

# MICHIGAN AIRPORT DEVELOPMENT PROGRAM

## AIP CAPITAL IMPROVEMENT PLAN 2012-2022

### FEDERAL/STATE/LOCAL



## Mackinac Island Airport

### Mackinac Island, MI

Date of Latest ALP - **2009**  
ACIP Airport Code - **C**  
Airport Identifier - **MCD**



**MDOT-AERO**  
**2700 E AIRPORT SERVICE DRIVE**  
**LANSING, MICHIGAN 48906**

Prepared by: **URS Corporation**  
Sponsor: Mackinac Island State Parks Comm.  
Submitted by: Phil Porter  
Date: November 28, 2011

**MICHIGAN STATE BLOCK GRANT PROGRAM**  
**TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012\* to FY-2022**

\*ACIP includes current development year (2011 already programmed - minor changes acceptable)

Airport Name: <b>Mackinac Island Airport</b>	Date prepared: 11-28-11
Associated City: <b>Mackinac Island, MI</b>	Prepared By: <b>URS Corporation</b>
Sponsor: <b>Mackinac Island State Parks Comm.</b>	Sponsor email address & phone: cookdg@michigan.gov 906-847-3231
Airport Identifier: <b>MCD</b>	<b>FINAL ACIP due to MDOT AERO: no later than 12/1/11</b>

Development Year	Project Description	Shown on ALP? (Yes or No)	ACIP Code**	NPIAS Priority Rating**	Federal Entitlements	Federal Apportionment	Federal Discretionary	State 5%	Local	Total	Remarks/Item Justification - Provide as much detail as possible.
<b>2012</b>					Available Entitlements	\$ 150,000	(\$150,000 NPE plus \$0,000 NPE carryover from 2011.)				
	Box Plow	NA	ST-EQ-SN	45	\$ -	\$ -		\$ 12,000	\$ -	\$ 12,000	New plow for existing equipment to aid in snow removal. 100% State funds used.
	DESIGN: SRE Tractor and Building	NA	ST-EQ-SN	45	\$ 19,000	\$ -		\$ 1,000	\$ -	\$ 20,000	Second heated bay will be added to existing building to house second piece of equipment. Project is contingent on completion of land acquisition in the west approach.
					\$ -	\$ -				\$ -	
					Carryover	\$ 131,000					
<b>2013</b>					Available Entitlements	\$ 281,000					
	SRE Building Expansion	Yes	ST-BD-SN	38	\$ 124,450	\$ -		\$ 6,550	\$ -	\$ 131,000	Second heated bay will be added to existing building to house second piece of equipment. Existing floor drains will be rerouted to comply with DEQ requirements.
	SRE - Tractor w/ Large Plow	NA	ST-EQ-SN	45	\$ 153,900	\$ -		\$ 8,100	\$ -	\$ 162,000	A tractor capable of pushing a large plow is needed to clear snow from the airport pavements. Current equipment is aging and requires replacement. This tractor will be capable of performing snow removal under many circumstances. The broom and blower will give the airport more options to move snow in variable conditions. Mower is an ineligible item and will be paid for with Historic Park funds. Existing FAA Funded Snow Removal Equipment: 2001 SRE Plow Truck B-26-0058-0101 FM 49-06-C19
					\$ -	\$ -				\$ -	
					Carryover	\$ 2,650					
<b>2014</b>					Available Entitlements	\$ 152,650					
	Phase II Terminal Work	Yes	CA-TE-IM	41	\$ 118,750	\$ -		\$ 6,250	\$ -	\$ 125,000	Items were eliminated from the 2007/2008 terminal construction project to remain within budget. Stonework for existing columns, cupola, and other features will be added to finish the terminal building as originally designed. No additional engineering design is needed since it was completed as part of the original work.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 33,900					
<b>2015</b>					Available Entitlements	\$ 183,900					
	Paved Shoulders Parallel Taxiway	Yes	RE-TW-IM	64	\$ 183,900	\$ 418,400		\$ 31,700	\$ -	\$ 634,000	Paved shoulders will aid in snow removal at this airport with high snowfall rates.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ -					
<b>2016</b>					Available Entitlements	\$ 150,000					
	Temporary Hangar (2 Planes)	Yes	ST-BD-MS	31	\$ 98,800	\$ -		\$ 5,200	\$ -	\$ 104,000	A temporary hangar will be constructed to allow winter storage and emergency maintenance of aircraft in the winter. This will be a structure that will be taken down in the spring and put back up in the fall. It will be sized to fit 2 aircraft. No hangars exist at this airport.
	LED Windcone and Apron Lights	Yes	SA-OT-VI	84	\$ 34,200	\$ -		\$ 1,800	\$ -	\$ 36,000	Windcone will be replaced with energy efficient LED unit. Current windcone is aging and nearing the end of its useful life. New unit will provide energy and maintenance savings.
					\$ -	\$ -				\$ -	
					Carryover	\$ 17,000					
<b>2017</b>					Available Entitlements	\$ 167,000					
	Save for Future Project	\$ -		0	\$ -	\$ -		\$ -	\$ -	\$ -	0
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 167,000					
<b>2018</b>					Available Entitlements	\$ 317,000					
	Solar Energy Field	Yes	ST-EQ-LI	26	\$ 315,400	\$ -		\$ 16,600	\$ -	\$ 332,000	A solar field will be constructed to supplement or replace the power needed to operate the airport. Project will save State of Michigan operating cost funds.
					\$ -	\$ -				\$ -	
					Carryover	\$ 1,600					
<b>2019</b>					Available Entitlements	\$ 151,600					
	Save for future project	\$ -			\$ -	\$ -		\$ -	\$ -	\$ -	0
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 151,600					
<b>2020</b>					Available Entitlements	\$ 301,600					
	Grass Tie Down Area Improvements (Grass Pavers)	Yes	CA-AP-EX	44	\$ 300,200	\$ -		\$ 15,800	\$ -	\$ 316,000	Plastic Grid Systems: High strength plastic grids (often made from recycled materials) are placed in roadway areas. Some are designed to be filled with gravel on top of an engineered aggregate material, while others are filled with a sand/soil mixture on top of an aggregate/topsoil mix that allow grass to be planted on the surface. The grids provide a support structure for heavy vehicles, and prevent erosion. During heavy rains, the grids helps to maintain stability for aircraft and vehicles in this area.
					\$ -	\$ -				\$ -	
					Carryover	\$ 1,400					
<b>2021</b>					Available Entitlements	\$ 151,400					
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 151,400					
<b>2022</b>					Available Entitlements	\$ 301,400					
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 301,400					



**TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012 to FY-2022**

**Mackinac Island Airport MCD**

Year	Project Description	Cost*	Remarks/Item Justification
2012	<i>Available Federal Entitlements (NPE) \$150,000 (\$0 Carryover from 2011)</i>		
	Box Plow	\$ 12,000	New plow for existing equipment to aid in snow removal. 100% State funds used.
	DESIGN: SRE Tractor and Building	\$ 20,000	Second heated bay will be added to existing building to house second piece of equipment. Project is contingent on completion of land acquisition in the west approach.
	<b>Fed \$30,400 - State \$1,600 - Total \$32,000</b>		<i>Carryover \$131,000</i>
2013	<i>Available Federal Entitlements (NPE) \$281,000</i>		
	SRE Building Expansion	\$ 131,000	Second heated bay will be added to existing building to house second piece of equipment. Existing floor drains will be rerouted to comply with DEQ requirements.
	SRE - Tractor w/ Large Plow	\$ 162,000	A tractor capable of pushing a large plow is needed to clear snow from the airport pavements. Current equipment is aging and requires replacement. This tractor will be capable of performing snow removal under many circumstances. The broom and blower will give the airport more options to move snow in variable conditions. Mower is an ineligible item and will be paid for with Historic Park funds. Existing FAA Funded Snow Removal Equipment: 2001 SRE Plow Truck B-26-0058-0101 FM 49-06-C19
	<b>Fed \$278,350 - State \$14,650 - Total \$293,000</b>		<i>Carryover \$2,650</i>
2014	<i>Available Federal Entitlements (NPE) \$152,650</i>		
	Phase II Terminal Work	\$ 125,000	Items were eliminated from the 2007/2008 terminal construction project to remain within budget. Stonework for existing columns, cupola, and other features will be added to finish the terminal building as originally designed. No additional engineering design is needed since it was completed as part of the original work.
	<b>Fed \$118,750 - State \$6,250 - Total \$125,000</b>		<i>Carryover \$33,900</i>
2015	<i>Available Federal Entitlements (NPE) \$183,900</i>		
	Paved Shoulders Parallel Taxiway	\$ 634,000	Paved shoulders will aid in snow removal at this airport with high snowfall rates.
	<b>Fed \$602,300 - State \$31,700 - Total \$634,000</b>		<i>Funds in addition to NPE are needed for this year.</i>
2016	<i>Available Federal Entitlements (NPE) \$150,000</i>		
	Temporary Hangar (2 Planes)	\$ 104,000	A temporary hangar will be constructed to allow winter storage and emergency maintenance of aircraft in the winter. This will be a structure that will be taken down in the spring and put back up in the fall. It will be sized to fit 2 aircraft. No hangars exist at this airport.
	LED Windcone and Apron Lights	\$ 36,000	Windcone will be replaced with energy efficient LED unit. Current windcone is aging and nearing the end of its useful life. New unit will provide energy and maintenance savings.
	<b>Fed \$133,000 - State \$7,000 - Total \$140,000</b>		<i>Carryover \$17,000</i>
2017	<i>Available Federal Entitlements (NPE) \$167,000</i>		
	Save for Future Project	\$ -	0
	<b>Fed \$0 - State \$0 - Total \$0</b>		<i>Carryover \$167,000</i>
2018	<i>Available Federal Entitlements (NPE) \$317,000</i>		
	Solar Energy Field	\$ 332,000	A solar field will be constructed to supplement or replace the power needed to operate the airport. Project will save State of Michigan operating cost funds.
	<b>Fed \$315,400 - State \$16,600 - Total \$332,000</b>		<i>Carryover \$1,600</i>
2019	<i>Available Federal Entitlements (NPE) \$151,600</i>		
	Save for future project	\$ -	0
	<b>Fed \$0 - State \$0 - Local \$0 - Total \$0</b>		<i>Carryover \$0</i>
2020	<i>Available Federal Entitlements (NPE) \$301,600</i>		
	Grass Tie Down Area Improvements (Grass Pavers)	\$ 316,000	Plastic Grid Systems: High strength plastic grids (often made from recycled materials) are placed in roadway areas. Some are designed to be filled with gravel on top of an engineered aggregate material, while others are filled with a sand/soil mixture on top of an aggregate/topsoil mix that allow grass to be planted on the surface. The grids provide a support structure for heavy vehicles, and prevent erosion. During heavy rains, the grids helps to maintain stability for aircraft and vehicles in this area.
	<b>Fed \$300,200 - State \$15,800 - Total \$316,000</b>		<i>Carryover \$1,400</i>
2021	<i>Available Federal Entitlements (NPE) \$151,400</i>		
	<b>Fed \$0 - State \$0 - Total \$0</b>		<i>Carryover \$151,400</i>
	<i>Available Federal Entitlements (NPE) \$301,400</i>		
2022	<b>Fed \$0 - State \$0 - Total \$0</b>		<i>Carryover \$301,400</i>

\* Includes Federal Cost of 95% and State Cost of 5%. When costs exceed available Federal Entitlements (NPE), additional funding will be needed from Federal Apportionment or Federal Discretionary funds.







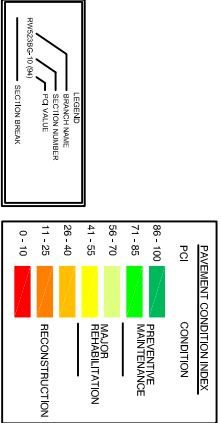
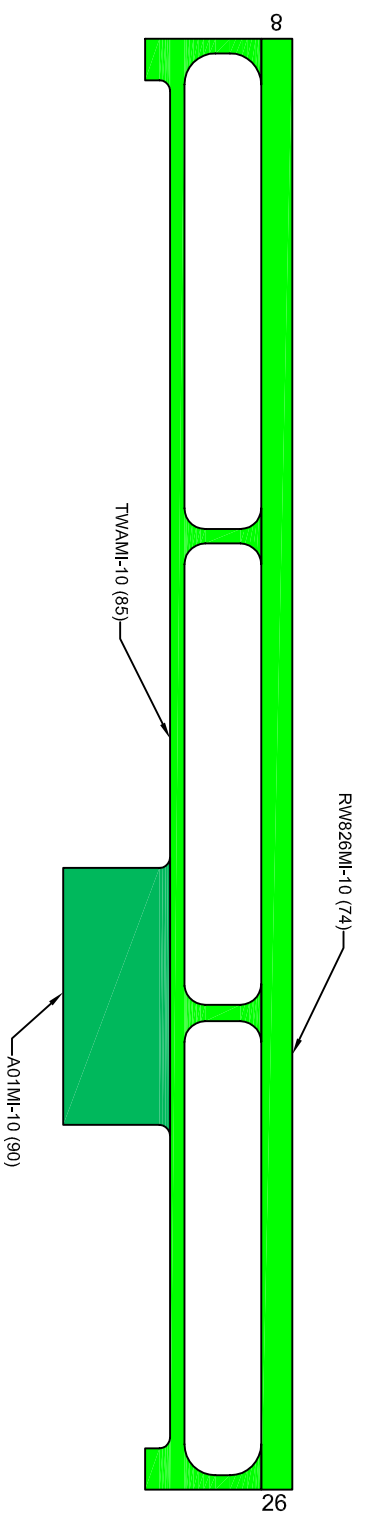












<p>Applied Pavement Technology, Inc. 115 W. Main Street, Suite 100 Madison, WI 53703 Tel: 608-785-8877</p>	
<p>Michigan Department of Transportation Bureau of Aeronautics Macknac Island Airport Macknac Island, Michigan</p>	
PROJECT TITLE	Pavement Condition Index Map
PROJECT DATE	6/15/2005
DRAWING SCALE	LAST MODIFICATION DATE
1:500	1/04/2008
DESIGNER	PROJECT NUMBER
KMP	04-074-AM01
ISSUED BY	DRAWN BY
TJS	TJS
DATE	FIGURE
PCI	8