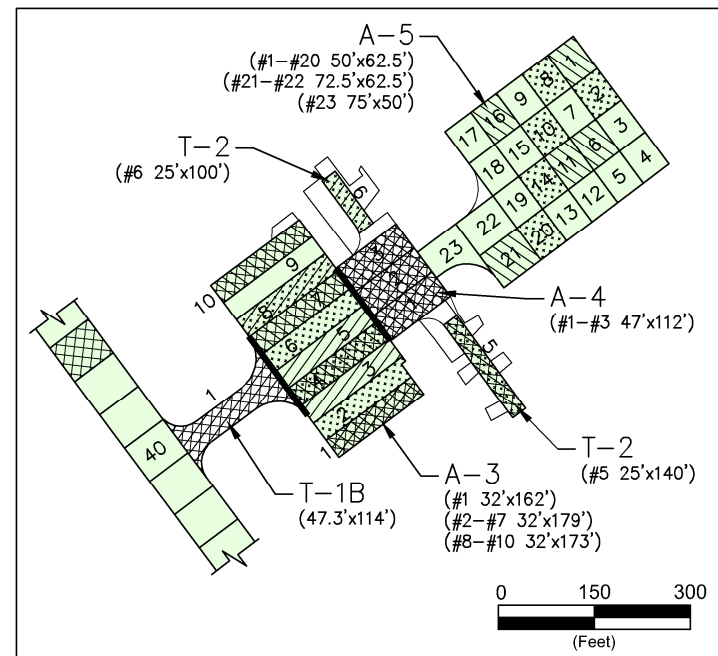
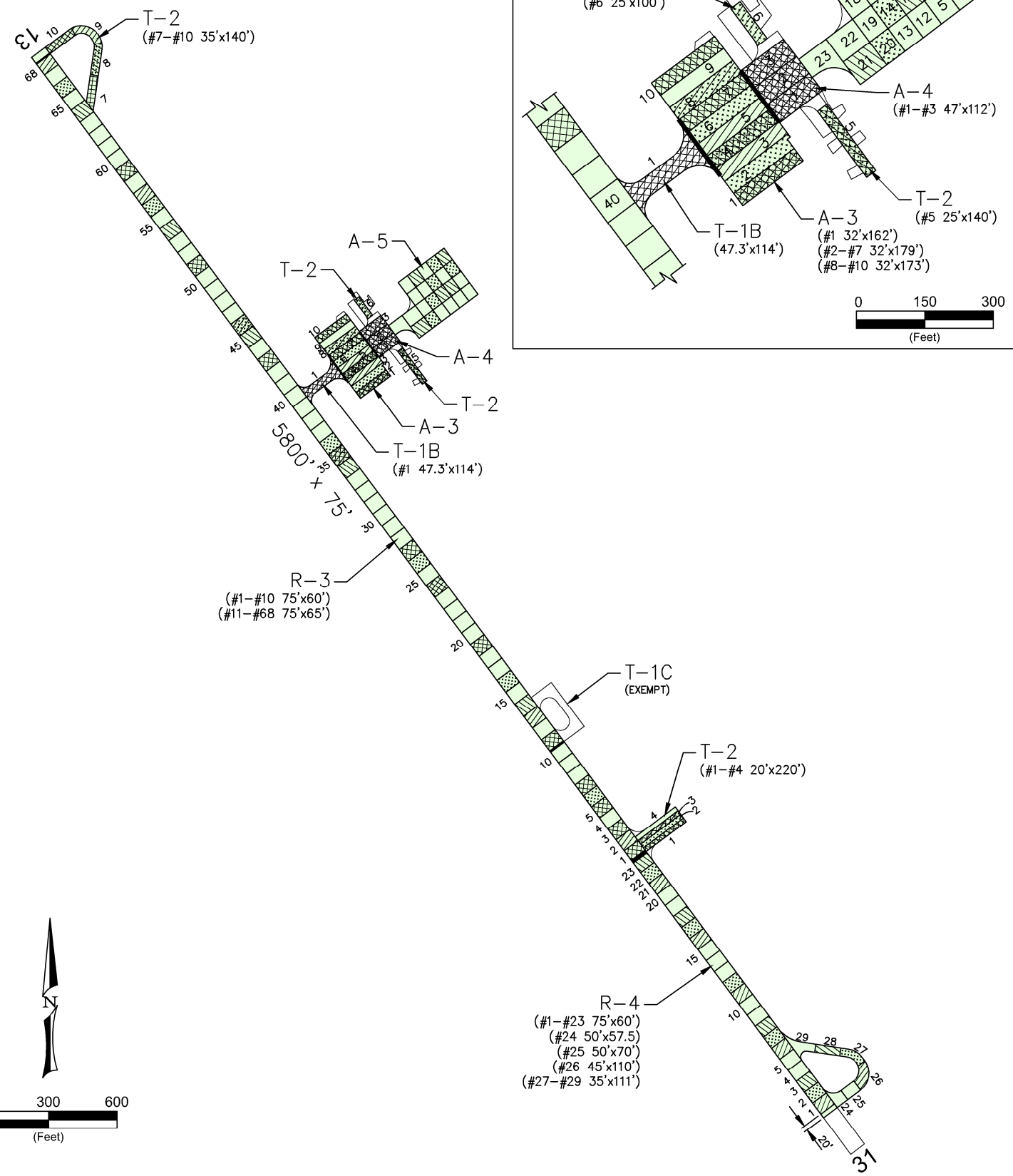


DEER LODGE

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-3	E-4	CBR=13.5		6" P-208	2.5" P-401	2"P-401,P-609	30,000			1,2,4
R-4		CBR=13.5		4" P-209	4" P-401	P-609	30,000			2,4
TAXIWAYS										
T-1B	E-4	CBR=13.5		6"P-208,2"P-207	2.5" P-401	P-609	12,500			1,4
T-2	E-4	CBR=13.5		6"P-208,4"P-207	2.5" P-401	P-609	12,500			1,4
APRONS										
A-3	E-4	CBR=13.5		6"P-208,2"P-207	2.5" P-401	1.5"P-401,P-609	30,000			1,3,4
A-4	E-4	CBR=13.5		4" P-207	2.5" P-401	1.5"P-401,P-609	30,000			1,3
A-5		CBR=13.5	P-154	4" P-208	4" P-401	P-609	30,000			3

REMARKS:

- AIP-02, 1995, RECONSTRUCT RUNWAY, TAXIWAY, AND APRON; EXPAND APRON; CONSTRUCT ACCESS TAXIWAY; EXTEND AND CONSTRUCT RUNWAY TURNAROUNDS.
- AIP-006-2006, EXTEND RUNWAY AND CONSTRUCT TURNAROUND; OVERLAY RUNWAY.
- AIP-008-2009, CONSTRUCT APRON (A-5), OVERLAY APRON (A-3,A-4) [INSPECTED PRIOR TO CONSTRUCTION].
- AIP-010-2012, CRACK SEAL, FOG SEAL, AND REMARK RUNWAY (R-3,R-4), TAXIWAY (T-1B,T-2), APRON (A-3).

LEGEND [Grid] 2003 SURVEY AREA [Dotted] 2006 SURVEY AREA (NOT SURVEYED) [Diagonal] 2009 SURVEY AREA [Cross-hatch] 2012 SURVEY AREA [Stippled] 2015 SURVEY AREA [Green] MAINTAIN: PCI > 60 [Yellow] TRANSITION: PCI 45 TO 60 [Red] RECONSTRUCT: PCI < 45	DATE OF PAVEMENT STRENGTH SURVEY:	AUG. 23, 1987	MONTANA AVIATION SYSTEM PLAN 2015 UPDATE - PAVEMENT CONDITION INDEXES DEER LODGE CITY-COUNTY (38S)	
	EVALUATED BY:	C. NEW		
	DATE OF MOST RECENT PAVEMENT CONDITION SURVEY:	AUG. 6, 2015	Date:	DECEMBER 2015
	EVALUATED BY:	B. BURKLAND	Prepared For:	MONTANA MDT DEPARTMENT OF TRANSPORTATION
LOCATION:	DEER LODGE MONTANA	Prepared By:	RPA Robert Peccia & Associates, Inc.	

DEER LODGE AIRPORT

8/6/2015



A-3, Overview



A-3, Surface detail with depression



A-5, Overview



A-5, Surface detail with oil spillage

DEER LODGE AIRPORT

8/6/2015



R-4, Overview



R-4, Surface detail



R-3, Surface detail with gouge



R-3, Overview

DEER LODGE AIRPORT

8/6/2015



T-2, Overview



T-2, Surface detail with cracking

DEER LODGE AIRPORT

Branch: 08A

APRON

A-3

Length: 317 LF **Width:** 179 LF **Area:** 55,310 SF **Last Const. :** 1996 **Family:** ACAM15
From: CONN TAXIWAY **To:** A-4 **Surface:** AAC

Inspections

Samples Surveyed: 4 **Total Samples:** 10 **Last Inspection Date (RPA)** 8/6/2015 **PCI:** **67**

Sample # 2 **Area:** 5256 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	275 LF
DEPRESSION	L	181 SF
WEATHERING	L	158 SF
RAVELING	L	53 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	9 LF
PATCHING	L	10 SF
OIL SPILLAGE	N	6 SF

Sample # 4 **Area:** 5728 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	384 LF
WEATHERING	L	172 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	4 LF
RAVELING	L	4 SF
DEPRESSION	L	3 SF

Sample # 6 **Area:** 5728 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	490 LF
WEATHERING	L	172 SF
RAVELING	L	57 SF
LONGITUDINAL/TRANSVERSE CRACKING	M	2 LF
PATCHING	L	1 SF
RAVELING	M	1 SF

Sample # 8 **Area:** 5536 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	630 LF
WEATHERING	L	186 SF
RAVELING	L	55 SF
PATCHING	L	47 SF
OIL SPILLAGE	N	2 SF
DEPRESSION	L	1 SF
DEPRESSION	M	1 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	4423 LF	8.00 %	20.33
DEPRESSION	L	460 SF	0.83 %	5.63
DEPRESSION	M	2 SF	0.00 %	5.20
RAVELING	M	2 SF	0.00 %	4.00
LONGITUDINAL/TRANSVERSE CRACKING	M	37 LF	0.07 %	4.00
RAVELING	L	420 SF	0.76 %	2.23
PATCHING	L	144 SF	0.26 %	2.07
OIL SPILLAGE	N	20 SF	0.04 %	2.00
WEATHERING	L	1710 SF	3.09 %	0.84

* 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

DEER LODGE AIRPORT**FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$91,511**

PLAN YEAR: 2016			ESTIMATED COST:			\$213,114	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Prev. & Thin AC	\$517	\$60,450			\$60,967	78	92
A-5	Seal Coat		\$21,087			\$21,087	93	100
R-4	Prev. & Seal Coat	\$84	\$16,796			\$16,881	89	97
R-3	Prev. & Seal Coat	\$745	\$92,400			\$93,145	88	96
A-3	Prev. & Seal Coat	\$5,547	\$15,487			\$21,034	65	70
PLAN YEAR: 2017			ESTIMATED COST:			\$4,414	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Basic Prev.	\$56				\$56	88	88
A-3	Basic Prev.	\$4,358				\$4,358	67	67
PLAN YEAR: 2018			ESTIMATED COST:			\$6,693	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Basic Prev.	\$155				\$155	85	85
A-3	Basic Prev.	\$5,727				\$5,727	65	65
R-4	Basic Prev.	\$79				\$79	89	89
R-3	Basic Prev.	\$732				\$732	88	88
PLAN YEAR: 2019			ESTIMATED COST:			\$9,721	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-5	Basic Prev.	\$231				\$231	87	87
A-3	Basic Prev.	\$7,168				\$7,168	63	63
R-3	Basic Prev.	\$1,799				\$1,799	85	85
R-4	Basic Prev.	\$279				\$279	86	86
T-2	Basic Prev.	\$244				\$244	83	83
PLAN YEAR: 2020			ESTIMATED COST:			\$12,795	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-3	Basic Prev.	\$8,716				\$8,716	61	61
R-3	Basic Prev.	\$2,771				\$2,771	83	83
T-2	Basic Prev.	\$326				\$326	81	81
R-4	Basic Prev.	\$462				\$462	83	83
A-5	Basic Prev.	\$520				\$520	84	84
PLAN YEAR: 2021			ESTIMATED COST:			\$185,361	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-3	Prev. & Seal Coat	\$10,772	\$17,953			\$28,726	59	64
R-4	Prev. & Seal Coat	\$627	\$19,472			\$20,098	81	86
A-5	Prev. & Seal Coat	\$799	\$24,446			\$25,245	81	88
T-2	Basic Prev.	\$525				\$525	79	79
R-3	Prev. & Seal Coat	\$3,650	\$107,117			\$110,767	80	86
PLAN YEAR: 2022			ESTIMATED COST:			\$13,636	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-3	Basic Prev.	\$9,055				\$9,055	61	61
T-2	Basic Prev.	\$774				\$774	77	77
R-4	Basic Prev.	\$468				\$468	83	84
R-3	Basic Prev.	\$2,822				\$2,822	83	83
A-5	Basic Prev.	\$517				\$517	84	84
PLAN YEAR: 2023			ESTIMATED COST:			\$17,356	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-4	Basic Prev.	\$646				\$646	81	81
T-2	Basic Prev.	\$1,011				\$1,011	76	76
R-3	Basic Prev.	\$3,771				\$3,771	81	81
A-5	Basic Prev.	\$816				\$816	81	81
A-3	Basic Prev.	\$11,112				\$11,112	59	59
PLAN YEAR: 2024			ESTIMATED COST:			\$23,703	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-4	Basic Prev.	\$964				\$964	79	79
A-3	Basic Prev.	\$13,841				\$13,841	57	57
T-2	Basic Prev.	\$1,244				\$1,244	75	75
A-5	Basic Prev.	\$1,584				\$1,584	78	79
R-3	Basic Prev.	\$6,070				\$6,070	79	79

PLAN YEAR: 2025			ESTIMATED COST:			\$31,466	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-5	Basic Prev.	\$2,657				\$2,657	76	76
T-2	Basic Prev.	\$1,485				\$1,485	73	73
A-3	Basic Prev.	\$16,866				\$16,866	54	55
R-4	Basic Prev.	\$1,502				\$1,502	78	78
R-3	Basic Prev.	\$8,956				\$8,956	77	77

PLAN YEAR: 2026			ESTIMATED COST:			\$316,576	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-4	Prev. & Seal Coat	\$2,012	\$22,573			\$24,585	76	80
A-3	Prev. & Seal Coat	\$20,226	\$20,813			\$41,039	52	57
R-3	Prev. & Seal Coat	\$11,722	\$124,178			\$135,900	76	79
A-5	Prev. & Seal Coat	\$3,728	\$28,340			\$32,068	73	79
T-2	Prev. & Thin AC	\$1,745	\$81,240			\$82,984	72	80

PLAN YEAR: 2027			ESTIMATED COST:			\$31,691	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Basic Prev.	\$810				\$810	78	78
R-3	Basic Prev.	\$9,154				\$9,154	77	78
R-4	Basic Prev.	\$1,531				\$1,531	78	78
A-3	Basic Prev.	\$17,503				\$17,503	55	55
A-5	Basic Prev.	\$2,693				\$2,693	76	76

PLAN YEAR: 2028			ESTIMATED COST:			\$40,168	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Basic Prev.	\$1,092				\$1,092	76	76
A-5	Basic Prev.	\$3,836				\$3,836	74	74
R-3	Basic Prev.	\$12,117				\$12,117	76	76
A-3	Basic Prev.	\$21,044				\$21,044	52	52
R-4	Basic Prev.	\$2,079				\$2,079	76	77

PLAN YEAR: 2029			ESTIMATED COST:			\$436,413	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-3	Reconstruct			\$412,459		\$412,459	49	100
R-3	Basic Prev.	\$15,001				\$15,001	75	75
T-2	Basic Prev.	\$1,366				\$1,366	75	75
R-4	Basic Prev.	\$2,611				\$2,611	75	75
A-5	Basic Prev.	\$4,976				\$4,976	71	71

PLAN YEAR: 2030			ESTIMATED COST:			\$29,561	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-2	Basic Prev.	\$1,643				\$1,643	74	74
R-4	Basic Prev.	\$3,147				\$3,147	74	74
A-5	Basic Prev.	\$6,801				\$6,801	69	69
R-3	Basic Prev.	\$17,970				\$17,970	74	74