NEW HOLSTEIN MUNICIPAL AIRPORT



Airport Master Plan



AGENDA PAC Meeting #2

- 1. Welcome/Introductions
- 2. Purpose of the Master Plan Update
- 3. Role of the Planning Advisory Committee
- 4. Master Plan Process
- 5. Review of Phase 1 Material
 - Inventory, Forecasts, Facility
 Requirements
- 6. Open Discussion/Questions





PURPOSE OF THE MASTER PLAN

- Provides a visioning document to guide the City of New Holstein and other decision makers regarding the future development of the airport over the next 20 years
- Evaluates the airport aviation demand potential
- Addresses local, regional, and national changes in the aviation industry that could impact the development of the airport
- Identifies and plans for potential capital projects well in advance so proper coordination, approvals, financing, design, and construction can take place in a timely manner
- Obtains approval of new aviation demand forecasts and an updated Airport Layout Plan (ALP)
- Increases stakeholder/public awareness of the airport's goal and objectives



ROLE OF THE ADVISORY COMMITTEE

- The **purpose** of the Planning Advisory Committee (Committee) is to provide the City of New Holstein and the planning consultant (Coffman Associates) with input into the Master Plan.
- The **members** of the PAC are intended to represent a variety of organizations and individuals with interest in the use and development of New Holstein Municipal Airport. These include governmental interests, aviation and non-aviation interests, and area economic development interests. It is the responsibility of Committee members to communicate with their respective organizations and report any comments/concerns regarding the development of Master Plan back to the committee, the City, and the planning team throughout the process.
- The **role** of the PAC is to review elements of the study while they are in draft form and comment on the accuracy of the assumptions and relevance of the information used to develop the report. The PAC is a *non-voting advisory body*. While all comments made by the Committee members will be considered by the Consultant in developing the draft and final versions of the report, the PAC will not vote to approve or disapprove elements of the study.

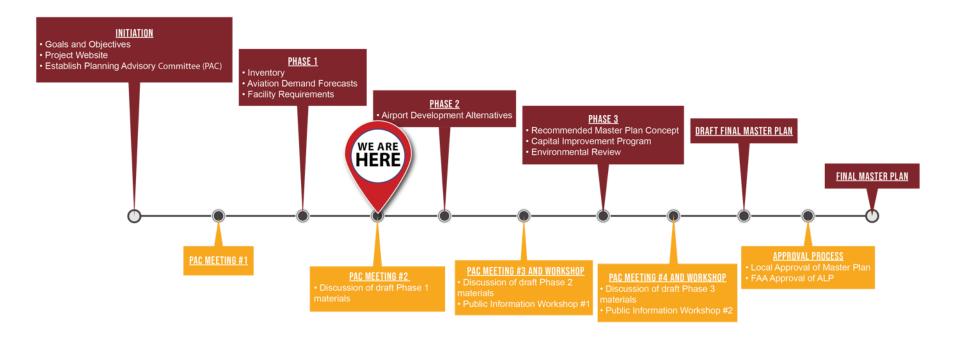


ROLE OF THE ADVISORY COMMITTEE

- Committee meetings will be held periodically throughout the preparation of the Master Plan. There are four (4) meetings planned at this time. Attendance is strongly encouraged. If you are unable to attend any given meeting, please send a representative who can speak for you or your organization. Two (2) Public Information Workshops will be held during the course of the study, and members of the PAC and their organizations are invited to attend.
- PAC members are encouraged to **submit written comments** for consideration in preparing the final report. It would be greatly appreciated if comments are received approximately two weeks following the meeting. Comments/suggestions may be submitted via email to the planning team, or via the project website: (https://newholstein.airportstudy.net)
- Comments or questions regarding the PAC, meetings, or working papers should be directed to Mike Dmyterko with Coffman Associates at 816-524-3500.



Master Plan Process



NEW HOLSTEIN MUNICIPAL AIRPORT Airport Master Plan



Chapter One Inventory



THE NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS

What is the NPIAS?

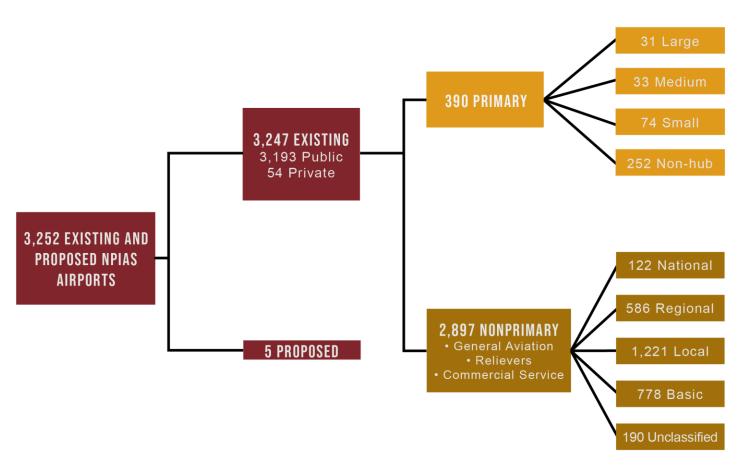
- Identifies airports significant to air transportation and eligible to receive federal funding
- Categorizes airports by their role in the national system
- Provides a 5-year estimate of Airport Improvement Program (AIP) eligible development
- Federal Aviation Administration (FAA) reevaluates and updates every two years

NPIAS principles – airports should...

- Be safe, efficient, and developed to appropriate standards
- Be flexible and expandable, able to meet increased demand and accommodate new aircraft types
- Be compatible with surrounding communities
- Contribute to a productive national and economy



2025-2029 NPIAS CATEGORIES AND ROLES



NEW HOLSTEIN (8D1) ROLE IN THE NPIAS

- Wisconsin NPIAS Airports
 - ▶ 87 Total
 - ▶ 14 Commercial Service
 - 73 General Aviation
 - 12 National/Regional
 - 57 Local/Basic
 - 4 Unclassified
- New Holstein Municipal
 - Local GA Airport
- Local GA Airports...
 - Account for 36% of all NPIAS airports
 - Located near population centers
 - Moderate activity
 - Approx. 33 based aircraft (piston)





AIRPORT INFORMATION

- 27 based aircraft
- 267 acres
- **Runway 14-32**
 - 3,600' x 75'
 - RNAV GPS approaches
- Runway 4-22 (Turf)
 - 2,951' x 250'
- Services/Amenities
 - Aircraft hangars/tiedowns
 - Fuel
 - **FBO**



8D1 | Copyright by Nick Van Dinter | 2007-10-20 | Airport-Data.com

Exhibit 1C: Existing Airside Facilities

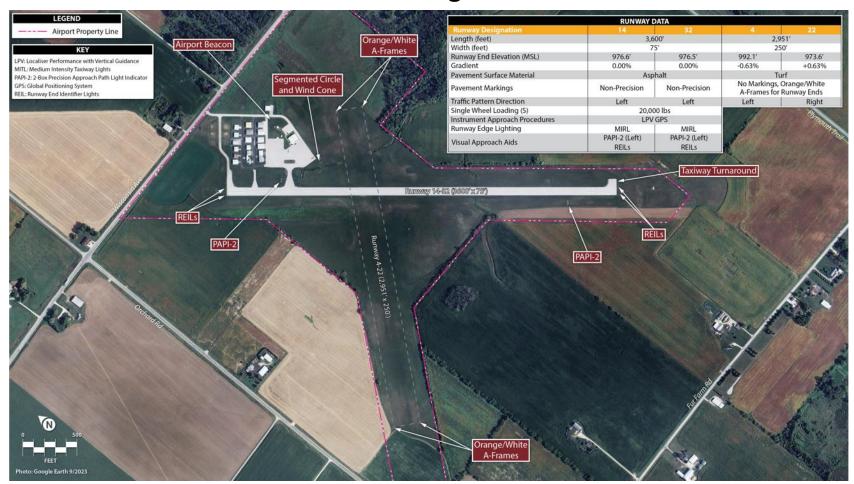
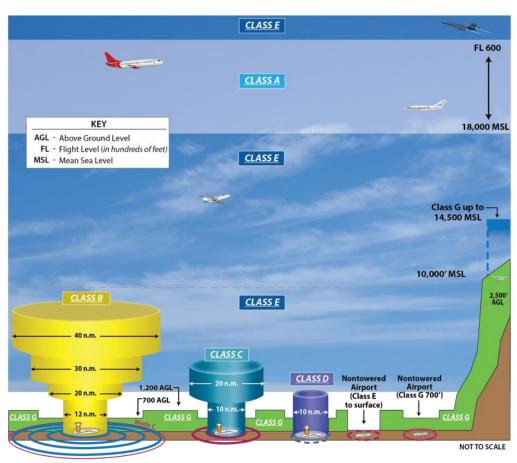


Exhibit 1D: Airspace Classification



DEFINITION OF AIRSPACE CLASSIFICATIONS

CLASS A

Think A - Altitude. Airspace above 18,000 feet MSL up to and including FL 600. Instrument Flight
Rule (IFR) flights only, ADS-B 1090 ES transponder required,
ATC clearance required.

Think B - <u>B</u>usy. Multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports. ADS-B 1090 ES transponder required, ATC clearance required.

Think C - Mode C. Mode C transponder required. ATC communication required. Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.

Think D - Dialogue. Pilot must establish dialogue with tower. Generally airspace from the surface to minimum 2,500 feet AGL surrounding towered airports.

Think E - Everywhere. Controlled airspace that is not designated as any other Class of airspace.

CLASS G

Think G - Ground. Uncontrolled airspace. From surface to a 1,200 AGL (in mountainous areas 2,500 AGL)

Exceptions: near airports it lowers to 700' AGL; some airports have Class E to the surface. Visual Flight Rules (VFR) minimums apply.

Source:

www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/media/ 15_phak_ch15.pdf

Exhibit 1E: Vicinity Airspace

LEGEND Airport with other than hard-surfaced runways Airport with hard-surfaced runways 1,500' to 8,069' in length Airport with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069'. Compass Rose VORTAC Wind Farm Wildlife Refuge Class C Airspace Class D Airspace Class E sfc Class E Airspace with floor 700 ft. above surface that laterally abuts 1200 ft. or higher Class E airspace Victor Airways Military Operation Area Restricted Airspace



Source:
Green Bay and Chicago Sectional Charts I US Department of Commerce National Oceanic and Atmospheric Administration | October 31, 2024

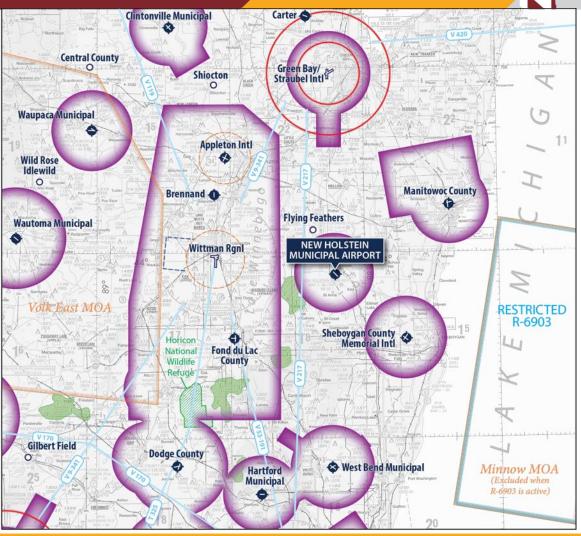


Exhibit 1G: Existing Landside Facilities





Exhibit 1J: Urban Environmental Sensitivities

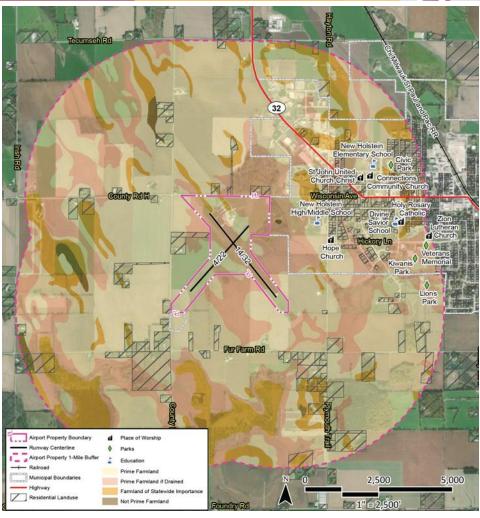


Exhibit 1J: Natural Environmental Sensitivities

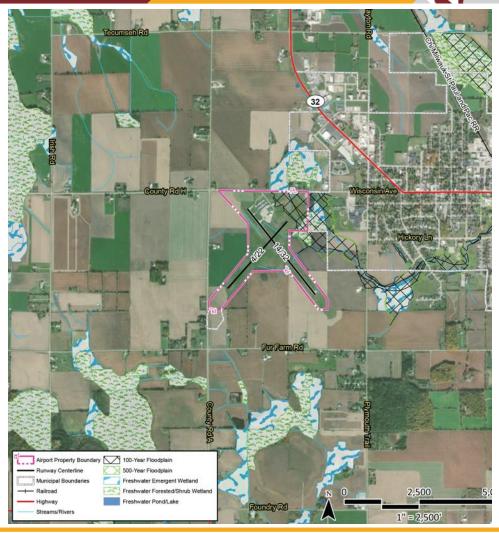
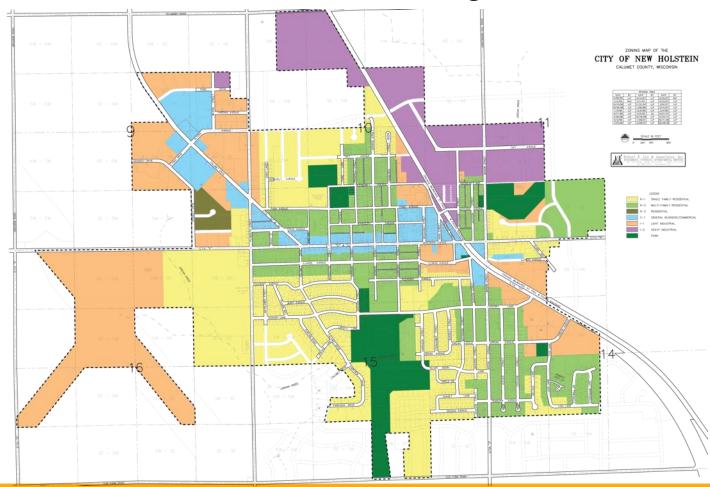




Exhibit 1K: Zoning

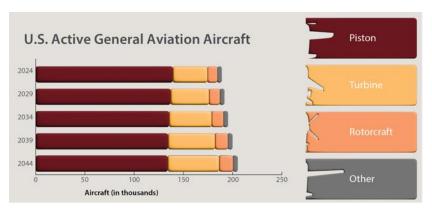


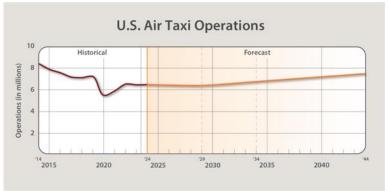
NEW HOLSTEIN MUNICIPAL AIRPORT Airport Master Plan

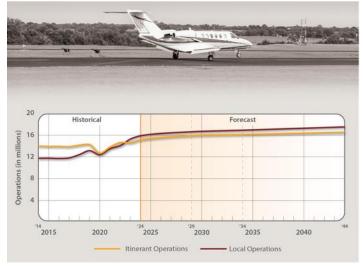


Chapter Two Forecasts

Exhibit 2A: General Aviation Forecasts







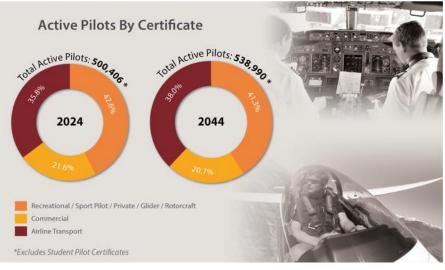
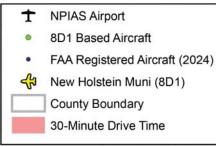




Exhibit 2B: Airport Service Area



FAA Registered & 8D1 Based Aircraft							
Distance From 8D1	8D1 Based Aircraft	FAA Registered Aircraft					
0 - 10nm	16	66					
10 - 20nm	5	315					
20 - 30nm	3	524					
Total	24*	905					

^{*}Three based aircraft are registered to addresses beyond 30nm from 8D1.

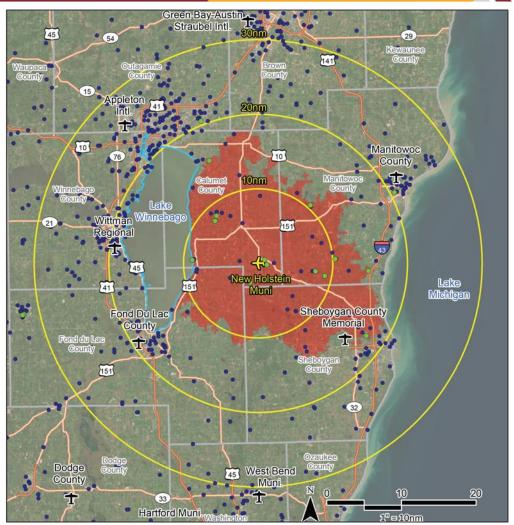




Exhibit 2C: Registered Aircraft Forecast

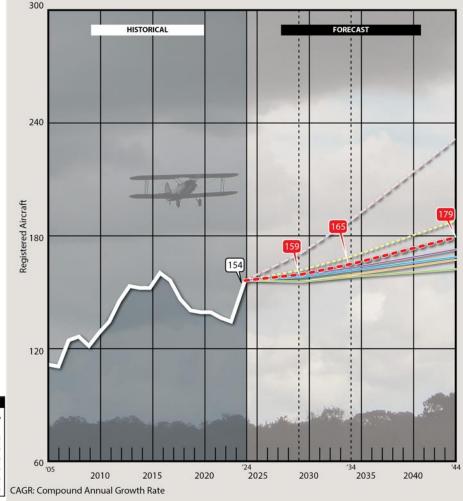






Exhibit 2D: Based Aircraft Forecast

CAG
1.229
0.749
1.669
0.269
0.889
1 410
1.419

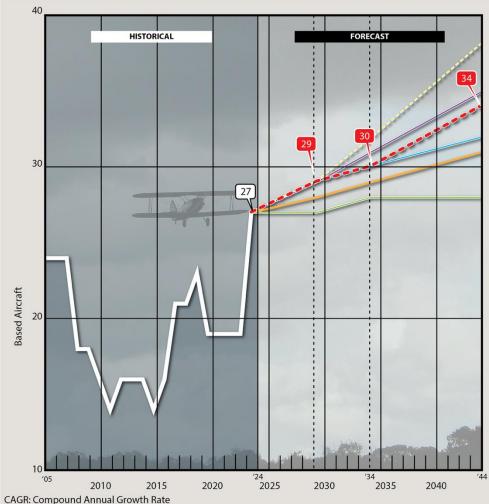




Exhibit 2E: General Aviation Operations Forecasts

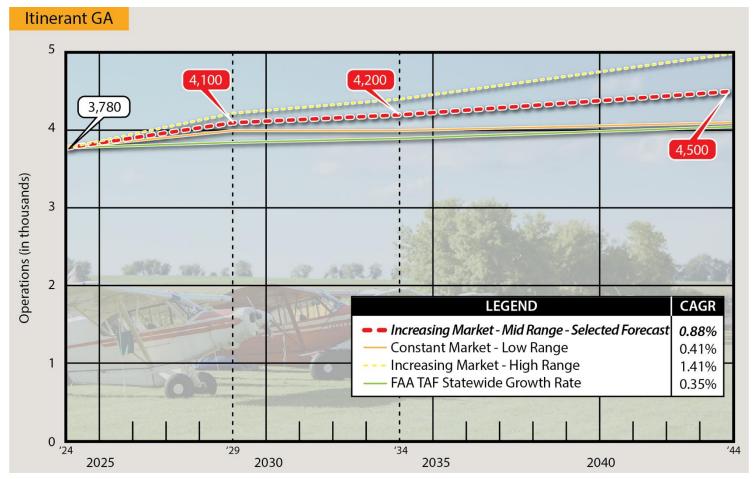




Exhibit 2E: General Aviation Operations Forecasts

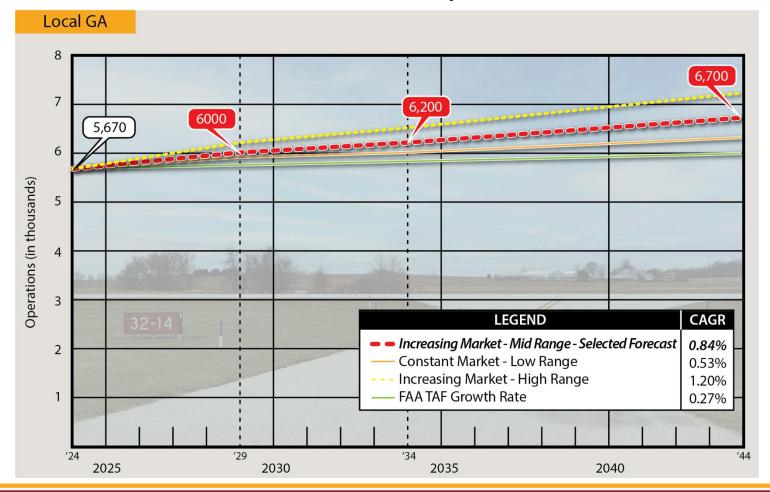






Exhibit 2F: Forecast Summary

	BASE YEAR		FORECAST		
	2024	2029	2034	2044	
OPERATIONS					
Itinerant					
Air Carrier	-	-	-	-	
Air Taxi	2	2	2	2	
Military	200	200	200	200	
General Aviation	3,780	4,100	4,200	4,500	
Subtotal	3,982	4,302	4,402	4,702	
Local					
General Aviation	5,670	6,000	6,200	6,700	
Military	-	-	-	-	
Subtotal	5,670	6,000	6,200	6,700	
Total Operations	9,652	10,302	10,602	11,402	





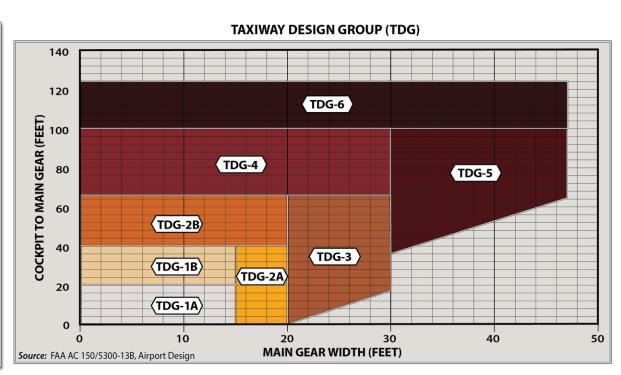
Exhibit 2F: Forecast Summary

	BASE YEAR		FORECAST	
	2024	2029	2034	2044
PEAKING				
Annual	9,652	10,302	10,602	11,402
Peak Month	985	1,030	1,060	1,140
Design Day	32	33	34	37
Design Hour	5	5	5	6
Busy Day	40	41	42	45
BASED AIRCRAFT				
Single Engine	27	27	27	29
Multi-Engine	-	-	-	-
Turboprop	0	1	2	2
Jet	0	1	1	1
Helicopter	0	0	0	1
Total Based Aircraft	27	29	30	34



Exhibit 2G: Aircraft Classification Summary

	AIRCRAFT APPROACH CA	TEGORY (AAC)						
Category	Approach Speed							
А	less than	91 knots						
В	91 knots or more bu	it less than 121 knots						
С	121 knots or more b	ut less than 141 knots						
D	141 knots or more b	ut less than 166 knots						
Е	166 knot	s or more						
	AIRPLANE DESIGN GF	ROUP (ADG)						
Group #	Tail Height (ft)	Wingspan (ft)						
1	<20	<49						
II	20-<30	49-<79						
III	30-<45	79-<118						
IV	45-<60	118-<171						
V	60-<66	171-<214						
VI	66-<80	214-<262						
	VISIBILITY MINI	NUMS						
RVR* (ft)	Flight Visibility Cate	egory (statute miles)						
VIS	3-mile or greater v	visibility minimums						
5,000	Not lower	than 1-mile						
4,000	Lower than 1-mile but	Lower than 1-mile but not lower than ¾-mile						
2,400	Lower than ¾-mile but	not lower than ½-mile						
1,600	Lower than ½-mile but	not lower than ¼-mile						
1,200	Lower th	an ¼-mile						



*RVR: Runway Visual Range



Exhibit 2G: Aircraft Reference Codes

A-I	Aircraft	TDG	B-II over 12,500 lbs.	Aircraft	TDG
	 Beech Bonanza Cessna 150, 172 Piper Comanche, Seneca 	1A 1A 1A		 Beech Super King Air 350 Cessna Citation CJ3(525B) Cessna Citation CJ4 (525C) Cessna Citation Latitude Embraer Phenom 300 Falcon 20 Pilatus PC-24 	2A 2A 1B 1B 1B 1B 2A
B-I	 Eclipse 500 Beech Baron 55/58 Beech King Air 100 Cessna 421 Cessna Citation M2 (525) Cessna Citation 1(500) Embraer Phenom 100 	1A 1A 1A 2A 1A 1A	A/B-III	 Bombardier Dash 8 Bombardier Global 7500 Falcon 7X, 8X 	3 2B 2A
A/B-II 12,500 lbs. or less Note: Aircraft pictured is	 Beech Super King Air 200 Beech King Air 90 Cessna 441 Conquest Cessna Citation CJ2 Pilatus PC-12 	2A 1A 1A 2A 2	C/D-I	• Lear 35, 40, 45 , 55, 60XR • F-16	1B 1A



Exhibit 2G: Aircraft Reference Codes

C/D-II	Aircraft	TDG	C/D-IV	Aircraft	TDG
	 Challenger 600/604 Cessna Citation III, VI,VII, X Embraer Legacy 135/140 Gulfstream IV (D-II) Gulfstream G280 Lear 70, 75 Falcon 50, 900, 2000 Hawker 800XP, 4000 	1B 1B 2B 2A 1B 1B 2A 1B		 Airbus A300 Boeing 757-200 Boeing 767-300, 400 MD-11 	5 4 5 6
C/D-III less than 150,000 lbs.	 Gulfstream V Gulfstream 550, 600, 650 Global 5000, 6000 	2B 2B 2B	C/D-V	 Airbus A330-200, 300 Airbus A340-500, 600 Boeing 747-100 - 400 Boeing 777-300 Boeing 787-8, 9 	5 6 5 6 5
C/D-III over 150,000 lbs.	 Airbus A319, A320, A321 Boeing 737-800, 900 MD-83, 88 	3 3 4	E-I	• F-15	1B

Note: Aircraft pictured is identified in bold type.



Exhibit 2H: Historical Turboprop and Jet Operations

AIRPORT REFERENCE CODE (ARC) SUMMARY

ARC	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
A-I	40	46	26	28	16	26	56	34	40	86
A-II	2	2	4	0	0	0	6	0	2	0
B-I	10	6	4	6	10	10	2	6	0	8
B-II	0	2	2	0	4	2	0	6	0	2
B-III	2	0	0	0	0	0	0	0	0	0
C-I	0	2	0	0	0	0	0	0	0	0
C-II	2	0	0	0	0	0	0	0	0	0
Total	56	58	36	34	30	38	64	46	42	96

APPROACH CATEGORY

AC	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Α	42	48	30	28	16	26	62	34	42	86
В	12	8	6	6	14	12	2	12	0	10
C	2	2	0	0	0	0		0	0	0
Total	56	58	36	34	30	38	64	46	42	96

DESIGN GROUP

DG	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1	50	54	30	34	26	36	58	40	40	94
II	4	4	6	0	4	2	6	6	2	2
III	2	0	0	0	0	0	0	0	0	0
Total	56	58	36	34	30	38	64	46	42	96

NEW HOLSTEIN MUNICIPAL AIRPORT Airport Master Plan



Chapter Three Facility Requirements

Exhibit 3A: Airfield Capacity Factors



WEATHER CONDITIONS





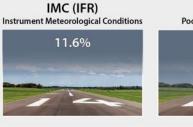
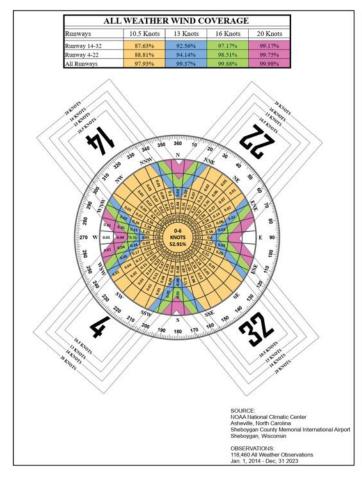








Exhibit 3B: Windroses



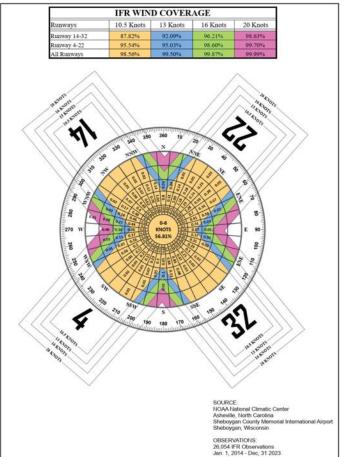




Exhibit 3C: Approach Surface Obstructions

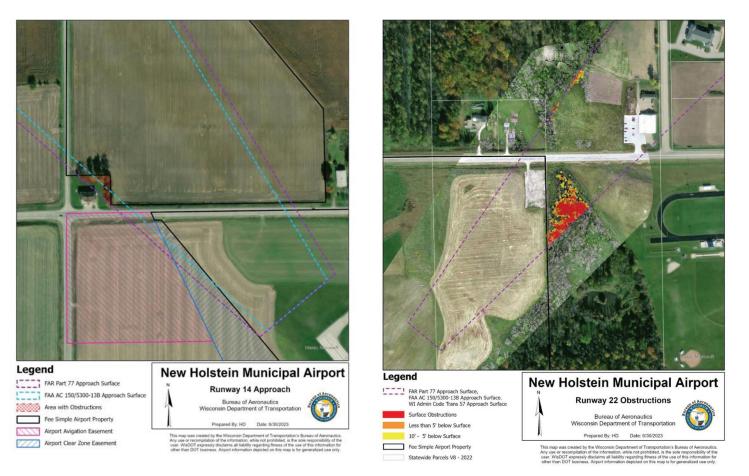


Exhibit 3D: Safety Areas

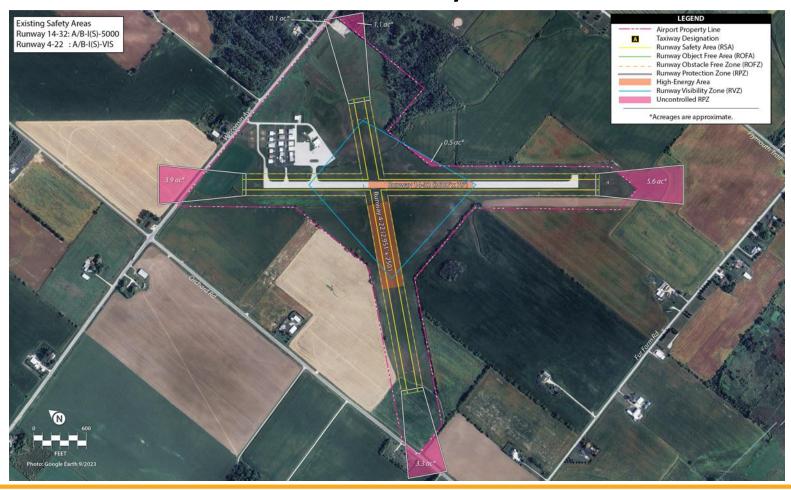


Exhibit 3D: Safety Areas

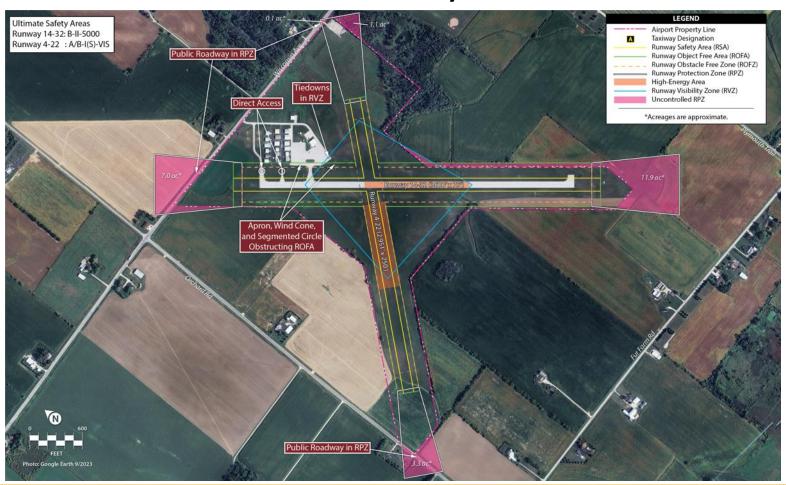






Table 3D: Runway Length Requirements

TABLE 3D | Runway Length Requirements

Airport Elevation	992.2 feet MSL
Average High Monthly Temperature	81.6°F – July
Primary Runway End Elevation Difference	0.1'

	TAKEOFF LENGTHS	LANDING		
Fleet Mix Category	Raw Runway Length from FAA AC	Runway Length with Gradient Adjustment (+1')	Wet Surface Landing Length for Jets (+15%)*	Final Runway Length
75% of fleet at 60% useful load	4,709'	4,710'	5,415'	5,400'
100% of fleet at 60% useful load	5,388'	5,389'	5,500'	5,500'
75% of fleet at 90% useful load	6,255'	6,256'	7,000'	7,000'
100% of fleet at 90% useful load	7,974'	7,975'	7,000'	8,000'
*Max 5.500' for 60% useful load and n	nax 7 000' for 90% useful loa	d in wet condition		

^{*}Max 5,500' for 60% useful load and max 7,000' for 90% useful load in wet condition

Source: FAA AC 150/5325-4B, Runway Length Requirements for Airport Design



Table 3E: Business Aircraft Takeoff Length Requirements

TABLE 3E | Business Aircraft Takeoff Length Requirements - Runway 14-32

TABLE SE Business Airer	are rakeon zeng	TAKEOFF LENGTH REQUIREMENTS (feet)						
Aircraft Name	MTOW	Useful Load						
		60%	70%	80%	90%	100%		
Pilatus PC-12	9,921	2,029	2,192	2,362	2,541	2,727		
Citation CJ3	13,870	2,832	2,962	3,143	3,371	3,602		
King Air 200 GT	12,500	3,308	3,407	3,509	3,615	3,725		
Citation Sovereign	30,300	3,470	3,491	3,541	3,750	3,993		
Citation (525A) CJ2	12,375	3,026	3,258	3,511	3,764	4,033		
Citation II (550)	13,300	2,825	3,102	3,398	3,713	4,047		
King Air 350	15,000	3,262	3,399	3,535	3,756	4,069		
Citation Encore	16,630	3,070	3,217	3,471	3,786	4,115		
Citation 560 XLS	20,200	3,166	3,389	3,632	3,880	4,160		
Citation V (Model 560)	15,900	3,012	3,274	3,558	3,856	4,175		
Citation Encore Plus	16,830	3,089	3,247	3,493	3,817	4,176		
Citation 560 XL	20,000	3,215	3,444	3,698	3,960	4,264		
Citation Bravo	14,800	3,368	3,581	3,824	4,133	4,467		
Citation (525) CJ1	10,600	2,899	3,247	3,687	4,158	4,574		
Citation VII	23,000	4,468	4,761	5,081	5,420	5,793		
Hawker 800XP	28,000	4,113	4,549	4,958	5,430	5,927		
Citation III	21,500	4,260	4,638	5,047	5,488	5,961		
Citation X	35,700	4,228	4,688	5,136	5,586	6,045		
Falcon 900EX	49,200	4,040	4,540	5,110	5,740	6,330		

Note: Green cell values are less than or equal to the length of the primary runway at New Holstein Municipal Airport; red cell values are greater than the length of the primary runway at New Holstein Municipal Airport.

MTOW = maximum takeoff weight

Source: Ultranav software



Table 3F: Business Aircraft Landing Length Requirements

TABLE 3F | Business Aircraft Landing Length Requirements - Runway 14-32

·		LANDING LENGTH REQUIREMENTS (feet)					
Aircraft Name	MLW	Dry Runway Condition			Wet Runway Condition		
		Part 25	80% Rule	60% Rule	Part 25	80% Rule	60% Rule
King Air 200 GT	12,500	1,204	1,505	2,007	No Data	No Data	No Data
Citation II (550)	12,700	2,237	2,796	3,728	5,405	6,756	9,008
Pilatus PC-12	9,921	2,290	2,863	3,817	No Data	No Data	No Data
Hawker 800XP	23,350	2,711	3,389	4,518	4,031	5,039	6,718
King Air 350	15,000	2,776	3,470	4,627	3,193	3,991	5,322
Citation Sovereign	27,100	2,789	3,486	4,648	3,485	4,356	5,808
Citation (525) CJ1	9,800	2,912	3,640	4,853	3,940	4,925	6,567
Citation CJ3	12,750	2,945	3,681	4,908	4,018	5,023	6,697
Citation Encore	15,200	2,956	3,695	4,927	4,476	5,595	7,460
Citation III	19,000	2,960	3,700	4,933	4,143	5,179	6,905
Citation Encore Plus	15,200	2,961	3,701	4,935	4,480	5,600	7,467
Citation VII	20,000	3,114	3,893	5,190	4,195	5,244	6,992
Citation V (Model 560)	15,200	3,121	3,901	5,202	4,624	5,780	7,707
Citation (525A) CJ2	11,500	3,158	3,948	5,263	4,566	5,708	7,610
Citation 560 XL	18,700	3,373	4,216	5,622	5,353	6,691	8,922
Citation 560 XLS	18,700	3,375	4,219	5,625	5,312	6,640	8,853
Citation Bravo	13,500	3,490	4,363	5,817	5,471	6,839	9,118
Falcon 900EX	44,500	3,744	4,680	6,240	4,305	5,381	7,175
Citation X	31,800	6,384	7,980	10,640	5,195	6,494	8,658

Note: Green cell values are less than or equal to the length of the primary runway at New Holstein Municipal Airport; red cell values are greater than the length of the primary runway at New Holstein Municipal Airport.

MLW = maximum landing weight

Source: Ultranav software



Exhibit 3E: Airside Facility Requirements

		EXISTING	ULTIMATE	EXISTING/ULTIMATE	
RUNWAYS					
	Runway Design Code (RDC)	A/B-I(S)-5000	B-II-5000	A/B-I(S)-VIS	
	Dimensions	3,600' x 75' Consider runway extension		Maintain	
	Pavement Strength 20,000 lbs S 30,000 lbs S 60,000 lbs D		Small aircraft only (Turf)		
SAFETY AREAS					
	Runway Safety Area (RSA)	Standard RSA	Increase to B-II Standard	Standard RSA (Maintain)	
Runway Object Free Area (ROFA)		Standard ROFA	Increase to B-II Standard; Relocate tiedown, wind cone, and segmented circle; Acquire property within ultimate ROFA	Standard ROFA (Maintain)	
Runway Obstacle Free Zone (ROFZ)		Standard ROFZ	Increase to B-II Standard	Standard ROFZ (Maintain)	
	Runway Protection Zone (RPZ)	Both RPZs extend beyond airport property; One public road in RPZ	Consider mitigation of incompatible use	Both RPZs extend beyond airport property; Consider mitigation of potential incompatible use	

KEY:

AWOS - Automated Weather Observation System MIRL - Medium Intensity Runway Lighting

D - Dual Wheel Loading

GPS - Global Positioning System

MITL - Medium Intensity Taxiway Lighting

PAPI - Precision Approach Path Indicator

REIL - Runway End Identification Lights

S - Single Wheel Loading

VIS - Visual

VOR - Very High Frequency Omni-directional Range



Exhibit 3E: Airside Facility Requirements

		EXISTING	ULTIMATE	EXISTING/ULTIMATE		
TAXIWAYS	Design Group	1A/B	2A/B	N/A		
	Parallel Taxiway	N/A	Taxiway A (Potential)	N/A		
The state of the s	Parallel Taxiway Separation from Runway	N/A	240'	N/A		
	Widths	25' 35'		N/A		
	Holding Position Separation	125′	200'	N/A		
	Notable Conditions	able Conditions Direct access Consider implementing a taxiway system of parallel taxiway		Consider implementing a taxiway system or parallel taxiway		
NAVIGATIONAL AND WEATHER AIDS						
	Instrument Approaches	1-mile GPS/VOR	Maintain; Analyze ¾-mile	None		
	Weather Aids	Wind cones/tee; Rotating beacon	Consider AWOS	Wind cones/tee; Rotating beacon; Consider AWOS		
The state of the s	Approach Aids	PAPI-2; REILs on both runway ends	PAPI-4; Maintain REILs	None		
LIGHTING AND MARKING						
	Runway Lighting	MIRL	Maintain	None		
14	Runway Marking	Non-Precision Instrument	Maintain	Orange and white A-frames		
	Taxiway Lighting	Limited MITL	Consider expanding MITL	None		
	Airfield Signage	Runway/taxiway designation; Routing; Runway exits; Mandatory instruction signs	Maintain; Consider runway distance remaining signage	None; Consider runway designation and mandatory instruction signs		
KEY:						

AWOS - Automated Weather Observation System MIRL - Medium Intensity Runway Lighting

- Dual Wheel Loading

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Exhibit 3F: Landside Facility Requirements





General Aviation Termin	nal Facilities an	d Parkin	g		
	1 0	T			
Building Space (sf)		5,100	1,300	1,600	2,100
Total GA Parking Spaces		16	19	22	27



———— NEXT STEPS ————

- Phase 2 Elements Airport Alternatives
- ▶ **PAC Meeting #3** Fall 2025; draft documents available for review approximately one week prior to meeting



QUESTIONS?

We want to hear from you!

Direct any questions or comments after this meeting to Mike Dmyterko Or Aiden Cowles with Coffman Associates at 816-524-3500 or miked@coffmanassociates.com and acowles@coffmanassociates.com or visit the project website to submit comments online.

Project Website: http://newholstein.airportstudy.net