

EKALAKA AIRPORT

Branch: 57A **APRON**

A-1

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

Inspections

Samples Surveyed: 4 Total Samples: 21 Last Inspection Date: 9/7/2012 **PCI: 89**

<p>Sample # 4</p> <p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING RAVELING</p>	<p>Severity L L M</p>	<p>Quantity 112 LF 100 SF 1 SF</p>	<p>Area: 5,000 SF</p>
<p>Sample # 8</p> <p>Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING</p>	<p>Severity L L</p>	<p>Quantity 70 LF 50 SF</p>	<p>Area: 5,000 SF</p>
<p>Sample # 12</p> <p>Distress Description RAVELING RAVELING SWELLING</p>	<p>Severity L M M</p>	<p>Quantity 50 SF 1 SF 1 SF</p>	<p>Area: 5,000 SF</p>
<p>Sample # 16</p> <p>Distress Description RAVELING</p>	<p>Severity L</p>	<p>Quantity 50 SF</p>	<p>Area: 5,000 SF</p>

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	910 LF	2.67%	4.76
RAVELING	L	1,250 SF	100.00%	3.00
RAVELING	M	10 SF	4.00%	4.00
SWELLING	M	3 SF	1.33%	10.00

* 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 54.0 % Climate/Durability 46.0 % Other

EKALAKA AIRPORT

Branch: 57R RUNWAY

R-1

Length: 3,322 LF Width: 75 LF Area: 249,150 SF Last Const: 2004 Family: ACRML
 From: 0+00 RWY 13-31 To: 38+00 RWY 13-31 Surface: AC

Inspections

Samples Surveyed: 7 Total Samples: 51 Last Inspection Date: 9/7/2012 **PCI: 90**

Sample #	Distress Description	Severity	Quantity	Area:
3	BLOCK CRACKING	L	20 SF	4,875 SF
	RAVELING	L	98 SF	
	WEATHERING	L	244 SF	
10	BLOCK CRACKING	L	40 SF	4,875 SF
	RAVELING	L	98 SF	
	WEATHERING	L	244 SF	
17	LONGITUDINAL/TRANSVERSE CRACKING	L	81 LF	4,875 SF
	RAVELING	L	92 SF	
	WEATHERING	L	245 SF	
24	LONGITUDINAL/TRANSVERSE CRACKING	L	78 LF	4,875 SF
	RAVELING	L	98 SF	
	WEATHERING	L	244 SF	
31	LONGITUDINAL/TRANSVERSE CRACKING	L	65 LF	4,875 SF
	RAVELING	L	98 SF	
	WEATHERING	L	49 SF	
38	LONGITUDINAL/TRANSVERSE CRACKING	L	27 LF	4,875 SF
	WEATHERING	L	244 SF	
45	RAVELING	L	98 SF	4,875 SF
	WEATHERING	L	244 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLOCK CRACKING	L	438 SF	1.33%	4.72
LONGITUDINAL/TRANSVERSE CRACKING	L	1,833 LF	6.67%	4.44
RAVELING	L	4,249 SF	69.33%	3.62
WEATHERING	L	11,054 SF	4.00%	1.01

* 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 100.0 % Climate/Durability 0.0 % Other

EKALAKA AIRPORT

Branch: 57R RUNWAY

R-11

Length: 478 LF Width: 75 LF Area: 35,850 SF Last Const: 2004 Family: ACRML
 From: R-1 To: T-11 Surface: AC

Inspections

Samples Surveyed: 4 Total Samples: 7 Last Inspection Date: 9/7/2012 **PCI: 90**

Sample #	Distress Description	Severity	Quantity	Area:
2	LONGITUDINAL/TRANSVERSE CRACKING	L	45 LF	4,875 SF
	RAVELING	L	244 SF	
	WEATHERING	L	244 SF	
3	RAVELING	L	244 SF	4,875 SF
	WEATHERING	L	245 SF	
4	RAVELING	L	244 SF	4,875 SF
	WEATHERING	L	245 SF	
5	RAVELING	L	244 SF	4,875 SF
	RAVELING	H	1 SF	
	WEATHERING	L	245 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	83 LF	2.15%	3.30
RAVELING	L	1,794 SF	1.36%	6.81
RAVELING	H	1 SF	100.00%	6.00
WEATHERING	L	1,800 SF	0.94%	1.09

* 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 100.0 % Climate/Durability 0.0 % Other

EKALAKA AIRPORT

Branch: 57T TAXIWAY

T-1

Length: 2,100 LF Width: 35 LF Area: 73,500 SF Last Const: 2004 Family: ACRML
 From: APRON AND HANGARS To: R/W 13-31 Surface: AC

Inspections

Samples Surveyed: 4 Total Samples: 11 Last Inspection Date: 9/7/2012 **PCI: 90**

Sample # 5	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING WEATHERING	Severity L L L	Quantity 11 LF 220 SF 720 SF	Area: 3,605 SF
Sample # 7	Distress Description RAVELING WEATHERING	Severity L L	Quantity 230 SF 360 SF	Area: 3,605 SF
Sample # 9	Distress Description RAVELING WEATHERING	Severity L L	Quantity 236 SF 470 SF	Area: 4,690 SF
Sample # 11	Distress Description RAVELING WEATHERING	Severity L L	Quantity 220 SF 220 SF	Area: 4,690 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	49 LF	0.01%	2.50
RAVELING	L	4,014 SF	86.00%	7.14
WEATHERING	L	7,842 SF	1.01%	1.80

* 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 100.0 % Climate/Durability 0.0 % Other

EKALAKA AIRPORT

Branch: 57T TAXIWAY T-11

Length: 214 LF Width: 80 LF Area: 29,556 SF Last Const: 2004 Family: ACRML
 From: T-1 To: HANGARS Surface: AC

Inspections

Samples Surveyed: 3 Total Samples: 5 Last Inspection Date: 9/7/2012 **PCI: 88**

Sample # 1	Distress Description RAVELING WEATHERING	Severity L L	Quantity 118 SF 285 SF	Area: 5,680 SF
Sample # 3	Distress Description RAVELING WEATHERING	Severity L L	Quantity 113 SF 285 SF	Area: 5,680 SF
Sample # 5	Distress Description BLOCK CRACKING LONGITUDINAL/TRANSVERSE CRACKING RAVELING WEATHERING	Severity H L L L	Quantity 33 SF 92 LF 113 SF 285 SF	Area: 4,800 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
BLOCK CRACKING	H	60 SF	0.13%	11.44
LONGITUDINAL/TRANSVERSE CRACKING	L	168 LF	0.01%	4.17
RAVELING	L	629 SF	80.00%	4.14
WEATHERING	L	1,564 SF	1.84%	1.12

* 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 100.0 % Climate/Durability 0.0 % Other

EKALAKA AIRPORT

FIRST YEAR LOCAL: 2013 LOCAL REPAIR COST: \$561

Section	Distress Description	Severity	Quantity	Work Description	Quantity	Cost	Poliev
A-1	SWELLING	M	3 SF	Patching - AC Deep	13 SF	\$515	PREV.
T-11	BLOCK CR	H	60 SF	Crack Sealing - AC	18 LF	\$46	PREV.

FIFTEEN YEAR PROJECTIONS ESTIMATED AVERAGE ANNUAL COST: \$41,943

Plan Year: 2013		Estimated Cost: \$123,167					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Global MR + Preventive	\$303	\$25,000	\$0	\$0	\$25,303	87	95	
R-1	Global MR + Preventive	\$509	\$62,288	\$0	\$0	\$62,797	88	96	
R-11	Global MR + Preventive	\$73	\$8,963	\$0	\$0	\$9,036	88	96	
T-1	Global MR + Preventive	\$150	\$18,375	\$0	\$0	\$18,525	88	96	
T-11	Global MR + Preventive	\$116	\$7,389	\$0	\$0	\$7,505	86	94	

Plan Year: 2014		Estimated Cost: \$8					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
T-11	Preventive	\$8	\$0	\$0	\$0	\$8	90	90	

Plan Year: 2015		Estimated Cost: \$1,133					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$303	\$0	\$0	\$0	\$303	87	87	
R-1	Preventive	\$499	\$0	\$0	\$0	\$499	88	88	
R-11	Preventive	\$72	\$0	\$0	\$0	\$72	88	88	
T-1	Preventive	\$147	\$0	\$0	\$0	\$147	88	88	
T-11	Preventive	\$113	\$0	\$0	\$0	\$113	86	87	

Plan Year: 2016		Estimated Cost: \$2,876					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$663	\$0	\$0	\$0	\$663	84	84	
R-1	Preventive	\$1,389	\$0	\$0	\$0	\$1,389	85	85	
R-11	Preventive	\$200	\$0	\$0	\$0	\$200	85	85	
T-1	Preventive	\$410	\$0	\$0	\$0	\$410	85	85	
T-11	Preventive	\$215	\$0	\$0	\$0	\$215	83	84	

Plan Year: 2017		Estimated Cost: \$4,550					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,018	\$0	\$0	\$0	\$1,018	81	81	
R-1	Preventive	\$2,238	\$0	\$0	\$0	\$2,238	82	82	
R-11	Preventive	\$322	\$0	\$0	\$0	\$322	82	82	
T-1	Preventive	\$660	\$0	\$0	\$0	\$660	82	82	
T-11	Preventive	\$311	\$0	\$0	\$0	\$311	81	81	

Plan Year: 2018		Estimated Cost: \$149,082					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Global MR + Preventive	\$2,016	\$28,982	\$0	\$0	\$30,998	78	84	
R-1	Global MR + Preventive	\$3,499	\$72,209	\$0	\$0	\$75,708	79	85	
R-11	Global MR + Preventive	\$503	\$10,390	\$0	\$0	\$10,894	79	85	
T-1	Global MR + Preventive	\$1,032	\$21,302	\$0	\$0	\$22,334	79	85	
T-11	Global MR + Preventive	\$583	\$8,566	\$0	\$0	\$9,148	78	84	

Plan Year: 2019		Estimated Cost: \$4,666					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,044	\$0	\$0	\$0	\$1,044	81	81	
R-1	Preventive	\$2,294	\$0	\$0	\$0	\$2,294	82	82	
R-11	Preventive	\$330	\$0	\$0	\$0	\$330	82	82	
T-1	Preventive	\$677	\$0	\$0	\$0	\$677	82	82	
T-11	Preventive	\$321	\$0	\$0	\$0	\$321	81	81	

Plan Year: 2020		Estimated Cost: \$7,540					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$1,997	\$0	\$0	\$0	\$1,997	78	79	
R-1	Preventive	\$3,445	\$0	\$0	\$0	\$3,445	80	80	
R-11	Preventive	\$496	\$0	\$0	\$0	\$496	80	80	
T-1	Preventive	\$1,016	\$0	\$0	\$0	\$1,016	80	80	
T-11	Preventive	\$586	\$0	\$0	\$0	\$586	78	79	

Plan Year: 2021		Estimated Cost: \$13,514					PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After	
A-1	Preventive	\$3,385	\$0	\$0	\$0	\$3,385	76	76	
R-1	Preventive	\$6,401	\$0	\$0	\$0	\$6,401	77	78	
R-11	Preventive	\$921	\$0	\$0	\$0	\$921	77	78	
T-1	Preventive	\$1,888	\$0	\$0	\$0	\$1,888	77	78	
T-11	Preventive	\$919	\$0	\$0	\$0	\$919	76	76	

Plan Year: 2022		Estimated Cost: \$19,136				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Preventive	\$4,760	\$0	\$0	\$0	\$4,760	73	74
R-1	Preventive	\$9,139	\$0	\$0	\$0	\$9,139	75	76
R-11	Preventive	\$1,315	\$0	\$0	\$0	\$1,315	75	76
T-1	Preventive	\$2,696	\$0	\$0	\$0	\$2,696	75	76
T-11	Preventive	\$1,226	\$0	\$0	\$0	\$1,226	75	75

Plan Year: 2023		Estimated Cost: \$188,402				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Global MR + Preventive	\$6,133	\$33,598	\$0	\$0	\$39,731	71	76
R-1	Global MR + Preventive	\$11,665	\$83,710	\$0	\$0	\$95,375	74	78
R-11	Global MR + Preventive	\$1,679	\$12,045	\$0	\$0	\$13,723	74	78
T-1	Global MR + Preventive	\$3,441	\$24,695	\$0	\$0	\$28,136	74	78
T-11	Global MR + Preventive	\$1,506	\$9,930	\$0	\$0	\$11,436	73	77

Plan Year: 2024		Estimated Cost: \$19,819				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Preventive	\$4,911	\$0	\$0	\$0	\$4,911	74	74
R-1	Preventive	\$9,474	\$0	\$0	\$0	\$9,474	76	76
R-11	Preventive	\$1,363	\$0	\$0	\$0	\$1,363	76	76
T-1	Preventive	\$2,795	\$0	\$0	\$0	\$2,795	76	76
T-11	Preventive	\$1,275	\$0	\$0	\$0	\$1,275	75	75

Plan Year: 2025		Estimated Cost: \$25,468				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Preventive	\$6,370	\$0	\$0	\$0	\$6,370	71	71
R-1	Preventive	\$12,178	\$0	\$0	\$0	\$12,178	74	74
R-11	Preventive	\$1,752	\$0	\$0	\$0	\$1,752	74	74
T-1	Preventive	\$3,592	\$0	\$0	\$0	\$3,592	74	74
T-11	Preventive	\$1,576	\$0	\$0	\$0	\$1,576	73	73

Plan Year: 2026		Estimated Cost: \$31,488				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Preventive	\$8,576	\$0	\$0	\$0	\$8,576	69	69
R-1	Preventive	\$14,637	\$0	\$0	\$0	\$14,637	73	73
R-11	Preventive	\$2,106	\$0	\$0	\$0	\$2,106	73	73
T-1	Preventive	\$4,318	\$0	\$0	\$0	\$4,318	73	73
T-11	Preventive	\$1,851	\$0	\$0	\$0	\$1,851	72	72

Plan Year: 2027		Estimated Cost: \$38,290				PCI		
Section	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	Before	After
A-1	Preventive	\$11,919	\$0	\$0	\$0	\$11,919	67	67
R-1	Preventive	\$16,869	\$0	\$0	\$0	\$16,869	71	71
R-11	Preventive	\$2,427	\$0	\$0	\$0	\$2,427	71	71
T-1	Preventive	\$4,976	\$0	\$0	\$0	\$4,976	71	71
T-11	Preventive	\$2,099	\$0	\$0	\$0	\$2,099	71	71

EKALAKA AIRPORT

9/7/2012



A-1, Overview



A-1, Surface detail



R-1, Overview



R-1, Surface detail block cracking along pavement edge

EKALAKA AIRPORT

9/7/2012



R-1, Surface detail



R-11, Overview



T-1, Overview



T-1, Surface detail

EKALAKA AIRPORT

9/7/2012



T-11, Overview



T-11, Surface detail block cracking along pavement edge

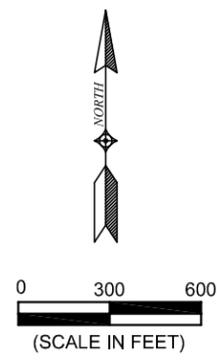
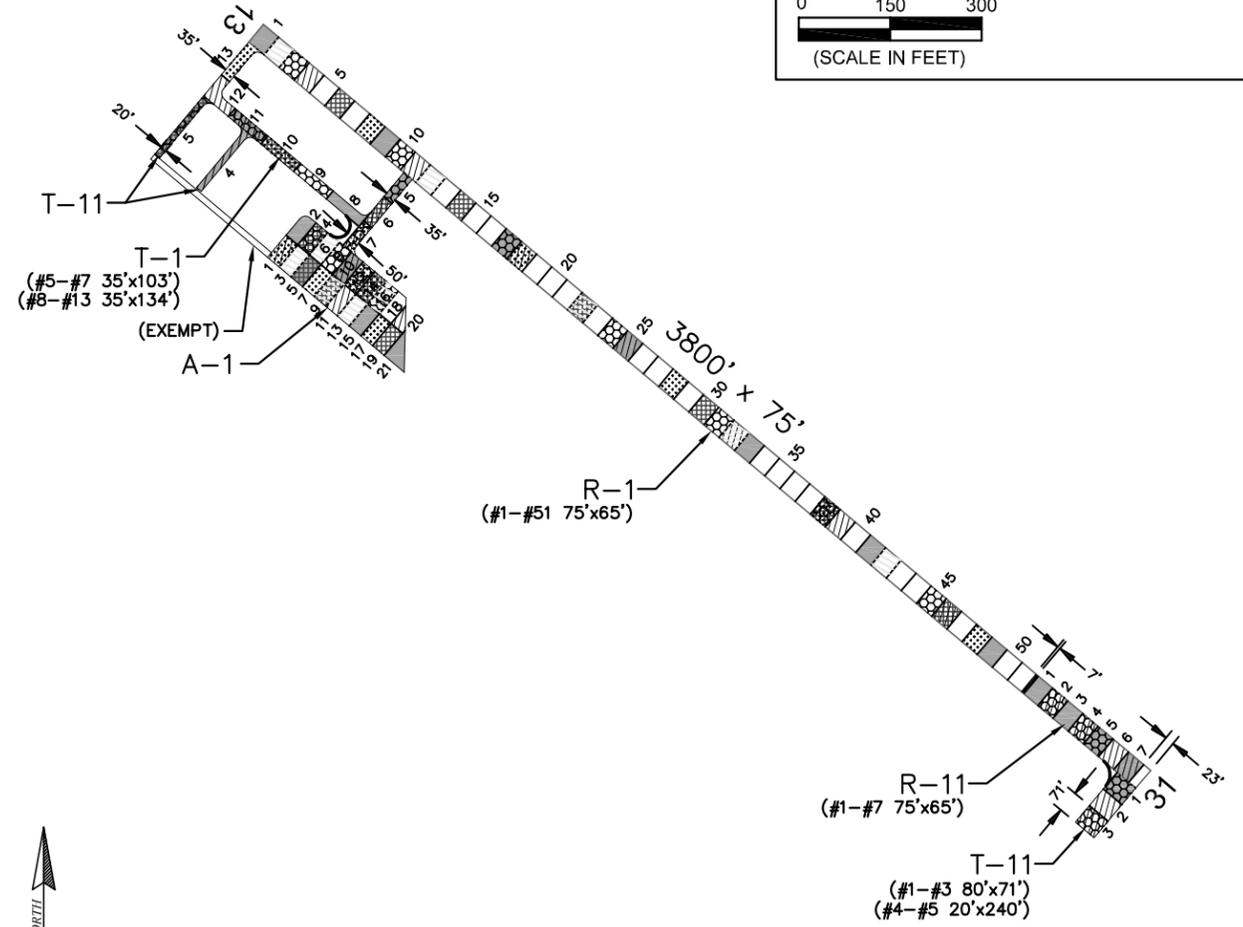
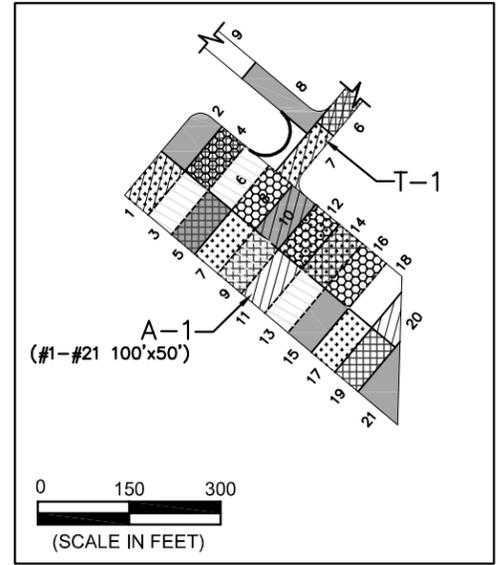


T-1, Surface detail



T-11, Turnaround overview

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

REMARKS:

- 1 AIP-002, 1992, ALL NEW PAVEMENT.
- 2 AIP-003, 2004, RECONSTRUCT R-11 AND T-11; 3.5" OVERLAY OF ALL REMAINING PAVEMENTS.
- 3 AIP-008, 2011, SEAL COAT, CRACK SEAL AND REMARK ALL PAVEMENTS.

LEGEND 1997 SURVEY AREA 2000 SURVEY AREA 2003 SURVEY AREA 2006 SURVEY AREA 2009 SURVEY AREA 2012 SURVEY AREA	DATE OF PAVEMENT STRENGTH SURVEY:		MONTANA AVIATION SYSTEM PLAN 2012 UPDATE - PAVEMENT CONDITION INDEXES	
	EVALUATED BY:		EKALAKA AIRPORT	
DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	SEPT. 7, 2012			PREPARED BY: EKALAKA MONTANA
EVALUATED BY:	M. BECKHOFF			