

MICHIGAN AIRPORT DEVELOPMENT PROGRAM

AIP PROGRAM PACKAGE
2012-2022

FEDERAL/STATE/LOCAL



Menominee-Marquette Twin County Airport

Menominee, MI

Date of Latest ALP - **1998**
ACIP Airport Code - **B**
Airport Identifier - **MNM**



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

Prepared by: **URS Corporation**
Sponsor: Twin County Airport Commission
Submitted by: Jim Pearson
Date: November 17, 2011

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

*ACIP includes current development year (2012 already programmed - minor changes acceptable)

Airport Name: Menominee-Marquette Twin County Airport										Date prepared: 11-17-11	
Associated City: Menominee, MI										Prepared By: URS Corporation	
Sponsor: Twin County Airport Commission										Sponsor email address & phone: ks8o@live.com; 906-863-8408	
Airport Identifier: MNM										FINAL ACIP due to MDOT AERO: no later than 12/1/11	
Development Year	Project Description	Shown on ALP? (Yes or No)	ACIP Code**	NPIAS Priority Rating**	Federal Entitlements	Federal Apportionment	Federal Discretionary	State	Local	Total	Remarks/Item Justification - Provide as much detail as possible. See detail sheets for more information.
2012					Available Entitlements	\$ 190,000 (\$150,000 NPE plus \$40,000 NPE carryover from 2011.)					
	User Study Data Acquisition and Support	NA	PL-PL-MA	66	\$ 9,500	\$ -		\$ 250	\$ 250	\$ 10,000	Work will consist of distributing and compiling user survey forms and other operational data for MDOT to prepare the User Survey for justification of runway lengths. Data will be purchased from Flight Aware for the airport.
	Approach Clearing	Update Dependent	ST-RW-OB	52	\$ 47,500	\$ -		\$ 1,250	\$ 1,250	\$ 50,000	Approach survey work in 2011 may identify trees for clearing. Depending on final scope of work, this item may alternatively be utilized to resolve other potential obstruction issues.
	Construct New Taxiway (25'x200') and Crack Seal Pavements	Yes	CA-TW-CO	59	\$ 74,100	\$ -		\$ 1,950	\$ 1,950	\$ 78,000	A new taxiway is needed for additional hangar construction. This will provide access for two additional hangars. Crack Sealing will be done on Runways, Taxiway, and Apron as needed.
	Design: Lighting Rehab.	Yes	RE-RW-LI	70	\$ 58,900	\$ -		\$ 1,550	\$ 1,550	\$ 62,000	See following year for description.
					Carryover	\$ 58,900					
2013					Available Entitlements	\$ 208,900					
	Lighting Rehab. Rwy 14/32, Rwy 3/21, Txy A, B, E, and F	Yes	RE-RW-LI	70	\$ 208,900	\$ 629,950		\$ 22,075	\$ 22,075	\$ 883,000	Replace HIRL on Runway 3/21, MIRL on Runway 14/32 and MITL Txy A, B, E, and F, with LED fixtures, new counterpoise, and CIC. Regulators are failing and need replacement. Lights and circuits have exceeded their useful life: Runway 3/21 and associated vault equipment installed 1982 (circuits replaced 1997), Runway 14/32 and associated vault equipment installed 1972, taxiway lighting and associated vault equipment installed 1990. New system will provide energy efficiency. Existing signs are heaving and need replacement per 5010 inspection. No FAA owned equipment will be replaced as part of this project.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2014					Available Entitlements	\$ 150,000					
	PFC Overlay Runway 14/32 (10 Year Fix)	Yes	SP-RW-FR	84	\$ 150,000	\$ 277,500		\$ 11,250	\$ 11,250	\$ 450,000	PCI for this pavement was 65 in 2008. Based on estimated decline of PCI rating, runway will likely need rehabilitation at this time. A PFC will be added to the pavement after sealing all cracks. This should extend the life of the pavement another 10 years. This has been done successfully on the other runway.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2015					Available Entitlements	\$ 150,000					
	Reimburse Fuel Farm Replacement	Yes	OT-OT-FF	19	\$ 95,000	\$ -		\$ 2,500	\$ 2,500	\$ 100,000	Fuel farm dispensers, cabinets and other items for both 100LL and Jet A fuel have outlived their useful life and need replacement (Installed in 1974). Work will be done in Fall of 2011 and reimbursed when NPI are available. Tanks are in good condition. MDOT loan program will be used to pay up front costs. Reimbursement will not include local 2.5% cost of \$2500. Monthly payments will be \$1021.98 at 4.2% MDOT loan rate. Interest paid on loan (\$923.16 for 42 months) will not be reimbursed.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 55,000					
2016					Available Entitlements	\$ 205,000					
	Terminal Building Energy Upgrades	NA	CA-TE-IM	43	\$ 149,150	\$ -		\$ 3,925	\$ 3,925	\$ 157,000	Terminal building was constructed in 1971 and has been well maintained, however basic energy efficiency upgrades will be made to the terminal building to provide better energy use.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
					Carryover	\$ 55,850					
2017					Available Entitlements	\$ 205,850					
	Rehabilitate Taxiways "A", "B", "E", and "F"	Yes	RE-TW-IM	66	\$ 205,850	\$ 3,204,650		\$ 89,750	\$ 89,750	\$ 3,590,000	2008 PCI rating ranges from 72-81. Rehabilitation will likely be needed at this time. Project will include 4" of Bit. on 8" of new P-209 base.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2018					Available Entitlements	\$ 150,000					
	Phase III Perimeter Fence Project	Yes	ST-EQ-SE	41	\$ 150,000	\$ 146,400		\$ 7,800	\$ 7,800	\$ 312,000	Last phase of a multiphase project to increase fence height to help prevent deer from entering the AOA area. Initial phases have taken care of "worst" areas. Areas not able to be addressed given previous funding constraints will be completed. Existing fence installed 1984. Existing fence will be repaired and extended where possible. Some areas will need new fence. This work will completely enclose the airport with 10' fence with no gaps or openings. See attached sketch for areas.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2019					Available Entitlements	\$ 150,000					
	Reconstruct Runway 3/21 (Concrete)	Yes	RE-RW-IM	70	\$ 150,000	\$ 4,296,950		\$ 117,025	\$ 117,025	\$ 4,681,000	Runway will likely need rehabilitation at this time. A concrete overlay will be done to provide another 30 years of life for this pavement. 2008 PCI was 94.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2020					Available Entitlements	\$ 150,000					
	Snow Removal Equipment - Tractor with Blower	NA	ST-EQ-SN	47	\$ 150,000	\$ 51,400		\$ 5,300	\$ 5,300	\$ 212,000	Current equipment is old and in need of replacement. Existing equipment is a displacement plow purchased in 2007.
	SRE Building Expansion	Yes	ST-BD-SN	39	\$ -	\$ 380,950		\$ 10,025	\$ 10,025	\$ 401,000	A SRE Building is needed to house equipment at the airport. New snow blower planned for prior year will not have a permanent storage location. This building will help preserve the investment made in equipment purchased.
					\$ -	\$ -				\$ -	
2021					Available Entitlements	\$ 150,000					
	100'x100' Box Hangar	Update Needed	ST-BD-MS	32	\$ 150,000	\$ 494,100		\$ 16,950	\$ 16,950	\$ 678,000	A box hangar is needed for itinerant aircraft storage. This building will be sited on the 2009 ALP update.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
2022					Available Entitlements	\$ 150,000					
	Runway 14/32 Paved Shoulders	Yes	RE-RW-LI	70	\$ 150,000	\$ 246,150		\$ 10,425	\$ 10,425	\$ 417,000	Paved 12' Wide shoulders on Runway 14/32.
					\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	

MDOT
BUREAU OF AERONAUTICS
PRELIMINARY COST ESTIMATE FORM
2012-2022

Consultant **URS Corporation**
 (Preparer) William M. Malinowski, P.E.

AIRPORT:
 DEVELOPMENT ITEM:

Menominee-Marquette Twin County Airport
Reimburse Fuel Farm Replacement

A loan for 90% of cost is available at 4.2% with yearly payments. Payments could be made for 4 years and then 97.5% (all but 2.5% local share) of the cost of the project could be reimbursed in year 4.

Total Cost	\$100,000.00
Yearly Payments on \$90,000 Loan	\$11,249.59
Total Payments on Loan by 2015 (4 years)	\$44,998.36
Interest Paid on Loan by 2015 (4 years)	\$13,433.06
Principle Paid on Loan by 2015 (4 years)	\$31,565.30
Total Local Cost (2.5% Local Cost + Interest)	\$15,933.06
Reimburse in 2015 (97.5% Fed. and State Costs)	\$97,500.00

Year	Payments
2011	\$21,249.59 <i>Payment + 10% not covered by Loan</i>
2012	\$11,249.59 <i>Payment</i>
2013	\$11,249.59 <i>Payment</i>
2014	-\$27,815.71 <i>Payment + Remaining Principle - Reimbursement</i>
Total	\$15,933.06

TOTAL CONSTRUCTION	\$	95,000.00
ENGINEERING DESIGN	\$	5,000.00
CONSTRUCTION ADMIN.		
CONTINGENCY		
TOTAL*	\$	100,000.00

TOTAL FEDERAL DOLLARS	95%	\$	95,000
TOTAL STATE DOLLARS	2.5%	\$	2,500
TOTAL LOCAL DOLLARS	2.5%	\$	2,500

* Amount rounded up to the nearest thousand dollars.

JUSTIFICATION AND NOTES:

Fuel farm dispensers, cabinets and other items for both 100LL and Jet A fuel have outlived their useful life and need replacement (Installed in 1974). Work will be done in Fall of 2011 and reimbursed when NPI are available. Tanks are in good condition. MDOT loan program will be used to pay up front costs. Reimbursement will not include local 2.5% cost of \$2500. Monthly payments will be \$1021.98 at 4.2% MDOT loan rate. Interest paid on loan (\$923.16 for 42 months) will not be reimbursed.

Yes	ALP STATUS	ENV.	PURPOSE:	Other	4
			COMPONENT:	Other	7
			TYPE:	Fuel Farm Developm	2
			PRIORITY NUMBER		19

MDOT
BUREAU OF AERONAUTICS
PRELIMINARY COST ESTIMATE FORM
2012-2022

Consultant **URS Corporation**
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AIRPORT:
 DEVELOPMENT ITEM:

Menominee-Marinette Twin County Airport
Rehabilitate Taxiways "A", "B", "E", and "F"

Work Item Description	Quantity	Unit	Price	Amount
Mobilization / Safety and Security	1	Lump Sum	\$ 120,000.00	\$ 120,000
Pavement Milling	62,100	Syd	\$ 1.00	\$ 62,100
8" Gravel Base	13,800	CYD	\$ 30.00	\$ 414,000
4" Bituminous Taxiway Pavement	14,300	Tons	\$ 85.00	\$ 1,215,500
Pavement Marking	1	Lump Sum	\$ 32,000.00	\$ 32,000
				\$ -
Paved Shoulders				\$ -
6" Gravel Base	5,000	CYD	\$ 30.00	\$ 150,000
2" Bituminous Surface	3,500	Tons	\$ 85.00	\$ 297,500
Pavement Marking	1	Lump Sum	\$ 10,000.00	\$ 10,000
12" Sand Subbase	10,000	CYD	\$ 10.00	\$ 100,000
8" Underdrain	18,000	LFT	\$ 8.00	\$ 144,000
				\$ -
Drainage				\$ -
Catch Basin Repair	8	EACH	\$ 1,500.00	\$ 12,000
Pipe Removal	2,000	LFT	\$ 14.00	\$ 28,000
Pipe Replacement	2,000	LFT	\$ 30.00	\$ 60,000
Turfing & Mulching	2	Acres	\$ 1,500.00	\$ 3,000
Taxilane				
6" Agg. Base	1,100	CYD	\$ 30.00	\$ 33,000
Bit. Aggregate Pavement	1,100	TON	\$ 85.00	\$ 93,500
Earthwork	2,200	CYD	\$ 4.00	\$ 8,800
Marking	700	SFT	\$ 2.00	\$ 1,400
Seeding	1,200	SFT	\$ 1.00	\$ 1,200
Topsoil	1,200	SFT	\$ 2.50	\$ 3,000
Yard Drain with 6" Culvert	21	EACH	\$ 500.00	\$ 10,500

TOTAL CONSTRUCTION \$ 2,799,500.00
ENGINEERING DESIGN \$ 175,000.00
CONSTRUCTION ADMIN. \$ 195,000.00
CONTINGENCY 15% \$ 419,925.00
TOTAL* \$ 3,590,000.00

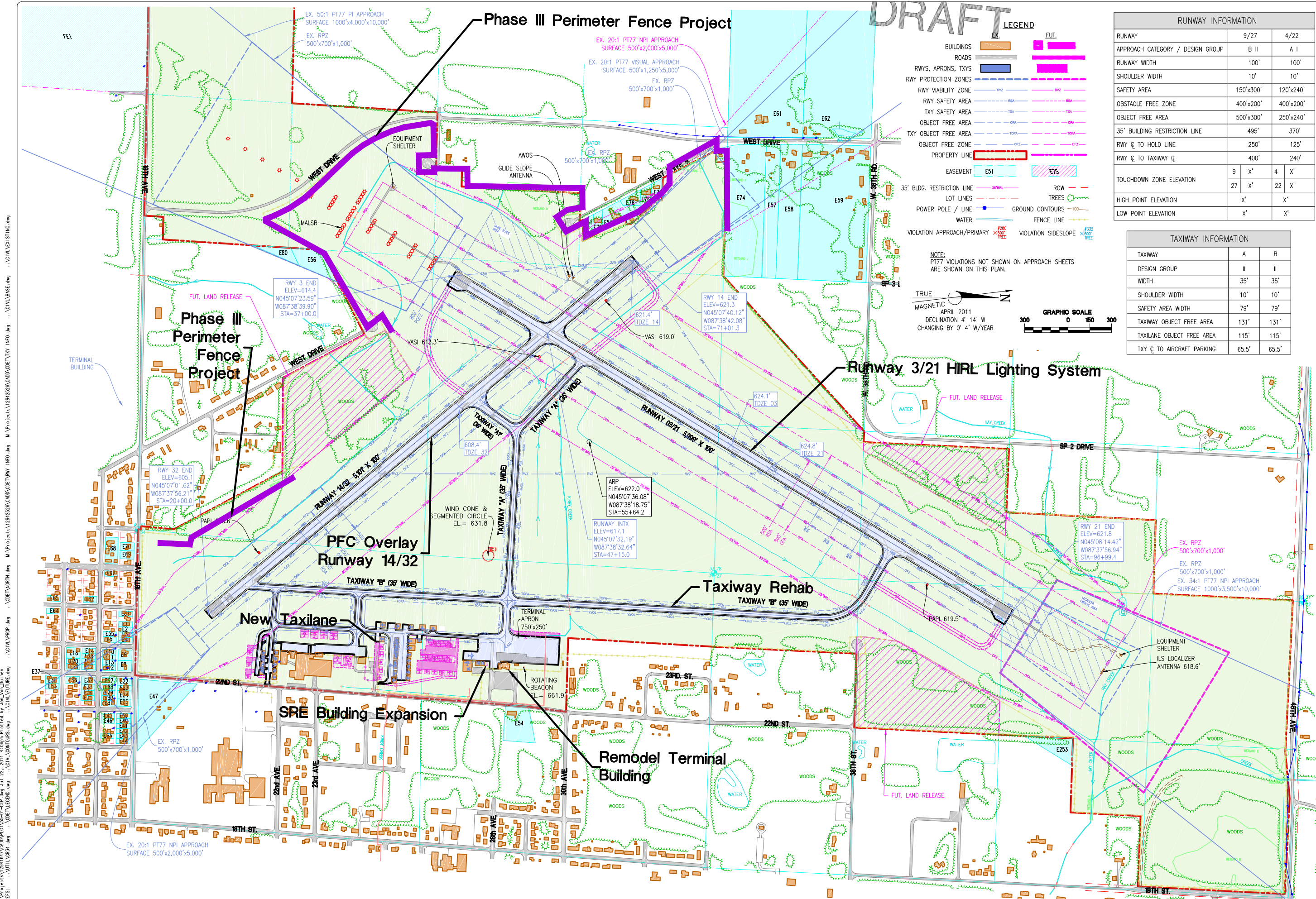
TOTAL FEDERAL DOLLARS 95% \$ 3,410,500
 TOTAL STATE DOLLARS 2.5% \$ 89,750
 TOTAL LOCAL DOLLARS 2.5% \$ 89,750

* Amount rounded up to the nearest thousand dollars.

JUSTIFICATION AND NOTES:

2008 PCI rating ranges from 72-81. Rehabilitation will likely be needed at this time. Project will include 4" of Bit. on 8" of new P-209 base.

ALP STATUS	ENV.	PURPOSE:	Reconstruction	8
Yes	Categorical Ex. Expected	COMPONENT:	Taxiway	8
		TYPE:	Improvements	8
		PRIORITY NUMBER		66



DRAFT

LEGEND

- BUILDINGS: [Symbol]
- ROADS: [Symbol]
- RWYS, APRONS, TXYS: [Symbol]
- RWY PROTECTION ZONES: [Symbol]
- RWY VIABILITY ZONE: [Symbol]
- RWY SAFETY AREA: [Symbol]
- TXY SAFETY AREA: [Symbol]
- OBJECT FREE AREA: [Symbol]
- TXY OBJECT FREE AREA: [Symbol]
- OBJECT FREE ZONE: [Symbol]
- PROPERTY LINE: [Symbol]
- EASEMENT: [Symbol]
- 35' BLDG. RESTRICTION LINE: [Symbol]
- LOT LINES: [Symbol]
- POWER POLE / LINE: [Symbol]
- WATER: [Symbol]
- VIOLATION APPROACH/PRIMARY: [Symbol]
- FUI: [Symbol]
- ROW: [Symbol]
- TREES: [Symbol]
- GROUND CONTOURS: [Symbol]
- FENCE LINE: [Symbol]
- VIOLATION SIDESLOPE: [Symbol]

NOTE: PT77 VIOLATIONS NOT SHOWN ON APPROACH SHEETS ARE SHOWN ON THIS PLAN.

TRUE MAGNETIC APRIL 2011 DECLINATION 4° 14' W CHANGING BY 0° 4' W/YEAR

GRAPHIC SCALE: 300 0 150 300

RUNWAY INFORMATION		
RUNWAY	9/27	4/22
APPROACH CATEGORY / DESIGN GROUP	B II	A I
RUNWAY WIDTH	100'	100'
SHOULDER WIDTH	10'	10'
SAFETY AREA	150'x300'	120'x240'
OBSTACLE FREE ZONE	400'x200'	400'x200'
OBJECT FREE AREA	500'x300'	250'x240'
35' BUILDING RESTRICTION LINE	495'	370'
RWY CL TO HOLD LINE	250'	125'
RWY CL TO TAXIWAY CL	400'	240'
TOUCHDOWN ZONE ELEVATION	9' X' 4' X'	27' X' 22' X'
HIGH POINT ELEVATION	X' X'	X' X'
LOW POINT ELEVATION	X' X'	X' X'

TAXIWAY INFORMATION		
TAXIWAY	A	B
DESIGN GROUP	II	II
WIDTH	35'	35'
SHOULDER WIDTH	10'	10'
SAFETY AREA WIDTH	79'	79'
TAXIWAY OBJECT FREE AREA	131'	131'
TAXILANE OBJECT FREE AREA	115'	115'
TXY CL TO AIRCRAFT PARKING	65.5'	65.5'

D/E	J/W	P/M	R/JN	S/QC	DR	QC	R/JN	MAL	IN/NS/KI	IN	CHARGE	DATE	ISSUED FOR

MICHIGAN SITE NO.	
55-01	LOC ID
MNM	

DURS

GRAND RAPIDS, MI.
395-445-8500
395-457-8500

MENOMINEE MARINETTE TWIN COUNTY AIRPORT

MENOMINEE-MARINETTE TWIN COUNTY AIRPORT

MEMONINEE, MICHIGAN

AIRPORT LAYOUT PLAN

AIRPORT LAYOUT PLAN

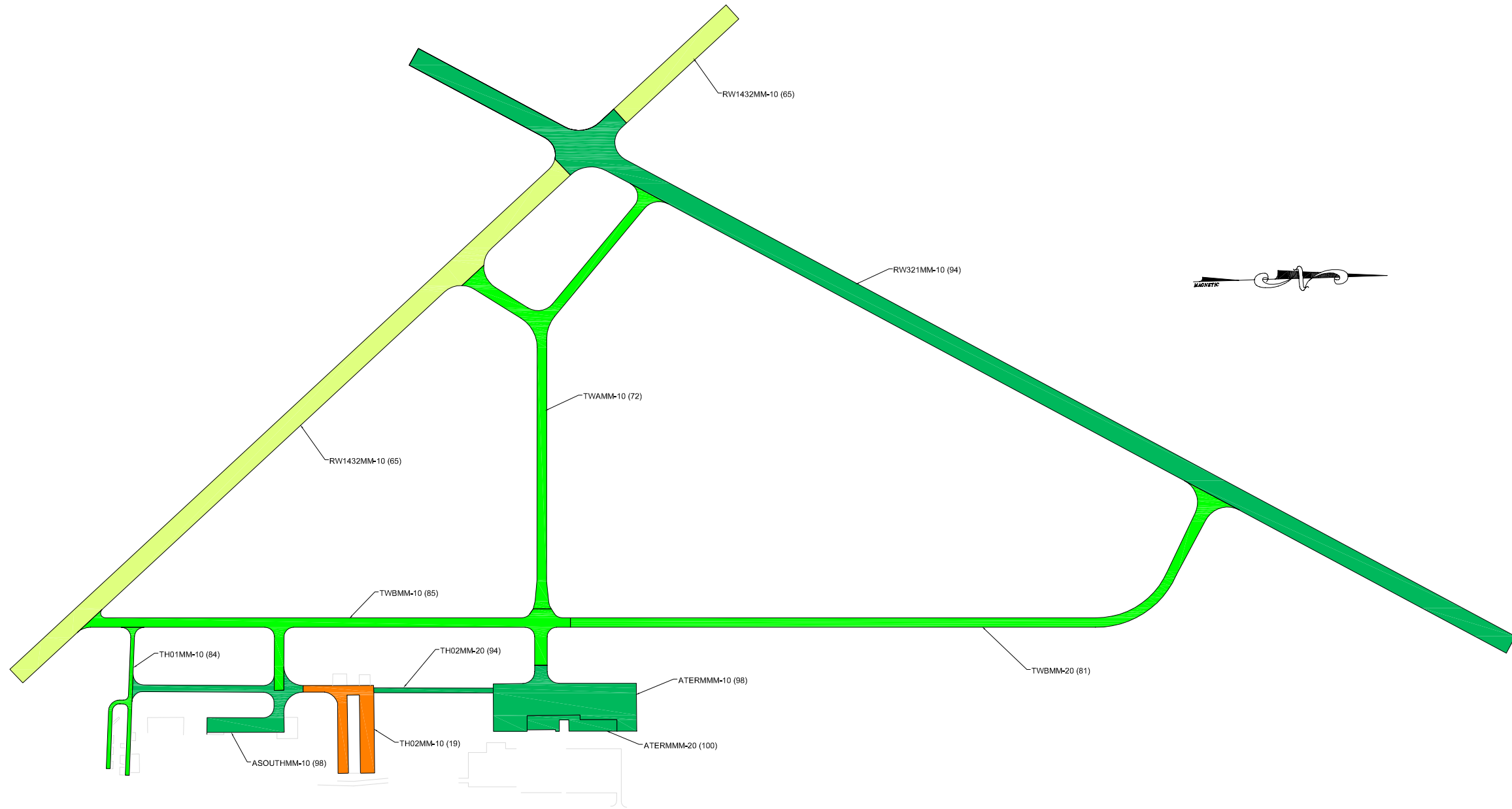
MICHIGAN SITE NO.	
55-01	LOC ID
MNM	

DRAWING

3 OF 11

12941647

M:\Projects\12941647\CD\105-01-CIP.dwg, Jul 22, 2011, 4:06pm, created by Jon.Van.Duinen
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LEGEND

	BRANCH IDENTIFIER
	SECTION IDENTIFIER
	PCI VALUE
	SECTION BREAK LINE

PAVEMENT CONDITION INDEX

PCI	REPAIR
100	PREVENTIVE MAINTENANCE
85	MAJOR REHABILITATION
70	RECONSTRUCTION
55	
40	
25	
10	
0	

applied pavement TECHNOLOGY
 115 W. Main Street, Suite 400
 Urbana, IL 61801
 Tel: (217) 398-9977
 Fax: (217) 398-4027

AGENCY: Michigan Department of Transportation
 Bureau of Aeronautics

LOCATION: MENOMINEE-MARINETTE TWIN COUNTY AIRPORT
 Menominee, MI

PAGE TITLE: 2008 PAVEMENT CONDITION INDEX MAP

PROJECT DATE: MAY 2005	CREATION DATE: AUGUST 2008	PROJECT MANAGER: KMP	JOB NUMBER: 04-074-AM01
DRAWING SCALE: 1"=300'	LAST MODIFIED DATE: DECEMBER 2008	REVISED BY: DSP	DRAWN BY: EY
FILENAME: Twin County Menominee.dwg	LAYOUT NAME/NUMBER: PCI	FIGURE: 8	