LEGEND

EXISTING	ITEM	PROPOSED
	RUNWAY CENTERLINE	
RSA	RUNWAY SAFETY AREA (RSA)	RSA
ROFA	RUNWAY OBJECT FREE AREA (ROFA)	ROFA
ROFZ	RUNWAY OBJECT FREE ZONE (ROFZ)	ROFZ
RPZ	RUNWAY PROTECTION ZONE (RPZ)	RPZ
TOFA	TAXIWAY OBJECT FREE AREA (TOFA)	TOFA
	TAXIWAY SAFETY AREA	
NOT SHOWN	BUILDING RESTRICTION LINE	BRL
	AIRPORT PAVEMENT	
ARP	AIRPORT REFERENCE POINT	ARP
	AIRPORT BUILDINGS	
	OTHER BUILDINGS	NOT SHOWN
	AIRPORT PROPERTY LINE	
	OTHER PROPERTY LINES	NOT SHOWN
	RAILROAD	NOT SHOWN
	FENCE	
	ROADS	
	TREELINE	NOT SHOWN
	WETLANDS	NOT SHOWN
950	GROUND ELEVATION CONTOURS	NOT SHOWN
	PROPOSED LAND ACQUISITION	NOT SHOWN
	EASEMENT ACQUISITION	NOT SHOWN
	THRESHOLD LIGHTS	
	RUNWAY END IDENTIFICATION LIGHTS	
PAPI	PRECISION APPROACH PATH INDICATOR	PAPI
VASI	VISUAL APPROACH SLOPE INDICATOR	VASI
	MEDIUM INTENSITY APPROACH LIGHT SYSTEM	
E	POWER LINE	NOT SHOWN
T	TELEPHONE LINE	NOT SHOWN
TL	TILE LINE & INTAKE	NOT SHOWN

NGS SURVEY CONTROL POINTS
DESIGNATION: MARSH PORT
NAD 83 (1996) - 42°06'39.16705"N/092°54'50.62707"W

THE STATION IS A PUNCH MARK ON TOP OF A STAINLESS STEEL ROD DRIVEN INTO THE GROUND AND ENCASED IN A 5-INCH PVC PIPE WITH A LOGO CAP.

DESIGNATION: MARSHPORT AZ MK
NAD 83 (1996) - 42°06'30.40888"N/092°54'34.48036"W

THE STATION IS A PUNCH MARK ON TOP OF A STAINLESS STEEL ROD DRIVING INTO THE GROUND AND ENCASED IN A 5-INCH PVC PIPE WITH A LOGO CAP.

CONDITIONAL APPROVAL

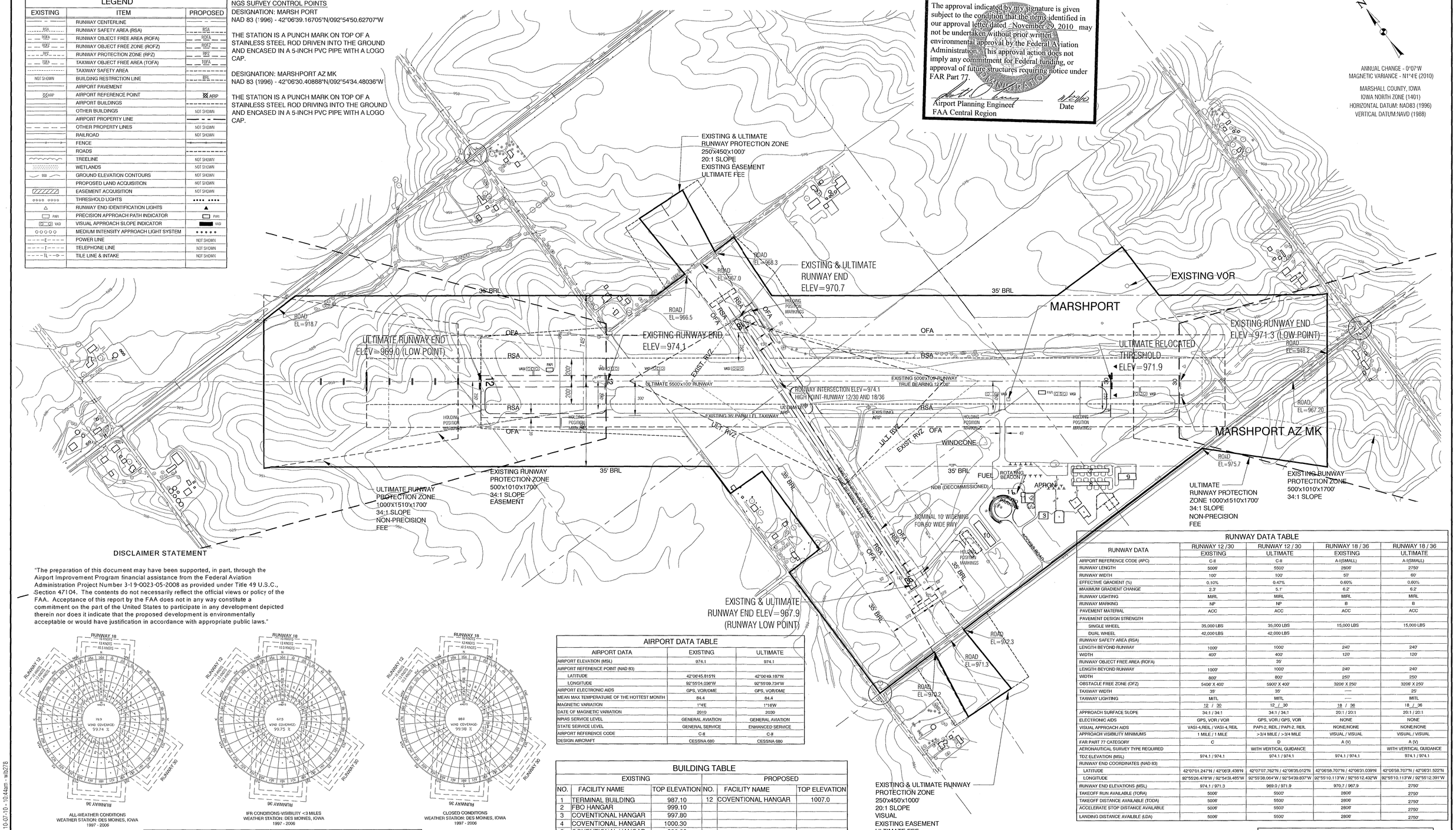
The approval indicated by my signature is given subject to the condition that the items identified in our approval letter dated November 29, 2010 may not be undertaken without prior written environmental approval by the Federal Aviation Administration. This approval action does not imply any commitment for Federal funding, or approval of future structures requiring notice under FAR Part 77.

Airport Planning Engineer
FAA Central Region

Date

ANNUAL CHANGE - 0°07'W
MAGNETIC VARIANCE - N1°4'E (2010)

MARSHALL COUNTY, IOWA
IOWA NORTH ZONE (1401)
HORIZONTAL DATUM: NAD83 (1996)
VERTICAL DATUM:NAVD (1988)



DISCLAIMER STATEMENT

"The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration Project Number 3-19-0023-05-2008 as provided under Title 49 U.S.C., Section 47104. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance with appropriate public laws."

ALL-WEATHER CONDITIONS
WEATHER STATION: DES MOINES, IOWA
1997 - 2006

IFR CONDITIONS-VISIBILITY <3 MILES
WEATHER STATION: DES MOINES, IOWA
1997 - 2006

CLOSED CONDITIONS
WEATHER STATION: DES MOINES, IOWA
1997 - 2006

WIND COVERAGE

RUNWAY	ALL WEATHER			IFR CONDITIONS			CLOSED CONDITIONS		
	10.5 KNOTS	13 KNOTS	16 KNOTS	10.5 KNOTS	13 KNOTS	16 KNOTS	10.5 KNOTS	13 KNOTS	16 KNOTS
12/30	89.21%	94.24%	98.35%	87.43%	93.29%	98.11%	95.97%	97.51%	98.61%
18/36	88.88%	93.81%	97.67%	85.80%	92.24%	97.52%	93.06%	96.28%	98.88%
Combined	97.67%	99.19%	99.74%	96.54%	98.96%	99.75%	99.01%	99.76%	99.98%

8.0% OF ALL-WEATHER READINGS WERE IFR CONDITIONS

AIRPORT DATA TABLE

AIRPORT DATA	EXISTING	ULTIMATE
AIRPORT ELEVATION (MSL)	974.1	974.1
AIRPORT REFERENCE POINT (NAD 83)		
LATITUDE	42°06'45.815"N	42°06'49.187"N
LONGITUDE	92°55'04.036"W	92°55'09.734"W
AIRPORT ELECTRONIC AIDS	GPS, VOR/DME	GPS, VOR/DME
MEAN MAX TEMPERATURE OF THE HOTTEST MONTH	84.4	84.4
MAGNETIC VARIATION	1°4'E	1°16'W
DATE OF MAGNETIC VARIATION	2010	2030
NPIAS SERVICE LEVEL	GENERAL AVIATION	GENERAL AVIATION
STATE SERVICE LEVEL	GENERAL SERVICE	ENHANCED SERVICE
AIRPORT REFERENCE CODE	C-II	C-II
DESIGN AIRCRAFT	CESSNA 680	CESSNA 680

BUILDING TABLE

EXISTING			PROPOSED		
NO.	FACILITY NAME	TOP ELEVATION	NO.	FACILITY NAME	TOP ELEVATION
1	TERMINAL BUILDING	987.10	12	COVENTIONAL HANGAR	1007.0
2	FBO HANGAR	999.10			
3	COVENTIONAL HANGAR	997.80			
4	COVENTIONAL HANGAR	1000.30			
5	COVENTIONAL HANGAR	996.30			
6	COVENTIONAL HANGAR	1001.40			
7	10 STALL TEE HANGAR	988.60			
8	10 STALL TEE HANGAR	988.60			
9	6 STALL TEE HANGAR	991.10			
10	10 STALL TEE HANGAR	991.00			
11	ELECTRIC VAULT	981.40			

RUNWAY DATA TABLE

RUNWAY DATA	RUNWAY 12 /30 EXISTING	RUNWAY 12 / 30 ULTIMATE	RUNWAY 18 / 36 EXISTING	RUNWAY 18 / 36 ULTIMATE
AIRPORT REFERENCE CODE (APC)	C-II	C-II	A-I(SMALL)	A-I(SMALL)
RUNWAY LENGTH	5006'	5500'	2806'	2750'
RUNWAY WIDTH	100'	100'	50'	60'
EFFECTIVE GRADIENT (%)	0.10%	0.47%	0.60%	0.60%
MAXIMUM GRADIENT CHANGE	2.3'	5.1'	6.2'	6.2'
RUNWAY LIGHTING	MIRL	MIRL	MIRL	MIRL
RUNWAY MARKING	NP	NP	B	B
PAVEMENT MATERIAL	ACC	ACC	ACC	ACC
PAVEMENT DESIGN STRENGTH				
SINGLE WHEEL	35,000 LBS	35,000 LBS	15,000 LBS	15,000 LBS
DUAL WHEEL	42,000 LBS	42,000 LBS		
RUNWAY SAFETY AREA (RSA)				
LENGTH BEYOND RUNWAY	1000'	1000'	240'	240'
WIDTH	400'	400'	120'	120'
RUNWAY OBJECT FREE AREA (ROFA)		35'		
LENGTH BEYOND RUNWAY	1000'	1000'	240'	240'
WIDTH	800'	800'	250'	250'
OBSTACLE FREE ZONE (OFZ)	5406' X 400'	5900' X 400'	3206' X 250'	3206' X 250'
TAXIWAY WIDTH	35'	35'	-----	25'
TAXIWAY LIGHTING	MITL	MITL	-----	MITL
	12 / 30	12 / 30	18 / 36	18 / 36
APPROACH SURFACE SLOPE	34:1 / 34:1	34:1 / 34:1	20:1 / 20:1	20:1 / 20:1
ELECTRONIC AIDS	GPS, VOR / VOR	GPS, VOR / GPS, VOR	NONE	NONE
VISUAL APPROACH AIDS	VASI-4,REIL / VASI-4,REIL	PAPI-2, REIL / PAPI-2, REIL	NONE/NONE	NONE/NONE
APPROACH VISIBILITY MINIMUMS	1 MILE / 1 MILE	>3/4 MILE / >3/4 MILE	VISUAL / VISUAL	VISUAL / VISUAL
FAR PART 77 CATEGORY	C	D	A (V)	A (V)
AERONAUTICAL SURVEY TYPE REQUIRED		WITH VERTICAL GUIDANCE		WITH VERTICAL GUIDANCE
TDZ ELEVATION (MSL)	974.1 / 974.1	974.1 / 974.1	974.1 / 974.1	974.1 / 974.1
RUNWAY END COORDINATES (NAD 83)				
LATITUDE	42°07'01.247"N / 42°06'31.436"N	42°07'07.762"N / 42°06'35.012"N	42°06'58.707"N / 42°06'31.039"N	42°06'58.707"N / 42°06'31.522"N
LONGITUDE	92°55'26.478"W / 92°54'38.485"W	92°55'38.064"W / 92°54'39.837"W	92°55'10.113"W / 92°55'12.432"W	92°55'10.113"W / 92°55'12.391"W
RUNWAY END ELEVATIONS (MSL)	974.1 / 971.3	969.0 / 971.9	970.7 / 967.9	2750'
TAKEOFF RUN AVAILABLE (TORA)	5006'	5500'	2806'	2750'
TAKEOFF DISTANCE AVAILABLE (TODA)	5006'	5500'	2806'	2750'
ACCELERATE STOP DISTANCE AVAILABLE	5006'	5500'	2806'	2750'
LANDING DISTANCE AVAILBLE (LDA)	5006'	5500'	2806'	2750'

NOTES:
THERE ARE NO OFZ OBJECT PENETRATIONS.
THERE ARE NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS
THERE ARE NO MODIFICATIONS TO AIRPORT DESIGN STANDARDS
AIRSPACE CASE NO. 2010-ACE-867-NRA
RUNWAY 18/36 TO BE WIDENED ON BOTH SIDES

APPROVED:
CITY OF MARSHALLTOWN, IOWA

GRAPHIC SCALE
0 400' 800' 1200'

NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

CGA ENGINEERS / LAND SURVEYORS
Clapsaddle-Garber Associates, Inc
16 East Main Street
Marshalltown, Iowa 50158
Ph 641 752-6701
www.cgaconsultants.com

DESIGNED: DATE:
DRAWN: DATE:
CHECKED: DATE:
APPROVED: DATE:

MARSHALLTOWN MUNICIPAL AIRPORT
MARSHALLTOWN, IOWA

AIRPORT LAYOUT DRAWING

PROJECT NO. 4299.03
SHEET NO. 2A of 12

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