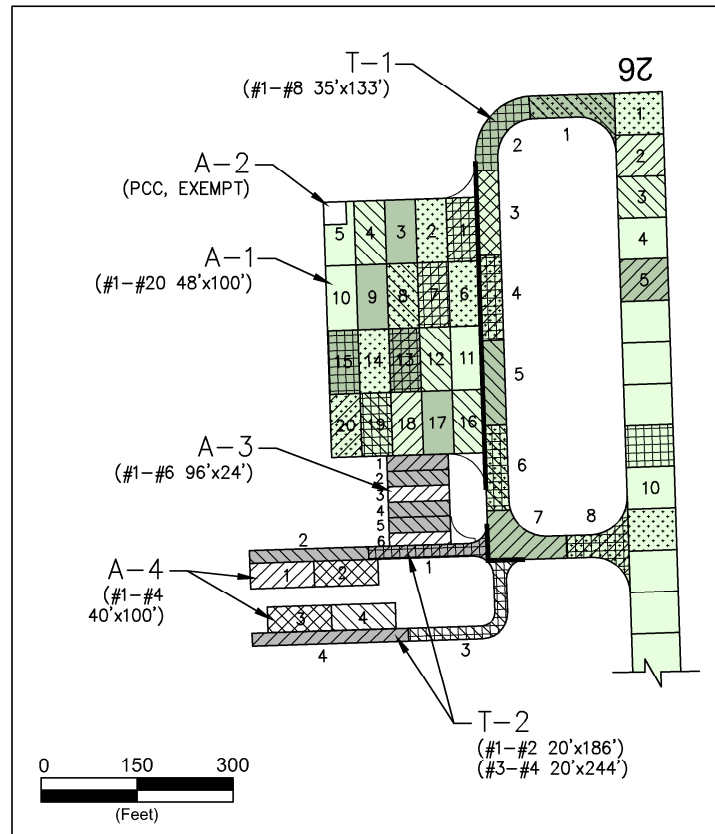
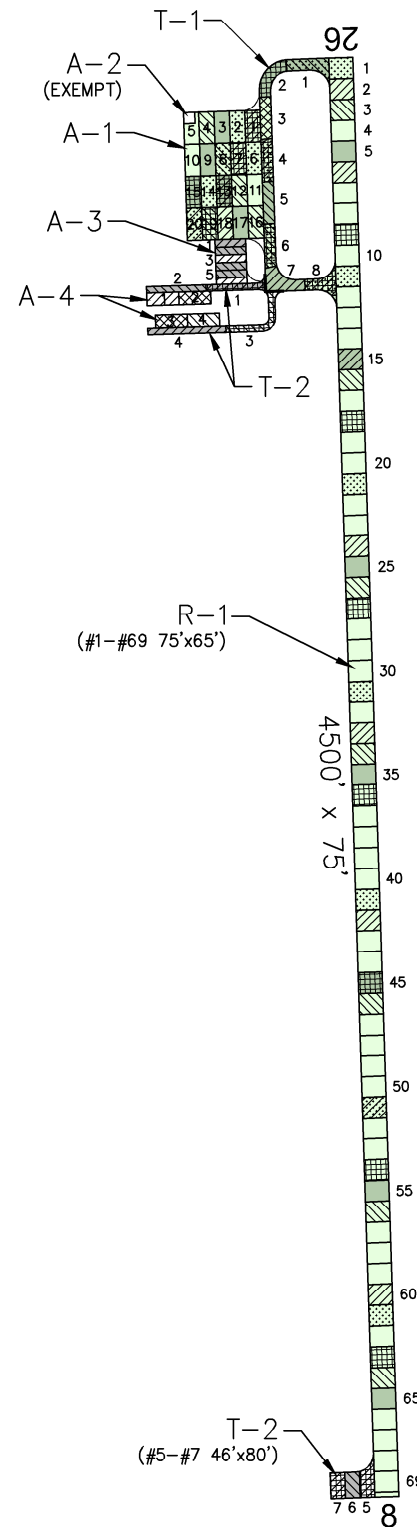


MALTA



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		CBR=2.1	GEOGRID & FABRIC 14" P-154		3" P-401	4"P-403,P-608	12,500			1,2,4,5,6
TAXIWAYS										
T-1		CBR=2.1	GEOGRID & FABRIC 14" P-154		3" P-401	4"P-403,P-608	12,500			1,2,4,5,6
T-2		CBR=2.1	GEOGRID & FABRIC 14" P-154		3" P-401	4"P-403,P-608	12,500			1,2,4,5,6
APRONS										
A-1		CBR=2.1	GEOGRID & FABRIC 14" P-154	2" P-401	1" P-401	4"P-403,P-608	12,500			1,2,4,5,6
A-2				U N K N O W N						
A-3			GEOGRID & FABRIC 12" P-154	6" P-208	6" P-501					3,4
A-4			8" P-152 14" P-158	4" P-208	4" P-403		12,500			4,6

REMARKS:

- AIP-01/02, 1996-1998, ALL NEW CONSTRUCTION. GEOGRID OVER EXISTING GROUND + 30" MIN. OF SELECT BORROW UNDER ALL PAVEMENT SECTIONS.
- AIP-03, 2002, LEVEL DEPRESSIONS ON RUNWAY 8/26 (R-1); CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- AIP-04, 2003, CONSTRUCT CONCRETE PAD (A-2); CONSTRUCT CONCRETE APRON (A-3) FOR JET USE.
- AIP-006-2007, CONSTRUCT APRONS (A-4); LEVEL DEPRESSIONS ON RUNWAY (R-1); CRACK SEAL, FOG SEAL, AND REMARK ALL PAVEMENTS.
- AIP-007-2010, MILL 1" AND OVERLAY RUNWAY (R-1), TAXIWAYS (T-1,T-2), AND APRON (A-1).
- AIP-012-2015, CRACK SEAL, SEAL COAT, AND REMARK RUNWAY (R-1), TAXIWAYS (T-1,T-2), AND APRONS (A-1,A-4) [INSPECTED AFTER MAINTENANCE 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:	SEPT. 30, 2015
EVALUATED BY:	S. MARKWARDT
LOCATION:	MALTA MONTANA

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

**MALTA AIRPORT
(M75)**

Date: DECEMBER 2015 Prepared For: MONTANA DEPARTMENT OF TRANSPORTATION Prepared By: RPA Robert Peccia & Associates, Inc.

MALTA

MALTA AIRPORT

9/30/2015



A-1, Overview



A-1, Surface detail with tie down



R-1, Surface detail



R-1, Overview

MALTA AIRPORT

9/30/2015



T-1, Overview



T-1, Surface detail with bore hole

MALTA AIRPORT

Branch: 61A

APRON

A-1

Length: 400 LF **Width:** 240 LF **Area:** 95,800 SF **Last Const. :** 2010 **Family:** ACAM15
From: ENTIRE APRON **To:** **Surface:** AC

Inspections

Samples Surveyed: 5 **Total Samples:** 20 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** 91

Sample # 2	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING PATCHING	Severity L L L	Quantity 12 LF 24 SF 10 SF	Area: 4800 SF
Sample # 6	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING PATCHING	Severity L L L	Quantity 23 LF 24 SF 1 SF	Area: 4800 SF
Sample # 8	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING PATCHING PATCHING	Severity L L M L	Quantity 9 LF 24 SF 6 SF 3 SF	Area: 4800 SF
Sample # 14	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING PATCHING	Severity L L L	Quantity 41 LF 24 SF 2 SF	Area: 4800 SF
Sample # 20	Distress Description LONGITUDINAL/TRANSVERSE CRACKING RAVELING	Severity L L	Quantity 28 LF 24 SF	Area: 4800 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
PATCHING	M	24 SF	0.03 %	6.20
LONGITUDINAL/TRANSVERSE CRACKING	L	451 LF	0.47 %	4.01
PATCHING	L	64 SF	0.07 %	2.00
RAVELING	L	479 SF	0.50 %	1.77

* 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**

MALTA AIRPORT

Branch: 61R

RUNWAY

R-1

Length: 4,500 LF **Width:** 75 LF **Area:** 337,500 SF **Last Const. :** 2010 **Family:** ACRMU15
From: STA 10+00 **To:** STA 55+00 **Surface:** AC

Inspections

Samples Surveyed: 7 **Total Samples:** 69 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** 88

Sample #	Distress Description	Severity	Quantity	Area:
Sample # 1	LONGITUDINAL/TRANSVERSE CRACKING	L	40 LF	4875 SF
	RAVELING	L	24 SF	
Sample # 11	LONGITUDINAL/TRANSVERSE CRACKING	L	88 LF	4875 SF
	RAVELING	L	24 SF	
Sample # 21	LONGITUDINAL/TRANSVERSE CRACKING	L	115 LF	4875 SF
	RAVELING	L	88 SF	
Sample # 31	LONGITUDINAL/TRANSVERSE CRACKING	L	124 LF	4875 SF
	RAVELING	L	24 SF	
	RAVELING	H	4 SF	
	PATCHING	L	2 SF	
	DEPRESSION	L	2 SF	
Sample # 41	LONGITUDINAL/TRANSVERSE CRACKING	L	113 LF	4875 SF
	RAVELING	L	24 SF	
	PATCHING	M	1 SF	
Sample # 51	LONGITUDINAL/TRANSVERSE CRACKING	L	110 LF	4875 SF
	RAVELING	L	24 SF	
	PATCHING	L	1 SF	
Sample # 61	LONGITUDINAL/TRANSVERSE CRACKING	L	70 LF	4875 SF
	RAVELING	L	24 SF	
	PATCHING	L	1 SF	

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
LONGITUDINAL/TRANSVERSE CRACKING	L	6527 LF	1.93 %	7.24
PATCHING	M	10 SF	0.00 %	6.20
RAVELING	H	40 SF	0.01 %	6.00
RAVELING	L	2295 SF	0.68 %	2.09
PATCHING	L	40 SF	0.01 %	2.00
DEPRESSION	L	20 SF	0.01 %	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

MALTA AIRPORT

Branch: 61T

TAXIWAY

T-1

Length: 1,060 LF **Width:** 35 LF **Area:** 37,100 SF **Last Const. :** 2010 **Family:** ACRMU15
From: R-1 **To:** A-1 AND T-2 **Surface:** AC

Inspections

Samples Surveyed: 4 **Total Samples:** 8 **Last Inspection Date (RPA)** 9/30/2015 **PCI:** 90

Sample # 1 **Area:** 5805 SF

Distress Description	Severity	Quantity
RAVELING	L	39 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	2 LF
RAVELING	H	1 SF

Sample # 4 **Area:** 4655 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	86 LF
RAVELING	L	33 SF
PATCHING	L	1 SF
PATCHING	M	1 SF

Sample # 6 **Area:** 4655 SF

Distress Description	Severity	Quantity
LONGITUDINAL/TRANSVERSE CRACKING	L	55 LF
RAVELING	L	33 SF

Sample # 8 **Area:** 7055 SF

Distress Description	Severity	Quantity
RAVELING	L	85 SF
LONGITUDINAL/TRANSVERSE CRACKING	L	22 LF
PATCHING	L	1 SF

Extrapolated Distress Quantities*

Distress Description	Severity	Quantity	Density	Deduct
PATCHING	M	2 SF	0.00 %	6.20
RAVELING	H	2 SF	0.00 %	6.00
LONGITUDINAL/TRANSVERSE CRACKING	L	276 LF	0.74 %	4.46
RAVELING	L	318 SF	0.86 %	2.39
PATCHING	L	3 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 100.0 % Climate/Durability 0.0 % Other

MALTA AIRPORT**FIFTEEN YEAR PROJECTIONS: ESTIMATED AVERAGE ANNUAL COST: \$46,621**

PLAN YEAR: 2016			ESTIMATED COST:			\$133,435	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Prev. & Seal Coat	\$186	\$26,824			\$27,010	88	97
R-1	Prev. & Seal Coat	\$1,449	\$94,500			\$95,949	86	92
T-1	Prev. & Seal Coat	\$88	\$10,388			\$10,476	88	94
PLAN YEAR: 2017			ESTIMATED COST:			\$371	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$371				\$371	89	89
PLAN YEAR: 2018			ESTIMATED COST:			\$1,691	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$177				\$177	88	88
R-1	Basic Prev.	\$1,427				\$1,427	86	86
T-1	Basic Prev.	\$87				\$87	88	88
PLAN YEAR: 2019			ESTIMATED COST:			\$3,242	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$206				\$206	85	85
A-1	Basic Prev.	\$538				\$538	85	85
R-1	Basic Prev.	\$2,498				\$2,498	83	83
PLAN YEAR: 2020			ESTIMATED COST:			\$4,812	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$327				\$327	82	82
A-1	Basic Prev.	\$892				\$892	82	82
R-1	Basic Prev.	\$3,593				\$3,593	81	81
PLAN YEAR: 2021			ESTIMATED COST:			\$161,821	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Prev. & Seal Coat	\$506	\$12,043			\$12,548	80	85
A-1	Prev. & Seal Coat	\$1,617	\$31,096			\$32,713	79	85
R-1	Prev. & Seal Coat	\$7,008	\$109,552			\$116,560	78	84
PLAN YEAR: 2022			ESTIMATED COST:			\$4,932	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$3,695				\$3,695	81	81
T-1	Basic Prev.	\$334				\$334	82	83
A-1	Basic Prev.	\$903				\$903	82	82
PLAN YEAR: 2023			ESTIMATED COST:			\$9,049	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$7,007				\$7,007	78	78
A-1	Basic Prev.	\$1,555				\$1,555	79	79
T-1	Basic Prev.	\$487				\$487	80	80
PLAN YEAR: 2024			ESTIMATED COST:			\$15,226	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$972				\$972	77	77
R-1	Basic Prev.	\$11,352				\$11,352	76	76
A-1	Basic Prev.	\$2,902				\$2,902	77	77
PLAN YEAR: 2025			ESTIMATED COST:			\$21,389	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
R-1	Basic Prev.	\$15,693				\$15,693	74	74
T-1	Basic Prev.	\$1,456				\$1,456	75	75
A-1	Basic Prev.	\$4,240				\$4,240	74	74
PLAN YEAR: 2026			ESTIMATED COST:			\$204,575	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Prev. & Seal Coat	\$1,942	\$13,961			\$15,903	73	78
A-1	Prev. & Seal Coat	\$5,573	\$36,049			\$41,622	72	77
R-1	Prev. & Seal Coat	\$20,049	\$127,000			\$147,050	71	76
PLAN YEAR: 2027			ESTIMATED COST:			\$22,058	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
T-1	Basic Prev.	\$1,495				\$1,495	75	75
R-1	Basic Prev.	\$16,219				\$16,219	74	74
A-1	Basic Prev.	\$4,344				\$4,344	74	74

PLAN YEAR: 2028			ESTIMATED COST:			\$28,648	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$5,770				\$5,770	72	72
T-1	Basic Prev.	\$2,014				\$2,014	73	73
R-1	Basic Prev.	\$20,864				\$20,864	72	72
PLAN YEAR: 2029			ESTIMATED COST:			\$36,605	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$7,457				\$7,457	70	70
T-1	Basic Prev.	\$2,534				\$2,534	71	71
R-1	Basic Prev.	\$26,614				\$26,614	70	70
PLAN YEAR: 2030			ESTIMATED COST:			\$51,460	PCI	
SectionID	Maintenance	Local	Global	Major<Crit	Major>Crit	Total	before	after
A-1	Basic Prev.	\$10,810				\$10,810	68	68
R-1	Basic Prev.	\$37,216				\$37,216	68	68
T-1	Basic Prev.	\$3,434				\$3,434	69	69