

**MICHIGAN AIRPORT DEVELOPMENT
PROGRAM PACKAGE
MDOT Airports Division**

**Ten Year Airport Capital Improvement Plan
2012-2022**

Prepared for:

**St. Clair County International Airport
Port Huron, Michigan**

**August 2011
Final November 2011**

Contact:

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Prepared by:

Mead&Hunt

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: St. Clair County International Airport		Airport Identifier: PHN						Date prepared: 11/16/11			
Associated City: Port Huron, MI								Prepared By: Mead & Hunt (Leisenring, Ward, Kowalewsky)			
Sponsor: St. Clair County								Sponsor email address & phone: Kathy Reaume, 810-364-6890, kreaume@stclaircounty.org			
NPIAS Airport Code: B											
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.
	Carryover: \$227,187										
2012	RECONSTRUCTION OF EAST HANGAR TAXISTREETS	YES	RE-TW-IM	66	\$256,500			\$6,750	\$6,750	\$270,000	The pavements in this area serve substantial tenant traffic accessing two t-hangars and have deteriorated to a point where there is significant debris being generated. The PCI for this area is 38 which indicates that the pavement is in need of reconstruction.
	Carryover: \$120,687										
2013	DESIGN RECONSTRUCTION OF SOUTH HANGAR AREA TAXISTREETS	YES	RE-TW-IM	66	\$28,500			\$750	\$750	\$30,000	Early design for the project will allow for better bidding schedule.
	Carryover: \$242,187										
2014	RECONSTRUCTION OF SOUTH HANGAR AREA TAXISTREETS	YES	RE-TW-IM	66	\$392,187	\$16,313		\$10,750	\$10,750	\$430,000	Some of the pavement in this area was installed by private investment to service box style hangars and has failed. Without field investigation, it is difficult to assess the existing pavement section to determine the full extent of reconstruction on this section of pavement. Additionally the other pavements have reached a point where they are showing signs of deterioration. The lowest PCI for these pavements was listed as 13.
	Carryover: \$0										
2015	REHABILITATION OF TAXIWAYS J, K, AND P	YES	RE-TW-IM	66	\$150,000	\$458,000		\$16,000	\$16,000	\$640,000	The pavement in this area has deteriorated to a point where there is significant debris being generated. The PCI for this area is from 26 to 37, but it is believed there is sand subbase so a rehabilitation only is planned. These provide access to the corporate hangars that are located south of Runway 10/28 where numerous new buildings have been constructed.
	Carryover: \$0										
2016	DESIGN REHABILITATION OF RUNWAY 4/22 AND ELECTRICAL	N/A	RE-RWY-IM	70	\$150,000	\$30,500		\$4,750	\$4,750	\$190,000	Early design for the project will allow for better bidding schedule.
	Carryover: \$0										
2017	REHABILITATION OF RUNWAY 4/22 AND ELECTRICAL	YES	RE-RWY-IM	70	\$150,000		\$2,652,500	\$73,750	\$73,750	\$2,950,000	This runway will eventually need rehabilitation to prevent a lowered level of serviceability and possible debris problems from deteriorating asphalt. The current PCI for the runway is 89. The electrical vault is outmoded, in need of reconfiguration in a larger building, and the airport currently has no backup generator.
	Carryover: \$0										
2018	CARRYOVER FUNDS TO 2019										
	Carryover : \$150,000										
2019	DESIGN RECONSTRUCTION OF TERMINAL APRON	YES	RE-TW-IM	66	\$47,500			\$1,250	\$1,250	\$50,000	Early design for the project will allow for better bidding schedule.
	Carryover: \$252,500										
2020	RECONSTRUCTION OF TERMINAL APRON	YES	RE-AP-IM	60	\$402,500	\$357,500		\$20,000	\$20,000	\$800,000	The pavement in front of the current terminal building (located at the east side of the field) has areas of significant deterioration that are producing debris on the apron area. The PCI for this area ranges from 19 to 26.
	Carryover: \$0										
2021	TAXIWAY C LIGHTING REHABILITATION	NO	RE-TW-LI	66	\$150,000	\$458,000		\$16,000	\$16,000	\$640,000	Taxiway lighting was installed in 1990.

*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

ENGINEERING COST ESTIMATE

PROJECT: RECONSTRUCTION OF EAST HANGAR TAXISTREETS
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 11/16/2011
 PREPARED BY: BJH, JAK

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Reconstruction of the east hangar area taxistreets

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 30,000.00	\$ 30,000
Safety and Security	LS	1	\$ 15,000.00	\$ 15,000
Permit Fee Allowance	DLR	2,000	\$ 1.00	\$ 2,000
Pulverize Asphalt	SYD	4,682	\$ 2.50	\$ 11,705
Salvage and Stockpile Pulverized	CYD	625	\$ 4.00	\$ 2,500
Unclassified Exc to Full Depth	CYD	2,812	\$ 5.00	\$ 14,060
Geotextile Reinforcement	SYD	500	\$ 5.00	\$ 2,500
Nonwoven Separator Fabric	SYD	500	\$ 2.00	\$ 1,000
Sand Subbase (24")	CYD	2,500	\$ 18.00	\$ 45,000
Fine Grade & Compact Agg Base (6")	SYD	3,750	\$ 2.00	\$ 7,500
Bituminous Asphalt (3")	TON	675	\$ 90.00	\$ 60,750
4" Underdrain	LFT	1,250	\$ 5.00	\$ 6,250
New Catch Basin	EA	1	\$ 2,000.00	\$ 2,000
Type D Cover	EA	1	\$ 500.00	\$ 500
12" Reinforced Concrete Pipe	LFT	90	\$ 35.00	\$ 3,150
Taxistreet Pavement Marking	LS	1	\$ 3,000.00	\$ 3,000
Catch Basin Modifications	LS	1	\$ 1,000.00	\$ 1,000
Topsoil for Shoulders	CYD	50	\$ 35.00	\$ 1,750
Turfing and Mulching	AC	2	\$ 3,000.00	\$ 6,000
CONSTRUCTION TOTAL = \$				215,665
CONSTRUCTION CONTINGENCIES (15%) = \$				32,350
CONSTRUCTION TOTAL = \$				248,015
ENGINEERING DESIGN (7%) = \$				17,361
CONSTRUCTION ADMIN (10%) = \$				24,801
\$				290,177
ANTICIPATED CONSTRUCTION YEAR =				2012
RATE OF INFLATION =				
PROJECT YEAR TOTAL COST = \$				290,177
PROJECT YEAR BUDGET ESTIMATE = \$				300,000

Note: A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: REHABILITATION OF TAXIWAYS J, K, AND P
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 7/21/2011
 PREPARED BY: BJH, JAK

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Rehabilitate taxiways J, K, and P

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 45,000.00	\$ 45,000
Safety and Security	LS	1	\$ 10,000.00	\$ 10,000
Permit Fee Allowance	DLR	2,000	\$ 1.00	\$ 2,000
Remove Bituminous Pavement	SYD	19,300	\$ 2.00	\$ 38,600
Fine Grade & Compact Agg Base	SYD	19,300	\$ 2.00	\$ 38,600
Bituminous Surface (3")	TON	3,650	\$ 90.00	\$ 328,500
Pavement Marking	LS	1	\$ 6,000.00	\$ 6,000
Turfing and Mulching	AC	2	\$ 2,000.00	\$ 4,000
CONSTRUCTION TOTAL = \$				472,700
CONSTRUCTION CONTINGENCIES (15%) = \$				70,905
CONSTRUCTION TOTAL = \$				543,605
ENGINEERING DESIGN (7%) = \$				38,052
CONSTRUCTION ADMIN (10%) = \$				54,361
\$				636,018
ANTICIPATED CONSTRUCTION YEAR =				2015
RATE OF INFLATION =				
PROJECT YEAR TOTAL COST = \$				636,018
PROJECT YEAR BUDGET ESTIMATE = \$				640,000




Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: RECONSTRUCTION OF SOUTH HANGAR AREA TAXISTREETS
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 7/21/2011
 PREPARED BY: BJH, JAK

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Reconstruct south hangar area taxistreets (factor of 2.5 used for unknown pavements compared to original drawn)

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 30,000.00	\$ 30,000
Safety and Security	LS	1	\$ 10,000.00	\$ 10,000
Permit Fee Allowance	DLR	2,000	\$ 1.00	\$ 2,000
Unclassified Excavation	CYD	5,105	\$ 4.00	\$ 20,420
Remove Bituminous Pavement	SYD	6,125	\$ 2.00	\$ 12,250
Sand Subbase (24")	CYD	4,083	\$ 18.00	\$ 73,494
Gravel Base (6")	CYD	1,020	\$ 35.00	\$ 35,700
Bituminous Surface (4")	TON	1,470	\$ 100.00	\$ 147,000
Pavement Marking	LS	1	\$ 4,000.00	\$ 4,000
Turfing and Mulching	AC	2	\$ 3,000.00	\$ 6,000
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  </div> <div style="width: 65%;"> <p style="text-align: right;">CONSTRUCTION TOTAL = \$ 340,864</p> <p style="text-align: right;">CONSTRUCTION CONTINGENCIES (15%) = \$ 51,130</p> <p style="text-align: right;">CONSTRUCTION TOTAL = \$ 391,994</p> <p style="text-align: right;">ENGINEERING DESIGN (7%) = \$ 27,440</p> <p style="text-align: right;">CONSTRUCTION ADMIN (10%) = \$ 39,199</p> <p style="text-align: right;">\$ 458,633</p> <p style="text-align: right;">ANTICIPATED CONSTRUCTION YEAR = 2014</p> <p style="text-align: right;">RATE OF INFLATION =</p> <p style="text-align: right;">PROJECT YEAR TOTAL COST = \$ 458,633</p> <p style="text-align: right;">PROJECT YEAR BUDGET ESTIMATE = \$ 460,000</p> </div> </div>				

Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: REHABILITATION OF RUNWAY 4/22 AND ELECTRICAL
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 7/27/2011
 PREPARED BY: BJH, JAK, AR

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Rehabilitate runway 4/22 (5103' x 100'), including electrical lighting and new vault system

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 150,000.00	\$ 150,000
Safety and Security	LS	1	\$ 25,000.00	\$ 25,000
Permits	DLR	2,000	\$ 1.00	\$ 2,000
New Electrical Vault	LS	1	\$ 25,000.00	\$ 25,000
Vault Equipment/New CCR for Runway	LS	1	\$ 70,000.00	\$ 70,000
New Control System	LS	1	\$ 25,000.00	\$ 25,000
Standby Generator	LS	1	\$ 80,000.00	\$ 80,000
Remove HIRL/MIRL/MITL, Base Mounted	EA	68	\$ 300.00	\$ 20,400
Remove Guidance / Hold Short / Distance Remaining Sign	EA	12	\$ 500.00	\$ 6,000
Cable, 5kv, CIC	LF	15,000	\$ 3.00	\$ 45,000
Counterpoise	LF	13,000	\$ 1.50	\$ 19,500
Elec. Manhole	EA	4	\$ 5,000.00	\$ 20,000
Electrical Duct	LF	300	\$ 50.00	\$ 15,000
MIRL/MITL (incl. Lens & Lamp)	EA	68	\$ 800.00	\$ 54,400
Guidance / Hold Short Signs, 1 Pnl	EA	2	\$ 2,500.00	\$ 5,000
Guidance / Hold Short Signs, 3 Pnl	EA	5	\$ 4,000.00	\$ 20,000
Distance Remaining Sign	EA	5	\$ 3,000.00	\$ 15,000
Fine Grade & Compact Aggregate Base	SYD	67,400	\$ 1.50	\$ 101,100
Salvage Pulverized Material (3")	CYD	5,617	\$ 5.00	\$ 28,083
Pulverize Existing Pavement	SYD	67,400	\$ 1.50	\$ 101,100
Bituminous Surface (4")	TON	16,176	\$ 90.00	\$ 1,455,840
Pavement Marking (Runway)	LS	1	\$ 25,000.00	\$ 25,000
Turfing and Mulching	AC	5	\$ 2,000.00	\$ 10,000
Topsoil (Shoulders)	CYD	400	\$ 20.00	\$ 8,000
CONSTRUCTION TOTAL = \$				2,326,423
CONSTRUCTION CONTINGENCIES (15%) = \$				348,964
CONSTRUCTION TOTAL = \$				2,675,387
ENGINEERING DESIGN (7%) = \$				187,277
CONSTRUCTION ADMIN (10%) = \$				267,539
\$				3,130,203
ANTICIPATED CONSTRUCTION YEAR =				2017
RATE OF INFLATION =				
PROJECT YEAR TOTAL COST = \$				3,130,203
PROJECT YEAR BUDGET ESTIMATE = \$				3,140,000



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 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: RECONSTRUCTION OF TERMINAL APRON
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 7/21/2011
 PREPARED BY: BJH, JAK

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Reconstruct terminal area apron

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 50,000.00	\$ 50,000
Safety and Security	LS	1	\$ 5,000.00	\$ 5,000
Permit Fee Allowance	DLR	2,000	\$ 1.00	\$ 2,000
Unclassified Excavation	CYD	8,500	\$ 4.00	\$ 34,000
Remove Bituminous Pavement	SYD	8,400	\$ 2.00	\$ 16,800
Sand Subbase (24")	CYD	6,800	\$ 18.00	\$ 122,400
Gravel Base (6")	CYD	1,700	\$ 40.00	\$ 68,000
Bituminous Surface (4")	TON	2,448	\$ 100.00	\$ 244,800
Drainage Pipe	LFT	1,100	\$ 45.00	\$ 49,500
Drainage Structure (incl cover)	EA	5	\$ 3,000.00	\$ 15,000
Pavement Marking	LS	1	\$ 6,000.00	\$ 6,000
Tie Downs	EA	36	\$ 250.00	\$ 9,000
Turfing and Mulching	AC	1	\$ 3,000.00	\$ 3,000
CONSTRUCTION TOTAL = \$				625,500
CONSTRUCTION CONTINGENCIES (15%) = \$				93,825
CONSTRUCTION TOTAL = \$				719,325
ENGINEERING DESIGN (7%) = \$				50,353
CONSTRUCTION ADMIN (10%) = \$				71,933
\$				841,610
ANTICIPATED CONSTRUCTION YEAR =				2020
RATE OF INFLATION =				
PROJECT YEAR TOTAL COST = \$				841,610
PROJECT YEAR BUDGET ESTIMATE = \$				850,000



Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: TAXIWAY C LIGHTING REHABILITATION
 LOCATION: St. Clair County International Airport
 CITY: Port Huron, MI
 DATE: 7/27/2011
 PREPARED BY: AR, JAK

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Rehabilitate taxiway C lighting

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 50,000.00	\$ 50,000
Safety and Security	LS	1	\$ 20,000.00	\$ 20,000
Permits	DLR	1,000	\$ 1.00	\$ 1,000
Remove HIRL/MIRL/MITL, Base Mounted	EA	214	\$ 300.00	\$ 64,200
Remove Guidance Sign	EA	16	\$ 500.00	\$ 8,000
Cable, 5kv, Direct Burial (incl. Counterpoise)	LF	16,000	\$ 3.50	\$ 56,000
Elec. Manhole	EA	2	\$ 5,000.00	\$ 10,000
Elec. Handhole	EA	6	\$ 1,500.00	\$ 9,000
Electrical Duct	LF	700	\$ 50.00	\$ 35,000
MIRL/MITL (incl. Lens & Lamp)	EA	214	\$ 800.00	\$ 171,200
Guidance / Hold Short Signs / Dist Remaining Signs	EA	16	\$ 2,700.00	\$ 43,200
Turfing and Mulching	AC	1	\$ 3,000.00	\$ 3,000
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="font-size: 2em; font-weight: bold; color: red; text-align: left;"> Mead & Hunt </div> <div style="text-align: right;"> <p>CONSTRUCTION TOTAL = \$ 470,600</p> <p>CONSTRUCTION CONTINGENCIES (15%) = \$ 70,590</p> <p>CONSTRUCTION TOTAL = \$ 541,190</p> <p>ENGINEERING DESIGN (7%) = \$ 37,883</p> <p>CONSTRUCTION ADMIN (10%) = \$ 54,119</p> <p>\$ 633,192</p> <p>ANTICIPATED CONSTRUCTION YEAR = 2021</p> <p>RATE OF INFLATION =</p> <p>PROJECT YEAR TOTAL COST = \$ 633,192</p> <p>PROJECT YEAR BUDGET ESTIMATE = \$ 640,000</p> </div> </div>				

Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ST. CLAIR COUNTY INTERNATIONAL AIRPORT

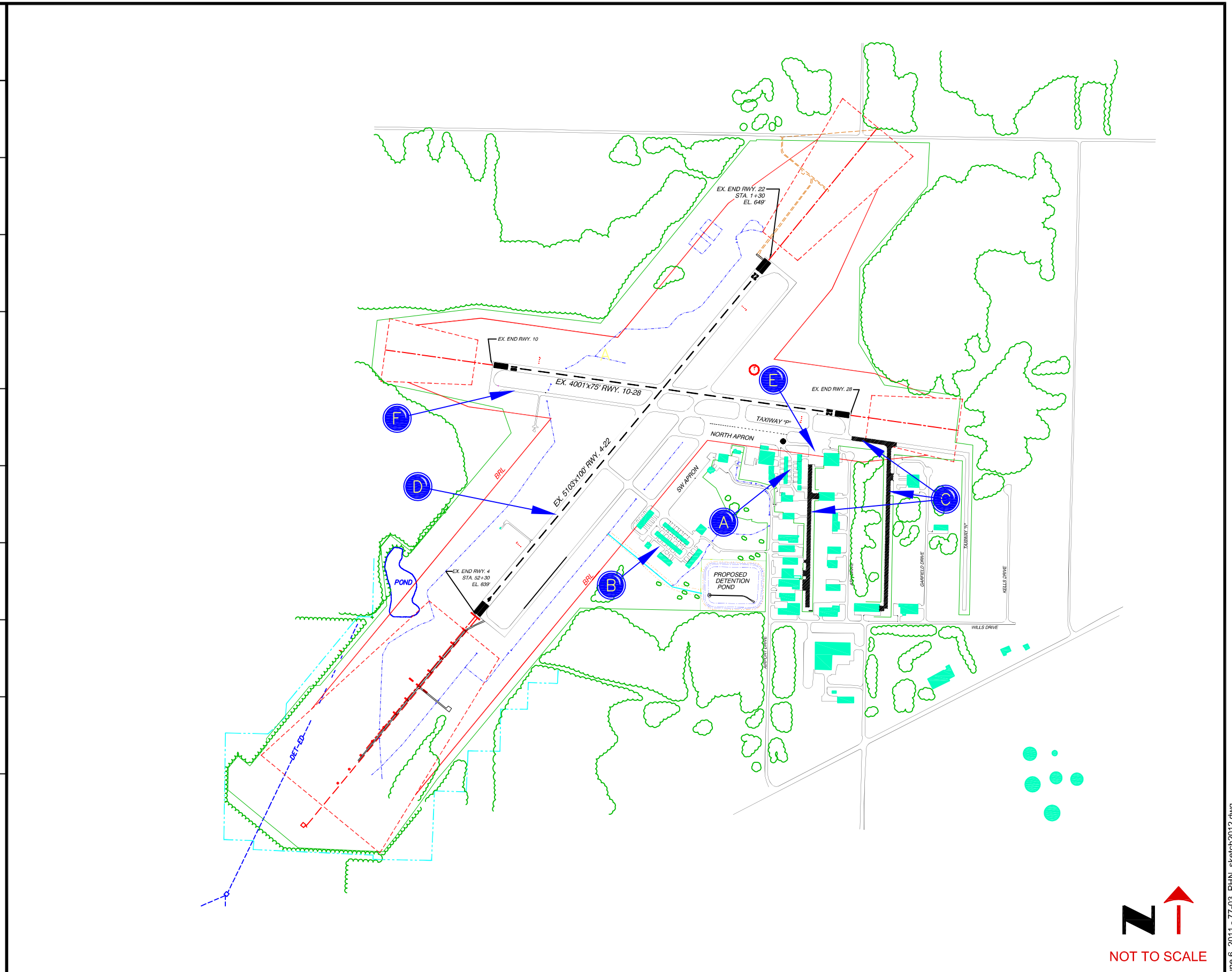
PORT HURON, MICHIGAN

TEN YEAR DEVELOPMENT PLAN - YEARS 2012 TO 2022



FAA IDENTIFIER: PHN
STATE ID: 77-03

YEAR - 2012	A	RECONSTRUCTION OF EAST HANGAR TAXISTREETS
YEAR - 2013	B	DESIGN RECONSTRUCTION OF SOUTH HANGAR AREA TAXISTREETS
YEAR - 2014	B	RECONSTRUCTION OF SOUTH HANGAR AREA TAXISTREETS
YEAR - 2015	C	REHABILITATION OF TAXIWAYS J, K, AND P
YEAR - 2016	D	DESIGN REHABILITATION OF RUNWAY 4/22 AND ELECTRICAL
YEAR - 2017	D	REHABILITATION OF RUNWAY 4/22 AND ELECTRICAL
YEAR - 2018		CARRYOVER FUNDS TO 2019
YEAR - 2019	E	DESIGN RECONSTRUCTION OF TERMINAL APRON
YEAR - 2020	E	RECONSTRUCTION OF TERMINAL APRON
YEAR - 2021	F	TAXIWAY C LIGHTING REHABILITATION



June 6, 2011 - 77-03_PHN_sketch2012.dwg