9	FABRIC, 18" P-154	6"P-207/208	3" P-401	P-609	12,500			2,3
T-22	E-7	CBR=1.9	FABRIC, 18" P-154	6"P-207/208	3" P-401	P-609	12,500			2,3
APRONS										
A-21	E-7	CBR=1.9	18" P-154	6"P-207/208	3" P-401	P-609	12,500			2,3
A-22	E-7	CBR=1.9	GEOGRID, FABRIC 18" P-154	4" P-208	6" P-501		12,500			

REMARKS:

AIP-001-1984, EXPAND APRON.
 AIP-002-1986, RUNWAY 5-23 OVERLAY; DRAINAGE IMPROVEMENTS.
 AIP-003-1989, OVERLAY RUNWAY 11-29, TAXIWAY, AND APRON; DRAINAGE IMPROVEMENTS.

- AIP-004-1994-95 EXTEND RUNWAY 5-23; CONSTRUCT TAXIWAY T-6; EXPAND APRON.
- AIP-005-2003/AIP-006-2004, CONSTRUCT APRON (A-22); CRACK SEAL, FOG SEAL, AND REMARK T-6; PULVERIZE AND RECONSTRUCT REMAINING PAVEMENTS.
- AIP-010-2011, CRACK SEAL, FOG SEAL, AND REMARK RUNWAYS (R-21,R-22), TAXIWAYS (T-21,T-22), AND APRON (A-21).
- AIP-011-2012, CRACK SEAL AND OVERLAY TAXIWAY (T-6); RECONSTRUCT TAXIWAY (T-17); CONSTRUCT TAXIWAY (T-7).
- AIP-012-2016, CRACK SEAL, SURFACE SEAL, AND REMARK ALL PAVEMENTS.

LEGEND	DATE OF PAVEMENT STRENGTH SURVEY:	
	EVALUATED BY:	
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	OCT. 17, 2018
	EVALUATED BY:	S. BROWN
	LOCATION:	SHELBY MONTANA

**MONTANA AVIATION SYSTEM PLAN
2018 UPDATE - PAVEMENT CONDITION INDEXES**

**SHELBY AIRPORT
(SBX)**

Date: _____ Prepared For: _____ Prepared By: _____

DECEMBER 2018

MONTANA DEPARTMENT OF TRANSPORTATION

- 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



A-21, Overview



A-21, Tie Down Patch



A-22, Overview



A-22, Joint Spall



R-21, Overview



R-21, Sealed Crack and Depression



R-22, Overview



R-22, Depression



T-6, Overview



T-6, Swell



T-21, Overview



T-21, Sealed Crack and Depression

SHELBY AIRPORT

Branch: 14A **APRON**

A-21

Length: 697 LF **Width:** 143 LF **Area:** 97,273 SF **Last Const:** 2003 **Family:** ACAM
From: T-22 **To:** TERMINAL **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 20 **Last Inspection Date:** 10/17/2018 **PCI:** 79

Sample # 1 **Area:** 5,005 SF

Distress Description	Severity	Quantity
WEATHERING	L	5005 SF
DEPRESSION	L	161 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	77 LF

Sample # 5 **Area:** 5,005 SF

Distress Description	Severity	Quantity
RAVELING	H	36 SF
DEPRESSION	L	4.5 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	35 LF
WEATHERING	L	5005 SF

Sample # 9 **Area:** 5,724 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	4 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	222 LF
WEATHERING	L	5724 SF
PATCHING	L	0.2 SF

Sample # 15 **Area:** 4,702 SF

Distress Description	Severity	Quantity
PATCHING	M	2.64 SF
PATCHING	L	14.4 SF
WEATHERING	L	4702.5 SF
DEPRESSION	L	24 SF

Sample # 20 **Area:** 4,702 SF

Distress Description	Severity	Quantity
WEATHERING	L	4702.5 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	114 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	733 SF	0.75%	5.13
LONGITUDINAL/TRANSVERSE CRACKING	LOW	1,733 LF	1.78%	6.83
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	19 LF	0.02%	4.00
PATCHING	LOW	56 SF	0.06%	2.00
PATCHING	MEDIUM	10 SF	0.01%	6.20
RAVELING	HIGH	139 SF	0.14%	7.30
WEATHERING	LOW	97,273 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 86.0 % Climate/Durability 14.0 % Other

SHELBY AIRPORT

Branch: 14A **APRON**

A-22

Length: 265 105 **Width:** 105 LF **Area:** 22,193 SF **Last Const:** 2003 **Family:** PCAA
From: A-21 **To:** TERMINAL **Surface:** PCC

Inspections

Samples Surveyed: 4 **Total Samples:** 6 **Last Inspection Date:** 10/17/2018 **PCI:** 71

Sample # 1	<p>Distress Description LINEAR CRACKING JOINT SEAL DAMAGE JOINT SPALLING JOINT SPALLING</p>	<p>Severity L M L M</p>	<p>Quantity 2 SLABS 27 SLABS 16 SLABS 4 SLABS</p>	Area: 27 SLABS
Sample # 2	<p>Distress Description LINEAR CRACKING JOINT SEAL DAMAGE LARGE PATCH JOINT SPALLING JOINT SPALLING CORNER SPALLING</p>	<p>Severity L M L M L L</p>	<p>Quantity 3 SLABS 27 SLABS 1 SLABS 1 SLABS 17 SLABS 2 SLABS</p>	Area: 27 SLABS
Sample # 4	<p>Distress Description JOINT SEAL DAMAGE JOINT SPALLING JOINT SPALLING CORNER SPALLING CORNER SPALLING</p>	<p>Severity M M L L M</p>	<p>Quantity 24 SLABS 2 SLABS 10 SLABS 3 SLABS 1 SLABS</p>	Area: 24 SLABS
Sample # 5	<p>Distress Description JOINT SEAL DAMAGE LARGE PATCH JOINT SPALLING JOINT SPALLING CORNER SPALLING</p>	<p>Severity M L M L L</p>	<p>Quantity 24 SLABS 1 SLABS 1 SLABS 14 SLABS 5 SLABS</p>	Area: 24 SLABS

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LINEAR CRACKING	LOW	7 FALSE	4.90%	4.73
JOINT SEAL DAMAGE	MEDIUM	150 FALSE	100.00%	7.00
LARGE PATCH	LOW	3 FALSE	1.96%	1.40
JOINT SPALLING	LOW	84 FALSE	55.88%	11.75
JOINT SPALLING	MEDIUM	12 FALSE	7.84%	5.89
CORNER SPALLING	LOW	15 FALSE	9.80%	3.96
CORNER SPALLING	MEDIUM	1 FALSE	0.98%	0.87

* 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

13.0 % Load 20.0 % Climate/Durability 67.0 % Other

SHELBY AIRPORT

Branch: 14R1 RUNWAY

R-21

Length: 5,000 LF **Width:** 75 LF **Area:** 375,000 SF **Last Const:** 2004 **Family:** ACRMU
From: 12+00 R/W 5-23 **To:** 62+00 R/W 5-23 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 77 **Last Inspection Date:** 10/17/2018 **PCI:** 65

Sample # 6 **Area:** 4,875 SF

Distress Description	Severity	Quantity
WEATHERING	L	4875 SF
DEPRESSION	L	200.5 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	227 LF
RAVELING	H	3.02 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	13 LF

Sample # 18 **Area:** 4,875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	155 LF
DEPRESSION	L	292.5 SF
WEATHERING	L	4875 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF

Sample # 30 **Area:** 4,875 SF

Distress Description	Severity	Quantity
DEPRESSION	H	50 SF
DEPRESSION	L	294 SF
DEPRESSION	M	99 SF
WEATHERING	L	4875 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	3 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	154 LF

Sample # 42 **Area:** 4,875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	186 LF
WEATHERING	L	4875 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	63 LF
DEPRESSION	L	75 SF
DEPRESSION	M	40 SF

Sample # 54 **Area:** 4,875 SF

Distress Description	Severity	Quantity
WEATHERING	L	4875 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	42 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	197 LF
LONGITUDINAL/TRANSVERSE CRACKING	H	2 LF
DEPRESSION	L	40 SF

Sample # 66 **Area:** 4,875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	283 LF
LONGITUDINAL/TRANSVERSE CRACKING	H	2 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	45 LF
WEATHERING	L	4875 SF

Sample # 76 **Area:** 4,875 SF

Distress Description	Severity	Quantity
DEPRESSION	L	75 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	4 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	146 LF
WEATHERING	L	4875 SF

SHELBY AIRPORT

Branch: 14R1

RUNWAY

R-21

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	HIGH	549 SF	0.15%	13.72
DEPRESSION	LOW	10,736 SF	2.86%	14.15
DEPRESSION	MEDIUM	1,527 SF	0.41%	9.36
LONGITUDINAL/TRANSVERSE CRACKING	HIGH	44 LF	0.01%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	LOW	14,813 LF	3.95%	12.40
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	1,879 LF	0.50%	8.30
RAVELING	HIGH	33 SF	0.01%	6.00
WEATHERING	LOW	375,000 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

0.0 % Load

52.0 % Climate/Durability

48.0 % Other

SHELBY AIRPORT

Branch: 14R2 RUNWAY

R-22

Length: 3,700 LF **Width:** 60 LF **Area:** 222,000 SF **Last Const:** 2003 **Family:** ACRMU
From: 12+00 RW 11-29 **To:** 49+00 RW 11-29 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 44 **Last Inspection Date:** 10/17/2018 **PCI:** 67

Sample # 1	<p>Distress Description SWELL LONGITUDINAL/TRANSVERSE CRACKING DEPRESSION ALLIGATOR LONGITUDINAL/TRANSVERSE CRACKING WEATHERING</p>	<p>Severity L M L L L L</p>	<p>Quantity 4 SF 4 LF 11.5 SF 12.5 SF 99 LF 4800 SF</p>	Area: 4,800 SF
Sample # 8	<p>Distress Description WEATHERING LONGITUDINAL/TRANSVERSE CRACKING DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L M L L</p>	<p>Quantity 4800 SF 66 LF 240 SF 307 LF</p>	Area: 4,800 SF
Sample # 14	<p>Distress Description DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING WEATHERING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L L L M</p>	<p>Quantity 274 SF 294 LF 4800 SF 12 LF</p>	Area: 4,800 SF
Sample # 20	<p>Distress Description DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING DEPRESSION</p>	<p>Severity L L M L M</p>	<p>Quantity 80 SF 150 LF 13 LF 4800 SF 28 SF</p>	Area: 4,800 SF
Sample # 26	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING WEATHERING DEPRESSION PATCHING DEPRESSION</p>	<p>Severity L L M L L</p>	<p>Quantity 126 LF 4800 SF 900 SF 0.2 SF 60 SF</p>	Area: 4,800 SF
Sample # 32	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING WEATHERING RAVELING</p>	<p>Severity L L H</p>	<p>Quantity 115 LF 4800 SF 13.33 SF</p>	Area: 4,800 SF
Sample # 38	<p>Distress Description WEATHERING DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L L L</p>	<p>Quantity 4800 SF 50.25 SF 124 LF</p>	Area: 4,800 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
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SHELBY AIRPORT

	Branch:	14R2	RUNWAY	R-22
ALLIGATOR	LOW	83 SF	0.04%	7.00
DEPRESSION	LOW	4,729 SF	2.13%	11.74
DEPRESSION	MEDIUM	6,131 SF	2.76%	24.99
LONGITUDINAL/TRANSVERSE CRACKING	LOW	8,028 LF	3.62%	11.59
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	628 LF	0.28%	6.27
PATCHING	LOW	1 SF	0.00%	2.00
RAVELING	HIGH	88 SF	0.04%	6.00
SWELL	LOW	26 SF	0.01%	1.00
WEATHERING	LOW	222,000 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		
9.0 %	Load	
42.0 %	Climate/Durability	
49.0 %	Other	

SHELBY AIRPORT

Branch: 14T TAXIWAY

T-6

Length: 1,400 LF

Width: 35 LF

Area: 115,000 SF

Last Const: 1994

Family: ACRMU

From:

To: APRON A-1

Surface: AC

Inspections

Samples Surveyed: 4 Total Samples: 11 Last Inspection Date: 10/17/2018 **PCI: 75**

Sample # 1

Area: 4,375 SF

Distress Description	Severity	Quantity
DEPRESSION	L	105 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	74 LF
WEATHERING	L	1627.5 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF

Sample # 3

Area: 4,375 SF

Distress Description	Severity	Quantity
RAVELING	H	9 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	61 LF
PATCHING	L	0.2 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF

Sample # 9

Area: 4,375 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF
DEPRESSION	L	218 SF
PATCHING	L	0.2 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	139 LF

Sample # 11

Area: 4,375 SF

Distress Description	Severity	Quantity
RAVELING	H	20 SF
PATCHING	L	0.2 SF
DEPRESSION	L	20 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	1 LF
LONGITUDINAL/TRANSVERSE CRACKING	L	69 LF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	2,254 SF	1.96%	11.10
LONGITUDINAL/TRANSVERSE CRACKING	LOW	2,254 LF	1.96%	7.30
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	26 LF	0.02%	4.00
PATCHING	LOW	4 SF	0.00%	2.00
RAVELING	HIGH	191 SF	0.17%	7.60
WEATHERING	LOW	10,695 SF	9.30%	1.63

* 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

67.0 % Climate/Durability

33.0 % Other

SHELBY AIRPORT

Branch: 14T TAXIWAY

T-7

Length: 440 LF **Width:** 57 LF **Area:** 25,080 SF **Last Const:** 2012 **Family:** ACRMU
From: T-17 **To:** HANGARS **Surface:** AC

Inspections

Samples Surveyed: 3 **Total Samples:** 5 **Last Inspection Date:** 10/17/2018 **PCI:** 97

Sample # 1	Distress Description PATCHING DEPRESSION	Severity L L	Quantity 0.4 SF 30 SF	Area: 5,016 SF
Sample # 3	Distress Description PATCHING	Severity L	Quantity 0.2 SF	Area: 5,016 SF
Sample # 5	Distress Description PATCHING	Severity L	Quantity 0.2 SF	Area: 5,016 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	50 SF	0.20%	0.78
PATCHING	LOW	1 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

0.0 % Load 72.0 % Climate/Durability 28.0 % Other

SHELBY AIRPORT			Branch: 14T	TAXIWAY	T-17
Length: 2,038 LF	Width: 35 LF	Area: 71,330 SF	Last Const: 2012	Family: ACRMU	
From: T-6		To: HANGARS		Surface: AC	

Inspections

Samples Surveyed: 4 **Total Samples:** 10 **Last Inspection Date:** 10/17/2018 **PCI:** 83

Sample #	Distress Description	Severity	Quantity	Area:
2	PATCHING	L	0.2 SF	4,674 SF
	LONGITUDINAL/TRANSVERSE CRACKING	L	12 LF	
5	LONGITUDINAL/TRANSVERSE CRACKING	L	108 LF	4,674 SF
	DEPRESSION	L	66 SF	
	PATCHING	L	0.2 SF	
6	LONGITUDINAL/TRANSVERSE CRACKING	L	69 LF	5,073 SF
	DEPRESSION	L	186 SF	
9	LONGITUDINAL/TRANSVERSE CRACKING	L	78 LF	5,073 SF
	LONGITUDINAL/TRANSVERSE CRACKING	M	39 LF	
	PATCHING	M	117 SF	
	PATCHING	L	0.4 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	922 SF	1.29%	8.20
LONGITUDINAL/TRANSVERSE CRACKING	LOW	977 LF	1.37%	5.79
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	143 LF	0.20%	5.15
PATCHING	LOW	3 SF	0.00%	2.00
PATCHING	MEDIUM	428 SF	0.60%	8.27

* 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 72.0 % Climate/Durability 28.0 % Other

SHELBY AIRPORT

Branch: 14T TAXIWAY **T-21**

Length: 2,550 LF Width: 35 LF Area: 89,250 SF Last Const: 2003 Family: ACRMU
 From: R-21 To: R-22 Surface: AC

Inspections

Samples Surveyed: 5 **Total Samples:** 18 **Last Inspection Date:** 10/17/2018 **PCI:** 76

Sample # 2	<p>Distress Description</p> ALLIGATOR DEPRESSION LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING	<p>Severity</p> L L L M H	<p>Quantity</p> 18 SF 35 SF 127 LF 1 LF 2 SF	Area: 5,005 SF
Sample # 8	<p>Distress Description</p> LONGITUDINAL/TRANSVERSE CRACKING DEPRESSION	<p>Severity</p> L L	<p>Quantity</p> 168 LF 141 SF	Area: 4,970 SF
Sample # 11	<p>Distress Description</p> LONGITUDINAL/TRANSVERSE CRACKING	<p>Severity</p> L	<p>Quantity</p> 380 LF	Area: 4,970 SF
Sample # 15	<p>Distress Description</p> SWELL LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING	<p>Severity</p> L H L M H	<p>Quantity</p> 8 SF 2 LF 222 LF 19 LF 10.5 SF	Area: 4,970 SF
Sample # 18	<p>Distress Description</p> PATCHING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING DEPRESSION	<p>Severity</p> L M L H L	<p>Quantity</p> 0.29 SF 13 LF 88 LF 19.5 SF 31 SF	Area: 4,970 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
ALLIGATOR	LOW	65 SF	0.07%	7.00
DEPRESSION	LOW	742 SF	0.83%	5.63
LONGITUDINAL/TRANSVERSE CRACKING	HIGH	7 LF	0.01%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	LOW	3,533 LF	3.96%	12.42
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	118 LF	0.13%	4.15
PATCHING	LOW	1 SF	0.00%	2.00
RAVELING	HIGH	115 SF	0.13%	7.01
SWELL	LOW	29 SF	0.03%	1.00

* 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

15.0 % Load 71.0 % Climate/Durability 14.0 % Other

SHELBY AIRPORT

Branch: 14T TAXIWAY

T-22

Length: 1,840 LF **Width:** 35 LF **Area:** 64,400 SF **Last Const:** 2004 **Family:** ACRMU
From: R-22 **To:** R-21 **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 13 **Last Inspection Date:** 10/17/2018 **PCI:** **69**

Sample # 1	<p>Distress Description DEPRESSION WEATHERING LONGITUDINAL/TRANSVERSE CRACKING</p>	<p>Severity L L L</p>	<p>Quantity 53 SF 3360 SF 53 LF</p>	Area: 3,360 SF
Sample # 4	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING WEATHERING DEPRESSION</p>	<p>Severity M L L L</p>	<p>Quantity 40 LF 115 LF 4725 SF 4 SF</p>	Area: 4,725 SF
Sample # 7	<p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING WEATHERING</p>	<p>Severity H L M H L</p>	<p>Quantity 1 LF 264 LF 7 LF 19.5 SF 4725 SF</p>	Area: 4,725 SF
Sample # 10	<p>Distress Description PATCHING LONGITUDINAL/TRANSVERSE CRACKING RAVELING LONGITUDINAL/TRANSVERSE CRACKING DEPRESSION WEATHERING</p>	<p>Severity L M H L L L</p>	<p>Quantity 228 SF 11 LF 74 SF 196 LF 35 SF 4725 SF</p>	Area: 4,725 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	LOW	338 SF	0.52%	3.49
LONGITUDINAL/TRANSVERSE CRACKING	HIGH	4 LF	0.01%	7.50
LONGITUDINAL/TRANSVERSE CRACKING	LOW	2,306 LF	3.58%	11.51
LONGITUDINAL/TRANSVERSE CRACKING	MEDIUM	213 LF	0.33%	6.82
PATCHING	LOW	837 SF	1.30%	4.19
RAVELING	HIGH	343 SF	0.53%	11.36
WEATHERING	LOW	64,400 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 93.0 % Climate/Durability 7.0 % Other

SHELBY AIRPORT (14)

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: **\$284,429**

Plan Year: 2019		Estimated Cost:					\$409,584	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive + Global MR	\$1,487	\$33,072	\$0	\$0	\$34,559	79	83	
A-22	Preventive	\$1,060	\$0	\$0	\$0	\$1,060	71	71	
R-21	Preventive + Global MR	\$29,174	\$127,499	\$0	\$0	\$156,673	64	72	
R-22	Preventive + Global MR	\$14,986	\$75,479	\$0	\$0	\$90,465	67	73	
T-16	Preventive	\$979	\$0	\$0	\$0	\$979	81	82	
T-17	Preventive + Global MR	\$545	\$24,252	\$0	\$0	\$24,797	82	91	
T-21	Preventive + Global MR	\$2,449	\$30,345	\$0	\$0	\$32,793	76	80	
T-22	Preventive + Global MR	\$3,703	\$21,896	\$0	\$0	\$25,599	69	75	
T-6	Preventive + Global MR	\$3,560	\$39,100	\$0	\$0	\$42,660	75	78	
T-7	None	\$0	\$0	\$0	\$0	\$0	97	97	

Plan Year: 2020		Estimated Cost:					\$40,109	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive	\$825	\$0	\$0	\$0	\$825	82	82	
A-22	Preventive	\$1,246	\$0	\$0	\$0	\$1,246	69	69	
R-21	Preventive	\$19,649	\$0	\$0	\$0	\$19,649	70	70	
R-22	Preventive	\$10,211	\$0	\$0	\$0	\$10,211	71	71	
T-16	Preventive	\$1,720	\$0	\$0	\$0	\$1,720	79	79	
T-17	Preventive	\$131	\$0	\$0	\$0	\$131	88	88	
T-21	Preventive	\$1,299	\$0	\$0	\$0	\$1,299	79	79	
T-22	Preventive	\$2,442	\$0	\$0	\$0	\$2,442	73	73	
T-6	Preventive	\$2,585	\$0	\$0	\$0	\$2,585	77	77	
T-7	None	\$0	\$0	\$0	\$0	\$0	96	96	

Plan Year: 2021		Estimated Cost:					\$49,656	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive	\$953	\$0	\$0	\$0	\$953	80	80	
A-22	Preventive	\$1,445	\$0	\$0	\$0	\$1,445	67	67	
R-21	Preventive	\$23,889	\$0	\$0	\$0	\$23,889	67	67	
R-22	Preventive	\$12,232	\$0	\$0	\$0	\$12,232	69	69	
T-16	Preventive	\$2,980	\$0	\$0	\$0	\$2,980	76	76	
T-17	Preventive	\$311	\$0	\$0	\$0	\$311	86	86	
T-21	Preventive	\$1,832	\$0	\$0	\$0	\$1,832	77	77	
T-22	Preventive	\$2,965	\$0	\$0	\$0	\$2,965	71	71	
T-6	Preventive	\$3,049	\$0	\$0	\$0	\$3,049	76	76	
T-7	None	\$0	\$0	\$0	\$0	\$0	96	96	

Plan Year: 2022		Estimated Cost:					\$360,971	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive	\$1,412	\$0	\$0	\$0	\$1,412	79	79	
A-22	Preventive	\$1,643	\$0	\$0	\$0	\$1,643	65	65	
R-21	Preventive	\$28,125	\$0	\$0	\$0	\$28,125	65	65	
R-22	Preventive	\$14,464	\$0	\$0	\$0	\$14,464	67	67	
T-16	Preventive + Global MR	\$4,232	\$247,250	\$0	\$0	\$251,482	73	89	
T-17	Preventive	\$490	\$0	\$0	\$0	\$490	83	83	
T-21	Preventive	\$2,363	\$0	\$0	\$0	\$2,363	76	76	
T-22	Preventive	\$3,555	\$0	\$0	\$0	\$3,555	69	69	
T-6	Preventive	\$3,514	\$0	\$0	\$0	\$3,514	75	75	
T-7	Global MR	\$0	\$53,922	\$0	\$0	\$53,922	95	98	

Plan Year: 2023		Estimated Cost:					\$65,086	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive	\$1,926	\$0	\$0	\$0	\$1,926	78	78	
A-22	Preventive	\$1,842	\$0	\$0	\$0	\$1,842	63	64	
R-21	Preventive	\$32,362	\$0	\$0	\$0	\$32,362	63	63	
R-22	Preventive	\$16,706	\$0	\$0	\$0	\$16,706	65	65	
T-16	Preventive	\$509	\$0	\$0	\$0	\$509	86	86	
T-17	Preventive	\$670	\$0	\$0	\$0	\$670	81	81	
T-21	Preventive	\$2,892	\$0	\$0	\$0	\$2,892	74	74	
T-22	Preventive	\$4,205	\$0	\$0	\$0	\$4,205	67	67	
T-6	Preventive	\$3,974	\$0	\$0	\$0	\$3,974	74	74	
T-7	None	\$0	\$0	\$0	\$0	\$0	97	97	

Plan Year: 2024		Estimated Cost:					\$426,463	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-21	Preventive + Global MR	\$2,439	\$33,072	\$0	\$0	\$35,511	76	80	
A-22	Preventive	\$2,042	\$0	\$0	\$0	\$2,042	62	62	
R-21	Preventive + Global MR	\$36,601	\$127,499	\$0	\$0	\$164,100	60	68	
R-22	Preventive + Global MR	\$18,935	\$75,479	\$0	\$0	\$94,415	63	70	
T-16	Preventive	\$823	\$0	\$0	\$0	\$823	83	83	
T-17	Preventive + Global MR	\$1,258	\$24,252	\$0	\$0	\$25,510	78	87	
T-21	Preventive + Global MR	\$3,424	\$30,345	\$0	\$0	\$33,768	73	78	
T-22	Preventive + Global MR	\$4,859	\$21,896	\$0	\$0	\$26,755	65	72	
T-6	Preventive + Global MR	\$4,439	\$39,100	\$0	\$0	\$43,539	73	76	
T-7	None	\$0	\$0	\$0	\$0	\$0	97	97	

SHELBY AIRPORT (14)

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: **\$284,429**

Plan Year: 2025		Estimated Cost:				\$120,337	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$1,346	\$0	\$0	\$0	\$1,346	79	79
A-22	Major Below Critical	\$0	\$0	\$67,211	\$0	\$67,211	60	100
R-21	Preventive	\$27,094	\$0	\$0	\$0	\$27,094	66	66
R-22	Preventive	\$13,965	\$0	\$0	\$0	\$13,965	67	68
T-16	Preventive	\$1,138	\$0	\$0	\$0	\$1,138	80	80
T-17	Preventive	\$438	\$0	\$0	\$0	\$438	84	84
T-21	Preventive	\$2,277	\$0	\$0	\$0	\$2,277	76	76
T-22	Preventive	\$3,404	\$0	\$0	\$0	\$3,404	69	70
T-6	Preventive	\$3,464	\$0	\$0	\$0	\$3,464	75	75
T-7	None	\$0	\$0	\$0	\$0	\$0	96	96

Plan Year: 2026		Estimated Cost:				\$63,148	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$1,860	\$0	\$0	\$0	\$1,860	78	78
A-22	None	\$0	\$0	\$0	\$0	\$0	97	97
R-21	Preventive	\$31,330	\$0	\$0	\$0	\$31,330	63	63
R-22	Preventive	\$16,194	\$0	\$0	\$0	\$16,194	65	66
T-16	Preventive	\$2,355	\$0	\$0	\$0	\$2,355	77	78
T-17	Preventive	\$618	\$0	\$0	\$0	\$618	81	82
T-21	Preventive	\$2,806	\$0	\$0	\$0	\$2,806	75	75
T-22	Preventive	\$4,057	\$0	\$0	\$0	\$4,057	67	68
T-6	Preventive	\$3,928	\$0	\$0	\$0	\$3,928	74	74
T-7	None	\$0	\$0	\$0	\$0	\$0	96	96

Plan Year: 2027		Estimated Cost:				\$73,471	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$2,373	\$0	\$0	\$0	\$2,373	76	76
A-22	None	\$0	\$0	\$0	\$0	\$0	94	94
R-21	Preventive	\$35,570	\$0	\$0	\$0	\$35,570	61	61
R-22	Preventive	\$18,436	\$0	\$0	\$0	\$18,436	63	64
T-16	Preventive	\$3,611	\$0	\$0	\$0	\$3,611	75	75
T-17	Preventive	\$1,047	\$0	\$0	\$0	\$1,047	79	79
T-21	Preventive	\$3,337	\$0	\$0	\$0	\$3,337	73	73
T-22	Preventive	\$4,708	\$0	\$0	\$0	\$4,708	65	66
T-6	Preventive	\$4,388	\$0	\$0	\$0	\$4,388	73	73
T-7	None	\$0	\$0	\$0	\$0	\$0	95	95

Plan Year: 2028		Estimated Cost:				\$1,238,458	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$2,887	\$0	\$0	\$0	\$2,887	75	75
A-22	None	\$0	\$0	\$0	\$0	\$0	91	91
R-21	Major Below Critical	\$0	\$0	\$1,194,188	\$0	\$1,194,188	59	100
R-22	Preventive	\$20,670	\$0	\$0	\$0	\$20,670	61	62
T-16	Preventive	\$4,866	\$0	\$0	\$0	\$4,866	72	72
T-17	Preventive	\$1,766	\$0	\$0	\$0	\$1,766	76	77
T-21	Preventive	\$3,866	\$0	\$0	\$0	\$3,866	72	72
T-22	Preventive	\$5,361	\$0	\$0	\$0	\$5,361	63	64
T-6	Preventive	\$4,853	\$0	\$0	\$0	\$4,853	72	72
T-7	None	\$0	\$0	\$0	\$0	\$0	95	95

Plan Year: 2029		Estimated Cost:				\$863,851	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive + Global MR	\$3,401	\$33,072	\$0	\$0	\$36,473	74	78
A-22	Preventive	\$44	\$0	\$0	\$0	\$44	88	88
R-21	None	\$0	\$0	\$0	\$0	\$0	97	97
R-22	Major Below Critical	\$0	\$0	\$687,311	\$0	\$687,311	59	100
T-16	Preventive	\$6,216	\$0	\$0	\$0	\$6,216	69	69
T-17	Preventive + Global MR	\$2,485	\$24,252	\$0	\$0	\$26,737	74	82
T-21	Preventive + Global MR	\$4,402	\$30,345	\$0	\$0	\$34,747	70	75
T-22	Preventive + Global MR	\$6,015	\$21,896	\$0	\$0	\$27,911	61	68
T-6	Preventive + Global MR	\$5,313	\$39,100	\$0	\$0	\$44,413	71	74
T-7	None	\$0	\$0	\$0	\$0	\$0	94	94

Plan Year: 2030		Estimated Cost:				\$23,178	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$2,299	\$0	\$0	\$0	\$2,299	77	77
A-22	Preventive	\$107	\$0	\$0	\$0	\$107	85	85
R-21	None	\$0	\$0	\$0	\$0	\$0	94	94
R-22	None	\$0	\$0	\$0	\$0	\$0	97	97
T-16	Preventive	\$7,786	\$0	\$0	\$0	\$7,786	66	67
T-17	Preventive	\$836	\$0	\$0	\$0	\$836	80	80
T-21	Preventive	\$3,249	\$0	\$0	\$0	\$3,249	73	73
T-22	Preventive	\$4,560	\$0	\$0	\$0	\$4,560	66	66
T-6	Preventive	\$4,342	\$0	\$0	\$0	\$4,342	73	73
T-7	None	\$0	\$0	\$0	\$0	\$0	94	94

SHELBY AIRPORT (14)

FIFTEEN YEAR PROJECTIONS **ESTIMATED AVERAGE ANNUAL COST: \$284,429**

Plan Year: 2031		Estimated Cost:				\$27,683	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$2,813	\$0	\$0	\$0	\$2,813	75	75
A-22	Preventive	\$169	\$0	\$0	\$0	\$169	82	83
R-21	None	\$0	\$0	\$0	\$0	\$0	91	91
R-22	None	\$0	\$0	\$0	\$0	\$0	94	94
T-16	Preventive	\$9,355	\$0	\$0	\$0	\$9,355	64	64
T-17	Preventive	\$1,552	\$0	\$0	\$0	\$1,552	77	77
T-21	Preventive	\$3,777	\$0	\$0	\$0	\$3,777	72	72
T-22	Preventive	\$5,210	\$0	\$0	\$0	\$5,210	64	64
T-6	Preventive	\$4,807	\$0	\$0	\$0	\$4,807	72	72
T-7	None	\$0	\$0	\$0	\$0	\$0	93	93

Plan Year: 2032		Estimated Cost:				\$334,140	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$3,326	\$0	\$0	\$0	\$3,326	74	74
A-22	Preventive	\$262	\$0	\$0	\$0	\$262	80	80
R-21	Preventive	\$749	\$0	\$0	\$0	\$749	88	88
R-22	None	\$0	\$0	\$0	\$0	\$0	91	91
T-16	Preventive + Global MR	\$10,920	\$247,250	\$0	\$0	\$258,170	61	76
T-17	Preventive	\$2,271	\$0	\$0	\$0	\$2,271	75	75
T-21	Preventive	\$4,309	\$0	\$0	\$0	\$4,309	70	71
T-22	Preventive	\$5,864	\$0	\$0	\$0	\$5,864	62	62
T-6	Preventive	\$5,267	\$0	\$0	\$0	\$5,267	71	71
T-7	Global MR	\$0	\$53,922	\$0	\$0	\$53,922	93	95

Plan Year: 2033		Estimated Cost:				\$220,008	PCI	
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-21	Preventive	\$3,840	\$0	\$0	\$0	\$3,840	73	73
A-22	Preventive	\$513	\$0	\$0	\$0	\$513	77	77
R-21	Preventive	\$1,791	\$0	\$0	\$0	\$1,791	85	85
R-22	Preventive	\$443	\$0	\$0	\$0	\$443	88	88
T-16	Preventive	\$4,246	\$0	\$0	\$0	\$4,246	73	74
T-17	Preventive	\$2,990	\$0	\$0	\$0	\$2,990	72	72
T-21	Preventive	\$4,935	\$0	\$0	\$0	\$4,935	69	69
T-22	Major Below Critical	\$0	\$0	\$195,518	\$0	\$195,518	60	100
T-6	Preventive	\$5,732	\$0	\$0	\$0	\$5,732	70	70
T-7	None	\$0	\$0	\$0	\$0	\$0	95	95