

Airport development standards must be identified in order to compare existing airport facilities to standard development templates. This enables the MASP 2008 to identify airport development items necessary to respond to system deficiencies.

Various airport development items were evaluated for consideration as basic standards to Michigan's public-use airports. The items that were selected were determined to be from eight specific areas of airport development:

- ❖ Primary Runway System
- ❖ Pavement Condition
- ❖ Lighting and Visual Aids
- ❖ Approach Protection
- ❖ Basic Pilot and Aircraft Services
- ❖ All-Weather Access
- ❖ Year-Round Access
- ❖ Landside Access

In Section 3, System Description, six Approach Category/Design Group combinations are presented. The MASP 2008 outlines a set of basic developmental standards that are considered to be applicable to each of the six airport classifications.

The basic standards that have been identified for each of the six airport classifications are further sorted by the three tier categories of Michigan's airports. Tier categories are further defined in Section 3, System Description.

### **Tier 1 Airport Development Standards**

A series of individual items from each of the eight areas of airport development noted above have been identified as being applicable basic standards to the Tier 1 category of airports. The individual development items contained within each area are listed in Table 40, Tier 1 and Tier 2 Airport Development Standards. Detailed definitions of each of the eight areas and their individual development items are included in the subsequent section of this report, Section 8, Facility Goals.

### **Tier 2 Airport Development Standards**

All eight of the Tier 1 airport development areas and their individual standard development items are considered significant and applicable to the Tier 2 category of airports as well. Therefore, Tier 2 airport development standards are identical to Tier 1 standards. Both are listed in Table 40.

The only distinction between the Tier 1 and Tier 2 standards is that Tier 1 category airports carry a higher priority than Tier 2 category airports in receiving state and federal funding for any of the eligible development items.

**Table 40**

Tier 1 and Tier 2 Airport Development Standards							
Facility Goal	Airport Development Item	Airport Classification					
		D-IV/V	C-III	C-II	B-II	B-I	A-I
Primary Runway System	Length (feet)	6,000+	5,000+	5,000	4,300	3,500	2,500
	Width (feet)	150	100	100	75	75	100
	Surface Type	Paved	Paved	Paved	Paved	Paved	Turf
	Primary Taxiway System	Full Parallel			Full Par if 20,000+ Ops		None
Pavement Condition	Primary Runway PCI (min)	75	70	70	70	70	N/A
	Primary Taxiway PCI (min)	70	65	65	60	60	N/A
Lighting and Visual Aids	Runway Lighting System	HIRL	HIRL	MIRL	MIRL	MIRL	Markers
	PAPI	Yes	Yes	Yes	Yes	Yes	No
	REIL	Yes	Yes	Yes	Yes	Yes	No
	MALSR	Yes	Yes	Yes	No	No	No
	Rotating Beacon	Yes	Yes	Yes	Yes	Yes	No
	Lighted Wind Indicator	Yes	Yes	Yes	Yes	Yes	No
	Segmented Circle	Yes	Yes	Yes	Yes	Yes	No
Approach Protection	Approach Protection Plan	Yes	Yes	Yes	Yes	Yes	Preferred
	Filed with Local Authorities	Yes	Yes	Yes	Yes	Yes	Preferred
Basic Pilot and Aircraft Services	Pilot Shelter (24-hr)	Yes	Yes	Yes	Yes	Yes	Yes
	Telephone	Yes	Yes	Yes	Yes	Yes	No
	Restrooms	Yes	Yes	Yes	Yes	Yes	No
	Fuel	Yes	Yes	Yes	Yes	Yes	No
	Aircraft Parking	Yes	Yes	Yes	Yes	Yes	Yes
	Aircraft Maintenance	Yes	Yes	Yes	Yes	No	No
	Available Staff	Yes	Yes	Yes	Yes	Yes	Yes
All-Weather Access	Instrument Approach	Precision	Precision	Precision	Non-Prec	Visual	Visual
	Weather Reporting (AWOS)	Yes	Yes	Yes	Yes	Preferred	Preferred
	Weather Briefing Access	Yes	Yes	Yes	Yes	Preferred	Preferred
Year-Round Access	Open Year-Round	Yes	Yes	Yes	Yes	Yes	Yes
	Snow Removal	Yes	Yes	Yes	Yes	Yes	Yes
Landside Access	Public/Private Transportation	Yes	Yes	Yes	Yes	No	No
Notes: At A-1 Airports, an unlit wind indicator is acceptable. Airports having a VASI instead of a PAPI are acceptable. An Airport Zoning Ordinance is considered an acceptable Approach Protection Plan. Aircraft parking consists of either a hangar, tie-down, or parking area.							

Source: MDOT Bureau of Aeronautics &amp; Freight Services

### **Tier 3 Airport Development Standards**

Most of the Tier 1 and Tier 2 airport development standards apply to the Tier 3 category airports, but there are some exceptions:

In the area of Basic Pilot and Aircraft Services, the aircraft maintenance and airport staffing standards are not considered applicable to Tier 3 airports. The other items from this area (pilot shelter, telephone, restrooms, fuel, and aircraft parking) still apply as targeted standards for Tier 3 airports.

In the areas of All-Weather Access, Year-Round Access, and Landside Access, none of the associated individual development items is considered to be an applicable standard for Tier 3 airports.

Tier 3 category airport development standards are listed in Table 41, "Tier 3 Airport Development Standards." Shaded areas of the table are the Tier 1 and Tier 2 airport development standards that do not apply to Tier 3 airports.

REPORT 08

**Table 41**

Tier 3 Airport Development Standards							
Facility Goal	Airport Development Item	Airport Classification					
		D-IV/V	C-III	C-II	B-II	B-I	A-I
Primary Runway System	Length (feet)	6,000+	5,000+	5,000	4,300	3,500	2,500
	Width (feet)	150	100	100	75	75	100
	Surface Type	Paved	Paved	Paved	Paved	Paved	Turf
	Primary Taxiway System	Full Parallel			Full Par if 20,000+ Ops		None
Pavement Condition	Primary Runway PCI (min)	75	70	70	70	70	N/A
	Primary Taxiway PCI (min)	70	65	65	60	60	N/A
Lighting and Visual Aids	Runway Lighting System	HIRL	HIRL	MIRL	MIRL	MIRL	Markers
	PAPI	Yes	Yes	Yes	Yes	Yes	No
	REIL	Yes	Yes	Yes	Yes	Yes	No
	MALSR	Yes	Yes	Yes	No	No	No
	Rotating Beacon	Yes	Yes	Yes	Yes	Yes	No
	Lighted Wind Indicator	Yes	Yes	Yes	Yes	Yes	No
	Segmented Circle	Yes	Yes	Yes	Yes	Yes	No
Approach Protection	Approach Protection Plan	Yes	Yes	Yes	Yes	Yes	Preferred
	Filed with Local Authorities	Yes	Yes	Yes	Yes	Yes	Preferred
Basic Pilot and Aircraft Services	Pilot Shelter (24-hr)	Yes	Yes	Yes	Yes	Yes	Yes
	Telephone	Yes	Yes	Yes	Yes	Yes	No
	Restrooms	Yes	Yes	Yes	Yes	Yes	No
	Fuel	Yes	Yes	Yes	Yes	Yes	No
	Aircraft Parking	Yes	Yes	Yes	Yes	Yes	Yes
	Aircraft Maintenance	N/A	N/A	N/A	N/A	N/A	N/A
	Available Staff	N/A	N/A	N/A	N/A	N/A	N/A
All-Weather Access	Instrument Approach	N/A	N/A	N/A	N/A	N/A	N/A
	Weather Reporting (AWOS)	N/A	N/A	N/A	N/A	N/A	N/A
	Weather Briefing Access	N/A	N/A	N/A	N/A	N/A	N/A
Year-Round Access	Open Year-Round	N/A	N/A	N/A	N/A	N/A	N/A
	Snow Removal	N/A	N/A	N/A	N/A	N/A	N/A
Landside Access	Public/Private Transportation	N/A	N/A	N/A	N/A	N/A	N/A

Notes: At A-1 Airports, an unlit wind indicator is acceptable.  
 Airports having a VASI instead of a PAPI are acceptable.  
 An Airport Zoning Ordinance is considered an acceptable Approach Protection Plan.  
 Aircraft parking consists of either a hangar, tie-down or parking area.

Source: MDOT Bureau of Aeronautics & Freight Services

## Description of Existing Michigan Airport System Facilities

A description and assessment of the existing Michigan airport system provide valuable input for development of the MASP 2008. The primary uses of this assessment are establishment of:

1. **Baseline operational data:** Useful in developing forecasts of based aircraft and operations.
2. **Baseline airport facility data:** Useful in identifying current airport and system deficiencies.
3. **An evaluation mechanism:** For measuring how effectively MASP airports are responding to identified goals and objectives.

The ultimate goal of the assessment of the Michigan airport system can be described as follows:

**A current and dynamic inventory of airport features** as they relate to MASP airport classification and airport development standards.

### Databases

Currently, there are two active databases within MDOT where aviation-related data is maintained:

The Transportation Management System (TMS) is the official department repository for a vast array of data on all transportation modes, including aviation. The TMS has historically been the data source for MASP efforts, and analysis tools for the MASP 2008 utilize the TMS.

The Airport Information Management System (AIMS) maintains aviation data and is an effective tool in communicating with the FAA and aviation agencies in other states.

Currently, a need exists to maintain the data in both the TMS and AIMS. In support of the MASP 2008 effort, a link between the two systems has been developed that will result in one data set and eliminate the existence of two independent versions. The data stored in both systems will be maintained through either TMS or AIMS, with a link between the programs, making it readily available to any user on the system.