



MICHIGAN AIRPORT DEVELOPMENT PROGRAM PACKAGE

FIVE YEAR AIRPORT CAPITAL IMPROVEMENT PLAN

Fiscal Years 2012 - 2022

Roscommon County - Blodgett Memorial Airport

Houghton Lake, Michigan

Submitted By: Roscommon County

Date: July 25, 2011

MAP Meeting Date: October 10, 2011

Revision Date: November 21, 2011

Prepared By:



**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)

MICHIGAN STATE BLOCK GRANT PROGRAM											Date prepared: 07/25/11	Revised:
TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012* to FY-2022											Prepared By: QoE Consulting	
*ACIP includes current development year (2012 already programmed - minor changes acceptable)											Sponsor email address & phone: enjarochcam@charterinternet.com	
Airport Name: Roscommon County - Blodgett Memorial Airport											FINAL ACIP due to MDOT AERO: no later than 12/15/11	
Associated City: Houghton Lake, Michigan											Sponsor: Roscommon County	
Airport Identifier: HTL											Sponsor email address & phone: enjarochcam@charterinternet.com	
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.	
2012	Extend Parallel Txy	Yes	CA/TW/EX	49	150,000	990,000		30,000	30,000	1,200,000	Eliminate back-taxing on runway 9-27.	
2012	Install Txy Lighting (MITL)	Yes	SP/TW/LI	75		133,000		3,500	3,500	140,000	Lighting needed for nighttime operations.	
2013	Carry over funds to FY 2014				150,000						Carry over funds to 2014	
2014	Install Perimeter Fence (10,000' +/-)	Yes	ST/EQ/SE	40	300,000	18,250		8,375	8,375	335,000	Fencing is required for wildlife control and to prevent inadvertent entry by people/ORVs.	
2015	Install Perimeter Fence (12,500' +/-)	Yes	ST/EQ/SE	40	150,000	196,750		9,125	9,125	365,000	Fencing is required for wildlife control and to prevent inadvertent entry by people/ORVs.	
2015	New Driveway to T-Hangar Area	Yes	CA/GT/AC	44		90,250		2,375	2,375	95,000	Eliminate user traffic from crossing the active aircraft parking apron.	
2016	Rehabilitate Apron	Yes	RE/AP/IM	58	150,000	68,500		5,750	5,750	230,000	Apron had a PCI rating of 66 in 2007. By 2014 the apron will need to be rehabilitated.	
2016	Expand Apron Tie-down Area	Yes	CA/AP/EX	44		470,250		12,375	12,375	495,000	Increase transient aircraft parking space.	
2017	Environmental Assessment Rwy 9-27 Ext.	Yes	CA/RW/EX	53	142,500			3,750	3,750	150,000	Environmental Assessment needed for runway 9-27 extension of 1,000'.	
2017	Carry over funds to FY 2016				7,500						Carry over funds for wetland mitigation for rwy extension project in 2017.	
2018	Wetland Mitigation for Rwy 9-27 Ext.	Yes	CA/RW/EX	53	157,500	555,000		18,750	18,750	750,000	Wetland bank credits purchased for runway extension project to offset wetland destruction.	
2019	Extend Rwy 9-27 (1,000' +/-)	Yes	CA/RW/EX	53	150,000	2,747,500		76,250	76,250	3,050,000	Extend, rehab and widen existing runway to 5,000' x 100' to meet aircraft demand.	
2019	Extend Txy for Rwy 9-27	Yes	CA/TW/EX	49		427,500		11,250	11,250	450,000	Runway will be 5,000' so the parallel taxiway needs to be extended to match.	
2019	Install Rwy Lighting (MIRL)	Yes	SP/RW/LI	92		313,500		8,250	8,250	330,000	New runway lighting needed for nighttime operations.	
2019	Install Txy Lighting (MITL)	Yes	SP/TW/LI	75		114,000		3,000	3,000	120,000	Lighting needed for nighttime operations.	
2020	Rehabilitate Parking Lot	Yes	OT/OT/PA	17	150,000	11,500		4,250	4,250	170,000	Parking lot needs rehabilitation and updated to current ADA standards.	
2021	Hangar Demolition	Yes	ST/BD/MS	31	28,500			750	750	30,000	Demolition of purchased hangar.	
2021	Hangar Relocation and Site Development	Yes	ST/BD/MS	31					60,000	60,000	Demolished hangar to be reerected by the airport to a site as yet to be determined.	
2021	Carry over funds to FY 2021				121,500						Carry over funds for SRE project in 2021.	
2022	Acquire Snow Removal Equipment	Yes	ST/EQ/SN	45	237,500			6,250	6,250	250,000	New equipment needed to replace older equipment.	
2022	Carry over funds to FY 2022				34,000						Carry over funds for a project in 2022.	

*Proposed airport development must be shown on current FAA-approved ALP prior to funding project.

**In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed (Refer to Airport Code spreadsheet provided on MDOT Aeronautics website under Block Grant Program for specific airport code)



QoE Consulting
 4100 CAPITAL CITY BLVD., FLR 2
 LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Extend & light parallel taxiway to the existing runway end (1950' x 35')²

FUNDING YEAR	
Local Plan:	2012
Mtg. Decision:	2012

ESTIMATE COST	
Total:	\$1,340,000
Federal:	\$1,273,000
State:	\$33,500
Local:	\$33,500

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

A recent traffic count for Roscommon County - Blodgett Memorial Airport was completed during the summer of 2008. The total counts for this period equal out to approximately 7,183 operations. It has been accepted that Roscommon County - Blodgett Memorial Airport is a seasonal airport and these totals equate to approximately 17,957 operations per year. Because of this amount of traffic a full parallel taxiway is needed to increase safety by eliminating back-taxiing.



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 4100 CAPITAL CITY BLVD., FLR 2
 LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Perimeter/security fence
	(10,000' +/-)

FUNDING YEAR	
Local Plan:	2013
Mtg. Decision:	2014

ESTIMATE COST	
Total:	\$335,000
Federal:	\$318,250
State:	\$8,375
Local:	\$8,375

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

This perimeter/security fence is planned as a continuation of fencing begun along CR100 in 2005. The fence is needed to keep hunters, ATV operators, hikers and animals (primarily deer) off the airport. Existing woven wire fence (in the few areas it exists) is in poor condition and does not deter entrance onto the airport. It is proposed that 10' chain-link fence will be installed, as this is the accepted standard MDNR deer fence.



QoE Consulting
 4100 CAPITAL CITY BLVD., FLR 2
 LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Perimeter/security fence
	(12,500' +/-)

FUNDING YEAR	
Local Plan:	2014
Mtg. Decision:	2015

ESTIMATE COST	
Total:	\$365,000
Federal:	\$346,750
State:	\$9,125
Local:	\$9,125

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

This perimeter/security fence is planned as a continuation of fencing begun along CR100 in 2005. The fence is needed to keep hunters, ATV operators, hikers and animals (primarily deer) off the airport. Existing woven wire fence (in the few areas it exists) is in poor condition and does not deter entrance onto the airport. It is proposed that 10' chain-link fence will be installed, as this is the accepted standard MDNR deer fence.



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 4100 CAPITAL CITY BLVD., FLR 2
 LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Construct driveway and access gate to t-hangar area

FUNDING YEAR	
Local Plan:	2014
Mtg. Decision:	2015

ESTIMATE COST	
Total:	\$95,000
Federal:	\$90,250
State:	\$2,375
Local:	\$2,375

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The only access road to the t-hangar area at Roscommon County - Blodgett Memorial Airport is to the north of the FBO hangar. This means that for hangar access a pilot must cross the active aircraft parking apron. A new access road and electronic gate is needed near the t-hangar area to improve safety at the airport by discontinuing the practice of vehicles crossing the active aircraft parking apron.



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ENGINEERING COST ESTIMATE

Airport:	Roscommon County - Blodgett Memorial Airport	<input type="checkbox"/>	Final Design
Location:	Houghton Lake, MI	<input checked="" type="checkbox"/>	Project Programming
Project No.:		<input type="checkbox"/>	Feasibility Study
Contract No.:		<input type="checkbox"/>	State Planning
Date:	July 17, 2011		Based on FY 2011 Dollars
Revised:			

Work Description:

Construct driveway and access gate to t-hangar area

Item Description	Unit	Total Qty	Unit Price	Total Amount
mobilization and general conditions	ls	1	\$5,000.00	\$5,000.00
safety and security	ls	1	\$2,500.00	\$2,500.00
#8 bare copper counterpoise	lf	700	\$2.00	\$1,400.00
1/C #8, 600v, installed	lf	2,100	\$3.00	\$6,300.00
electrical duct, 2 bank-2", JIP and direct burial	lf	100	\$40.00	\$4,000.00
misc. electrical work, as specified	ls	1	\$5,000.00	\$5,000.00
unclassified excavation	cy	150	\$6.00	\$900.00
subbase course, 12"	cy	150	\$15.00	\$2,250.00
base course, 8" aggregate base	cy	60	\$35.00	\$2,100.00
bituminous surface course, 4"	ton	60	\$100.00	\$6,000.00
bituminous sawing	lf	50	\$5.00	\$250.00
RCCP storm sewer	lf	50	\$50.00	\$2,500.00
RCCP end section	ea	2	\$500.00	\$1,000.00
chain-link fence removal	lf	30	\$5.00	\$150.00
cantilever slide gate (26' x 10')	ea	1	\$5,000.00	\$5,000.00
slide gate operator	ls	1	\$15,000.00	\$15,000.00
signage	ea	2	\$300.00	\$600.00
misc. overhead light	ea	1	\$3,000.00	\$3,000.00
pavement marking	sf	1,500	\$1.00	\$1,500.00
shoulder construction	sta	4	\$300.00	\$1,200.00
turfing and mulching	ac	1	\$3,000.00	\$3,000.00
miscellaneous	ls	1	\$7,350.00	\$7,350.00
				\$0.00
				\$0.00
				\$0.00
Construction Subtotal:				\$76,000
Engineering & Administration:				\$19,000
Project Total:				\$95,000



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 4100 CAPITAL CITY BLVD., FLR 2
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P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Apron rehabilitation (175' x 340') and tie-down area expansion (150' x 360')

FUNDING YEAR	
Local Plan:	2015
Mtg. Decision:	2016

ESTIMATE COST	
Total:	\$725,000
Federal:	\$688,750
State:	\$18,125
Local:	\$18,125

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

In 2007 a PCI study indicated that the existing apron had a rating of 66. By 2013 the apron will have reached its design life and will need to be rehabilitated.

During the apron rehabilitation project the apron will be expanded to provide a paved tie-down area for weekend itinerant traffic.

The size and number of spaces needed will be determined upon completion of an Apron Utilization Plan that will be based on the Users' Survey results. The cost for the Apron Utilization plan is included in the total estimated cost shown above.



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P: 517-327-1980

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ITEM SHEET

ITEM	Environmental assessment for extension of runway 9/27

FUNDING YEAR	
Local Plan:	2016
Mtg. Decision:	2017

ESTIMATE COST	
Total:	\$150,000
Federal:	\$142,500
State:	\$3,750
Local:	\$3,750

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Runway 9/27 is planned for extension (1,000') and widening (25') in 2018. As a precursor to the extension and widening, an environmental assessment will be completed in 2016.

The wetland delineation for the 1,000' runway extension was done in 2007 during the wetland mitigation for the parallel taxiway to be constructed in 2012.

An airport users' survey will be completed by airport management to ascertain that there is sufficient justification for the proposed runway extension.



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P: 517-327-1980

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ITEM SHEET

ITEM	Wetland mitigation for the parallel taxiway and runway 9/27 extension

FUNDING YEAR	
Local Plan:	2017
Mtg. Decision:	2018

ESTIMATE COST	
Total:	\$750,000
Federal:	\$712,500
State:	\$18,750
Local:	\$18,750

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

To plan for the widening and extension of runway 9/27 and the extension of the parallel taxiway in 2019, an environmental assessment is planned for 2017 to determine specific environmental impacts the extensions would have. Because there are known wetlands in the extension area, it is prudent to plan for wetland replacement with the construction, even before the environmental assessment is completed.

Runway 9/27 and the parallel taxiway are scheduled to be extended to 5,000' in 2019. The wetland has been delineated for the parallel taxiway and runway extensions.

Approximately 16.5 acres of wetland will be impacted and 25 acres of new wetland will need to be constructed under this taxiway alignment. The estimated cost is based on purchasing wetland bank credits at \$30,000 per acre.



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 4100 CAPITAL CITY BLVD., FLR 2
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P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Extend & light runway 9/27 1000' to the east (5,000' total length), including parallel taxiway and widen existing runway from 75' to 100', and rehabilitate 4,000' x 75'

FUNDING YEAR	
Local Plan:	2018
Mtg. Decision:	2019

ESTIMATE COST	
Total:	\$3,950,000
Federal:	\$3,752,500
State:	\$98,750
Local:	\$98,750

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Roscommon County - Blodgett Memorial Airport serves the resort areas of Houghton and Higgins Lakes and is used by numerous itinerant aircraft. C-II aircraft are becoming more prevalent and, as such, the need for a longer/wider runway to better able to serve the requirements of these larger aircraft is growing. As part of this project the remaining 4,000' x 75' of pavement will be rehabilitated.

An airport users' survey will be completed by airport management to ascertain that there is sufficient justification for the proposed runway extension.

The existing Airport Layout Plan depicts a future 5,000' runway and includes airport geometrics (i.e. runway to taxiway separation, RSAs and RPZs) suitable for the C-II category.



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 4100 CAPITAL CITY BLVD., FLR 2
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P: 517-327-1980

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ITEM SHEET

ITEM	Rehabilitate and update existing parking lot

FUNDING YEAR	
Local Plan:	2019
Mtg. Decision:	2020

ESTIMATE COST	
Total:	\$170,000
Federal:	\$161,500
State:	\$4,250
Local:	\$4,250

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The existing parking lot at Roscommon County - Blodgett Memorial Airport is in need of rehabilitation and upgrade to current ADA standards. Rehabilitation will include all sidewalk, curb & gutter and bituminous pavement.



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 4100 CAPITAL CITY BLVD., FLR 2
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P: 517-327-1980

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ITEM SHEET

ITEM	Hangar relocation and site development

FUNDING YEAR	
Local Plan:	2020
Mtg. Decision:	2021

ESTIMATE COST	
Total:	\$60,000
Federal:	\$57,000
State:	\$1,500
Local:	\$1,500

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The former airport manager Norma Blodgett has sold a hangar and property to the airport for an agreed upon value of \$43,000. The total cost for the reimbursement is estimated to be \$48,200 which includes all appraisal costs and associated fees.



QoE Consulting
4100 CAPITAL CITY BLVD., FLR 2
LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

ITEM SHEET

ITEM	Snow removal equipment: truck with plow and blower

FUNDING YEAR	
Local Plan:	2021
Mtg. Decision:	2022

ESTIMATE COST	
Total:	\$250,000
Federal:	\$237,500
State:	\$6,250
Local:	\$6,250

ITEM IS ON ALP? YES
 NO

FAA Approval Date:	February-11
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Instructions:

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Due to its proximity to Houghton Lake, Roscommon County - Blodgett Memorial Airport has above average snowfall. Acquisition of new snow removal equipment (truck with plow and blower) will enable airport staff to better remove snow and maintain safer conditions during the winter.

