# PAVEMENT MANAGEMENT PLAN (PMP) FOR AIRFIELD PAVEMENTS AND ROADS \& PARKING PAVEMENTS 



EXAMPLE AIR FORCE BASE
JUNE 2023

Date Initial PMP Completed: __09 June 2023
Date PMP Project \& Work Tasks Updated (Annual): $\qquad$
Date PMP Project \& Work Tasks Updated (Annual): $\qquad$

## Date PMP Project \& Work Tasks Updated (Annual):

$\qquad$

## TABLE OF CONTENTS

1. PREFACE ..... 3
2. EXECUTIVE SUMMARY ..... 4
3. PMP TEAM COMPOSITION ..... 6
4. PAVEMENT MANAGEMENT PLAN (PMP) DEVELOPMENT ..... 7
4.1 PAVEMENT MANAGEMENT ..... 7
4.2 PMP DEVELOPMENT PROCESS ..... 7
4.3 DEVELOPING THE PAVEMENT MANAGEMENT PLAN ..... 9
5. LIMITING FACTORS \& ASSUMPTIONS ..... 10
5.1 LIMITING FACTORS SUMMARY ..... 10
5.2 ASSUMPTIONS SUMMARY ..... 10
6. PAVEMENT MANAGEMENT PLANS ..... 11
6.1 AIRFIELD PAVEMENTS - SEE APPENDIX A (PAGE 15-22) ..... 11
6.2 ROADS AND PARKING PAVEMENTS - SEE APPENDIX B (PAGE 23-TBD) ..... 11
7. REFERENCE DOCUMENTS ..... 12
7.1 LOCAL REFERENCE DOCUMENTS ..... 12
7.2 PMP REFERENCE DOCUMENTS ..... 12
7.3 PAVEMENT REPORT REFERENCE DOCUMENTS ..... 12
7.4 IN/OUT BRIEFS ..... 12
8. GLOSSARY ..... 13

## 1. PREFACE

This Pavement Management Plan (PMP) documents a June 2023 coordinated team effort between the Air Force Civil Engineer Center (AFCEC/COAT), 14 CES, and Airfield Management representatives to establish an Initial PMP for the airfield pavements network and the roads and parking pavements network at Example AFB. This PMP document provides information for:

- Planning and programming for pavement maintenance, repairs, and rehabilitation
- Prioritization of pavement facilities for maintenance and rehabilitation (M\&R) and construction projects
- Allocation of funds for annual M\&R

Air Force Instruction (AFI) 32-1041 / Tri-Service Pavements Working Group (TSPWG) 3-270-08.14-3 outline requirements for bases to develop PMPs in support of asset management.

Airfield Pavement Category Intelligence Report (CIR) recommended installation PMPs to capitalize on efficiencies; SAF/MG approved efforts as a "go do".

## 2. EXECUTIVE SUMMARY

## Purpose

The purpose of this PMP for Airfield and Roads \& Parking Pavements is to establish a prioritized preventive maintenance (PM) program and a prioritized major M\&R program based on condition and risk (for each of these pavement networks). Optimized and timely PM and major M\&R will preserve and extend pavement life, significantly reduce life cycle costs, and decrease premature pavement failures. The sound asset management principles utilized in this PMP, and effective execution ensure our bases ability to "keep good pavements good" and enable mission operations. This PMP provides both strategic investment direction and risks associated with not performing outlined work.

This PMP includes a prioritized list of projects and in-house work items that define the following:

- When and where maintenance and repair actions are needed
- What maintenance and repair activities are to be performed
- How the work is to be accomplished (in-house or contract)
- What is the cost for the work, assigned priority, assigned fiscal year
- What is the impact if the work is not accomplished


## Discussion

AFCEC has collected pavement data for decades using AFCEC Airfield Pavement Evaluation (APE) Team and contractor (Ktr) services; data is collected, stored, and analyzed in PAVER sustainment management system (SMS):

- Installation Pavement Condition Index (PCI) data collected every four (4) years - Ktr
- Structural/Friction data every 12 years - APE Team
- APE and contractor assessment reports capture linear segmentation requirements, identify distresses, and $M \& R$ requirements for investment

PAVER SMS provides accurate inventory and condition data, as well as predictive degradation models to forecast pavement condition, PM and Major M\&R requirements, as well as the associated (estimated) costs. The most recent Example AFB and Example AAF APE Reports were completed in October 2017; the most recent Example AFB and Example AAF Airfield and Roads \& Parking PCI Surveys were completed in February 2022 and April 2019, respectively. These reports are available on the AFCEC pavement report tool on CE DASH at the link below. Pavement SMS data and associated report information were used during PMP development.
https://usaf.dps.mil/teams/10758/pavereports/module/pavement\ reports/prthome.aspx
PMPs help standardize asset management strategies and ensure principles are applied accurately and consistently to support base pavement requirements and enterprise investments. The PMP development process promotes coordination between the base pavement engineer, pavement \& equipment shop representatives, resource \& optimization personnel, base programmers, and airfield stakeholders (AF Ops, MX, Safety, MAJCOM, etc.) to:

- Identify mission requirements, limiting factors (LIMFACs) and constraints
- Develop base unique pavement PM and M\&R strategies
- "Right Size" opportunities and strategies for implementation
- Prioritize requirements based on asset data and mission risk
- Develop PM (3 to 5-yr) and major M\&R (FYDP +2) plans with execution strategies
- Develop methods of repairs, and courses of action alternatives for major M\&R requirements

Base benefits include:

- Compliance with guidance and established PM and M\&R plans based on asset data and mission
- Requirements identification focused on keeping good assets "good" while repairing failing infrastructure needed for mission accomplishment
- Coordinated PCI survey inventory information to update Real Property records
- More efficient deployment of pavement sustainment activities and resources
- Streamlined resource advocacy (AFCAMP/EXPLAN) process for pavement requirements


## PMP Summary

The PMP provides base engineers with a prioritized Major M\&R project list (FYDP +2) and preventive maintenance (PM) list (3-5 yrs.). Prioritized lists are based on the most recent APE and PCI Survey Report data (condition, deterioration rate, risk / probability of failure, and engineering assessment) as well as other potential requirements identified by base stakeholders during PMP development that base CE personnel can use to initiate programming and project development that will be defendable when advocating for funding.

## 3. PMP TEAM COMPOSITION

| PMP POC / Base Pavement Engineer | Ms. Angela Ward angela.ward.4@us.af.mil |
| :---: | :---: |
| PMP Alternate POC / CEN Deputy | Mr. John Trumm john.trumm.4@us.af.mil |
| Engineering Flight, Chief | Mr. Don Young donald.young.1@us.af.mil |
| Operations Flight, Chief | Mr. Conny Boyd conny.boyd@us.af.mil |
| Pavement \& Equipment Shop Representative | Mr. Kenneth Yearby kenneth.yearby.1@us.af.mil |
| Programming | Mr. Chad Fulgham chad.fulgham.3@us.af.mil |
| Real Property Officer | Ms. Susan Ray susan.ray.3@us.af.mil |
| Airfield Manager | Mr. Brian Coleff brian.coleff.ctr@us.af.mil |
| XP Representative | Mr. Scott Shuttleworth scott.shuttleworth.2@us.af.mil |
| Geobase/GIS | Mr. Zachary Hall zachary.hall.23@us.af.mil |
| Community/Base Planner | Mr. Carl James carl.james.4@us.af.mil |
| AFCEC PMP Team POC | Mr. Marty Beecher martin.beecher@us.af.mil |
| AFCEC PMP Team Members | Mr. Cecil Hastings cecil.hastings@us.af.mil |
|  | Ms. Renee Riegert renee.riegert@us.af.mil |

## 4. PAVEMENT MANAGEMENT PLAN (PMP) DEVELOPMENT

### 4.1 PAVEMENT MANAGEMENT

Pavement management is a systematic process used to determine maintenance and repair requirements, maintain the safety of operations, and optimize the life cycle cost of paved and unpaved airfield pavement. The overarching concept is to manage pavements by creating and implementing a PMP to perform PM and Major M\&R at the right time with the right repair method that will extend life and optimize life cycle cost rather than letting the pavement deteriorate to poor or failed condition before taking any repair actions.

The pavement management process uses the PCI to define the surface condition of the pavement. While the PCI is a key index in pavement management for both airfield and roads \& parking pavements, other indices such as foreign object damage (FOD) index / FOD potential rating (based on PCI survey distresses and mission aircraft), structural index, and friction index (developed in other types of evaluations) are also used for airfield pavements to get a more holistic assessment of the pavement condition, capability, and performance. These indices along with the established Air Force pavement PM and M\&R policies are key to developing a Pavement Management Plan and feasible M\&R alternatives.

### 4.2 PMP DEVELOPMENT PROCESS

AFCEC manages the APE (structural evaluation) and PCI survey programs for the Air Force. This program collects the bulk of the data that base civil engineers need to develop PMPs. The PMP starts with a list of PM requirements and a list of Major M\&R requirements from the most recent AFCEC PCI Survey Report (and/or APE report for airfield pavements). The PCI generated by PAVER (and the Engineering Assessment data for airfield pavements) from the report are the core elements that base engineers use to identify and prioritize these requirements. The base uses this data in conjunction with established Air Force pavement PM and M\&R policies as well as construction history data to translate these prioritized requirements into properly scoped in-house work plans or projects for contract execution to implement the PMP.

The following outlines the process used to develop the PMP:

- Verify status of PM and Major M\&R requirements / recommendations provided in most recent PCI Survey Report (and/or APE report for airfield pavements)
- Gather information on any new requirements identified since the most recent PCI Survey Report (and/or APE report for airfield pavements)
- Visually perform cursory review of the pavements to validate known requirements and identify new requirements.
o Note that PAVER quantities are based on samples and will not reflect the exact quantities (e.g., eleven corner breaks for a section were estimated by sampling and not by an actual field count, so the quantity must be verified during project development)
- Validate proposed pavement method of repair and identify other issues / root causes (e.g., drainage, marking, light system receptacles related to pavement issues)
- Determine any limiting factors and the associated impact
- Determine maintenance strategy options and select approach that will work best given available resources, execution methods, limiting factors, etc.
- Group requirements into work items or projects
o In-house vs. contract
o Based on locality and/or rank e.g., runway, apron, secondary roads, primary parking lots, etc.
o Based on work type e.g., joint seal for multiple branches
- Update / generate prioritized work plan for executing PM (localized \& global) and Major M\&R requirements / recommendations to include execution method (in-house or contract)
- Indicate ROM cost for the work, assigned priority, and fiscal year
- Show the impact if the work is accomplished and the impact if the work is not accomplished
- Validate mission requirements and apron/ramp space

Other items to consider during the PMP process and incorporated as deemed appropriate:

- Condition of pavement markings (e.g., faded, thickness, chipping)
- Rubber deposit buildup - airfield pavements (e.g., friction issue, obscured markings)
- Surface drainage (e.g., ponding, reverse drainage to pavements)
- Subsurface drainage (edge drainage systems)
- Other factors
o Waivers
o Geometric Issues
o Slope Issues
o Frangibility issues (related to airfield pavements)
o Time of year planned for the action
o Ongoing airfield operations (mission impact)
o Availability of work force (contract/in-house)
o Environmental considerations
o Economic or financial constraints
The four key performance indicators are (for airfield pavements):
- PCI
- Foreign object damage (FOD) potential rating
- Friction (Mu value) - runways only
- Structural capability (ACN/PCN ratio, aka Structural Index)

These four key performance indicators (KPIs) are used to define risk factors. These risk factors, in combination with knowledge of the other factors are used to manage assets and activities to minimize the life-cycle cost and mission risk. Engineering judgment is required to develop projects considering both the KPIs and other factors.

### 4.3 DEVELOPING THE PAVEMENT MANAGEMENT PLAN

PCI reports include a list of M\&R requirements by section with a recommended year of execution based on the critical PCI, Branch Use, Rank, and established Air Force pavement PM and M\&R policies. This list of requirements will be prioritized using the PoF and Adjusted MDI as outlined in the business rules. APE reports and PCI survey reports accomplished in 2015 and later now include a table summarizing the PoF and Adjusted MDI for each pavement section. The following process for developing the PMP from the tables and data in the published reports can be used:

### 4.3.1 PoF and Adjusted MDI Table:

This table will list the PoF and Adjusted MDI for each section. Use the PoF and Adjusted MDI table to prioritize the sections that have the highest risk.

### 4.3.2 Prioritize Work Requirements:

The PCI report includes tables that provide a list of preventive, global, stop-gap, and major maintenance and repair requirements for each section for each year. Use the PoF and Adjusted MDI table to prioritize these work requirements based on level of risk for each section.

### 4.3.3 Refine Work Requirements:

The extrapolated distress report is used to refine the list of requirements and displays the distresses that have the highest deducts for each section. Place a higher priority on the distresses that have the highest deducts. In addition, ensure the PMP includes global and localized PM requirements that have a high payback and reduce the life-cycle cost.

### 4.3.4 Group Work Requirements:

PAVER makes recommendations on the year of execution of specific work requirements based on the projected condition, critical PCI, Branch Use, and Rank. The engineer must apply judgment in determining how best to group these requirements. For instance, a base would most likely not want to do a mill and overlay project on a portion of their runway every year for three years. These requirements would be grouped in a single project executed in one year.

### 4.3.5 Determine Method of Execution:

The final phase in developing a PMP is determining and documenting the method of execution: what is executed in-house and what is executed by contract (project). Once defined, the base uses a PMP with requirements prioritized and grouped for a specific method of execution such as in-house work requirements for PM and contracts for major M\&R. If executed by project, the base should integrate requirements with those of other asset types when appropriate, e.g., drainage, lighting, etc. to ensure projects are scoped properly.

### 4.3.6 Validating Quantities and Scoping Work Plans and Projects:

PCI surveys are conducted at a $95 \%$ confidence level. This means that a specified percentage of sample units are inspected to ensure that the reported PCI is plus or minus five points of the actual PCI. Once the base determines the areas that require work, its scope, and method of execution, bases will need to validate the quantities of the distresses to be repaired and to update these quantities, if required. Furthermore, in the case of major M\&R, the base should also use the Engineering Assessment data, work history, and structural evaluation data to ensure the project is scoped properly.

## 5. LIMITING FACTORS \& ASSUMPTIONS

### 5.1 LIMITING FACTORS SUMMARY

In development of this Pavement Management Plan, the team identified six (6) major areas/matters with limiting factors (LIMFACs) that may impact the execution of this plan. The limiting factors include:

1) Airfield access to complete PM/CM \& Localized and Major M\&R is extremely limited
2) Limited manpower for P\&E shop (12 personnel) - high quantity of work and support requirements
3) Equipment shortfalls:

- AC Roller (5 ton), Paver, Tack Coat Equipment, Medium Excavator, Small Milling maching/Attachment, Grinder
- Requests for some equipment have been submitted to LRS, but no response received

4) Training opportunities/funding are limited

- Hard to get into vendor training for P\&E shop as slots are extremely limited, i.e., operator training
- Funding needed for pavement specific training, i.e., construction inspection training

5) Limited funding affects base's ability to execute maintenance and repairs (cFSRM; dFSRM)
6) Civil Engineer positions difficult to fill at times; long hiring process has, in the past resulted in selectee taking another job during long process

- Hiring process may be initiated for TNAP AMP/TNAP Sub-AMP position(s) at some future point in time


### 5.2 ASSUMPTIONS SUMMARY

Based on these LIMFACs, the team made an assumption that requirements identified in the PMP will compete favorably in both the AFCAMP/EXPLAN budgeting process; if not, base will be able to articulate the risks associated with the lack of funding and its impact on pavements total cost of ownership.

## 6. PAVEMENT MANAGEMENT PLANS

6.1 AIRFIELD PAVEMENTS - SEE APPENDIX A (PAGE 15-22)
6.2 ROADS AND PARKING PAVEMENTS - SEE APPENDIX B (PAGE 23-TBD)

## 7. REFERENCE DOCUMENTS

### 7.1 LOCAL REFERENCE DOCUMENTS

Airfield Certification/Safety Inspection (ASCI)
Airfield Operations Board (AOB) Minutes

ACSI Inspection Date: 15 Dec 2022
AOB Meeting Date: Jan 2023 (3/4Q22)

Note: The above local reference documents are located at Airfield Management. POC is Mr. Brian Coleff.

### 7.2 PMP REFERENCE DOCUMENTS

US Air Force Instruction (AFI) 32-1041, Pavement Evaluation Program. October 2019.
Tri-Service Pavements Working Group (TSPWG) Manual 3-270-08.14-03, Preventive Maintenance Plan for Airfield Pavements, October 2019.

United Facility Criteria (UFC) 3-270-08. Pavement Maintenance Management, January 2004.

### 7.3 PAVEMENT REPORT REFERENCE DOCUMENTS

Airfield Pavement Condition Index Survey Report, Example AFB/Example AAF, Applied Research Associates, Inc., Air Force Civil Engineer Center (AFCEC), Tyndall Air Force Base, Florida, May 2023/March 2023.

Roads and Parking Pavement Condition Index Survey Report, Example AFB/Example AAF, Applied Research Associates, Inc., Air Force Civil Engineer Center (AFCEC), Tyndall Air Force Base, Florida, February 2020.

Airfield Pavement Evaluation, Example AFB/Example AAF, MS, Air Force Civil Engineer Center, Tyndall Air Force Base, Florida, October 2017.

Above pavement report reference documents are located at APE Report Tool Website:

APE Reports Tool (dps.mil) .

### 7.4 IN/OUT BRIEFS

The PMP In-Brief and PMP Out-Brief are PDF documents attached to this document and can be accessed in the Attachments Sidebar.
7.4.1 PMP Inbrief_BASE AFB_Final
7.4.2 PMP Outbrief_BASE AFB_Final

## 8. GLOSSARY

Critical PCI. The PCI value of a section at which the rate of deterioration significantly increases and return on investment of PM decreases. Critical PCI will depend on the pavement type, pavement use, and traffic level, and is unique for each base.

Localized Preventive Maintenance (PM). Localized PM consists of maintenance actions performed on pavement at the location of individual distresses to slow down the rate of pavement deterioration. It differs from global PM in that it typically is not applied to pavement outside of the location of the distress, whereas global PM is applied to areas of the pavement that may not be distressed.

Global Preventive Maintenance (PM). Global PM is used to retard or slow pavement deterioration. Generally, global PM is effective at the beginning of pavement life and/or when climate-caused distresses have not started or, in some cases, the severity is low or medium. Global PM, like localized PM, may be performed in response to the appearance or progression of distress, but is more commonly performed on a recurring schedule (i.e., at set time intervals) without regard for the distresses present.

Operational Maintenance. Operational maintenance is also referred to as safety maintenance, stop-gap maintenance, and breakdown maintenance. Operational maintenance is performed to mitigate distresses on pavements that are below the critical PCI to keep them operationally safe for use.

Pavement Condition Index (PCI). PCI is a numerical indicator between 0 and 100 that reflects the surface condition of the pavement.

Policy PCI. PCI values established as cutoff points by which certain maintenance and repair actions should be taken e.g., project should be programmed before the pavement reaches these conditions:

Pavement Management Plan (PMP). PMP is a plan for sustainment, restoration, modernization (SRM) funds, i.e., a document that informs base leadership.

Preventive Maintenance (PM) and Major M\&R. PM and Major M\&R is a program of activities that preserves the investment in pavements, reduces the rate of degradation due to specific distresses, extends pavement life, enhances pavement performance, and reduces mission impact.

Primary Airfield Pavements. Primary pavements are mission-essential pavements. In general, only pavements used by aircraft on a daily basis or frequently used transient taxiways and parking areas are considered primary pavements.

Primary Road and Parking Lot Pavements. Primary pavements include arterials which are defined as a class of street serving a major movement of traffic not served by a freeway. This includes installation roads and streets that serve as the main distributing arteries for traffic originating outside and within an installation and that provide access to, through, and between the various functional areas or collector or local streets that service mission critical facilities. Classification of vehicle parking areas as primary pavements should be restricted to those areas associated with access to mission-essential facilities, such as alert facilities, munitions facilities, and medical facilities.

Rate of Pavement Deterioration. This is the rate at which a specific pavement at a specific location deteriorates over time. This rate is dependent on climatic conditions, pavement use, and traffic level.

Secondary Airfield Pavements. Secondary pavements are mission-essential but occasional-use airfield pavements. In general, any pavements that are not in daily use by aircraft are secondary pavements.

Secondary Road and Parking Lot Pavements. Secondary pavements include collector streets that gather and disperse traffic between the larger arterial highways and less important streets, that have intersections at grade, and that are equally important in providing traffic movement and access to abutting properties. In addition, most parking
areas that support daily traffic on a base are considered secondary pavements, unless a specific mission dictates otherwise.

Tertiary Airfield Pavements. Tertiary pavements include pavements used by towed or light aircraft. In general, any pavement that does not support aircraft taxiing under their own power or is used only intermittently is considered a tertiary pavement.

Tertiary Road and Parking Lot Pavements. Tertiary pavements include local streets that are streets or roads primarily for access to residence, business or other abutting property. Installation roads and streets that provide access from other collector roads and streets to individual units of facilities of a functional area are included in this category. Unsurfaced roads and abandoned in-place but usable roads are classified as tertiary. Any parking area that is not used on a daily basis or is excess to the standard facilities requirements is considered a tertiary pavement.

Unused Pavements. Unused pavements include any pavements that are inactive, abandoned, or scheduled for demolition.

## APPENDIX A AIRFIELD PAVEMENTS

# APPENDIX A - PMP - AIRFIELD PAVEMENTS 

## A. 1 AIRFIELD APRON SPACE ANALYSIS

## A.1.1 - APRON SPACE ANALYSIS

As outlined in the Installation Infrastructure Strategy (I2S), Air Force must look to right sizing installations to reduce footprints and reduce sustainment costs. As part of this PMP effort, the process looks at right-sizing opportunities associated with airfield pavements with an emphasis on ramp space.

The available ramp area for aircraft parking is identified by querying airfield surface data for ramps/aprons. Areas not suitable for parking were removed based on configuration, taxilane access for ramp parking, access ramps to hangars, wingtip clearances from UFC 3-260-01, and ramps that have a pavement condition index less than 40.

PAVER supplied the geographic information for the pavement condition data from 2020 pavement report. In accordance with AFMAN 32-1084, Section 3.1.2.3.1, the required ramp area and spaces were identified by taking Total Aircraft Inventory (TAI) and excluding docked aircraft (Primary Assigned Aircraft (PAA) times the dock factor). Transient (i.e., transient and distinguished visitor) parking spaces were not included to identify excess parking spaces.

Authorized is the amount of space required to park assigned PAA under ideal conditions. The actual required ramp space will depend on the design and geometry of the parking apron which will affect the overall footprint of the parked PAA aircraft, with $\sim 20 \%$ added for transient requirements. Additional ramp space requirements are driven by operational/mobility plans, host-tenant agreements, or non-PAA MAJCOM mission requirements. AFCEC/CO used the info below to get the initial results.

Table A. 1 Existing Condition

| Existing Condition |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MDS | TAI | PAA | Dock Factor | Dock Space <br> Requirement | Ramp Space <br> Requirement | Current Ramp <br> Spaces | Ramp Space <br> Capacity |  |
| T-1A | 42 | 32 | 0.27 | 9 | 33 | 243 |  |  |
| T-38C | 81 | 69 | 0.27 | 19 | 69 |  |  |  |
| T-6A | 99 | 78 | 0.25 | 20 | 79 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Assumptions:
■ Utilize Ramp Space deemed suitable for parking

- Multiply the Installation’s TAI (PAA+ Backup/Reserve Aircraft) and their required parking areas, to include interior taxilane clearances and parked wingtip clearances
- Docked aircraft do not require parking

Initial Results:
■ Available ramp area: 261,930 SQM (after removing unsuitable areas and transient ramp)
■ Required ramp area: 84,512 SQM (includes interior taxilane, jet blast and sunshades)
■ Excess ramp area: 177,418 SQM

- Available parking spaces: 10 large / 243 small
- Required ramp parking spaces: 0 large / 174 small

■ Required dock spaces: 0 large / 48 small

- Excess parking spaces: 10 large / 69 small


After collecting airframe traffic for the past fiscal years and with discussions with base personnel, validated apron space is identified in Figure A. 2 below.


Figure A. 2

As a result of data review and discussions with the various Airfield stakeholders, it is apparent that the current apron space is being utilized and required to continue supporting all the training and operational missions at Example Air Force Base and Example Auxiliary Air Field.

The T-6/T-38 apron is used by the 14 FTW - 50 FTS. There are 99 T-6 and 81 T-38 aircraft currently assigned for this training mission. The dock space requirement for these aircraft totals 39 spaces, leaving 141 to be parked on the ramp. This ramp space is adequate and includes approximately 110 spaces that are covered by sunshades.

The T-1 Apron is used by the 14 FTW - $43 / 48$ FTS. There are 42 T- 1 aircraft currently assigned for this training mission. The dock space requirement for these aircraft totals 9 spaces. The ramp space is adequate for the remaining $33 \mathrm{~T}-1$ aircraft to be parked on the ramp.

The SAC Apron is used for multiple operational missions including:

- Hurricane Evacuation Support
- DSCA (Defense Support Civilian Authority)
- Federal Emergency Management Agency (FEMA) Seismic Contingency Activity
- Student/Training Support
- Spot 5 Hazardous Cargo Operations

The transient apron is frequently used for multiple large and small aircraft. The base also hosts a large Airshow approximately every other year that utilizes all available space on the airfield.

## A. 2 MAINTENANCE STRATEGY ZONE MAP - AIRFIELD PAVEMENTS

Localized Stop-gap M\&R as needed to keep mission operational; PM and Localized M\&R prioritized by FY / Zone / Pavement Rank (Primary, Secondary, Tertiary); Major M\&R prioritized by FY / Zone / Pavement Rank (Primary, Secondary, Tertiary). The PMP maintenance zone maps are located with 14 CES GIS.


# A. 3 RECOMMENDED PMP PROJECTS OR WORK TASKS 

## A.3.1 - MAJOR M\&R PROJECTS (FYDP +2)

## A.3.2-PM / CM WORK TASKS (3-5 YR)

These items are included in the Excel Workbook "A. 3 Example PMP Appendices". This document is maintained by personnel at Example AFB within the 14 CES.

## A. 4 SUPPORTING INFORMATION - AIRFIELD

## A.4.1 - AIRFIELD PAVEMENT EXECUTIVE SUMMARIES

 The items are included as attached PDF documents A.4.1.1 and A.4.1.2A.4.2 - AIRFIELD PAVEMENT CONDITION INDEX (PCI) SURVEY MAPS

## A.4.2.1.1 \& A.4.2.1.2 - PAVEMENT BRANCHES IDENTIFICATION

A.4.2.2.1 \& A.4.2.2.2 - PAVEMENT RANKING

## A.4.2.3.1 \& A.4.2.3.2 - PAVEMENT CONDITION (7-COLOR PCI RATING)

## A.4.2.4.1 \& A.4.2.4.2 - PAVEMENT ENGINEERING ASSESSEMENT

## A.4.2.5.1 \& A.4.2.5.2 - PAVEMENT STRUCTURAL INDEX

These maps are included as attached PDF documents

## A.4.3 - EXISTING LIST OF PROGRAMMED PROJECTS

(This data is maintained by and may be requested from 14 CES/CEN)
A.4.4 - PAVER LIST OF MAJOR M\&R REQUIREMENTS

These items are included as attached PDF documents A.4.4.1 \& A.4.4.2
A.4.5 - PAVER LIST OF PREVENTIVE MAINTENANCE REQUIREMENTS

These items are included as PDF attachments A.4.5.1 \& A.4.5.2

## A.4.7 - PRIORITIZATION

A.4.7.1 - PROBABILITY OF FAILURE (UNSORTED)

These items are included as PDF attachments A.4.7.1.1 \& A.4.7.1.2*
*No data available for Example AAF
A.4.7.2 - PROBABILITY OF FAILURE (SORTED BY POF AND MDI) These items are included as PDF attachments A.4.7.2.1 \& A.4.7.2.2* *No data available for Example AAF

# Appendix B to be completed by Example AFB 

APPENDIX B<br>ROADS \& PARKING PAVEMENTS

## APPENDIX B - PMP - ROADS AND PARKING PAVEMENTS

## B. 1 MAINTENANCE STRATEGY ZONE MAP - ROADS AND PARKING PAVEMENTS

Base AFB will implement a Maintenance Strategy which focuses on work items in three (4) assigned zones annually, except for Zone 1 being a priority every year, similar to snow removal plan. For example: Zone 1 - 2023, Zone $1 \& 2$ - 2024, Zone $1 \& 3$ - 2025, repeat cycle/etc. The PMP maintenance zone maps are located with 4 CES GIS, please contact Ms. Ginger Langley.


## B. 2 RECOMMENDED PMP PROJECTS OR WORK TASKS

Note: As of December 2022, Appendix B. 2 is under development and will be completed by 4 CES within MAR 2023.

## B.2.1 - MAJOR M\&R PROJECTS (FYDP +2)

B.2.2 - PM / CM WORK TASKS (3-5 YR)

These items are included in attached Excel Workbook "B. 2 BASE PMP Roads and Parking"

## B. 3 SUPPORTING INFORMATION - ROADS AND PARKING

B.3.1 - EXISTING LIST OF PROGRAMMED PROJECTS
B.3.2 - PAVER LIST OF MAJOR M\&R REQUIREMENTS
(FROM 2019 ROADS \& PARKING PCI SURVEY REPORT)
B.3.3 - PAVER LIST OF PREVENTIVE MAINTENANCE REQUIREMENTS (FROM 2019 ROADS \& PARKING PCI SURVEY REPORT)
B.3.4 - PAVER LIST OF GLOBAL MAINTENANCE REQUIREMENTS

Note: No Global Maintenance Requirements were identified/recommended in the 2019 PCI Survey Report.
B.3.5 - PROBABILITY OF FAILURE (POF)
(FROM 2019 ROADS \& PARKING PCI SURVEY REPORT)
B.3.6 - PROBABILITY OF FAILURE (POF), SORTED BY POF AND MDI

All included in attached Excel Workbook "B. 3 BASE PMP Roads and Parking"

