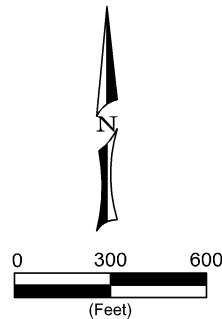
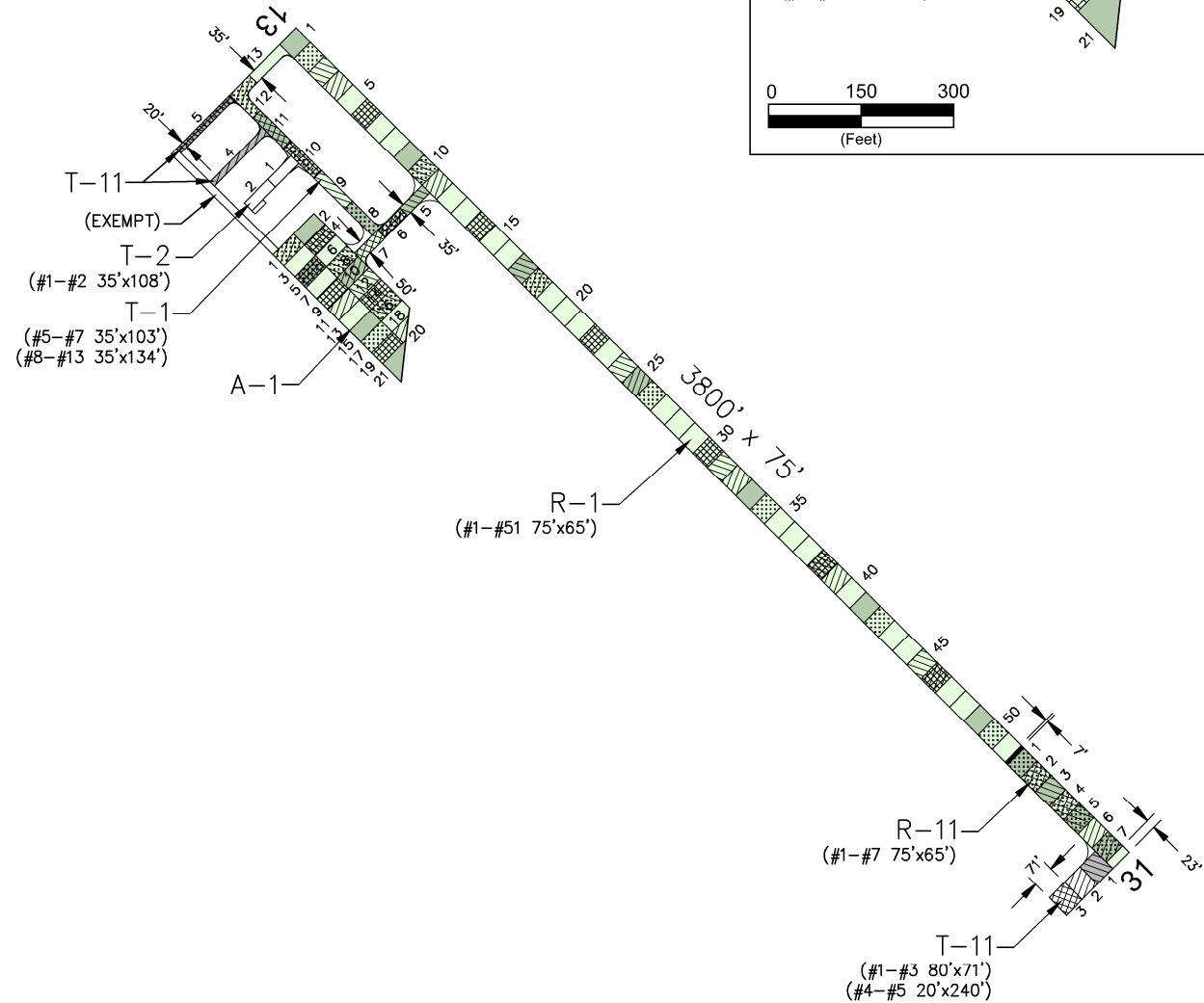
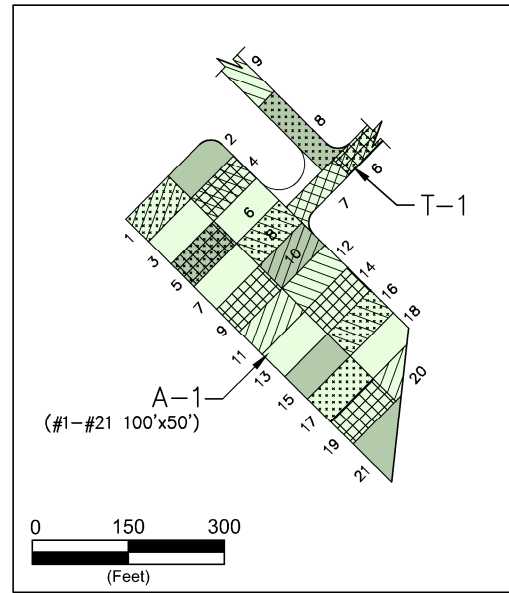


EKALAKA



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-1			11.5" P-154		1.5"BIT,P-609	3.5"P-401,P-609	12,500			1,2,3
R-11	CBR=4.5		GEOGRID, FABRIC	12" P-207	4" P-401	P-609	12,500			2,3
TAXIWAYS										
T-1			11.5" P-154		1.5"BIT,P-609	3.5"P-401,P-609	12,500			1,2,3
T-11	CBR=4.5		GEOGRID, FABRIC, GEOGRID	10" P-207	4" P-401	P-609	12,500			2,3
T-2			GEOGRID, FABRIC, GEOGRID	10" P-208	4" PLANT MIX		12,500			4
APRONS										
A-1			11.5" P-154		1.5"BIT,P-609	3.5"P-401,P-609	12,500			1,2,3

REMARKS:

- AIP-02, 1992, ALL NEW PAVEMENT.
- AIP-003, 2004, RECONSTRUCT RUNWAY (R-11) AND TAXIWAY (T-11); 3.5" OVERLAY ALL REMAINING PAVEMENTS.
- AIP-008-2011, CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- AIP-009-2013, CONSTRUCT HANGAR TAXILANE (T-2).

LEGEND [Grid] 2003 SURVEY AREA [Solid] 2006 SURVEY AREA [Diagonal] 2009 SURVEY AREA [Cross-hatch] 2012 SURVEY AREA [Dotted] 2015 SURVEY AREA [Green] MAINTAIN: PCI > 60 [Yellow] TRANSITION: PCI 45 TO 60 [Red] RECONSTRUCT: PCI < 45	DATE OF PAVEMENT STRENGTH SURVEY:		MONTANA AVIATION SYSTEM PLAN 2015 UPDATE - PAVEMENT CONDITION INDEXES	
	EVALUATED BY:		EKALAKA AIRPORT (97M)	
DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	SEPT. 3, 2015	Date:	Prepared For:	Prepared By:
EVALUATED BY:	B. BURKLAND	DECEMBER 2015	MONTANA MDT DEPARTMENT OF TRANSPORTATION	RPA Robert Peccia & Associates, Inc.
LOCATION:	EKALAKA MONTANA			

EKALAKA

EKALAKA AIRPORT

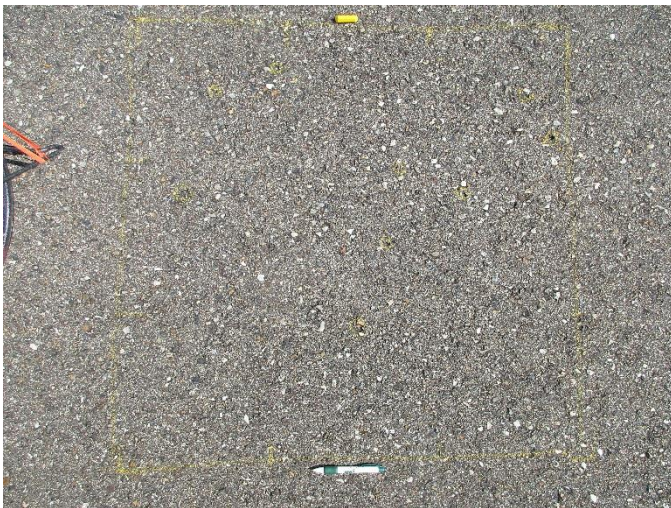
9/3/2015



A-1, Overview



A-1, Surface detail with raveling



R-1, Surface detail



R-1, Overview

EKALAKA AIRPORT

9/3/2015



R-11, Overview



R-11, Surface detail



T-1, Surface detail with failed crack sealant



T-1, Overview

EKALAKA AIRPORT

Branch: 57A

APRON

A-1

Length: 500 LF **Width:** 200 LF **Area:** 100,000 SF **Last Const. :** 2004 **Family:** ACAM15
From: ENTIRE APRON **To:** **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 21 **Last Inspection Date (RPA)** 9/3/2015 **PCI:** 81

Sample # 1 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	54 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	31 LF
WEATHERING	L	100 SF
DEPRESSION	L	20 SF
RAVELING	M	4 SF
OIL SPILLAGE	N	3 SF

Sample # 5 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	196 LF
WEATHERING	L	100 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	8 LF
RAVELING	L	12 SF
RAVELING	M	1 SF

Sample # 8 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	148 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	34 LF
WEATHERING	L	100 SF
RAVELING	M	6 SF

Sample # 16 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	101 LF
WEATHERING	L	100 SF
RAVELING	L	20 SF
DEPRESSION	M	6 SF
OIL SPILLAGE	N	3 SF

Sample # 17 **Area:** 5000 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	31 LF
WEATHERING	L	100 SF
RAVELING	L	98 SF
DEPRESSION	M	6 SF
DEPRESSION	L	3 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	2120 LF	2.12 %	7.73
LONGITUDINAL/TRANSVERSE CRACKING	M	292 LF	0.29 %	6.38
DEPRESSION	M	48 SF	0.05 %	5.20
RAVELING	M	44 SF	0.04 %	4.00
OIL SPILLAGE	N	24 SF	0.02 %	2.00
RAVELING	L	520 SF	0.52 %	1.81
WEATHERING	L	2000 SF	2.00 %	0.68
DEPRESSION	L	92 SF	0.09 %	0.30

* 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

EKALAKA AIRPORT

Branch: 57R

RUNWAY

R-1

Length: 3,322 LF **Width:** 75 LF **Area:** 249,150 SF **Last Const. :** 2004 **Family:** ACRML15
From: STA 0+00 RWY 13/31 **To:** STA 38+00 RWY 13/31 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 51 **Last Inspection Date (RPA)** 9/3/2015 **PCI:** 84

Sample # 2 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	37 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF

Sample # 10 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	55 LF
LONGITUDINAL/TRANSVERSE CRACKING	M	54 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF
DEPRESSION	L	9 SF
RAVELING	M	2 SF

Sample # 18 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	66 LF
WEATHERING	L	147 SF
RAVELING	L	49 SF
DEPRESSION	H	1 SF
RAVELING	H	1 SF

Sample # 26 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	65 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF

Sample # 34 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	69 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF
DEPRESSION	M	2 SF
PATCHING	L	1 SF

Sample # 42 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	43 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF
PATCHING	L	1 SF

Sample # 50 **Area:** 4875 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	37 LF
WEATHERING	L	98 SF
RAVELING	L	49 SF
RAVELING	M	48 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
DEPRESSION	H	7 SF	0.00 %	12.00
RAVELING	H	7 SF	0.00 %	6.00
DEPRESSION	M	15 SF	0.01 %	5.20
LONGITUDINAL/TRANSVERSE CRACKING	L	2716 LF	1.09 %	5.14
LONGITUDINAL/TRANSVERSE CRACKING	M	394 LF	0.16 %	4.51
RAVELING	M	365 SF	0.15 %	4.32
RAVELING	L	2504 SF	1.01 %	2.63
PATCHING	L	15 SF	0.01 %	2.00
WEATHERING	L	5366 SF	2.15 %	0.71
DEPRESSION	L	66 SF	0.03 %	0.30

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

EKALAKA AIRPORT

Branch: 57R

RUNWAY

R-1

Percent of Deduct Values Based on Distress Mechanism

0.0 % Load

59.0 % Climate/Durability

41.0 % Other

EKALAKA AIRPORT

Branch: 57T

TAXIWAY

T-1

Length: 2,100 LF **Width:** 35 LF **Area:** 73,500 SF **Last Const. :** 2004 **Family:** ACRML15
From: APRON and HANGARS **To:** RWY 13/31 **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 11 **Last Inspection Date (RPA)** 9/3/2015 **PCI:** **85**

Sample # 6 **Area:** 3745 SF

Distress Description	Severity	Quantity
WEATHERING	L	74 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	12 LF
RAVELING	L	37 SF

Sample # 8 **Area:** 4690 SF

Distress Description	Severity	Quantity
WEATHERING	L	96 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	17 LF
RAVELING	L	52 SF
RAVELING	M	20 SF
DEPRESSION	L	4 SF

Sample # 10 **Area:** 4690 SF

Distress Description	Severity	Quantity
WEATHERING	L	96 SF
RAVELING	L	48 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	14 LF
DEPRESSION	L	2 SF
RAVELING	M	2 SF
PATCHING	L	1 SF

Sample # 12 **Area:** 6024 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	83 LF
WEATHERING	L	120 SF
RAVELING	L	63 SF
RAVELING	M	23 SF
RAVELING	H	4 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
RAVELING	H	15 SF	0.02 %	6.00
RAVELING	M	173 SF	0.23 %	4.86
LONGITUDINAL/TRANSVERSE CRACKING	L	418 LF	0.57 %	4.17
LONGITUDINAL/TRANSVERSE CRACKING	M	65 LF	0.09 %	4.00
RAVELING	L	768 SF	1.04 %	2.69
PATCHING	L	4 SF	0.01 %	2.00
WEATHERING	L	1482 SF	2.02 %	0.69
DEPRESSION	L	23 SF	0.03 %	0.30

* 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 99.0 % Climate/Durability 1.0 % Other

EKALAKA AIRPORT

FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$49,014

PLAN YEAR: 2016			ESTIMATED COST:			\$132,770	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Prev. & Seal Coat	\$2,007	\$69,762			\$71,769	82	88
R-11	Prev. & Seal Coat	\$258	\$10,038			\$10,296	83	89
A-1	Prev. & Seal Coat	\$1,596	\$28,000			\$29,596	79	85
T-1	Prev. & Seal Coat	\$529	\$20,580			\$21,109	83	89

PLAN YEAR: 2017			ESTIMATED COST:			\$2,729	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$161				\$161	86	86
A-1	Basic Prev.	\$854				\$854	82	82
T-1	Basic Prev.	\$329				\$329	86	86
R-1	Basic Prev.	\$1,385				\$1,385	85	85

PLAN YEAR: 2018			ESTIMATED COST:			\$4,408	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$538				\$538	83	83
A-1	Basic Prev.	\$1,549				\$1,549	79	79
R-1	Basic Prev.	\$2,058				\$2,058	82	82
R-11	Basic Prev.	\$263				\$263	83	83

PLAN YEAR: 2019			ESTIMATED COST:			\$6,514	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$2,676				\$2,676	80	80
T-1	Basic Prev.	\$729				\$729	81	81
A-1	Basic Prev.	\$2,753				\$2,753	76	76
R-11	Basic Prev.	\$356				\$356	81	81

PLAN YEAR: 2020			ESTIMATED COST:			\$10,220	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$3,952				\$3,952	74	74
T-1	Basic Prev.	\$1,138				\$1,138	79	79
R-1	Basic Prev.	\$4,575				\$4,575	78	79
R-11	Basic Prev.	\$555				\$555	79	79

PLAN YEAR: 2021			ESTIMATED COST:			\$162,999	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Prev. & Seal Coat	\$6,470	\$80,873			\$87,343	77	81
R-11	Prev. & Seal Coat	\$836	\$11,637			\$12,473	77	81
A-1	Prev. & Seal Coat	\$5,151	\$32,460			\$37,611	71	77
T-1	Prev. & Seal Coat	\$1,714	\$23,858			\$25,572	77	81

PLAN YEAR: 2022			ESTIMATED COST:			\$10,353	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$1,130				\$1,130	79	79
A-1	Basic Prev.	\$4,056				\$4,056	74	74
R-11	Basic Prev.	\$551				\$551	79	79
R-1	Basic Prev.	\$4,616				\$4,616	79	79

PLAN YEAR: 2023			ESTIMATED COST:			\$14,597	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$5,332				\$5,332	72	72
T-1	Basic Prev.	\$1,754				\$1,754	78	78
R-11	Basic Prev.	\$855				\$855	78	78
R-1	Basic Prev.	\$6,656				\$6,656	77	77

PLAN YEAR: 2024			ESTIMATED COST:			\$19,137	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$1,143				\$1,143	76	76
R-1	Basic Prev.	\$8,597				\$8,597	76	76
A-1	Basic Prev.	\$7,055				\$7,055	69	70
T-1	Basic Prev.	\$2,342				\$2,342	76	76

PLAN YEAR: 2025			ESTIMATED COST:			\$24,941	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$2,915				\$2,915	75	75
A-1	Basic Prev.	\$10,085				\$10,085	67	67
R-1	Basic Prev.	\$10,519				\$10,519	74	74
R-11	Basic Prev.	\$1,422				\$1,422	75	75

PLAN YEAR: 2026			ESTIMATED COST:			\$203,486	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Prev. & Seal Coat	\$12,521	\$93,754			\$106,275	73	76
T-1	Prev. & Seal Coat	\$3,501	\$27,658			\$31,159	74	76
R-11	Prev. & Seal Coat	\$1,708	\$13,490			\$15,198	74	76
A-1	Prev. & Seal Coat	\$13,225	\$37,630			\$50,854	65	70

PLAN YEAR: 2027			ESTIMATED COST:			\$25,757	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$10,327				\$10,327	68	68
T-1	Basic Prev.	\$3,027				\$3,027	75	75
R-1	Basic Prev.	\$10,926				\$10,926	75	75
R-11	Basic Prev.	\$1,477				\$1,477	75	75

PLAN YEAR: 2028			ESTIMATED COST:			\$32,142	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$1,779				\$1,779	74	74
T-1	Basic Prev.	\$3,647				\$3,647	74	74
A-1	Basic Prev.	\$13,674				\$13,674	65	66
R-1	Basic Prev.	\$13,042				\$13,042	73	73

PLAN YEAR: 2029			ESTIMATED COST:			\$38,896	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$4,305				\$4,305	73	73
R-11	Basic Prev.	\$2,100				\$2,100	73	73
A-1	Basic Prev.	\$17,167				\$17,167	63	63
R-1	Basic Prev.	\$15,324				\$15,324	72	72

PLAN YEAR: 2030			ESTIMATED COST:			\$46,263	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-11	Basic Prev.	\$2,453				\$2,453	71	71
A-1	Basic Prev.	\$20,904				\$20,904	61	61
R-1	Basic Prev.	\$17,877				\$17,877	71	71
T-1	Basic Prev.	\$5,029				\$5,029	71	71