

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

**Ten Year Airport Capital Improvement Plan
2011-2021**

Prepared for:

**Beaver Island Airport
Beaver Island, Michigan**

FINAL SUBMITTAL

Contact:

Mr. Donald Vyse
Beaver Island Airport
P.O. Box 134
Beaver Island, MI 49782
231-448-2834

Prepared by:

Mead&Hunt

Estimated Costs for the New Terminal Building Beaver Island Airport

(Excerpt from the Terminal Building Study, October 2008)

Opinion of Probable Construction Cost

Given the building construction type, desired materials, and building size, an estimate of probable construction cost was explored. The airport board also provided contact information to some of the local contractors in the island, including Beaver Gems, Inc., K&M Contractors, and Ron Wojan Contracting to compare the cost of construction between the island and the mainland. Some of the projects used to compare the prices of construction were the Peaine Township Hall which was built for \$130/SF, and most recently, the school building which was bid at \$226/SF; however, this cost is based on bid result numbers and not the final cost of construction which may include any change orders and contingencies. The cost of the airport terminal building would be less than the projects being compared because the construction materials in the school are masonry and heavy timber framing which are more costly than the wood framing materials proposed for the new terminal building. However, these lower costs would be offset because of the smaller scope of the new airport terminal building. Due to these considerations, the building was divided into three categories for square footage cost: the main building's first floor, the basement, and the garage addition for the baggage handling.

1st Floor: 2,625 GSF @ \$225/SF = \$ 590,625.00

Basement: 2,625 GSF @ \$12/SF = \$ 31,500.00

Garage: 610 GSF @ \$30/SF = \$ 18,300.00

Total: \$ 640,425.00

Architectural Design: \$ 60,000.00

Construction Admin: \$ 40,000.00

Total: \$ 740,425.00

ENGINEERING COST ESTIMATE

PROJECT: Gravel Parking Lot and Entrance Road
 LOCATION: Beaver Island Airport
 CITY: Beaver Island, MI
 DATE: 7/01/2010
 PREPARED BY: RGN

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2010 DOLLARS

WORK DESCRIPTION: Gravel Parking Lot and Entrance Road

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$20,000.00	\$20,000
Safety and Security	LS	1	\$2,500.00	\$2,500
Clear and Grub	AC	2.5	\$5,000.00	\$12,420
Unclassified excavation	CY	3,400	\$5.00	\$17,000
Aggregate Base Course	CY	2,500	\$31.00	\$77,500
Conc Sidewalk	SF	2,200	\$4.00	\$8,800
Leaching Basin & Cover	EA	4	\$2,600.00	\$10,400
Underdrain	LF	800	\$8.00	\$6,400
Turfing and Mulching	AC	4	\$4,000.00	\$16,000
Misc Utilities	LS	1	\$15,000.00	\$15,000
				\$0
				\$0
CONSTRUCTION TOTAL =				\$186,020
CONSTRUCTION CONTINGENCIES (15%) =				\$27,903
CONSTRUCTION TOTAL =				\$213,923
ENGINEERING DESIGN (7%) =				\$14,975
CONSTRUCTION ADMIN (10%) =				\$21,392
				\$250,289
ANTICIPATED CONSTRUCTION YEAR =				2013
ANNUAL RATE OF INFLATION =				2.00%
PROJECT YEAR TOTAL COST =				\$265,609.16
BUDGET ESTIMATE =				\$270,000



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: Expand Terminal Apron
 LOCATION: Beaver Island Airport
 CITY: Beaver Island, MI
 DATE: 10/14/2008
 PREPARED BY: MDB
 Rev. 4/27/2010, RGN

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2009 DOLLARS

WORK DESCRIPTION: Apron Expansion Between Existing Apron and New Terminal Building (Terminal Area Plan Option 3)

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$20,000.00	\$20,000
Safety and Security	LS	1	\$5,000.00	\$5,000
Demolish Existing Terminal Building	SF	930	\$15.00	\$13,950
Demolish Existing Septic System / Drain Field	LS	1	\$5,000.00	\$5,000
Pavement Removal	SY	200	\$5.00	\$1,000
Sawcut existing pavement	LF	350	\$4.00	\$1,400
Unclassified excavation	CY	1,000	\$5.00	\$5,000
Sand Subbase	CY	800	\$18.00	\$14,400
Aggregate Base Course	CY	200	\$30.00	\$6,000
Bituminous Surface Course, 4"	TON	250	\$150.00	\$37,500
Leaching Basin & Cover	EA	3	\$2,500.00	\$7,500
Underdrain	LF	600	\$8.00	\$4,800
Fencing Chain-link	LF	500	\$12.00	\$6,000
Fencing Removal & Disposal	LF	350	\$3.00	\$1,050
Pavement Marking	LS	1	\$2,500.00	\$2,500
Turfing and Mulching	AC	3	\$4,000.00	\$12,000
Misc Electrical	LS	1	\$15,000.00	\$15,000
				\$0
				\$0
CONSTRUCTION TOTAL =				\$158,100
CONSTRUCTION CONTINGENCIES (15%) =				\$23,715
CONSTRUCTION TOTAL =				\$181,815
ENGINEERING DESIGN (7%) =				\$12,727
CONSTRUCTION ADMIN (10%) =				\$18,182
				\$212,724
ANTICIPATED CONSTRUCTION YEAR =				2014
ANNUAL RATE OF INFLATION =				2.00%
PROJECT YEAR TOTAL COST =				\$234,863.99
BUDGET ESTIMATE =				\$240,000



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: Pave Gravel Parking Lot and Entrance Road
 LOCATION: Beaver Island Airport
 CITY: Beaver Island, MI
 DATE: 7/01/2010
 PREPARED BY: RGN

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2010 DOLLARS

WORK DESCRIPTION: Pave Gravel Parking Lot and Entrance Road

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$8,000.00	\$8,000
Safety and Security	LS	1	\$1,000.00	\$1,000
Fine Grade and Compact	SY	11,000	\$1.00	\$11,000
Adjust Leaching Basin Cover	EA	4	\$300.00	\$1,200
Bituminous Surface Course	TON	2,000	\$80.00	\$160,000
Pavement Marking	LS	1	\$3,000.00	\$3,000
Turfing and Mulching	AC	1	\$3,000.00	\$3,000
				\$0
				\$0
				\$0
CONSTRUCTION TOTAL =				\$187,200
CONSTRUCTION CONTINGENCIES (15%) =				\$28,080
CONSTRUCTION TOTAL =				\$215,280
ENGINEERING DESIGN (7%) =				\$15,070
CONSTRUCTION ADMIN (10%) =				\$21,528
				\$251,878
ANTICIPATED CONSTRUCTION YEAR =				2014
ANNUAL RATE OF INFLATION =				2%
PROJECT YEAR TOTAL COST =				\$269,977.28
BUDGET ESTIMATE =				\$270,000



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

LOCATION: Beaver Island Airport
 CITY: Beaver Island, MI
 DATE: 10/23/09
 PREPARED BY: WEG

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2009 DOLLARS

WORK DESCRIPTION: Expand Existing Fueling Facility by Furnishing and Installing new 12,000gal LL Fuel Tank and New Pump

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$10,000.00	10,000.00
Safety and Security	LS	1	\$2,500.00	2,500.00
Furnish and install new 12,000 gal LL fuel tank, new pump and plumbing equipment at existing fueling facility. Existing 10,000 gal tank and dispensing system to remain	LS	1	\$95,000.00	95,000.00
CONSTRUCTION TOTAL =				107,500.00
ENGINEERING, ADMIN. & CONTINGENCIES (30%) =				32,250.00
TOTAL				139,750.00
BUDGET ESTIMATE =				140,000.00



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.

This estimate is based on 3 rows of back to back 50' x 50' box hangars. The taxiway running along the NW end will be approximately 600' long. The 3 taxiways between each hangar will be 400 feet long. There will be a ditch that will need to be filled with 36" pipe through the hangar area. The 300 feet of the new hangar area has been filled close to grade. The last 300' will need about 3' of fill over the entire area. There will also be a road access along the SE side that will be 600' X 20'. The total pavement area will be about 50,000 SF.

BEAVER ISLAND AIRPORT BEAVER ISLAND, MICHIGAN

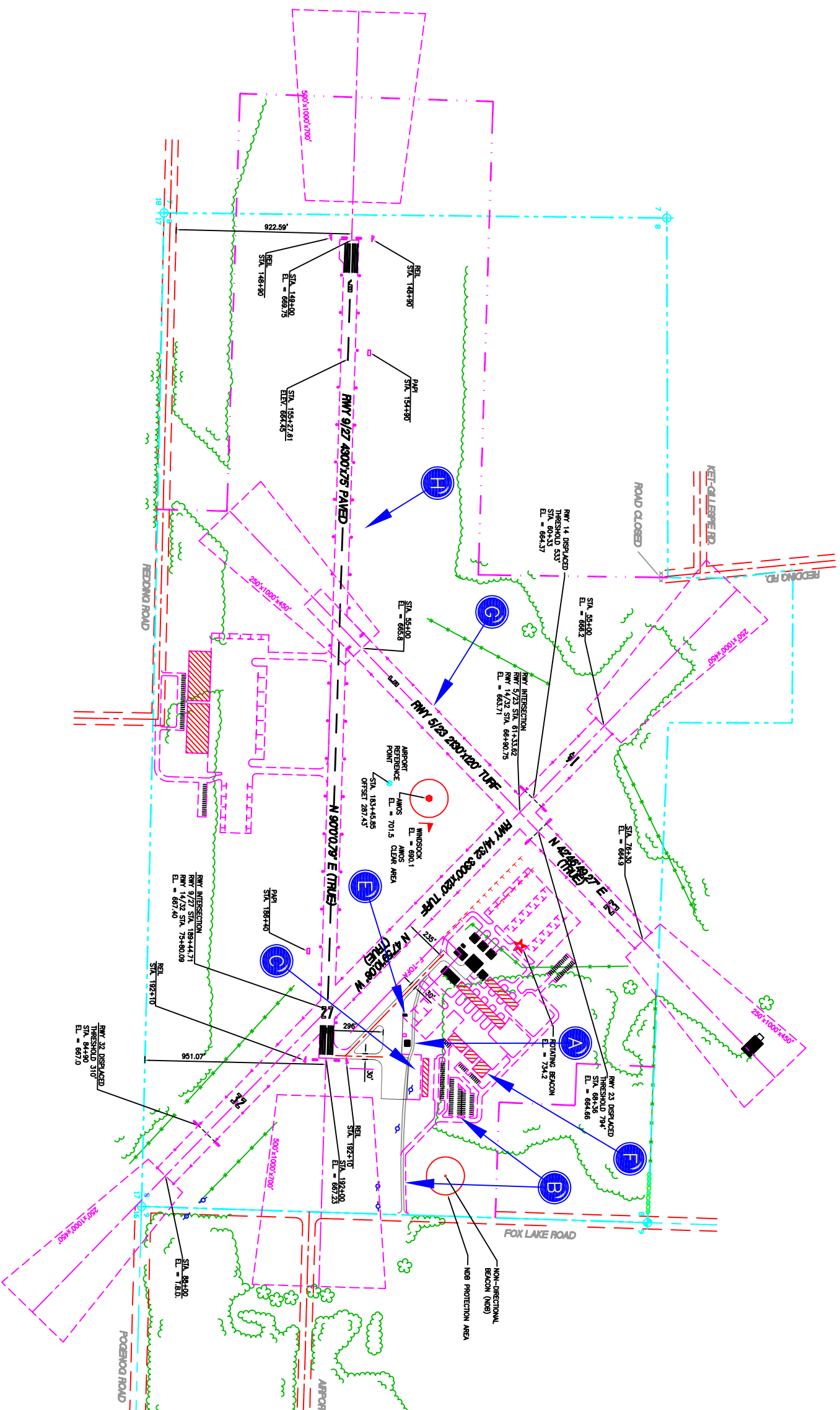


TEN-YEAR DEVELOPMENT PLAN - YEARS 2011 TO 2021

FAA IDENTIFIER: SJX
STATE ID: 15-04

YEAR - 2011	A	CONSTRUCT NEW TERMINAL BUILDING
YEAR - 2013	B	NEW GRAVEL ACCESS ROAD AND PARKING LOT
YEAR - 2014	C	EXPAND APRON
YEAR - 2014	B	PAVE GRAVEL ACCESS ROAD AND PARKING LOT
YEAR - 2015		*PURCHASE TRACTOR AND SNOW BLOWER
YEAR - 2016	E	EXPAND FUELING FACILITY
YEAR - 2017		*SECURITY FENCING
YEAR - 2018	F	STORAGE HANGAR (60' x 80')
YEAR - 2019	G	PAVE CROSSWIND RUNWAY (2000' x 60')
YEAR - 2020	H	CONSTRUCT PARALLEL TAXIWAY

NOTE:
NEW TERMINAL AREA REVISIONS AND PARALLEL TAXIWAY ARE NOT SHOWN ON THIS DRAWING AND WILL BE ADDED AFTER COMPLETION OF THE ALP UPDATE.



*ITEM NOT SHOWN ON SKETCH

NOT TO SCALE

Design By: WIEG
Drawn By: AEF
Approved By: RGN