Marshalltown Municipal Airport



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# MARSHALLTOWN MUNICIPAL AIRPORT PAVEMENT MANAGEMENT REPORT

### **Prepared For:**



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Introduction August 2025

#### INTRODUCTION

Applied Pavement Technology, Inc. (APTech), with assistance from Robinson Engineering Company Consulting Engineers (Robinson), updated the Airport Pavement Management System (APMS) for the Iowa Department of Transportation, Modal Transportation Bureau (Iowa DOT). The APMS provides a means to monitor the condition of the pavements within the State of Iowa and to proactively plan for their preservation.

As part of this project, pavement conditions at Marshalltown Municipal Airport were visually assessed in March 2025 using the Pavement Condition Index (PCI) procedure. During a PCI inspection, the types, severities, and amounts of distress present on the pavement surface are quantified. This information is then used to develop a composite index that represents the overall condition of the pavement in numerical terms, ranging from 0 (*Failed*) to 100 (*Excellent*). The PCI provides an overall measure of condition and an indication of the level of work that will be required to maintain or repair a pavement. The distress information also provides insight into what is causing the pavement to deteriorate, which is the first step in selecting the appropriate repair action to correct the problem.

Programmed into an APMS, PCI data and results are used to determine when preventive maintenance actions (such as crack or joint sealing) are advisable and to identify the most cost-effective time to perform major rehabilitation (such as an overlay or whitetopping). Delaying maintenance and rehabilitation (M&R) until a pavement structure has seriously degraded can cost many times more than if M&R was applied earlier in a pavement's life cycle, as shown in Figure 1. From a safety perspective, pavement distresses, such as cracks and loose debris, may pose risks in terms of the potential for aircraft tire damage and the ability of a pilot to safely control aircraft.

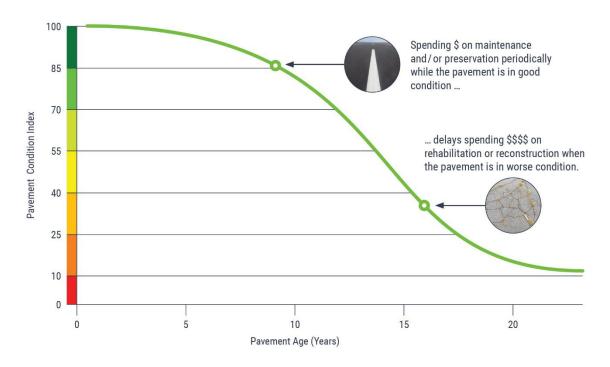


Figure 1. Pavement condition versus cost of repair.

Introduction August 2025

The pavement evaluation results for Marshalltown Municipal Airport are presented within this report and can be used by Marshalltown Municipal Airport, the Iowa DOT, and the Federal Aviation Administration (FAA) to identify, prioritize, and schedule pavement M&R actions at the airport. In addition to this report, the web-based interactive pavement data visualization tool IDEA, containing the information collected during this project, was updated and may be accessed from the <u>Iowa DOT's website</u> or directly (<u>Iowa APMS IDEA</u>).

Pavement Inventory August 2025

#### PAVEMENT INVENTORY

The project began with a review of the existing inventory information pertaining to the pavements at Marshalltown Municipal Airport. The date of original construction, along with the date of any subsequent rehabilitation; the location of completed work; and the type of work undertaken were gathered. The information was used to update the pavement management database and associated maps, as necessary, to account for pavement-related work that had been undertaken since the last time the airport was evaluated in 2021.

The pavement network at Marshalltown Municipal Airport was then divided into branches, sections, and sample units. A branch is a single entity that serves a distinct function. For example, a runway is considered a branch because it serves a single function (allowing aircraft to take off and land). Taxiways, aprons, and T-hangars are also separate branches.

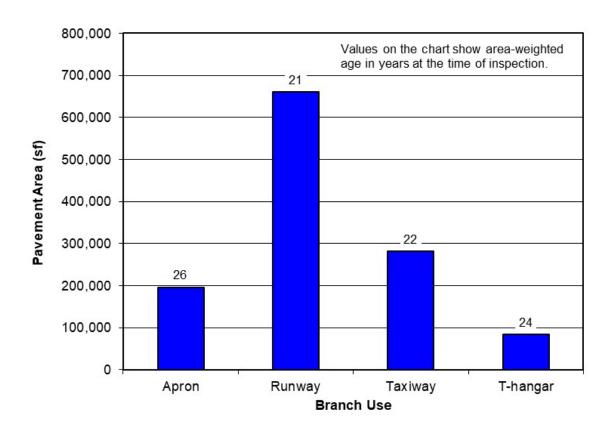
Each branch was further divided into sections. Traditionally, sections are defined as parts of the branch that share common attributes, such as cross section, date of last construction, traffic level, and performance. Using this approach, if a runway was built in 1968 and then extended in 1984, it would contain two separate sections.

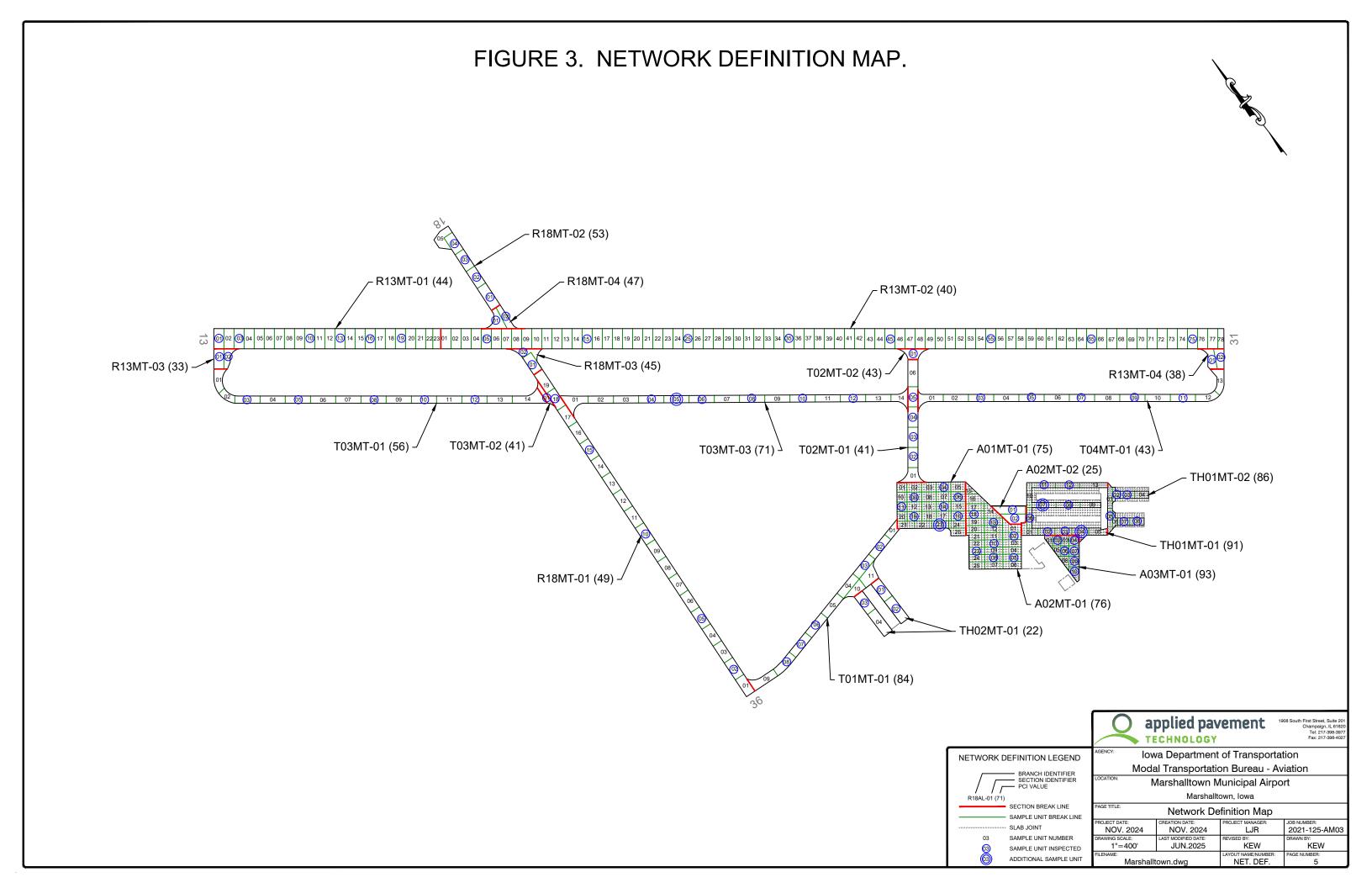
To estimate the overall condition of a pavement section, each section was subdivided into sample units. Portions of these sample units were evaluated during the pavement inspection, and the collected information was extrapolated to predict the overall section condition and quantities of distress.

Approximately 1,219,800 square feet of pavement were evaluated at Marshalltown Municipal Airport, as illustrated in Figure 2. This figure also shows the area-weighted age in years of the pavements at the time of the inspection. Figure 3 provides a map that details how the pavement network was divided into management units and identifies the sample units that were evaluated during the pavement inspection at Marshalltown Municipal Airport.

Pavement Inventory August 2025

Figure 2. Pavement area by branch use at Marshalltown Municipal Airport.





#### **PAVEMENT EVALUATION**

#### **Pavement Evaluation Procedure**

APTech visually inspected the pavements at Marshalltown Municipal Airport using the PCI procedure described in:

- FAA Advisory Circular 150/5380-6C, <u>Guidelines and Procedures for Maintenance of Airport Pavements.</u>
- FAA Advisory Circular 150/5380-7B, <u>Airport Pavement Management Program (PMP)</u>.
- ASTM D5340, Standard Test Method for Airport Pavement Condition Index Surveys.

During the PCI inspection, a cursory inspection of the entirety of a pavement section was performed. Sample units identified for more detailed inspection were verified, and adjustments to the selected sample units for inspection were made as needed to ensure an accurate assessment of the pavement's condition. Data pertaining to the types, severities, and quantities of observed pavement distresses were then collected within each sample unit. These data were then used to calculate the composite PCI of each pavement section. The PCI provides a numerical indication of overall pavement condition, as illustrated in Figure 4. The PCI ranges from a value of 0, which represents a pavement in a *Failed* condition, to a value of 100, which represents a pavement in *Excellent* condition with no visible signs of deterioration. It is important to note that factors other than overall PCI need to be considered when identifying the appropriate type of repair, including types of distress present and rate of deterioration. Also, since the PCI does not assess the structural integrity or capacity of the pavement structure, further testing may be needed to validate and refine the treatment strategy.

PCI: 100

PCI: 83

Figure 4. Visual representation of PCI scale on typical pavement surfaces.

Note: Photographs shown are not specific to Marshalltown Municipal Airport.

PCI: 66

Generally, pavements with relatively high PCIs that are not exhibiting significant load-related distress will benefit from preventive maintenance actions, such as crack sealing or joint resealing. As the PCI drops, the pavements may require major rehabilitation, such as an overlay or whitetopping. In some situations where the PCI has dropped low enough, reconstruction may be the only viable alternative due to the substantial damage to the pavement structure. Figure 5 illustrates how the appropriate repair type varies with the PCI of a pavement section and provides the corresponding colors used for the maps and charts in this report for each range of PCIs.

PCI Range Repair

86-100

71-85

Preventive Maintenance

56-70

Major Rehabilitation

26-40

11-25

Reconstruction

Figure 5. PCI versus repair type.

The types of distress identified during the PCI inspection provide insight into the cause of pavement deterioration, which is useful when selecting M&R strategies. Understanding the cause of distress helps in selecting a rehabilitation alternative that corrects the cause and thus eliminates or delays its recurrence. PCI distress types are characterized as:

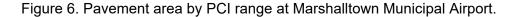
- Load-related—These distress types are defined as being caused by aircraft or vehicular traffic and may indicate a structural deficiency. Examples of load-related distress include alligator cracking on asphalt-surfaced pavements and corner breaks on portland cement concrete (PCC) pavements.
- Climate/durability-related—These distress types often signify the presence of aged or environmentally susceptible (or both) material and include durability-related issues.
   Examples of climate/durability-related distress include weathering on asphalt-surfaced pavements, which is climate-related, and durability cracking on PCC pavements, which is durability-related.
- Other—Distress types that fall into this category cannot be attributed solely to load or climate/durability. Examples of this type of distress include depressions on asphaltsurfaced pavements and shrinkage cracking on PCC pavements.

Appendix A identifies the distress types considered during a PCI inspection and describes the likely cause of each distress type. It should be noted that a PCI is based on visual signs of pavement deterioration and does not provide a measure of structural capacity.

#### **Pavement Evaluation Results**

The pavements at Marshalltown Municipal Airport were inspected in March 2025. The 2025 area-weighted condition of Marshalltown Municipal Airport is 54, with conditions ranging from 22 to 93 (on a scale of 0 [failed] to 100 [excellent]). During the previous pavement inspection in 2021, the area-weighted PCI of the airport was 58.

Figure 6 summarizes the overall condition of the pavements at Marshalltown Municipal Airport, and Figure 7 presents area-weighted condition (average PCI adjusted to account for the relative size of the pavement sections) by branch use. Figure 8 is a map that displays the condition of the evaluated pavements. Table 1 summarizes the results of the pavement evaluation. Appendix B presents photographs taken during the PCI inspection, and Appendix C contains detailed information on the distress types observed during the visual survey. Appendix D includes detailed work history information that was collected during the record review process.



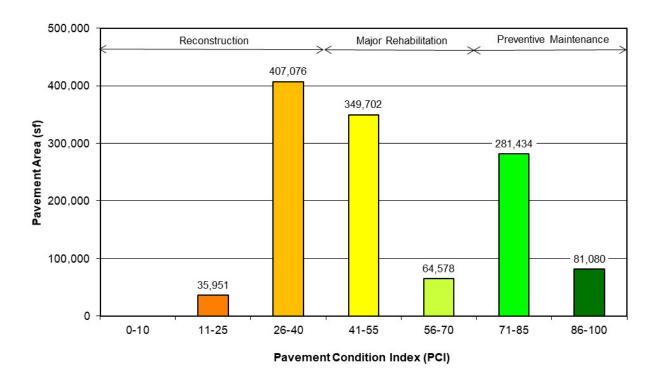
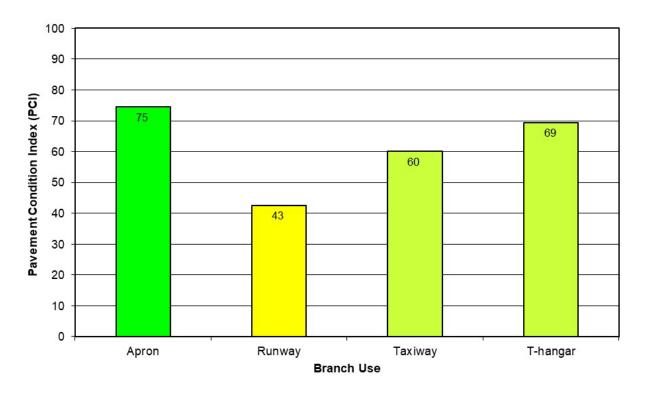


Figure 7. Area-weighted PCI by branch use at Marshalltown Municipal Airport.

(Values on chart are area weighted.)



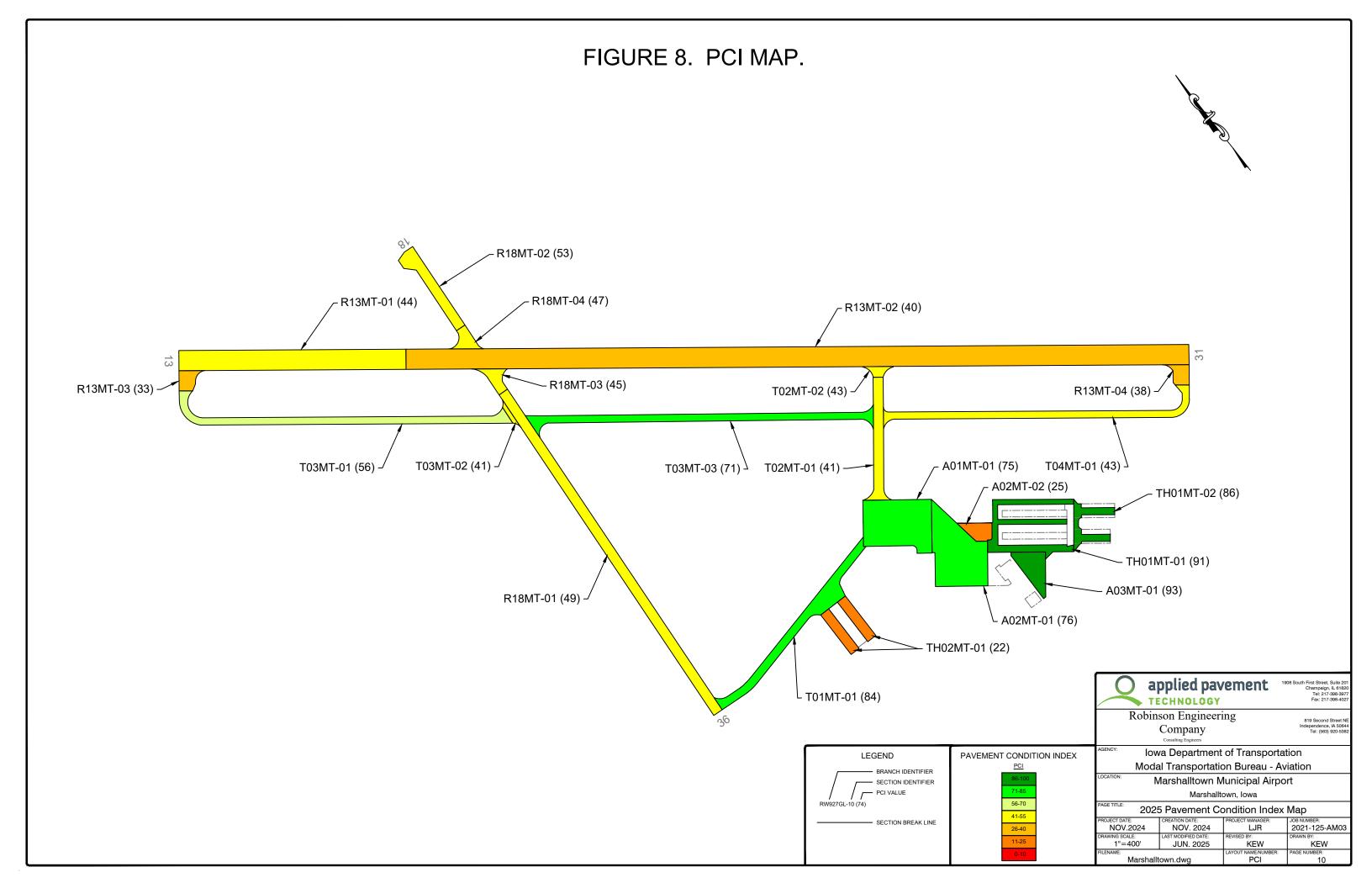


Table 1. 2025 pavement evaluation results.

Branch	Section	Surface Type	Section Area (sf)	LCD	2025 PCI	% Distress Due to Load	% Distress Due to Climate/ Durability	% Distress Due to Other	Type of Distress
A01MT	01	PCC	80,617	11/1/1994	75	40	22	38	ASR, Faulting, Joint Spalling, Joint Seal Damage, Large Patch, LTD Cracking, Shattered Slab
A02MT	01	PCC	81,456	6/1/2002	76	21	35	44	ASR, Corner Break, Corner Spalling, Faulting, Joint Seal Damage, LTD Cracking, Shrinkage Cracking
A02MT	02	AAC	11,250	3/1/1994	25	22	77	1	Alligator Cracking, Block Cracking, Depression, Patching, Raveling, Weathering
A03MT	01	PCC	22,411	7/1/2012	93	0	100	0	Joint Seal Damage
R13MT	01	AAC	112,500	6/2/2005	44	27	73	0	Alligator Cracking, L&T Cracking, Raveling, Weathering
R13MT	02	AAC	390,200	6/2/2005	40	39	61	0	Alligator Cracking, L&T Cracking, Raveling, Weathering
R13MT	03	AAC	8,445	6/1/2005	33	19	81	0	Alligator Cracking, L&T Cracking, Patching, Raveling, Weathering
R13MT	04	AAC	8,431	6/1/2005	38	38	62	0	Alligator Cracking, L&T Cracking, Raveling, Weathering
R18MT	01	AAC	95,600	6/1/1997	49	20	80	0	Alligator Cracking, L&T Cracking, Raveling, Weathering
R18MT	02	AAC	26,970	6/1/1997	53	24	76	0	Alligator Cracking, L&T Cracking, Patching, Raveling, Weathering
R18MT	03	AAC	9,073	6/1/2005	45	0	99	1	L&T Cracking, Raveling, Swelling, Weathering
R18MT	04	AAC	8,713	6/1/2005	47	0	100	0	L&T Cracking, Patching, Raveling, Weathering
T01MT	01	AAC	55,336	10/3/2017	84	0	100	0	L&T Cracking, Weathering
T02MT	01	AAC	31,922	6/1/2005	41	38	62	0	Alligator Cracking, L&T Cracking, Raveling, Weathering
T02MT	02	AAC	4,470	6/1/2005	43	31	69	0	Alligator Cracking, L&T Cracking, Raveling, Weathering

Table 1. 2025 pavement evaluation results (continued).

Branch	Section	Surface Type	Section Area (sf)	LCD	2025 PCI	% Distress Due to Load	% Distress Due to Climate/ Durability	% Distress Due to Other	Type of Distress
Т03МТ	01	AC	64,578	11/1/1994	56	0	100	0	L&T Cracking, Patching, Raveling, Weathering
Т03МТ	02	AC	2,514	11/1/1994	41	0	100	0	L&T Cracking, Patching, Raveling, Weathering
T03MT	03	AC	64,025	6/1/2006	71	25	72	3	Alligator Cracking, Depression, L&T Cracking, Raveling, Rutting, Swelling, Weathering
T04MT	01	AC	57,940	11/1/1994	43	35	65	0	Alligator Cracking, Depression, L&T Cracking, Patching, Raveling, Rutting, Weathering
TH01MT	01	PCC	40,202	5/2/2010	91	21	38	41	Corner Break, Joint Spalling, Joint Seal Damage, Large Patch, LTD Cracking, Small Patch
TH01MT	02	PCC	18,467	7/1/2012	86	73	11	16	Faulting, Joint Spalling, Joint Seal Damage, LTD Cracking
TH02MT	01	AC	24,701	1/1/1979	22	31	69	0	Alligator Cracking, Block Cracking, L&T Cracking, Patching, Raveling, Weathering

#### Table Notes:

- 1. See Figure 3 for the location of the branch and section.
- 2. Surface Type: AC = asphalt cement concrete; AAC = asphalt overlay on AC; PCC = portland cement concrete; APC = asphalt overlay on PCC.
- LCD = last construction date.
- 4. Distress due to load includes distress types that are attributed to a structural deficiency in the pavement, such as alligator cracking or rutting on asphalt-surfaced pavements or shattered slabs on PCC pavements.
- 5. Distress due to climate or durability includes distress types that are attributed to either the aging of the pavement and the effects of the environment (such as weathering, raveling, or block cracking on asphalt-surfaced pavements) or to a materials-related problem (such as durability cracking or alkali-silica reaction [ASR] on PCC pavements). If materials-related distresses were recorded during the inspection, further laboratory testing is required to definitively determine the type present.
- 6. Distress due to other refers to distress types that are not attributed to one factor but rather may be caused by a combination of factors.
- Distress types are defined by ASTM D5340. L&T cracking = longitudinal and transverse cracking; LTD cracking = longitudinal, transverse, and diagonal cracking; ASR = alkali-silica reaction.

Marshalltown Municipal Airport Pavement Management Report

#### **Inspection Comments**

Marshalltown Municipal Airport was inspected on March 11, 2025. There were 22 pavement sections defined during the inspection. Alkali-silica reaction (ASR) was recorded at this airport according to the PCI procedure. The ASR was recorded where evidence of a precipitate was observed within some of the cracking in the PCC surface. It should be noted that laboratory testing in the form of petrographic analysis is the only definitive way to validate the presence of ASR; however, the formation of a precipitate is evidence of a reaction consistent with this type of materials-related distress.

#### Runways

Runway 13/31 was defined by four sections. Section 01 had low- and medium-severity alligator cracking and raveling, all severities of longitudinal and transverse (L&T) cracking, and low-severity weathering identified during the inspection. Section 02 was in *Poor* condition with low-and medium-severity alligator cracking, medium- and high-severity L&T cracking, all severities of raveling, and low-severity weathering observed. Section 03 was also in *Poor* condition with medium-severity alligator cracking, all severities of L&T cracking, low-severity patching and raveling, and low- and medium-severity weathering recorded. Section 04 was in *Poor* condition due to low- and medium-severity L&T cracking and medium-severity alligator cracking, raveling, and weathering. On Runway 13/31, the low-severity L&T cracking was unsealed; the medium-severity L&T cracking was recorded where either crack sealant was unsatisfactory, unsealed crack widths exceeded 1/4 inch, or secondary cracking had developed; and the high-severity L&T cracking was recorded where crack widths were greater than 3 inches.

Runway 18/36 contained four sections. Section 01 contained low- and medium-severity alligator cracking, all severities of L&T cracking, low- and high-severity raveling, and low-severity weathering. Section 02 had the following distresses identified; low- and medium-severity alligator cracking and L&T cracking and low-severity patching, raveling, and weathering. Low-severity swelling and low- and medium-severity L&T cracking, raveling, and weathering were recorded in Section 03. Section 04 distresses consisted of low- and medium-severity L&T cracking and weathering and low-severity patching and raveling. Throughout Runway 18/36 the alligator cracking was identified both in the wheel path and on the edge of the pavement. The L&T cracking on was observed in the following conditions: the low-severity L&T cracking was unsealed; the medium-severity L&T cracking was due to either unsatisfactory crack sealant, unsealed crack widths that were greater than 1/4 inch, or the development of secondary cracking; and the high-severity L&T cracking was recorded where crack widths were greater than 3 inches.

#### **Taxiways**

Taxiway 01 consisted of one section that contained low- and medium-severity L&T cracking and low-severity weathering. The low-severity L&T cracking was unsealed, and the medium-severity L&T cracking was recorded where unsealed crack widths were greater than 1/4 inch.

Taxiway 02 was defined by two sections. Sections 01 and 02 were in similar condition with low-severity raveling and low- and medium-severity alligator cracking, L&T cracking, and weathering recorded. The alligator cracking was observed along the edge of the pavement. The low-severity L&T cracking was unsealed, while the medium-severity L&T cracking was recorded where either the crack sealant was unsatisfactory, unsealed crack widths exceeded 1/4 inch, or secondary cracking had developed.

Taxiway 03 was comprised of three sections. Section 01 contained all severities of L&T cracking, low-severity patching and weathering, and low- and medium-severity raveling. Low- and medium-severity L&T cracking, low-severity patching and raveling, and medium-severity

weathering were recorded in Section 02. Section 03 had areas of low-severity alligator cracking and rutting, all severities of L&T cracking, medium-severity raveling, and low- and medium-severity weathering identified during the inspection. An atypical area of low-severity swelling and depression was observed and recorded as an additional sample unit in accordance with ASTM D5340. Throughout Taxiway 03 the low-severity L&T cracking was both sealed and unsealed; the medium-severity L&T cracking was recorded where either the crack sealant was unsatisfactory, unsealed crack widths were greater than 1/4 inch, or secondary cracking had developed; and the high-severity L&T cracking was recorded in areas where secondary cracking was wider than 1 foot.

Taxiway 04 consisted of one section that contained low-severity alligator cracking, patching, and depression; medium- and high-severity L&T cracking; low- and high-severity raveling; low- and medium-severity rutting; and medium-severity weathering. The alligator cracking was observed along the edge of the pavement. The medium-severity L&T cracking was due to either unsatisfactory crack sealant, unsealed crack widths greater than 1/4 inch, or the development of secondary cracking. The high-severity L&T cracking was recorded in areas where secondary cracking was wider than 1 foot.

#### **Aprons**

Apron 01 was defined by one section. Low- and medium-severity ASR, low-severity faulting, high-severity joint seal damage, and medium-severity joint spalling and large patching were recorded in Section 01. An atypical area of all severities of shattered slab and low- and medium-severity ASR and longitudinal, transverse, and diagonal (LTD) cracking was observed and recorded as an additional sample unit in accordance with ASTM D5340.

Apron 02 contained two sections. Section 01 had the following distresses identified; low-severity ASR and faulting, medium-severity corner break and LTD cracking, high-severity corner spalling and joint seal damage, and shrinkage cracking. Section 02 was in *Poor* condition with low-severity depression; low- and medium-severity patching; and medium-severity alligator cracking, block cracking, raveling, and weathering observed.

Apron 03 consisted of one section that contained medium-severity joint seal damage throughout.

#### T-Hangars

T-hangar 01 was defined by two sections. Section 01 contained low- and medium-severity joint seal damage and medium-severity small patching. Atypical areas of low-severity corner break, low- and medium-severity LTD cracking, high-severity joint spalling, and medium- and high-severity large patching were observed and recorded as additional sample units in accordance with ASTM D5340. Section 02 had areas of low- and medium-severity LTD cracking and low-severity faulting, joint seal damage, and joint spalling.

T-hangar 02 contained one section in *Poor* condition. Distresses identified in Section 01 were all severities of L&T cracking; low-severity raveling; and medium-severity alligator cracking, block cracking, patching, and weathering. The low-severity L&T cracking was unsealed; the medium-severity L&T cracking and block cracking were recorded where unsealed crack widths were greater than 1/4 inch; and the high-severity L&T cracking was recorded where crack widths were greater than 3 inches.

#### PAVEMENT MAINTENANCE AND REHABILITATION PROGRAM

Using the information collected during the pavement inspection, the PAVER pavement management software was used to develop a 5-year M&R program for Marshalltown Municipal Airport. In addition, a 1-year plan for localized preventive maintenance (such as crack sealing and patching) was prepared.

#### **Analysis Parameters**

#### Critical PCIs

PAVER uses critical PCIs to determine whether localized preventive maintenance or major rehabilitation is the appropriate repair action. Above the critical PCI, localized preventive maintenance activities are recommended. Below the critical PCI, major rehabilitation actions, such as an overlay or reconstruction, are recommended. The lowa DOT set the critical PCIs at 65 for runways, 60 for taxiways, and 55 for aprons and T-hangars.

#### Localized Preventive Maintenance Policies and Unit Costs

Localized preventive maintenance policies were developed for asphalt-surfaced and PCC pavements. These policies, shown in Appendix E, identify the localized preventive maintenance actions that the Iowa DOT considered appropriate to correct the different distress types and severities. The Iowa DOT provided unit costs for each of the localized preventive maintenance actions included in these policies, and these costs are detailed in Appendix E. Please note that this information is of a general nature for the entire State. The localized preventive maintenance policies and unit costs may require adjustments to reflect specific conditions at Marshalltown Municipal Airport.

#### Major Rehabilitation Unit Costs

PAVER estimates the cost of major rehabilitation based on the predicted PCI of the pavement section. The lowa DOT provided the costs for major rehabilitation, and they are presented in Appendix E. If major rehabilitation is recommended in the 5-year program, further engineering investigation will be needed to identify the most appropriate rehabilitation action and to estimate the cost of such work more accurately.

#### **Budget and Inflation Rate**

An unlimited budget with a start date of July 1, 2025, and an inflation rate of 2.3 percent was used during the analysis.

#### **Analysis Approach**

The 5-year M&R program was prepared with the goal of maintaining the pavements above established critical PCIs. During this analysis, major rehabilitation was recommended for pavements in the year they dropped below their critical PCI. For the first year (2025) of the analysis only, a localized preventive maintenance plan was developed for those pavement sections that were above their critical PCI. If major rehabilitation was triggered for a section in 2026 or 2027, then localized preventive maintenance was not recommended for 2025. While localized preventive maintenance should be an annual undertaking at Marshalltown Municipal Airport, it is not possible to accurately predict the propagation of cracking and other distress types. Therefore, the airport should budget for maintenance every year and can use the 2025 localized preventive maintenance plan as a baseline for that work. As the pavements age, it can be assumed that the amount of localized preventive maintenance required will increase.

#### **Analysis Results**

A summary of the M&R program for Marshalltown Municipal Airport is presented in Table 2. Detailed information on the recommended localized preventive maintenance plan for 2025 is provided in Appendix F.

Table 2. 5-year M&R program under an unlimited funding analysis scenario.

		1		T	
Year	Branch	Section	Surface Type	Type of Repair	Estimated Cost
2025	A01MT	01	PCC	Preventive Maintenance	\$74,892
2025	A02MT	01	PCC	Preventive Maintenance	\$44,720
2025	A02MT	02	AAC	Major Rehabilitation	\$127,008
2025	A03MT	01	PCC	Preventive Maintenance	\$12,982
2025	R13MT	01	AAC	Major Rehabilitation	\$1,075,975
2025	R13MT	02	AAC	Major Rehabilitation	\$4,405,193
2025	R13MT	03	AAC	Major Rehabilitation	\$95,340
2025	R13MT	04	AAC	Major Rehabilitation	\$95,182
2025	R18MT	01	AAC	Major Rehabilitation	\$629,953
2025	R18MT	02	AAC	Major Rehabilitation	\$144,022
2025	R18MT	03	AAC	Major Rehabilitation	\$81,378
2025	R18MT	04	AAC	Major Rehabilitation	\$67,782
2025	T01MT	01	AAC	Preventive Maintenance	\$1,174
2025	T02MT	01	AAC	Major Rehabilitation	\$360,196
2025	T02MT	02	AAC	Major Rehabilitation	\$45,119
2025	T03MT	01	AC	Major Rehabilitation	\$344,851
2025	T03MT	02	AC	Major Rehabilitation	\$27,769
2025	T03MT	03	AC	Preventive Maintenance	\$3,935
2025	T04MT	01	AC	Major Rehabilitation	\$571,042
2025	TH01MT	01	PCC	Preventive Maintenance	\$6,549
2025	TH01MT	02	PCC	Preventive Maintenance	\$116
2025	TH02MT	01	AC	Major Rehabilitation	\$278,864

Total Estimated Cost: \$8,494,000

#### Table Notes:

- 1. See Figure 3 for the location of the branch and section.
- 2. Surface Type: AC = asphalt cement concrete; AAC = asphalt overlay on AC; PCC = portland cement concrete; APC = asphalt overlay on PCC.
- 3. Type of Repair: Major Rehabilitation, such as pavement reconstruction or an overlay; Localized Preventive Maintenance, such as crack sealing or patching.
- 4. The estimated costs provided are of a general nature for the entire State and may require adjustments to reflect specific conditions at Marshalltown Municipal Airport.

The recommendations made in this report are based on a broad network-level analysis and meant to provide Marshalltown Municipal Airport with an indication of the type of pavement-related work required during the next 5 years. Further engineering investigation may be necessary to identify which repair action is most appropriate. In addition, the cost estimates provided are based on overall unit costs for the entire State, and Marshalltown Municipal Airport should adjust the plan to reflect local costs.

Because an unlimited budget was used in the analysis, it is possible that the pavement repair program may need to be adjusted to consider economic or operational constraints. The identification of a project need does not necessarily mean that State or Federal funding will be available in the year it is indicated. It is important to remember that regardless of the recommendations presented within this report, Marshalltown Municipal Airport is responsible for repairing pavements where existing conditions pose a hazard to safe operations.

#### **General Maintenance Recommendations**

In addition to the specific maintenance actions presented in Appendix F, it is recommended that the following strategies be considered for prolonging pavement life:

- 1. Regularly inspect all safety areas of the airport and document all inspection activity. A sample form that can be used to perform these inspections is provided in Table 3 of this report.
- Provide a method of tracking all maintenance activities that occur because of these
  inspections. This documentation needs to be reported to the FAA and the Iowa DOT.
  This information is used to update the APMS records and is required to remain in
  compliance with Public Law 103-305 (see the next section of this report for further
  information on this law).
- 3. Conduct an aggressive campaign against weed growth through timely herbicide applications and mowing programs of the safety areas. Vegetation growth in pavement cracks is destructive and significantly increases the rate of pavement deterioration.
- 4. Implement a periodic crack and joint sealing program. Keeping water and debris out of the pavement system by sealing cracks and joints is a proven and cost-effective method for extending the life of the pavement system.
- 5. Ensure all edges of pavement maintain the required 1.5-inch lip. This enables the water to drain away from the pavement system.
- 6. Closely monitor the movement of heavy equipment (particularly farming, construction, mowing, and fueling equipment) to make sure it is only operating on pavements that are designed to accommodate heavy loads. Failure to restrict heavy equipment to appropriate areas may result in the premature failure of airport pavements.

#### FAA Requirements (Public Law 103-305)

Because Marshalltown Municipal Airport is in the National Plan of Integrated Airport Systems (NPIAS), the airport sponsor is required to keep the airport in a viable operating condition. This includes maintaining airport pavements in accordance with Public Law 103-305. Public Law 103-305 states that after January 1, 1995, NPIAS airport sponsors must provide assurances or certifications that an airport has implemented an effective airport pavement maintenance management system (PMMS) before the airport will be considered for Federal funding of pavement replacement or reconstruction projects. To be in full compliance with the Federal law, the PMMS must include the following components at minimum: pavement inventory, pavement inspections, record keeping, information retrieval, and program funding.

This report serves as a complete pavement inventory and detailed inspection. To remain in compliance with the law, Marshalltown Municipal Airport will also need to undertake monthly drive-by inspections of pavement conditions and track pavement-related maintenance activities.

FAA Advisory Circular 150/5380-7B provides detailed guidance pertaining to the requirements for an acceptable pavement management program. Appendix A of the FAA Advisory Circular 150/5380-7B outlines what needs to be included in a PMP to remain in compliance with this law

and Grant Assurance #11. The following is a copy of this appendix, along with instructions for supplementing this report so that all requirements are met. Note that the italicized text is a direct quotation from the FAA Advisory Circular.

#### FAA Advisory Circular 150/5830-7B, Appendix A. Pavement Management Program

**A-1.0.** An effective PMP specifies the procedures to follow to assure that proper preventative and remedial pavement maintenance is performed. The program should identify funding or anticipated funding and other resources available to provide remedial and preventive maintenance activities. An airport sponsor may use any format deemed appropriate, but the program needs to, as a minimum, include the following:

#### A-1.1. Pavement Inventory. The following must be depicted:

a. Identification of all runways, taxiways, and aprons with pavement broken down into sections each having similar properties.

The network definition map provided in Figure 3 of this report shows the location of all runways, taxiways, aprons, and T-hangars at Marshalltown Municipal Airport. If any new pavements are constructed or any pavement areas are permanently closed, this map must be updated. Project plans should be submitted to the lowa DOT after project completion.

b. Dimensions of pavement sections.

The dimensions of all runways, taxiways, aprons, and T-hangars are stored in the PAVER database. Appendix C provides information on length, width, and area. In addition, the network definition map provided in Figure 3 is drawn to scale. Any changes to pavement dimensions must be recorded.

c. Type of pavement surface.

The type of pavement for each section at Marshalltown Municipal Airport is listed in Table 1 of this report and is also stored in the PAVER database. Any changes to the pavement type (through an overlay or reconstruction) must be recorded.

d. Year of construction and/or most recent major rehabilitation.

Dates for pavement construction, rehabilitation, or reconstruction must be recorded. The current pavement history for Marshalltown Municipal Airport is provided in Appendix D of this report.

e. Whether AIP [Airport Improvement Program] or PFC [Passenger Facility Charge] funds were used to construct, reconstruct, or repair the pavement.

Funding sources for all pavement projects should be recorded.

**A-1.2. PMP Pavement Inspection Schedule.** Airports must perform a detailed inspection of airfield pavements at least once a year for the PMP. If a pavement condition index (PCI) survey is performed, as set forth in ASTM D5340, "Standard Test Method for Airport Pavement Condition Index Surveys," the frequency of the detailed inspection by PCI surveys may be extended to three years. Less comprehensive routine daily, weekly, and monthly maintenance inspections required for operations should be addressed.

This report consists of a detailed inspection that will extend the inspection period to 3 years. It is the airport sponsor's responsibility to perform monthly drive-by inspections. A sample pavement inspection report form is provided in Table 3 of this report.

**A-1.3. Record Keeping.** The airport must record and keep on file complete information about all detailed inspections and maintenance performed until the pavement system is replaced. The types of distress, their locations, and remedial action, scheduled or performed, must be documented. The minimum information recorded includes:

- a. Inspection date
- b. Location
- c. Distress types
- d. Maintenance scheduled or performed

Items A through C are satisfied by this inspection report. Item D is the responsibility of the airport, as is record keeping of the monthly drive-by inspections.

**A-1.4.** Information Retrieval. An airport sponsor may use any form of record keeping it deems appropriate so long as the information and records from the pavement survey can generate required reports, as necessary.

Keep this report, monthly drive-by inspection reports, construction updates, and all records of maintenance activities in a readily accessible location so that they can be easily retrieved as requested by the FAA.

Table 3. Pavement inspection report.

Inspected By:		
Date Inspected:		

Branch	Section	Distress Description/Dimensions/Severity/ Recommended Action	Description of Repair	Date Performed	Cost	Funding Source
A01MT	01					
A02MT	01					
A02MT	02					
A03MT	01					
R13MT	01					
R13MT	02					

Table 3. Pavement inspection report (continued).

Inspected By:	
Date Inspected:	

Branch	Section	Distress Description/Dimensions/Severity/ Recommended Action	Description of Repair	Date Performed	Cost	Funding Source
R13MT	03					
R13MT	04					
R18MT	01					
R18MT	02					
R18MT	03					
R18MT	04					

Table 3. Pavement inspection report (continued).

Inspected By:		
Date Inspected:		

Branch	Section	Distress Description/Dimensions/Severity/ Recommended Action	Description of Repair	Date Performed	Cost	Funding Source
T01MT	01					
T02MT	01					
T02MT	02					
тозмт	01					
T03MT	02					
ТОЗМТ	03					

Pavement Maintenance and Rehabilitation Program

Branch	Section	Distress Description/Dimensions/Severity/ Recommended Action	Description of Repair	Date Performed	Cost	Funding Source
T04MT	01					
TH01MT	01					
TH01MT	02					
TH02MT	01					

Table Note: See Figure 3 for the location of the branch and section.

Summary August 2025

#### **SUMMARY**

This report documents the results of the pavement evaluation conducted at Marshalltown Municipal Airport. A visual inspection of the pavements in 2025 found that the overall condition of the pavement network is a PCI of 54. A 5-year pavement repair program, shown in Table 2, was generated for Marshalltown Municipal Airport, which revealed that approximately \$8,494,000 needs to be expended on M&R. Marshalltown Municipal Airport should utilize these study results to assist in planning for future maintenance needs as part of the airport CIP planning process.

References August 2025

#### **REFERENCES**

ASTM International (ASTM). Standard Test Method for Airport Pavement Condition Index Surveys. D5340. ASTM International, West Conshohocken, PA.

Federal Aviation Administration Authorization Act of 1994. Public Law No. 103-305. Vol 108 Stat. 1569. 1994.

Federal Aviation Administration (FAA). <u>Guidelines and Procedures for Maintenance of Airport Pavements</u>. Advisory Circular 150/5380-6C. Federal Aviation Administration, Washington, DC.

Federal Aviation Administration (FAA). <u>Airport Pavement Management Program (PMP)</u>. Advisory Circular 150/5380-7B. Federal Aviation Administration, Washington, DC.

US Army Corps of Engineers (USACE). 2009. <u>Asphalt Surfaced Airfields</u>. PAVER Distress Identification Manual. USACE, Washington, DC.

US Army Corps of Engineers (USACE). 2009. <u>Concrete Surfaced Airfields</u>. PAVER Distress Identification Manual. USACE, Washington, DC.

US Army Corps of Engineers (USACE). 2021. PAVER. (Software). US Army Corps of Engineers, Transportation Systems Center, Omaha, NE.

# APPENDIX A CAUSE OF DISTRESS TABLES

Cause of Distress Tables August 2025

Table A-1. Cause of pavement distress, asphalt-surfaced pavements (USACE 2009a).

Distress Type	Probable Cause of Distress
Alligator Cracking	Fatigue failure of the asphalt surface under repeated traffic loading.
Bleeding	Excessive amounts of asphalt cement or tars in the mix or low air void content, or both.
Block Cracking	Shrinkage of the asphalt and daily temperature cycling; it is not load associated.
Corrugation	Traffic action combined with an unstable pavement layer.
Depression	Settlement of the foundation soil or can be "built up" during construction.
Jet-Blast Erosion	Bituminous binder has been burned or carbonized.
Joint Reflection Cracking	Movement of the concrete slab beneath the asphalt surface due to thermal and moisture changes.
L&T Cracking	Cracks may be caused by (1) a poorly constructed paving lane joint, (2) shrinkage of the asphalt surface due to low temperatures or hardening of the asphalt, or (3) reflective cracking caused by cracks in an underlying PCC slab.
Oil Spillage	Deterioration or softening of the pavement surface caused by the spilling of oil, fuel, or other solvents.
Patching	N/A
Polished Aggregate	Repeated traffic applications.
Raveling	Asphalt binder may have hardened significantly, causing coarse aggregate pieces to dislodge.
Rutting	Usually caused by consolidation or lateral movement of the materials due to traffic loads.
Shoving	Where PCC pavements adjoin flexible pavements, PCC "growth" may shove the asphalt pavement.
Slippage Cracking	Low-strength surface mix or poor bond between the surface and the next layer of the pavement structure.
Swelling	Usually caused by frost action or by swelling soil.
Weathering	Asphalt binder and/or fine aggregate may wear away as the pavement ages and hardens.

Cause of Distress Tables August 2025

Table A-2. Cause of pavement distress, PCC pavements (USACE 2009b).

Distress Type	Probable Cause of Distress
ASR	Chemical reaction of alkalis in the cement with certain reactive silica minerals. ASR may be accelerated by the use of chemical pavement deicers.
Blowup	Incompressible materials in the joints.
Corner Break	Load repetition combined with loss of support and curling stresses.
Durability Cracking	Concrete's inability to withstand environmental factors, such as freeze-thaw cycles.
Faulting	Upheaval or consolidation.
Joint Seal Damage	Stripping of joint sealant, extrusion of joint sealant, weed growth, hardening of the filler (oxidation), loss of bond to the slab edges, or absence of sealant in the joint.
LTD Cracking	Combination of load repetition, curling stresses, and shrinkage stresses.
Patching (Small and Large)	N/A
Popouts	Freeze-thaw action in combination with expansive aggregates.
Pumping	Poor drainage, poor joint sealant.
Scaling	Over finishing of concrete, deicing salts, improper construction, freeze-thaw cycles, and poor aggregate.
Shattered Slab	Load repetition.
Shrinkage Cracking	Setting and curing of the concrete.
Spalling (Joint and Corner)	Excessive stresses at the joint caused by infiltration of incompressible materials or traffic loads; weak concrete at the joint combined with traffic loads.

# APPENDIX B INSPECTION PHOTOGRAPHS

A01MT-01. Overview.



A01MT-01. ASR (Sample Unit No. 04).



A01MT-01. ASR (Sample Unit No. 11).



A01MT-01. Joint Seal Damage (Sample Unit No. 04).



A01MT-01. Shattered Slab (Additional Sample Unit No. 23).



A02MT-01. Overview.



A02MT-01. Corner Spalling (Sample Unit No. 18).



A02MT-02. Overview.



A02MT-02. Alligator Cracking (Sample Unit No. 02).



A02MT-02. Patching (Sample Unit No. 02).



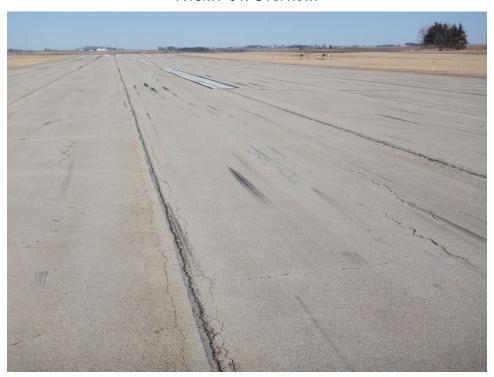
A03MT-01. Overview.



A03MT-01. Joint Seal Damage (Sample Unit No. 04).



R13MT-01. Overview.



R13MT-01. L&T Cracking (Sample Unit No. 19) (1).



R13MT-01. L&T Cracking (Sample Unit No. 19) (2).



R13MT-02. Overview.



R13MT-02. Alligator Cracking (Sample Unit No. 75).



R13MT-02. L&T Cracking (Sample Unit No. 15).



R13MT-02. L&T Cracking (Sample Unit No. 65).



R13MT-02. L&T Cracking (Sample Unit No. 75).



R13MT-03. Overview.



R13MT-03. Patching (Sample Unit No. 01).



R13MT-03. Raveling (Sample Unit No. 01).



R13MT-04. Overview.



R13MT-04. Alligator Cracking (Sample Unit No. 02).



R18MT-01. Overview.



R18MT-01. L&T Cracking (Sample Unit No. 10).



R18MT-01. L&T Cracking (Sample Unit No. 18).



R18MT-02. Overview.



R18MT-02. L&T Cracking (Sample Unit No. 03).



R18MT-02. Patching (Sample Unit No. 03).



R18MT-03. Overview.



R18MT-03. L&T Cracking (Sample Unit No. 02).



R18MT-04. Overview.



R18MT-04. L&T Cracking (Sample Unit No. 02).



T01MT-01. Overview.



T01MT-01. L&T Cracking (Sample Unit No. 02).



T01MT-01. Weathering (Sample Unit No. 08).



T02MT-01. Overview.



T02MT-01. Alligator Cracking (Sample Unit No. 05).



T02MT-02. Overview.



T02MT-02. L&T Cracking (Sample Unit No. 01).



T03MT-01. Overview.



T03MT-01. L&T Cracking (Sample Unit No. 03).



T03MT-01. L&T Cracking (Sample Unit No. 10).



T03MT-02. Overview.



T03MT-02. L&T Cracking (Sample Unit No. 01).



T03MT-03. Overview.



T03MT-03. Depression (Additional Sample Unit No. 05).



T03MT-03. L&T Cracking (Sample Unit No. 04).



T03MT-03. L&T Cracking (Sample Unit No. 08).



T03MT-03. Rutting (Additional Sample Unit No. 05).



T04MT-01. Overview.



T04MT-01. Alligator Cracking (Sample Unit No. 05) (1).



T04MT-01. Alligator Cracking (Sample Unit No. 05) (2).



T04MT-01. L&T Cracking (Sample Unit No. 03).



T04MT-01. Patching (Sample Unit No. 03).



T04MT-01. Patching (Sample Unit No. 05).



TH01MT-01. Overview.



TH01MT-01. Joint Spalling (Additional Sample Unit No. 04).



TH01MT-01. LTD Cracking (Additional Sample Unit No. 04).



TH01MT-01. LTD Cracking (Additional Sample Unit No. 07).



TH01MT-01. Large Patching (Additional Sample Unit No. 07).



TH01MT-01. Small Patching (Sample Unit No. 11).



TH01MT-02. Overview.



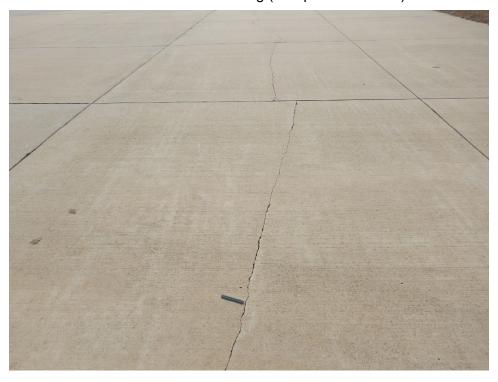
TH01MT-02. Joint Seal Damage (Sample Unit No. 03).



TH01MT-02. LTD Cracking (Sample Unit No. 02).



TH01MT-02. LTD Cracking (Sample Unit No. 05).



TH02MT-01. Overview.



TH02MT-01. Alligator Cracking (Sample Unit No. 01).



TH02MT-01. Block Cracking (Sample Unit No. 01).



## APPENDIX C INSPECTION REPORT

## **RE-INSPECTION REPORT** MARSHALLTOWN MUNICIPAL AIRPORT

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW			Page 1
	Branch - Sect	ion ID: A01MT - 001	
Branch Name: APRON 01			Use: APRON
LCD: 11/1/1994 Surface Type: PCC Rank: P Section Area (sf): 80,617.00 Length (ft): 340.00 Width (ft): 228.00 From: TAXIWAY 02 To: APRON 02		PCI Family: IowaPCCAP_NC_CommEnhand	ced
Slabs: 555 Slab Length (ft): 12.00 Slab Width (ft): 12.10 Joint Length (ft): 12,789.95		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 75 Total Samples: 25 Surveyed: 8		Inspection Comments:	
Sample Number: 04			
Sample Type: R Sample PCI: 73 Sample Area (Slabs): 24.00 65 JT SEAL DMG 74 JOINT SPALL 76 ASR	H M L	Sample Comments:  24.00 Slabs 1.00 Slabs 3.00 Slabs	
76 ASR	M	1.00 Slabs	
Sample Number: 06  Sample Type: R Sample PCI: 78 Sample Area (Slabs): 24.00  65 JT SEAL DMG 67 LARGE PATCH 71 FAULTING	H M L	Sample Comments:  24.00 Slabs 1.00 Slabs 2.00 Slabs	
Sample Number: 09			
Sample Type: R Sample PCI: 73 Sample Area (Slabs): 24.00		Sample Comments:	
65 JT SEAL DMG 71 FAULTING 76 ASR 76 ASR	H L L M	24.00 Slabs 1.00 Slabs 2.00 Slabs 1.00 Slabs	
Sample Number: 11			
Sample Type: R Sample PCI: 76 Sample Area (Slabs): 16.00		Sample Comments:	

Sample Area (Slabs): 16.00

16.00 Slabs 65 JT SEAL DMG Н 1.00 Slabs 71 FAULTING 76 ASR L 4.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025 Network ID: MIW Page 2 Sample Number: 14 Sample Type: R Sample Comments: Sample PCI: 83 Sample Area (Slabs): 24.00 65 JT SEAL DMG 24.00 Slabs Н 76 ASR L 3.00 Slabs Sample Number: 16 Sample Type: R Sample Comments: Sample PCI: 74 Sample Area (Slabs): 24.00 65 JT SEAL DMG Н 24.00 Slabs 71 FAULTING L 1.00 Slabs

L

9.00 Slabs

Sample Number: 19

76 ASR

Sample Type: R Sample Comments:

Sample PCI: 83

Sample Area (Slabs): 24.00

65 JT SEAL DMG H 24.00 Slabs 76 ASR L 2.00 Slabs

Sample Number: 23

Sample Type: A Sample Comments:

Sample PCI: 24

Sample Area (Slabs): 21.00

63 LINEAR CR	L	1.00 Slabs
63 LINEAR CR	M	1.00 Slabs
65 JT SEAL DMG	Н	21.00 Slabs
71 FAULTING	L	5.00 Slabs
72 SHAT. SLAB	Н	2.00 Slabs
72 SHAT. SLAB	L	1.00 Slabs
72 SHAT. SLAB	M	2.00 Slabs
74 JOINT SPALL	M	1.00 Slabs
76 ASR	L	1.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025

1 dvomont Batabass. If t 202 1		9.	511014to Bato. 0/11/202
Network ID: MIW			Page
	Branch - Section	on ID: A02MT - 001	
Branch Name: APRON 02			Use: APROI
LCD: 6/1/2002 Surface Type: PCC Rank: P Section Area (sf): 81,456.00 Length (ft): 315.00 Width (ft): 252.00 From: . To: .		PCI Family: IowaPCCAP_NC_CommEnhanced	
Slabs: 485 Slab Length (ft): 12.00 Slab Width (ft): 14.00 Joint Length (ft): 12,024.46		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 76 Total Samples: 25 Surveyed: 7		Inspection Comments:	
Sample Number: 02			
Sample Type: R Sample PCI: 77 Sample Area (Slabs): 18.00		Sample Comments:	
65 JT SEAL DMG 71 FAULTING	H L	18.00 Slabs 4.00 Slabs	
Sample Number: 05			
Sample Type: R Sample PCI: 77 Sample Area (Slabs): 18.00		Sample Comments:	
65 JT SEAL DMG 71 FAULTING	H L	18.00 Slabs 4.00 Slabs	
Sample Number: 08			
Sample Type: R Sample PCI: 88 Sample Area (Slabs): 18.00 65 JT SEAL DMG	н	Sample Comments:  18.00 Slabs	
Sample Number: 10		10.00 01450	
Sample Type: R Sample PCI: 46 Sample Area (Slabs): 18.00		Sample Comments:	
62 CORNER BREAK 63 LINEAR CR 65 JT SEAL DMG 71 FAULTING 76 ASR	M M H L	2.00 Slabs 2.00 Slabs 18.00 Slabs 7.00 Slabs 1.00 Slabs	
Sample Number: 13			
Sample Type: R		Sample Comments:	

Sample Type: R Sample Comments:

Sample PCI: 82

Sample Area (Slabs): 18.00

65 JT SEAL DMG Н 18.00 Slabs 73 SHRINKAGE CR Ν 1.00 Slabs 76 ASR 1.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 4

Sample Number: 18

Sample Type: R Sample Comments:

Sample PCI: 78

Sample Area (Slabs): 18.00

 65 JT SEAL DMG
 H
 18.00 Slabs

 75 CORNER SPALL
 H
 1.00 Slabs

 76 ASR
 L
 2.00 Slabs

Sample Number: 23

Sample Type: R Sample Comments:

Sample PCI: 88

Sample Area (Slabs): 15.00

65 JT SEAL DMG H 15.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 5

Branch	- Section	ID:	Δ02MT	- 002
Dianti	- 36661011	ID.	AUZIVII	- 002

PCI Family: IowaAACAP Northern

Branch Name: APRON 02 Use: APRON

LCD: 3/1/1994

Surface Type: AAC

Rank: P

Section Area (sf): 11,250.00

Length (ft): 135.00 Width (ft): 85.00 From: SEE MAP To: SEE MAP

Slabs: Section Comments:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025 Inspection Comments:

PCI: 25 Total Samples: 2 Surveyed: 2

Sample Number: 01

Sample Type: R Sample Comments:

Sample PCI: 29

Sample Area (SF): 6,135.00

41 ALLIGATOR CR	M	100.00 SF
43 BLOCK CR	M	5,535.00 SF
45 DEPRESSION	L	40.00 SF
50 PATCHING	L	500.00 SF
52 RAVELING	M	400.00 SF
57 WEATHERING	M	5.235.00 SF

Sample Number: 02

Sample Type: R Sample Comments:

Sample PCI: 20

Sample Area (SF): 5,115.00

41 ALLIGATOR CR	M	100.00 SF
43 BLOCK CR	M	3,715.00 SF
50 PATCHING	M	1,200.00 SF
52 RAVELING	M	400.00 SF
57 WEATHERING	M	3,515.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 6

Branch - Section ID: A03MT - 001

Inspection Comments:

Sample Comments:

Sample Comments:

Sample Comments:

PCI Family: IowaPCCAP NC CommEnhanced

Use: APRON Branch Name: APRON 03

LCD: 7/1/2012 Surface Type: PCC

Rank: P

Section Area (sf): 22,411.00

Length (ft): 150.00 Width (ft): 150.00 From: SEE MAP To: SEE MAP

Slabs: 203 Section Comments:

Slab Length (ft): 10.50 Slab Width (ft): 10.50 Joint Length (ft): 3,969.95

Last Insp Date: 3/11/2025

PCI: 93

Total Samples: 10 Surveyed: 6

Sample Number: 02

Sample Type: R Sample PCI: 93

Sample Area (Slabs): 20.00

65 JT SEAL DMG M 20.00 Slabs

Sample Number: 04

Sample Type: R

Sample PCI: 93

Sample Area (Slabs): 25.00

25.00 Slabs 65 JT SEAL DMG М

Sample Number: 06

Sample Type: R

Sample PCI: 93

Sample Area (Slabs): 20.00

65 JT SEAL DMG Μ 20.00 Slabs

Sample Number: 07

Sample Comments: Sample Type: R

Sample PCI: 93

Sample Area (Slabs): 25.00

65 JT SEAL DMG Μ 25.00 Slabs

Sample Number: 09

Sample Type: R Sample Comments:

Sample PCI: 93

Sample Area (Slabs): 25.00

65 JT SEAL DMG Μ 25.00 Slabs

Sample Number: 10

Sample Type: R Sample Comments:

Sample PCI: 93

Sample Area (Slabs): 28.00

65 JT SEAL DMG 28.00 Slabs Μ

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 7

Network ID: MIW			Page
	Branch - Section	on ID: R13MT - 001	
Branch Name: RUNWAY 13/31			Use: RUNWA
LCD: 6/2/2005 Surface Type: AAC Rank: P Section Area (sf): 112,500.00 Length (ft): 1,125.00 Width (ft): 100.00 From: RUNWAY END 13 To: RUNWAY SECT 02		PCI Family: IowaAACRW_NC_En	nhanced
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 44 Total Samples: 23 Surveyed: 6		Inspection Comments:	
Sample Number: 01			
Sample Type: R Sample PCI: 50 Sample Area (SF): 5,000.00		Sample Comments:	
48 L & T CR 48 L & T CR 52 RAVELING 52 RAVELING 57 WEATHERING	L M L M L	422.00 FT 346.00 FT 500.00 SF 30.00 SF 4,970.00 SF	lu fs w 2ndy
Sample Number: 03			
Sample Type: R Sample PCI: 45 Sample Area (SF): 5,000.00		Sample Comments:	
41 ALLIGATOR CR 48 L & T CR 52 RAVELING 52 RAVELING 57 WEATHERING	L L M L L	100.00 SF 413.00 FT 14.00 FT 325.00 FT 2.00 SF 1,000.00 SF 4,998.00 SF	lu fs 2ndy w
Sample Number: 10			
Sample Type: R Sample PCI: 39 Sample Area (SF): 5,000.00		Sample Comments:	
41 ALLIGATOR CR 41 ALLIGATOR CR 48 L & T CR 48 L & T CR	L M L M	5.00 SF 5.00 SF 58.00 FT 601.00 FT	Edge lu fs w 2ndy

500.00 SF

5,000.00 SF

52 RAVELING

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW				Page 8
Sample Number: 13				
Sample Type: R Sample PCI: 48 Sample Area (SF): 5,000.00	Sampl	e Comments:		
41 ALLIGATOR CR	M	45.00 SF		
48 L & T CR	L	28.00 FT	lu	
48 L & T CR	M	447.00 FT	w fs 2ndy	
52 RAVELING	L	1,000.00 SF		
57 WEATHERING	L	5,000.00 SF		
Sample Number: 16				
Sample Type: R Sample PCI: 41 Sample Area (SF): 5,000.00	Sampl	e Comments:		
41 ALLIGATOR CR	M	5.00 SF		
48 L & T CR	H	48.00 FT	3in	
48 L & T CR	Ĺ	28.00 FT	lu	
48 L & T CR	M	587.00 FT	fs w 2ndy	
52 RAVELING	L	500.00 SF	,	
57 WEATHERING	L	5,000.00 SF		
Sample Number: 19				
Sample Type: R Sample PCI: 42 Sample Area (SF): 5,000.00	Sampl	e Comments:		
41 ALLIGATOR CR	M	25.00 SE		

41 ALLIGATOR CR	M	25.00 SF	
48 L & T CR	Н	72.00 FT	3in
48 L & T CR	L,	46.00 FT	lu
48 L & T CR	M	423.00 FT	fs w 2ndy
52 RAVELING	L,	500.00 SF	
57 WEATHERING	L	5,000.00 SF	

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW

Network ID: MIW				Page 9
	Branch - Section	n ID: R13MT - 002		
Branch Name: RUNWAY 13/31				Use: RUNWAY
LCD: 6/2/2005 Surface Type: AAC Rank: P Section Area (sf): 390,200.00 Length (ft): 3,902.00 Width (ft): 100.00 From: RUNWAY SECT 01 To: RUNWAY END 31	P	CI Family: lowaAACRW_NC_Er	nhanced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	S	ection Comments:		
Last Insp Date: 3/11/2025 PCI: 40 Total Samples: 78 Surveyed: 8	Ir	spection Comments:		
Sample Number: 05				
Sample Type: R Sample PCI: 45 Sample Area (SF): 5,000.00	S	ample Comments:		
41 ALLIGATOR CR 48 L & T CR 48 L & T CR 52 RAVELING 57 WEATHERING	M H M L L	32.00 SF 17.00 FT 454.00 FT 500.00 SF 5,000.00 SF	3in fs w 2ndy	
Sample Number: 15				
Sample Type: R Sample PCI: 35 Sample Area (SF): 5,000.00	S	ample Comments:		
41 ALLIGATOR CR 48 L & T CR 52 RAVELING 52 RAVELING 57 WEATHERING	M M L M L	40.00 SF 796.00 FT 500.00 SF 230.00 SF 4,770.00 SF	fs w 2ndy	
Sample Number: 25				
Sample Type: R Sample PCI: 38 Sample Area (SF): 5,000.00	S	ample Comments:		
41 ALLIGATOR CR 41 ALLIGATOR CR 48 L & T CR	L M M	51.00 SF 60.00 SF 503.00 FT	fs w 2ndy	

500.00 SF 5,000.00 SF

**52 RAVELING** 

Pavement Database: IA 2024

Network ID: MIW

Sample Number: 35

Sample Type: R

Sample Comments:

Generate Date: 8/11/2025

Page 10

Sample PCI: 38				
Sample Area (SF):	5,000.00			
41 ALLIGATOR	R CR	L	32.00 SF	
41 ALLIGATOF	R CR	M	80.00 SF	
48 L & T CR		M	533.00 FT	fs 2ndy w
52 RAVELING		Н	5.00 SF	
52 RAVELING		L	500.00 SF	

L

L

4,995.00 SF

4,970.00 SF

Sample Comments:

Sample Comments:

Sample Comments:

Sample Comments:

## Sample Number: 45 Sample Type: R

**57 WEATHERING** 

57 WEATHERING

1 71	· ·		
Sample PCI: 41			
Sample Area (SF): 5,000.00			
41 ALLIGATOR CR	L	15.00 SF	
41 ALLIGATOR CR	M	60.00 SF	
48 L & T CR	Н	10.00 FT	3 in
48 L & T CR	M	380.00 FT	fs w 2ndy
52 RAVELING	L	500.00 SF	
52 RAVELING	M	30.00 SF	

## Sample Number: 55 Sample Type: R

Sample PCI: 40

Sample Area (SF): 5,000.00			
41 ALLIGATOR CR	L	21.00 SF	
41 ALLIGATOR CR	M	60.00 SF	
48 L & T CR	M	517.00 FT	fs w 2ndy
52 RAVELING	L	500.00 SF	
52 RAVELING	M	35.00 SF	
57 WEATHERING	L	4,965.00 SF	

## Sample Number: 65 Sample Type: R

Sample PCI: 42

Sample Area (SF):	5,000.00			
41 ALLIGATO	RCR	L	35.00 SF	
41 ALLIGATO	R CR	M	10.00 SF	
48 L & T CR		Н	5.00 FT	3 in
48 L & T CR		M	410.00 FT	2ndy fs w
52 RAVELING		L	500.00 SF	
57 WEATHER	ING	L	5,000.00 SF	

## Sample Number: 75 Sample Type: R

Sample PCI: 37			
Sample Area (SF): 5,000.00			
41 ALLIGATOR CR	M	40.00 SF	Edge
41 ALLIGATOR CR	M	225.00 SF	
48 L & T CR	M	350.00 FT	fs w 2ndy
52 RAVELING	L	500.00 SF	
57 WEATHERING	L	4,300.00 SF	less paint

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 11

Branch .	Section	ID: R13MT	_ 003
Dianti.	. aecnon	ID. RIJIVII	- 003

Branch Name: RUNWAY 13/31 Use: RUNWAY

LCD: 6/1/2005

Surface Type: AAC

Rank: P

Section Area (sf): 8,445.00 Length (ft): 100.00 Width (ft): 86.71

From: TURNAROUND 13 END

To: .

Slabs: Section Comments:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 33 Total Samples: 2 Surveyed: 2 Inspection Comments:

PCI Family: IowaAACRW NC Enhanced

lu At break w 2ndy fs

#### Sample Number: 01

Sample Type: R Sample Comments:

Sample PCI: 34

Sample Area (SF): 5,000.00

41 ALLIGATOR CR	М	30.00 SF
48 L & T CR	Н	45.00 FT
48 L & T CR	L	88.00 FT
48 L & T CR	M	50.00 FT
48 L & T CR	M	348.00 FT
50 PATCHING	L	200.00 SF
52 RAVELING	L	2,500.00 SF
57 WEATHERING	L	3,800.00 SF
57 WEATHERING	M	1,000.00 SF

#### Sample Number: 02

Sample Type: R Sample Comments:

Sample PCI: 32

Sample Area (SF): 3,445.00

41 ALLIGATOR CR	M	25.00 SF	
48 L & T CR	L	289.00 FT	lu
48 L & T CR	M	368.00 FT	fs w 2ndy
50 PATCHING	L	100.00 SF	
52 RAVELING	L	1,723.00 SF	
57 WEATHERING	L	2,345.00 SF	
57 WEATHERING	M	1,000.00 SF	

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 12

Branch	- Section	ID: R13MT	_ 004
Dianti	- 3661011	ID. KIJIVII	- vv+

Branch Name: RUNWAY 13/31 Use: RUNWAY

LCD: 6/1/2005 Surface Type: AAC

Rank: P

Section Area (sf): 8,431.00

Length (ft): 80.00 Width (ft): 86.71

From: TURNAROUND 31 END

To: .

Slabs: Section Comments:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 38 Total Samples: 2 Surveyed: 2

Inspection Comments:

PCI Family: IowaAACRW NC Enhanced

lu

Sample Number: 01

Sample Type: R Sample Comments:

Sample PCI: 42

Sample Area (SF): 4,186.00

> 55.00 SF 41 ALLIGATOR CR Μ 48 L & T CR L 100.00 FT 48 L & T CR Μ 267.00 FT 52 RAVELING Μ 200.00 SF 57 WEATHERING М 3,986.00 SF

Sample Number: 02

Sample Type: R Sample Comments:

Sample PCI: 33

Sample Area (SF): 4,245.00

> 41 ALLIGATOR CR Μ 42.00 SF at break 41 ALLIGATOR CR 170.00 SF М 48 L & T CR 210.00 FT L 48 L & T CR М 50.00 FT fs 2ndy 200.00 SF 52 RAVELING Μ 57 WEATHERING М 4,045.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 13

Network ID: MIW				Page 13
	Branch - Section ID: R	18MT - 001		
Branch Name: RUNWAY 18/36				Use: RUNWAY
LCD: 6/1/1997 Surface Type: AAC Rank: S Section Area (sf): 95,600.00 Length (ft): 1,912.00 Width (ft): 50.00 From: RUNWAY END 36 To: SECTION R18MT-03	PCI Famil	y: lowaAACRW_NC_En	hanced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	Section Co	omments:		
Last Insp Date: 3/11/2025 PCI: 49 Total Samples: 19 Surveyed: 5	Inspection	Comments:		
Sample Number: 02				
Sample Type: R Sample PCI: 49 Sample Area (SF): 5,000.00	Sample Co	omments:		
48 L & T CR 48 L & T CR 52 RAVELING 57 WEATHERING	L M L L	72.00 FT 582.00 FT 2,500.00 SF 5,000.00 SF	lu fs w	
Sample Number: 05				
Sample Type: R Sample PCI: 49 Sample Area (SF): 5,000.00	Sample Co	omments:		
48 L & T CR 48 L & T CR 52 RAVELING 57 WEATHERING	L M L L	350.00 FT 483.00 FT 2,500.00 SF 5,000.00 SF	lu fs w 2ndy	
Sample Number: 10				
Sample Type: R Sample PCI: 51 Sample Area (SF): 5,000.00	Sample Co	omments:		
41 ALLIGATOR CR 41 ALLIGATOR CR 41 ALLIGATOR CR 48 L & T CR 48 L & T CR	L M M H L	20.00 SF 5.00 SF 8.00 SF 37.00 FT 10.00 FT	Edge Edge 3 in lu	
40 L & 1 OIV	L	10.00 F1	iu	

214.00 FT

500.00 SF

5,000.00 SF

fs w

48 L & T CR

52 RAVELING

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 14

4,999.00 SF

Sample Type: R Sample Comments:

Sample PCI: 50

Sample Area (SF): 5,000.00

 48 L & T CR
 L
 76.00 FT
 lu

 48 L & T CR
 M
 391.00 FT
 fs w 2ndy

 52 RAVELING
 H
 1.00 SF

 52 RAVELING
 L
 1,000.00 SF

57 WEATHERING L

#### Sample Number: 18

Sample Type: R Sample Comments:

Sample PCI: 46

Sample Area (SF): 5,000.00

41 ALLIGATOR CR Μ 25.00 SF 48 L & T CR Н 45.00 FT 3 in; 1 ft 48 L & T CR L 26.00 FT 48 L & T CR fs w 2ndy Μ 320.00 FT 52 RAVELING L 2,500.00 SF 57 WEATHERING L 5,000.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 15

Network ID: MIW			Page 1
	Branch - Sect	ion ID: R18MT - 002	
Branch Name: RUNWAY 18/36			Use: RUNWA
LCD: 6/1/1997 Surface Type: AAC Rank: S Section Area (sf): 26,970.00 Length (ft): 466.00 Width (ft): 50.00 From: R18MT-04 To: RUNWAY END 18		PCI Family: lowaAACRW_NC_E	nhanced
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 53 Total Samples: 5 Surveyed: 4		Inspection Comments:	
Sample Number: 01			
Sample Type: R Sample PCI: 51 Sample Area (SF): 6,500.00		Sample Comments:	
41 ALLIGATOR CR 48 L & T CR 48 L & T CR 50 PATCHING 52 RAVELING 57 WEATHERING	L M L L	25.00 SF 19.00 FT 389.00 FT 525.00 SF 1,300.00 SF 5,975.00 SF	lu fs 2ndy w
Sample Number: 02			
Sample Type: R Sample PCI: 52 Sample Area (SF): 5,000.00		Sample Comments:	
41 ALLIGATOR CR 48 L & T CR 50 PATCHING 52 RAVELING 57 WEATHERING	L M L L	30.00 SF 302.00 FT 350.00 SF 1,000.00 SF 4,650.00 SF	Edge fs w
Sample Number: 03			
Sample Type: R Sample PCI: 51 Sample Area (SF): 5,000.00		Sample Comments:	
41 ALLIGATOR CR 48 L & T CR 48 L & T CR 50 PATCHING	M L M L	5.00 SF 10.00 FT 301.00 FT 300.00 SF	lu fs w 2ndy

1,000.00 SF 4,700.00 SF

52 RAVELING

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 16

Sample Number: 04

Sample Type: R Sample Comments:

Sample PCI: 57

Sample Area (SF): 5,000.00

 48 L & T CR
 L
 21.00 FT
 lu

 48 L & T CR
 M
 265.00 FT
 fs w 2ndy

 50 PATCHING
 L
 325.00 SF

 52 RAVELING
 L
 1,000.00 SF

 57 WEATHERING
 L
 4,675.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 17

Branch	- Section	<b>ID: R18MT</b>	- 003
Dianti	- 06611011		- 003

Branch Name: RUNWAY 18/36 Use: RUNWAY

LCD: 6/1/2005

Surface Type: AAC

Rank: S

Section Area (sf): 9,073.00

Length (ft): 140.00 Width (ft): 75.00 From: R18MT-01 To: RUNWAY 13

Slabs:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 45 Total Samples: 2 Surveyed: 2 Section Comments:

PCI Family: IowaAACRW NC Enhanced

Inspection Comments:

Sample Comments:

lu fs w 2ndy

Sample Number: 01

Sample Type: R

Sample PCI: 45

Sample Area (SF): 5,000.00

48 L & T CR 37.00 FT L 48 L & T CR Μ 544.00 FT 52 RAVELING L 500.00 SF 56 SWELLING L 2.00 SF 57 WEATHERING L 2,500.00 SF **57 WEATHERING** Μ 2,500.00 SF

Sample Number: 02

Sample Type: R Sample Comments:

Sample PCI: 46

Sample Area (SF): 4,073.00

48 L & T CR L 49.00 FT 48 L & T CR 312.00 FT fs w 2ndy Μ 52 RAVELING L 407.00 SF 250.00 SF 52 RAVELING Μ 57 WEATHERING L 1,823.00 SF 57 WEATHERING Μ 2,000.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 18

Branch - Section	ID: R18MT - 004
Dianch - Section	ID. IXIONI - OUT

Branch Name: RUNWAY 18/36 Use: RUNWAY

LCD: 6/1/2005 Surface Type: AAC

Rank: S

Section Area (sf): 8,713.00 Length (ft): 120.00 Width (ft): 60.00 From: RUNWAY 13 To: R18MT-02

Slabs:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 47 Total Samples: 2 Surveyed: 2

PCI Family: IowaAACRW NC Enhanced

lu

lu

lu at break

fs at break

fs at cl

fs w

fs w

fs at break

Section Comments:

**Inspection Comments:** 

Sample Comments:

#### Sample Number: 01

Sample Type: R

Sample PCI: 52

Sample Area (SF): 4,813.00

> 48 L & T CR L 80.00 FT 200.00 FT 48 L & T CR Μ 48 L & T CR Μ 103.00 FT 50 PATCHING L 168.00 SF 52 RAVELING L 963.00 SF 57 WEATHERING L 2,000.00 SF 57 WEATHERING Μ 2,645.00 SF

#### Sample Number: 02

Sample Type: R Sample Comments:

Sample PCI: 41

Sample Area (SF): 3,900.00

> 48 L & T CR 100.00 FT L 48 L & T CR L 13.00 FT 48 L & T CR Μ 117.00 FT 48 L & T CR М 30.00 FT 48 L & T CR Μ 200.00 FT **50 PATCHING** L 100.00 SF 52 RAVELING L 780.00 SF 57 WEATHERING L 1,800.00 SF 57 WEATHERING Μ 2,000.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 19

Network ID: MIW		Page 19
	Branch - Section ID: T01MT - 001	
Branch Name: TAXIWAY 01		Use: TAXIWAY
LCD: 10/3/2017 Surface Type: AAC Rank: P Section Area (sf): 55,336.00 Length (ft): 1,080.00 Width (ft): 40.00 From: APRON 01 SECT 01 To: RUNWAY 18/36	PCI Family: IowaAACTW_NC&NCW_Enhanced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	Section Comments:	
Last Insp Date: 3/11/2025 PCI: 84 Total Samples: 11 Surveyed: 5	Inspection Comments:	
Sample Number: 02		
Sample Type: R Sample PCI: 78 Sample Area (SF): 5,000.00	Sample Comments:	
48 L & T CR 48 L & T CR 48 L & T CR 57 WEATHERING	L 6.00 FT lu M 40.00 FT w M 75.00 FT 2ndy at edg L 5,000.00 SF	ge
Sample Number: 03		
Sample Type: R Sample PCI: 89 Sample Area (SF): 5,000.00	Sample Comments:	
48 L & T CR 57 WEATHERING	L 52.00 FT lu L 5,000.00 SF	
Sample Number: 06		
Sample Type: R Sample PCI: 81 Sample Area (SF): 5,000.00	Sample Comments:	
48 L & T CR 48 L & T CR 57 WEATHERING	L 42.00 FT lu M 40.00 FT w L 5,000.00 SF	
Sample Number: 07		
Sample Type: R Sample PCI: 84	Sample Comments:	

Sample Area (SF): 5,000.00

 48 L & T CR
 L
 5.00 FT
 lu

 48 L & T CR
 M
 40.00 FT
 w

 57 WEATHERING
 L
 5,000.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 20

Sample Number: 08

Sample Type: R Sample Comments:

Sample PCI: 90

Sample Area (SF): 5,000.00

48 L & T CR L 15.00 FT lu

57 WEATHERING L 5,000.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 21

Network ID: MIW				Page 2
	Branch - Section	on ID: T02MT - 001		
Branch Name: TAXIWAY 02				Use: TAXIWAY
LCD: 6/1/2005 Surface Type: AAC Rank: P Section Area (sf): 31,922.00 Length (ft): 609.00 Width (ft): 50.00 From: APRON 01 To: T02MT-02		PCI Family: lowaAACTW_NC&No	CW_Enhanced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):		Section Comments:		
Last Insp Date: 3/11/2025 PCI: 41 Total Samples: 6 Surveyed: 4		Inspection Comments:		
Sample Number: 02				
Sample Type: R Sample PCI: 45 Sample Area (SF): 5,000.00 41 ALLIGATOR CR 48 L & T CR	L L	Sample Comments:  30.00 SF 29.00 FT	Edge lu	
48 L & T CR 52 RAVELING 57 WEATHERING	M L L	572.00 FT 2,500.00 SF 5,000.00 SF	fs w	
Sample Number: 03				
Sample Type: R Sample PCI: 40 Sample Area (SF): 5,000.00		Sample Comments:		
41 ALLIGATOR CR 41 ALLIGATOR CR 48 L & T CR 48 L & T CR 52 RAVELING 57 WEATHERING	L M L M L L	85.00 SF 15.00 SF 52.00 FT 575.00 FT 2,500.00 SF 5,000.00 SF	Edge lu fs w	
Sample Number: 04				
Sample Type: R Sample PCI: 37 Sample Area (SF): 5,000.00		Sample Comments:		
41 ALLIGATOR CR 41 ALLIGATOR CR 48 L & T CR 48 L & T CR	L M L M	20.00 SF 65.00 SF 33.00 FT 641.00 FT	Edge lu m fs w	

L

2,500.00 SF 5,000.00 SF

52 RAVELING

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 22

#### Sample Number: 05

Sample Type: R Sample Comments:

Sample PCI: 42

Sample Area (SF): 5,000.00

41 ALLIGATOR CR	M	62.00 SF	
48 L & T CR	L	70.00 FT	lu
48 L & T CR	M	100.00 FT	At break
48 L & T CR	M	300.00 FT	fs w
52 RAVELING	L	2,500.00 SF	
57 WEATHERING	L	5,000.00 SF	

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 23

Branch - Section ID: T02MT - 002

Branch Name: TAXIWAY 02 Use: TAXIWAY

LCD: 6/1/2005

Surface Type: AAC

Rank: P

Section Area (sf): 4,470.00

Length (ft): 53.00 Width (ft): 85.00 From: T02MT-01 To: RUNWAY 13

Slabs: Section Comments:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 43 Total Samples: 1 Surveyed: 1 Inspection Comments:

PCI Family: IowaAACTW NC&NCW Enhanced

Sample Number: 01

Sample Type: R Sample Comments:

Sample PCI: 43

Sample Area (SF): 4,470.00

41 ALLIGATOR CR 45.00 SF Μ 48 L & T CR 20.00 FT L lu 48 L & T CR Μ 275.00 FT fs w 52 RAVELING L 3.129.00 SF 57 WEATHERING L 4,270.00 SF 57 WEATHERING Μ 200.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 24

Network ID: MIW			F	Page 24
	Branch - Section II	D: T03MT - 001		
Branch Name: TAXIWAY 03			Use: TA	XIWAY
LCD: 11/1/1994 Surface Type: AC Rank: P Section Area (sf): 64,578.00 Length (ft): 1,753.00 Width (ft): 36.00 From: RUNWAY 18 To: WEST END RUNWAY 13	PCI F	Family: IowaACTW_NC_Enha	anced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	Section	on Comments:		
Last Insp Date: 3/11/2025 PCI: 56 Total Samples: 14 Surveyed: 5	Inspe	ection Comments:		
Sample Number: 03				
Sample Type: R Sample PCI: 59 Sample Area (SF): 4,500.00	Samp	ole Comments:		
48 L & T CR 50 PATCHING 52 RAVELING 57 WEATHERING	M L L L	48.00 FT 125.00 SF 4,375.00 SF 4,375.00 SF	W	
Sample Number: 05		·		
Sample Type: R Sample PCI: 54 Sample Area (SF): 4,500.00	Samp	ole Comments:		
48 L & T CR 48 L & T CR 50 PATCHING 52 RAVELING 57 WEATHERING	L M L L	50.00 FT 23.00 FT 290.00 SF 4,210.00 SF 4,210.00 SF	lu 2ndy w fs	
Sample Number: 08				
Sample Type: R Sample PCI: 54 Sample Area (SF): 4,500.00	Samp	ole Comments:		
48 L & T CR 50 PATCHING	L L	47.00 FT 125.00 SF	lu	

M

52 RAVELING 52 RAVELING

57 WEATHERING

4,365.00 SF

4,365.00 SF

10.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 25

1 ft w

Sample	Number:	10
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Sample Type: R Sample Comments:

Sample PCI: 54

Sample Area (SF): 4,500.00

48 L & T CR 16.00 FT 1 ft Н 48 L & T CR L 24.00 FT ls 48 L & T CR 31.00 FT fs w 2ndy Μ **50 PATCHING** L 125.00 SF 52 RAVELING L 4,375.00 SF L 4,375.00 SF 57 WEATHERING

#### Sample Number: 12

Sample Type: R Sample Comments:

Sample PCI: 59

Sample Area (SF): 4,500.00

48 L & T CR	Н	26.00 FT
48 L & T CR	M	11.00 FT
50 PATCHING	L	125.00 SF
52 RAVELING	L	4,375.00 SF
57 WEATHERING	L	4.375.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 26

Branch - Section ID: T03MT - 002

Branch Name: TAXIWAY 03 Use: TAXIWAY

LCD: 11/1/1994

Surface Type: AC

Rank: P

Section Area (sf): 2,514.00

Length (ft): 22.00 Width (ft): 129.00

From: EAST END SECTION 01

To: RUNWAY 18

Slabs: Section Comments:

Slab Length (ft): Slab Width (ft): Joint Length (ft):

Last Insp Date: 3/11/2025

PCI: 41 Total Samples: 1 Surveyed: 1 Inspection Comments:

PCI Family: IowaACTW NC Enhanced

Sample Number: 01

Sample Type: R Sample Comments:

Sample PCI: 41

Sample Area (SF): 2,514.00

48 L & T CR L 155.00 FT lu 202.00 FT fs at break 48 L & T CR Μ 48 L & T CR Μ 74.00 FT fs **50 PATCHING** L 150.00 SF 52 RAVELING L 2,364.00 SF 57 WEATHERING Μ 2,364.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW				Page 27
	Branch - Section ID	: T03MT - 003		
Branch Name: TAXIWAY 03				Use: TAXIWAY
LCD: 6/1/2006 Surface Type: AC Rank: P Section Area (sf): 64,025.00 Length (ft): 1,700.00 Width (ft): 35.00 From: RUNWAY 18/36 To: TAXIWAY 02	PCI Fa	nmily: lowaACTW_NC_Enha	anced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	Section	n Comments:		
Last Insp Date: 3/11/2025 PCI: 71 Total Samples: 14 Surveyed: 6	Inspec	tion Comments:		
Sample Number: 04				
Sample Type: R Sample PCI: 81 Sample Area (SF): 4,375.00	Sample	e Comments:		
48 L & T CR 48 L & T CR 57 WEATHERING	L M L	9.00 FT 58.00 FT 4,375.00 SF	lu w	
Sample Number: 05				
Sample Type: A Sample PCI: 59 Sample Area (SF): 4,375.00	Sample	e Comments:		
45 DEPRESSION 48 L & T CR 48 L & T CR 53 RUTTING 56 SWELLING 57 WEATHERING	L H M L L	110.00 SF 5.00 FT 96.00 FT 40.00 SF 70.00 SF 4,375.00 SF	w fs	
Sample Number: 06				
Sample Type: R Sample PCI: 70 Sample Area (SF): 4,375.00	Sample	e Comments:		
48 L & T CR 53 RUTTING 57 WEATHERING	M L L	141.00 FT 10.00 SF 4,375.00 SF	w	
Sample Number: 08				
Sample Type: R Sample PCI: 67 Sample Area (SF): 4,375.00	·	e Comments:		
48 L & T CR	H	34.00 FT	3 in	

L

M

Μ

15.00 FT

101.00 FT

4,375.00 SF

lu

fs 2ndy

48 L & T CR

48 L & T CR

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 28

Sample	Number:	10
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Sample Type: R Sample Comments:

Sample PCI: 76

Sample Area (SF): 4,375.00

48 L & T CR L 7.00 FT lu
48 L & T CR M 72.00 FT fs w
52 RAVELING M 3.00 SF
57 WEATHERING L 4,372.00 SF

#### Sample Number: 12

Sample Type: R Sample Comments:

Sample PCI: 66

Sample Area (SF): 4,375.00

41 ALLIGATOR CR L 38.00 SF Edge 48 L & T CR L 33.00 FT ls 48 L & T CR L 30.00 FT lu 48 L & T CR Μ 70.00 FT fs w 57 WEATHERING 4,375.00 SF L

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 29

Network ID: MIW				Page 29
	Branch - Section	on ID: T04MT - 001		
Branch Name: TAXIWAY 04				Use: TAXIWAY
LCD: 11/1/1994 Surface Type: AC Rank: P Section Area (sf): 57,940.00 Length (ft): 1,640.00 Width (ft): 36.00 From: TAXIWAY 02 To: EAST END RUNWAY 13		PCI Family: lowaACTW_NC_Enh	nanced	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):		Section Comments:		
Last Insp Date: 3/11/2025 PCI: 43 Total Samples: 13 Surveyed: 5		Inspection Comments:		
Sample Number: 03				
Sample Type: R Sample PCI: 37 Sample Area (SF): 4,375.00	•	Sample Comments:		
41 ALLIGATOR CR 48 L & T CR 48 L & T CR 50 PATCHING 52 RAVELING 53 RUTTING 57 WEATHERING	L H M L L L	100.00 SF 5.00 FT 211.00 FT 340.00 SF 2,188.00 SF 20.00 SF 4,035.00 SF	Edge 1 ft fs w	
Sample Number: 05				
Sample Type: R Sample PCI: 37 Sample Area (SF): 4,375.00		Sample Comments:		
41 ALLIGATOR CR 48 L & T CR 50 PATCHING 52 RAVELING 53 RUTTING 57 WEATHERING	L M L L M	110.00 SF 303.00 FT 285.00 SF 2,188.00 SF 50.00 SF 4,090.00 SF	Edge fs w 2ndy	
Sample Number: 07				
Sample Type: R Sample PCI: 47 Sample Area (SF): 4,375.00		Sample Comments:		
45 DEPRESSION 48 L & T CR 50 PATCHING 52 RAVELING 53 RUTTING	L M L L	15.00 SF 203.00 FT 185.00 SF 2,188.00 SF 55.00 SF	fs w	

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4,190.00 SF

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 30

Sample Number: 09				
Sample Type: R Sample PCI: 50 Sample Area (SF): 4,375.00	Sample	Comments:		
48 L & T CR	M	191.00 FT	w fs	
50 PATCHING	L	455.00 SF		
52 RAVELING	Н	2.00 SF		
52 RAVELING	L	2,188.00 SF		

15.00 SF

3,918.00 SF

L

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Sample Number: 11

Sample Type: R Sample Comments:

Sample PCI: 44

Sample Area (SF): 4,375.00

53 RUTTING 57 WEATHERING

48 L & T CR	M	431.00 FT	w fs
50 PATCHING	L	125.00 SF	
52 RAVELING	L	2,188.00 SF	
53 RUTTING	L	60.00 SF	
57 WEATHERING	M	4,250.00 SF	

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW			Page 31
	Branch - Section	on ID: TH01MT - 001	
Branch Name: T-HANGAR 01			Use: T-HANGAR
LCD: 5/2/2010 Surface Type: PCC Rank: P Section Area (sf): 40,202.00 Length (ft): 1,150.00 Width (ft): 35.00 From: SEE MAP To: SEE MAP		PCI Family: lowaPCCTH_NC&NCW	
Slabs: 257 Slab Length (ft): 12.50 Slab Width (ft): 12.50 Joint Length (ft): 5,248.73		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 91 Total Samples: 13 Surveyed: 8		Inspection Comments:	
Sample Number: 02			
Sample Type: R Sample PCI: 98 Sample Area (Slabs): 21.00 65 JT SEAL DMG	L	Sample Comments:  21.00 Slabs	
Sample Number: 03	<u>L</u>	21.00 31805	
Sample Type: R Sample PCI: 98 Sample Area (Slabs): 21.00 65 JT SEAL DMG	ı	Sample Comments: 21.00 Slabs	
Sample Number: 04	L	21.00 31805	
Sample Type: A Sample PCI: 79 Sample Area (Slabs): 27.00 62 CORNER BREAK 63 LINEAR CR 65 JT SEAL DMG 74 JOINT SPALL	L L L H	2.00 Slabs 1.00 Slabs 27.00 Slabs 1.00 Slabs 1.00 Slabs	
Sample Number: 06			
Sample Type: R Sample PCI: 98 Sample Area (Slabs): 17.00 65 JT SEAL DMG	L	Sample Comments:  17.00 Slabs	
Sample Number: 07	_		
Sample Type: A Sample PCI: 54 Sample Area (Slabs): 20.00		Sample Comments:	
62 CORNER BREAK 63 LINEAR CR 65 JT SEAL DMG	L M M	1.00 Slabs 3.00 Slabs 20.00 Slabs	

Н

1.00 Slabs

1.00 Slabs

67 LARGE PATCH

**67 LARGE PATCH** 

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 32

Sample Number: 08

Sample Type: R Sample Comments:

Sample PCI: 93

Sample Area (Slabs): 20.00

65 JT SEAL DMG M 20.00 Slabs

Sample Number: 11

Sample Type: R Sample Comments:

Sample PCI: 95

Sample Area (Slabs): 20.00

65 JT SEAL DMG L 20.00 Slabs 66 SMALL PATCH M 1.00 Slabs

Sample Number: 12

Sample Type: R Sample Comments:

Sample PCI: 98

Sample Area (Slabs): 20.00

65 JT SEAL DMG L 20.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 33

Network ID: MIW			Page 33
	Branch - Section	on ID: TH01MT - 002	
Branch Name: T-HANGAR 01			Use: T-HANGAR
LCD: 7/1/2012 Surface Type: PCC Rank: P Section Area (sf): 18,467.00 Length (ft): 550.00 Width (ft): 35.00 From: SEE MAP To: SEE MAP		PCI Family: lowaPCCTH_NC&NCW	
Slabs: 123 Slab Length (ft): 12.00 Slab Width (ft): 12.50 Joint Length (ft): 2,455.07		Section Comments:	
Last Insp Date: 3/11/2025 PCI: 86 Total Samples: 8 Surveyed: 5		Inspection Comments:	
Sample Number: 02			
Sample Type: R Sample PCI: 83 Sample Area (Slabs): 13.00 63 LINEAR CR		Sample Comments:  3.00 Slabs	
65 JT SEAL DMG	L L	3.00 Slabs 13.00 Slabs	
Sample Number: 03			
Sample Type: R Sample PCI: 89 Sample Area (Slabs): 18.00		Sample Comments:	
65 JT SEAL DMG 71 FAULTING	L L	18.00 Slabs 2.00 Slabs	
Sample Number: 05			
Sample Type: R Sample PCI: 70 Sample Area (Slabs): 21.00		Sample Comments:	
63 LINEAR CR 63 LINEAR CR 65 JT SEAL DMG 74 JOINT SPALL	L M L L	4.00 Slabs 2.00 Slabs 21.00 Slabs 2.00 Slabs	
Sample Number: 07			
Sample Type: R Sample PCI: 92 Sample Area (Slabs): 15.00		Sample Comments:	
63 LINEAR CR 65 JT SEAL DMG	L L	1.00 Slabs 15.00 Slabs	
Sample Number: 08			
Sample Type: R Sample PCI: 98		Sample Comments:	

Sample Area (Slabs): 18.00

65 JT SEAL DMG L 18.00 Slabs

Pavement Database: IA 2024 Generate Date: 8/11/2025

Network ID: MIW Page 34

Network ID: IVIIVV				Page 34
Branch Name: T-HANGAR 02	Branch - Section II	D: TH02MT - 001		Use: T-HANGAF
LCD: 1/1/1979 Surface Type: AC Rank: P Section Area (sf): 24,701.00 Length (ft): 247.00 Width (ft): 100.00 From: SEE MAP To: SEE MAP	PC	I Family: IowaAsphaltTH_Nortl	hern	
Slabs: Slab Length (ft): Slab Width (ft): Joint Length (ft):	Sec	ction Comments:		
Last Insp Date: 3/11/2025 PCI: 22 Total Samples: 4 Surveyed: 3	Ins	pection Comments:		
Sample Number: 01				
Sample Type: R Sample PCI: 21 Sample Area (SF): 5,500.00	Sar	mple Comments:		
41 ALLIGATOR CR	M	400.00 SF		
43 BLOCK CR	M	3,500.00 SF	W	
48 L & T CR	L	100.00 FT	lu	
48 L & T CR	M	150.00 FT	W	
50 PATCHING	M	50.00 SF		
52 RAVELING	L	2,500.00 SF		
57 WEATHERING	M	5,450.00 SF		
Sample Number: 02				
Sample Type: R Sample PCI: 27 Sample Area (SF): 6,850.00	Sar	mple Comments:		
41 ALLIGATOR CR	M	400.00 SF		
43 BLOCK CR	M	3,300.00 SF	W	
48 L & T CR	L	50.00 FT	lu	
48 L & T CR	M	165.00 FT	W	
52 RAVELING 57 WEATHERING	L M	2,000.00 SF 6,850.00 SF		
Sample Number: 03		-,		
Sample Type: R Sample PCI: 18 Sample Area (SF): 5,500.00	Sar	mple Comments:		
41 ALLIGATOR CR	M	880.00 SF		
43 BLOCK CR	M	3,600.00 SF	W	
48 L & T CR	Н	30.00 FT	3 in	
48 L & T CR	M	165.00 FT		
50 PATCHING	M	92.00 SF		
52 RAVELING	L	2,000.00 SF		

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5,408.00 SF

# APPENDIX D WORK HISTORY REPORT

#### **WORK HISTORY**

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 1

#### **Network: MARSHALLTOWN MUNICIPAL AIRPORT**

Branch - Section ID: A01MT - 001

 LCD: 11/1/1994
 Length (ft):
 340.00

 Use: APRON
 Width (ft):
 228.00

 Rank: P
 True Area (sf):
 80,617.00

Surface: PCC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
11-01-1994	NC-PC	New Construction - PCC	\$0.00	0.00	True	P501, UNKNOWN THICNESS
06-01-1979	OL-AC	Overlay - AC	\$0.00	0.00	True	P401 OVERLAY, UNKNOWN THICKNESS
06-04-1963	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC SURFACE
06-03-1963	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-02-1963	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE
06-01-1963	SG-CO	Subgrade - Compacted	\$0.00	0.00	False	SUBGRADE

Branch - Section ID: A02MT - 001

 LCD: 6/1/2002
 Length (ft):
 315.00

 Use: APRON
 Width (ft):
 252.00

 Rank: P
 True Area (sf):
 81,456.00

Surface: PCC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
06-01-2002	CR-PC	Complete Reconstruction - PCC	\$0.00	0.00	True	P501, UNKNOWN THICKNESS
03-01-1994	OL-AC	Overlay - AC	\$0.00	0.00	True	P401, UNKNOWN THICKNESS
06-04-1963	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC SURFACE
06-03-1963	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-02-1963	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE
06-01-1963	SG-CO	Subgrade - Compacted	\$0.00	0.00	False	SUBGRADE

#### Branch - Section ID: A02MT - 002

 LCD: 3/1/1994
 Length (ft):
 135.00

 Use: APRON
 Width (ft):
 85.00

 Rank: P
 True Area (sf):
 11,250.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
03-01-1994	OL-AC	Overlay - AC	\$0.00	0.00	True	UNKNOWN THICKNESS
06-04-1963	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC SURFACE
06-03-1963	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-02-1963	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE
06-01-1963	SG-CO	Subgrade - Compacted	\$0.00	0.00	False	SUBGRADE

#### Branch - Section ID: A03MT - 001

 LCD: 7/1/2012
 Length (ft):
 150.00

 Use: APRON
 Width (ft):
 150.00

 Rank: P
 True Area (sf):
 22,411.00

Surface: PCC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
07-01-2012	CR-PC	Complete Reconstruction - PCC	\$0.00	0.00	True	CS UNKNOWN

#### **WORK HISTORY**

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 2

Branch - Section ID: R13MT - 001

 LCD: 6/2/2005
 Length (ft):
 1,125.00

 Use: RUNWAY
 Width (ft):
 100.00

 Rank: P
 True Area (sf):
 112,500.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
09-10-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-02-2005	OL-AS	Overlay - AC Structural	\$171,475.00	3.00	True	INCLUDES/1" LEVELING COURSE; Total Project Cost: \$902,500
06-01-2005	MI-CO	Cold Milling	\$0.00	-1.00	False	1" MILLING
06-02-1990	OL-AC	Overlay - AC	\$0.00	2.25	True	2.25" AC OVERLAY INCLUDES/1" LEVELING COURSE
06-01-1990	MI-CO	Cold Milling	\$0.00	-1.00	False	1" MILLING
06-03-1979	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC
06-02-1979	BA-BI	Base Course - Bituminous	\$0.00	8.00	False	8" P201 BIT. BASE
06-01-1979	SG-CO	Subgrade - Compacted	\$0.00	9.00	False	9" P152 COMPACTED SUBGRADE

#### Branch - Section ID: R13MT - 002

 LCD: 6/2/2005
 Length (ft):
 3,902.00

 Use: RUNWAY
 Width (ft):
 100.00

 Rank: P
 True Area (sf):
 390,200.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-02-2005	OL-AS	Overlay - AC Structural	\$604,675.00	2.00	True	INCLUDES/1" LEVELING COURSE; Total Project Cost: \$902,500
06-01-2005	MI-CO	Cold Milling	\$0.00	-1.00	False	MILL 1"
06-02-1990	OL-AS	Overlay - AC Structural	\$0.00	2.25	True	2.25" AC OVERLAY, INCLUDES 1" LEVELING COARSE
06-01-1990	MI-CO	Cold Milling	\$0.00	0.00	False	VARIABLE DEPTH 0"-1"
06-01-1971	OL-AC	Overlay - AC	\$0.00	2.00	True	2" P401 AC OVERLAY
06-03-1964	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC
06-02-1964	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-01-1964	SB-AG	Subbase - Aggregate	\$0.00	5.50	False	5"-6" P154 SUBBASE

#### Branch - Section ID: R13MT - 003

 LCD: 6/1/2005
 Length (ft):
 100.00

 Use: RUNWAY
 Width (ft):
 86.71

 Rank: P
 True Area (sf):
 8,445.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-2005	OL-AS	Overlay - AC Structural	\$13,537.50	2.25	True	INCLUDES/1" LEVELING COURSE; Total Project Cost: \$902,500
06-30-1979	NC-AC	New Construction - AC	\$0.00	0.00	True	-

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 3

Branch - Section ID: R13MT - 004

 LCD: 6/1/2005
 Length (ft):
 80.00

 Use: RUNWAY
 Width (ft):
 86.71

 Rank: P
 True Area (sf):
 8,431.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-2005	OL-AS	Overlay - AC Structural	\$13,537.50	2.25		INCLUDES/1" LEVELING COURSE; Total Project Cost: \$902,500
06-30-1979	NC-AC	New Construction - AC	\$0.00	0.00	True	-

#### Branch - Section ID: R18MT - 001

 LCD: 6/1/1997
 Length (ft):
 1,912.00

 Use: RUNWAY
 Width (ft):
 50.00

 Rank: S
 True Area (sf):
 95,600.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-1997	OL-AC	Overlay - AC	\$0.00	3.00	True	2" AC OVERLAY, 1" LEVELING COARSE, NO MILL
06-03-1969	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC (ASSUMED MAT. TYPE)
06-02-1969	BA-BI	Base Course - Bituminous	\$0.00	4.00	False	4" P201 BIT. BASE
06-01-1969	SB-AG	Subbase - Aggregate	\$0.00	4.00	False	4" P213 SUBBASE

#### Branch - Section ID: R18MT - 002

 LCD: 6/1/1997
 Length (ft):
 466.00

 Use: RUNWAY
 Width (ft):
 50.00

 Rank: S
 True Area (sf):
 26,970.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	select/partial; filled with slurry material. Filled with P-401
10-01-2017	PA-AD	Patching - AC Deep	\$0.00	0.00	False	Crack repair, 3ft. wide patch
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-1997	OL-AC	Overlay - AC	\$0.00	3.00	True	2" AC OVERLAY, 1" LEVELING COARSE, NO MILL
06-03-1969	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC
06-02-1969	BA-BI	Base Course - Bituminous	\$0.00	4.00	False	4" P201 BIT. BASE
06-01-1969	SB-AG	Subbase - Aggregate	\$0.00	4.00	False	4" P213 SUBBASE

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 4

Branch - Section ID: R18MT - 003

 LCD: 6/1/2005
 Length (ft):
 140.00

 Use: RUNWAY
 Width (ft):
 75.00

 Rank: S
 True Area (sf):
 9,073.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-2005	OL-AS	Overlay - AC Structural	\$18,050.00	2.00	True	W/1" LEVELING COURSE; Total Project Cost: \$902,500
06-30-1990	OL-AC	Overlay - AC	\$0.00	2.25	True	1.25" AC OVERLAY, 1" LEVELING COARSE, NO MILL
06-01-1971	OL-AC	Overlay - AC	\$0.00	2.00	True	2" P401 AC OVERLAY
06-03-1964	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC
06-02-1964	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-01-1964	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE

Branch - Section ID: R18MT - 004

 LCD: 6/1/2005
 Length (ft):
 120.00

 Use: RUNWAY
 Width (ft):
 60.00

 Rank: S
 True Area (sf):
 8,713.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
06-01-2017	PA-AS	Patching - AC Shallow	\$0.00	0.00	False	FIELD ESTIMATE
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
06-01-2005	OL-AS	Overlay - AC Structural	\$18,050.00	2.00	True	W/1" LEVELING COURSE; Total Project Cost: \$902,500
06-30-1990	OL-AC	Overlay - AC	\$0.00	2.25	True	1.25" AC OVERLAY, 1" LEVELING COARSE, NO MILL
06-01-1971	OL-AC	Overlay - AC	\$0.00	2.00	True	2" P401 AC OVERLAY
06-03-1964	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC
06-02-1964	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-01-1964	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE

#### Branch - Section ID: T01MT - 001

 LCD: 10/3/2017
 Length (ft):
 1,080.00

 Use: TAXIWAY
 Width (ft):
 40.00

 Rank: P
 True Area (sf):
 55,336.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-03-2017	OL-AC	Overlay - AC	\$0.00	2.50	True	milled butt joints only.
10-02-2017	PA-AD	Patching - AC Deep	\$0.00	0.00	False	crack repair 3ft wide patch; pre-overlay crack repair
10-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	select/partial; filled with P-401 slurry material
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
09-10-2011	PA-AD	Patching - AC Deep	\$0.00	0.00	False	-
06-01-1979	NC-AC	New Construction - AC	\$0.00	0.00	True	-

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 5

Branch - Section ID: T02MT - 001

 LCD: 6/1/2005
 Length (ft):
 609.00

 Use: TAXIWAY
 Width (ft):
 50.00

 Rank: P
 True Area (sf):
 31,922.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
01-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	EST
06-01-2005	OL-AS	Overlay - AC Structural	\$54,150.00	2.00	True	2" P401 OVERLAY W/1" LEVELING COURSE; Total Project Cost: \$902,500
06-01-1979	OL-AC	Overlay - AC	\$0.00	0.00	True	-
06-04-1963	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC SURFACE
06-03-1963	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-02-1963	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE
06-01-1963	SG-CO	Subgrade - Compacted	\$0.00	0.00	False	SUBGRADE

#### Branch - Section ID: T02MT - 002

 LCD: 6/1/2005
 Length (ft):
 53.00

 Use: TAXIWAY
 Width (ft):
 85.00

 Rank: P
 True Area (sf):
 4,470.00

Surface: AAC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
01-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	EST
06-01-2005	OL-AS	Overlay - AC Structural	\$9,025.00	2.00	True	2" P401 OVERLAY W/1" LEVELING COURSE; Total Project Cost: \$902,500
06-30-1987	OL-AC	Overlay - AC	\$0.00	0.00	True	-
06-04-1963	NC-AC	New Construction - AC	\$0.00	2.00	True	2" P401 AC SURFACE
06-03-1963	BA-AG	Base Course - Aggregate	\$0.00	6.00	False	6" P209 CABC
06-02-1963	SB-AG	Subbase - Aggregate	\$0.00	6.00	False	6" P154 SUBBASE
06-01-1963	SG-CO	Subgrade - Compacted	\$0.00	0.00	False	SUBGRADE

#### Branch - Section ID: T03MT - 001

 LCD: 11/1/1994
 Length (ft):
 1,753.00

 Use: TAXIWAY
 Width (ft):
 36.00

 Rank: P
 True Area (sf):
 64,578.00

Surface: AC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2017	PA-AD	Patching - AC Deep	\$0.00	0.00	False	crack repair 3 ft patch
10-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	select/partial; filled with P-401 slurry material
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
09-10-2011	PA-AD	Patching - AC Deep	\$0.00	0.00	False	-
11-01-1994	NC-IN	New Construction - Initial	\$0.00	0.00	True	-

#### Branch - Section ID: T03MT - 002

 LCD: 11/1/1994
 Length (ft):
 22.00

 Use: TAXIWAY
 Width (ft):
 129.00

 Rank: P
 True Area (sf):
 2,514.00

Surface: AC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
01-01-2017	PA-AS	Patching - AC Shallow	\$0.00	0.00	False	EST
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
11-01-1994	NC-IN	New Construction - Initial	\$0.00	0.00	True	-

Pavement Database: IA 2024 Generate Date: 6/30/2025

Network ID: MIW Page 6

Branch - Section ID: T03MT - 003

 LCD: 6/1/2006
 Length (ft):
 1,700.00

 Use: TAXIWAY
 Width (ft):
 35.00

 Rank: P
 True Area (sf):
 64,025.00

Surface: AC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
06-01-2006	NC-IN	New Construction - Initial	\$0.00	0.00	True	-

Branch - Section ID: T04MT - 001

 LCD: 11/1/1994
 Length (ft):
 1,640.00

 Use: TAXIWAY
 Width (ft):
 36.00

 Rank: P
 True Area (sf):
 57,940.00

Surface: AC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
10-01-2017	PA-AD	Patching - AC Deep	\$0.00	0.00	False	crack repair 3ft patch
10-01-2017	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	select/partial; filled with P-401 slurry material
10-01-2011	CS-AC	Crack Sealing - AC	\$0.00	0.00	False	-
09-10-2011	PA-AD	Patching - AC Deep	\$0.00	0.00	False	-
11-01-1994	NC-IN	New Construction - Initial	\$0.00	0.00	True	-

Branch - Section ID: TH01MT - 001

 LCD: 5/2/2010
 Length (ft):
 1,150.00

 Use: T-HANGAR
 Width (ft):
 35.00

 Rank: P
 True Area (sf):
 40,202.00

Surface: PCC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
05-02-2010	CR-PC	Complete Reconstruction - PCC	\$0.00	6.00	True	6" P-505 SURFACE
05-01-2010	SB-AG	Subbase - Aggregate	\$0.00	4.00	False	4" P-154 SUBBASE

Branch - Section ID: TH01MT - 002

 LCD: 7/1/2012
 Length (ft):
 550.00

 Use: T-HANGAR
 Width (ft):
 35.00

 Rank: P
 True Area (sf):
 18,467.00

Surface: PCC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
07-01-2012	CR-PC	Complete Reconstruction - PCC	\$0.00	0.00	True	CS UNKNOWN

Branch - Section ID: TH02MT - 001

 LCD: 1/1/1979
 Length (ft):
 247.00

 Use: T-HANGAR
 Width (ft):
 100.00

 Rank: P
 True Area (sf):
 24,701.00

Surface: AC

Work Date	Work Code	Work Description	Cost	Thickness (in)	Major MR	Comments
01-01-1979	NC-AC	New Construction - AC	\$0.00	0.00	True	DATE UNKNOWN; CONSTRUCTED PRIOR TO 1994 IMAGERY

## **APPENDIX E**

# LOCALIZED PREVENTIVE MAINTENANCE POLICIES AND UNIT COST TABLES

Table E-1. Localized preventive maintenance policy, asphalt-surfaced pavements.

Distress Type	Severity Level	Maintenance Action
Alligator Cracking	Low	Monitor
Alligator Cracking	Medium	Asphalt Patch
Alligator Cracking	High	Asphalt Patch
Bleeding	N/A	Monitor
Block Cracking	Low	Monitor
Block Cracking	Medium	Crack Seal—Asphalt
Block Cracking	High	Crack Seal—Asphalt
Corrugation	Low	Monitor
Corrugation	Medium	Asphalt Patch
Corrugation	High	Asphalt Patch
Depression	Low	Monitor
Depression	Medium	Monitor
Depression	High	Asphalt Patch
Jet-Blast Erosion	N/A	Asphalt Patch
Joint Reflection Cracking	Low	Monitor
Joint Reflection Cracking	Medium	Crack Seal—Asphalt
Joint Reflection Cracking	High	Crack Seal—Asphalt
L&T Cracking	Low	Monitor
L&T Cracking	Medium	Crack Seal—Asphalt
L&T Cracking	High	Crack Seal—Asphalt
Oil Spillage	N/A	Asphalt Patch
Patching	Low	Monitor
Patching	Medium	Asphalt Patch
Patching	High	Asphalt Patch
Polished Aggregate	N/A	Monitor
Raveling	Low	Monitor
Raveling	Medium	Asphalt Patch
Raveling	High	Asphalt Patch
Rutting	Low	Monitor
Rutting	Medium	Monitor
Rutting	High	Asphalt Patch
Shoving	Low	Monitor
Shoving	Medium	Asphalt Patch
Shoving	High	Asphalt Patch
Slippage Cracking	N/A	Asphalt Patch
Swelling	Low	Monitor
Swelling	Medium	Monitor
Swelling	High	Asphalt Patch
Weathering	Low	Monitor
Weathering	Medium	Monitor
Weathering	High	Asphalt Patch

Table E-2. Localized preventive maintenance policy, PCC pavements.

Distress Type	Severity Level	Maintenance Action
ASR	Low	Monitor
ASR	Medium	Slab Replacement
ASR	High	Slab Replacement
Blowup	Low	Slab Replacement
Blowup	Medium	Slab Replacement
Blowup	High	Slab Replacement
Corner Break	Low	Crack Seal—PCC
Corner Break	Medium	Full Depth PCC Patch
Corner Break	High	Full Depth PCC Patch
Durability Cracking	Low	Monitor
Durability Cracking	Medium	Full Depth Patch
Durability Cracking	High	Slab Replacement
Faulting	Low	Monitor
Faulting	Medium	Grinding
Faulting	High	Slab Replacement
Joint Seal Damage	Low	Monitor
Joint Seal Damage	Medium	Joint Seal
Joint Seal Damage	High	Joint Seal
LTD Cracking	Low	Monitor
LTD Cracking	Medium	Crack Seal—PCC
LTD Cracking	High	Slab Replacement
Patching (Small and Large)	Low	Monitor
Patching (Small and Large)	Medium	Full Depth PCC Patch
Patching (Small and Large)	High	Full Depth PCC Patch
Popouts	N/A	Monitor
Pumping	N/A	Monitor
Scaling	Low	Monitor
Scaling	Medium	Partial Depth PCC Patch
Scaling	High	Slab Replacement
Shattered Slab	Low	Crack Seal—PCC
Shattered Slab	Medium	Slab Replacement
Shattered Slab	High	Slab Replacement
Shrinkage Cracking	N/A	Monitor
Spalling (Joint and Corner)	Low	Monitor
Spalling (Joint and Corner)	Medium	Partial Depth PCC Patch
Spalling (Joint and Corner)	High	Partial Depth PCC Patch

Table E-3. 2025 unit costs for localized preventive maintenance actions.

Maintenance Action	Unit Cost
Asphalt Patch—Asphalt-Surfaced Pavement	\$15.90/sf
Crack Sealing—Asphalt-Surfaced Pavement	\$2.72/If
Partial Depth PCC Patch—PCC Pavement	\$40.74/sf
Full Depth PCC Patch—PCC Pavement	\$18.19/sf
Crack Sealing—PCC Pavement	\$3.27/lf
Joint Sealing—PCC Pavement	\$3.27/lf
Grinding—PCC Pavement	\$0.39/sf
Slab Replacement—PCC Pavement	\$18.19/sf

Table Note: The unit cost estimates are based on broad statewide numbers and should be adjusted to reflect local costs.

Table E-4. 2025 unit costs (per square foot) based on pavement type and PCI ranges.

Pavement Type	PCI Range 0-40	PCI Range 40-50	PCI Range 50-60	PCI Range 60-70	PCI Range 70-80	PCI Range 80-90	PCI Range 90-100
Asphalt- surfaced	\$11.29	\$5.34	\$5.34	\$5.34	\$0.00	\$0.00	\$0.00
PCC	\$18.86	\$8.92	\$8.92	\$8.92	\$0.00	\$0.00	\$0.00

#### Table Notes:

- The unit cost estimates are based on broad statewide numbers and should be adjusted to reflect local costs.
- Pavement Type: Asphalt-surfaced = AC (asphalt cement concrete), AAC (asphalt overlay on AC), or APC (asphalt overlay on PCC); PCC = portland cement concrete

## **APPENDIX F**

# YEAR 2025 LOCALIZED PREVENTIVE MAINTENANCE DETAILS

Year 2025 Localized Preventive Maintenance Details

Table F-1. Year 2025 localized preventive maintenance details.

Branch	Section	Distress Type	Severity	Distress Quantity	Distress Unit	Maintenance Action	Unit Cost	2025 Estimated Cost
A01MT	01	ASR	Medium	7	Slabs	Slab Replacement - PCC	\$18.19	\$17,630
A01MT	01	Joint Seal Damage	High	555	Slabs	Joint Seal (Localized)	\$3.27	\$41,823
A01MT	01	Joint Spalling	Medium	4	Slabs	Patching - PCC Partial Depth	\$40.74	\$1,141
A01MT	01	Large Patch	Medium	3	Slabs	Patching - PCC Full Depth	\$18.19	\$3,615
A01MT	01	LTD Cracking	Medium	1	Slabs	Crack Sealing - PCC	\$3.27	\$39
A01MT	01	Shattered Slab	Low	1	Slabs	Crack Sealing - PCC	\$3.27	\$79
A01MT	01	Shattered Slab	Medium	2	Slabs	Slab Replacement - PCC	\$18.19	\$5,282
A01MT	01	Shattered Slab	High	2	Slabs	Slab Replacement - PCC	\$18.19	\$5,282
A02MT	01	Corner Break	Medium	8	Slabs	Patching - PCC Full Depth	\$18.19	\$4,632
A02MT	01	Corner Spalling	High	4	Slabs	Patching - PCC Partial Depth	\$40.74	\$432
A02MT	01	Joint Seal Damage	High	485	Slabs	Joint Seal (Localized)	\$3.27	\$39,320
A02MT	01	LTD Cracking	Medium	8	Slabs	Crack Sealing - PCC	\$3.27	\$335
A03MT	01	Joint Seal Damage	Medium	203	Slabs	Joint Seal (Localized)	\$3.27	\$12,982
T01MT	01	L&T Cracking	Medium	432	Ft	Crack Sealing - AC	\$2.72	\$1,174
T03MT	03	L&T Cracking	Medium	1,301	Ft	Crack Sealing - AC	\$2.72	\$3,539
T03MT	03	L&T Cracking	High	98	Ft	Crack Sealing - AC	\$2.72	\$266
T03MT	03	Raveling	Medium	8	SqFt	Patching - AC Deep	\$15.90	\$130
TH01MT	01	Corner Break	Low	3	Slabs	Crack Sealing - PCC	\$3.27	\$80
TH01MT	01	Joint Seal Damage	Medium	55	Slabs	Joint Seal (Localized)	\$3.27	\$3,693
TH01MT	01	Joint Spalling	High	1	Slabs	Patching - PCC Partial Depth	\$40.74	\$329
TH01MT	01	Large Patch	Medium	1	Slabs	Patching - PCC Full Depth	\$18.19	\$1,119
TH01MT	01	Large Patch	High	1	Slabs	Patching - PCC Full Depth	\$18.19	\$1,119

Year 2025 Localized Preventive Maintenance Details

Table F-1. Year 2025 localized preventive maintenance details (continued).

Branch	Section	Distress Type	Severity	Distress Quantity	Distress Unit	Maintenance Action	Unit Cost	2025 Estimated Cost
TH01MT	01	LTD Cracking	Medium	3	Slabs	Crack Sealing - PCC	\$3.27	\$123
TH01MT	01	Small Patch	Medium	2	Slabs	Patching - PCC Full Depth	\$18.19	\$86
TH01MT	02	LTD Cracking	Medium	3	Slabs	Crack Sealing - PCC	\$3.27	\$116

#### Table Notes:

- 1. See Figure 3 for the location of the branch and section.
- 2. Distress types are defined by ASTM D5340. L&T cracking = longitudinal and transverse cracking; LTD cracking = longitudinal, transverse, and diagonal cracking; ASR = alkali-silica reaction.
- 3. The costs provided are of a general nature for the entire State and may require adjustments to reflect specific conditions at Marshalltown Municipal Airport.



#### PREPARED FOR

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